Oracle® Cloud

Administering Oracle Fusion Analytics Warehouse

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Preface

Learn how to get started with Oracle Fusion Analytics Warehouse.

Topics

- Audience
- Documentation Accessibility
- Diversity and Inclusion
- Related Documentation
- Conventions

Audience

This document is intended for administrators who implement, configure, and manage Oracle Fusion Analytics Warehouse.

Documentation Accessibility

For information about Oracle's commitment to accessibility, visit the Oracle Accessibility Program website at http://www.oracle.com/pls/topic/lookup?ctx=acc&id=docacc.

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Diversity and Inclusion

Oracle is fully committed to diversity and inclusion. Oracle respects and values having a diverse workforce that increases thought leadership and innovation. As part of our initiative to build a more inclusive culture that positively impacts our employees, customers, and partners, we are working to remove insensitive terms from our products and documentation. We are also mindful of the necessity to maintain compatibility with our customers' existing technologies and the need to ensure continuity of service as Oracle's offerings and industry standards evolve. Because of these technical constraints, our effort to remove insensitive terms is ongoing and will take time and external cooperation.

Related Documentation

These related Oracle resources provide more information.

- Oracle Cloud http://cloud.oracle.com
- Getting Started with Oracle Cloud
- Managing and Monitoring Oracle Cloud
- Using Oracle Fusion Analytics Warehouse
- Getting Started with Oracle Analytics Cloud
- Visualizing Data and Building Reports in Oracle Analytics Cloud
- Preparing Data in Oracle Analytics Cloud

Conventions

The following text conventions are used in this document.

Convention	Meaning
boldface	Boldface type indicates graphical user interface elements associated with an action, or terms defined in text or the glossary.
italic	Italic type indicates book titles, emphasis, or placeholder variables for which you supply particular values.
`monospace`	Monospace type indicates commands within a paragraph, URLs, code in examples, text that appears on the screen, or text that you enter.

1

Get Started with Oracle Fusion Analytics Warehouse

Let's explore Oracle Fusion Analytics Warehouse and what you need to know to get started with administration.

Topics:

- About Oracle Fusion Analytics Warehouse
- Prerequisites for Oracle Fusion Analytics Warehouse
- Typical Workflow to Administer Oracle Fusion Analytics Warehouse
- Place and Activate the Order for an Oracle Cloud Account with Universal Credits
- Place and Activate the Order for Oracle Fusion Analytics Warehouse
- Before You Begin with Oracle Fusion Analytics Warehouse
- Sign In to the Oracle Cloud Infrastructure Console
- Access Your Service
- Add Users with Administrator Permissions
- Add an Oracle Cloud Infrastructure Identity and Access Management Policy

About Oracle Fusion Analytics Warehouse

Oracle Fusion Analytics Warehouse is a family of prebuilt, cloud native analytics applications for Oracle Cloud Applications that provides line-of-business users with ready-to-use insights to improve decision-making.

It empowers business users with industry-leading, AI-powered, self-service analytics capabilities for data preparation, visualization, enterprise reporting, augmented analysis, and natural language processing. It is a Cloud application that delivers best-practice Key Performance Indicators (KPIs) and deep analyses to help decision-makers run their business. Oracle Fusion Analytics Warehouse is built on top of Oracle Analytics Cloud and Oracle Autonomous Data Warehouse. This packaged service starts with Oracle Applications Cloud, and you can deploy rapidly, personalize, and extend it. The service extracts and loads data from your Oracle Applications Cloud into an instance of Oracle Autonomous Data Warehouse. Business users can then create and customize dashboards in Oracle Analytics Cloud.

This service consists of a data pipeline, data warehouse, semantic model, and best-practice content such as prebuilt KPIs, dashboards, and reports. Oracle manages the service starting with deployment through performance monitoring, upgrades, and maintenance for the pre-built content. You can customize the pre-built content as defined in the Customize Oracle Fusion Analytics Warehouse section.

You must configure the included semantic model only with the embedded Oracle Fusion Analytics Warehouse tools and deployed only on the Oracle Fusion Analytics Warehouse service instance. You mustn't configure the included semantic model with non-Oracle Fusion

Analytics Warehouse tools including Oracle Analytics Client Tools, Oracle Analytics Administration Tool, or APIs.

Oracle Fusion Analytics Warehouse runs on Oracle Cloud Infrastructure and is integrated with many infrastructure services. Before you begin using Oracle Fusion Analytics Warehouse, you should become familiar with Oracle Cloud Infrastructure. See Welcome to Oracle Cloud Infrastructure.

Region Availability

Oracle Fusion Analytics Warehouse is available in the following regions currently:

Region Location	Region Name	Region Key
Ashburn, VA	us-ashburn-1	IAD
Dubai, UAE	me-dubai-1	DXB
Frankfurt, Germany	eu-frankfurt-1	FRA
Jeddah, Saudi Arabia	me-jeddah-1	JED
London, United Kingdom	uk-london-1	LHR
Phoenix, AZ	us-phoenix-1	PHX
Sao Paulo, Brazil	sa-saopaulo-1	GRU
Sydney, Australia	ap-sydney-1	SYD
Toronto, Canada	ca-toronto-1	YYZ

About Oracle Fusion Analytics Warehouse Releases

Updates to Oracle Fusion Analytics Warehouse are mainly released as Application and Platform releases with major features and minor, security, and emergency patches.

Here are the details:

- Platform Releases:
  - Platform Releases contain updates to your service; for example as security patches and updates to the Console accessible to administrators.
  - You'll receive "System Maintenance" notification emails in advance where an update is planned (usually on a Friday or Saturday evening) and you'll experience downtime.
  - You don't need to make any selection or take any action. These updates include operating system and security patches and are applied for all customers on the same day.
  - Because these releases don't change the data model or content, business users aren't affected.
  - You can expect a major release every quarter, a minor patch every month, and emergency fixes as patches.
- Application Releases:
  - Application Releases contain updates to the data model and new content when available.
  - You'll receive notification emails about these releases.

- You'll find the release numbers listed in the Release Updates tile of the Console, where you can view the available releases and apply them as appropriate.
- You'll notice an "auto-update" target date for major releases. If you don't update your service to the release by the target date, then your service is automatically updated on that date. You can schedule an earlier date on which you'd prefer to update your service.
- You can expect a major release every quarter and optional updates or emergency patches. Each patch is cumulative. For example, if you choose to apply the 22.R1.P3 patch, then the previous patches (such as 22.R1.P1 and 22.R1.P2) are also applied with the 22.R1.P3 patch. You won't see the older patches listed in the Release Updates tile of the Console as available releases when the release changes to the current one (such as 22.R1.P3).

About Oracle Fusion Analytics Warehouse Components

Oracle Fusion Analytics Warehouse has ready-to-use components that Oracle manages and extensible components that you can manage.

On the Oracle-managed side, you've the following components packaged for you:

- Data pipeline to Oracle Applications Cloud.
- Data model.
- Semantic model.
- Best practice content like KPIs, dashboards, and reports.

All this is built using the platform services of Oracle Analytics Cloud and Oracle Autonomous Data Warehouse that you can use to customize and extend with self-service analytics and with a more govern approach.

On the customer-extensible side, you can:

- Add external data sources into the same Oracle Autonomous Data Warehouse as the Oracle Applications Cloud data.
- From a more govern approach, use any ETL tool or the robust Oracle Data Integrator with its many connectors to load data into the custom schemas and tables in the same Oracle Autonomous Data Warehouse repository.
- Connect to data using more than the 30 self-service connectors rather than loading data into Oracle Autonomous Data Warehouse.
- Import Microsoft Excel files or spreadsheets.
- Extend the semantic model with an easy-to-use utility.
- Create KPIs, dashboards, and reports.

About Inaccessible Oracle Analytics Cloud Components

An Oracle Fusion Analytics Warehouse service administrator can't access or change features available under the following Oracle Analytics Cloud Console tiles:

- System Settings - Can't change the defaults of Oracle Analytics Cloud associated with Oracle Fusion Analytics Warehouse.

- Users and Roles - Can't manage users and roles; instead you must use the Oracle Fusion Analytics Warehouse user management capabilities available in the Security tile on the Console.
- Snapshots - Can’t access the Oracle Fusion Analytics Warehouse data model file.
- Connections - Can’t change the Oracle Autonomous Data Warehouse connection for semantic models.
- Virus Scanner
- Social

Additionally, Mobile administration is disabled for the Oracle Analytics Cloud instance associated with the Oracle Fusion Analytics Warehouse instance.

About Oracle Fusion Analytics Warehouse Service Level Objective

Oracle Fusion Analytics Warehouse is built upon Oracle Cloud Infrastructure and leverages Oracle PaaS services.

Oracle Fusion Analytics Warehouse availability is tied to Oracle services with a 99.9% SLA such as Oracle Identity Cloud Service (99.95%), Oracle Analytics Cloud (99.9%), Oracle Autonomous Data Warehouse (99.95%) and Oracle Cloud IaaS services (>99.9%) such as compute and storage. Oracle Fusion Analytics Warehouse has a best-effort Service Level Objective (SLO) of 99.9%.

For guidance, see Oracle Cloud SLA and Oracle PaaS and IaaS SLA.

Prerequisites for Oracle Fusion Analytics Warehouse

You must have an Oracle Cloud account with Universal Credits to provision Oracle Fusion Analytics Warehouse.

You can provision Oracle Fusion Analytics Warehouse in one of the regions where the product is available. If you ordered for the Oracle Cloud account with Universal Credits, then you must activate the Oracle Cloud account from your Welcome email before you start using it and before you activate the Fusion Analytics Warehouse order. See Activate Your Order.

Typical Workflow to Administer Oracle Fusion Analytics Warehouse

If you’re setting up Oracle Fusion Analytics Warehouse for the first time, then follow these tasks as a guide.

Task	Description	More Information
Place and activate the order for an Oracle Cloud account with universal credits.	Before you place an order for Oracle Fusion Analytics Warehouse, you need an Oracle Cloud account with universal credits in one of the regions where Oracle Fusion Analytics Warehouse is available.	Place and Activate the Order for an Oracle Cloud Account with Universal Credits

Task	Description	More Information
Place and activate the order for Oracle Fusion Analytics Warehouse.	Contact your Oracle sales representative to place an order for Oracle Fusion Analytics Warehouse. Your sales representative places an order for the specific SKU, for example, Oracle Fusion ERP Analytics or Oracle Fusion HCM Analytics.	Place and Activate the Order for Oracle Fusion Analytics Warehouse
Sign into the Oracle Cloud Infrastructure Console.	After you activate the service, use the cloud account credentials to access your services. If you're the first user on the account and were invited by Oracle Cloud, then you're automatically added to the Administrators group. You can invite other members of the organization by adding users in Oracle Cloud Infrastructure Identity and Access Management. If you are planning to use single sign-on to access Oracle Fusion Analytics Warehouse, then Set Up Provisioning with Single Sign-On before proceeding with this and the subsequent tasks.	Sign In to the Oracle Cloud Infrastructure Console
Use the Oracle Cloud Infrastructure Console to access the service pages.	When you sign in to the Console, you'll see the home page. Use the navigation menu in the upper left to navigate to the service pages where you create, manage, and view your cloud resources.	Access Your Service
(Optional) Add a user with administrator permissions for the service.	Add a user with full administrator permissions of the default administrator of the service.	Add Users with Administrator Permissions
Set up user access to Oracle Fusion Analytics Warehouse using single sign-on.	You can set up how users from Oracle Applications Cloud access Oracle Fusion Analytics Warehouse using single sign-on. This setup eases the management of various user names and passwords. It enables you to synchronize users and roles in Oracle Applications Cloud with Oracle Identity Cloud Service and then enable these users to access Oracle Fusion Analytics Warehouse.	Set Up User Access to Oracle Fusion Analytics Warehouse Using Single Sign-On

Task	Description	More Information
Create an instance for Oracle Fusion Analytics Warehouse.	Use the Console to create an instance. If you've set up provisioning with single sign-on, which federates your tenancy with Oracle Identity Cloud Service, then you create the Fusion Analytics Warehouse instance in the federated Oracle Identity Cloud Service instance. If your tenancy isn't federated with an identity provider, then you create the Fusion Analytics Warehouse instance in the default Oracle Identity Cloud Service instance that is available with your Oracle Fusion Analytics Warehouse subscription.	Create an Oracle Fusion Analytics Warehouse Subscription Instance
Verify the Oracle Fusion Analytics Warehouse instance.	You receive an email when your instance is ready. Check that you can sign in and that your instance is up and running.	Verify Your Instance and Sign In

Task	Description	More Information
Create and associate users and groups.	When you set up provisioning with single sign-on, you enable synchronization of users and their associated roles from Oracle Applications Cloud to your federated Oracle Identity Cloud Service instance. After the initial synchronization, if you add users in your Oracle Applications Cloud instance, they are automatically available in your federated Oracle Identity Cloud Service instance because you've enabled synchronization. See Set Up Provisioning with Single Sign-On. You can also add additional users in your federated Oracle Identity Cloud Service instance through Oracle Fusion Analytics Warehouse using the User Management option in the Console. When you set up provisioning without single sign-on, to access Oracle Fusion Analytics Warehouse, manually create Oracle Applications Cloud users and groups (these are the equivalent of job roles in Oracle Applications Cloud) in Oracle Identity Cloud Service and then assign the groups (job roles) to users in	Assign Users to a Group and Assign Groups to Users.
Configure data security.	Ensure that users have appropriate access to use Oracle Fusion Analytics Warehouse. Access to subject areas and data depends on the roles assigned to the users.	Manage Users, Groups, Application Roles, and Data Access
Configure Oracle Fusion Analytics Warehouse data.	Set up global and reporting configurations and create data pipelines for functional areas to copy your Oracle Applications Cloud data to the data warehouse.	Configure Oracle Fusion Analytics Warehouse Data

Place and Activate the Order for an Oracle Cloud Account with Universal Credits

Before you place an order for Oracle Fusion Analytics Warehouse, you need an Oracle Cloud account with universal credits in one of the regions where Oracle Fusion Analytics Warehouse is available.

Contact your Oracle sales representative to place an order for an Oracle Cloud account with universal credits in one of the regions where Oracle Fusion Analytics Warehouse is available.

When an Oracle Sales representative orders an Oracle Cloud account with universal credits on your behalf, you'll receive a welcome email and you'll be designated as an activator of the Cloud services. You must activate your Oracle Cloud account before you can use the Cloud services. See Activate Your Order.

To use an existing Oracle Cloud account, verify that Oracle Fusion Analytics Warehouse is available in the same region as your Oracle Cloud account. Ensure that you are an administrator for the cloud account and the Oracle Fusion Analytics Warehouse order.

Place and Activate the Order for Oracle Fusion Analytics Warehouse

After you've activated your Oracle Cloud account, contact your Oracle sales representative to place an order for a subscription of Oracle Fusion Analytics Warehouse.

After an order is placed, if you have a single Oracle Cloud account with universal credits, then Oracle activates your service in that cloud account and sends an email with the subscription details to the Cloud Account administrator. If you've multiple Oracle Cloud accounts, then as the Cloud Account Administrator, you receive an email asking you to activate your Oracle Fusion Analytics Warehouse service. Ensure that you select the Oracle Cloud account in the region where Oracle Fusion Analytics Warehouse is available, and you are the administrator of the cloud account.

Once the order is activated, you receive an email with the details of the subscription and a temporary password to the cloud account. The My Services page directs you to reset your password. After you reset the password, use it to sign in to My Services and access the Oracle Cloud Infrastructure Console.

1. In the email, click **Activate**.
2. On the Activate My Services page, select the cloud account name, and click **Assign Account**.
3. In the email with subscription details, click the My Services URL and use the temporary credentials shared in the email.
4. Reset the temporary password.

Before You Begin with Oracle Fusion Analytics Warehouse

Oracle Fusion Analytics Warehouse is available on Oracle Cloud Infrastructure and uses few other Oracle Cloud Infrastructure services.

When you order Oracle Fusion Analytics Warehouse, you get access to Oracle Autonomous Data Warehouse and Oracle Analytics Cloud Subscription.

When you activate your Oracle Fusion Analytics Warehouse order, you get the Service Administrator role. This role gives you full administration privileges on the service, so you can complete all aspects of Oracle Fusion Analytics Warehouse setup and create other users. There's no need to delegate this responsibility, but if you want someone else to set up Oracle Fusion Analytics Warehouse, you can add more users and assign them to the required roles.

Here's the information about how Oracle Fusion Analytics Warehouse uses other Oracle Cloud Infrastructure services and what you need to do if you're setting up Oracle Fusion Analytics Warehouse for the first time.

Service	What is it for?	Do I need to do anything?
Oracle Identity Cloud Service	When you subscribe to Oracle Fusion Analytics Warehouse, you automatically receive Oracle Identity Cloud Service Foundation that provides the core identity and access management capabilities. Oracle Fusion Analytics Warehouse uses Oracle Identity Cloud Service to manage users and groups.	Create and associate users and groups. See Assign Users to a Group and Assign Groups to Users.
Oracle Autonomous Data Warehouse	Oracle Fusion Analytics Warehouse uses Oracle Autonomous Data Warehouse to store the data extracted from the Oracle Applications Cloud sources.	Provide the autonomous data warehouse details while creating a service instance for Oracle Fusion Analytics Warehouse. See Create an Oracle Fusion Analytics Warehouse Subscription Instance
Oracle Analytics Cloud	Oracle Fusion Analytics Warehouse uses Oracle Analytics Cloud to analyze data, create visualizations, and generate reports from the Oracle Applications Cloud data stored in Oracle Autonomous Data Warehouse.	No

Sign In to the Oracle Cloud Infrastructure Console

After you activate the service, use the cloud account credentials to sign in to the Oracle Cloud Infrastructure Console to access your services.

If you're the first user on the account and were invited by Oracle Cloud, then you're automatically added to the Administrators group. You can invite other members of the organization by adding users in Oracle Cloud Infrastructure Identity and Access Management. See Signing In to the Console.

Access Your Service

Sign in to the Oracle Cloud Infrastructure Console and use the navigation menu in the upper left to navigate to the service pages where you create, manage, and view your cloud resources..

See Using the Console.

Add Users with Administrator Permissions

If you want another user to administer the service, then provide the user with the same permissions as the default administrator of the service.

- If you're an Oracle Cloud Infrastructure Identity and Access Management administrator and want to add another Oracle Cloud Infrastructure Identity and Access Management user with administrator privileges, then complete the following tasks:
  - Create a group and add a non-administrator user to the group. Name the group, for example, `FAWAdmin.grp`. See Managing Groups.
  - Create a compartment for the Oracle Fusion Analytics Warehouse instances to limit the access of non-administrator users to only those services within the compartment. Name the compartment, for example, `FAWServicesCompartment`. See Managing Compartments.
  - Define the policies for the non-administrator user to access the Oracle Fusion Analytics Warehouse instances. Name the policy, for example, `FAWAdmin.pl`. Add a policy statement such as:

    ```
    ALLOW GROUP FAWAdmin.grp TO MANAGE analytics-warehouse IN
    COMPARTMENT
              FAWServicesCompartment
    ```

    Add another policy to grant the non-administrator user permission to create an autonomous data warehouse (ADW) in the compartment that you created, for example, `FAWServicesCompartment`. Ensure that the compartment in which you grant the manage ADW permissions is the same as the compartment in which the non-administrator user has a manage permission for Oracle Fusion Analytics Warehouse instances. Name the policy, for example, `FAWADWAdmin.pl` Add a policy statement such as:

    ```
    ALLOW GROUP FAWAdmin.grp TO MANAGE autonomous-data-warehouse-
    family IN COMPARTMENT
              FAWServicesCompartment
    ```

    See Managing Policies.
- If your tenancy uses Oracle Identity Cloud Service to manage user login and password for the Oracle Cloud Infrastructure Console, then to add a user with administrator permissions, see Managing Oracle Identity Cloud Service Users and Groups in the Oracle Cloud Infrastructure Console.

Add an Oracle Cloud Infrastructure Identity and Access Management Policy

Create a policy to enable Oracle to manage your resources without your active intervention.

Use the Oracle Cloud Infrastructure Console to create a policy with the following three statements:

- Allow service faw to manage autonomous-database-family in compartment.
- Allow service faw to manage analytics-instances in compartment.
- Allow service faw to manage analytics-warehouses in compartment.

> **Note:**
>
> In the three statements, specify the compartment name for your Oracle Fusion Analytics Warehouse service.

See "To create a policy" in Managing Policies.

2

Set Up Oracle Fusion Analytics Warehouse

As the cloud account administrator, create the service instance for Oracle Fusion Analytics Warehouse.

Topics:

- Typical Workflow to Set Up Oracle Fusion Analytics Warehouse
- Set Up User Access to Oracle Fusion Analytics Warehouse Using Single Sign-On
- Create an Oracle Fusion Analytics Warehouse Subscription Instance
- View Work Requests
- Update the Data Source Connection Details
- Update the Offerings
- Update the Administrator Password for Oracle Autonomous Data Warehouse
- Terminate Failed Instances
- Move the Oracle Fusion Analytics Warehouse Instance to Another Compartment
- Update the Notification Email

Typical Workflow to Set Up Oracle Fusion Analytics Warehouse

If you're setting up Oracle Fusion Analytics Warehouse for the first time, then follow these tasks as a guide.

Task	Description	More Information
Set up user access to Oracle Fusion Analytics Warehouse using single sign-on.	You can set up how users from Oracle Applications Cloud access Oracle Fusion Analytics Warehouse using single sign-on. This setup simplifies how you manage user names and passwords. It enables you to synchronize users and roles in Oracle Applications Cloud with Oracle Identity Cloud Service and then enable these users to access Oracle Fusion Analytics Warehouse.	Set Up User Access to Oracle Fusion Analytics Warehouse Using Single Sign-On
Create an Oracle Fusion Analytics Warehouse instance.	Create a service instance to manage your cloud resources.	Create an Oracle Fusion Analytics Warehouse Subscription Instance
Verify your instance and sign in.	Verify your service instance when you receive an email from Oracle that your Oracle Fusion Analytics Warehouse service instance is ready.	Verify Your Instance and Sign In

Set Up User Access to Oracle Fusion Analytics Warehouse Using Single Sign-On

You can set up how users from Oracle Applications Cloud access Oracle Fusion Analytics Warehouse using single sign-on. This setup simplifies how you manage user names and passwords. You must complete this setup before you create your Oracle Fusion Analytics Warehouse instances except as indicated in scenarios #5 and #6 that require further setup after you create the Oracle Fusion Analytics Warehouse instance.

Topics:

- About Setting Up User Access to Oracle Fusion Analytics Warehouse Using Single Sign-On
- Set Up User Access to Oracle Fusion Analytics Warehouse Using Single Sign-On in Scenario #1
- Set Up User Access to Oracle Fusion Analytics Warehouse Using Single Sign-On in Scenario #2
- Set Up User Access to Oracle Fusion Analytics Warehouse Using Single Sign-On in Scenario #3
- Set Up User Access to Oracle Fusion Analytics Warehouse Using Single Sign-On in Scenario #4
- Set Up User Access to Oracle Fusion Analytics Warehouse Using Single Sign-On in Scenario #5
- Set Up User Access to Oracle Fusion Analytics Warehouse Using Single Sign-On in Scenario #6

About Setting Up User Access to Oracle Fusion Analytics Warehouse Using Single Sign-On

Using single sign-on simplifies managing user access to Oracle Fusion Analytics Warehouse.

Users of Oracle Fusion Analytics Warehouse are mostly Oracle Applications Cloud users and those whom you create specifically in Oracle Fusion Analytics Warehouse. Setting up access to Oracle Fusion Analytics Warehouse for these users using single sign-on depends on whether identity domains are available in your cloud account or you're using Oracle Identity Cloud Service to manage the users.

Some Oracle Cloud regions use the Oracle Cloud Infrastructure Identity and Access Management (IAM) identity domains. See Identity Domain Overview. It's easy to determine whether or not your cloud account offers identity domains. In Oracle Cloud Infrastructure Console, navigate to **Identity & Security**. Under **Identity**, check for **Domains**.

The way you set up user access to Oracle Fusion Analytics Warehouse using single sign-on is based on when you created the cloud account for Oracle Applications Cloud and the cloud account in which you activated Oracle Fusion Analytics Warehouse.

Check your cloud account for Oracle Applications Cloud and Oracle Fusion Analytics Warehouse to know whether identity domains are available and then use these

scenarios as applicable to set up user access to Oracle Fusion Analytics Warehouse using single sign-on:

- Scenario 1 - Existing Oracle Applications Cloud in a cloud account that doesn't offer identity domains and Oracle Fusion Analytics Warehouse activated in the same cloud account as Oracle Applications Cloud.
- Scenario 2 - New Oracle Applications Cloud in a cloud account that offers identity domains and Oracle Fusion Analytics Warehouse activated in the same cloud account as Oracle Applications Cloud.
- Scenario 3 - Existing Oracle Applications Cloud in a cloud account that doesn't offer identity domains and Oracle Fusion Analytics Warehouse activated in a different pre-existing cloud account that doesn't offer identity domains.
- Scenario 4 - New Oracle Applications Cloud in a cloud account that offers identity domains and Oracle Fusion Analytics Warehouse activated in a different pre-existing cloud account that doesn't offer identity domains.
- Scenario 5 - Existing Oracle Applications Cloud in a cloud account that doesn't offer identity domains and Oracle Fusion Analytics Warehouse activated in a different new cloud account that offers identity domains.
- Scenario 6 - New Oracle Applications Cloud in a cloud account that offers identity domains and Oracle Fusion Analytics Warehouse activated in a different new cloud account that offers identity domains.

Set Up User Access to Oracle Fusion Analytics Warehouse Using Single Sign-On in Scenario #1

Scenario #1 applies to a single cloud account for Oracle Applications Cloud and Oracle Fusion Analytics Warehouse and the cloud account doesn't offer identity domains.

If you're an existing user of Oracle Applications Cloud with Oracle Fusion Analytics Warehouse activated in the same cloud account as Oracle Applications Cloud and your cloud account doesn't offer identity domains, then perform these steps:

1. Complete the setup required for provisioning Oracle Fusion Analytics Warehouse with single sign-on.

   See Set Up Provisioning with Single Sign-On.

2. In the Oracle Cloud Infrastructure Console, click the **Navigation** menu icon, click **Analytics & AI** and then click **Fusion Analytics Warehouse** to create the Oracle Fusion Analytics Warehouse instance.

   See Create an Oracle Fusion Analytics Warehouse Subscription Instance.

Set Up Provisioning with Single Sign-On

Provisioning Oracle Fusion Analytics Warehouse with single sign-on enables you to synchronize users and groups in Oracle Applications Cloud with Oracle Identity Cloud Service and then enable these users to access Oracle Fusion Analytics Warehouse.

Here's the list of tasks that you must complete in the order that they are listed.

1. Write down the Oracle Identity Cloud Service details in the mail notifying you of the Identity Cloud account associated with your Oracle Applications Cloud instance for later use.

2. Set up synchronization of Oracle Applications Cloud with the Oracle Identity Cloud Service instance specified in the Identity Cloud account associated with your Oracle Applications Cloud instance.
3. Federate the Oracle Identity Cloud Service instance specified in the Identity Cloud account associated with your Oracle Applications Cloud instance to the Oracle Cloud Infrastructure tenancy where Fusion Analytics Warehouse is provisioned.
4. Sign in to the Oracle Cloud Infrastructure tenancy where Fusion Analytics Warehouse is provisioned using the federated Oracle Identity Cloud Service instance.

Copy and Store the Oracle Identity Cloud Service URL

Copy and store the Oracle Identity Cloud Service URL available in the mail notifying you of the Identity Cloud account associated with your Oracle Applications Cloud instance in a text file. You require this information while setting up the synchronization of Oracle Applications Cloud with the Oracle Identity Cloud Service instance.

As the administrator of Oracle Applications Cloud, you would have received emails notifying you of the Identity Cloud account associated with your Oracle Applications Cloud instance.

1. From the email, copy the Oracle Identity Cloud Service URL for each of the development and production instances for each of the Oracle Applications Cloud environments and paste them in a text file.
2. If the email isn't available, then you can raise a service request to obtain information about the Identity Cloud account associated with your Oracle Applications Cloud instances.

Set Up Synchronization of Oracle Applications Cloud with Oracle Identity Cloud Service

Set up the synchronization of Oracle Applications Cloud with the Oracle Identity Cloud Service instance specified in the Identity Cloud account associated with your Oracle Applications Cloud instance. This synchronization gets the Oracle Applications Cloud users and groups into the applicable Oracle Identity Cloud Service instance that enables these users to access Oracle Fusion Analytics Warehouse.

1. Sign in to Oracle Identity Cloud Service using the URL that you obtained in Copy and Store the Oracle Identity Cloud Service URL.
2. Get the federation details (client ID and secret) from the Identity Cloud account associated with your Oracle Applications Cloud instance using these steps:
   a. Navigate to **Home**, click the **Navigator** menu, and then click **Oracle Cloud Services**.
   b. Click **Oracle Applications Cloud (Fusion)**.
   c. Open a text file.
   d. Copy the URL from the browser until "identity.oraclecloud.com" and paste it in your text file. For example, the sample format is https://idcs-<Oracle Identity Cloud Service stripe ID>.identity.oraclecloud.com/. In the url `https://idcs-12ab34c56789.identity.oraclecloud.com:443`, copy `https://idcs-12ab34c56789.identity.oraclecloud.com`.
   e. On the Oracle Applications Cloud (Fusion) page, click **Configuration** and then expand **General Information**.

f. Copy the client ID and paste it in the text file.

g. Click **Show Secret**, copy the text, paste it in the text file, and then save the text file.

3. Enable the synchronization of Oracle Applications Cloud with the Oracle Identity Cloud Service instance specified in the Identity Cloud account associated with your Oracle Applications Cloud instance using these steps:

   a. On the Oracle Applications Cloud (Fusion) page, under **Configuration**, expand **Client Configuration**.

   b. Scroll down and click **Add**.

   c. In Add App Role, select **Application Administrator** and **Domain Identity Administrator** and then click **Add**.

   d. On the Oracle Applications Cloud (Fusion) page, click **Provisioning** and perform these steps:

      i. Activate **Enable Provisioning**.

      ii. Under **Select Provisioning Operations**, select **Authoritative Sync**.

      iii. Activate **Enable Synchronization**.

   e. Under **Provisioning**, expand **Configure Connectivity** and click **Test Connectivity**.

   f. Click **Save**.

4. Confirm that the synchronization of Oracle Applications Cloud with Oracle Identity Cloud Service was set up successfully by viewing the users and job roles along with user to roles mappings before and after synchronization.

Federate the Oracle Identity Cloud Service Instance to Your Oracle Cloud Infrastructure Tenancy

Federate the Oracle Identity Cloud Service associated with your Oracle Applications Cloud instance to the Oracle Cloud Infrastructure tenancy where Oracle Fusion Analytics Warehouse is provisioned.

1. Sign in to your Oracle Cloud account that contains the tenancy where Oracle Fusion Analytics Warehouse is provisioned (in certain cases this can be same as your Oracle Applications Cloud account).

2. On the Oracle Cloud Home, navigate to **Identity** and then click **Federation**.

3. On the Federation page, click **Add Identity Provider**.

4. Federate the Oracle Identity Cloud Service instance to the Oracle Cloud Infrastructure tenancy using these steps:

   a. On the Add Identity Provider page, enter a name in lower case.

   b. Enter a description.

   c. Select **Oracle Identity Cloud Service**.

   d. Enter the URL, client ID, and client secret that you had saved in a text file in Set Up Synchronization of Oracle Applications Cloud with Oracle Identity Cloud Service.

   e. Scroll down and click **Continue** at the bottom of the Add Identity Provider page.

   f. In the next page, map **IDCS_Administrators** under **Identity Provider Group** to **Administrators** under **OCI Group** and click **Add Provider**.

   g. On the Federation page, note the name of the newly added provider.

Sign in to Oracle Cloud Infrastructure using the Federated Oracle Identity Cloud Service Instance

You must sign in to Oracle Cloud Infrastructure using the federated Oracle Identity Cloud Service instance to create your Oracle Fusion Analytics Warehouse instance.

1. Sign in to the Oracle Cloud Infrastructure by selecting the tenancy where Oracle Fusion Analytics Warehouse is provisioned and under Single Sign-On (SSO), select the identity provider that you added in Federate the Oracle Identity Cloud Service Instance to Your Oracle Cloud Infrastructure Tenancy.
2. In the Oracle cloud account Sign In dialog, click **Oracle Applications Cloud (Fusion)**.
3. In the Sign In Oracle Applications Cloud dialog, enter your Oracle Applications Cloud credentials and click **Sign In**.

   You see the Oracle Cloud Infrastructure's Console Home page.

Set Up User Access to Oracle Fusion Analytics Warehouse Using Single Sign-On in Scenario #2

Scenario #2 applies to a single cloud account for Oracle Applications Cloud and Oracle Fusion Analytics Warehouse and the cloud account offers identity domains.

If you're a new user of Oracle Applications Cloud with Oracle Fusion Analytics Warehouse activated in the same cloud account as Oracle Applications Cloud and your cloud account offers identity domains, then perform these steps:

1. Copy and paste into a text file the URL of your Oracle Applications Cloud instance for later use. You specify this URL as the source Oracle Applications Cloud while creating the Oracle Fusion Analytics Warehouse instance.
2. In Oracle Cloud Infrastructure, sign in to the cloud account where both Oracle Applications Cloud and Oracle Fusion Analytics Warehouse services have been activated using your cloud account administrator credentials.
3. On the Oracle Cloud Infrastructure Sign-in page, choose the domain that's corresponding to the Oracle Applications Cloud instance that you want to specify as the source while creating the Oracle Fusion Analytics Warehouse instance.
4. In the Oracle Cloud Infrastructure Console, click the **Navigation** menu icon, click **Analytics & AI** and then click **Fusion Analytics Warehouse** to create the Oracle Fusion Analytics Warehouse instance.

   See Create an Oracle Fusion Analytics Warehouse Subscription Instance.

Set Up User Access to Oracle Fusion Analytics Warehouse Using Single Sign-On in Scenario #3

Scenario #3 applies to separate cloud accounts for Oracle Applications Cloud and Oracle Fusion Analytics Warehouse and both the cloud accounts don't offer identity domains.

If you're an existing user of Oracle Applications Cloud in a cloud account that doesn't offer identity domains with Oracle Fusion Analytics Warehouse activated in a different existing cloud account that doesn't offer identity domains, then perform these steps:

1. Complete the steps listed in Set Up Provisioning with Single Sign-On.
2. In the Oracle Cloud Infrastructure Console, click the **Navigation** menu icon, click **Analytics & AI** and then click **Fusion Analytics Warehouse** to create the Oracle Fusion Analytics Warehouse instance.

   See Create an Oracle Fusion Analytics Warehouse Subscription Instance.

Set Up User Access to Oracle Fusion Analytics Warehouse Using Single Sign-On in Scenario #4

Scenario #4 applies to separate cloud accounts for Oracle Applications Cloud and Oracle Fusion Analytics Warehouse with one cloud account offering identity domains and another not offering identity domains.

If you're a new user of Oracle Applications Cloud in a cloud account that offers identity domains with Oracle Fusion Analytics Warehouse activated in a different existing cloud account that doesn't offer identity domains, then you must federate the identity domain associated with Oracle Applications Cloud to the Oracle Cloud Infrastructure tenancy where Oracle Fusion Analytics Warehouse is provisioned. During provisioning of Oracle Applications Cloud in a cloud account that offers identity domains, typically the Oracle Applications Cloud users and groups are synchronized automatically with the identity domain. In case the Oracle Applications Cloud users and groups aren't synchronized automatically with the identity domain, then you must manually enable the synchronization before performing the steps listed in this section. See Synchronize Users from Your Oracle Applications Cloud Instance with the Identity Domain.

1. Copy and store the details of the identity domain associated with the Oracle Applications Cloud instance.

   See Copy and Store Details of the Identity Domain.
2. Federate the identity domain associated with Oracle Applications Cloud to the Oracle Cloud Infrastructure tenancy where Oracle Fusion Analytics Warehouse is provisioned.

   See Federate the Identity Domain to Your Oracle Cloud Infrastructure Tenancy.
3. Sign in to Oracle Cloud Infrastructure using the federated identity domain to create your Oracle Fusion Analytics Warehouse instance.

   See Sign in to Oracle Cloud Infrastructure using the Federated Identity Domain.
4. In the Oracle Cloud Infrastructure Console, click the **Navigation** menu icon, click **Analytics & AI** and then click **Fusion Analytics Warehouse** to create the Oracle Fusion Analytics Warehouse instance.

   See Create an Oracle Fusion Analytics Warehouse Subscription Instance.

Copy and Store Details of the Identity Domain

Copy and store the client ID, client secret, and the URL of the identity domain associated with the Oracle Applications Cloud instance in a text file to use while federating the identity domain with the Oracle Cloud Infrastructure tenancy where Oracle Fusion Analytics Warehouse is provisioned.

1. Sign in to the Oracle Cloud Infrastructure Console using the credentials of the cloud account associated with Oracle Applications Cloud.
2. In the **Navigator** menu, click **Identity & Security** and on the Identity & Security page, click **Domains**.
3. On the Domains page, click the identity domain associated with the Oracle Applications Cloud instance.
4. On the domain Overview page, in the Domain information section, copy the domain url till *identity.oraclecloud.com*. For example, in the domain url `https://idcs-12ab34c56789.identity.oraclecloud.com:443`, copy `https://idcs-12ab34c56789.identity.oraclecloud.com`.
5. On the domain Overview page, click **Oracle Cloud Services** and then click **Oracle Applications Cloud (Fusion)**.
6. On the Oracle Applications Cloud (Fusion) page, click **Configuration**.
7. Under General Information, copy the **Client ID** and paste into a text file.
8. In **Client Secret**, click **Show Secret**, copy the secret, and paste into a text file.

Federate the Identity Domain to Your Oracle Cloud Infrastructure Tenancy

Federate the identity domain associated with your Oracle Applications Cloud instance to the Oracle Cloud Infrastructure tenancy where Oracle Fusion Analytics Warehouse is provisioned. This federation enables users to sign in to Oracle Fusion Analytics Warehouse using their Oracle Applications Cloud credentials.

1. Sign in to your Oracle Cloud account that contains the tenancy where Oracle Fusion Analytics Warehouse is provisioned.
2. On the Oracle Cloud Home, navigate to **Identity** and then click **Federation**.
3. On the Federation page, click **Add Identity Provider**.
4. On the Add Identity Provider page, enter a name and description.
5. Select **Oracle Identity Cloud Service** as **Type**.
6. Enter the URL of the identity domain, client ID, and client secret that you had saved in a text file. See Copy and Store Details of the Identity Domain.
7. Scroll down and click **Continue** at the bottom of the Add Identity Provider page.
8. In the next page, map **Domain_Administrators** group under **Identity Provider Group** with **Administrators** group under **OCI Group** and click **Add Provider**.

Sign in to Oracle Cloud Infrastructure using the Federated Identity Domain

You must sign in to Oracle Cloud Infrastructure using the federated identity domain associated with your Oracle Applications Cloud instance to create the Oracle Fusion Analytics Warehouse instance.

1. Sign in to the Oracle Cloud Infrastructure by selecting the tenancy where Oracle Fusion Analytics Warehouse is provisioned and under Single Sign-On (SSO), select the identity provider that you added in Federate the Identity Domain to Your Oracle Cloud Infrastructure Tenancy.
2. In the Oracle Cloud Account Sign In dialog, click **Oracle Applications Cloud**.
3. In the Sign In Oracle Applications Cloud dialog, enter your Oracle Applications Cloud credentials and click **Sign In**.

   You see the Oracle Cloud Infrastructure's Console Home page.

Synchronize Users from Your Oracle Applications Cloud Instance with the Identity Domain

Synchronize users from your Oracle Applications Cloud instance with the identity domain in the cloud account associated with Oracle Applications Cloud.

1. Sign in to the Oracle Cloud Infrastructure Console using your Oracle Applications Cloud credentials.
2. In the Oracle Cloud Infrastructure **Navigator** menu, click **Identity & Security** and then in the Identity & Security pane, under **Identity**, click **Domains**.
3. On the Domains page, navigate to the identity domain associated with the Oracle Applications Cloud instance that you plan to use while creating the Oracle Fusion Analytics Warehouse instance.
4. Click **Oracle Cloud Services** from the menu options.
5. On the Oracle Cloud Services page, click the **Oracle Applications Cloud (Fusion)** application.
6. On the application page, click **Provisioning** and turn on the **Enable provisioning** switch.
7. In the Select provisioning operations section, select the **Authoritative Sync** check box and turn on the **Enable synchronization** switch.
8. Click **Save changes**.
9. On the application page, click **Import** to initiate the synchronization process.

   After the process finishes, you see the list of users and groups synchronized from Oracle Applications Cloud in the identity domain.

Set Up User Access to Oracle Fusion Analytics Warehouse Using Single Sign-On in Scenario #5

Scenario #5 applies to separate cloud accounts for Oracle Applications Cloud and Oracle Fusion Analytics Warehouse and one cloud account offers identity domains and another doesn't.

If you’re an existing user of Oracle Applications Cloud in a cloud account that doesn’t offer identity domains with Oracle Fusion Analytics Warehouse activated in a different new cloud account that offers identity domains, then perform these steps:

1. Synchronize the Oracle Applications Cloud users and roles with the Oracle Identity Cloud Service instance associated with it.

See Copy and Store the Oracle Identity Cloud Service URL and Set Up Synchronization of Oracle Applications Cloud with Oracle Identity Cloud Service.

2. Create a domain in the cloud account in which you activated Oracle Fusion Analytics Warehouse to control the authentication and authorization of the users who can sign in to Oracle Fusion Analytics Warehouse.

   Ensure that you select **Free** domain type but ignore the limits mentioned for the Free domain type because they aren't applicable for Oracle Fusion Analytics Warehouse. See Creating Identity Domains and *Creating an Identity Domain* in Using the Console.

3. Configure the GenericSCIM Template in the identity domain that you created in the cloud account in which you activated Oracle Fusion Analytics Warehouse for enabling synchronization of users, groups, and group mappings from the Oracle Identity Cloud Service instance associated with the Oracle Applications Cloud instance.

   While configuring the GenericSCIM template, use the **GenericScim - Client Credentials** template and in **Select Provisioning Operation**, choose **Authoritative Sync**. In the Configure connectivity section, ensure that the host name is in this sample format (without the https): `idcs-123456abcde123.identity.oraclecloud.com`. See Configure the Generic SCIM App Template.

4. Configure single sign-on between the Oracle Identity Cloud Service instance associated with Oracle Applications Cloud and the identity domain associated with Oracle Fusion Analytics Warehouse.

   See Configure Single Sign-on Between Oracle Identity Cloud Service and Identity Domain.

5. In the Oracle Cloud Infrastructure Console, create an Oracle Cloud Infrastructure policy to enable a domain user to create the Oracle Fusion Analytics Warehouse instance.

   While creating the policy, select the identity domain in which you plan to create the Oracle Fusion Analytics Warehouse instance and enter these policy statements:

   - Allow group '<DomainName>'/'<GroupName>' to manage analytics-warehouses in tenancy
   - Allow group '<DomainName>'/'<GroupName>' to manage analytics-instances in tenancy
   - Allow group '<DomainName>'/'<GroupName>' to manage autonomous-database-family in tenancy

   See To create a policy.

6. In the Oracle Cloud Infrastructure Console, click the **Navigation** menu icon to navigate to **Fusion Analytics Warehouse** and create the Oracle Fusion Analytics Warehouse instance.

   See Create an Oracle Fusion Analytics Warehouse Subscription Instance.

7. Create an identity provider policy for single sign-on to ensure that the Oracle Fusion Analytics Warehouse sign-in page has an option to sign in with the Oracle Applications Cloud credentials.

   See *Adding an Identity Provider Policy* in Using the Console.

On the Add IdP Rule page, in **Assign identity providers** select the SAML IDP that you created in Add an SAML Application; for example, the *FAW-SSO* SAML identity provider.

8. Assign the *ANALYTICSAPP_<faw-instance-name>* and *ANALYTICSINST_oax<faw-instance-name>-<id>* analytics apps to the identity provider policy for single sign-on.

   When you attempt to authenticate through these apps, the only identity providers that appear in the Sign In page of these apps are the ones you assigned to the identity provider policy for single sign-on. For example, the *FAW-SSO* SAML identity provider. These apps were created when you created the Oracle Fusion Analytics Warehouse instance. See *Adding Apps to the Policy* in Using the Console.

Configure Single Sign-on Between Oracle Identity Cloud Service and Identity Domain

Configure single sign-on between the Oracle Identity Cloud Service instance associated with Oracle Applications Cloud and the identity domain associated with Oracle Fusion Analytics Warehouse to ensure that users can sign into Oracle Fusion Analytics Warehouse with their existing Oracle Applications Cloud credentials.

To configure single sign-on between the Oracle Identity Cloud Service instance associated with Oracle Applications Cloud and the identity domain associated with Oracle Fusion Analytics Warehouse, you must create a Security Assertion Markup Language (SAML) application in Oracle Identity Cloud Service. You then configure this SAML application with the details from the metadata XML file of the Oracle Fusion Analytics Warehouse identity domain.

Topics:

- Add an SAML Application
- Copy Details from the Identity Domain Metadata File
- Configure the SAML Application

Add an SAML Application

Add a Security Assertion Markup Language (SAML) application in the Oracle Identity Cloud Service associated with your Oracle Applications Cloud instance to provide a way to authenticate a user once and then communicate that authentication to multiple applications.

1. Sign in to the Console of Oracle Identity Cloud Service associated with your Oracle Applications Cloud instance.
2. In the **Navigator** menu, click **Applications** and on the Applications page, click **Add**.
3. In Add Application, select **SAML Application**.
4. On the Add SAML Application page, in the Details section, enter a name such as FAW-SSO and select the **User can request access** check box to enable the user to access the app.
5. In the SSO Configuration section, click **Download Identity Provider Metadata** to download the metadata XML file of Oracle Identity Cloud Service associated with your Oracle Applications Cloud instance and save the metadata XML file to your local machine.
6. Save and pause the configuration of this SAML application temporarily to collect certain values from the metadata XML file of the Oracle Fusion Analytics Warehouse identity domain. Don't sign off from Oracle Identity Cloud Service.

Copy Details from the Identity Domain Metadata File

Copy details from the metadata XML file of the Oracle Fusion Analytics Warehouse identity domain into a text file to use while configuring the SAML Application that you created.

1. Sign in to the Oracle Cloud Infrastructure Console using the credentials of the domain that you created in the cloud account in which you activated Oracle Fusion Analytics Warehouse.
2. In the Oracle Cloud Infrastructure **Navigator** menu, click **Identity & Security** and then in the Identity & Security pane, under **Identity**, click **Domains**.
3. On the Domains page, navigate to the identity domain that you created in this cloud account and on the identity domain details page, click **Security** and then click **Identity Providers**.
4. On the Identity provider (IdP) policies in the identity domain page, click **Add IdP**, and select **Add SAML IdP** from the dropdown list.
5. On the Add SAML identity provider page, in the Add Details section, enter **Name** such as Fusion SSO Login.
6. In the Configure IdP section, select the **Import identity provider metadata** radio button to choose and import the metadata XML file of Oracle Identity Cloud Service associated with your Oracle Applications Cloud instance that you previously downloaded to your local machine.
7. In the Map Attributes section, select **Unspecified** if the **Username** for Oracle Identity Cloud Service associated with your Oracle Applications Cloud instance can be email or short name. If the **Username** is email, then select **EmailAddress**.
8. In the Export section, download the metadata XML file of the Oracle Fusion Analytics Warehouse identity domain and its signing certificate.
9. Open the metadata XML file of the Oracle Fusion Analytics Warehouse identity domain in a text editor and copy the values for **entityID**, **AssertionConsumerService**, and **SingleLogoutService** into another text file to use while configuring the SAML Application that you created.
10. Return to configuring the SAML Application in the Console of Oracle Identity Cloud Service associated with your Oracle Applications Cloud instance.

Configure the SAML Application

Use the details from the metadata XML file of the Oracle Fusion Analytics Warehouse identity domain to configure the SAML Application that you created in the Oracle Identity Cloud Service associated with your Oracle Applications Cloud instance.

Return to creating the SAML application that you had paused in Add an SAML Application.

1. On the Add SAML Application page, use the metadata XML file of the Oracle Fusion Analytics Warehouse identity domain and the signing certificate to enter values for **Entity ID** and **Assertion Consumer URL** in the General section.
2. In Signing Certificate, click **Upload** to select the signing certificate of the Oracle Fusion Analytics Warehouse identity domain that you had previously downloaded and upload it.
3. In **NameID Format**, select **Unspecified** and in **NameID Value**, select **User Name**.

4. In Advanced Settings section, select the **Include Signing Certificate in Signature** and **Enable Single Logout**. Use the metadata XML file of the Oracle Fusion Analytics Warehouse identity domain and the signing certificate to enter values for **Single Logout URL** and **Logout Response URL**.
5. Expand the Authentication and Authorization section and ensure that the **Enforce Grants as Authorization** option isn't selected.
6. Click **Finish** and then click **Activate**.
7. Navigate to the Oracle Fusion Analytics Warehouse identity domain, click the SAML application that you created to edit it.
8. In Edit SAML identity provider, click **Test Login** to verify that you're able to login successfully.

Set Up User Access to Oracle Fusion Analytics Warehouse Using Single Sign-On in Scenario #6

Scenario #6 applies to separate cloud accounts for Oracle Applications Cloud and Oracle Fusion Analytics Warehouse and both the cloud accounts offer identity domains.

If you're a new user of Oracle Applications Cloud in a cloud account that offers identity domains with Oracle Fusion Analytics Warehouse activated in a different new cloud account that offers identity domains, then perform these steps:

1. Copy and paste into a text file the URL of your Oracle Applications Cloud instance for later use.

   You specify this URL as the source Oracle Applications Cloud while creating the Oracle Fusion Analytics Warehouse instance.
2. Create a domain in the cloud account in which you activated Oracle Fusion Analytics Warehouse to control the authentication and authorization of the users who can sign in to Oracle Fusion Analytics Warehouse.

   Ensure that you select **Free** domain type but ignore the limits mentioned for the Free domain type because they aren't applicable for Oracle Fusion Analytics Warehouse. See Creating Identity Domains and *Creating an Identity Domain* in Using the Console.
3. Configure the GenericSCIM Template in the identity domain that you created in the cloud account in which you activated Oracle Fusion Analytics Warehouse for enabling synchronization of users, groups, and group mappings from the identity domain associated with the Oracle Applications Cloud instance.

   While configuring the GenericSCIM template, use the **GenericScim - Client Credentials** template and in **Select Provisioning Operation**, choose **Authoritative Sync**. In the Configure connectivity section, ensure that the host name is in this sample format (without the https): `idcs-123456abcde123.identity.oraclecloud.com`. See Configure the Generic SCIM App Template.
4. Configure single sign-on between the identity domain associated with Oracle Applications Cloud and the identity domain associated with Oracle Fusion Analytics Warehouse.

   See Configure Single Sign-on Between Two Identity Domains.
5. In Oracle Cloud Infrastructure Console, create an Oracle Cloud Infrastructure policy to enable a domain user to create the Oracle Fusion Analytics Warehouse instance.

   While creating the policy, select the identity domain in which you plan to create the Oracle Fusion Analytics Warehouse instance and enter these policy statements:

- Allow group '<DomainName>'/'<GroupName>' to manage analytics-warehouses in tenancy
- Allow group '<DomainName>'/'<GroupName>' to manage analytics-instances in tenancy
- Allow group '<DomainName>'/'<GroupName>' to manage autonomous-database-family in tenancy

See To create a policy.

6. In the Oracle Cloud Infrastructure Console, click the **Navigation** menu icon to navigate to **Fusion Analytics Warehouse** and create the Oracle Fusion Analytics Warehouse instance.

   See Create an Oracle Fusion Analytics Warehouse Subscription Instance.

7. Create an identity provider policy for single sign-on to ensure that the Oracle Fusion Analytics Warehouse sign-in page has an option to sign in with the Oracle Applications Cloud credentials.

   See *Adding an Identity Provider Policy* in Using the Console.

   On the Add IdP Rule page, in **Assign identity providers** select the SAML IDP that you created in Add an SAML Application; for example, the *FAW-SSO* SAML identity provider.

8. Assign the *ANALYTICSAPP_<faw-instance-name>* and *ANALYTICSINST_oax<faw-instance-name>-<id>* analytics apps to the identity provider policy for single sign-on.

   When you attempt to authenticate through these apps, the only identity providers that appear in the Sign In page of these apps are the ones you assigned to the identity provider policy for single sign-on. For example, the *FAW-SSO* SAML identity provider. These apps were created when you created the Oracle Fusion Analytics Warehouse instance. See *Adding Apps to the Policy* in Using the Console.

Configure Single Sign-on Between Two Identity Domains

Configure single sign-on between the the identity domain associated with Oracle Applications Cloud and the identity domain associated with Oracle Fusion Analytics Warehouse to ensure that users can sign into Oracle Fusion Analytics Warehouse with their existing Oracle Applications Cloud credentials.

To configure single sign-on between the identity domain associated with Oracle Applications Cloud and the identity domain associated with Oracle Fusion Analytics Warehouse, you must create a Security Assertion Markup Language (SAML) application using the Oracle Cloud Infrastructure Console. You then configure this SAML application with the details from the metadata XML file of the Oracle Fusion Analytics Warehouse identity domain.

Topics:

- Add an SAML Application
- Copy Details from the Identity Domain Metadata File
- Configure the SAML Application

Add an SAML Application

Add a Security Assertion Markup Language (SAML) application in the identity domain associated with your Oracle Applications Cloud instance to provide a way to authenticate a user once and then communicate that authentication to multiple applications.

1. Sign in to the Oracle Cloud Infrastructure Console using the credentials of the cloud account associated with Oracle Applications Cloud.
2. In the **Navigator** menu, click **Applications** and on the Applications page, click **Add**.
3. In Add Application, select **SAML Application**.
4. On the Add SAML Application page, in the Details section, enter a name such as FAW-SSO and select the **User can request access** check box to enable the user to access the app.
5. In the SSO Configuration section, click **Download Identity Provider Metadata** to download the metadata XML file of the identity domain associated with your Oracle Applications Cloud instance and save the metadata XML file to your local machine.
6. Save and pause the configuration of this SAML application temporarily to collect certain values from the metadata XML file of the Oracle Fusion Analytics Warehouse identity domain.

Copy Details from the Identity Domain Metadata File

Copy details from the metadata XML file of the Oracle Fusion Analytics Warehouse identity domain into a text file to use while configuring the SAML Application that you created.

1. Sign in to the Oracle Cloud Infrastructure Console using your Oracle Fusion Analytics Warehouse service administrator credentials.
2. In the Oracle Cloud Infrastructure **Navigator** menu, click **Identity & Security** and then in the Identity & Security pane, under **Identity**, click **Domains**.
3. On the Domains page, navigate to the identity domain that you created in this cloud account and on the identity domain details page, click **Security** and then click **Identity Providers**.
4. On the Identity provider (IdP) policies in the identity domain page, click **Add IdP**, and select **Add SAML IdP** from the dropdown list.
5. On the Add SAML identity provider page, in the Add Details section, enter **Name** such as Fusion SSO Login.
6. In the Configure IdP section, select the **Import identity provider metadata** radio button to choose and import the metadata XML file of the identity domain associated with your Oracle Applications Cloud instance that you previously downloaded to your local machine.
7. In the Map Attributes section, select **Unspecified** if the **Username** for the identity domain associated with your Oracle Applications Cloud instance can be email or short name. If the **Username** is email, then select **EmailAddress**.
8. In the Export section, download the metadata XML file of the Oracle Fusion Analytics Warehouse identity domain and its signing certificate.
9. Open the metadata XML file of the Oracle Fusion Analytics Warehouse identity domain in a text editor and copy the values for **entityID**, **AssertionConsumerService**, and

SingleLogoutService into another text file to use while configuring the SAML Application that you created.

10. Return to configuring the SAML Application in the Oracle Cloud Infrastructure Console that you had previously signed into using the credentials of the cloud account associated with Oracle Applications Cloud.

Configure the SAML Application

Use the details from the metadata XML file of the Oracle Fusion Analytics Warehouse identity domain to configure the SAML Application that you created in the identity domain associated with your Oracle Applications Cloud instance.

Return to creating the SAML application that you had paused in Add an SAML Application.

1. On the Add SAML Application page, use the metadata XML file of the Oracle Fusion Analytics Warehouse identity domain and the signing certificate to enter values for **Entity ID** and **Assertion Consumer URL** in the General section.
2. In Signing Certificate, click **Upload** to select the signing certificate of the Oracle Fusion Analytics Warehouse identity domain that you had previously downloaded and upload it.
3. In **NameID Format**, select **Unspecified** and in **NameID Value**, select **User Name**.
4. In the Advanced Settings section, select the **Include Signing Certificate in Signature** and **Enable Single Logout**. Use the metadata XML file of the Oracle Fusion Analytics Warehouse identity domain and the signing certificate to enter values for **Single Logout URL** and **Logout Response URL**.
5. Expand the Authentication and Authorization section and ensure that the **Enforce Grants as Authorization** option isn't selected.
6. Click **Finish** and then click **Activate**.
7. Navigate to the Oracle Fusion Analytics Warehouse identity domain, click the SAML application that you created to edit it.
8. In Edit SAML identity provider, click **Test Login** to verify that you're able to login successfully.

Create an Oracle Fusion Analytics Warehouse Subscription Instance

Create a service instance to manage your cloud resources.

1. Sign in to the Oracle Cloud Infrastructure Console.

   If you've provisioned Oracle Fusion Analytics Warehouse with single sign-on, then sign in using the federated Oracle Identity Cloud Service. See Set Up Provisioning with Single Sign-On.
2. In Oracle Cloud Infrastructure Console, click the **Navigation** menu icon in the top left corner.
3. Click **Analytics & AI**. Under Analytics, click **Fusion Analytics Warehouse**.

4. On the Instances page, in **Compartment**, select a compartment if you want to place the service instance in a compartment other than the default root compartment that Oracle created for you.

   > **Note:**
   >
   > Ensure that you have created a compartment before you select it here. See Managing Compartments.

5. On the Instances page, click **Create Instance**.

   > **Note:**
   >
   > If you haven't purchased a subscription, then the **Create Instance** button isn't active.

6. Enter a **Display Name** for the service using alphanumeric and special characters.
7. Enter a **Name** for the instance that is unique in your tenancy using only alphanumeric characters without spaces or reuse the name of a deleted instance.
8. Optional: Enter a **Description** for the service using up to 255 alphanumeric and special characters.
9. Select **Development/Test** as your first instance.
10. Under Offerings, enable **Subscription Configuration**.

    Oracle Fusion Analytics Warehouse automatically configures the offerings based on your subscription details. For example, if you've subscribed for 20 ERP users, then you see the number of users for the instance automatically configured to 20 ERP users.
11. In **Fusion Application Connection**, provide the URL of your Oracle Applications Cloud instance.
12. In **Authentication**, select the type of authentication you want to use: **JWT Based** (recommended) or **Password Based**.
    - If you choose **JWT Based** (JSON web token), then upload or copy and paste the private key and public certificate files. Select **Keys have been uploaded to Fusion Source** to enable **Test Connection**.

      > **Note:**
      >
      > See Configure JWT Authentication Provider.
      >
      > Ensure that the generated RSA encryption private key contains at least 2048 characters and that you wait at least 15 minutes for the uploaded public certificate to become effective in your Oracle Applications Cloud instance.

    - If you choose **Password Based**, then enter and confirm the password of the default `FAWService` user from your Oracle Applications Cloud instance.
      The `FAWService` user is a predefined user provisioned in Oracle Applications Cloud and is used by the data pipeline functionality in Oracle Fusion Analytics Warehouse.

This user account has the appropriate data security privileges granted on the Oracle Applications Cloud view objects to bulk extract data from Oracle Applications Cloud into the data warehouse.

> **Note:**
>
> Ensure that you assign the BIACM_ADMIN and BICC_UCM_CONTENT_ADMIN roles to the FAWService user using the Security Console of Oracle Applications Cloud. See Overview of Access Provisioning.
>
> Ensure that you have reset the password for the `FAWService` user in Oracle Applications Cloud prior to entering the new password. See Reset Passwords.

13. Optional: Click **Test Connection** to check the connection to the Oracle Applications Cloud instance and confirm whether the credentials are valid.
14. In **Autonomous Data Warehouse Administrator Credentials**, provide an administrator password for the Oracle Autonomous Data Warehouse that's provisioned in your tenancy to store the transformed data.
15. In **Notification Email**, enter a valid email address if the field doesn't have a value.
16. Click **Create Instance**.

Oracle sends an email to the designated email address when your service is ready. You can display the Activity page to check the current status. When the status changes from CREATING to ACTIVE, the service is ready to use.
Navigate to the Details page for the new service to access the Oracle Fusion Analytics Warehouse URL and associated Oracle Autonomous Data Warehouse. From here, you can also view or modify details such as the password for your Oracle Applications Cloud instance and the administrator password for the Oracle Autonomous Data Warehouse. You can also delete the service instance that's no longer required.

If you had set up provisioning of Oracle Fusion Analytics Warehouse with single sign-on, then your service is associated with the federated Oracle Identity Cloud Service instance. If you hadn’t set up single sign-on for Oracle Fusion Analytics Warehouse, then your service is associated with the default Oracle Identity Cloud Service instance that you received with your Oracle Cloud account.

After you create an instance, for at least one hour you see the message that system initialization is in progress. During this period, Oracle Fusion Analytics Warehouse runs an initialization process that involves extraction of setup data from the source Oracle Applications Cloud system. You must wait for the system initialization process to complete before creating data pipelines for the functional areas.

Verify Your Instance and Sign In

Oracle sends an email to the designated email address when your Oracle Fusion Analytics Warehouse service instance is ready.

1. Sign in to the Oracle Cloud Infrastructure Console.
2. In Oracle Cloud Infrastructure Console, click the Navigation menu icon.

3. In the navigation options, click **Analytics & AI**. Under Analytics, click **Fusion Analytics Warehouse**.
4. Navigate to your service instances page.
5. Navigate to the **Analytics Application URL** to verify that your Oracle Fusion Analytics Warehouse service instance is up and running.

View Work Requests

View all the actions performed on your instance.

1. Sign in to the Oracle Cloud Infrastructure Console.
2. In Oracle Cloud Infrastructure Console, click the Navigation menu icon in the top left corner.
3. Click **Analytics & AI**. Under Analytics, click **Fusion Analytics Warehouse**.
4. Navigate to your service instances page.
5. On the Instances page, click the instance for which you want to view the list of actions that have been performed.
6. On the instance details page, under Resources, click **Work Requests**.

   You see the tasks that have been performed on the instance.

Update the Data Source Connection Details

Update your data source connection details such as the URL for the Oracle Applications Cloud instance that you specified while creating your Oracle Fusion Analytics Warehouse instance and the password for the `FAWService` user.

You can update the source URL to point to another source environment for Oracle Applications Cloud. You can update the password for the `FAWService` user when your source Oracle Applications Cloud instance has been refreshed with data from another environment, for example, due to a Production to Test refresh. You also update the password for the `FAWService` user if the passwords differ between environments or if the password for the `FAWService` user has expired. Prior to entering the new password, ensure that you have reset the password for the `FAWService` user in Oracle Applications Cloud. See Reset Passwords.

1. Sign in to the Oracle Cloud Infrastructure Console.
2. In Oracle Cloud Infrastructure Console, click the Navigation menu icon in the top left corner.
3. Click **Analytics & AI**. Under Analytics, click **Fusion Analytics Warehouse**.

   You see the service instances page.
4. On the Instances page, click the instance for which you want to update the Oracle Applications Cloud password.
5. On the instance details page, click **Update Fusion Connection**.
6. Select the type of authentication you want to use: **JWT Based** or **Password Based**.
   - If you choose **JWT Based**, upload or copy and paste the private key and public certificate files, then select **Keys have been uploaded to Fusion Source**.

> **Note:**
>
> See Configure JWT Authentication Provider.
>
> Ensure that the generated RSA encryption private key contains at least 2048 characters and that you wait at least 15 minutes for the uploaded public certificate to become effective in your Oracle Applications Cloud instance.

- If you choose **Password Based**, then enter and confirm the password of the default `FAWService` user from your Oracle Applications Cloud instance.

7. Enter the new URL and password.
8. Click **Test Connection** to verify the updated connection details.
9. Click **Save Changes**.

Update the Offerings

You can increase or decrease the number of users in an existing offering or add a new offering.

For example, you can add the Human Capital Management offering to your instance that has the Enterprise Resource Planning offering.

1. Sign in to the Oracle Cloud Infrastructure Console.
2. In Oracle Cloud Infrastructure Console, click the Navigation menu icon in the top left corner.
3. Click **Analytics & AI**. Under Analytics, click **Fusion Analytics Warehouse**.

   You see the service instances page.
4. On the Instances page, click the instance for which you want to update the offerings.
5. On the instance details page, click **Update Offerings**.
6. In the Offerings dialog, change the number of users for an existing offering and if applicable, then select the check box for a new offering and specify the number of users.
7. Enter `Update` to confirm the changes and then click **Save Changes**.

Update the Administrator Password for Oracle Autonomous Data Warehouse

Update the `ADMIN` schema password for the Oracle Autonomous Data Warehouse that is provisioned in your tenancy if the password for that `ADMIN` schema has changed.

1. Sign in to the Oracle Cloud Infrastructure Console.
2. In Oracle Cloud Infrastructure Console, click the Navigation menu icon in the top left corner.
3. Click **Analytics & AI**. Under Analytics, click **Fusion Analytics Warehouse**.

You see the service instances page.

4. On the Instances page, click the instance for which you want to update the administrator password for the Oracle Autonomous Data Warehouse that is provisioned in your tenancy.
5. On the instance details page, click **Update Admin Password**.
6. In the Update Autonomous Datawarehouse Credentials dialog, enter and confirm the new password, and then click **Save Changes**.

Terminate Failed Instances

You can terminate instances that are in active or failed state.

1. Sign in to the Oracle Cloud Infrastructure Console.
2. In Oracle Cloud Infrastructure Console, click the Navigation menu icon in the top left corner.
3. Click **Analytics & AI**. Under Analytics, click **Fusion Analytics Warehouse**.
4. On the Instances page, use either of the options:
   - Click the **Actions** icon for an instance with **Failed** status, and then from the **Actions** menu, click **Terminate**.
   - Click the instance with **Failed** status to open the instance details page and then on the instance details page, click **Terminate**.
5. In Confirm Terminate, verify the instance name and click **Terminate Instance**.

Move the Oracle Fusion Analytics Warehouse Instance to Another Compartment

As the cloud account administrator, you can move your Oracle Fusion Analytics Warehouse instance to another Oracle Cloud Infrastructure compartment after you've created the instance.

You may want to move the instance from one compartment to another if you're redesigning or modifying the compartment structure. When you move the Oracle Fusion Analytics Warehouse instance to another compartment, the Oracle Analytics Cloud and Oracle Autonomous Data Warehouse instances associated with your Oracle Fusion Analytics Warehouse instance automatically move to the new compartment of your Oracle Fusion Analytics Warehouse instance.

1. Sign in to the Oracle Cloud Infrastructure Console.
2. In Oracle Cloud Infrastructure Console, click the Navigation menu icon in the top left corner.
3. Click **Analytics & AI**. Under Analytics, click **Fusion Analytics Warehouse**.
4. On the Instances page, use either of the options:
   - Click the **Actions** icon for an instance whose compartment you want to move, and then from the **Actions** menu, click **Move Resource**.
   - Click the instance whose compartment you want to move to open the instance details page and then on the instance details page, click **More Actions** and then click **Move Resource**.

5. In Move Resource to a Different Compartment, select a compartment in **Choose New Compartment** and then click **Move Resource**.

Update the Notification Email

You can view and update the notification email address set for an instance on the instance details page.

1. Sign in to the Oracle Cloud Infrastructure Console.
2. In Oracle Cloud Infrastructure Console, click the Navigation menu icon in the top left corner.
3. Click **Analytics & AI**. Under Analytics, click **Fusion Analytics Warehouse**.
4. On the Instances page, click an instance to open the instance details page.
5. On the instance details page, click **Update Email** to modify the current notification email address.
6. In Update Notification Email, enter the email address and click **Save Changes**.

3

Configure Oracle Fusion Analytics Warehouse Data

As the cloud account administrator with the Functional Administrator or System Administrator application role, you specify the data load and reporting configuration details, and create data pipelines for functional areas that determine how the source data from Oracle Applications Cloud is loaded and displayed in the data warehouse.

For example, you might specify the Initial Extract Date as January 1, 2019, specify the global currency as US Dollars (USD), and select the exchange rate to convert transactions to the global currency.

> **Note:**
>
> The times visible in the Console are in local time zone. However, Oracle Fusion Analytics Warehouse stores the values for the **Warehouse Refresh Date Time** and **Scheduled Date** in the Coordinated Universal Time (UTC) in the autonomous data warehouse.

Topics:

- Typical Workflow to Configure Data
- About Data Pipelines for Functional Areas
- About Pipeline Parameters
- Set Up the Pipeline Parameters
- About Global Parameters
- Set Up the Global Report Parameters
- About Reporting Configurations
- Set Up the Reporting Configurations for Enterprise Resource Planning
- Set Up the Reporting Configurations for Human Capital Management
- Create a Data Pipeline for a Functional Area
- Edit a Data Pipeline for a Functional Area
- Activate a Data Pipeline for a Functional Area
- Deactivate a Data Pipeline for a Functional Area
- Delete a Data Pipeline for a Functional Area
- Refresh a Data Pipeline for a Functional Area
- Reset a Data Pipeline for a Functional Area
- Reset the Data Warehouse
- Reset the Cache

- View Load Request History
- View Audit Log
- About Augmenting Your Data
- Disable Data Pipeline

Typical Workflow to Configure Data

Follow these tasks as a guide to configure Oracle Fusion Analytics Warehouse data.

Task	Description	More Information
Specify the pipeline parameters	Set up the pipeline parameters for your data model file before running your data pipelines for the functional areas.	Set Up the Pipeline Parameters
Specify the global report parameters	Specify the report parameter that you want to use across your Oracle Fusion Analytics Warehouse offerings.	Set Up the Global Report Parameters
Specify the report parameters	Set up the report parameters for your data model file before running your data pipelines for the functional areas.	Set Up the Reporting Configurations for Enterprise Resource Planning Set Up the Reporting Configurations for Human Capital Management
Create a data pipeline for a functional area	To start analyzing your Oracle Applications Cloud data, create data pipelines for the functional areas to copy data to the data warehouse.	Create a Data Pipeline for a Functional Area
Edit a data pipeline for a functional area	You can change any details of your data pipelines for the functional areas prior to activating them.	Edit a Data Pipeline for a Functional Area
Activate a data pipeline for a functional area	You must activate the data pipeline for a functional area to run and load data into the data warehouse.	Activate a Data Pipeline for a Functional Area
Deactivate a data pipeline for a functional area	You can deactivate all the incremental set up and ETL jobs of data pipelines for the functional areas.	Deactivate a Data Pipeline for a Functional Area
Delete a data pipeline for a functional area	You can delete data pipelines for the functional areas prior to activating them.	Delete a Data Pipeline for a Functional Area
Reload a data pipeline for a functional area	Perform this action to refresh the data for the selected functional area.	Refresh a Data Pipeline for a Functional Area
Reset a data pipeline for a functional area	You can reset an activated data pipeline for a functional area. Resetting the data pipeline deletes all data from your data warehouse.	Reset a Data Pipeline for a Functional Area

Task	Description	More Information
View request history	View the load request history by functional area, load type, and status.	View Load Request History
Augment your data	Augment your reports by using datasets that you create with specific columns from various data stores.	Augment Your Data

About Data Pipelines for Functional Areas

Data pipelines for functional area plans load data specific to a functional area into the data warehouse.

These pipelines hold configuration parameters specific to a functional area such as General Ledger functional area under Finance and Sales functional area under NetSuite.

You can't submit a data pipeline for a functional area in the following situations:

- Load in progress: If an incremental load is in progress.
- An impending load: If an incremental load is scheduled to run in the next hour.
- Exceeded the number of daily refresh requests: The maximum number of ad hoc data refresh requests for the day is four. If you've exceeded this number, then you can submit a request the following day.

About Best Practices

Before running a data pipeline for a functional area:

- Define the pipeline and report parameters for the functional area accurately.
- Schedule the data load to run during off-peak hours.
- Run initial full warehouse loads during weekends and incremental loads during weeknights to ensure that users aren't impacted.

About Pipeline Parameters

The pipeline parameters apply to all functional areas.

The pipeline parameters that apply at the functional area levels are currency, exchange rate type, and initial extraction date and time to schedule the incremental job to run.

- Analytics Language: Specify the language in which you want the data to be extracted. The language that you can select in the **Analytics Language** parameter is based on the initialized Oracle Applications Cloud languages. You can only select one language at a time. Changes to this global parameter doesn't take effect immediately even after next refresh and may cause inconsistent results because the refresh brings in only the incremental data in the selected language. You must reset the warehouse to ensure that the changes are effective.
- Analytics Currency: Currency conversions are required because your business might have transactions captured in multiple currencies. To create meaningful enterprise-wide analyses, you must use a common currency. Oracle Fusion Analytics Warehouse allows

you to specify an analytics currency to store amounts in the data warehouse using this common currency. The load process checks the specified currency value and determines the corresponding exchange rate to convert the amounts to the analytics currency. For example, if your organization is a multinational enterprise that has its headquarters in the United States, you probably want to choose **US dollars** (USD) as the analytics currency.

- Exchange Rate Type: Specify an exchange rate type that you want to use when converting the transaction amounts to the analytics currency. For example, you may set up **Corporate** as a standard exchange rate across your organization for a stable currency.
- Initial Extract Date: Initial extract date is used when you extract data for a full load. Transactional data created after the initial extract date processes and loads to the warehouse. It reduces the initial data load volume. After extracting the data for a functional area, avoid changing the initial extract date. If you need to change the initial extract data, then after changing the date, reset the data warehouse and reactivate the functional areas. See Reset the Data Warehouse.
- Data Refresh Schedule: Specify the frequency and when you want the incremental data load to happen.

Set Up the Pipeline Parameters

Set up the pipeline parameters for your data model file before running your data pipelines for the functional areas.

Oracle Fusion Analytics Warehouse releases application updates at regular intervals that are visible on the Release Updates tile of the Console. See About Application Updates. Some of the application updates involve an upgrade of the underlying data model. If a data model upgrade is available at the time that you specify for the daily incremental refresh, then the data model upgrade overrides the incremental refresh for the day. The data model upgrade is a lengthier process and the data refresh for the specific day may take much longer than the regular daily incremental refresh.

1. Sign in to your service.
2. In Oracle Fusion Analytics Warehouse, open the **Navigator** menu, click **Console**, and then click **Data Configuration** under **Application Administration**.
3. On the Data Configuration page, under **Global Configuration**, click **Pipeline Parameters**.
4. Under Global Parameters:
    a. Select the language in which you want the data to be extracted.
    b. Specify the currency of the transaction data.
    c. Select an exchange rate type that you want to use when converting the transaction amounts to the global currency.
    d. Indicate the initial extract date from which to load the transaction data.
5. Under Data Refresh Schedule, select the interval and depending on the selected interval, specify the time, day, and month when you want the incremental data load to happen.
6. Click **Save**.

About Global Parameters

You specify a value for the Enterprise Calendar parameter to configure the reporting calendar used in Oracle Fusion Analytics Warehouse. All time options seen in the reporting layer are based off the calendar that you select as the parameter value.

Set Up the Global Report Parameters

Specify the report parameter that you want to use across your Oracle Fusion Analytics Warehouse offerings.

1. Sign in to your service.
2. In Oracle Fusion Analytics Warehouse, open the **Navigator** menu, click **Console**, and then click **Data Configuration** under **Application Administration**.
3. On the Data Configuration page, under **Global Configurations**, click **Reporting Configurations**.
4. On the Reporting Configurations page, under Basic tab, click **Global Parameters**.
5. In the Global Parameters region, select a calendar to configure the reporting calendar used in Oracle Fusion Analytics Warehouse.
6. Click **Save**.

About Reporting Configurations

Set up the reporting configurations to specify how data is presented on the KPI decks, visualizations, dashboards, and reports in Oracle Fusion Analytics Warehouse.

About the Reporting Configuration for Enterprise Resource Planning

You specify values for these parameters as you configure reporting for Enterprise Resource Planning:

- Calendar: This parameter specifies the reporting calendar used in Oracle Analytics Cloud. All time options seen in the reporting layer are based off the calendar chosen in the configuration.
- Chart of Accounts: This parameter controls the list of ledgers used for reporting and is used in tandem with the Calendar parameter.
- Ledgers: This parameter restricts the ledgers in the reporting layer and in the security setup. The list of values for this parameter are the ledgers that share the same calendar and the chart of accounts selected in the previous two parameters. The **ALL** option selects all ledgers that share the calendar and the selected chart of accounts.
- Ledger Sets: This optional parameter restricts the ledger sets in the reporting layer and in the security setup. The list of values for this parameter are the ledger sets that share the same calendar and the chart of accounts selected in the previous two parameters.
- Allow Financial Category Upload: This parameter provides the ability to upload the financial category in Oracle Fusion Analytics Warehouse and maintain the mapping independent of Oracle Applications Cloud. The default value is No; in which case Oracle Fusion Analytics Warehouse uses the financial Category mapping defined in Oracle Applications Cloud.

About the Reporting Configuration for Human Capital Management

You specify values for these parameters as you configure reporting for Human Capital Management:

- Human Capital Management Analytics parameters:
  - Worker Age Band: This parameter specifies the grouping of the ages of workers by certain ranges. For example, less than 30, 30 to 50, and greater than 50 years. KPIs and analyses related to the headcount of the workers use these age bands. For example, the percentage of workers who are aged 50 and older.
  - Tenure Band: This parameter specifies the grouping of the service years of workers by certain ranges. For example, less than 5, 5 to 10, and greater than 10 years. KPIs and analyses related to the headcount or diversity factors of the workers use these bands. For example, you can use this parameter to answer a business question such as "Show me the percentage of workers in my organization of various years of service."
  - Performance Band: This parameter specifies the grouping of the performance ratings of workers by certain ranges. For example, high, medium, and low. KPIs and analyses related to the performance rating of the workers use these performance bands. For example, you can use this parameter to answer a business question such as "Who are the top performers for the current review period in my organization".
  - Potential Band: This parameter specifies the grouping of potential ratings under various headers. For example, High, Medium, and Low. You can configure the rating ranges under these bands.
  - Compa-Ratio Band: This parameter specifies the grouping of worker compa-ratios under various headers. For example, Band 1 with range as 0-80 and Band 2 with range as 81-120.
  - Risk of Loss Band: This parameter specifies the grouping of risk of loss ratings under various headers. For example, High, Medium, and Low. You can configure the rating ranges under these bands.
  - Impact of Loss Band: This parameter specifies the grouping of impact of loss ratings under various headers. For example, High, Medium, and Low. You can configure the rating ranges under these bands.
- Succession Management parameter specifies the grouping of readiness levels of worker for their change in career under various headers. The values for these groups can be selected from the list of values. Care must be taken to select unique single value under each of these.
- Workforce Management parameter specifies the reason for reorganization to compute the headcount gain or losses based on the reorganization factor.

Set Up the Reporting Configurations for Enterprise Resource Planning

Specify the reporting configurations for the Enterprise Resource Planning data model file to specify how the Enterprise Resource Planning-related data is presented on the KPI decks, visualizations, dashboards, and reports.

1. Sign in to your service.
2. In Oracle Fusion Analytics Warehouse, open the **Navigator** menu, click **Console**, and then click **Data Configuration** under **Application Administration**.
3. On the Data Configuration page, under **Global Configurations**, click **Reporting Configurations**.
4. On the Reporting Configurations page, under the Basic tab, click **Enterprise Resource Planning**.
5. In the Financial Analytics region, select a fiscal calendar to configure the reporting calendar in Oracle Analytics Cloud.
6. Select one or more chart of accounts to control the list of ledgers used for reporting.
7. In **Ledgers**, select **ALL** to use all the available ledgers in the reporting layer and in the security setup.
8. Optional: In **Ledgers Sets**, select the ledgers sets to use in decks and data visualizations.
9. Optional: Select **Yes** to enable the upload of financial categories to the applicable environment.
10. Click **Save**.

Set Up the Reporting Configurations for Human Capital Management

Specify the report parameters for your data model file to specify how the Human Capital Management-related data is presented on the KPI decks, visualizations, dashboards, and reports.

The Custom Performance and Custom Potential bands don't work with metrics that use the performance ratings in their computation. For example, metrics such as High Performer Turnover, High Performer Retention, and Top Talent Worker Count. Additionally, the 9-box visualization of Performance versus Potential matrix doesn't work with these bands.

1. Sign in to your service.
2. In Oracle Fusion Analytics Warehouse, click the **Navigator** menu, click **Console**, and then click **Data Configuration** under **Application Administration**.
3. On the Data Configuration page, under **Global Configuration**, click **Reporting Configurations**.
4. On the Reporting Configurations page, under the Basic tab, click **Human Capital Management**.
5. In the Human Capital Management Analytics region:
    a. Select the worker age band to specify the age range of the workers.
    b. Select the tenure band to specify the range of service years of the workers.
    c. Select the performance band to specify the range of worker performance ratings.
    d. Select the potential band to specify the range of potential ratings for the workers.
    e. Select the compa-ratio band to specify the range of compa-ratio values for the workers.

f. Select the risk of loss band to specify the range of risk of loss ratings for the workers.

g. Select the impact of loss band to specify the range of impact of loss ratings for the workers.

h. Select the custom performance band to specify the custom band names and the range of worker performance ratings.

i. Select the custom potential band to specify the custom band names and the range of worker potential ratings.

6. In the Succession Management region, specify the various readiness levels of the workers.
7. In the Workforce Management region, select one or more reasons for reorganization to compute the headcount gain or losses based on the reorganization factor.
8. Click **Save**.

Create a Data Pipeline for a Functional Area

As a functional administrator, create a data pipeline for a functional area to copy data to the data warehouse. Use these steps to select and schedule runs to update the Oracle Autonomous Data Warehouse instance with the latest data.

Perform this task only after you have set up the pipeline and report parameters.

1. Sign in to your service.
2. In Oracle Fusion Analytics Warehouse, open the **Navigator** menu, click **Console**, and then click **Data Configuration** under **Application Administration**.
3. On the Data Configuration page, click your service. For example, under Applications, click **Enterprise Resource Planning**.
4. On the service page, for example, the Data Configuration: Oracle Financial Analytics page, click **Create**.
5. Select your application areas to transfer data to the warehouse, and then click **Next**.
6. Review the parameters and click one of the options:
   - **Cancel**: To cancel the data pipeline for the functional area.
   - **Save**: To save the data pipeline for the functional area but not activate it.
   - **Activate**: To display the page for scheduling when to run the data pipeline for the functional area. Select **Scheduled Execution Date** to specify the date and time on which to run the data pipeline for the functional area. Select **Run Immediately** to create and run the data pipeline for the functional area immediately.

> **Note:**
>
> You can schedule an activation of a functional area even if activation of another functional area is in progress. However, you can't update the activation of a functional area that's in progress.

Oracle Fusion Analytics Warehouse extracts data only from the initial extract date that you specify. For example, if the initial extract date is 10th March and you've added data on 9th March in your source, then the data added on 9th won't be part of this data pipeline activation plan. You can see the data pipeline activation plan listed on the Data Configuration page.

Edit a Data Pipeline for a Functional Area

You can change any details of your data pipeline for a functional area prior to activating it.

1. Sign in to your service.
2. In Oracle Fusion Analytics Warehouse, open the **Navigator** menu, click **Console**, and then click **Data Configuration** under **Application Administration**.
3. On the Data Configuration page, click your service. For example, under Applications, click **Enterprise Resource Planning**.
4. On the service page, for example, the Data Configuration: Oracle Financial Analytics page, click the **Action** menu for the data pipeline for a functional area that you want to edit, and click **Edit**.
5. Make the changes, review the changes, and then click **Save** or **Activate**.

Activate a Data Pipeline for a Functional Area

You must activate the data pipeline for a functional area to run it and load the data into the data warehouse.

1. Sign in to your service.
2. In Oracle Fusion Analytics Warehouse, open the **Navigator** menu, click **Console**, and then click **Data Configuration** under **Application Administration**.
3. On the Data Configuration page, click your service. For example, under Applications, click **Enterprise Resource Planning**.
4. On the service page, for example, the Data Configuration: Oracle Financial Analytics page, click the **Action** menu for the saved data pipeline for the functional area that you want to activate, and click **Edit**.
5. Review the details of the data pipeline for the functional area and click **Activate**.
6. In step 4 of the Data Configuration wizard, select **Scheduled Execution Data** to specify the date and time on which to run the data pipeline for the functional area. Select **Run Immediately** to create and run the data pipeline for the functional area immediately. Click **Finish**.

Oracle Fusion Analytics Warehouse runs the data pipeline for the functional area, loads data into your data warehouse, and displays your data pipeline for the functional area on the Data Configuration page. Once data is successfully loaded, the system updates the status of the data pipeline for the functional area to **Activation Completed**.

Deactivate a Data Pipeline for a Functional Area

You can deactivate all the incremental setup and jobs of a data pipeline for a functional area.

Deactivating a data pipeline for a functional area ensures that future incremental jobs don't select the specific functional area when the data pipeline runs. You can view the deactivated status of the data pipeline on the Data Configuration page.

1. Sign in to your service.
2. In Oracle Fusion Analytics Warehouse, open the **Navigator** menu, click **Console**, and then click **Data Configuration** under **Application Administration**.
3. On the Data Configuration page, click your service. For example, under Applications, click **Enterprise Resource Planning**.
4. On the service page, for example, the Data Configuration: Oracle Financial Analytics page, click the **Action** menu for the active data pipeline for the functional area that you want to deactivate, and click **Deactivate**.

Delete a Data Pipeline for a Functional Area

You can delete a data pipeline for a functional area prior to activating it.

Deleting a data pipeline for a functional area permanently removes it, so data refreshes of the warehouse won't occur.

1. Sign in to your service.
2. In Oracle Fusion Analytics Warehouse, open the **Navigator** menu, click **Console**, and then click **Data Configuration** under **Application Administration**.

   You see the Data Configuration page.
3. On the Data Configuration page, click your service. For example, under Applications, click **Enterprise Resource Planning**.
4. On the service page, for example, the Data Configuration: Oracle Financial Analytics page, click the **Action** menu for the data pipeline for the functional area that you want to delete, and click **Delete**.

Refresh a Data Pipeline for a Functional Area

Refresh an activated data pipeline for a functional area to bring in new data for the selected functional area.

When you refresh the data pipeline, the system executes an incremental load immediately. The next scheduled run may take additional time to complete because of any new data. If you had reset a data pipeline for the functional area before refreshing data, then the system runs a full load immediately for that functional area.

> **Note:**
>
> Executing an on-demand data refresh while working on the data may cause temporary inconsistencies.

1. Sign in to your service.
2. In Oracle Fusion Analytics Warehouse, open the **Navigator** menu, click **Console**, and then click **Data Configuration** under **Application Administration**.
3. On the Data Configuration page, click your service. For example, under Applications, click **Enterprise Resource Planning**.

4. On the service page, for example, the Data Configuration: Oracle Financial Analytics page, click the **Action** menu for the data pipeline for the functional area whose data you want to refresh, and then click **Refresh Data**.

Reset a Data Pipeline for a Functional Area

When you reset a data pipeline for a functional area, you start the process of completely refreshing the data in the data warehouse for the functional area. After you reset the data pipeline for a functional area, the data still exists in the data warehouse related to the functional area.

After resetting the data pipeline, you reload the data pipeline for the functional area to refresh the data.

1. Sign in to your service.
2. In Oracle Fusion Analytics Warehouse, open the **Navigator** menu, click **Console**, and then click **Data Configuration** under **Application Administration**.

   You see the Data Configuration page.
3. On the Data Configuration page, click your service. For example, under Applications, click **Enterprise Resource Planning**.
4. On the service page, for example, the Data Configuration: Oracle Financial Analytics page, click the **Action** menu for the data pipeline for the functional area that you want to reset, and click **Reset**.

You see the data pipeline for the functional area on the Data Configuration page with **Reset Completed** status.

Reset the Data Warehouse

Reset your data warehouse when your data source instance has been refreshed from another environment, for example, due to a Production to Test refresh. You may also want to reset the data warehouse when the data has become corrupted.

1. Sign in to your service.
2. In Oracle Fusion Analytics Warehouse, open the **Navigator** menu, click **Console**, and then click **Data Configuration** under **Application Administration**.

   You see the Data Configuration page.
3. On the Data Configuration page, under **Global Configuration**, click **Pipeline Parameters**.

   You see the Pipeline Parameters page.
4. On the Pipeline Parameters page, click the **Reset Data Warehouse** menu option.
5. Click **OK** in the message dialog.

You must activate each of your data pipelines for the functional areas. See Activate a Data Pipeline for a Functional Area.

Reset the Cache

The data augmentation source column information is cached in the browser cache and is maintained for a week. If your source has new columns and they don't display in the Data Augmentation wizard, then you can reset the browser cache and retry data augmentation.

1. Sign in to your service.
2. In Oracle Fusion Analytics Warehouse, open the **Navigator** menu, click **Console**, and then click **Data Configuration** under **Application Administration**.

   You see the Data Configuration page.
3. On the Data Configuration page, under **Global Configuration**, click **Pipeline Parameters**.

   You see the Pipeline Parameters page.
4. On the Pipeline Parameters page, click the **Reset Cache** menu option.

   You see a message that cache has been cleared successfully.

View Load Request History

You can view the load request history by functional area, load type, and status along with other details.

1. Sign in to your service.
2. In Oracle Fusion Analytics Warehouse, open the **Navigator** menu, click **Console**, and then click **Data Configuration** under **Application Administration**.

   You see the Data Configuration page.
3. On the Data Configuration page, under **Activity History**, click **Request History**.
4. On the Request History page, view the history of loads that have been performed.

> **Note:**
>
> The request history doesn't display the incremental loads.

About Request Types and Statuses

When you perform tasks on a functional area, you can review the different types of requests involved with those tasks in the Request History area.

Request Types

Request Type	Description
Batch Request	A batch request ran, usually for map attributes, or import and export functions.
Content Patch	A content patch upgrade ran.
Full Load (Adhoc)	A full load ran immediately upon request.

Request Type	Description
Full Load (Scheduled)	A full load is scheduled to run.
Module Reset	An active functional area or source table was deleted.
Refresh Data	The system ran a request to refresh data.
Reset	A request to refresh the data in the data warehouse for the functional area.
Reset Data Warehouse	A warehouse reset deleted all customer-added warehouse data.
Target Model Upgrade	The target model upgraded to the latest available version.

Request Statuses

Request Status	Description
Activation Completed	The job ran successfully and is now complete.
Activation in Progress	• The job is running. • The job is resolving.
Activation Scheduled	• Job is scheduled to run within one minute. • Job is scheduled to run at the specified date and time.
Deactivation Complete	The job is removed from Active status.
InActive	The job isn't saved or scheduled to run.
Received	The job request is submitted.
Saved	Job is saved but not scheduled to run.

View Audit Log

You can view the modifications made to entities in the data pipelines such as functional areas.

1. Sign in to your service.
2. In Oracle Fusion Analytics Warehouse, open the **Navigator** menu, click **Console**, and then click **Data Configuration** under **Application Administration**.

   You see the Data Configuration page.
3. On the Data Configuration page, under **Activity History**, click **Audit Log**.
4. On the Audit Log page, view the list of all the modifications.

About Augmenting Your Data

Enhance the data used in your analytics with additional data, various calculations, and combinations to enable comprehensive analytics and multi-faceted visualizations. By augmenting the data, you can reduce or even eliminate the manual intervention in developing meaningful insight of the business data.

Add data to your reports from various data stores (Business Intelligence view objects) of the Oracle Applications Cloud data sources. You can augment your reports with datasets created by extending an existing entity or group of facts, by adding a new dimension in the target instance, and by adding a new fact in the target instance.

Select the columns from various data stores, create an augmentation dataset, and use that dataset to create data pipelines for functional areas. This enables you to seamlessly extract and load data from additional Oracle Applications Cloud data stores and make it readily available in tables populated in the autonomous data warehouse. You can then use the data for visualization and analysis. To find the data stores that are available for extraction using augmentation, see the *Data Stores* section in *Reference for Oracle Fusion SCM Analytics*, *Reference for Oracle Fusion HCM Analytics*, and *Reference for Oracle Fusion ERP Analytics*. Although there is no technical limit, you can create a maximum of hundred data augmentations for a single tenant to ensure optimal performance of all data pipelines. Contact Oracle Support if you have further questions.

Here are a few use cases when augmenting your Oracle Applications Cloud data with data from several data stores enables in-depth and focused insights:

- Product sales – Add similar product information from different data sources to create a report that compares similar products in a specific region.
- Average of expense invoices – Add various expense invoices to create an average of periodic expenses.

Augment Your Data

You can supplement the data in your reports by using datasets that you create with specific columns from various data stores (Business Intelligence view objects) of the Oracle Applications Cloud data sources.

You can use the system provided or customer provided source tables. The system provided tables are pre-validated by Oracle Fusion Analytics Warehouse. The customer provided tables are other source tables that are available for extraction but aren't validated by Oracle Fusion Analytics Warehouse. As a user with the functional administrator or system administrator application role, you can allow usage of a particular table that isn't pre-validated by Oracle Fusion Analytics Warehouse. However, be aware that Oracle can't assure the performance of processing such customs tables. Adding such custom tables can delay the daily data refresh.

After you create the augmentations, you see them on the Data Augmentation page with one of these statuses:

- Activation in Progress - You can't edit, delete, or schedule a data augmentation pipeline job while activation is in progress.
- Activation Completed - You can edit the data augmentation to add or delete VO attributes and save the changes. You can't modify the schedule in this status.
- Activation Scheduled - You can edit the data augmentation to add VO attributes, save the changes while retaining the existing schedule, reschedule the execution date and time, or execute the plan immediately.

> **Note:**
>
> Later if you delete a data augmentation, then you must wait for the daily incremental run to complete to see the change in the reports, cards, and decks.

1. Sign in to your service.

2. In Oracle Fusion Analytics Warehouse, open the **Navigator** menu, click **Console**, and then click **Data Configuration** under **Application Administration**.
3. On the Data Configuration page, under Global Configurations, click **Data Augmentation**.
4. On the Data Augmentation page, click **Create**.

   You can create the following augmentation types:

   - Create a dimension.
   - Create a fact.
   - Extend an entity.

Create Dimension Augmentation Type

You can augment your reports with datasets created by adding a new dimension in the target instance.

Ensure that the custom dimensions that you create in augmentations are used by facts. If they aren't used, then the custom dimensions aren't visible in the subject areas. See Create Fact Augmentation Type.

1. In step 1 of the Data Augmentation wizard, select **Create Dimension** to add a new dimension in the target instance.
2. Select **Supplemental Data (Regular)** as the source dataset type.
3. Select a product pillar; for example, **Enterprise Resource Planning**.
4. In **Source Table Type**, specify the source table type using either of the options:
   - Select **System Provided** and then in **Source Table**, select a table to which you want to add the new dimension.
   - Select **Customer Provided** and then in **Source Table**, enter the name of the table to which you want to add the new dimension.
5. Click **Next**.
6. In step 2 of the wizard, select the check box for the attributes from the source table that you want in your new dimension, and then click **Next**.
7. In step 3 of the wizard, click **Action** icon for each of the selected attributes to specify the **Type** and **Treat as** settings.
8. Click **Next**.
9. In step 6 of the wizard, provide the following details and click **Finish** to save and schedule your data augmentation pipeline job:
   a. Name your augmentation pipeline job; for example, `Customer Class Code`.
   b. Enter a suffix for the target table name using underscore in place of spaces between words and don't use special characters; for example, `Customer_Class_D`. The augmentation process automatically creates the target table name.
   c. Provide a description.
   d. Select the functional area and one or multiple subject areas in which you want to include this augmentation pipeline job.
   e. Specify the options to save the data augmentation pipeline job without executing it, or schedule the execution date and time, or execute it immediately.

Create Fact Augmentation Type

You can augment your reports with datasets created by adding a new fact in the target instance.

If you've created custom dimensions for augmentations, then you can select such dimensions to map to the column that you identify as “Dimension” entity type. This enables the custom dimensions to be visible in the subject areas.

1. In step 1 of the Data Augmentation wizard, select **Create Fact** to add a new fact table in the target instance.
2. Select **Supplemental Data (Regular)** as the source dataset type.
3. Select a product pillar; for example, **Enterprise Resource Planning**.
4. In **Source Table Type**, specify the source table type using either of the options and click **Next**:
   - Select **System Provided** and then in **Source Table**, select a table to which you want to add the new dimension.
   - Select **Customer Provided** and then in **Source Table**, enter the name of the table to which you want to add the new dimension.
5. In step 2 of the wizard, select the check box for the attributes from the source table that you want in your new fact, and then click **Next**.
6. In step 3 of the wizard, click **Action** icon for each of the selected attributes to specify the **Type** and **Treat as** settings and then click **Next**.

   Ensure that you select at least one attribute as a measure to proceed through the wizard.
7. In step 5 of the wizard, specify the dimension in the data warehouse that you want to map to the column that you identified as “Dimension” entity type and then click **Next**.
8. In step 6 of the wizard, provide the following details and click **Finish** to save and schedule your data augmentation pipeline job:
   a. Name your augmentation pipeline job; for example, `AP Distribution`.
   b. Enter a suffix for the target table name using underscore in place of spaces between words and don’t use special characters; for example, `AP_DISTRIBUTION_F`. The augmentation process automatically creates the target table name.
   c. Provide a description.
   d. Select the functional area and one or multiple subject areas in which you want to include this augmentation pipeline job.
   e. Specify the options to save the data augmentation pipeline job without executing it, or schedule the execution date and time, or execute it immediately.

Extend an Entity

You can augment your reports with datasets created by extending an existing entity or group of facts.

While extending an entity or group of facts, ensure that you select Descriptive Flex Field (New) as the source dataset type to select the necessary columns for the augmentation. The existing approach of skipping the column selection is deprecated and won't be available from a future release.

1. In step 1 of the Data Augmentation wizard, select **Extend Entity**.
2. Select **Descriptive Flex Field (New)** as the source dataset type.
3. Select a product pillar; for example, **Enterprise Resource Planning**.
4. In **Source Table Type**, specify the source table type using either of the options:
   - Select **System Provided** and then in **Source Table**, select a table to which you want to add the new dimension.
   - Select **Customer Provided** and then in **Source Table**, enter the name of the table to which you want to add the new dimension.
5. Select a source table from the list of view objects that support descriptive flex fields and then click **Next**.
6. In step 2 of the wizard, select the check box for the attributes from the source table that you want in your target table, and then click **Next**.
7. In step 3 of the wizard, click **Action** icon for each of the selected attributes to specify the **Type** and **Treat as** settings, and then click **Next**.
8. In step 4 of the wizard, select the entity or group of fact tables to extend and its primary keys, and then click **Next**. For example, if you select **ARTransaction** as the entity to extend, then this process joins the ready-to-use **InvoiceID** descriptive flex field using the “s_k_5000” primary join key with all the fact tables in the ARTransaction entity.
9. In step 5 of the wizard, choose the primary keys for the attributes that you had specified to be treated as dimensions.
10. In step 6 of the wizard, provide the following details and click **Finish** to save and schedule your data augmentation pipeline job:
    a. Name your augmentation pipeline job; for example, `AP Invoice Header`.
    b. Enter a suffix for the target table name using underscore in place of spaces between words and don’t use special characters; for example, `AP_Invoice_Header_DFF`. The augmentation process automatically creates the target table name.
    c. Provide a description.
    d. Select the functional area and one or multiple subject areas in which you want to include this augmentation pipeline job.
    e. Specify the options to save the data augmentation pipeline job without executing it, or schedule the execution date and time, or execute it immediately.

Disable Data Pipeline

As the cloud account administrator with the functional administrator or system administrator application role, you can disable the data pipeline and enable it again.

You may want to disable the data pipeline in the following scenarios:

- While updating the Oracle Applications Cloud password or the JWT credentials.
- While upgrading to a new Oracle Applications Cloud version.
- If you don’t want to run pipeline jobs for a particular source.
- If you don’t want to run pipeline jobs for a particular duration such as a quite time in your business activities.

In cases where the pipeline jobs are failing due to issues, Oracle disables the data pipeline from the backend to investigate and resolve. On the Pipeline Parameters page, Oracle provides a reason and action for you, if the resolution needs to be done from your side. You can resolve the issue and inform Oracle to enable the data pipeline.

1. Sign in to your service.
2. In Oracle Fusion Analytics Warehouse, open the **Navigator** menu, click **Console**, and then click **Data Configuration** under **Application Administration**.
3. On the Data Configuration page, under Global Configurations, click **Pipeline Parameters**.
4. On the Pipeline Parameters page, under Data Pipeline, select the **Data Pipeline Disabled** toggle and enter a reason in **Details**.
5. Select the **Data Pipeline Disabled** toggle again to enable the data pipeline after you've completed the reason for disabling the data pipeline.

4

Validate Oracle Fusion Analytics Warehouse Data

As the cloud account administrator with the Functional Administrator or System Administrator application role, you validate the data after loading the source data from Oracle Applications Cloud into your data warehouse.

Topics:

- About Validating Your Data
- Create a Custom BI Abstract Role
- Validate Your Data

About Validating Your Data

As an administrator, you can validate a library of metrics between your Oracle Fusion Analytics Warehouse instance and the Oracle Transactional Business Intelligence instance. The library of metrics is part of Oracle Fusion Analytics Warehouse.

Prerequisites for Data Validation

Here's a list of prerequisites for validating your data as an administrator:

- Ensure that you can access the Oracle Transactional Business Intelligence instance and run queries.
- Ensure that you have the same data security privileges in Oracle Fusion Analytics Warehouse instance and the Oracle Transactional Business Intelligence instance.
- Ensure that you're assigned the Integration Specialist Group to access the Common folder in Oracle Analytics Cloud and to view the output of the data validation project.
- Create a custom BI Abstract role and associate it with the FAWService user.
- In Oracle Fusion Analytics Warehouse, on the Source Credentials tab of the Data Validation page, provide and confirm your password for the FAWService user.

> **Note:**
>
> If the password has expired, then set the new password using the Source Credentials tab. To navigate to the Source Credentials tab, open the Navigator menu, click Console, and then click Data Validation under Application Administration. You see the Scheduled Validation, Detailed Validation, and Source Credentials tabs.

Create a Custom BI Abstract Role

You create a BI Abstract role and associate it with the FAWService user.

Use the Security Console of Oracle Applications Cloud. See Create Roles in the Security Console

1. Sign in to Oracle Applications Cloud with your administrator credentials.
2. Navigate to **Tools** and then to **Security Console**.
3. In the Security Console, select the Roles tab, and then click **Create Role**.
4. In the Create Roles wizard, on the Basic Information page, enter a role name such as FAW Custom Data Validation Role and a role code such as FAW_CUSTOM_DATA_VALIDATION_ROLE, and select **BI - Abstract Roles** as role category.
5. In the Create Roles wizard, on the Role Hierarchy page, add the BI Impersonator role as a member of the newly created BI Abstract role.
6. In the Create Roles wizard, on the Users page, add the FAWService user to the newly created BI Abstract role.
7. In the Create Roles wizard, on the Summary page, verify the details, save, and then close the wizard.

Validate Your Data

As a functional administrator, validate the data after loading the source data in to your data warehouse.

You can schedule the validation of your data using the ready-to-use validation sets or custom validation sets that you create. You can create a validation set and define the subject area, metrics, and columns that you want to validate and schedule the validation frequency and date. You see the validation sets that you create under Custom Validation Sets in the Scheduled Validation tab.

Based on the schedule and the validation set, Oracle Fusion Analytics Warehouse validates the data and stores the details in the Data Validation workbook available in the Common folder in Oracle Analytics Cloud. Use this workbook to view the data validation details.

1. Sign in to your service.
2. In Oracle Fusion Analytics Warehouse, open the **Navigator** menu, click **Console**, and then click **Data Validation** under **Application Administration**.

   You see the Data Validation page.
3. On the Data Validation page, in the Scheduled Validation tab, ensure that the **Run automated Data Validation Reports** toggle is “on” if you want to validate your data using the ready-to-use validation sets or your custom validation sets. Select the check box for the specific validation sets.
4. To create a custom validation set, click **Create New Report**.
5. In Create Validation Set:
   a. Enter a name for your custom validated set.

b. Select the source pillar.

c. Select the validation frequency and the corresponding day, month, and date as required.

d. For each subject area, select the check box for the measures that you want, and then click the edit icon next to the measure.

e. In Select Values, select the values that are displayed, or search for values, or click **Show More Values**, and then move them to the **Selected Values** box using the arrows.

f. Click **Select** to retain the selection.

g. Click **Save**.

6. In Show details for, select the validation set to view the subject area and its measures that would be validated as part of this validation set.

7. On the Data Validation page, in the Detailed Validation tab, select the subject area such as Financials - GL Balance Sheet, a metric related to the selected subject area, and the column set that you want to validate.

   You see the columns listed from the selected Column Set.

8. For each column, click the + icon to open the Select Values dialog.

9. In Select Values, select the values that are displayed, or search for values, or click **Show More Values**, and then move them to the **Selected Values** box using the arrows.

10. Click **Select** to retain the selection.

11. In the Detailed Validation tab, click **Run** to show the metric values in the Oracle Fusion Analytics Warehouse instance and the Oracle Transactional Business Intelligence instance.

12. On the Data Validation page, click **Show Summary** to display the detail drill down of the metric values for Oracle Fusion Analytics Warehouse instance and the Oracle Transactional Business Intelligence instance.

13. Select the attribute columns that you would like to pivot the details on in the display.

    You see the Summary table with values for these categories:

    - Total Records in Analytics Warehouse
    - Total Records in Oracle Transactional Business Intelligence
    - Records Only in Analytics Warehouse
    - Records Only in Oracle Transactional Business Intelligence
    - Matched Records
    - Mismatched Records

14. On the Data Validation page, click **Show Details** to show the detail drill down of the metric values for the Oracle Fusion Analytics Warehouse instance and the Oracle Transactional Business Intelligence instance. The detail table gives the actual data for the differences between these instances using the pivot columns that you had selected previously.

15. Optional: Use the **Download Details** option to download the detail data into a csv file.

16. Optional: Use the **Change Columns** option to change the columns that you would like to pivot the detail data on.

    This regenerates the summary and the detail analysis.

5

Manage Users, Groups, Application Roles, and Data Access

As the service administrator or security administrator, you manage users and their access to subject areas and data.

Topics:

- About Managing Users, Groups, Application Roles, and Data Access
- Typical Workflow to Manage Users, Groups, Application Roles, and Data Access
- Manage Users
- Manage Groups
- Manage Application Roles
- Manage Data Access through Security Assignments
- Configure Permissions for Metadata and Front-End Objects
- View Activity History
- Set Up Custom Security

About Managing Users, Groups, Application Roles, and Data Access

As the service administrator or security administrator, one of your initial tasks is to ensure that users have appropriate access to use Oracle Fusion Analytics Warehouse.

Users need access to objects and data. Access to objects include subject areas or elements of subject areas such as folders and attributes, front-end decks, cards, KPIs, and the legacy Oracle BI Enterprise Edition dashboards and answers. You grant access to the users by assigning groups to them. The groups inherit the permissions from the data and duty roles mapped to them. You can merge your security setup only with the main semantic model.

About Users

Users accessing Oracle Fusion Analytics Warehouse must exist in Oracle Identity Cloud Service.

You can create the users or synchronize them with the Oracle Identity Cloud Service instance associated with your Oracle Fusion Analytics Warehouse instance from different sources:

- You can synchronize the Oracle Applications Cloud users with the Oracle Identity Cloud Service instance.
- You can manually create users in the Oracle Identity Cloud Service instance directly or create users in the Oracle Identity Cloud Service instance using the Oracle Fusion Analytics Warehouse user interface.

- You can synchronize the users from other 3rd-party systems with the Oracle Identity Cloud Service instance.

Users gain their access to Oracle Fusion Analytics Warehouse based on the Oracle Fusion Analytics Warehouse-specific system groups assigned to them. They gain access to different functionality, objects, and data in Oracle Fusion Analytics Warehouse based on the job-specific groups assigned to them.

You can assign the predefined system groups, groups available in the Oracle Identity Cloud Service instance associated with your Oracle Fusion Analytics Warehouse instance, and custom groups that you create in Oracle Fusion Analytics Warehouse. See Associate Users and Groups.

About Groups

Oracle Fusion Analytics Warehouse uses groups to provide users access to subject areas, objects, and data.

Oracle Fusion Analytics Warehouse uses the following three types of groups:

- System groups created in Oracle Identity Cloud Service specifically for Oracle Fusion Analytics Warehouse. These system groups are associated with system roles that provide a set of privileges to the users to perform system tasks after signing into Oracle Fusion Analytics Warehouse, such as administering system settings, performing functional setup, managing security, and modeling data. See System Groups and System Roles.
- Job-specific groups such as Vice President of Sales, Human Resources Analyst, and Procurement Buyer. The job-specific groups are job roles from Oracle Applications Cloud mapped as groups in Oracle Identity Cloud Service. See Job-Specific Groups.
- Other groups that are generic groups created in Oracle Identity Cloud Service not specifically for Oracle Fusion Analytics Warehouse, such as IDCS_Administrators and All_Tenant_Users.

System Groups

Oracle Fusion Analytics Warehouse creates the system groups in Oracle Identity Cloud Service while provisioning your Oracle Fusion Analytics Warehouse instance.

System groups are associated with system roles that provide a set of privileges to users. The system roles serve two purposes:

- Authenticate a user to Oracle Fusion Analytics Warehouse.
- License a user to use Oracle Fusion Analytics Warehouse based on the system group they are assigned.

See System Roles.

You must add the users to the corresponding system groups based on the tasks they perform in Oracle Fusion Analytics Warehouse. See Assign Users to a Group and Assign Groups to Users. Use the Users or Groups tabs on the Security page to add users to these system groups:

System Group Code	System Group Name	Description	Associated Oracle Fusion Analytics Warehouse System Role*
FAW_FUNCTIONAL_ADMINISTRATORS	FAW Functional Administrator	Fusion Analytics Warehouse Functional Administrators	FunctionalAdmin
FAW_SECURITY_ADMINISTRATORS	FAW Security Administrator	Fusion Analytics Warehouse Security Administrators	SecurityAdmin
FAW_MODELERS	FAW Modeler	Fusion Analytics Warehouse Modelers	Modeler
FAW_MODELER_ADMINISTRATORS	FAW Modeler Administrator	Fusion Analytics Warehouse Modeler Administrators	ModelerAdmin
FAW_SERVICE_ADMINISTRATORS	FAW Service Administrator	Fusion Analytics Warehouse Service Administrators	ServiceAdmin
FAW_LICENSED_ERP_AUTHORS	FAW Licensed ERP Authors	Fusion Analytics Warehouse ERP Licensed Authors	Author
FAW_LICENSED_ERP_CONSUMERS	FAW Licensed ERP Consumers	Fusion Analytics Warehouse ERP Licensed Consumers	Consumer
FAW_LICENSED_HCM_AUTHORS	FAW Licensed HCM Authors	Fusion Analytics Warehouse HCM Licensed Authors	Author
FAW_LICENSED_HCM_CONSUMERS	FAW Licensed HCM Consumers	Fusion Analytics Warehouse HCM Licensed Consumers	Consumer

*See System Roles.

Job-Specific Groups

Job-specific groups are job roles synchronized from Oracle Applications Cloud into Oracle Identity Cloud Service.

Oracle Fusion Analytics Warehouse uses the following job-specific groups:

Job-Specific Group Code	Job-Specific Group Name	Description	Associated Application Roles	Associated Application Role Names	Functional Area
ORA_GL_FINANCIAL_ANALYST_JOB	Financial Analyst	Has Author privileges	Author OA4F_FIN_AP_BUSINESS_UNIT_DATA OA4F_FIN_AR_BUSINESS_UNIT_DATA OA4F_FIN_GL_ACCESS_SET_DATA OA4F_FIN_GL_ACCOUNT_ANALYSIS_DUTY OA4F_FIN_GL_BALANCE_SHEET_ANALYSIS_DUTY OA4F_FIN_GL_BUDGETS_ANALYSIS_DUTY OA4F_FIN_GL_DETAIL_TRANSACTIONS_ANALYSIS_DUTY OA4F_FIN_GL_PROFITABILITY_ANALYSIS_DUTY	General Ledger Account Analysis Duty General Ledger Balance Sheet Analysis Duty General Ledger Budget Analysis Duty General Ledger Detail Transactions Analysis Duty Profitability Analysis Duty	GL

Job-Specific Group Code	Job-Specific Group Name	Description	Associated Application Roles	Associated Application Role Names	Functional Area
ORA_GL_GENERAL_ACCOUNTANT_JOB	General Accountant	Has Author privileges	Author OA4F_FIN_AP_BUSINESS_UNIT_DATA OA4F_FIN_AR_BUSINESS_UNIT_DATA OA4F_FIN_GL_ACCESS_SET_DATA OA4F_FIN_GL_ACCOUNT_ANALYSIS_DUTY OA4F_FIN_GL_BALANCE_SHEET_ANALYSIS_DUTY OA4F_FIN_GL_BUDGETS_ANALYSIS_DUTY OA4F_FIN_GL_DETAIL_TRANSACTIONS_ANALYSIS_DUTY OA4F_FIN_GL_PROFITABILITY_ANALYSIS_DUTY	General Ledger Account Analysis Duty General Ledger Balance Sheet Analysis Duty General Ledger Budget Analysis Duty General Ledger Detail Transactions Analysis Duty Profitability Analysis Duty	GL

Job-Specific Group Code	Job-Specific Group Name	Description	Associated Application Roles	Associated Application Role Names	Functional Area
ORA_GL_GENERAL_ACCOUNTING_MANAGER_JOB	General Accounting Manager	Has Author privileges	Author OA4F_FIN_AP_BUSINESS_UNIT_DATA OA4F_FIN_AR_BUSINESS_UNIT_DATA OA4F_FIN_GL_ACCESS_SET_DATA OA4F_FIN_GL_ACCOUNT_ANALYSIS_DUTY OA4F_FIN_GL_BALANCE_SHEET_ANALYSIS_DUTY OA4F_FIN_GL_BUDGETS_ANALYSIS_DUTY OA4F_FIN_GL_DETAIL_TRANSACTIONS_ANALYSIS_DUTY OA4F_FIN_GL_PROFITABILITY_ANALYSIS_DUTY	General Ledger Account Analysis Duty General Ledger Balance Sheet Analysis Duty General Ledger Budget Analysis Duty General Ledger Detail Transactions Analysis Duty Profitability Analysis Duty	GL

Job-Specific Group Code	Job-Specific Group Name	Description	Associated Application Roles	Associated Application Role Names	Functional Area
ORA_AP_ACCOUNTS_PAYABLE_INVOICE_SUPERVISOR_JOB	Account Payable Invoice Supervisor	Has Author privileges	Author OA4F_FIN_AP_BUSINESS_UNIT_DATA OA4F_FIN_GL_ACCESS_SET_DATA OA4F_FIN_AP_AGING_ANALYSIS_DUTY OA4F_FIN_AP_EXPENSES_ANALYSIS_DUTY OA4F_FIN_AP_HOLDS_ANALYSIS_DUTY OA4F_FIN_AP_INVOICES_ANALYSIS_DUTY OA4F_FIN_AP_LIABILITIES_ANALYSIS_DUTY OA4F_FIN_AP_PAYMENTS_ANALYSIS_DUTY OA4F_FIN_GL_ACCOUNT_ANALYSIS_DUTY	Accounts Payable Aging Analysis Duty Accounts Payable Expenses Analysis Duty Accounts Payable Holds Analysis Duty Accounts Payable Invoices Analysis Duty Accounts Payable Liabilities Analysis Duty Accounts Payable Payments Analysis Duty General Ledger Account Analysis Duty	AP

Job-Specific Group Code	Job-Specific Group Name	Description	Associated Application Roles	Associated Application Role Names	Functional Area
ORA_AP_ACCOUNTS_PAYABLE_PAYMENT_SUPERVISOR_JOB	Account Payable Payment Supervisor	Has Author privileges	Author OA4F_FIN_AP_BUSINESS_UNIT_DATA OA4F_FIN_GL_ACCESS_SET_DATA OA4F_FIN_AP_AGING_ANALYSIS_DUTY OA4F_FIN_AP_EXPENSES_ANALYSIS_DUTY OA4F_FIN_AP_HOLDS_ANALYSIS_DUTY OA4F_FIN_AP_INVOICES_ANALYSIS_DUTY OA4F_FIN_AP_LIABILITIES_ANALYSIS_DUTY OA4F_FIN_AP_PAYMENTS_ANALYSIS_DUTY OA4F_FIN_GL_ACCOUNT_ANALYSIS_DUTY	Accounts Payable Aging Analysis Duty Accounts Payable Expenses Analysis Duty Accounts Payable Holds Analysis Duty Accounts Payable Invoices Analysis Duty Accounts Payable Liabilities Analysis Duty Accounts Payable Payments Analysis Duty General Ledger Account Analysis Duty	AP

Job-Specific Group Code	Job-Specific Group Name	Description	Associated Application Roles	Associated Application Role Names	Functional Area
ORA_AP_ACCOUNTS_PAYABLE_MANAGER_JOB	Accounts Payable Manager	Has Author privileges	Author OA4F_FIN_AP_BUSINESS_UNIT_DATA OA4F_FIN_AP_AGING_ANALYSIS_DUTY OA4F_FIN_AP_EXPENSES_ANALYSIS_DUTY OA4F_FIN_AP_HOLDS_ANALYSIS_DUTY OA4F_FIN_AP_INVOICES_ANALYSIS_DUTY OA4F_FIN_AP_LIABILITIES_ANALYSIS_DUTY OA4F_FIN_AP_PAYMENTS_ANALYSIS_DUTY OA4F_PROC_BUSINESS_UNIT_DATA OA4F_PROC_SPEND_ANALYSIS_DUTY	Accounts Payable Aging Analysis Duty Accounts Payable Expenses Analysis Duty Accounts Payable Holds Analysis Duty Accounts Payable Invoices Analysis Duty Accounts Payable Liabilities Analysis Duty Accounts Payable Payments Analysis Duty Procurement Spend Analysis Duty	AP Procurement

Job-Specific Group Code	Job-Specific Group Name	Description	Associated Application Roles	Associated Application Role Names	Functional Area
ORA_AP_ACCOUNTS_PAYABLE_SPECIALIST_JOB	Accounts Payable Specialist	Has Author privileges	Author OA4F_FIN_AP_BUSINESS_UNIT_DATA OA4F_FIN_AP_AGING_ANALYSIS_DUTY OA4F_FIN_AP_EXPENSES_ANALYSIS_DUTY OA4F_FIN_AP_HOLDS_ANALYSIS_DUTY OA4F_FIN_AP_INVOICES_ANALYSIS_DUTY OA4F_FIN_AP_LIABILITIES_ANALYSIS_DUTY OA4F_FIN_AP_PAYMENTS_ANALYSIS_DUTY OA4F_PROC_BUSINESS_UNIT_DATA OA4F_PROC_SPEND_ANALYSIS_DUTY	Accounts Payable Aging Analysis Duty Accounts Payable Expenses Analysis Duty Accounts Payable Holds Analysis Duty Accounts Payable Invoices Analysis Duty Accounts Payable Liabilities Analysis Duty Accounts Payable Payments Analysis Duty Procurement Spend Analysis Duty	AP Procurement

Job-Specific Group Code	Job-Specific Group Name	Description	Associated Application Roles	Associated Application Role Names	Functional Area
ORA_AP_ACCOUNTS_PAYABLE_SUPERVISOR_JOB	Accounts Payable Supervisor	Has Author privileges	Author OA4F_FIN_AP_BUSINESS_UNIT_DATA OA4F_FIN_AP_AGING_ANALYSIS_DUTY OA4F_FIN_AP_EXPENSES_ANALYSIS_DUTY OA4F_FIN_AP_HOLDS_ANALYSIS_DUTY OA4F_FIN_AP_INVOICES_ANALYSIS_DUTY OA4F_FIN_AP_LIABILITIES_ANALYSIS_DUTY OA4F_FIN_AP_PAYMENTS_ANALYSIS_DUTY OA4F_PROC_BUSINESS_UNIT_DATA OA4F_PROC_SPEND_ANALYSIS_DUTY	Accounts Payable Aging Analysis Duty Accounts Payable Expenses Analysis Duty Accounts Payable Holds Analysis Duty Accounts Payable Invoices Analysis Duty Accounts Payable Liabilities Analysis Duty Accounts Payable Payments Analysis Duty Procurement Spend Analysis Duty	AP Procurement
ORA_AR_ACCOUNTS_RECEIVABLE_MANAGER_JOB	Accounts Receivable Manager	Has Author privileges	Author OA4F_FIN_AR_BUSINESS_UNIT_DATA OA4F_FIN_AR_ADJUSTMENTS_ANALYSIS_DUTY OA4F_FIN_AR_AGING_ANALYSIS_DUTY OA4F_FIN_AR_APPLICATIONS_ANALYSIS_DUTY OA4F_FIN_AR_CREDITMEMO_ANALYSIS_DUTY OA4F_FIN_AR_TRANSACTIONS_ANALYSIS_DUTY OA4F_FIN_AR_REVENUE_ANALYSIS_DUTY	Accounts Receivable Adjustments Analysis Duty Accounts Receivable Aging Analysis Duty Accounts Receivable Receipts and Applications Analysis Duty Accounts Receivable Credit Memo Applications Analysis Duty Accounts Receivable Transactions Analysis Duty Accounts Receivable Revenue Analysis Duty	AR

Job-Specific Group Code	Job-Specific Group Name	Description	Associated Application Roles	Associated Application Role Names	Functional Area
ORA_AR_ACCOUNTS_RECEIVABLE_SPECIALIST_JOB	Accounts Receivable Specialist	Has Author privileges	Author OA4F_FIN_AR_BUSINESS_UNIT_DATA OA4F_FIN_AR_ADJUSTMENTS_ANALYSIS_DUTY OA4F_FIN_AR_AGING_ANALYSIS_DUTY OA4F_FIN_AR_APPLICATIONS_ANALYSIS_DUTY OA4F_FIN_AR_CREDITMEMO_ANALYSIS_DUTY OA4F_FIN_AR_TRANSACTIONS_ANALYSIS_DUTY OA4F_FIN_AR_REVENUE_ANALYSIS_DUTY	Accounts Receivable Adjustments Analysis Duty Accounts Receivable Aging Analysis Duty Accounts Receivable Receipts and Applications Analysis Duty Accounts Receivable Credit Memo Applications Analysis Duty Accounts Receivable Transactions Analysis Duty Accounts Receivable Revenue Analysis Duty	AR
ORA_EXM_EXPENSE_MANAGER_JOB	Expense Manager	Has Author privileges	Author OA4F_FIN_AP_BUSINESS_UNIT_DATA OA4F_FIN_EXM_EMPLOYEE_EXPENSE_ANALYSIS_DUTY	Employee Expense Analysis Duty	EXM
ORA_PO_BUYER_JOB	Buyer	Has Author privileges	Author OA4F_PROC_BUSINESS_UNIT_DATA OA4F_PROC_SPEND_ANALYSIS_DUTY OA4F_PROC_PURCHASE_ORDER_ANALYSIS_DUTY OA4F_PROC_PURCHASE_AGREEMENT_ANALYSIS_DUTY OA4F_PROC_PURCHASE_RECEIPTS_ANALYSIS_DUTY	Procurement Spend Analysis Duty Procurement Purchase Order Analysis Duty Procurement Purchase Agreement Analysis Duty Procurement Purchase Receipts Analysis Duty	Procurement

Job-Specific Group Code	Job-Specific Group Name	Description	Associated Application Roles	Associated Application Role Names	Functional Area
ORA_PO_PROCUREMENT_MANAGER_JOB	Procurement Manager	Has Author privileges	Author OA4F_PROC_BUSINESS_UNIT_DATA OA4F_PROC_SPEND_ANALYSIS_DUTY OA4F_PROC_PURCHASE_ORDER_ANALYSIS_DUTY OA4F_PROC_PURCHASE_AGREEMENT_ANALYSIS_DUTY OA4F_PROC_PURCHASE_RECEIPTS_ANALYSIS_DUTY	Procurement Spend Analysis Duty Procurement Purchase Order Analysis Duty Procurement Purchase Agreement Analysis Duty Procurement Purchase Receipts Analysis Duty	Procurement
ORA_PON_CATEGORY_MANAGER_JOB	Category Manager	Has Author privileges	Author OA4F_PROC_BUSINESS_UNIT_DATA OA4F_PROC_SPEND_ANALYSIS_DUTY OA4F_PROC_PURCHASE_ORDER_ANALYSIS_DUTY OA4F_PROC_PURCHASE_AGREEMENT_ANALYSIS_DUTY OA4F_PROC_PURCHASE_RECEIPTS_ANALYSIS_DUTY	Procurement Spend Analysis Duty Procurement Purchase Order Analysis Duty Procurement Purchase Agreement Analysis Duty Procurement Purchase Receipts Analysis Duty	Procurement

Job-Specific Group Code	Job-Specific Group Name	Description	Associated Application Roles	Associated Application Role Names	Functional Area
ORA_PO_PROCUREMENT_CONTRACT_ADMIN_JOB	Procurement Contract Administrator	Has Author privileges	Author OA4F_PROC_BUSINESS_UNIT_DATA OA4F_PROC_SPEND_ANALYSIS_DUTY OA4F_PROC_PURCHASE_ORDER_ANALYSIS_DUTY OA4F_PROC_PURCHASE_AGREEMENT_ANALYSIS_DUTY OA4F_PROC_PURCHASE_RECEIPTS_ANALYSIS_DUTY	Procurement Spend Analysis Duty Procurement Purchase Order Analysis Duty Procurement Purchase Agreement Analysis Duty Procurement Purchase Receipts Analysis Duty	Procurement
ORA_PO_PURCHASE_ANALYSIS_ABSTRACT	Purchase Analysis	Has Author privileges	Author OA4F_PROC_BUSINESS_UNIT_DATA OA4F_PROC_REQ_BUSINESS_UNIT_DATA OA4F_PROC_SPEND_ANALYSIS_DUTY OA4F_PROC_PURCHASE_ORDER_ANALYSIS_DUTY OA4F_PROC_PURCHASE_RECEIPTS_ANALYSIS_DUTY	Procurement Spend Analysis Duty Procurement Purchase Order Analysis Duty Procurement Purchase Receipts Analysis Duty	Procurement

Job-Specific Group Code	Job-Specific Group Name	Description	Associated Application Roles	Associated Application Role Names	Functional Area
ORA_INV_WAREHOUSE_MANAGER_JOB	Warehouse Manager	Has Author privileges	Author OA4F_PROC_INV_ORG_DATA OA4F_PROC_PURCHASE_RECEIPTS_ANALYSIS_DUTY OA4F_SCM_INV_BUSINESS_UNIT_DATA OA4F_SCM_INV_INVENTORY_ORG_DATA OA4F_SCM_INV_INVENTORY_TRANSACTIONS_ANALYSIS_DUTY OA4F_SCM_INV_INVENTORY_BALANCES_ANALYSIS_DUTY FAW_SCM_Author	Procurement Inventory Organization Data Security Procurement Purchase Receipts Analysis Duty Supply Chain Business Unit Data Security for Materials Management Business Function Supply Chain Inventory Organization Data Security Inventory Transactions Analysis Duty Inventory Balances Analysis Duty	Procurement Inventory
ORA_FA_ASSET_ACCOUNTING_MANAGE_JOB	Asset Accounting Manager	Has Author privileges	OA4F_FIN_FA_ASSET_BOOK_DATA OA4F_FIN_FA_ASSETS_ANALYSIS_DUTY OA4F_FIN_FA_ASSETS_TRANSACTIONS_DUTY	Fixed Asset Book Data Security Fixed Asset Analysis Duty Fixed Asset Transactions Analysis Duty	FA
ORA_FA_ASSET_ACCOUNTANT_JOB	Asset Accountant	Has Author privileges	OA4F_FIN_FA_ASSET_BOOK_DATA OA4F_FIN_FA_ASSETS_ANALYSIS_DUTY OA4F_FIN_FA_ASSETS_TRANSACTIONS_DUTY	Fixed Asset Book Data Security Fixed Asset Analysis Duty Fixed Asset Transactions Analysis Duty	FA

Job-Specific Group Code	Job-Specific Group Name	Description	Associated Application Roles	Associated Application Role Names	Functional Area
ORA_PJF_PROJECT_MANAGER_JOB	Project Manager	Has Author privileges	OA4F_PPM_PROJECT_MANAGER_DATA OA4F_PPM_PROJECTS_COSTS_DUTY OA4F_PPM_PROJECTS_COMMITMENTS_DUTY	Project Manager Data Security Project Costing Costs Analysis Duty Project Costing Commitments Analysis Duty	Projects
ORA_PJF_PROJECT_ADMINISTRATOR_JOB	Project Administrator	Has Author privileges	OA4F_PPM_PROJECT_BUSINESS_UNIT_DATA OA4F_PPM_PROJECT_ORGANIZATION_DATA OA4F_PPM_PROJECTS_COSTS_DUTY OA4F_PPM_PROJECTS_COMMITMENTS_DUTY	Project Business Unit Data Security Project Organization Data Security Project Costing Costs Analysis Duty Project Costing Commitments Analysis Duty	Projects
ORA_PJF_PROJECT_ACCOUNTANT_JOB	Project Accountant	Has Author privileges	OA4F_PPM_EXPENDITURE_BUSINESS_UNIT_DATA OA4F_PPM_PROJECTS_COSTS_DUTY OA4F_PPM_PROJECTS_COMMITMENTS_DUTY	Project Expenditure Business Unit Data Security Project Costing Costs Analysis Duty Project Costing Commitments Analysis Duty	Projects
ORA_CST_COST_ACCOUNTANT_JOB	Cost Accountant	Has Author privileges	Author OA4F_SCM_CST_COSTING_ORG_DATA OA4F_SCM_CST_INVENTORY_VALUATIONS_ANALYSIS_DUTY OA4F_SCM_CST_ITEM_COST_ANALYSIS_DUTY	Supply Chain Costing Organization Data Security Inventory Valuations Analysis Duty Item Cost Analysis Duty	Cost Management

Job-Specific Group Code	Job-Specific Group Name	Description	Associated Application Roles	Associated Application Role Names	Functional Area
ORA_INV_INVENTORY_MANAGER_JOB	Inventory Manager	Has Author privileges	Author FAW_SCM_Author OA4F_SCM_INV_BUSINESS_UNIT_DATA OA4F_SCM_INV_INVENTORY_ORG_DATA OA4F_SCM_INV_INVENTORY_BALANCES_ANALYSIS_DUTY OA4F_SCM_INV_INVENTORY_TRANSACTIONS_ANALYSIS_DUTY	Supply Chain Business Unit Data Security for Materials Management Business Function Supply Chain Inventory Organization Data Security Inventory Balances Analysis Duty Inventory Transactions Analysis Duty	Inventory
ORA_DOO_ORDER_ADMINISTRATOR_JOB	Order Administrator	Has Author privileges	Author OA4F_SCM_OM_BUSINESS_UNIT_DATA OA4F_SCM_OM_SALES_ORDER_ANALYSIS_DUTY OA4F_SCM_OM_HOLDS_ANALYSIS_DUTY	Supply Chain Business Unit Data Security for Sales Business function Order Management Analysis Duty Order Management Holds Analysis Duty	Order Management
ORA_DOO_ORDER_MANAGER_JOB	Order Manager	Has Author privileges	Author OA4F_SCM_OM_BUSINESS_UNIT_DATA OA4F_SCM_OM_SALES_ORDER_ANALYSIS_DUTY OA4F_SCM_OM_HOLDS_ANALYSIS_DUTY	Supply Chain Business Unit Data Security for Sales Business function Order Management Analysis Duty Order Management Holds Analysis Duty	Order Management
ORA_FND_INTEGRATION_SPECIALIST_JOB	Integration Specialist	Individual responsible for planning, coordinating, and supervising all activities related to the integration of enterprise information systems. Has author privileges.	Author OA4F_COMMON_DATA_ADMIN_ANALYSIS_DUTY	-	Common

Job-Specific Group Code	Job-Specific Group Name	Description	Associated Application Roles	Associated Application Role Names	Functional Area
ORA_PER_HUMAN_RESOURCE_ANALYST_JOB	Human Resource Analyst	Has Author privileges	Author OA4F_HCM_HR_ANALYST_VIEW_ALL_DATA OA4F_HCM_ABSENCE_ANALYSIS_DUTY OA4F_HCM_ABSENCE_DIV_ANALYSIS_DUTY OA4F_HCM_GOALS_ANALYSIS_DUTY OA4F_HCM_PERFORMANCE_ANALYSIS_DUTY OA4F_HCM_PROFILE_ANALYSIS_DUTY OA4F_HCM_SALARY_BASIS_ANALYSIS_DUTY OA4F_HCM_SALARY_BASIS_DIV_ANALYSIS_DUTY OAF4_HCM_GAINS_LOSS_TRANSACTION_ANALYSIS_DUTY OA4F_HCM_WORKFORCE_CORE_ANALYSIS_DUTY	Absence Management Analysis Duty Absence Management Diversity Analysis Duty Goal Management Analysis Duty Performance Management Analysis Duty Profile Management Analysis Duty Salary Basis Analysis Duty Salary Basis Diversity Analysis Duty Workforce Core Analysis Duty Workforce Gains and Losses Transaction Analysis Duty	Workforce

Job-Specific Group Code	Job-Specific Group Name	Description	Associated Application Roles	Associated Application Role Names	Functional Area
ORA_PER_LINE_MANAGER_ABSTRACT	Line Manager	Has Author privileges	Author OA4F_HCM_LINE_MANAGER_DATA OA4F_HCM_ABSENCE_ANALYSIS_DUTY OA4F_HCM_ABSENCE_DIV_ANALYSIS_DUTY OA4F_HCM_GOALS_ANALYSIS_DUTY OA4F_HCM_PERFORMANCE_ANALYSIS_DUTY OA4F_HCM_PROFILE_ANALYSIS_DUTY OA4F_HCM_SALARY_BASIS_ANALYSIS_DUTY OA4F_HCM_SALARY_BASIS_DIV_ANALYSIS_DUTY OAF4_HCM_GAINS_LOSS_TRANSACTION_ANALYSIS_DUTY OA4F_HCM_WORKFORCE_CORE_ANALYSIS_DUTY	Absence Management Analysis Duty Absence Management Diversity Analysis Duty Goal Management Analysis Duty Performance Management Analysis Duty Profile Management Analysis Duty Salary Basis Analysis Duty Salary Basis Diversity Analysis Duty Workforce Core Analysis Duty Workforce Gains and Losses Transaction Analysis Duty	Workforce

Job-Specific Group Code	Job-Specific Group Name	Description	Associated Application Roles	Associated Application Role Names	Functional Area
ORA_PER_HUMAN_RESOURCE_SPECIALIST_JOB	Human Resource Specialist	Has Author privileges	OA4F_HCM_VIEW_ALL_DATA OA4F_HCM_ABSENCE_ANALYSIS_DUTY OA4F_HCM_ABSENCE_DIV_ANALYSIS_DUTY OA4F_HCM_GOALS_ANALYSIS_DUTY OA4F_HCM_PERFORMANCE_ANALYSIS_DUTY OA4F_HCM_PROFILE_ANALYSIS_DUTY OA4F_HCM_SALARY_BASIS_ANALYSIS_DUTY OA4F_HCM_SALARY_BASIS_DIV_ANALYSIS_DUTY OA4F_HCM_WORKFORCE_CORE_ANALYSIS_DUTY OAF4_HCM_GAINS_LOSS_TRANSACTION_ANALYSIS_DUTY Author	Absence Management Analysis Duty Absence Management Diversity Analysis Duty Goal Management Analysis Duty Performance Management Analysis Duty Profile Management Analysis Duty Salary Basis Analysis Duty Salary Basis Diversity Analysis Duty Workforce Core Analysis Duty Workforce Gains and Losses Transaction Analysis Duty	Workforce

Job-Specific Group Code	Job-Specific Group Name	Description	Associated Application Roles	Associated Application Role Names	Functional Area
ORA_PER_HUMAN_RESOURCE_MANAGER_JOB	Human Resource Manager	Has Author privileges	OA4F_HCM_VIEW_ALL_DATA OA4F_HCM_ABSENCE_ANALYSIS_DUTY OA4F_HCM_ABSENCE_DIV_ANALYSIS_DUTY OA4F_HCM_GOALS_ANALYSIS_DUTY OA4F_HCM_PERFORMANCE_ANALYSIS_DUTY OA4F_HCM_PROFILE_ANALYSIS_DUTY OA4F_HCM_SALARY_BASIS_ANALYSIS_DUTY OA4F_HCM_SALARY_BASIS_DIV_ANALYSIS_DUTY OA4F_HCM_WORKFORCE_CORE_ANALYSIS_DUTY OAF4_HCM_GAINS_LOSS_TRANSACTION_ANALYSIS_DUTY Author	Absence Management Analysis Duty Absence Management Diversity Analysis Duty Goal Management Analysis Duty Performance Management Analysis Duty Profile Management Analysis Duty Salary Basis Analysis Duty Salary Basis Diversity Analysis Duty Workforce Core Analysis Duty Workforce Gains and Losses Transaction Analysis Duty	Workforce
ORA_IRC_RECRUITER_JOB	Recruiter	Has Author privileges	OA4F_HCM_REC_REQ_DATA OA4F_HCM_REC_ANALYSIS_DUTY Author	Recruitment Analysis Duty	Talent
ORA_IRC_RECRUITING_MANAGER_JOB	Recruiting Manager	Has Author privileges	OA4F_HCM_REC_REQ_DATA OA4F_HCM_REC_ANALYSIS_DUTY Author	Recruitment Analysis Duty	Talent

Job-Specific Group Code	Job-Specific Group Name	Description	Associated Application Roles	Associated Application Role Names	Functional Area
ORA_IRC_HIRING_MANAGER_ABSTRACT	Hiring Manager	Has Author privileges	OA4F_HCM_REC_REQ_DATA OA4F_HCM_REC_ANALYSIS_DUTY Author	Recruitment Analysis Duty	Talent
ORA_CMP_COMPENSATION_MANAGER_JOB	Compensation Manager	Gets access to workforce compensation subject area	OA4F_HCM_COMPENSATION_WORKSHEET_MANAGER_DATA OA4F_HCM_COMPENSATION_DIV_ANALYSIS_DUTY OA4F_HCM_COMPENSATION_ANALYSIS_DUTY	Compensation Worksheet Manager Data Security Workforce Compensation Diversity Analysis Duty Workforce Compensation Analysis Duty	HCM-Workforce Rewards-Workforce Compensation

Other Groups

The Other Groups category refers to groups created in Oracle Identity Cloud Service for purposes such as administrating Oracle Cloud Infrastructure and Oracle Identity Cloud Service.

These groups are not necessarily Oracle Fusion Analytics Warehouse-specific but you can use them in Oracle Fusion Analytics Warehouse. Examples of this category are the "IDCS_Administrators" and "All_Tenant_Users" groups.

About Application Roles

Application roles consist of duty and data roles.

Duty roles define the duties of a job as an entitlement to perform a particular action; for example, access to an AP Transactions subject area. Data roles provide access to the row-level data in the warehouse tables. Data roles group the users based on the functional access they have through a particular job role and a particular dimension of data. For example, a group of users based on invoices relevant only to their business unit.

Duty Roles

The predefined duty roles to secure the predefined subject areas and the predefined front-end objects are:

Duty Role Code	Duty Role Name	Duty Role Description	Functional Area	Gets access to Subject Area Display Name OR Associated Role
OA4F_FIN_GL_BALANCE_SHEET_ANALYSIS_DUTY	General Ledger Balance Sheet Analysis Duty	Object security role to control presentation catalog access to Financials GL Balance Sheet subject area.	GL	Financials - GL Balance Sheet
OA4F_FIN_GL_PROFITABILITY_ANALYSIS_DUTY	Profitability Analysis Duty	Object security role to control presentation catalog access to Financials GL Profitability subject area.	GL	Financials - GL Profitability
OA4F_FIN_GL_DETAIL_TRANSACTIONS_ANALYSIS_DUTY	General Ledger Detail Transactions Analysis Duty	Object security role to control presentation catalog access to Financials GL Detail Transactions subject area.	GL	Financials - GL Detail Transactions
OA4F_FIN_GL_BUDGETS_ANALYSIS_DUTY	General Ledger Budget Analysis Duty	Object security role to control presentation catalog access to Financials GL Budgets subject area.	GL	Financials - GL Budgets
OA4F_FIN_GL_ACCOUNT_ANALYSIS_DUTY	General Ledger Account Analysis Duty	Object security role to control presentation catalog access to GL Account Analysis subject area.	GL	Financials - GL Account Analysis
OA4F_FIN_AP_AGING_ANALYSIS_DUTY	Accounts Payable Aging Analysis Duty	Object security role to control presentation catalog access to Financials Accounts Payable Aging subject area.	AP	Financials – AP Aging
OA4F_FIN_AP_INVOICES_ANALYSIS_DUTY	Accounts Payable Invoices Analysis Duty	Object security role to control presentation catalog access to Financials Accounts Payable Invoices subject area.	AP	Financials – AP Invoices

Duty Role Code	Duty Role Name	Duty Role Description	Functional Area	Gets access to Subject Area Display Name OR Associated Role
OA4F_FIN_AP_LIABILITIES_ANALYSIS_DUTY	Accounts Payable Liabilities Analysis Duty	Object security role to control presentation catalog access to Financials Accounts Payable Liabilities subject area.	AP	Financials – AP Liabilities
OA4F_FIN_AP_PAYMENTS_ANALYSIS_DUTY	Accounts Payable Payments Analysis Duty	Object security role to control presentation catalog access to Financials Accounts Payable Payments subject area.	AP	Financials – AP Payments
OA4F_FIN_AP_EXPENSES_ANALYSIS_DUTY	Accounts Payable Expenses Analysis Duty	Object security role to control presentation catalog access to Financials Accounts Payable Expenses subject area.	AP	Financials - AP Expenses
OA4F_FIN_AP_HOLDS_ANALYSIS_DUTY	Accounts Payable Holds Analysis Duty	Object security role to control presentation catalog access to Financials Accounts Payable Holds subject area.	AP	Financials - AP Holds
OA4F_FIN_AR_AGING_ANALYSIS_DUTY	Accounts Receivable Aging Analysis Duty	Object security role to control presentation catalog access to Financials Accounts Receivable Aging subject area.	AR	Financials – AR Aging
OA4F_FIN_AR_TRANSACTIONS_ANALYSIS_DUTY	Accounts Receivable Transactions Analysis Duty	Object security role to control presentation catalog access to Financials Accounts Receivable Transactions subject area.	AR	Financials – AR Transactions

Duty Role Code	Duty Role Name	Duty Role Description	Functional Area	Gets access to Subject Area Display Name OR Associated Role
OA4F_FIN_AR_APPLICATIONS_ANALYSIS_DUTY	Accounts Receivable Receipts and Applications Analysis Duty	Object security role to control presentation catalog access to Financials Accounts Receivable Receipts and Applications subject area.	AR	Financials – AR Receipts and Applications
OA4F_FIN_AR_CREDITMEMO_ANALYSIS_DUTY	Accounts Receivable Credit Memo Applications Analysis Duty	Object security role to control presentation catalog access to Financials Accounts Receivable Credit Memo Applications subject area.	AR	Financials – AR Credit Memo Applications
OA4F_FIN_AR_ADJUSTMENTS_ANALYSIS_DUTY	Accounts Receivable Adjustments Analysis Duty	Object security role to control presentation catalog access to Financials Accounts Receivable Adjustments subject area.	AR	Financials – AR Adjustments
OA4F_FIN_AR_REVENUE_ANALYSIS_DUTY	Accounts Receivable Revenue Analysis Duty	Object security role to control presentation catalog access to Financials Accounts Receivable Revenue subject area.	AR	Financials - AR Revenue
OA4F_FIN_EXM_EMPLOYEE_EXPENSE_ANALYSIS_DUTY	Employee Expense Analysis Duty	Object security role to control presentation catalog access to Financials - EXM Employee Expenses subject area.	EXM	Financials - EXM Employee Expenses
OA4F_PROC_SPEND_ANALYSIS_DUTY	Procurement Spend Analysis Duty	Object security role to control presentation catalog access to Procurement Spend subject area.	Procurement	Procurement - Spend

Duty Role Code	Duty Role Name	Duty Role Description	Functional Area	Gets access to Subject Area Display Name OR Associated Role
OA4F_PROC_PURCHASE_ORDER_ANALYSIS_DUTY	Procurement Purchase Order Analysis Duty	Object security role to control presentation catalog access to Procurement Purchase Order subject area.	Procurement	Procurement - Purchase Orders
OA4F_PROC_PURCHASE_AGREEMENT_ANALYSIS_DUTY	Procurement Purchase Agreement Analysis Duty	Object security role to control presentation catalog access to Procurement Purchase Agreement subject area.	Procurement	Procurement - Agreements
OA4F_PROC_PURCHASE_RECEIPTS_ANALYSIS_DUTY	Procurement Purchase Receipts Analysis Duty	Object security role to control presentation catalog access to Procurement Purchase Receipts subject area.	Procurement	Procurement - Receipts
OA4F_PROC_REQUISITIONS_ANALYSIS_DUTY	Procurement Requisitions Analysis Duty	Object security role to control presentation catalog access to Procurement Requisitions subject area.	Procurement	Procurement - Requisitions
OA4F_PPM_PROJECTS_COSTS_DUTY	Project Costing Costs Analysis Duty	Object security role to control presentation catalog access to Projects Costs subject area.	Projects	PPM - Project Costs
OA4F_FIN_FA_ASSETS_ANALYSIS_DUTY	Fixed Asset Analysis Duty	Object security role to control presentation catalog access to Financials Assets Analysis subject area.	FA	Financials - Assets Analysis
OA4F_FIN_FA_ASSETS_TRANSACTIONS_DUTY	Fixed Asset Transactions Analysis Duty	Object security role to control presentation catalog access to Financials Assets Transactions subject area.	FA	Financials - Assets Transactions

Duty Role Code	Duty Role Name	Duty Role Description	Functional Area	Gets access to Subject Area Display Name OR Associated Role
OA4F_PPM_PROJECTS_COMMITMENTS_DUTY	Project Costing Commitments Analysis Duty	Object security role to control presentation catalog access to Projects Commitments subject area.	Projects	PPM - Project Commitments
OA4F_SCM_INV_INVENTORY_BALANCES_ANALYSIS_DUTY	Inventory Balances Analysis Duty	Object security role to control presentation catalog access to Inventory Balances subject area.	Inventory	SCM - Inventory Balances
OA4F_SCM_INV_INVENTORY_TRANSACTIONS_ANALYSIS_DUTY	Inventory Transactions Analysis Duty	Object security role to control presentation catalog access to Inventory Transactions subject area.	Inventory	SCM - Inventory Transactions
OA4F_SCM_CST_INVENTORY_VALUATIONS_ANALYSIS_DUTY	Inventory Valuations Analysis Duty	Object security role to control presentation catalog access to Inventory Valuations subject area.	Cost Management	SCM - Inventory Valuations
OA4F_SCM_CST_ITEM_COST_ANALYSIS_DUTY	Item Cost Analysis Duty	Object security role to control presentation catalog access to Item Cost subject area.	Cost Management	SCM - Item Cost
OA4F_SCM_OM_SALES_ORDER_ANALYSIS_DUTY	Order Management Analysis Duty	Object security role to control presentation catalog access to Sales Orders subject area.	Order Management	SCM - Sales Orders
OA4F_SCM_OM_HOLDS_ANALYSIS_DUTY	Order Management Holds Analysis Duty	Object security role to control presentation catalog access to Sales Holds subject area.	Order Management	SCM - Sales Orders Holds

Duty Role Code	Duty Role Name	Duty Role Description	Functional Area	Gets access to Subject Area Display Name OR Associated Role
OA4F_COMMON_DATA_ADMIN_ANALYSIS_DUTY	Data Warehouse Refresh Analysis Duty	Object security role to control presentation catalog access to Common - Warehouse Refresh subject area.	Common	Common - Warehouse Refresh
OA4F_COMMON_USAGE_TRACKING_DUTY	Usage Tracking Analysis Duty	Object security role to control presentation catalog access to Common - Usage Tracking subject area.	Common	Common - Usage Tracking
OA4F_HCM_WORKFORCE_CORE_ANALYSIS_DUTY	Workforce Core Analysis Duty	Object security role to control presentation catalog access to Workforce Core subject area.	Workforce	Workforce - Core
OA4F_HCM_WORKFORCE_CORE_DIV_ANALYSIS_DUTY	Workforce Core Diversity Analysis Duty	Used to prevent access to Diversity related folders from Workforce Core subject area. It cannot be used in conjunction with Workforce Core Analysis Duty.	Workforce	Workforce - Core
OAF4_HCM_GAINS_LOSS_TRANSACTION_ANALYSIS_DUTY	Workforce Gains and Losses Transaction Analysis Duty	Object security role to control presentation catalog access to Workforce Gains and Losses subject area.	Workforce	Workforce Gains and Losses
OA4F_HCM_GAINS_LOSS_TRANSACTION_DIV_ANALYSIS_DUTY	Workforce Gains and Losses Diversity Transaction Analysis Duty	Used to prevent access to Diversity related folders from Workforce Gains and Losses subject area. It cannot be used in conjunction with Workforce Gains and Losses Transaction Analysis Duty.	Workforce	Workforce Gains and Losses

Duty Role Code	Duty Role Name	Duty Role Description	Functional Area	Gets access to Subject Area Display Name OR Associated Role
OA4F_HCM_REC_ANALYSIS_DUTY	Recruitment Analysis Duty Role	Object security role to control presentation catalog access to HCM - Talent Acquisition subject area.	Talent	HCM - Talent Acquisition
OA4F_HCM_ABSENCE_ANALYSIS_DUTY	Absence Management Analysis Duty	Object security role to control presentation catalog access to Workforce Absence Management subject area.	Absence Management	HCM - Workforce Absence Management
OA4F_HCM_ABSENCE_DIV_ANALYSIS_DUTY	Absence Management Diversity Analysis Duty	Used to prevent access to Diversity related folders from Workforce Absence Management subject area. It cannot be used in conjunction with Absence Management Analysis Duty	Absence Management	HCM - Workforce Absence Management
OA4F_HCM_COMPENSATION_ANALYSIS_DUTY	Workforce Compensation Analysis Duty	Object security role to control presentation catalog access to Workforce Rewards - Workforce Compensation subject area.	Workforce Compensation	HCM- Workforce Rewards- Workforce Compensation
OA4F_HCM_COMPENSATION_DIV_ANALYSIS_DUTY	Workforce Compensation Diversity Analysis Duty	Used to prevent access to Diversity related folders from Workforce Rewards - Workforce Compensation subject area. It cannot be used in conjunction with Workforce Compensation Analysis Duty.	Workforce Compensation	HCM- Workforce Rewards- Workforce Compensation

Duty Role Code	Duty Role Name	Duty Role Description	Functional Area	Gets access to Subject Area Display Name OR Associated Role
OA4F_HCM_PROFILE_ANALYSIS_DUTY	Profile Management Analysis Duty	Object security role to control presentation catalog access to Talent Profile subject area.	Profile Management	HCM - Talent Profile
OA4F_HCM_PROFILE_DIV_ANALYSIS_DUTY	Profile Management Analysis Duty	Used to prevent access to Diversity related folders from Talent Profile subject area. It cannot be used in conjunction with Profile Management Analysis Duty	Profile Management	HCM - Talent Profile
OA4F_HCM_PERFORMANCE_ANALYSIS_DUTY	Performance Management Analysis Duty	Object security role to control presentation catalog access to Performance Management subject area.	Talent	HCM - Performance Management HCM - Check-Ins See "Separate duty roles for Performance Management and Check-Ins subject areas" in What's New for Oracle Fusion Analytics Warehouse.
OA4F_HCM_PERFORMANCE_ANALYSIS_DIV_DUTY	Performance Management Diversity Analysis Duty	Used to prevent access to Diversity related folders from Performance Management subject area. It cannot be used in conjunction with Performance Management Analysis Duty	Talent	HCM - Performance Management HCM - Check-Ins
OA4F_HCM_GOALS_ANALYSIS_DUTY	Goal Management Analysis Duty	Object security role to control presentation catalog access to Goals and Career Development subject area.	Talent	Goal Management Analysis Duty

Duty Role Code	Duty Role Name	Duty Role Description	Functional Area	Gets access to Subject Area Display Name OR Associated Role
OA4F_HCM_GOALS_ANALYSIS_DIV_DUTY	Goal Management Diversity Analysis Duty	Used to prevent access to Diversity related folders from Goals and Career Development subject area. It cannot be used in conjunction with Goal Management Analysis Duty	Talent	Goal Management Analysis Duty
OA4F_HCM_TALENT_REVIEW_ANALYSIS_DUTY	Talent Review Management Analysis Duty	Object security role to control presentation catalog access to HCM - Talent Review Meetings subject area.	Talent	HCM - Talent Review Meetings
OA4F_HCM_TALENT_REVIEW_DIV_ANALYSIS_DUTY	Talent Review Management Diversity Analysis Duty	Used to prevent access to Diversity related folders from HCM - Talent Review Meetings subject area. You can't use it in conjunction with the Talent Review Management Analysis Duty role.	Talent	HCM - Talent Review Meetings
OA4F_HCM_SUCCESSION_ANALYSIS_DUTY	Succession Management Analysis Duty	Object security role to control presentation catalog access to HCM-Succession Management subject area.	Talent	HCM - Succession Management
OA4F_HCM_SUCCESSION_DIV_ANALYSIS_DUTY	Succession Management Diversity Analysis Duty	Used to prevent access to Diversity related folders from HCM-Succession Management subject area. You can't use it in conjunction with the Succession Management Analysis Duty role.	Talent	HCM - Succession Management
OA4F_HCM_CHECKINS_ANALYSIS_DUTY	Check Ins Analysis Duty	Object security role to control presentation catalog access to Check-Ins subject area.	Talent	HCM - Check-Ins

Duty Role Code	Duty Role Name	Duty Role Description	Functional Area	Gets access to Subject Area Display Name OR Associated Role
OA4F_HCM_CHECKINS_ANALYSIS_DIV_DUTY	Check Ins Diversity Analysis Duty	Used to prevent access to Diversity related folders from Check-Ins subject area. You can't use it in conjunction with the Performance Management Analysis Duty role.	Talent	HCM - Check-Ins

Data Roles

The predefined data roles used to secure the predefined objects, custom facts, and custom dimensions are:

Data Role Code	Data Role Name	Description	Functional Area
OA4F_FIN_GL_ACCESS_SET_DATA	General Ledger Access Set Data Security	Data security role to access ledger set based data	GL, AP, and AR
OA4F_FIN_AP_BUSINESS_UNIT_DATA	Accounts Payable Business Unit Data Security	Data security role to access accounts payable business unit based data	AP, EXM, and Procurement
OA4F_FIN_AR_BUSINESS_UNIT_DATA	Accounts Receivable Business Unit Data Security	Data security role to access accounts receivable business unit based data	AR
OA4F_PROC_BUSINESS_UNIT_DATA	Procurement Business Unit Data Security	Data security role to access procurement business unit based data	Procurement
OA4F_PROC_INV_ORG_DATA	Procurement Inventory Organization Data Security	Data security role to access Receipts subject area basis the receiving organization	Procurement
OA4F_PROC_REQ_BUSINESS_UNIT_DATA	Procurement Requisition Business Unit Data Security	Data security role to access procurement Requisition business unit based data	Procurement
OA4F_PPM_PROJECT_BUSINESS_UNIT_DATA	Project Business Unit Data Security	Data security role to access PPM Project business unit based data	Projects
OA4F_PPM_PROJECT_ORGANIZATION_DATA	Project Organization Data Security	Data security role to access PPM Project Organization hierarchy based data	Projects

Data Role Code	Data Role Name	Description	Functional Area
OA4F_PPM_EXPENDITURE_BUSINESS_UNIT_DATA	Project Expenditure Business Unit Data Security	Data security role to access PPM Project Expenditure business unit based data	Projects
OA4F_PPM_PROJECT_MANAGER_DATA	Project Manager Data Security	Data security based on the Projects that the Project Manager is assigned	Projects
OA4F_FIN_FA_ASSET_BOOK_DATA	Fixed Asset Book Data Security	Data security role to access fixed asset book based data.	FA
OA4F_SCM_OM_BUSINESS_UNIT_DATA	Supply Chain Business Unit Data Security for Sales Business function	Data security role to access supply chain order management business unit based data	Order Management
OA4F_SCM_INV_BUSINESS_UNIT_DATA	Supply Chain Business Unit Data Security for Materials Management Business Function	Data security role to access supply chain inventory business unit based data	Inventory
OA4F_SCM_INV_INVENTORY_ORG_DATA	Supply Chain Inventory Organization Data Security	Data security role to access supply chain inventory organization based data	Inventory
OA4F_SCM_CST_COSTING_ORG_DATA	Supply Chain Costing Organization Data Security	Data security role to access supply chain costing organization based data	Cost Management
OA4F_HCM_LINE_MANAGER_DATA	Oracle Fusion Analytics Warehouse HR Line Manager Data Role	Human Capital Management data security policy for the supervisor hierarchy	Workforce
OA4F_HCM_VIEW_ALL_DATA	Oracle Fusion Analytics Warehouse View All Data Role	Human Capital Management data security policy to view all data	Workforce
OA4F_HCM_COUNTRY_DATA	Oracle Fusion Analytics Warehouse HCM Country Data Security	Human Capital Management data security policy for the country data security context	Workforce
OA4F_HCM_LEGAL_EMPLOYER_DATA	Oracle Fusion Analytics Warehouse HCM Legal Employer Data Role	Human Capital Management data security policy for the legal employer data security context	Workforce
OA4F_HCM_DEPARTMENT_DATA	Oracle Fusion Analytics Warehouse HCM Department Data Role	Human Capital Management data security policy for the department data security context	Workforce

Data Role Code	Data Role Name	Description	Functional Area
OA4F_HCM_BUSINESS_UNIT_DATA	Oracle Fusion Analytics Warehouse HCM Business unit Data Role	Human Capital Management data security policy for the business unit data security context	Workforce
OA4F_HCM_REC_REQ_DATA	Recruitment Job Requisition Data Security	Recruitment job requisition data security	Talent Acquisition
OA4F_HCM_REC_ALL_REQ_DATA	Recruitment Job Requisition View All Data Security	Recruitment job requisition to view all data security	Talent Acquisition
OA4F_HCM_REC_NON_RESTRICTED_APP_DATA	Recruitment Non Restricted Job Application Data Security	Recruitment data role to report on non restricted job applications	Talent Acquisition
OA4F_HCM_REC_ALL_APP_DATA	Recruitment Job Application View All Data Security	Recruitment data role to report on all job applications	Talent Acquisition
OA4F_HCM_COMPENSATION_WORKSHEET_MANAGER_DATA	Compensation Worksheet Manager Data Security	Compensation worksheet manager data security	Workforce Compensation
OA4F_HCM_SUCCESSION_LINE_MANAGER_DATA	Succession Supervisor Data Role	Succession Supervisor Data Role	Succession

System Roles

The system roles for Oracle Fusion Analytics Warehouse available in Oracle Identity Cloud Service through provisioning of Oracle Fusion Analytics Warehouse are:

Role Name	Role Description	Purpose	Permissions
Administrator	Tenant administrator for service instances	Creates and manages Oracle Fusion Analytics Warehouse instances and administers Oracle Identity Cloud Service users and roles.	• Creates and manages Oracle Fusion Analytics Warehouse instances • Administers Oracle Identity Cloud Service users and roles • Has no access to the Data Pipeline user interface • Has no access to the Data Security user interface • Has no access to the Job Monitoring Console user interface • Has no access to the Console menu • Has no access to user and group administration • Has no access to decks, cards, KPIs, visualizations, projects, and content

Role Name	Role Description	Purpose	Permissions
Service Administrator	Oracle Fusion Analytics Warehouse service administrator	Customer facing (Snapshots, Connections, System Settings) administrator access to Oracle Fusion Analytics Warehouse.	• Can't create snapshots or modify the data model file (RPD) • Can access the Data Pipeline user interface • Can access the Data Security user interface • Has no access to the Job Monitoring console • Can access the Console menu • Can access the user and group administration pages • Can access the Semantic Model Extensions user interface • Has read-only access to the ready-to-use Oracle Analytics Cloud objects (visualization projects, dashboards, and analyses) • Requests from Oracle Fusion Analytics Warehouse to Oracle Analytics Cloud are routed through the Service Administrator user • Can create, update, and delete the Oracle Analytics Cloud content • Has read-only access to the ready-to-use KPIs • Can create, update, and delete KPIs • Can create, update, and delete decks and cards • Can share decks and cards

Role Name	Role Description	Purpose	Permissions
			• Can create Oracle Analytics Publisher reports • Has no access to data modeling • Has access to create Oracle Analytics Cloud connections to other non-Oracle Applications sources, such as Excel files and Google drive • Has access to create Oracle Analytics Cloud datasets

Role Name	Role Description	Purpose	Permissions
Functional Administrator	Oracle Fusion Analytics Warehouse functional administrator	Performs functional configuration (pipeline, reporting) in Oracle Fusion Analytics Warehouse.	• Can access the Data Pipeline user interface • Has no access to the Data Security user interface • Has no access to the Job Monitoring console • Can access the Console menu • Has no access to user and role administration • Has no access to the Semantic Model Extensions user interface • Has no access to the ready-to-use Oracle Analytics Cloud objects (visualization projects, dashboards, and analyses) • Has no access to the ready-to-use KPIs • Has no access to decks, KPIs, and Oracle Analytics Cloud projects • Can't create any Oracle Analytics Cloud content and KPIs • Can't create, update, and delete decks and cards • Can't share decks and cards • Has no access to Oracle Analytics Publisher • Has no access to data modeling • Has no access to create Oracle Analytics Cloud connections • Has no access to create Oracle Analytics Cloud datasets

Role Name	Role Description	Purpose	Permissions
Security Administrator	Oracle Fusion Analytics Warehouse security administrator	Administers system roles and data security.	• Has no access the Data Pipeline user interface • Has access to the Data Security user interface • Has no access to the Job Monitoring console • Can access the Console menu • Has access to user and group administration • Has no access to the Semantic Model Extensions user interface • Has no access to the ready-to-use Oracle Analytics Cloud objects (visualization projects, dashboards, and analyses) • Has no access to the ready-to-use KPIs • Has no access to decks, KPIs, and Oracle Analytics Cloud projects • Can't create any Oracle Analytics Cloud content and KPIs • Can't create, update, and delete decks and cards • Can't share decks and cards • Has no access to Oracle Analytics Publisher and data modeling • Has no access to create Oracle Analytics Cloud connections • Has no access to create Oracle Analytics Cloud datasets

Role Name	Role Description	Purpose	Permissions
Modeler Administrator	Oracle Fusion Analytics Warehouse data model administrator	Promote data model (RPD) customization to the Oracle Analytics Cloud instance.	• Has no access to the Data Pipeline user interface • Has no access to the Data Security user interface • Has no access to the Job Monitoring console • Can access the Console menu • Has no access to user and role administration • Can access the Semantic Model Extensions user interface • Can access the ready-to-use Oracle Analytics Cloud objects (visualization projects, dashboards, and analyses) • Can access the ready-to-use KPIs • Can create KPIs • Can create Oracle Analytics Cloud content • Can't create, update, and delete decks and cards • Can't share decks and cards • Can't create Oracle Analytics Publisher reports • Has access to data modeling • Can apply the data model file (repository file) to the Test environment • Can create Oracle Analytics Cloud connections • Can create Oracle Analytics Cloud datasets

Role Name	Role Description	Purpose	Permissions
Modeler	Oracle Fusion Analytics Warehouse modeler	Modify the semantic model to bring in custom dimensions and attributes.	• Has no access to the Data Pipeline user interface • Has no access to the Data Security user interface • Has no access to the Job Monitoring console • Can access the Console menu • Has no access to user and role administration • Can access the Semantic Model Extensions user interface • Can access the ready-to-use Oracle Analytics Cloud objects (visualization projects, dashboards, and analyses) • Can access the ready-to-use KPIs • Can create Oracle Analytics Cloud content • Can create KPIs • Can't create, update, and delete decks and cards • Can't share decks and cards • Can't create Oracle Analytics Publisher reports • Has access to data modeling • Can create Oracle Analytics Cloud connections • Can create Oracle Analytics Cloud datasets

Role Name	Role Description	Purpose	Permissions
Author	Oracle Fusion Analytics Warehouse author	Create and edit KPIs, cards, decks, visualization projects, reports, and dashboards.	• Has no access to the Data Pipeline user interface • Has no access to the Data Security user interface • Has no access to the Job Monitoring console • Has no access to the Console menu • Has no access to user and role administration • Has no access to the Semantic Model Extensions user interface • Has read-only access to the ready-to-use Oracle Analytics Cloud objects (visualization projects, dashboards, and analyses); if you need a change, then create a copy using "Save As" • Has read-only access to the ready-to-use KPIs • Can edit the custom Oracle Analytics Cloud objects (visualization projects, dashboards, and analyses) • Can edit the custom KPIs • Can change the filter values for existing visualization projects • Can add filters for existing visualization projects • Can create and edit Oracle Analytics Cloud content, KPIs, decks, and cards

Role Name	Role Description	Purpose	Permissions
			• Can delete custom KPIs, decks, and cards • Can consume KPIs, cards, and decks created by other users on which they have access permissions • Can share decks and cards • Can create Oracle Analytics Publisher reports • Has no access to data modeling • Has no access to create Oracle Analytics Cloud connections • Has access to create Oracle Analytics Cloud datasets

Role Name	Role Description	Purpose	Permissions
Consumer	Oracle Fusion Analytics Warehouse consumer	Read access to Oracle Analytics Cloud content and can create cards and decks.	• Has no access to the Data Pipeline user interface • Has no access to the Data Security user interface • Has no access to the Job Monitoring console • Has no access to the Console menu • Has no access to user and role administration • Has no access to the Semantic Model Extensions user interface • Has read-only access to the ready-to-use Oracle Analytics Cloud objects (visualization projects, dashboards, and analyses) • Has read-only access to the ready-to-use KPIs • Has read-only access to the custom Oracle Analytics Cloud objects (visualization projects, dashboards, and analyses) • Has read-only access to the custom KPIs • Can change the filter values for the existing visualization projects • Can't add filters for the existing visualization projects • Can't create any Oracle Analytics Cloud content • Can't create any KPIs

Role Name	Role Description	Purpose	Permissions
			• Can create, update, and delete decks and cards • Can share decks and cards • Has read-only access to Oracle Analytics Publisher • Has no access to data modeling • Has no access to create Oracle Analytics Cloud connections • Has access to create Oracle Analytics Cloud datasets

Refer to the full list of privileges in Mapping of System Roles to Permissions in Fusion Analytics Warehouse. This document is updated typically for each release of Oracle Fusion Analytics Warehouse. Ensure that you are signed into Cloud Customer Connect prior to viewing this document.

About Data Access through Security Assignments

You grant the data security assignments at the user-level.

Data security assignments apply data filters to display only the data corresponding to the security assignment values assigned to the users. For example, John Smith and Marie Pierce are both Accounts Payable Manager in an organization, but John Smith needs to see only the US business unit-specific data and Marie needs to see only the UK business unit-specific data. Even though both have the same functional role, their data security assignments differ. John is assigned all the US business units and Marie is assigned all the UK business units only.

You ensure data-level security with a combination of data roles, security context, and security assignments assigned to the user. Oracle Fusion Analytics Warehouse maps a security context 1:1 onto a data role. You grant the data security assignments within a security context. The user must have the data role through the group assigned to them in order to have access to the security context and its corresponding list of values to pick from. You assign a user one or more job-specific groups. The groups have data roles mapped to them, and when querying data, the semantic layer applies the data filters.

For Enterprise Resource Planning, the ledger, payables business unit, and receivables business unit values are restricted by the ledgers that you selected while setting up the report parameters. To establish the security permissions, you'd need to map users to security assignments. If a user doesn't have security assignment values mapped, then the user doesn't get to see any datasets corresponding to the job role (and implicitly data role) assigned to them. When you add data security assignments to a user, you ensure that the user can access specific data within a security context, such as ledger, payables business unit, or receivables business unit. See Set Up the Reporting Configurations for Enterprise Resource Planning.

For Human Capital Management, the data security is based on the line manager hierarchy defined in Oracle Applications Cloud for the user having the Line Manager role. For Human Capital Management, the data security is based on the talent acquisition hierarchy defined in Oracle Applications Cloud for the user having the Job Application or Job Requisition roles. All users can see their own records using the HCM Show context. A user with the HR Analyst role has access to all Human Capital Management data and no security restrictions are applied to the Human Capital Management data set. A user with the Hiring Manager role has access to non-restricted job applications, while users with the Recruiter and Recruiting Manager role can view all job applications. The business unit, legal employer, department, country security context, and related data roles are restricted by contexts and assigned predicate values. To establish the security permissions, you'd need to map users to security assignments

Typical Workflow to Manage Users, Groups, Application Roles, and Data Access

Follow these tasks as a guide to manage users, groups, application roles, and data access.

Task	Description	More Information
Create users for Oracle Fusion Analytics Warehouse in Oracle Identity Cloud Service	Users for Oracle Fusion Analytics Warehouse must exist in the Oracle Identity Cloud Service instance associated with your Oracle Fusion Analytics Warehouse instance. You create users in the Oracle Identity Cloud Service instance in several ways.	See Create Users
License the users to access Oracle Fusion Analytics Warehouse	An Oracle Fusion Analytics Warehouse user is an Oracle Fusion Analytics Warehouse licensed user. You license a user in Oracle Fusion Analytics Warehouse when you assign one of the Oracle Fusion Analytics Warehouse system groups to them. You must assign at least one system group to a user to enable them to perform relevant tasks in Oracle Fusion Analytics Warehouse.	See License the Users to Access Oracle Fusion Analytics Warehouse
Create groups	As a security administrator, you can create custom groups to meet your business requirements.	See Create a Group

Task	Description	More Information
Create application roles	Application roles consist of data and duty roles. As a security administrator, you can create custom duty and data roles using the Security pages to secure subject areas and data respectively. However, as a modeler, you configure these custom application roles using the Security Configuration section of the Semantic Model Extensions pages.	See Create an Application Role
Associate groups and application roles	You must map the predefined and custom job-specific groups to the application roles (duty and data roles) to inherit the privileges and permissions to access the objects and data in Oracle Fusion Analytics Warehouse.	See Add Application Roles to a Group and Assign Groups to Application Roles
Associate users and groups	You must associate users and groups as the groups assigned to the users provide them the access to Oracle Fusion Analytics Warehouse.	See Assign Groups to Users and Assign Users to a Group
Add security assignments to a user	Access to data is granted at user level. Within a security context, users get assigned security assignments to filter their data access level. You can grant security assignments to the users for the predefined security contexts currently. For custom data access, the data filters are implicit through the custom data security framework. See Custom Security in Fusion Analytics Warehouse.	See Add Security Assignments to a User and Manage Users for a Data Security Assignment

Manage Users

As a service or security administrator, you must ensure that you add users with applicable permissions to work with Oracle Fusion Analytics Warehouse.

Topics:

- Create Users
- License the Users to Access Oracle Fusion Analytics Warehouse
- Update the User Details
- Remove a User's Access to Oracle Fusion Analytics Warehouse
- Automatically Assign Licensed Groups to Users

- Assign Groups to Users
- Remove Groups Assigned to a User
- Add Security Assignments to a User
- Remove Security Assignments Granted to a User
- Copy Data Security Assignments

Create Users

Users for Oracle Fusion Analytics Warehouse must exist in the Oracle Identity Cloud Service instance associated with your Oracle Fusion Analytics Warehouse instance.

You create users in the Oracle Identity Cloud Service instance in the following ways:

- Synchronize users from your Oracle Applications Cloud instance to the Oracle Identity Cloud Service instance.
- Manually create users in the Oracle Identity Cloud Service instance.
- Manually create users in the Oracle Identity Cloud Service instance using the Oracle Fusion Analytics Warehouse user interface.

Synchronize Users from Your Oracle Applications Cloud Instance

Synchronize users from your Oracle Applications Cloud instance to the Oracle Identity Cloud Service instance associated with your Oracle Fusion Analytics Warehouse instance.

See Set Up Provisioning with Single Sign-On.

Create Users in Oracle Identity Cloud Service

Create users in the Oracle Identity Cloud Service instance associated with your Oracle Fusion Analytics Warehouse instance.

See Create User Accounts in *Administering Oracle Identity Cloud Service*.

Create Users in Oracle Fusion Analytics Warehouse

Manually create users in the Oracle Identity Cloud Service instance using the Oracle Fusion Analytics Warehouse user interface.

When you add a user using the Oracle Fusion Analytics Warehouse user interface, the user is available in the Oracle Identity Cloud Service instance associated with your Oracle Fusion Analytics Warehouse instance. You later assign the applicable licensed groups to the user that enable the user to perform certain tasks in Oracle Fusion Analytics Warehouse.

See System Groups.

1. Sign in to Oracle Fusion Analytics Warehouse.
2. On the Home page, open the **Navigator** menu, click **Console**, and then click **Security** under **Service Administration**. You see the Security page with the Users tab displaying the existing users.
3. On the Users tab, click **Add User**.

4. In Add User, click **Create a New User**.
5. In Add User, provide the user details and click **Next**.
6. Select the check box for each of the licensed groups that you want to assign to the user and click **Finish**.

License the Users to Access Oracle Fusion Analytics Warehouse

You must assign at least one system group to a user to enable them to perform relevant tasks in Oracle Fusion Analytics Warehouse. System groups provide a set of privileges to perform tasks in Oracle Fusion Analytics Warehouse.

Currently, new licensed users with predefined job-specific groups get the Author role by default.

Based on the entitlements and the number of licenses that you purchased, you need to assign the users to either the HCM or ERP Licensed Author and HCM or ERP Licensed Consumer system groups. Additionally, if the users need to perform administrative tasks, you must assign those respective users to the administration-related groups.

See System Groups.

1. Sign in to Oracle Fusion Analytics Warehouse.
2. On the Home page, open the **Navigator** menu, click **Console**, and then click **Security** under **Service Administration**. You see the Security page with the Users tab displaying the existing users.
3. On the Users tab, click **Add User**.
4. In Add User, search for a user and select the user or select a user from the displayed list of users.
5. Optional: If you don't find a specific user, then click **Create a New User** to create the user and assign the applicable system groups.

   See Create Users in Oracle Fusion Analytics Warehouse .
6. Click **Next**.
7. Select the check box for each of the licensed groups that you want to assign to the user and click **Finish**.

Update the User Details

You can update the user details such as first name, last name, and email.

1. Sign in to Oracle Fusion Analytics Warehouse.
2. On the Home page, open the **Navigator** menu, click **Console**, and then click **Security** under **Service Administration**. You see the Security page with the Users tab displaying the existing users.
3. Select a user from the users listed under the Users tab or use the Search option and then click **User Profile**.
4. In User Details, update the applicable information and click **Save**.

> **Note:**
>
> You can't change the user name after specifying it initially.

Remove a User's Access to Oracle Fusion Analytics Warehouse

Remove a user's access to Oracle Fusion Analytics Warehouse by removing their assignment to a system group.

A user assigned to a system group consumes an Oracle Fusion Analytics Warehouse license. When a user no longer needs to consume the Oracle Fusion Analytics Warehouse license according to their entitlement, you can revoke the user's assignment to the applicable system groups. The user won't be able to access Oracle Fusion Analytics Warehouse as the user's access to Oracle Fusion Analytics Warehouse depends on the system group assigned to them. When you remove all system groups from the user, then the user can no longer be authenticated to Oracle Fusion Analytics Warehouse.

1. Sign in to Oracle Fusion Analytics Warehouse.
2. On the Home page, open the **Navigator** menu, click **Console**, and then click **Security** under **Service Administration**. You see the Security page with the Users tab displaying the existing users.
3. Select a user from the displayed users or use the Search option to search for and select a user.
4. Click **Remove User**.

Automatically Assign Licensed Groups to Users

You can automatically assign the Oracle Fusion Analytics Warehouse licensed groups to the Oracle Applications Cloud users when they're synchronized from your Oracle Applications Cloud instance to the Oracle Identity Cloud Service instance to provide these users immediate access to Oracle Fusion Analytics Warehouse.

When you enable the synchronization of Oracle Applications Cloud with the Oracle Identity Cloud Service instance associated with your Oracle Fusion Analytics Warehouse instance, all the Oracle Applications Cloud groups are visible on the Security page in Oracle Fusion Analytics Warehouse. You must map the Oracle Applications Cloud custom groups to the Oracle Fusion Analytics Warehouse author and consumer licensed groups. Later when you synchronize the users from Oracle Applications Cloud to Oracle Identity Cloud Service, Oracle Fusion Analytics Warehouse selects those users, checks if the mapped Oracle Applications Cloud custom groups are assigned to those users, and then automatically assigns the corresponding licensed groups to those users.

You must ensure that the custom roles are available in Oracle Applications Cloud and that you've assigned these roles to the users in Oracle Applications Cloud.

1. Sign in to your service.
2. In Oracle Fusion Analytics Warehouse, open the **Navigator** menu, click **Console**, and then click **Security** under **Service Administration**.

   You see the Security page.

3. On the Security page, click the Groups tab, and then search for the *FAW Licensed* groups.
4. Select a licensed group, for example FAW Licensed HCM Authors.

   You see the Users and Groups tabs for the selected licensed group in the right pane.
5. Click the Groups tab under the licensed group.
6. Click **Add Mapping**.
7. In Add Source System Role Mapping, search for and select the Oracle Applications Cloud custom groups that you want to map to the licensed group, for example the *FAW Licensed HCM Authors* licensed group.
8. Click **Save**.
9. After mapping the Oracle Applications Cloud custom groups to the Oracle Fusion Analytics Warehouse author and consumer licensed groups, under the Groups tab, select the frequency of the synchronization of the Oracle Fusion Analytics Warehouse licensed groups with the new Oracle Applications Cloud users.
10. Optional: Under the Groups tab, click **Apply Changes Now**.

    Oracle Fusion Analytics Warehouse adds the Oracle Fusion Analytics Warehouse licensed groups to the new Oracle Applications Cloud users.

Assign Groups to Users

You can assign one or more users to one or more groups.

1. Sign in to Oracle Fusion Analytics Warehouse.
2. On the Home page, open the **Navigator** menu, click **Console**, and then click **Security** under **Service Administration**. You see the Security page with the Users tab displaying the existing users.
3. Select a user from the displayed users or use the Search option to search for and select a user.
4. In the user details region, click **Assign Groups**.
5. In Assign Groups, search for a group or select from the list of groups displayed in this dialog.
6. Select the check box for one or more groups and click **Assign**.

Remove Groups Assigned to a User

Remove groups assigned to a user if the user no longer requires the authorization to access Oracle Fusion Analytics Warehouse, specific permissions for tasks, and functional access.

1. Sign in to Oracle Fusion Analytics Warehouse.
2. On the Home page, open the **Navigator** menu, click **Console**, and then click **Security** under **Service Administration**. You see the Security page with the Users tab displaying the existing users.
3. Select a user from the displayed users or use the Search option to search for and select a user.

   You see the groups assigned to the user under the Groups tab in the user details region.

4. Under the Groups tab, select the check box for one or more groups and click **Remove Group**.

Add Security Assignments to a User

Data security assignments apply data filters to display only the data corresponding to the security assignment values assigned to the users. You can assign a single user multiple security assignment values.

Before you add a security assignment to a user, you must ensure these:

- The user has the appropriate group assigned to them.
- The group has the appropriate data role to assign security values.

1. Sign in to your service.
2. In Oracle Fusion Analytics Warehouse, open the **Navigator** menu, click **Console**, and then click **Security** under **Service Administration**.

   You see the Security page with the Users tab displaying the existing users.
3. Search for a user or select from the list of users displayed under the Users tab.

   You see the security assignments granted to the user under the Security Assignments tab in the user details region.
4. Click **Grant Assignment**.
5. In Assign Security Assignments, select the security context for which you want to add data security assignments to the user. For example, ledgers or specific business units like AP business unit.
6. From the list of security assignments that you see based on the security context that you selected, select the values that you want to add to the selected user.

> **Note:**
>
> The Grant Assignment process appends the values that you selected to the existing assignments.

Remove Security Assignments Granted to a User

As a security administrator, you can remove security assignments that you had previously assigned.

1. Sign in to your service.
2. In Oracle Fusion Analytics Warehouse, open the **Navigator** menu, click **Console**, and then click **Security** under **Service Administration**.

   You see the Security page with the Users tab displaying the existing users.
3. Search for a user or select from the list of users displayed under the Users tab.

   You see the security assignments granted to the user under the Security Assignments tab in the user details region.
4. Select the check box for one or more security assignments that you'd like to remove from the selected users and click **Remove Assignment**.

5. In Remove Assignment, click **Remove Assignment**.

Copy Data Security Assignments

As a service or security administrator, you can copy data security assignments from one user to another user.

1. Sign in to your service.
2. In Oracle Fusion Analytics Warehouse, open the **Navigator** menu, click **Console**, and then click **Security** under **Service Administration**.

   You see the Security page with the Users tab displaying the existing users.
3. Select a user from the users listed under the Users tab or search and select a user.
4. Click **Copy Assignments**.
5. In Copy Security Assignments From Another User:
   a. Under Copy From, search for and select a user to copy access from.
   b. Under Copy Security Access, you see the context-specific security assignments that would be copied.
6. Click **Copy**.

> **Note:**
>
> Bulk assignments may take some time to process. Monitor the Activity tab on the Security page.

Manage Groups

You must ensure to map application roles to groups and add user memberships to groups. This enables users to access the applicable objects and data in Oracle Fusion Analytics Warehouse and perform various tasks.

Topics:

- Create a Group
- Remove a Group
- Add Application Roles to a Group
- Copy Application Roles to a Group
- Remove Application Roles from a Group
- Create an Application Role While Mapping
- Assign Users to a Group
- Remove Users from a Group

Create a Group

As a security administrator, you can create custom groups to meet your business requirements.

You can create custom groups in the following ways:

- If you created custom groups in Oracle Applications Cloud, then you can synchronize them into the Oracle Identity Cloud Service instance associated with your Oracle Fusion Analytics Warehouse instance and thereby make them available in Oracle Fusion Analytics Warehouse.
- You can create them manually in the Oracle Identity Cloud Service instance associated with your Oracle Fusion Analytics Warehouse instance using the Security pages in Oracle Fusion Analytics Warehouse.

1. Sign in to your service.
2. In Oracle Fusion Analytics Warehouse, open the **Navigator** menu, click **Console**, and then click **Security** under **Service Administration**.

   You see the Security page.
3. On the Security page, click the Groups tab, and then click **New Group**.
4. In Create a New Group , enter a group name and description.
5. Click **Save**.

Remove a Group

You can remove only the custom groups. When you remove a custom group, Oracle Fusion Analytics Warehouse removes the associated mappings of the application roles.

1. Sign in to your service.
2. In Oracle Fusion Analytics Warehouse, open the **Navigator** menu, click **Console**, and then click **Security** under **Service Administration**.

   You see the Security page.
3. On the Security page, click the Groups tab.
4. In the Groups region, search for a group and select it or select a group from the displayed list of groups.
5. Click **Remove Group**.

Add Application Roles to a Group

As a security administrator, you can map the application roles available for Oracle Fusion Analytics Warehouse with the predefined and custom groups. This enables the groups to inherit the security setup at each application role level.

1. Sign in to your service.
2. In Oracle Fusion Analytics Warehouse, open the **Navigator** menu, click **Console**, and then click **Security** under **Service Administration**.

   You see the Security page.

3. On the Security page, click the Groups tab.
4. In the Groups region, search for a group and select it or select a group from the displayed list of groups.
5. In the group details region, click the Application Roles tab, and then click **Add Mapping**.
6. In Add Application Role Mappings, search for an application role and select it or select from the displayed list of application roles.

   You can filter the display to view only the data or duty roles or view both role types.
7. Click **Save**.

Copy Application Roles to a Group

As a security administrator, you can copy the application roles available from an existing group to another group.

1. Sign in to your service.
2. In Oracle Fusion Analytics Warehouse, open the **Navigator** menu, click **Console**, and then click **Security** under **Service Administration**.

   You see the Security page.
3. On the Security page, click the **Groups** tab.
4. In the Groups list, select the group to which you want to apply the application roles
5. On the Groups tab, click **Copy Role Mappings**.
6. In Copy Role Mappings From Another Group, search for a group that you want to copy roles from.
7. Click the roles in the Copy Roles area to select or deselect them, and then click **Copy**.
8. Click **Save**.

   The application roles apply to the selected group.

Remove Application Roles from a Group

You can remove capabilities inherited by a group from the application roles mapped to it.

1. Sign in to your service.
2. In Oracle Fusion Analytics Warehouse, open the **Navigator** menu, click **Console**, and then click **Security** under **Service Administration**.

   You see the Security page.
3. On the Security page, under the Groups tab, select a group from the displayed list of groups or search for a group.
4. In the group details region, click the Application Roles tab.
5. Select one or more roles from the displayed list or search for application roles and select the applicable role.
6. Click **Remove Mapping**.
7. In Remove Role Mapping, click **Remove Mapping**.

Create an Application Role While Mapping

While mapping application roles to groups, if you need an application role that isn't available in Oracle Fusion Analytics Warehouse, then you can create an application role.

1. Sign in to your service.
2. In Oracle Fusion Analytics Warehouse, open the **Navigator** menu, click **Console**, and then click **Security** under **Service Administration**.

   You see the Security page.
3. On the Security page, under the Groups tab, select a group from the displayed list of groups or search for a group.
4. In the group details region, click the Application Roles tab, and then click **New Application Role**.
5. In Create a New Application Role , enter the application role name and specify the role type as data or duty.
6. Click **Save**.

This role is mapped onto this group. You can map the new application role to other groups too. See Add Application Roles to a Group.

Assign Users to a Group

When you assign users to a group, you create user memberships for the group. You can assign one or more users to one or more groups.

1. Sign in to your service.
2. In Oracle Fusion Analytics Warehouse, open the **Navigator** menu, click **Console**, and then click **Security** under **Service Administration**.

   You see the Security page.
3. On the Security page, click the Groups tab.
4. Search for a group or select from the list of groups displayed under the Groups tab.
5. Click **Assign Users**.
6. In Assign Users, search for a user or select from the list of users displayed in this dialog.
7. Select the check box for one or more users and click **Assign**.

Upload and Download User Group Mappings

You can download user group mapping template files to help you set up user group mappings, and then upload the files to your environment.

You can download "Sample" or "Current" files. Sample provides a csv file with relevant headers to help familiarize you with the types of data you can expect. Current provides a list of current data assignments you can download to your test or production environments. Regardless of the file you download, you need to populate the USERNAME and GROUPNAME columns. Use the Operation column to make bulk

changes to the user group mappings. Don't change any of the header names in the downloaded files. When you're done updating the files, you can upload them to your environment.

1. Sign in to your service.
2. In Oracle Fusion Analytics Warehouse, open the **Navigator** menu, click **Console**, and then click **Uploads** under Application Administration.

   You see the Uploads page.
3. On the Uploads page, click **Download File**, select **User Group Mapping**, and then select the type of file you want to download.
4. Open the csv file you downloaded and populate the fields as required:
   - USERNAME: The username in Oracle Identity Cloud Service.
   - GROUPNAME: The group name in Oracle Identity Cloud Service.
   - OPERATION: Enter ADD or leave it blank to add the user group mappings or enter REMOVE to remove the user group mappings.
5. When you're done updating the security file, save your changes.
6. On the Uploads page, click **Upload File** and then select the applicable file type.
7. Select the file you want to upload and click **Upload File**.

   You can review the status of the upload on the **Uploads** tab.
8. Use the **Actions menu** next to the file name to perform actions on a specific upload file:
   - Click **Properties** to check the upload statistics.
   - Click **Download** to download the file you just uploaded in the event you want to upload the file again.
   - Click **Delete** if a file fails to process and you want to remove the file history.

Remove Users from a Group

You can remove one or more users from a group.

1. Sign in to your service.
2. In Oracle Fusion Analytics Warehouse, open the **Navigator** menu, click **Console**, and then click **Security** under **Service Administration**.

   You see the Security page.
3. On the Security page, click the Groups tab.
4. Search for a group or select from the list of groups displayed under the Groups tab.

   You see the users assigned to the group under the Users tab in the group details region.
5. Select the check box for one or more users and click **Remove User**.

Manage Application Roles

Application roles consist of duty roles for objects security and data roles for data access. You can create, update, and delete application roles and add or remove groups mapped to an application role.

You can map the ready-to use or custom application roles to groups to define the permissions associated with the group. You can configure a custom application role using the Security Configuration section on the Semantic Model Extensions page. See Configure Data Security.

Topics:

- Create an Application Role
- Delete an Application Role
- Assign Groups to Application Roles
- Remove a Group Mapped to an Application Role

Create an Application Role

You can create custom duty and data roles to secure subject areas, front-end objects, and row-level data respectively when the predefined application roles don't meet your business needs.

1. Sign in to your service.
2. In Oracle Fusion Analytics Warehouse, open the **Navigator** menu, click **Console**, and then click **Security** under **Service Administration**.

   You see the Security page.
3. On the Security page, click the Application Roles tab and then click **New Application Role**.
4. In Create a New Application Role, enter the application role name and specify the role type as data or duty.
5. Click **Save**.

Delete an Application Role

You can delete the custom application roles. Upon deletion of the custom application roles, Oracle Fusion Analytics Warehouse deletes the mappings to the groups.

1. Sign in to your service.
2. In Oracle Fusion Analytics Warehouse, open the **Navigator** menu, click **Console**, and then click **Security** under **Service Administration**.

   You see the Security page.
3. On the Security page, click the Application Roles tab.
4. Search for an application role or select from the displayed list of application roles.
5. Click **Remove Application Role**.
6. In the Delete Application Role? dialog, click **Delete Role**.

Assign Groups to Application Roles

Use these instructions to map application roles to groups.

1. Sign in to your service.

2. In Oracle Fusion Analytics Warehouse, open the **Navigator** menu, click **Console**, and then click **Security** under **Service Administration**.

   You see the Security page.
3. On the Security page, click the Application Roles tab.
4. Search for an application role or select from the displayed list of application roles.
5. In the application role details region, click **Assign Groups**.
6. In Add Group Mappings, search for a group and select it or select from the displayed list of groups.
7. Click **Save**.

Remove a Group Mapped to an Application Role

Use these instructions to remove a group mapped to an application role.

1. Sign in to your service.
2. In Oracle Fusion Analytics Warehouse, open the **Navigator** menu, click **Console**, and then click **Security** under **Service Administration**.

   You see the Security page.
3. On the Security page, click the Application Roles tab.
4. Search for an application role or select from the displayed list of application roles.
5. In the application role details region, select the check box for a displayed group or search for a group and select it, and then click **Remove Group**.
6. In the Remove Group Mapping? dialog, click **Remove Group**.

Manage Data Access through Security Assignments

As a security administrator, you need to map data security assignments to users to enable data level access.

Use the Security Assignments tab on the Security page to search for the currently set up data security assignments. You may either search for all records or narrow your search to a specific security context, security value, or user. You can remove a security assignment that you had set up or add new security assignments to a user.

Topics:

- Create a Security Assignment
- Delete a Security Assignment
- Remove Users from a Security Assignment
- Manage Users for a Security Assignment
- Upload and Download Data Security Assignments

Create a Security Assignment

Use these instructions to create a security assignment in a specific security context.

Security contexts are categories that contain values that you can secure a user for. For example, you can define which users have access to which "ledgers" or "departments". In this example, "ledgers" and "departments" are security contexts. Within "ledgers", you can have "ledger A", ledger B", or "ledger C" as values. You first select "ledger", then select a value such as "ledger A", and then select the users to secure for "ledger A". The selected users can access "ledger A".

1. Sign in to your service.
2. In Oracle Fusion Analytics Warehouse, open the **Navigator** menu, click **Console**, and then click **Security** under **Service Administration**.

   You see the Security page.
3. On the Security page, click the Security Assignments tab.

   You see all users who have been granted the security assignments in a specific security context.
4. Click **New Assignment**.
5. In New Security Assignment, under **Select Security Assignments**, select a security context, and then search for a security value or select from the displayed list.Move the selected security assignments to the column on the right.
6. Under **Select Users**, search for a user and select the user and move the user to the column on the right.

   Users are filtered based on the role associated with that context.
7. Click **Add to Cart** and then click **View Cart**.
8. In Security Assignments, click **Apply Assignments**.

   You can grant this security assignment to other users as required. Bulk assignments may take some time to process. See the Security Activity tab for details.

Delete a Security Assignment

Use these instructions to delete a security assignment. When you delete a security assignment, Oracle Fusion Analytics Warehouse removes all users associated with the security assignment.

1. Sign in to your service.
2. In Oracle Fusion Analytics Warehouse, open the **Navigator** menu, click **Console**, and then click **Security** under **Service Administration**.

   You see the Security page.
3. On the Security page, click the Security Assignments tab.
4. Select a security assignment from the displayed list of assignments or search for a security assignment and select it.
5. Click **Delete Assignment**.

Remove Users from a Security Assignment

You can revoke the security assignment granted to one or more users.

1. Sign in to your service.
2. In Oracle Fusion Analytics Warehouse, open the **Navigator** menu, click **Console**, and then click **Security** under **Service Administration**.

   You see the Security page.
3. On the Security page, click the Security Assignments tab.
4. Select a security assignment from the displayed list of assignments or search for a security assignment and select it.
5. In the security assignment details region, select the users from the displayed list of users or search for and select the users.
6. Click **Remove User**.
7. In Revoke User Assignment, click **Revoke Assignment**.

Manage Users for a Security Assignment

As a security administrator, you can manage users for existing data security assignments. In the Manage Users dialog, you can revoke users for an existing assignment or add new users for that assignment.

1. Sign in to your service.
2. In Oracle Fusion Analytics Warehouse, open the **Navigator** menu, click **Console**, and then click **Security** under **Service Administration**.

   You see the Security page.
3. On the Security page, click the Security Assignments tab.
4. Select a security assignment from the displayed list of assignments or search for a security assignment and select it.
5. In the security assignment details region, click **Manage Users**.
6. In Manage Users:
   a. Under **Add User**, search for a user and select the user.
   b. Under **User**, click the **Delete** icon to revoke the user from the assignment.
7. Click **Save**.

Configure Permissions for Metadata and Front-End Objects

Configure the permissions for metadata objects such as subject areas and its elements and front-end objects such as KPIs and decks with the ready-to-use or the custom-created duty roles.

You secure the subject areas and their elements through "Configure Object Permissions", a ready-to-use single step. See Configure Object Permissions.

For the front-end objects such as KPIs and decks, set the permissions individually for each object by adding the applicable duty role and the corresponding access. See Inspect a KPI and Inspect a Deck.

View Activity History

View all the security-related activities or filter them by object type and by date for security audit purposes.

The status icon next to each action shows whether it is in progress, in a warning state (if items in a bulk action failed), failed (and therefore incomplete), or completed successfully. You can also hover over error icons to read the full error message that might assist with troubleshooting.

1. Sign in to your service.
2. In Oracle Fusion Analytics Warehouse, open the **Navigator** menu, click **Console**, and then click **Security** under **Service Administration**.

   You see the Security page.
3. On the Security page, click the **History** tab.

   You see all the activities by object type and date, by default. You can organize the display by sorting columns, searching for descriptive text, selecting a specific object type, or selecting the number of days from the drop-down lists.

Manage Uploads and Downloads

As the cloud account administrator with security administrator or functional administrator or service administrator role, you can upload and download data to your data warehouse using the Upload tile on the Console.

Topics:

- About Uploading and Downloading Your Data
- Upload and Download Data Security Assignments
- Upload and Download Financial Categories
- Upload and Download Financial Category Assignments
- Upload and Download User Group Mappings

About Uploading and Downloading Your Data

The Upload tile in the Console enables the cloud account administrators to upload and download the following:

- Data security assignments
- Financial categories
- Financial category assignments
- User to group associations

You can upload and download only csv files.

Upload and Download Data Security Assignments

You can download security assignment template files to help you set up security assignments, and then upload the files to your environment.

You can download **Sample** or **Current** files. Sample provides a csv file with relevant headers to help familiarize you with the types of data you can expect. Current provides a list of current data assignments you can download to your test or production environments. If you need to filter your options to show specific data security contexts, use the Filter option. Regardless of the file you download, you need to populate these columns: USERNAME, SEC_OBJ_CODE, and SEC_OBI_MEMBER_VAL. Don't change any of the header names in the downloaded files. When you are done updating the files, you can upload them to your environment.

> **Note:**
>
> **Replace existing configuration settings** deletes existing data security assignments.

1. Sign in to your service.
2. In Oracle Fusion Analytics Warehouse, open the **Navigator** menu, click **Console**, and then click **Uploads** under Application Administration.

   You see the Uploads page.
3. On the Uploads page, click **Download File**, select **Data Security Assignments** and then select the type of file you want to download.

   > **Note:**
   >
   > You can also download data security assignment files using the **Download File** button available from the Security Assignments tab on the Security page. In this case, you don't need to specifically select **Data Security Assignments**. Click **Download File**, select the type of file you want to download, and proceed with the remaining steps.
4. Open the csv file you downloaded and populate the fields as required:
   - USERNAME: The user name and user display name.
   - SEC_OBJ_CODE: The object code for which you are adding the data security assignment.
   - SEC_OBJ_MEMBER_VAL: The security assignment member for each context. See Security Object Tables.
5. When you are done updating the file, save your changes.
6. On the Uploads page, click **Upload File** and the applicable file type.

> **Note:**
>
> You can also upload data security assignment files using the **Upload** button available from the Security Assignments tab on the Security page. In this case, you don't need to specifically select **Data Security Assignments**. Click **Upload** and then proceed with the remaining steps.

7. Select whether you want to **Merge to the existing settings** or **Replace existing configuration settings**.
8. Select the file you want to upload and click **Upload File**.

   You can review the status of the upload on the **Uploads** tab.
9. Use the **Actions menu** next to the file name to perform actions on a specific upload file:
   - Click **Properties** to check the upload statistics.
   - Click **Download** to download the file you just uploaded in the event you want to upload the file again.
   - Click **Delete** if a file fails to process and you want to remove the file history.

Security Object Tables

Use these security object codes and associated SQL to access the assignment member for each context.

Security Objects

Table 5-1 Security Object Codes

Security Object	Code
AP Business Units	OA4F_SEC_FIN_AP_BUSINESSUNIT_LIST
AR Business Units	OA4F_SEC_FIN_AR_BUSINESSUNIT_LIST
Cost Organizations	OA4F_SEC_CST_COST_ORG_LIST
FA Asset Book	OA4F_SEC_FIN_FA_ASSET_BOOK_LIST
HCM Business Units	OA4F_SEC_HCM_BUSINESSUNIT_LIST
HCM Country List	OA4F_SEC_HCM_COUNTRY_LIST
HCM Departments	OA4F_SEC_HCM_DEPARTMENT_LIST
HCM Legal Employers	OA4F_SEC_HCM_LEGAL_EMPLOYER_LIST
HCM Show Self Record	OA4F_SEC_HCM_SEE_SELF_RECORD
Inventory Business Units	OA4F_SEC_INV_BUSINESSUNIT_LIST
Inventory Organizations	OA4F_SEC_INV_ORG_TRANSACTIONS_LIST
Ledgers	OA4F_SEC_FIN_LEDGER_LIST
Order Management Business Units	OA4F_SEC_OM_BUSINESS_UNIT_LIST
Project Business Units	OA4F_SEC_PPM_PROJECT_BUSINESSUNIT_LIST
Project Expenditure Business Units	OA4F_SEC_PPM_EXPENDITURE_BUSINESSUNIT_LIST

Table 5-1 (Cont.) Security Object Codes

Security Object	Code
Project Organizations	OA4F_SEC_PPM_PROJECT_ORGANIZATION_LIST
Requisition Business Units	OA4F_SEC_PROC_REQ_BUSINESSUNIT_LIST
Spend Procurement Business Units	OA4F_SEC_PROC_SPEND_PRC_BUSINESSUNIT_LIST

Assignment Member SQL

Table 5-2 Assignment Member SQL

Security Object Code	SQL Code
OA4F_SEC_CST_COST_ORG_LIST	SELECT DISTINCT TL.ORGANIZATION_NAME AS NAME, TL.ORGANIZATION_ID AS VALUE FROM DW_CST_COST_ORG_BOOKS_D D, DW_INTERNAL_ORG_D_TL TL WHERE D.COST_ORG_ID = TL.ORGANIZATION_ID AND TL.LANGUAGE = (SELECT PARAMETER_VALUE FROM DW_CONTENT_PARAM_CONFIG WHERE PARAMETER_CODE='PARAM_GLOBAL_FAW_LANGUAGES') AND D. COST_ORG_ID <>-99999

Table 5-2 (Cont.) Assignment Member SQL

Security Object Code	SQL Code
OA4F_SEC_FIN_AP_BUSINESSUNIT_LIST	SELECT TL.ORGANIZATION_NAME AS NAME,TL.ORGANIZATION_ID AS VALUE FROM DW_LEDGER_D L, DW_INTERNAL_ORG_D D, DW_INTERNAL_ORG_D_TL TL, DW_CONTENT_PARAM_CONFIG PARAM WHERE (D.PAYABLES_INVOICING_BU_FLAG = 'Y' OR D.PAYABLES_PAYMENT_BU_FLAG = 'Y') AND D.ORGANIZATION_ID = TL.ORGANIZATION_ID AND TL.LANGUAGE = (SELECT PARAMETER_VALUE FROM DW_CONTENT_PARAM_CONFIG WHERE PARAMETER_CODE='PARAM_GLOBAL_FAW_LANGUAGES') AND D.PRIMARY_LEDGER = L.LEDGER_NAME AND TO_CHAR(L.LEDGER_ID)=PARAM.PARAMETER_VALUE AND PARAM.PARAMETER_CODE='PARAM_ERP_FINANCIALS_LEDGER_ID_LIST_REPORT' AND PARAM.PARAMETER_VALUE<>'ALL' AND D.ORGANIZATION_ID<>-99999 UNION SELECT TL.ORGANIZATION_NAME AS NAME,TL.ORGANIZATION_ID AS VALUE FROM DW_LEDGER_D L, DW_INTERNAL_ORG_D D, DW_INTERNAL_ORG_D_TL TL, DW_CONTENT_PARAM_CONFIG PARAM WHERE (D.PAYABLES_INVOICING_BU_FLAG = 'Y' OR D.PAYABLES_PAYMENT_BU_FLAG = 'Y') AND D.ORGANIZATION_ID = TL.ORGANIZATION_ID AND TL.LANGUAGE = (SELECT PARAMETER_VALUE FROM DW_CONTENT_PARAM_CONFIG WHERE PARAMETER_CODE='PARAM_GLOBAL_FAW_LANGUAGES') AND D.PRIMARY_LEDGER = L.LEDGER_NAME AND PARAM.PARAMETER_CODE='PARAM_ERP_FINANCIALS_LEDGER_ID_LIST_REPORT' AND PARAM.PARAMETER_VALUE='ALL'

Table 5-2 (Cont.) Assignment Member SQL

Security Object Code	SQL Code
	AND (TO_CHAR(L.LEDGER_CHART_OF_ACCOUNTS_ID) IN (SELECT PARAM.PARAMETER_VALUE FROM DW_CONTENT_PARAM_CONFIG PARAM WHERE PARAM.PARAMETER_CODE='PARAM_ERP_FINANCIALS_CHART_OF_ACCOUNT_ID') OR EXISTS (SELECT 1 FROM dw_content_param_config param WHERE param.parameter_code = 'PARAM_ERP_FINANCIALS_CHART_OF_ACCOUNT_ID' AND param.parameter_value = 'ALL')) AND D.ORGANIZATION_ID<>-99999 UNION SELECT tl.organization_name AS name, tl.organization_id AS value FROM dw_ledger_set_assignments_d assignments, dw_ledger_d l, dw_internal_org_d d, dw_internal_org_d_tl tl, dw_content_param_config param WHERE param.PARAMETER_VALUE = 'ALL' AND param.parameter_code = 'PARAM_ERP_FINANCIALS_LEDGER_SET_ID_LIST_REPORT' AND assignments.ledger_id = l.ledger_id AND d.primary_ledger = l.ledger_name AND (d.payables_invoicing_bu_flag = 'Y' OR d.PAYABLES_PAYMENT_BU_FLAG = 'Y') AND d.organization_id = tl.organization_id AND tl.language = (SELECT PARAMETER_VALUE FROM DW_CONTENT_PARAM_CONFIG WHERE PARAMETER_CODE='PARAM_GLOBAL_FAW_LANGUAGES') AND

Table 5-2 (Cont.) Assignment Member SQL

Security Object Code	SQL Code
	(TO_CHAR(L.LEDGER_CHART_OF_ACCOUNTS_ID) IN (SELECT PARAM.PARAMETER_VALUE FROM DW_CONTENT_PARAM_CONFIG PARAM WHERE PARAM.PARAMETER_CODE='PARAM_ERP_FINANCIALS_CHART_OF_ACCOUNT_ID') OR EXISTS (SELECT 1 FROM dw_content_param_config param WHERE param.parameter_code = 'PARAM_ERP_FINANCIALS_CHART_OF_ACCOUNT_ID' AND param.parameter_value = 'ALL')) AND d.organization_id <> -99999 UNION SELECT tl.organization_name AS name, tl.organization_id AS value FROM dw_ledger_set_assignments_d assignments, dw_ledger_d l, dw_internal_org_d d, dw_internal_org_d_tl tl, dw_content_param_config param WHERE TO_CHAR(assignments.ledger_set_id) = param.parameter_value AND param.PARAMETER_VALUE <> 'ALL' AND param.parameter_code = 'PARAM_ERP_FINANCIALS_LEDGER_SET_ID_LIST_REPORT' AND assignments.ledger_id = l.ledger_id AND d.primary_ledger = l.ledger_name AND (d.payables_invoicing_bu_flag = 'Y' OR d.PAYABLES_PAYMENT_BU_FLAG = 'Y') AND d.organization_id = tl.organization_id AND tl.language = (SELECT PARAMETER_VALUE FROM DW_CONTENT_PARAM_CONFIG WHERE

Table 5-2 (Cont.) Assignment Member SQL

Security Object Code	SQL Code
	PARAMETER_CODE='PARAM_GLOBAL_FAW_LANGUAGES') AND d.organization_id <> -99999 ORDER BY NAME

Table 5-2 (Cont.) Assignment Member SQL

Security Object Code	SQL Code
OA4F_SEC_FIN_AR_BUSINESSUNIT_LIST	SELECT TL.ORGANIZATION_NAME AS NAME, TL.ORGANIZATION_ID AS VALUE FROM DW_LEDGER_D L, DW_INTERNAL_ORG_D D, DW_INTERNAL_ORG_D_TL TL, DW_CONTENT_PARAM_CONFIG PARAM WHERE (D.BILLING_REVENUE_MNG_BU_FLAG = 'Y' OR D.CUSTOMER_PAYMENTS_BU_FLAG = 'Y') AND D.ORGANIZATION_ID = TL.ORGANIZATION_ID AND TL.LANGUAGE = (SELECT PARAMETER_VALUE FROM DW_CONTENT_PARAM_CONFIG WHERE PARAMETER_CODE='PARAM_GLOBAL_FAW_LANG UAGES') AND D.PRIMARY_LEDGER = L.LEDGER_NAME AND TO_CHAR(L.LEDGER_ID)=PARAM.PARAMETER_ VALUE AND PARAM.PARAMETER_CODE='PARAM_ERP_FINAN CIALS_LEDGER_ID_LIST_REPORT' AND PARAM.PARAMETER_VALUE<>'ALL' AND D.ORGANIZATION_ID<>-99999 UNION SELECT TL.ORGANIZATION_NAME AS NAME, TL.ORGANIZATION_ID AS VALUE FROM DW_LEDGER_D L, DW_INTERNAL_ORG_D D, DW_INTERNAL_ORG_D_TL TL, DW_CONTENT_PARAM_CONFIG PARAM WHERE (D.BILLING_REVENUE_MNG_BU_FLAG = 'Y' OR D.CUSTOMER_PAYMENTS_BU_FLAG = 'Y') AND D.ORGANIZATION_ID = TL.ORGANIZATION_ID AND TL.LANGUAGE = (SELECT PARAMETER_VALUE FROM DW_CONTENT_PARAM_CONFIG WHERE PARAMETER_CODE='PARAM_GLOBAL_FAW_LANG UAGES') AND D.PRIMARY_LEDGER = L.LEDGER_NAME AND

Table 5-2 (Cont.) Assignment Member SQL

Security Object Code	SQL Code
	PARAM.PARAMETER_CODE='PARAM_ERP_FINANCIALS_LEDGER_ID_LIST_REPORT' AND PARAM.PARAMETER_VALUE='ALL' AND (TO_CHAR(L.LEDGER_CHART_OF_ACCOUNTS_ID) IN (SELECT PARAM.PARAMETER_VALUE FROM DW_CONTENT_PARAM_CONFIG PARAM WHERE PARAM.PARAMETER_CODE='PARAM_ERP_FINANCIALS_CHART_OF_ACCOUNT_ID') OR EXISTS (SELECT 1 FROM dw_content_param_config param WHERE param.parameter_code = 'PARAM_ERP_FINANCIALS_CHART_OF_ACCOUNT_ID' AND param.parameter_value = 'ALL')) AND D.ORGANIZATION_ID<>-99999 UNION SELECT tl.organization_name AS name, tl.organization_id AS value FROM dw_ledger_set_assignments_d assignments, dw_ledger_d l, dw_internal_org_d d, dw_internal_org_d_tl tl, dw_content_param_config param WHERE param.parameter_code = 'PARAM_ERP_FINANCIALS_LEDGER_SET_ID_LIST_REPORT' AND param.PARAMETER_VALUE = 'ALL' AND assignments.ledger_id = l.ledger_id AND d.primary_ledger = l.ledger_name AND(d.billing_revenue_mng_bu_flag = 'Y' OR d.CUSTOMER_PAYMENTS_BU_FLAG = 'Y') AND d.organization_id = tl.organization_id AND tl.language = (SELECT PARAMETER_VALUE FROM

Table 5-2 (Cont.) Assignment Member SQL

Security Object Code	SQL Code
	DW_CONTENT_PARAM_CONFIG WHERE PARAMETER_CODE='PARAM_GLOBAL_FAW_LANGUAGES') AND (TO_CHAR(L.LEDGER_CHART_OF_ACCOUNTS_ID) IN (SELECT PARAM.PARAMETER_VALUE FROM DW_CONTENT_PARAM_CONFIG PARAM WHERE PARAM.PARAMETER_CODE='PARAM_ERP_FINANCIALS_CHART_OF_ACCOUNT_ID') OR EXISTS (SELECT 1 FROM dw_content_param_config param WHERE param.parameter_code = 'PARAM_ERP_FINANCIALS_CHART_OF_ACCOUNT_ID' AND param.parameter_value = 'ALL')) AND d.organization_id <> -99999 UNION SELECT tl.organization_name AS name, tl.organization_id AS value FROM dw_ledger_set_assignments_d assignments, dw_ledger_d l, dw_internal_org_d d, dw_internal_org_d_tl tl, dw_content_param_config param WHERE TO_CHAR(assignments.ledger_set_id) = param.parameter_value AND param.parameter_code = 'PARAM_ERP_FINANCIALS_LEDGER_SET_ID_LIST_REPORT' AND param.PARAMETER_VALUE <> 'ALL' AND assignments.ledger_id = l.ledger_id AND d.primary_ledger = l.ledger_name AND(d.billing_revenue_mng_bu_flag = 'Y' OR d.CUSTOMER_PAYMENTS_BU_FLAG = 'Y')

Table 5-2 (Cont.) Assignment Member SQL

Security Object Code	SQL Code
	AND d.organization_id = tl.organization_id AND tl.language = (SELECT PARAMETER_VALUE FROM DW_CONTENT_PARAM_CONFIG WHERE PARAMETER_CODE='PARAM_GLOBAL_FAW_LANGUAGES') AND d.organization_id <> -99999 ORDER BY NAME
OA4F_SEC_FIN_FA_ASSET_BOOK_LIST	SELECT BOOK_TYPE_CODE AS name, BOOK_TYPE_CODE AS value FROM DW_FA_BOOK_CONTROLS_D

Table 5-2 (Cont.) Assignment Member SQL

Security Object Code	SQL Code
OA4F_SEC_FIN_LEDGER_LIST	SELECT ledger.ledger_name AS name, ledger.ledger_id AS value FROM dw_ledger_d ledger, dw_content_param_config param WHERE param.parameter_code = 'PARAM_ERP_FINANCIALS_LEDGER_ID_LIST_ REPORT' AND param.parameter_value = 'ALL' AND (TO_CHAR(ledger.ledger_chart_of_acco unts_id) IN (SELECT param.parameter_value FROM dw_content_param_config param WHERE param.parameter_code = 'PARAM_ERP_FINANCIALS_CHART_OF_ACCOUN T_ID') OR EXISTS (SELECT 1 FROM dw_content_param_config param WHERE param.parameter_code = 'PARAM_ERP_FINANCIALS_CHART_OF_ACCOUN T_ID' AND param.parameter_value = 'ALL')) AND ledger.ledger_id <> - 99999 UNION SELECT ledger.ledger_name AS name, ledger.ledger_id AS value FROM dw_ledger_d ledger, dw_content_param_config param WHERE TO_CHAR(ledger.ledger_id) = param.parameter_value AND param.parameter_code = 'PARAM_ERP_FINANCIALS_LEDGER_ID_LIST_ REPORT' AND param.parameter_value <> 'ALL' AND (TO_CHAR(ledger.ledger_chart_of_acco unts_id) IN (SELECT param.parameter_value FROM dw_content_param_config param WHERE param.parameter_code = 'PARAM_ERP_FINANCIALS_CHART_OF_ACCOUN T_ID') OR EXISTS (SELECT 1 FROM dw_content_param_config param WHERE param.parameter_code = 'PARAM_ERP_FINANCIALS_CHART_OF_ACCOUN T_ID' AND param.parameter_value = 'ALL'))

Table 5-2 (Cont.) Assignment Member SQL

Security Object Code	SQL Code
	AND ledger.ledger_id <> - 99999 UNION SELECT ledger.ledger_name AS name, ledger.ledger_id AS value FROM dw_ledger_set_d ledgerset, dw_content_param_config param, dw_ledger_set_assignments_d assignments, dw_ledger_d ledger WHERE ledgerset.ledger_set_id = assignments.ledger_set_id AND assignments.ledger_id = ledger.ledger_id AND param.parameter_code = 'PARAM_ERP_FINANCIALS_LEDGER_SET_ID_LIST_REPORT' AND param.parameter_value = 'ALL' AND (TO_CHAR(ledger.ledger_chart_of_accounts_id) IN (SELECT param.parameter_value FROM dw_content_param_config param WHERE param.parameter_code = 'PARAM_ERP_FINANCIALS_CHART_OF_ACCOUNT_ID') OR EXISTS (SELECT 1 FROM dw_content_param_config param WHERE param.parameter_code = 'PARAM_ERP_FINANCIALS_CHART_OF_ACCOUNT_ID' AND param.parameter_value = 'ALL')) AND ledgerset.ledger_set_id <> - 99999 AND ledger.ledger_id <> - 99999 UNION SELECT ledger.ledger_name AS name, ledger.ledger_id AS value FROM dw_ledger_set_d ledgerset, dw_content_param_config param, dw_ledger_set_assignments_d assignments, dw_ledger_d ledger WHERE TO_CHAR(ledgerset.ledger_set_id) = param.parameter_value AND ledgerset.ledger_set_id = assignments.ledger_set_id AND assignments.ledger_id = ledger.ledger_id

Table 5-2 (Cont.) Assignment Member SQL

Security Object Code	SQL Code
	AND param.parameter_code = 'PARAM_ERP_FINANCIALS_LEDGER_SET_ID_LIST_REPORT' AND param.parameter_value <> 'ALL' AND (TO_CHAR(ledger.ledger_chart_of_accounts_id) IN (SELECT param.parameter_value FROM dw_content_param_config param WHERE param.parameter_code = 'PARAM_ERP_FINANCIALS_CHART_OF_ACCOUNT_ID') OR EXISTS (SELECT 1 FROM dw_content_param_config param WHERE param.parameter_code = 'PARAM_ERP_FINANCIALS_CHART_OF_ACCOUNT_ID' AND param.parameter_value = 'ALL')) AND ledgerset.ledger_set_id <> -99999 AND ledger.ledger_id <> - 99999
OA4F_SEC_HCM_BUSINESSUNIT_LIST	SELECT TL.BUSINESS_UNIT_NAME AS NAME, TL.BUSINESS_UNIT_ID AS VALUE FROM DW_BUSINESS_UNIT_D_TL TL WHERE TL.LANGUAGE = (SELECT PARAMETER_VALUE FROM DW_CONTENT_PARAM_CONFIG WHERE PARAMETER_CODE='PARAM_GLOBAL_FAW_LANGUAGES')
OA4F_SEC_HCM_COUNTRY_LIST	SELECT TL.COUNTRY_NAME AS NAME, TL.COUNTRY AS VALUE FROM DW_COUNTRY_D_TL TL WHERE TL.LANGUAGE = (SELECT PARAMETER_VALUE FROM DW_CONTENT_PARAM_CONFIG WHERE PARAMETER_CODE='PARAM_GLOBAL_FAW_LANGUAGES')

Table 5-2 (Cont.) Assignment Member SQL

Security Object Code	SQL Code
OA4F_SEC_HCM_DEPARTMENT_LIST	SELECT TL.BUSINESS_UNIT_NAME AS NAME, TL.BUSINESS_UNIT_ID AS VALUE FROM DW_BUSINESS_UNIT_D_TL TL WHERE TL.LANGUAGE = (SELECT PARAMETER_VALUE FROM DW_CONTENT_PARAM_CONFIG WHERE PARAMETER_CODE='PARAM_GLOBAL_FAW_LANGUAGES')
OA4F_SEC_HCM_LEGAL_EMPLOYER_LIST	SELECT TL.LEGAL_EMPLOYER_NAME AS NAME, TL.LEGAL_EMPLOYER_ID AS VALUE FROM DW_LEGAL_EMPLOYER_D_TL TL WHERE LANGUAGE = (SELECT PARAMETER_VALUE FROM DW_CONTENT_PARAM_CONFIG WHERE PARAMETER_CODE='PARAM_GLOBAL_FAW_LANGUAGES')
OA4F_SEC_HCM_SEE_SELF_RECORD	SELECT YESNO_LKP_CODE AS VALUE, NAME AS NAME FROM DW_YESNO_LKP_TL WHERE CODE_TYPE LIKE 'FA_YESNO' AND LANGUAGE = (SELECT PARAMETER_VALUE FROM DW_CONTENT_PARAM_CONFIG WHERE PARAMETER_CODE='PARAM_GLOBAL_FAW_LANGUAGES') AND YESNO_LKP_CODE IN ('NO')
OA4F_SEC_INV_BUSINESSUNIT_LIST	SELECT TL.BUSINESS_UNIT_NAME AS NAME, TL.BUSINESS_UNIT_ID AS VALUE FROM DW_BUSINESS_UNIT_D_TL TL WHERE TL.BUSINESS_UNIT_ID IN (SELECT DISTINCT(INV_BUSINESS_UNIT_ID) FROM DW_INV_ORGANIZATION_D) AND TL.LANGUAGE = (SELECT PARAMETER_VALUE FROM DW_CONTENT_PARAM_CONFIG WHERE PARAMETER_CODE='PARAM_GLOBAL_FAW_LANGUAGES') AND TL.BUSINESS_UNIT_ID <> '-99999'

Table 5-2 (Cont.) Assignment Member SQL

Security Object Code	SQL Code
OA4F_SEC_INV_ORG_TRANSACTIONS_LIST	SELECT INV_ORGANIZATION_NAME AS NAME, INV_ORGANIZATION_ID AS VALUE FROM DW_INV_ORGANIZATION_D_TL TL WHERE TL.LANGUAGE = (SELECT PARAMETER_VALUE FROM DW_CONTENT_PARAM_CONFIG WHERE PARAMETER_CODE='PARAM_GLOBAL_FAW_LANGUAGES') AND TL.INV_ORGANIZATION_ID <> '-99999'
OA4F_SEC_OM_BUSINESS_UNIT_LIST	SELECT TL.BUSINESS_UNIT_NAME AS NAME, TL.BUSINESS_UNIT_ID AS VALUE FROM DW_BUSINESS_UNIT_D_TL TL WHERE TL.LANGUAGE = (SELECT PARAMETER_VALUE FROM DW_CONTENT_PARAM_CONFIG WHERE PARAMETER_CODE='PARAM_GLOBAL_FAW_LANGUAGES') AND TL.BUSINESS_UNIT_ID<>-99999
OA4F_SEC_PPM_EXPENDITURE_BUSINESSUNIT_LIST	SELECT TL.ORGANIZATION_NAME AS NAME, TL.ORGANIZATION_ID AS VALUE FROM DW_INTERNAL_ORG_D D, DW_INTERNAL_ORG_D_TL TL WHERE (D.PROJECT_ACCOUNTING_BU_FLAG = 'Y' AND D.BUSINESS_UNIT_FLAG = 'Y') AND D.ORGANIZATION_ID = TL.ORGANIZATION_ID AND TL.LANGUAGE = USERENV('LANG') AND D.ORGANIZATION_ID<>-99999

Table 5-2 (Cont.) Assignment Member SQL

Security Object Code	SQL Code
OA4F_SEC_PPM_PROJECT_BUSINESSUNIT_LIST	SELECT TL.ORGANIZATION_NAME AS NAME, TL.ORGANIZATION_ID AS VALUE FROM DW_INTERNAL_ORG_D D, DW_INTERNAL_ORG_D_TL TL WHERE (D.PROJECT_ACCOUNTING_BU_FLAG = 'Y' AND D.BUSINESS_UNIT_FLAG = 'Y') AND D.ORGANIZATION_ID = TL.ORGANIZATION_ID AND TL.LANGUAGE = USERENV('LANG') AND D.ORGANIZATION_ID<>-99999
OA4F_SEC_PPM_PROJECT_ORGANIZATION_LIST	SELECT TL.ORGANIZATION_NAME AS NAME, TL.ORGANIZATION_ID AS VALUE FROM DW_INTERNAL_ORG_D D, DW_INTERNAL_ORG_D_TL TL WHERE (D.PROJECT_ORGANIZATION_FLAG = 'Y') AND D.ORGANIZATION_ID = TL.ORGANIZATION_ID AND TL.LANGUAGE = USERENV('LANG') AND D.ORGANIZATION_ID<>-99999
OA4F_SEC_PROC_REQ_BUSINESSUNIT_LIST	SELECT TL.ORGANIZATION_NAME AS NAME, TL.ORGANIZATION_ID AS VALUE FROM DW_INTERNAL_ORG_D D, DW_INTERNAL_ORG_D_TL TL WHERE (D.REQUISITION_BU_FLAG = 'Y' AND D.BUSINESS_UNIT_FLAG = 'Y') AND D.ORGANIZATION_ID = TL.ORGANIZATION_ID AND TL.LANGUAGE = (SELECT PARAMETER_VALUE FROM DW_CONTENT_PARAM_CONFIG WHERE PARAMETER_CODE='PARAM_GLOBAL_FAW_LANG UAGES') AND D.ORGANIZATION_ID<>-99999

Table 5-2 (Cont.) Assignment Member SQL

Security Object Code	SQL Code
OA4F_SEC_PROC_SPEND_PRC_BUSINESSUNIT_LIST	SELECT TL.ORGANIZATION_NAME AS NAME, TL.ORGANIZATION_ID AS VALUE FROM DW_INTERNAL_ORG_D D, DW_INTERNAL_ORG_D_TL TL WHERE (D.PROCUREMENT_BU_FLAG = 'Y' AND D.BUSINESS_UNIT_FLAG = 'Y') AND D.ORGANIZATION_ID = TL.ORGANIZATION_ID AND TL.LANGUAGE = (SELECT PARAMETER_VALUE FROM DW_CONTENT_PARAM_CONFIG WHERE PARAMETER_CODE='PARAM_GLOBAL_FAW_LANGUAGES') AND D.ORGANIZATION_ID<>-99999

Upload and Download Financial Categories

You can download financial category template files to help you set up financial categories, and then upload the files to your environment.

You can download **Sample** or **Current** files. Sample provides a csv file with relevant headers to help familiarize you with the types of data you can expect. Current provides a list of current data assignments you can download to your test or production environments. Regardless of the file you download, you need to populate the FINANCIAL_CATEGORY column. Don't change any of the header names in the downloaded files. When you are done updating the files, you can upload them to your environment.

> **Note:**
>
> **Replace existing configuration settings** deletes existing data security assignments.

1. Sign in to your service.
2. In Oracle Fusion Analytics Warehouse, open the **Navigator** menu, click **Console**, and then click **Uploads** under Application Administration.

   You see the Uploads page.
3. On the Uploads page, click **Download File**, select **Financial Categories** and then select the type of file you want to download.
4. Open the csv file you downloaded and populate the fields as required:
   - FINANCIAL_CATEGORY: The financial category code.

5. When you are done updating the file, save your changes.
6. On the Uploads page, click **Upload File** and the applicable file type.
7. Select whether you want to **Merge to the existing settings** or **Replace existing configuration settings**.
8. Select the file you want to upload and click **Upload File**.

   You can review the status of the upload on the **Uploads** tab.
9. Use the **Actions menu** next to the file name to perform actions on a specific upload file:
   - Click **Properties** to check the upload statistics.
   - Click **Download** to download the file you just uploaded in the event you want to upload the file again.
   - Click **Delete** if a file fails to process and you want to remove the file history.

Upload and Download Financial Category Assignments

You can download financial category assignment template files to help you set up financial categories, and then upload the files to your environment.

You can download **Sample** or **Current** files. Sample provides a csv file with relevant headers to help familiarize you with the types of data you can expect. Current provides a list of current data assignments you can download to your test or production environments. Prior to download a file, you must select the segment combination you want to use to map your financial categories in the Select Columns dialog. The list prepopulates the segments defined in your chart of accounts that are BI enabled. Regardless of the file you download, you need to populate the FINANCIAL_CATEGORY column. Don't change any of the header names in the downloaded files. When you are done updating the files, you can upload them to your environment.

> **Note:**
>
> **Replace existing configuration settings** deletes existing data security assignments.

1. Sign in to your service.
2. In Oracle Fusion Analytics Warehouse, open the **Navigator** menu, click **Console**, and then click **Uploads** under Application Administration.

   You see the Uploads page.
3. On the Uploads page, click **Download File**, select **Financial Category Assignments** and then select the type of file you want to download.
4. Open the csv file you downloaded and populate the fields as required:
   - CHART_OF_ACCOUNTS – Name of your chart of accounts.
   - Actual segment values.
   - FINANCIAL_CATEGORY: The financial category code. This can be a predefined category or a custom category defined using the Financial Categories upload option.
5. When you are done updating the file, save your changes.

6. On the Uploads page, click **Upload File** and the applicable file type.
7. Select whether you want to **Merge to the existing settings** or **Replace existing configuration settings**.

> **Note:**
>
> If you want to change the segment combination for your financial category definition, then ensure to provide the data for all chart of accounts and use the replace option. The data is completely replaced. Different segment combinations for different chart of accounts is NOT supported.

8. Select the file you want to upload and click **Upload File**.

   You can review the status of the upload on the **Uploads** tab.
9. Use the **Actions menu** next to the file name to perform actions on a specific upload file:
   - Click **Properties** to check the upload statistics.
   - Click **Download** to download the file you just uploaded in the event you want to upload the file again.
   - Click **Delete** if a file fails to process and you want to remove the file history.

Upload and Download User Group Mappings

You can download user group mapping template files to help you set up user group mappings, and then upload the files to your environment.

You can download "Sample" or "Current" files. Sample provides a csv file with relevant headers to help familiarize you with the types of data you can expect. Current provides a list of current data assignments you can download to your test or production environments. Regardless of the file you download, you need to populate the USERNAME and GROUPNAME columns. Use the Operation column to make bulk changes to the user group mappings. Don't change any of the header names in the downloaded files. When you're done updating the files, you can upload them to your environment.

1. Sign in to your service.
2. In Oracle Fusion Analytics Warehouse, open the **Navigator** menu, click **Console**, and then click **Uploads** under Application Administration.

   You see the Uploads page.
3. On the Uploads page, click **Download File**, select **User Group Mapping**, and then select the type of file you want to download.
4. Open the csv file you downloaded and populate the fields as required:
   - USERNAME: The username in Oracle Identity Cloud Service.
   - GROUPNAME: The group name in Oracle Identity Cloud Service.
   - OPERATION: Enter ADD or leave it blank to add the user group mappings or enter REMOVE to remove the user group mappings.
5. When you're done updating the security file, save your changes.

6. On the Uploads page, click **Upload File** and then select the applicable file type.
7. Select the file you want to upload and click **Upload File**.

   You can review the status of the upload on the **Uploads** tab.
8. Use the **Actions menu** next to the file name to perform actions on a specific upload file:
   - Click **Properties** to check the upload statistics.
   - Click **Download** to download the file you just uploaded in the event you want to upload the file again.
   - Click **Delete** if a file fails to process and you want to remove the file history.

Set Up Custom Security

You can set up custom security to meet your business requirements.

Setting up custom security involves:

- Creation of job-specific custom groups. See Create a Group
- Creation of custom duty and data roles. See Create an Application Role.
- Mapping of custom application roles to either the predefined or custom job-specific groups. See Add Application Roles to a Group and Assign Groups to Application Roles.
- Configure the custom application roles. See Custom Security in Fusion Analytics Warehouse. Ensure that you are signed into Cloud Customer Connect prior to viewing this document.

6

Customize Oracle Fusion Analytics Warehouse

You can customize the semantic model and groups.

As a modeler or modeler administrator, you can customize your semantic model. Customization enables you to make the data that you moved into the analytics warehouse more useful for reporting. As a security administrator, you can create, configure, and assign custom groups to users. See Assign Users to a Group and Assign Groups to Users.

Topics:

- About Semantic Model Customization
- Create a Branch
- Edit a Branch
- Add a Step to a Branch
- Edit or Delete a Branch Step
- Reapply a Branch Step
- Disable and Enable the Disabled Steps
- Copy Steps from One Branch to Another
- View Details of Failed Branch Steps
- Merge the Customization Branches with the Main Branch
- Reorder Steps of Customization Branches
- Edit or Delete a Main Branch Step
- Tag the Main Branch's Steps
- Add Security Configurations
- View Activity History of Semantic Model Extensions
- Publish the Model
- Load Customization Data to the Autonomous Data Warehouse
- Promote Your Customizations to the Production Environment
- View Promotion History
- Republish Your Customizations

About Semantic Model Customization

You can customize the semantic model to make the data that you moved into the warehouse more useful for reporting.

You customize your semantic model by creating branches and adding steps to those branches. You use a branch or version to publish your changes to the model. You can apply the model from the branch to a local service instance for testing. When the changes are correct, you can merge that branch with the main branch. You can merge multiple branches with the main branch over time. When you have a set of changes finalized, you can version the main branch and promote that branch to the production environment.

You can customize the model by extending ready-to-use dimensions with additional attributes from another data source, by adding a fact to an existing subject area, and by reorganizing the ready-to-use subject areas to create a new subject area to name a few.

The semantic model consists of these components:

- Oracle Content: This is the base model provided by Oracle. Your customizations are layered on this.
- System Extensions: Your descriptive flexfield and data augmentation changes are available in this component.
- User Extensions: Your customization branches and versions are available in this component.
- Security Configurations: You can secure the objects of all the other components against the application roles in this component.

Create a Branch

To begin customizing your semantic model, create a branch of the main semantic model.

You can add customizations to a test instance only. After you have added and tested your customizations, you can promote them to the production environment. See Promote Your Customizations to the Production Environment.

1. Sign in to your service.
2. In Oracle Fusion Analytics Warehouse, open the **Navigator** menu, click **Console**, and then click **Semantic Model Extensions** under **Application Administration**.
3. On the Semantic Model Extensions page, click **User Extensions**.

   You see the main and existing customization branches.
4. In the User Extensions region, for Customization Branches, click **Create Branch** to create a branch as an empty container.
5. In Create a Branch, enter a name for your branch, for example, `Add Cost Center`.
6. Optional: Add a description and click **OK**.

   You see the Add Step dialog. You can continue to add the steps or you can add steps to the new branch container later using the **Add Step** button. See Add a Step to a Branch. You see the new branch on the Semantic Model Extensions page under **Customization Branches**.

Edit a Branch

Before you apply a branch to the main branch of your semantic model, you can edit the branch.

1. Sign in to your service.
2. In Oracle Fusion Analytics Warehouse, open the **Navigator** menu, click **Console**, and then click **Semantic Model Extensions** under **Application Administration**.
3. On the Semantic Model Extensions page, click **User Extensions**.

   You see the main and existing customization branches.
4. In the User Extensions region, under Customization Branches, hover over a branch to view the **Actions menu**.

   You see the actions that are applicable to the branch.
5. From the **Actions menu**, click **Edit** to update the branch description, and then click **Done**.

Add a Step to a Branch

You can add customization types such as "Extend a Dimension" as a step to an existing unapplied branch or a new branch that you create.

1. Sign in to your service.
2. In Oracle Fusion Analytics Warehouse, open the **Navigator** menu, click **Console**, and then click **Semantic Model Extensions** under **Application Administration**.
3. On the Semantic Model Extensions page, click **User Extensions**.

   You see the main and existing customization branches.
4. In the User Extensions region, under Customization Branches, click a branch to open the Branch page.
5. On the Branch page, click **Add Step**.
6. In Add Step, select a customization type such as **Extend a Dimension**.

   You see the wizard sequence to add details for the selected customization type.

Add a Dimension

Add a custom dimension table to an existing subject area.

1. Sign in to your service.
2. In Oracle Fusion Analytics Warehouse, open the **Navigator** menu, click **Console**, and then click **Semantic Model Extensions** under **Application Administration**.
3. On the Semantic Model Extensions page, click **User Extensions**.

   You see the main and existing customization branches.
4. In the User Extensions region, under Customization Branches, click a branch to open the Branch page.
5. On the Branch page, click **Add Step**.

6. In Add Step, select **Add a Dimension**.

   You see the wizard sequence to add a dimension.

7. In step 1 of the wizard, enter a name for your customization step, for example, `Add Point of Sale Dimension` and add a brief description.

8. Select a target subject area to which you want to add the dimension. For example, `Financials - AP Expense`.

   You see the details of the selected subject area.

9. In step 2 of the wizard, select the schema, and then select the dimension table. For example, `COST_CENTER_VIEW1`.

   > **Note:**
   >
   > If you don't see the schema or table, then ensure that you have granted select permission to the OAX$OAC schema in the autonomous data warehouse. For example, `grant select on <schema>.<table> to OAX$OAC`. See Load Customization Data to the Autonomous Data Warehouse.

   You see the attributes available in the selected dimension table. You can use the **Search** and **Filter** fields to limit the attributes displayed for the dimension table.

10. Select the attributes that you want to use from the dimension table and indicate an attribute to be used as the key for joining with a fact table in the target subject area.

11. If any of the selected attributes have been removed or modified in the source table since the last refresh, then you see such columns highlighted and a message asking whether you want to update the table. Select **OK** in the message to reload the source columns. If you want to review the changes to the source columns, then click **Cancel** in the message, and later click **Refresh** to reload the source columns. If any of the attributes that you haven't selected have been removed or modified in the source table, then you see the refreshed list of source columns. If any of the custom columns fail validation during the refresh, then you see a message asking you to resolve the cause of failure and revalidate.

12. Optional: Click **Create Column** to add another column to your dimension table in the target subject area using these instructions:

    a. In Create Column, enter a display name.

    b. Under **Data Elements**, search for a data element from the physical table of the selected dimension table.

    c. From the search results, double-click the data element to place it in the text pane.

    d. Under **Functions**, search for a function to construct a column using expressions. For example, search for functions like "substring" or "concatenate" to construct new expression-based columns. From the search results, double-click the applicable result to add it to the central text pane.

    e. Click **Validate**, and then click **Save**.

13. Click **Next**.

14. In step 3 of the wizard, select **Skip Joins** if you don't want to join the selected dimension table to any facts. To join the selected dimension table to a fact, select the fact table, fact key, and join type.

    You can join a single fact key column to multiple dimension keys. (You had previously selected the dimension table key.) If a dimension allows a complex join, click **Complex Join** and use the complex join editor to create a complex join expression.

    > **Note:**
    >
    > Ensure that the data types of the join key pairs match. If your data types don't match but you want to proceed, then click Yes in the message. However, if the data types can't be absolutely matched, then the server-side validation rejects that join completely and you must change the data type of custom key column to match the factory data type.

15. Click **Add Fact Table** to select another fact table to link your dimension to and define the join.
16. Click **Next**.
17. In step 4 of the wizard, assemble the product hierarchy using the attributes from this dimension table with these instructions:
    a. Enter a hierarchy name. For example, Region Hierarchy.
    b. Select, drag, and drop available data elements into the Selected Data elements pane to design a hierarchy that you want. You can add multiple levels in your hierarchy by right-clicking at a level and selecting **Add Child** or **Add 'n' Child Levels**. For example, your Region Hierarchy can have Region Total at Level 1, Region at Level 2, Country at Level 3, State at Level 4, and City at Level 5.
    c. Click **Content Level** to specify the level of the dimension hierarchy where the fact is aggregated.
    d. In the Selected Data Elements pane, click a level to update its primary key and set its display attribute in the Properties pane.
18. Click **Next**.
19. Optional: In step 5 of the wizard, select additional subject areas to include the new dimension and click **Finish**.

You see a message that your step is being applied to the customization branch. After it's applied, you see the new customization step in the customization branch. You can now apply the customization branch to the main branch or edit it to add more steps.

> **Note:**
>
> If you've created Add a Dimension steps using the previous functionality, you can still edit and reapply through the Edit option.

Add a Fact Table

Add a fact table to an existing subject area.

1. Sign in to your service.

2. In Oracle Fusion Analytics Warehouse, open the **Navigator** menu, click **Console**, and then click **Semantic Model Extensions** under **Application Administration**.
3. On the Semantic Model Extensions page, click **User Extensions**.

   You see the main and existing customization branches.
4. In the User Extensions region, under Customization Branches, click a branch to open the Branch page.
5. On the Branch page, click **Add Step**.
6. In Add Step, select **Add a Fact**.

   You see the wizard sequence to add a fact.
7. In step 1 of the wizard, enter a name for your customization step, for example, `Add Travel Expense` and add a brief description.
8. Select a target subject area to which you want to add the fact. For example, `Financials - AP Expense`.

   You see the details of the selected subject area.
9. Click **Next**.
10. In step 2 of the wizard, select the schema, and then select a view or table or synonym as the object. For example, `FCT_CALC_Extensions`.

    You see the fact table for the selected object.
11. In the details of the fact table for the selected source table, click the **Select Fact** and **Use for Key** check boxes for the source columns that you want to add to your new fact table in the target subject area.
12. Optional: In the details of the fact table for the selected source table, under **Select Degen Attribute**, click the check boxes for the attributes for which you need the degenerate dimension to be created.
13. If any of the selected attributes have been removed or modified in the source table since the last refresh, then you see such columns highlighted and a message asking whether you want to update the table. Select **OK** in the message to reload the source columns. If you want to review the changes to the source columns, then click **Cancel** in the message, and later click **Refresh** to reload the source columns. If any of the attributes that you haven't selected have been removed or modified in the source table, then you see the refreshed list of source columns. If any of the custom columns fail validation during the refresh, then you see a message asking you to resolve the cause of failure and revalidate.
14. Optional: Click **Create Column** to add a new column to your new fact table in the target subject area using these instructions:
    a. In Create Column, enter a display name.
    b. Under **Data Elements**, search for a data element from the physical table of the selected dimension table.
    c. From the search results, double-click the data element to place it in the text pane.
    d. Under **Functions**, search for a function to construct a column using expressions. For example, search for functions like "substring" or "concatenate" to construct new expression-based columns. From the search results, double-click the applicable result to add it to the central text pane.

e. Click **Validate**, and then click **Save**.

15. Click **Next**.
16. In step 3 of the wizard, use the Diagram or Tabular tabs to specify the joins to link your new fact table to the dimensions in the selected subject area.

    Follow these instructions to specify the joins using the Diagram tab:

    a. Click **Add Table**.

    b. In Add Table, select the dimensions to add and click **OK**.

    c. Drag from the dimension's port (dark green circle) to the fact table's port (brown circle) to create a join link. You see the Join dialog.

    d. In the Join dialog, select the type of join, the fact table column, and the dimension key column. Click **Add Join Condition** to add multiple join conditions and then click **Join**.

    Follow these instructions to specify the joins using the Tabular tab:

    a. Click **Add Join**.

    b. In Add Table, select the dimension to add and click **OK**. You see the Join dialog.

    c. In the Join dialog, select the type of join, the fact table column, and the dimension key column. Click **Add Join Condition** to add multiple join conditions and then click **Join**.

17. Optional: Click **Skip Joins** if you don’t want to join a dimension now.
18. Click **Next**.
19. In step 4 of the wizard, select the aggregation rule for each fact column to set the aggregation behaviors.
20. Optional: You can set the time-balanced aggregation rule for a time dimension and hierarchy level-based aggregation rule for a dimension using these steps:

    a. For a fact column, click the Time-Balanced Aggregation icon.

    b. In the Time-Balanced Aggregation dialog, click **Add Time Dimension**, adjust the aggregation rule, and then click **OK**.

    c. For a fact column, click the Hierarchy Level-Based Aggregation icon, select the dimension and level. Click **Add Dimension** to add more dimensions. Click **OK**.

    Use a time-balanced aggregation when the added measure mustn't be "aggregated" by default across a time dimension. Oracle Fusion Analytics Warehouse supports non-aggregation types like "Last" or "First" in place of the "SUM" aggregation type when required. Use a level-based aggregation when the underlying measure must always be calculated to a specific level of a predefined dimensional hierarchy. For example, in a product hierarchy that has the Product Total, Product Category, Product Sub-Category, and Product Details levels, you add a new measure called "Revenue" and need this "Product Category Revenue" measure to be aggregated to Product Category, then you must use the level-based aggregation and choose the right level of the Product Dimension. This setting enables Oracle Fusion Analytics Warehouse to always aggregate and show the value of the measure at the Product Category level. This is useful when you need to calculate Product Revenue as a % of Category Revenue.

21. Click **Next**.
22. Optional: Select additional subject areas to add the fact.
23. Click **Finish**.

You see a message that your step is being applied to the customization branch. After it's applied, you see the new customization step in the customization branch. You can now apply the customization branch to the main branch or edit it to add more steps.

Add a Hierarchy

Add a hierarchy to a dimension table in an existing subject area.

1. Sign in to your service.
2. In Oracle Fusion Analytics Warehouse, open the **Navigator** menu, click **Console**, and then click **Semantic Model Extensions** under **Application Administration**.
3. On the Semantic Model Extensions page, click **User Extensions**.

   You see the main and existing customization branches.
4. In the User Extensions region, under Customization Branches, click a branch to open the Branch page.
5. On the Branch page, click **Add Step**.
6. In Add Step, select **Add a Hierarchy**.

   You see the wizard sequence to add a hierarchy.
7. In step 1 of the wizard, enter a name for your customization step, for example, `Add Region Hierarchy` and add a brief description.
8. Select the subject area, the folder of the dimension table, and the dimension table to which you want to add a hierarchy.

   You see the existing hierarchies and the hierarchy levels in the selected dimension. If there aren’t any hierarchies, then you see a message informing you that there are no hierarchies in the selected dimension.
9. Click **Next**.
10. In step 2 of the wizard, assemble the product hierarchy using the attributes from this dimension table with these instructions:
    a. Enter a hierarchy name. For example, Region Hierarchy.
    b. Select, drag, and drop available data elements into the Selected Data elements pane to design a hierarchy that you want. You can add multiple levels in your hierarchy by right-clicking at a level and selecting **Add Child** or **Add ‘n’ Child Levels**. For example, your Region Hierarchy can have Region Total at Level 1, Region at Level 2, Country at Level 3, State at Level 4, and City at Level 5.
    c. In the Selected Data Elements pane, click a level to update its primary key and set its display attribute in the Properties pane.
11. Click **Next**.
12. Optional: In step 3 of the wizard, select additional subject areas to include the new hierarchy.
13. Click **Finish**.

    You see a message that your step is being applied to the customization branch. After it's applied, you see the new customization step in the customization branch.

You can now apply the customization branch to the main branch or edit it to add more steps.

Add Session Variables

Add custom session variables that you can include in the analyses.

1. Sign in to your service.
2. In Oracle Fusion Analytics Warehouse, open the **Navigator** menu, click **Console**, and then click **Semantic Model Extensions** under **Application Administration**.
3. On the Semantic Model Extensions page, click **User Extensions**.

   You see the main and existing customization branches.
4. In the User Extensions region, under Customization Branches, click a branch to open the Branch page.
5. On the Branch page, click **Add Step**.
6. In Add Step, select **Add Session Variables**.

   You see the wizard sequence to add the session variables and a list of existing session variables.
7. In step 1 of the wizard, check if any of the existing session variables serve your purpose.

   If yes, then you can exit the wizard and use the applicable existing session variables in your analyses. If no, then continue with the next steps to create the session variables that you require.
8. Enter a name for your customization step, for example, `Add a Session variable using Invoice Received Date` and add a brief description. Click **Row-wise Initialization** to configure cache settings.
9. Click **Next**.
10. In step 2 of the wizard, define the SQL query and create the initialization block using these instructions:
    a. Enter a name and description for the initialization block.
    b. Select a preceding initialization block.
    c. Enter the SQL query that would be executed in the autonomous data warehouse and return a value that you can use in the reports. For example, if you want to get the Exchange Rate Type that is defined in Oracle Fusion Analytics Warehouse into a session variable, then you can use the following SQL script:

       ```
       SELECT PARAMETER_VALUE FROM DW_CONTENT_PARAM_CONFIG WHERE
        PARAMETER_CODE='PARAM_GLOBAL_EXCHANGE_RATE_TYPE'
       ```

    d. Click Preview Data to view the data that is returned by the SQL query.
11. Click **Next**.
12. In step 3 of the wizard, create the session variables using the output of the initialization block created in step 2 of the wizard.
13. Click **Finish**.

You see a message that your step is being applied to the customization branch. After it's applied, you see the new customization step in the customization branch. You can now apply the customization branch to the main branch or edit it to add more steps.

Extend a Dimension

Extend ready-to-use dimensions with additional attributes from another data source.

1. Sign in to your service.
2. In Oracle Fusion Analytics Warehouse, open the **Navigator** menu, click **Console**, and then click **Semantic Model Extensions** under **Application Administration**.
3. On the Semantic Model Extensions page, click **User Extensions**.

   You see the main and existing customization branches.
4. In the User Extensions region, under Customization Branches, click a branch to open the Branch page.
5. On the Branch page, click **Add Step**.
6. In Add Step, select **Extend a Dimension**.

   You see the wizard sequence to extend a dimension.
7. Enter a name for your customization step, for example, `Add Cost Center Type`.
8. Select a target subject area, for example, `Financials GL Profitability`.
9. In **Folder**, select a dimension that you want to extend, for example, `Cost Center`.
10. Select a logical table, for example, `Dim – Cost Center`.

    You see the available attributes in the table.
11. Click **Next**.
12. Select a schema and table from the database.

    You see the available attributes in the table.
13. Select the columns that you want to expose or use as a key for creating the join.
14. Click in the **Display Name** table field to enter a new name for the column or to edit an existing one and then click **Enter** to accept or click **Esc** to cancel.
15. If any of the selected attributes have been removed or modified in the source table since the last refresh, then you see such columns highlighted and a message asking whether you want to update the table. Select **OK** in the message to reload the source columns. If you want to review the changes to the source columns, then click **Cancel** in the message, and later click **Refresh** to reload the source columns. If any of the attributes that you haven't selected have been removed or modified in the source table, then you see the refreshed list of source columns. If any of the custom columns fail validation during the refresh, then you see a message asking you to resolve the cause of failure and revalidate.
16. Optional: Click **Create Column** to create a new column in the selected dimension table using these instructions:

    a. In Create a new column, enter a display name, for example, `Cost Type`.

b. Under **Data Elements**, search for a data element from the physical table of the selected dimension table.

c. From the search results, double-click the data element to place it in the text pane.

d. Under **Functions**, search for a function to construct a column using expressions. For example, search for functions like "case" to construct new expression-based columns. From the search results, double-click the applicable result to add it to the text pane.

e. Click **Validate**, and then click **Save**.

17. Click **Save**.
18. Click in the **Source Column** table field to edit the column definition.
19. Click **Save**.

    You see the new column in the Data preview section in a highlighted color.
20. Click **Next**.
21. Select a join key to pair with the source column.
22. Click **Next**.
23. Select the subject areas that should use this customization.

> **Note:**
>
> The Subject Area that you initially selected is selected by default and is read-only. By default, all additional subject areas are selected. Deselect the additional subject areas that shouldn't use this customization.

24. Click **Finish**.

    You see the new customization step in the customization branch. You can now apply the customization branch to the main branch or edit it to add more steps.

Add Derived Columns

Add a derived column to an existing subject area.

1. Sign in to your service.
2. In Oracle Fusion Analytics Warehouse, open the **Navigator** menu, click **Console**, and then click **Semantic Model Extensions** under **Application Administration**.
3. On the Semantic Model Extensions page, click **User Extensions**.

   You see the main and existing customization branches.
4. In the User Extensions region, under Customization Branches, click a branch to open the Branch page.
5. On the Branch page, click **Add Step**.
6. In Add Step, select **Add a Column**.

   You see the wizard sequence to add a column.
7. In step 1 of the wizard, enter a name for your customization step, for example, `Regional Revenue` and add a brief description.

8. Select a target subject area to which you want to add the column. For example, `Profitability`.

   You see the details of the selected subject area.

9. Select the presentation folder within the selected subject area and the logical table to which you want to add the column.

10. Click **Next**.

    You see the Create Column dialog in step 2 of the wizard.

11. In step 2 of the wizard, define your new column using these instructions:

    a. In Create Column, enter a display name.

    b. Under **Data Elements**, search for a data element from the subject area that you had selected previously.

    c. From the search results, double-click the data element to place it in the text pane.

    d. Under **Functions**, search for a function to construct a column using expressions. From the search results, double-click the applicable result to add it to the central text pane. For example, search for functions like "Filter" or "Avg" to construct expression-based columns. A sample expressions to derive the average supplier payment days is `avg(ROUND(((CASE WHEN Invoice Received Date is not null THEN (Financials - AP Payments.Payment Date.Payment Date - Invoice Received Date) ELSE (Financials - AP Payments.Payment Date.Payment Date - Financials - AP Invoices.Invoice Date.Invoiced Date) END)/Financials - AP Payments.Facts - Analytics Currency.Total Payment Count),0)).`

    e. Click **Validate**, and then click **Save**.

12. Optional: If you want the underlying measure of the column to be calculated to a specific level of a predefined dimensional hierarchy, then complete these steps:

    a. Click the **Hierarchy Level-Based Aggregation** icon.

    b. In the Hierarchy Level-Based Aggregation dialog, select the dimension, level, and then click **OK**.

    c. Click **Add Dimension** to add more dimensions.

13. Click **Next**.

14. Optional: Select additional subject areas to add the fact.

15. Click **Finish**.

    You see a message that your step is being applied to the customization branch. After it's applied, you see the new customization step in the customization branch. You can now apply the customization branch to the main branch or edit it to add more steps.

Create a Subject Area

You can create a subject area as a container and later add dimensions and facts to your new subject area or create a subject area based on an existing one.

1. Sign in to your service.

2. In Oracle Fusion Analytics Warehouse, open the **Navigator** menu, click **Console**, and then click **Semantic Model Extensions** under **Application Administration**.
3. On the Semantic Model Extensions page, click **User Extensions**.

   You see the main and existing customization branches.
4. In the User Extensions region, under Customization Branches, click a branch to open the Branch page.
5. On the Branch page, click **Add Step**.
6. In Add Step, select **Create a Subject Area**.

   You see the wizard sequence to create a subject area.
7. In step 1 of the wizard, enter a name for your customization step, for example, `Custom Profitability` and add a brief description.
8. Create a subject area using one of the methods:
   a. Select **Create a Subject Area** to create a subject area container, provide a name, add a description, and then click **Next**. You see step 4 of the wizard. Click **Finish** to create the subject area.
   b. Select **Create a Subject Area based on an existing one** to create a subject area using an existing one in the system and provide these details:
      i. Select an existing subject area, name your subject area, and then click **Next**.
      ii. In step 2 of the wizard, select the data elements that you want in your new subject area.
      iii. Click **Add Subject Area** to select and add data elements from multiple subject areas.
      iv. In step 3 of the wizard, organize and rename the data elements in your new subject area.
      v. Click **Next**.
      vi. In step 4 of the wizard, review your new subject area and click **Finish** to create it.

   You see a message that your step is being applied to the customization branch. After it's applied, you see the new customization step in the customization branch. You can now merge the customization branch with the main branch or edit it to add more steps.

Modify a Subject Area

Modify a custom subject area using these instructions.

1. Sign in to your service.
2. In Oracle Fusion Analytics Warehouse, open the **Navigator** menu, click **Console**, and then click **Semantic Model Extensions** under **Application Administration**.
3. On the Semantic Model Extensions page, click **User Extensions**.

   You see the main and existing customization branches.
4. In the User Extensions region, under Customization Branches, click a branch to open the Branch page.
5. On the Branch page, click **Add Step**.
6. In Add Step, select **Modify a Subject Area**.

You see the wizard sequence to modify a subject area.

7. In step 1 of the wizard, enter a name for your customization step, for example, `Custom AP Invoices` and add a brief description.
8. Select a subject area that you had created using the instructions in Create a Subject Area.

   You see the details of the selected subject area.
9. Click **Next**.
10. In step 2 of the wizard, from the Available Data Elements pane, select or deselect the data elements that you want to use or don't want in the selected subject area.
11. Optional: Click **Add Subject Area** to select and add data elements from multiple subject areas.
12. Click **Next**.
13. In step 3 of the wizard, organize and rename the data elements in your modified subject area.
14. Optional: Click the **Advanced Properties** icon next to the custom subject area to select an implicit fact that allows dimensions to be used for analytic queries even when not joined to a logical fact table.
15. Click **Next**.
16. In step 4 of the wizard, review your modified subject area and click **Finish**.

Edit or Delete a Branch Step

As the owner of the branch or an user with the Modeler Administrator role, you can edit a step to modify the details or delete it if it's no longer required. You can delete multiple steps together.

1. Sign in to your service.
2. In Oracle Fusion Analytics Warehouse, open the **Navigator** menu, click **Console**, and then click **Semantic Model Extensions** under **Application Administration**.
3. On the Semantic Model Extensions page, click **User Extensions**.

   You see the main and existing customization branches.
4. In the User extensions region, under Customization Branches, click a branch to display the steps.
5. Hover over a step to view the **Actions menu**.
6. Click **Edit** and update the details.
7. Click **Delete** to remove it from the branch.

Reapply a Branch Step

As the owner of a branch or a user with the Modeler Administrator role, you can reapply a failed step after resolving any issues that might have occurred with tables or columns in the autonomous data warehouse.

You can reapply the steps from the Branch details page without opening the steps.

1. Sign in to your service.

2. In Oracle Fusion Analytics Warehouse, open the **Navigator** menu, click **Console**, and then click **Semantic Model Extensions** under **Application Administration**.
3. On the Semantic Model Extensions page, click **User Extensions**.

   You see the main and existing customization branches.
4. In the User Extensions region, under Customization Branches, click a branch to display the steps.
5. Hover over a step to view the **Actions menu**.
6. Click **Reapply**.

Disable and Enable the Disabled Steps

You can disable and enable the disabled steps in the main and customization branches in the development and production environments. This helps you in troubleshooting issues in the branches.

You can perform these actions on the steps in the User Extensions and Security Configurations regions. You can disable and enable individual steps or select multiple steps using the **Manage Steps**, **Enable**, and **Disable** buttons on the branch details page. You can't disable a published step.

1. Sign in to your service.
2. In Oracle Fusion Analytics Warehouse, open the **Navigator** menu, click **Console**, and then click **Semantic Model Extensions** under **Application Administration**.
3. On the Semantic Model Extensions page, click **User Extensions**.

   You see the main and existing customization branches.
4. In the User Extensions region, click **Main** to view the details.
5. On the Main branch page, hover over a step to display the options.
6. Click **Disable**.
7. In Confirm Disable Steps, click **Disable**.
8. On the Main branch page, click **Manage Steps**, select the check box for the disabled steps, and then click **Enable**.
9. In Confirm Enable Steps, click **Enable**.
10. Perform these actions for steps in the customization branches.

Copy Steps from One Branch to Another

Use these instructions to copy steps from a customization branch to another customization branch.

1. Sign in to your service.
2. In Oracle Fusion Analytics Warehouse, open the **Navigator** menu, click **Console**, and then click **Semantic Model Extensions** under **Application Administration**.
3. On the Semantic Model Extensions page, click **User Extensions**.

   You see the main and existing customization branches.

4. In the User extensions region, under Customization Branches, click a branch whose steps you want to copy.
5. On the Branch page, click **Manage Steps**.
6. Select the check box for the steps that you want to copy and click **Copy**.
7. In Copy Steps, select the target branch to which you want to copy the selected steps and click **OK**.

   Alternately, you can create a branch using the "Create Branch" option available in the Copy Steps dialog and copy the steps into this new branch in a single action.

   You see a confirmation message that the steps have been successfully copied.

View Details of Failed Branch Steps

You can view the reasons why a branch step had failed and then correct the errors.

1. Sign in to your service.
2. In Oracle Fusion Analytics Warehouse, open the **Navigator** menu, click **Console**, and then click **Semantic Model Extensions** under **Application Administration**.
3. On the Semantic Model Extensions page, click **User Extensions**.

   You see the main and existing customization branches.
4. In the User extensions region, under Customization Branches, click the branch with the **Failed** icon to view the details.
5. On the Branch page, click the **Failed** status for a step that has failed and view the error details.

Merge the Customization Branches with the Main Branch

Merge the customization branches with the main branch to use the customization steps as the sequence of steps.

The main branch lives in the test environment. When you edit a branch, the system automatically locks it to prevent another user from simultaneously editing the same branch. As you complete each step or reorder the steps, the system unlocks the branch, saves it, and notes the change in the change log tab.

1. Sign in to your service.
2. In Oracle Fusion Analytics Warehouse, open the **Navigator** menu, click **Console**, and then click **Semantic Model Extensions** under **Application Administration**.
3. On the Semantic Model Extensions page, click **User Extensions**.

   You see the main and existing customization branches.
4. In the User Extensions region, under Customization Branches, hover over a branch to view the **Actions menu**.
5. From the **Actions menu**, click **Merge to Main Branch**, and then click **Ok**.

   When a branch gets merged into Main, the other branches go out of synchronization and you must resynchronize them with the Main branch.

Reorder Steps of Customization Branches

You can reorder the steps in a branch that has been applied or is yet to be applied to the main branch.

1. Sign in to your service.
2. In Oracle Fusion Analytics Warehouse, open the **Navigator** menu, click **Console**, and then click **Semantic Model Extensions** under **Application Administration**.
3. On the Semantic Model Extensions page, click **User Extensions**.

   You see the main and existing customization branches.
4. In the User Extensions region, under Customization Branches, click a branch to display the steps.
5. On the Branch page, click **Manage Steps**.
6. Select the check box for the steps that you want to reorder and click **Reorder**.
7. In Reorder Steps, use the drag handles to drag and drop the steps in the new order that you want, and then click **Reorder**.

Edit or Delete a Main Branch Step

As a modeler administrator, you can edit and delete all steps that have been either applied or have failed. With modeler permissions, you can edit and delete only failed steps.

1. Sign in to your service.
2. In Oracle Fusion Analytics Warehouse, open the **Navigator** menu, click **Console**, and then click **Semantic Model Extensions** under **Application Administration**.
3. On the Semantic Model Extensions page, click **User Extensions**.

   You see the main and existing customization branches.
4. In the User Extensions region, click **Main** to view the details.
5. On the Main Branch page, hover over a step to display the options.
6. Click **Edit** and update the details.
7. Click **Delete** to remove it from the main branch.

Tag the Main Branch's Steps

You can create tags on the "Applied" steps of the Main branch as a snapshot at a given point in time.

When you have a set of customizations ready for promotion and merged them with the Main branch, you can tag the Main branch's steps with “Applied” status using the **Create Tag** option for the Main branch or tag any of it's steps with “Applied” status directly on the Main branch detail page using the **Tag** option. When you tag a step directly on the Main branch details page or include a step while tagging using the **Create Tag** option for the Main branch, the steps prior to the selected step are included in the tag too. You can untag the tags that you create for the Main branch's steps using the **Untag** option.

You later promote the tagged steps of the Main branch to the production environment. See Promote Your Customizations to the Production Environment.

1. Sign in to your service.
2. In Oracle Fusion Analytics Warehouse, open the **Navigator** menu, click **Console**, and then click **Semantic Model Extensions** under **Application Administration**.
3. On the Semantic Model Extensions page, click **User Extensions**.

   You see the main and existing customization branches.
4. To create a tag for a step in the Main branch, in the User Extensions region, click **Create Tag**.
5. In Create a Tag, enter a name for the tag and a description.
6. Select a merged step that you want to include in this tag.
7. Click **Done**.
8. To tag a step directly, hover over the Main branch to view the **Actions menu** and then click **View Details**.
9. On the Main branch details page, hover over a step to view the **Actions menu** and then click **Tag**.
10. In Create a Tag, enter a name for the tag and a description.
11. Click **Done**.
12. To untag a tag for the Main branch and the step included in the Tag, on the Main branch details page, hover over a step to view the **Actions menu** and then click **Untag**.
13. In Confirm Untag, click **Untag**.

> **Note:**
>
> If there're multiple tags on the same step, then you can select the check boxes for the applicable tags in the Confirm Untag dialog.

Add Security Configurations

Add security configurations to secure the subject areas and data with ready-to-use and custom duty and data type of application roles.

1. Sign in to your service.
2. In Oracle Fusion Analytics Warehouse, open the **Navigator** menu, click **Console**, and then click **Semantic Model Extensions** under **Application Administration**.
3. On the Semantic Model Extensions page, click **Security Configurations**.

   You see the existing security configurations, if any, and the option to add new security configurations.
4. In the Security Configurations region, click **Add Configure Data Security** to secure your data with the data type of application roles.

   See Configure Data Security.

5. In the Security Configurations region, search for the ready-to-use "Configure Object Permissions" to configure permissions for objects such as subjects areas and their elements with duty type of application roles.

   See Configure Object Permissions.

6. Optional: In the Security Configurations region, click **Reapply Steps** to validate the security configuration-related steps against the current state of the model.

Configure Data Security

As a security administrator, provide users with access to data using the custom-created data type application roles.

You can add filters to data retrieved from logical or presentation objects based on the data roles assigned to users. You can add one customization step for each data role. The elements that you can secure are from the Main branch of the semantic model. Hence, if you need a newly added object to be secured, then you must ensure that the customization branch containing the newly added object is merged with the Main branch before configuring the security. If any of the custom-created role is no longer available, then the security configuration for that role is removed from the "Configure Data Security" step.

1. Sign in to your service.
2. In Oracle Fusion Analytics Warehouse, open the **Navigator** menu, click **Console**, and then click **Semantic Model Extensions** under **Application Administration**.
3. On the Semantic Model Extensions page, click **Security Configurations**.

   You see the existing security configurations, if any.
4. In the Security Configurations region, click **Add Configure Data Security Step**.
5. In step 1 of the wizard, enter a name for your step, select a data type application role, and then click **Next**.
6. In step 2 of the wizard, from the **Available Objects** drop-down list, click either Presentation Objects or Logical Objects to select the objects that you want to secure with the selected data type application role.

   If you are viewing the presentation objects, then expand the subject area folders and double-click the objects. If you are viewing the logical objects, then double-click the logical table folders or expand the table folders and double-click the objects. You see the selected objects under **Object to be secured** in the right pane.
7. Optional: Specify the functional group to combine the data filters using the OR and AND operators.

   Oracle Fusion Analytics Warehouse combines all the filters in the same functional group using the OR operator and combines all sets of filters in different functional groups using the AND operator.
8. Click the **Function** icon to define how the data filter gets applied.

   Use the Expression Editor to enter the filter, based on the session variables that you had created previously. To view an example, see Custom Security in Fusion Analytics Warehouse.
9. Click **Next**.
10. Click **Finish**.

11. Optional: In the Security Configurations region, click **Reapply Steps** to validate the security configuration-related steps against the current state of the model.

Configure Object Permissions

Configure the permissions for objects such as subject areas and its elements with the ready-to-use or the custom-created duty roles.

You secure the subject areas and their elements through "Configure Object Permissions", a ready-to-use single step. You edit this single step to specify the subject areas, their elements, and the duty roles to secure these with. The elements that you can secure are from the Main branch. Hence, if you need a newly added object to be secured, then you must ensure that the branch containing the newly added object is merged with the Main branch before configuring the security. If any of the custom-created role is no longer available, then the security configuration for that role is automatically updated in the existing "Configure Object Permissions".
For the front-end objects such as KPIs and decks, set the permissions individually for each object by adding the applicable duty role and the corresponding access. See Inspect a KPI and Inspect a Deck.

1. Sign in to your service.
2. In Oracle Fusion Analytics Warehouse, open the **Navigator** menu, click **Console**, and then click **Semantic Model Extensions** under **Application Administration**.
3. On the Semantic Model Extensions page, click **Security Configurations**.

   You see your existing security configurations and the ready-to-use object permissions-related step.
4. In the Security Configurations region, search for the ready-to-use "Configure Object Permissions", and hover over it to view the Actions menu, and then click **Edit**.
5. In step 1 of the wizard, click **Next**.
6. In step 2 of the wizard, select the subject areas or elements and set the corresponding desired permission to the duty role selected from the list, and then click **Next**.

   By default, the list of permissions by duty role displays the explicit permissions set for the subject area or the elements of the selected subject area. If you want to add more permissions, then select the duty role from the list and set the required permission. Permission levels that you can set are:

   - Default (inherited from the parent element).
   - No Access (deny access to the respective subject area or its elements)
   - Read-only (access to read the respective subject area or its elements).

   Repeat the operation for all the subject areas or the subject area elements that you need to secure.
7. Review your changes and click **Finish**.

View Activity History of Semantic Model Extensions

View an audit of all activities performed on the semantic model.

1. Sign in to your service.

2. In Oracle Fusion Analytics Warehouse, open the **Navigator** menu, click **Console**, and then click **Semantic Model Extensions** under **Application Administration**.
3. On the Semantic Model Extensions page, click **Activity History** to view an audit of all activities performed on the semantic model.
4. Hover over an activity to view details of the activity.

Publish the Model

You can publish the versions on the main development branch and the other branches to ensure that there are no errors.

1. Sign in to your service.
2. In Oracle Fusion Analytics Warehouse, open the **Navigator** menu, click **Console**, and then click **Semantic Model Extensions** under **Application Administration**.
3. On the Semantic model Extensions page, click **Publish Model**.
4. In Publish Model, select the user extensions and security configurations that you want to publish.

   If you select the security configurations, then Oracle Fusion Analytics Warehouse applies them on the user extensions that you selected. If the security configurations refer to elements in the model that aren't part of the user extensions, then Oracle Fusion Analytics Warehouse excludes them at the time of publishing the model.
5. Click **Publish**.

Load Customization Data to the Autonomous Data Warehouse

You can load your customization data to the autonomous data warehouse provisioned with your Oracle Fusion Analytics Warehouse instance.

1. Connect to the autonomous data warehouse corresponding to your Oracle Fusion Analytics Warehouse instance.

   You need the autonomous data warehouse wallet and credentials of the administrator. The credentials of the administrator are same as what you had mentioned for the autonomous data warehouse resource while creating the Oracle Fusion Analytics Warehouse instance. See Create an Oracle Fusion Analytics Warehouse Subscription Instance .
2. Create a custom schema to store the customization data.

   Syntax: `create user <custom_schema-name> identified by <custom_schema-password>;`

   Example: `create user example_schema identified by abcDEF123654;`
3. Create one or more tables in the custom schema that you created.

   Syntax: `CREATE TABLE <custom_schema-name>.<custom_extent_table_name> (<parameters>));`

   Example: `CREATE TABLE example_schema.ABC_EXTN ("DATE" DATE, "CATEGORY" VARCHAR2(1024 BYTE) , "MANAGER" VARCHAR2(1024 BYTE) );`
4. Populate the required data and grant select permissions to the OAX$OAC schema in the autonomous data warehouse using this script:

Syntax: `grant select on <custom_schema-name> to OAX$OAC;`

Example: `grant select on example_schema.ABC_EXTN to OAX$OAC;`

5. Commit the changes to the autonomous data warehouse and disconnect.

Promote Your Customizations to the Production Environment

When you have a set of changes to the semantic model, security configurations, and customized KPIs ready for promotion, you can tag the "Applied" steps of the Main branch as a snapshot at a given point in time, and then promote the tags to the production environment.

While promoting customizations from the source to the target instance, Oracle Fusion Analytics Warehouse removes the customizations in the target instance and overwrites it with the one from the source instance.

1. Sign in to your service.
2. In Oracle Fusion Analytics Warehouse, open the **Navigator** menu, click **Console**, and then click **Promote Objects** under **Application Administration**.

   You see the Promote Objects page.
3. On the Promote Objects page, select the target environment to which you want to publish your customizations.
4. Select the customized objects that you want to promote to the target environment.

   For example:

   - Select the **Semantic Model Extensions** check box. Select the applicable tag to promote the tagged steps. Select **Reset All** to promote the original main branch to the target environment without any tags.
   - Select the **KPIs** check box. Select the **Promote All** option to promote all the KPIs or click **Choose KPIs**, search for and select the customized KPIs that you want to promote, and then click **OK**.

     > **Note:**
     >
     > If you delete a KPI from the development instance that was previously promoted to the production instance and you later use the **Promote All** option to promote all the KPIs to the production instance, then you need to explicitly delete the “applicable” KPI from the production instance. For example, if you had promoted KPIs A, B, and C and later deleted KPI B in the development instance and again promoted using the **Promote All** option, then Oracle Fusion Analytics Warehouse promotes only A and C without deleting KPI B in the production instance. You must explicitly delete KPI B in the production instance.

   - Under **Security Configurations**, select **Roles and Mappings**, **Object Security**, and **Data Security** independently. Complete these actions:

     a. For **Roles and Mappings**, select the **Promote All** option or **Select roles to promote** option and then click **Choose Roles and Mappings**. In the

Choose Roles and Mappings dialog, select the roles and mappings to promote to your target environment, and then click **Save**.

b. For Object Security and Data security, select the **Promote All** option to promote all the security configurations for the applicable elements to the target environment. Select the **Reset All** option to remove all the security configurations done on the target system for the applicable elements.

> **Note:**
>
> For data and duty security, ensure that you select the dependent elements too. If you don't select the roles or the correct repository file version, then the promotion of the data and duty security configurations may fail or the promotion process may silently ignore the missing elements.

5. On the Promote Objects page, click **Promote**.
6. Click **Check Status** to view the progress.

View Promotion History

View an audit of all artifacts promoted to another environment.

1. Sign in to your service.
2. In Oracle Fusion Analytics Warehouse, open the **Navigator** menu, click **Console**, and then click **Promote Objects** under **Application Administration**.
3. On the Promote Objects page, click **Activity History** to view the promoted artifacts.

Republish Your Customizations

As the owner of a branch or a user with the Modeler Administrator role, you can republish your user extensions, security configurations, and tagged steps of the Main branch if you've modified them after publishing them initially.

1. Sign in to your service.
2. In Oracle Fusion Analytics Warehouse, open the **Navigator** menu, click **Console**, and then click **Semantic Model Extensions** under **Application Administration**.
3. On the Semantic Model Extensions page, click **User Extensions**.

   You see the main and existing customization branches.
4. In the User Extensions region, under Customization Branches, you see a warning icon for a published branch that has been modified and the **Republish** button on the Semantic Model Extensions page.
5. Click **Republish** to publish the branch with the latest details.

7

Manage Oracle Fusion Analytics Warehouse

As the cloud account administrator with the functional administrator or system administrator application role, you can manage your Oracle Fusion Analytics Warehouse instance to ensure that you have the latest application updates, backups to restore in case of emergencies, and snapshots of your application artifacts.

Topics:

- Manage Application Updates
- Bundle Your Application Artifacts
- About Backup and Restore
- About Disaster Recovery

Manage Application Updates

As a service administrator, you can decide when to apply the application updates except the emergency patches that are deployed automatically.

Topics:

- About Application Updates
- Update Your Application

About Application Updates

Application updates are available for major releases (quarterly basis), patches (monthly basis), and emergency fixes (as needed).

Except the emergency patches, you can decide when to apply the application updates. You can schedule the update for current and major releases to occur by a deadline. After the deadline, Oracle automatically updates your application. These updates have zero downtime. The auto-update process updates the data model and immediately after the data model update, this process updates the content. You can view the application updates and plan accordingly using the Release updates tile under Service Administration on the Console. You also see a notification on the Data Configuration page when an application update is available. You can then plan to uptake using the Release Updates tile.

The application upgrade adds new pillars, modules, data models (facts and dimension tables), KPIs, cards, and decks. The data pipelines for functional areas that have been activated are preserved during the upgrade. The data pipelines in Saved or Scheduled status are reset to Saved status. To activate these data pipelines, you must set them to Activated status. You can skip an upgrade for one release. However, you must upgrade when the next patch is available. The application upgrade adds new and replaces existing modified content with the latest version.

See About Oracle Fusion Analytics Warehouse Releases.

Update Your Application

As the service administrator, you can view available application updates and schedule a date to accept the update.

Oracle Fusion Analytics Warehouse provides automatic updates of the application to ensure you're using the most current software. You can schedule the update earlier than the predefined date and time. If you do nothing, the application upgrade automatically runs on the date shown on the Release Updates page.

1. Sign in to your service.
2. In Oracle Fusion Analytics Warehouse, open the **Navigator** menu, click **Console**, and then click **Release Updates** under **Service Administration**.
3. On the Release Updates page, select an application update, and then select the date on which you want to apply it.

Bundle Your Application Artifacts

As a service administrator, you can manage snapshots of your application artifacts as bundles.

Topics:

- About Bundles
- Create a Bundle
- Edit a Bundle
- Publish a Bundle
- Deploy a Bundle
- Export a Bundle
- Import a Bundle
- Delete a Bundle

About Bundles

Bundles are snapshots of your application artifacts at a certain point in time.

Bundles enable you to:

- Package custom development by defining a bundle that represents a subset of app artifacts in an environment. For example, development, test, or production.
- Migrate custom development and deploy the bundle on a target environment.
- Synchronize instances by making a replica or promote changes from the target to the source environment. For example, production to test.
- Restore the system when something goes wrong with an environment and you need to do a complete system restore.
- Create a backup at a checkpoint of the environment or subset of application to save current state of the artifacts.

- Restore artifacts by importing from a bundle to restore state of application to the checkpoint represented by the bundle.

You can bundle your application artifacts as:

- Data Config bundle: This includes pipeline parameters, report parameters, activation metadata, and data augmentations. You can install this bundle in an existing environment after a hard data reset. This is useful to leave content as-is and reset data pipeline.
- Semantic Model bundle: This includes main branch, tags, custom branch, duty and data roles for semantic extension.
- Security bundle: This includes custom groups, application roles, and custom security.
- Content bundle: This includes snapshots of Oracle Analytics Cloud folders, projects, dataset definitions, KPIs, decks, and duty roles for content.
- Composite bundle: This includes one or more of the other bundles.
- Environment bundle: This includes all artifacts of a specific environment to revert to a known state of system. For example, at the end of every week, the service administrator can create a bundle called DevEnv_YYMMDD to maintain a backup of the environment. You must first deploy the data configuration bundle or manually activate your data pipelines before deploying the environment bundle.

Create a Bundle

Create a snapsnot of your application artifacts to save their current state.

1. Sign in to your service.
2. In Oracle Fusion Analytics Warehouse, open the **Navigator** menu, click **Console**, and then click **Bundles** under **Application Administration**.

   You see the Bundles page.
3. On the Bundles page, click **Create** and select the type of bundle that you want to create. For example, Content Bundle.
4. Enter a name and description for your bundle.
5. Perform these actions:
   - For a content bundle, do either of the following and click **Save**:
     a. Select the **Include All Content** check box.
     b. Select applicable OAC content, decks, and KPIs using the corresponding toggles and buttons.
   - For a data config bundle, do either of the following and click **Save**:
     a. Select the **Include all data configuration settings** check box.
     b. Select applicable modules and augmentations using the corresponding toggles and buttons.
   - For a semantic extensions bundle, do either of the following and click **Save**:
     a. Select the **Include all semantic extensions** check box.
     b. Select the **Publish a branch or tag in the target environment** check box and select the applicable option from the dropdown list.
     c. Select applicable tags and branches using the corresponding toggles and buttons.

- For a security bundle, do either of the following and click **Save**:
  a. Select the **Include all security settings** check box.
  b. Select applicable groups and application roles using the corresponding toggles and buttons.
- For a an environment bundle, select the Include groups check box, if required, and click **Save**.
- For a composite bundle, select any of the other bundles, and click **Save**.

You see the bundles that you created on the Bundles page.

Edit a Bundle

Edit a bundle if you need to change the application artifacts captured in the bundle.

1. Sign in to your service.
2. In Oracle Fusion Analytics Warehouse, open the **Navigator** menu, click **Console**, and then click **Bundles** under **Application Administration**.

   You see the Bundles page.
3. On the Bundles page, hover over the bundle that you created and click under **Actions**.
4. From **Actions**, select **Edit**.
5. On the applicable bundles page, make your changes and then click **Update**.

   You must regenerate the bundle.

Publish a Bundle

Publish a bundle from the source environment. This action generates a snapshot of the application artifacts and saves the snapshot to a repository.

1. Sign in to your service.
2. In Oracle Fusion Analytics Warehouse, open the **Navigator** menu, click **Console**, and then click **Bundles** under **Application Administration**.

   You see the Bundles page.
3. On the Bundles page, hover over the bundle that you created and click under **Actions**.
4. From **Actions**, select **Generate** to create and publish the bundle.

You see the bundle with Generated status on the Bundles page.

Deploy a Bundle

You can deploy a generated bundle in the target environment to revert to state of artifacts represented by the bundle. The application validates the bundle before attempting any deployment to ensure software and model versions and any other dependencies are met.

1. Sign in to your service.

2. In Oracle Fusion Analytics Warehouse, open the **Navigator** menu, click **Console**, and then click **Bundles** under **Application Administration**.

   You see the Bundles page.

3. On the Bundles page, hover over the bundle that you created and click under **Actions**.
4. From **Actions**, select **Deploy**.
5. In the Deploy Bundle dialog, ensure that you see the bundle that you have selected.
6. Click **Deploy**.

Export a Bundle

Export the bundle .aab file from your source system to a repository or your local machine.

1. Sign in to your service.
2. In Oracle Fusion Analytics Warehouse, open the **Navigator** menu, click **Console**, and then click **Bundles** under **Application Administration**.

   You see the Bundles page.

3. On the Bundles page, hover over the bundle that you created and click under **Actions**.
4. From **Actions**, select **Export**.

Import a Bundle

Import the bundle .aab file into the target environment from your local machine to restore the state of the application to the checkpoint represented by the bundle.

1. Sign in to your service.
2. In Oracle Fusion Analytics Warehouse, open the **Navigator** menu, click **Console**, and then click **Bundles** under **Application Administration**.

   You see the Bundles page.

3. On the Bundles page, hover over the bundle that you created and click under **Actions**.
4. From **Actions**, select **Import**.
5. In the Import Bundle dialog, click in Drag and Drop, and then select the applicable .aab file from your local machine.
6. Click **Import**.

Delete a Bundle

Delete a bundle if you no longer require the snapshot of your application artifacts captured in the bundle.

1. Sign in to your service.
2. In Oracle Fusion Analytics Warehouse, open the **Navigator** menu, click **Console**, and then click **Bundles** under **Application Administration**.

   You see the Bundles page.

3. On the Bundles page, hover over the bundle that you created and click under **Actions**.
4. From **Actions**, select **Delete**.

About Backup and Restore

Oracle Fusion Analytics Warehouse relies on Oracle Autonomous Data Warehouse as the data store and Oracle Analytics Cloud for it's semantic models and reports. In addition, Oracle Fusion Analytics Warehouse has certain metadata around configurations and extensions.

Use these database backup options:

- Oracle Autonomous Data Warehouse has automated daily backups for the last 60 days. Use these backups to restore the database within a region. See About Backup and Recovery on Autonomous Database.
- Oracle Data Pump is an option to export Oracle Autonomous Data Warehouse to a resilient file store like Oracle Storage Service. In the case of a region-wide failure, you can import these files into a database in another region. See Overview of Oracle Data Pump.

Oracle Analytics Cloud traditionally provides snapshots as a mechanism to backup artifacts. However, since the Oracle Fusion Analytics Warehouse data model file isn't directly available to you, the Snapshots capability is turned off. In order to backup the Oracle Analytics Cloud artifacts along with the Oracle Fusion Analytics Warehouse customizations and configurations, use the Bundles feature. For example, you can export a Oracle Fusion Analytics Warehouse environment bundle periodically (for example, weekly) to a resilient file store like Oracle Storage Service. In the case of a failure, you can import the bundle into another Oracle Fusion Analytics Warehouse environment and deploy it. See Bundle Your Application Artifacts.

About Disaster Recovery

Oracle Fusion Analytics Warehouse doesn't have an official disaster recovery offering at this time. .Oracle Fusion Analytics Warehouse is built upon Oracle Cloud Infrastructure and leverages Oracle PaaS services.

While a priced option is designed, here is some guidance for enterprise needs. For the Oracle Fusion Analytics Warehouse ready-to-use content, it is possible to provision a fresh Oracle Fusion Analytics Warehouse environment with the latest software and do a data activation in the case of a disaster. Oracle Applications Cloud is the source of truth for Oracle Fusion Analytics Warehouse data. A data reset can populate Oracle Fusion Analytics Warehouse with historical data from the Oracle Applications Cloud source at any time. Customizations to Oracle Fusion Analytics Warehouse and any custom ETL and schemas are the key concerns in case of a region-wide disaster recovery event.

For enterprise customers who need a disaster recovery strategy for region-wide failures, here are some suggestions:

- Active solution: Purchase another Oracle Fusion Analytics Warehouse subscription and provision it in a region other than production Oracle Fusion Analytics Warehouse. Note that you can still connect this secondary environment to the same Oracle Applications Cloud source as the primary and refresh data just like the primary environment. Maintain the secondary environment in synchrony with the primary production environment by repeating any action taken in the primary environment. You can switch business users to the secondary environment any time.

- Passive solution: Provision an Oracle Fusion Analytics Warehouse Additional Test Environment (ATE) in a different region than the production environment and maintain it in synchrony with the primary production environment in terms of all the customizations. In the case of a disaster event, scale-up the ATE instance, refresh data to production level, and switch business users to using this environment.

8
Troubleshooting

When I log in, Oracle Fusion Analytics Warehouse doesn't load properly.

When you log out, be sure to close all Oracle Fusion Analytics Warehouse sessions and close your browser before logging in as another user. You can have one session of Oracle Fusion Analytics Warehouse open at a time within the same browser.

I see a performance decrease when using Mozilla Firefox.

If you use Mozilla Firefox and notice a decrease in the performance of the cloud service, then ensure that the Remember History option is enabled. When Firefox is set to not remember the history of visited pages, then web content caching is also disabled, which greatly affects the performance of the service. See Firefox documentation for details on setting this option.

After I complete a production to test refresh of my source (for example, Oracle Applications Cloud), why isn't the data in Oracle Autonomous Data Warehouse associated with my Oracle Fusion Analytics Warehouse instance synchronized with the source?

When you complete a production to test refresh on Oracle Applications Cloud, the data in Oracle Autonomous Data Warehouse associated with your Oracle Fusion Analytics Warehouse instance may be different than what is in Oracle Applications Cloud. To ensure that the data in Oracle Autonomous Data Warehouse and Oracle Applications Cloud is synchronized, you must:

1. Reset the warehouse.
2. Activate the functional areas.
3. Ensure that the Oracle Applications Cloud password is accurate for the Oracle Fusion Analytics Warehouse instance. Typically the password gets replaced in Oracle Applications Cloud after the production to test refresh.