

Oracle Utilities Customer Self Service

Whitepaper: Customizing and Extending the OUCSS
Custom Portal

Release 2.2.0.0

E77865-01

August 2016

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Chapter 1

Overview

This whitepaper describes the steps required to customize and re-brand the OUCSS Portal.

Additional Resources

Further information is available in the *Developing Portals with Oracle WebCenter Portal (12.2.1)*, available on the OTN at <http://docs.oracle.com/middleware/12211/wcp/wcp-build.htm>.

Note: This document and related documentation is subject to revision and updating. For the most recent versions of documentation relating to this produce, as well as information on functionality and known issues for other Oracle products that may be required for installation and proper functionality of this product, check the Oracle Utilities Customer Self Service section of the [Oracle Utilities Documentation](#) area on the Oracle Technology Network (OTN) web site (<http://www.oracle.com/technetwork/apps-tech/utilities/documentation/index.html>).

Abbreviations

CCB - Oracle Utilities Customer Care and Billing

MDM - Oracle Utilities Meter Data Management

DDL – Data Definition Language

MDS – Metadata Services

OUCSS – Oracle Utilities Customer Self Service

Portal – Oracle WebCenter Portal

REST – Representational State Transfer

Chapter 2

Preparation and Procedures

Software Requirements

Please refer to the *Oracle Utilities Customer Self Service Installation Guide* for product-specific versions and the current patch level.

Pre-Installation Tasks

The following tasks should be completed before you can customize OUCSS Portal.

- Ensure that Oracle JDeveloper version 12.2.1 is installed.
- Ensure that the WebCenter bundle (12.2.1) is enabled in JDeveloper.
- Ensure that your OUCSS Portal is deployed and is running.

Assumptions

- The OUCSS Portal is built by extending the “WebCenter Portal 12.2.1” with OUCSS taskflows.
- The Portal is deployed on Oracle WebLogic (12.2.1) server.
- The OUCSS Schema is created and populated with seed data. For running the taskflows, a data source with jndi name **jdbc/UCSSDS** is also expected in the target application server.
- For taskflows that require the sending of emails (e.g., Registration, Invite, etc.), a mail session with the jndi name **mail/UCSS** is also expected on the target application server.

Note: The following information is not within the scope of this document:

- Setup and Installation of WebCenter Portal Server.
- Setup of database and MDS or other schemas required by the WebCenter Portal.
- Detailed security of the portal to restrict access to taskflows, page templates, navigation models, and/or portal pages.

Portal Extension

The OUCSS Portal can be extended by creating custom taskflows and pages using the **ExtendOUCSSPortal** workspace included in `ExtendOUCSSPortal.zip`. The `ExtendOUCSSPortal` workspace includes three projects: **OUCSSPortalADFLibrary**, **OUCSSRestExtensionLibrary** and **OUCSSPortalSharedLibrary**.

The `OUCSSPortalADFLibrary` project is used to add portal artifacts (taskflows and pages) and the `OUCSSRestExtensionLibrary` project is used to extend OUCSS REST Services and adding custom services. The `OUCSSPortalSharedLibrary` project is used for deploying the **extend.oucss.portal** shared library.

Note: You can add pages at runtime from the **Administrator > Pages** screen. For a smooth OUCSS upgrade, it is recommended that you create pages using the `ExtendOUCSSPortal` approach.

About Security

WebCenter Portal 12.2.1 allows all taskflows to be displayed for both anonymous or authenticated users. The page containing the taskflow is protected using the required access permission.

However, it is recommended to use the following structure to isolate secured and public taskflow for easy management.

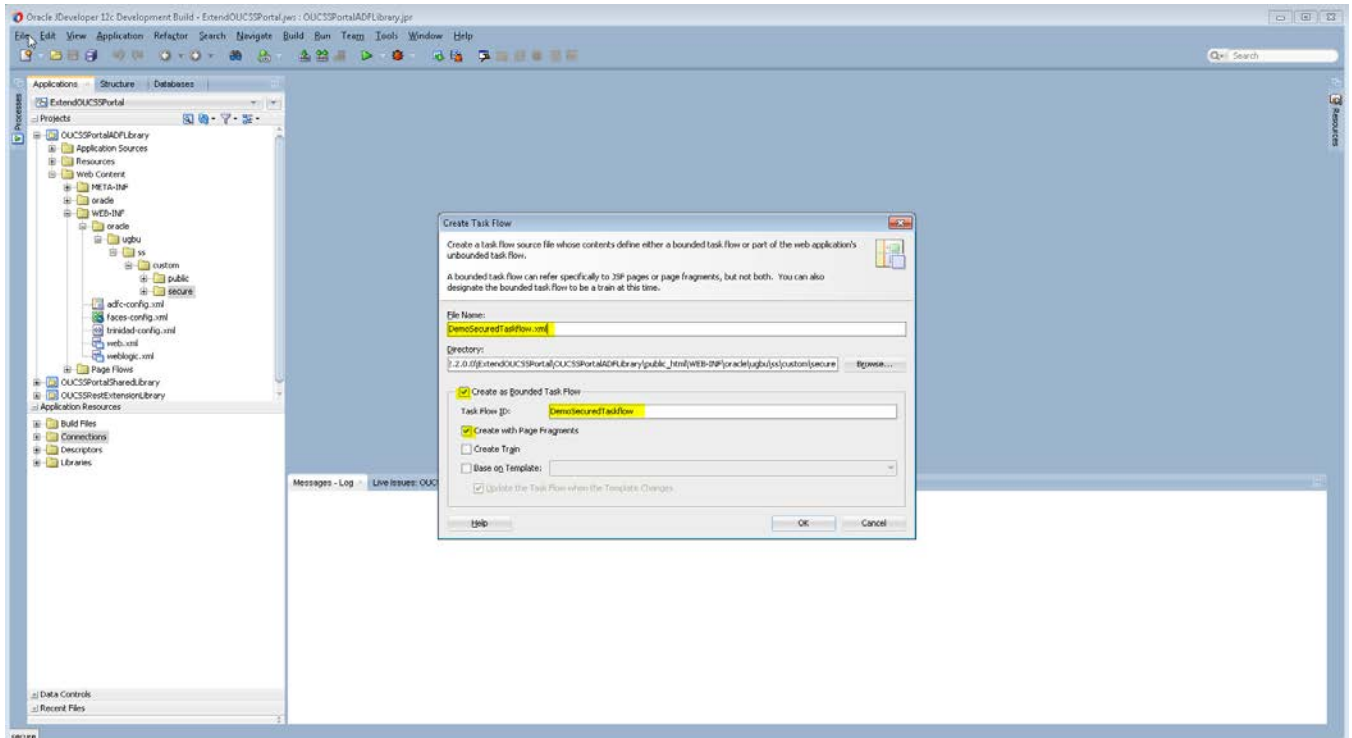
Use the following criteria when creating taskflows:

- Create taskflows under `\WEB-INF\oracle\ugbu\ss\custom\secure` if access is to be restricted to authenticated/ logged-in users.
- Create taskflows under `\WEB-INF\oracle\ugbu\ss\custom\public` if the taskflows are to be accessible to all users (including public users).
- Create pages/fragments under `\oracle\ugbu\ss\custom\pages\secure` if the pages should be accessible only to authenticated/ logged-in users.
- Create pages/fragments under `\oracle\ugbu\ss\custom\pages\public` if the pages should be accessible to all users (including public users).

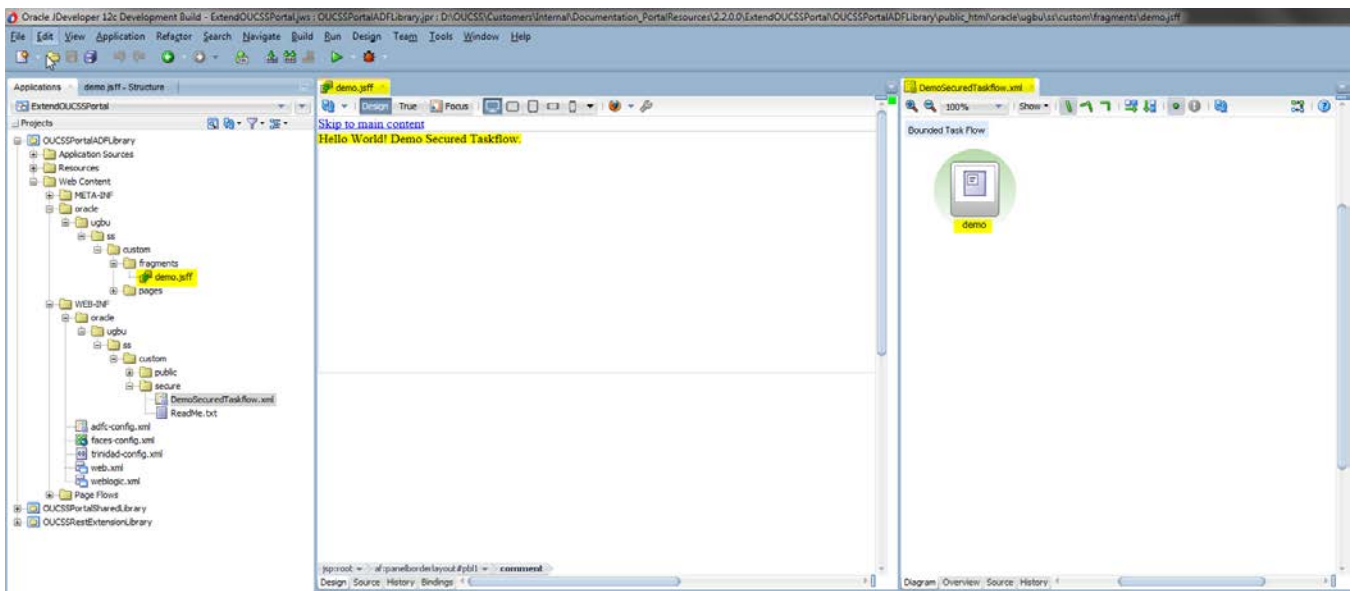
The OUCSS Portal Administrator can manage the pages and taskflows created under both secure and public folders using the WebCenter Administrator Control.

Adding New Taskflows and Pages

- 1 Extract the contents of `ExtendOUCSSPortal.zip` and open `ExtendOUCSSPortal.jws` in JDeveloper.
- 2 Select the `public_html\WEB-INF\oracle\ugbu\ss\custom\secure` folder in the **OUCSSPortalADFLibrary** project and add a new ADF Taskflow.



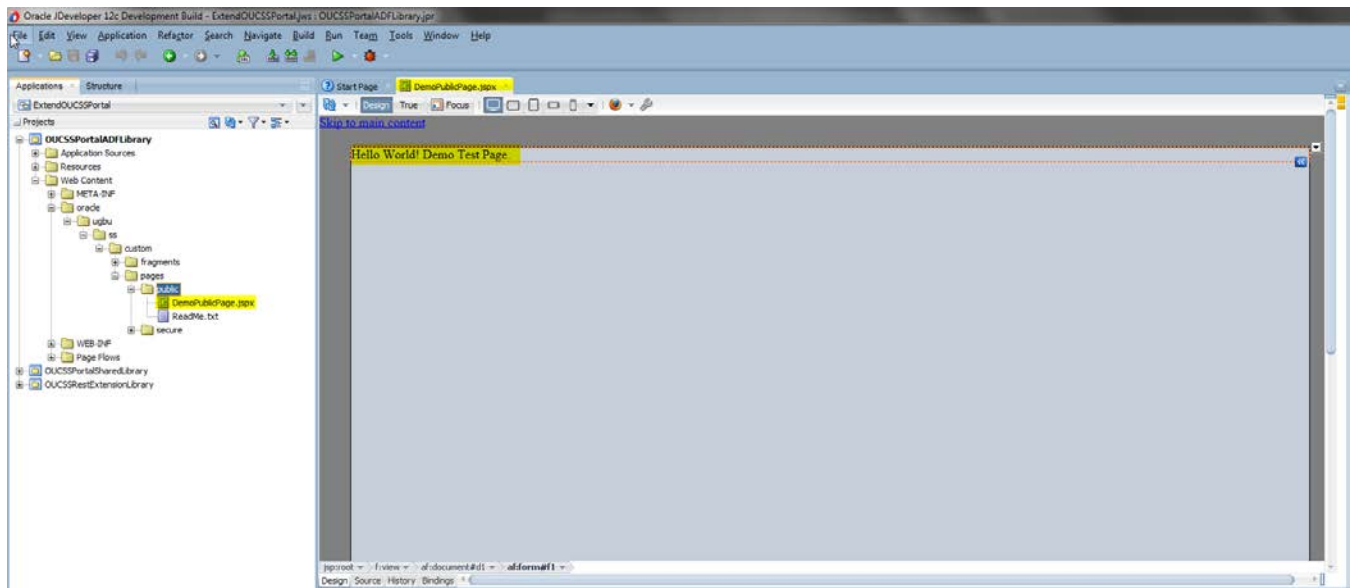
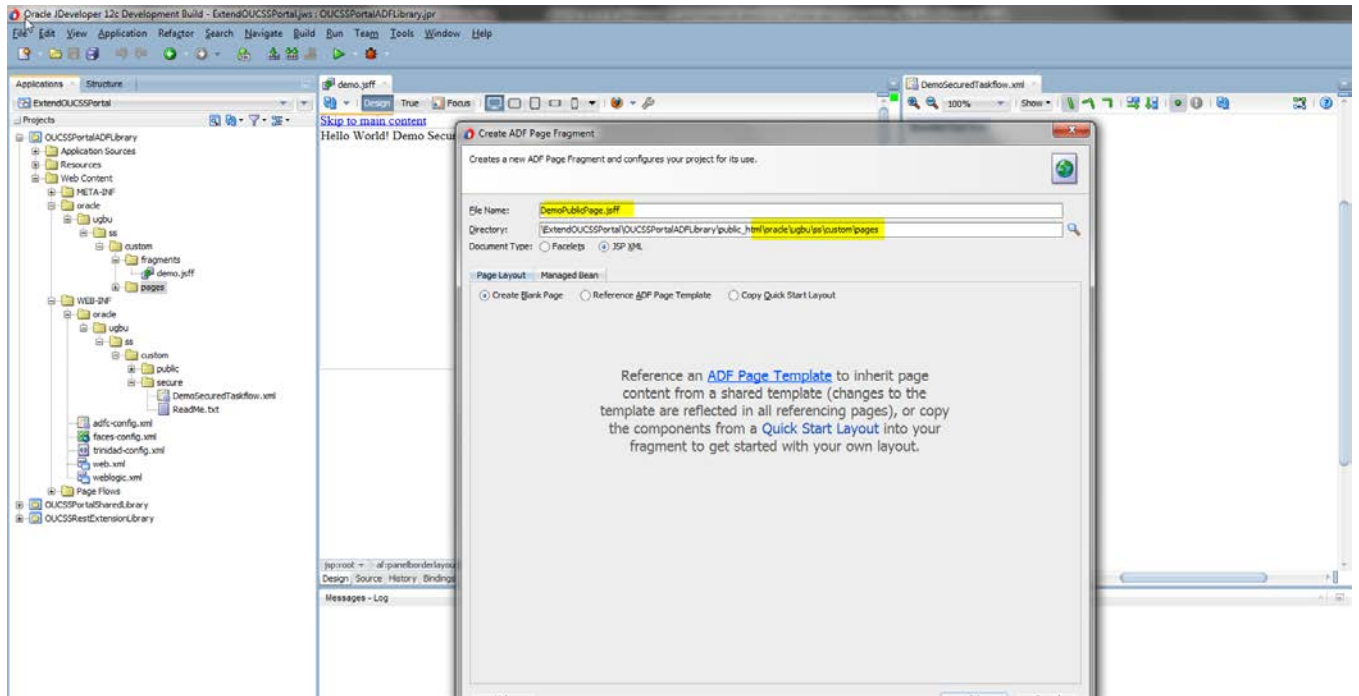
- For the purposes of this demo, we'll create a secure taskflow containing one `view/jsff` (`demo.jsff`) that displays, "Hello World! Demo Secured Taskflow".



- Repeat step 2 and 3 to create other secured and public taskflows.
- Select the `/public_html/oracle/ugbu/ss/custom/public` folder in the **OCSSPortalADFLibrary** project and add a new **Page** (jspx).

For the purposes of this demo, a page named `DemoPublicPage.jspx` is created that contains the text, "Hello World! Demo Public Page".

Note: For security to work, always add a **Page Definition** for all pages added in an **ExtendOCSSPortal** project. If the page definition is not added, the page will not render in the portal.



6 The newly-created page should reference a page template and page editor to enable runtime customization when viewed in Portal. To create the references:

- Modify the JSPX as follows:

```
<?xml version='1.0' encoding='UTF-8'?>
<jsp:root xmlns:jsp="http://java.sun.com/JSP/Page" version="2.1"
  xmlns:f="http://java.sun.com/jsf/core"
  xmlns:h="http://java.sun.com/jsf/html"
  xmlns:af="http://xmlns.oracle.com/adf/faces/rich"
  xmlns:pe="http://xmlns.oracle.com/adf/pageeditor"
  xmlns:cust="http://xmlns.oracle.com/adf/faces/customizable">
  <jsp:directive.page contentType="text/html; charset=UTF-8" />
  <f:view>
```



```

<af:document id="d1">
  <af:form id="f1">
    <af:pageTemplate value="#{bindings.pageTemplateBinding.templateModel}"
      id="pt1">
      <f:facet name="content">
        <pe:pageCustomizable id="hm_pgcl">
          <cust:panelCustomizable id="pt_pccontent" layout="scroll"
            showEditAction="true" valign="top"
            allowAction="all">
            <af:outputText value="Hello World! Demo Test Page." id="ot1"/>
          </cust:panelCustomizable>
        </pe:pageCustomizable>
      </f:facet>
    </af:pageTemplate>
  </af:form>
</af:document>
</f:view>
</jsp:root>

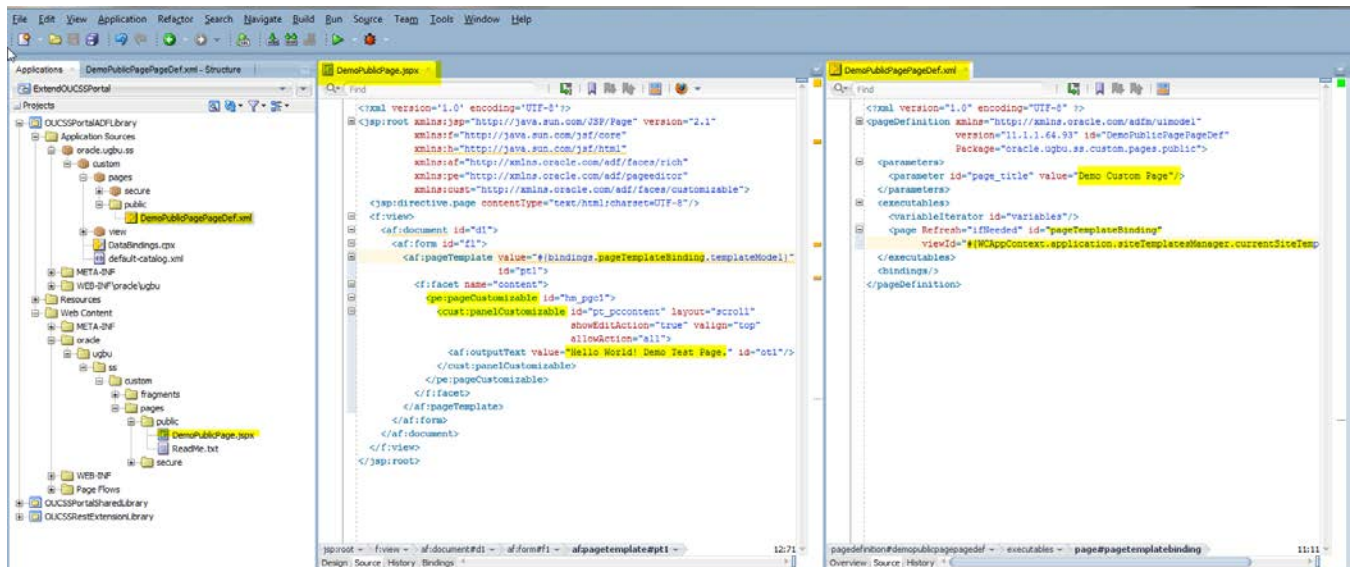
```

- Modify the Page Def as follows to pick the current site template details when view in Portal:

```

<?xml version="1.0" encoding="UTF-8" ?>
<pageDefinition xmlns="http://xmlns.oracle.com/adfm/uimodel"
  version="11.1.1.64.93" id="DemoPublicPagePageDef"
  Package="oracle.ugbu.ss.custom.pages.public">
  <parameters>
    <parameter id="page_title" value="Demo Custom Page"/>
  </parameters>
  <executables>
    <variableIterator id="variables"/>
    <page
      viewId="#{WCAppContext.application.siteTemplatesManager.currentSiteTemplateViewId}"
      id="pageTemplateBinding" Refresh="ifNeeded"/>
  </executables>
  <bindings/>
</pageDefinition>

```



- 7 Repeat step 4 and 5 to create other secured and public pages.
- 8 After deployment of exted.oucss.portal shared library,
- 9 Review the [Configure the Resource Catalog](#) section of this document to consume the taskflow in OUCSS Portal.

10 Review the [Access Pages from Extend OUCSS Portal](#) section of this document to access page in OUCSS Portal.

Accessing User Account Details








As part of OUCSS Portal Install, libraries are installed that contain the taskflows and java classes. These libraries are packaged as .war files under <<webcenter_WSS_zip>>\Install\application\. The following table summarizes the libraries

WAR File Name	Deployed As	Description
OUCSS_Common_Extension.war	com.oracle.ugbu.ss.lib (2.2, 2.2.0.0.0)	The common library contains OUCSS APIs and common code.
OUCSS_Residential_Extension.war	com.oracle.ugbu.ss.residential.lib (2.2, 2.2.0.0.0)	The residential library contains Core OUCSS taskflows and modules.
OUCSS_Commercial_Extension.war	com.oracle.ugbu.ss.commercial.lib (2.2, 2.2.0.0.0)	The commercial library contains taskflows related to Sets and Multi-Account operations.

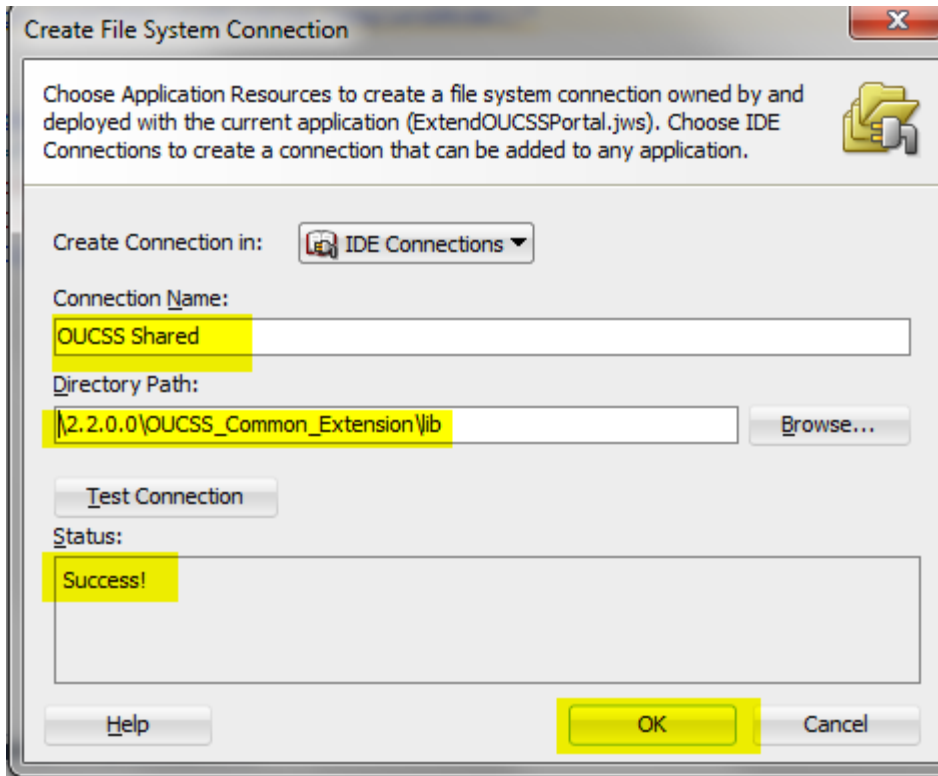
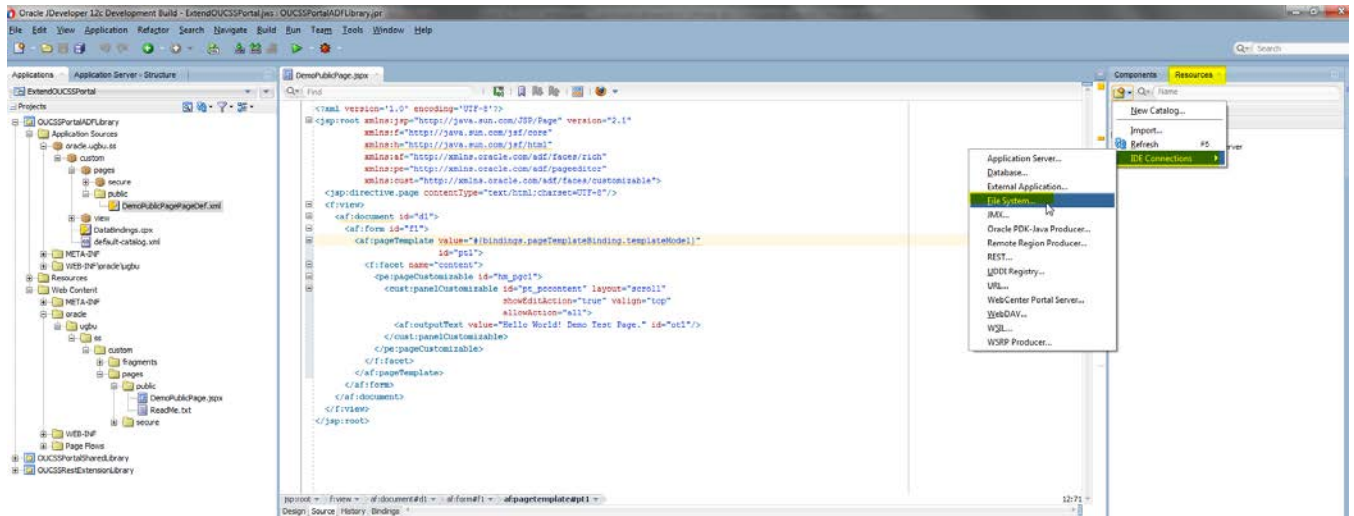
The com.oracle.ugbu.ss.lib deployed contains jars of OUCSS API and other shared java classes. By adding jars from OUCSS_Common_Extension.war to OUCSSPortalADFLibrary projects will allow access to the OUCSS API and other artifacts in custom pages and taskflow views.

In the following example, a managed bean is created and accessed using the Secured Taskflow. The managed bean will retrieve accounts of a logged-in user and display the list in the custom taskflow.

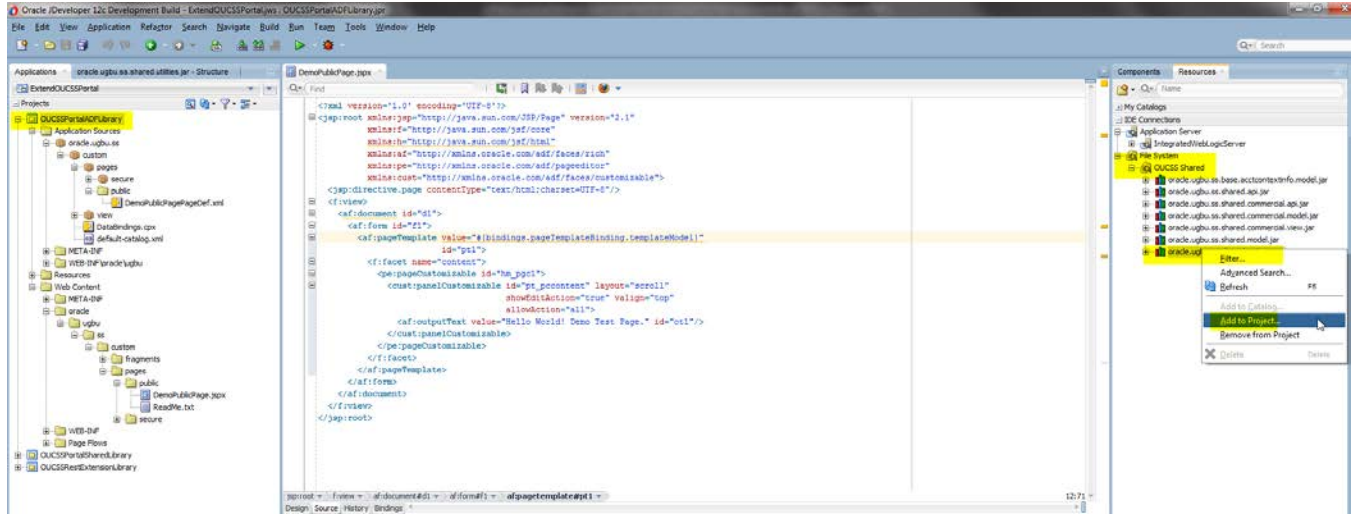
- 1 Unjar/Unzip the OUCSS_Common_Extension.war file from <<webcenter_WSS_zip>>\Install\application\ into a folder that is accessible to JDeveloper.

Name	Date modified	Type	Size
 oracle.ugbu.ss.base.acctcontextinfo.model.jar	7/5/2016 12:37 PM	Executable Jar File	79 KB
 oracle.ugbu.ss.shared.api.jar	7/5/2016 12:37 PM	Executable Jar File	50 KB
 oracle.ugbu.ss.shared.commercial.api.jar	7/5/2016 12:37 PM	Executable Jar File	5 KB
 oracle.ugbu.ss.shared.commercial.model.jar	7/5/2016 12:37 PM	Executable Jar File	12 KB
 oracle.ugbu.ss.shared.commercial.view.jar	7/5/2016 12:37 PM	Executable Jar File	26 KB
 oracle.ugbu.ss.shared.model.jar	7/5/2016 12:37 PM	Executable Jar File	1,097 KB
 oracle.ugbu.ss.shared.utilities.jar	7/5/2016 12:37 PM	Executable Jar File	346 KB

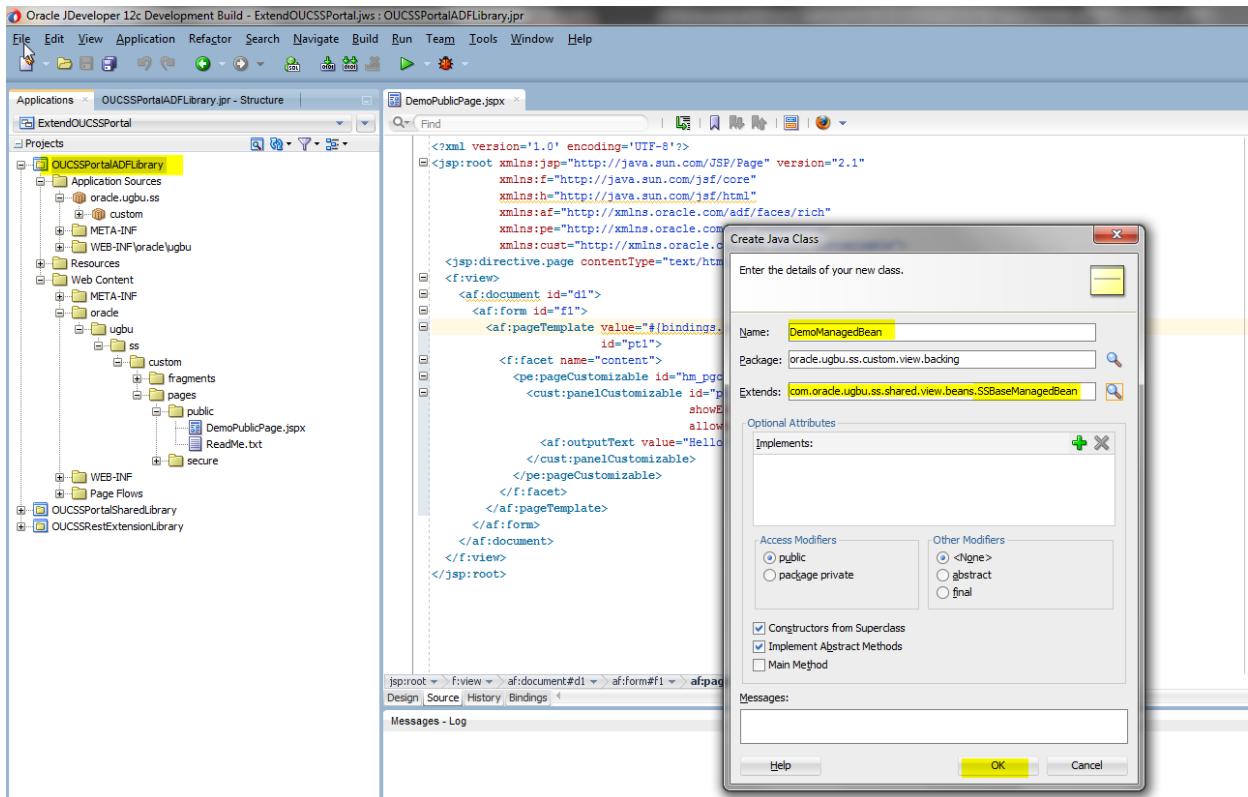
- 2 Unjar/unzip the OUCSS_Residential_Extension.war and/or **OUCSS_Commercial_Extension** wars from <<webcenter_WSS_zip>>\Install\application\ into a folder that is accessible to JDeveloper.
- 3 From JDeveloper's **Resource Palette**, create a **File System Connection** to the folder containing the jar files. For example, create a File System Connection named "OUCSS Shared" using the <<Unzip_Folder>>\OUCSS_Extension\WEB-INF\lib directory created in step 1.



- 4 Click **OK** and explore the OUCSS Shared connection to see the jars in the **Resource Palette**.
- 5 Make sure the **OUCSSPortalADFLibrary** project is selected in JDeveloper. Right-click `oracle.ugbu.ss.shared.utilities` under the **OUCSS Core Taskflows File System** connection, then select **Add to Project** from the context menu. If a confirmation dialog appears, click **Add Library**.



- 6 Repeat step 4 and add the `oracle.ugbu.ss.shared.api` library to the project.
- 7 **Save all.**
- 8 Create a Java class (`DemoManagedBean.java`, sample code below) and extend the `SSBaseManagedBean` class.



- 9 Use the following sample code to access the account details in the taskflow.

Note: The following code sample assumes that the custom taskflow or page will default the `userId` to the logged-in User. If you want to test the code without logging in, then override the user to a valid OUCSS User by calling `super.setWebUserId("<<valid_UserId>>");` in the constructor of the `DemoManagedBean`.

```
package oracle.ugbu.ss.custom.view.backing;

import com.oracle.ugbu.ss.api.model.account.OUCSSAccount;
import com.oracle.ugbu.ss.api.model.account.OUCSSAccountList;
import com.oracle.ugbu.ss.api.model.security.OUCSSUser;
import com.oracle.ugbu.ss.shared.view.beans.SSBaseManagedBean;

public class DemoManagedBean
    extends SSBaseManagedBean
{
    @SuppressWarnings("compatibility")
    private static final long serialVersionUID = 1L;

    String mLOB = null; //Set the LOB for account. Null will fetch accounts for all LOBS.

    public DemoManagedBean()
    {
        super();
        // Uncomment to Override the user for testing in JDev.
        //super.setWebUserId("<<valid_UserId>>");

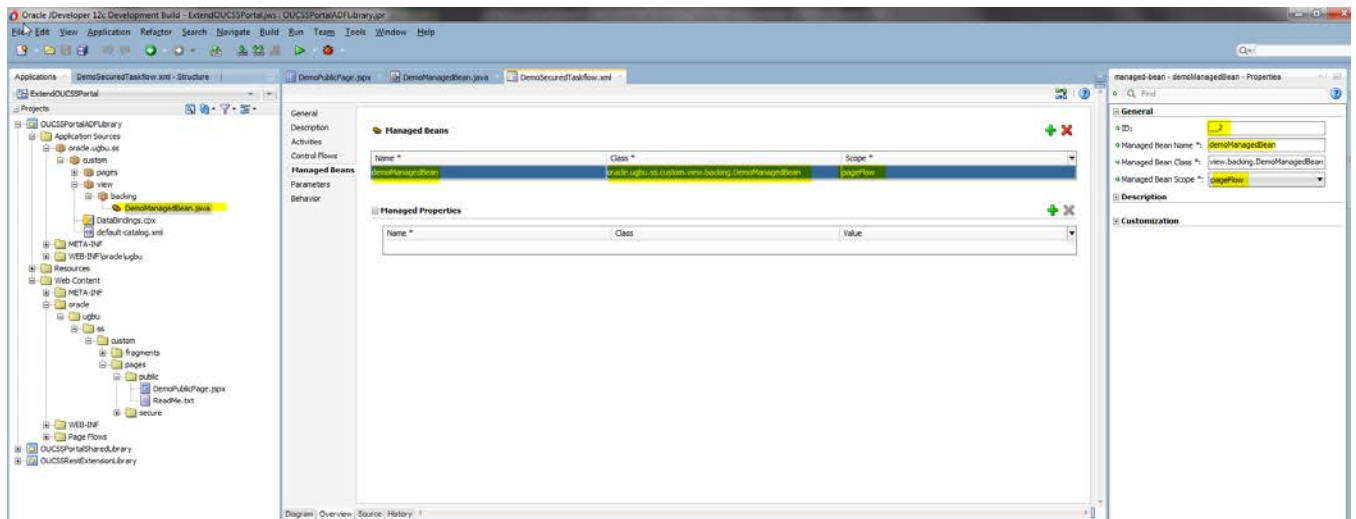
        // Uncomment to override LOB to filter users by LOB
        // mLOB = 1; //For Residential
        // mLOB = 2; //For Commercial
    }

    /**
     * Method to get details about the current logged in user.
     * @return
     */
    public OUCSSUser getUser()
    {
        return super.getContext().getCurrentUser();
    }

    /**
     * Method to get list of accounts enrolled to logged in User.
     * @return
     */
    public OUCSSAccountList getUserAccountList()
    {
        OUCSSAccountList accountList =
            getContext().getCurrentUser().getUserAccounts(mLOB);
        return accountList;
    }

    /**
     * Method to get the currently selected account.
     * @return
     */
    public OUCSSAccount getCurrentAccount()
    {
        OUCSSAccount currentAccount =
            getContext().getCurrentUser().getCurrentUserAccount();
        return currentAccount;
    }
}
```

- 10 Set the DemoManagedBean class as a managed bean in the taskflow definition. For the purposes of this example, the scope used is **pageFlowScope**.

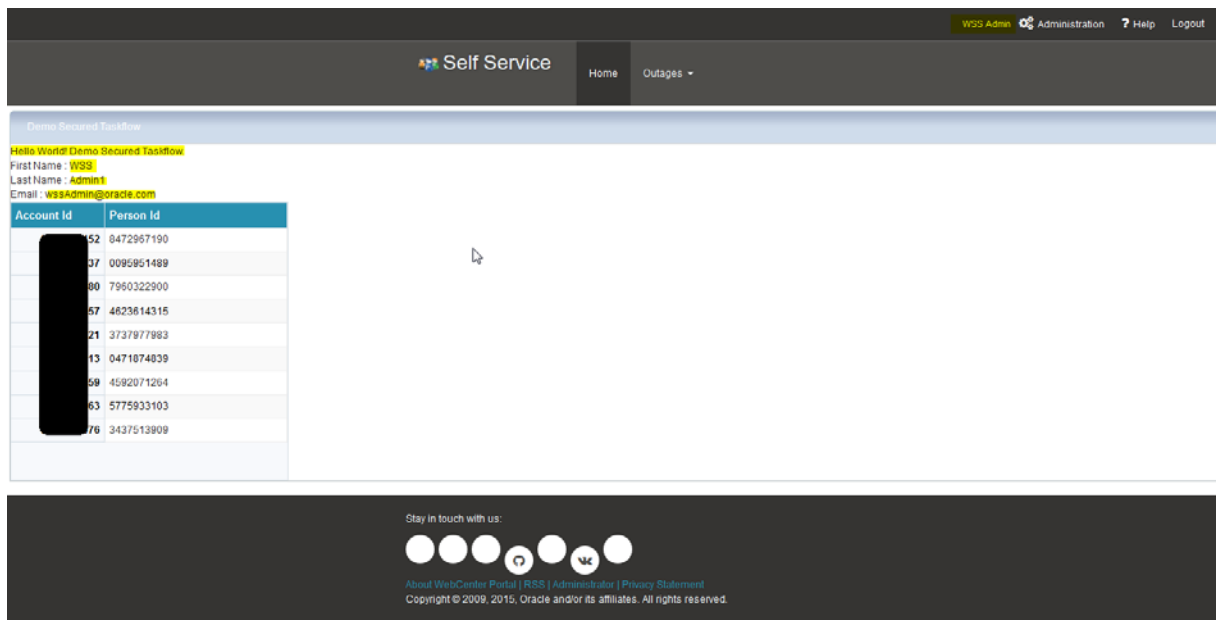


- 11 Update the previously-created `demo.jsff` to include user and account details by referencing the managed bean methods.

Sample JSPX code:

```
<?xml version='1.0' encoding='UTF-8'?>
<jsp:root xmlns:jsp="http://java.sun.com/JSP/Page" version="2.1"
  xmlns:af="http://xmlns.oracle.com/adf/faces/rich"
  xmlns:f="http://java.sun.com/jsf/core">
  <af:panelBorderLayout id="pbl1">
    <f:facet name="top">
      <af:outputText value="Hello World! Demo Secured Taskflow." id="ot1"/>
    </f:facet>
    <af:panelGroupLayout layout="vertical" halign="start" id="pgl1">
      <af:outputText value="First Name : #{pageFlowScope.demoManagedBean.user.firstName}"
        id="ot4"/>
      <af:outputText value="Last Name : #{pageFlowScope.demoManagedBean.user.lastName}"
        id="ot5"/>
      <af:outputText value="Email : #{pageFlowScope.demoManagedBean.user.emailAddress}"
        id="ot6"/>
      <af:table value="#{pageFlowScope.demoManagedBean.userAccountList}"
        var="row" id="t1" contentDelivery="immediate"
        columnStretching="last" rowSelection="none"
        summary="Account List" columnSelection="none"
        rowBandingInterval="1" shortDesc="Account List">
        <af:column headerText="Account Id" id="c1" rowHeader="true">
          <af:outputText value="#{row.key1}" id="ot2"/>
        </af:column>
        <af:column headerText="Person Id" id="c2">
          <af:outputText value="#{row.key2}" id="ot3"/>
        </af:column>
      </af:table>
    </af:panelGroupLayout>
  </af:panelBorderLayout>
</jsp:root>
```

- 12 [Deploy the extension](#) again and consume the taskflow in any page. The sample code produces the following result when the secured taskflow is dropped on the Home page of the Portal:



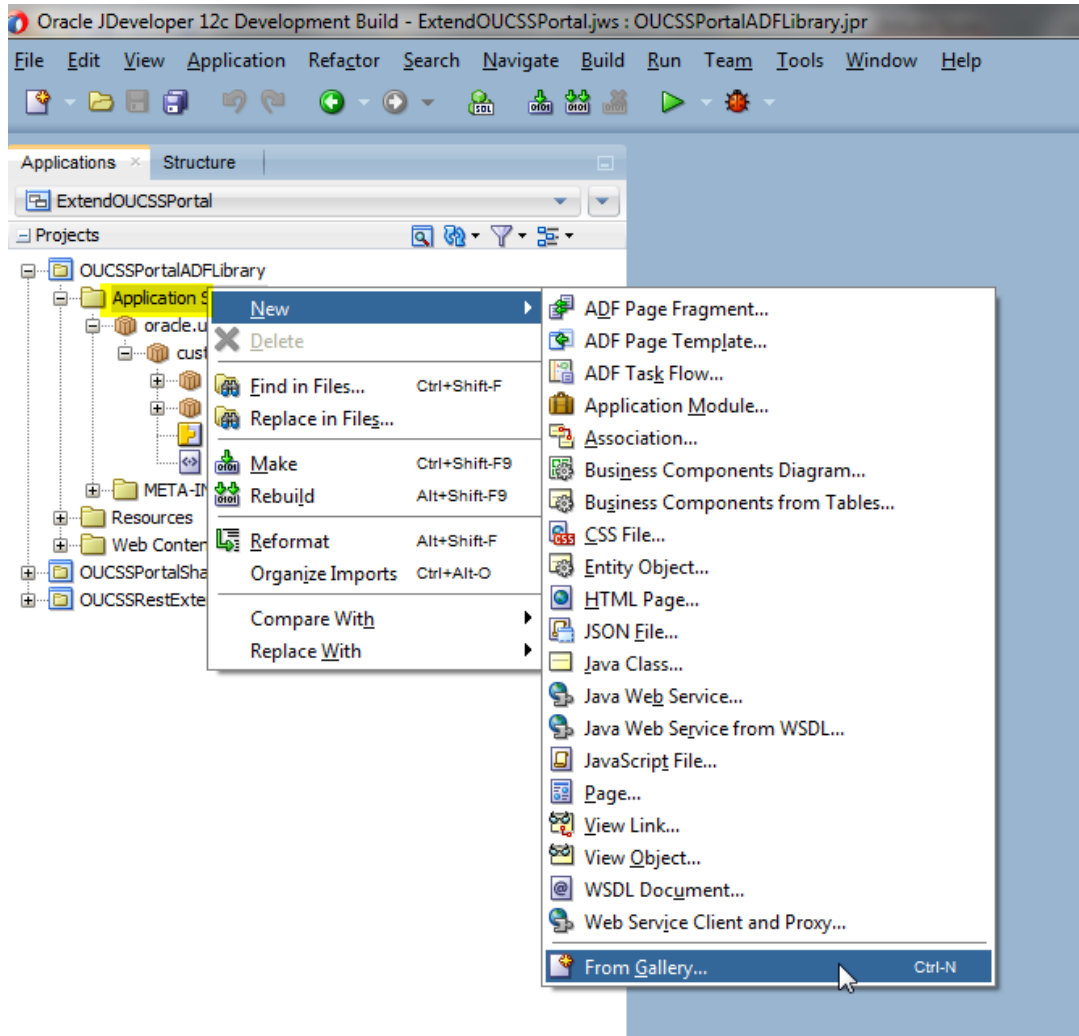
13 Review the following:

- [Customizing the Resource Catalog](#) section of this document to consume the taskflow in the OUCSS Portal.
- [Accessing Pages from the Extended OUCSS Portal](#) section of this document to access the page in the OUCSS Portal.

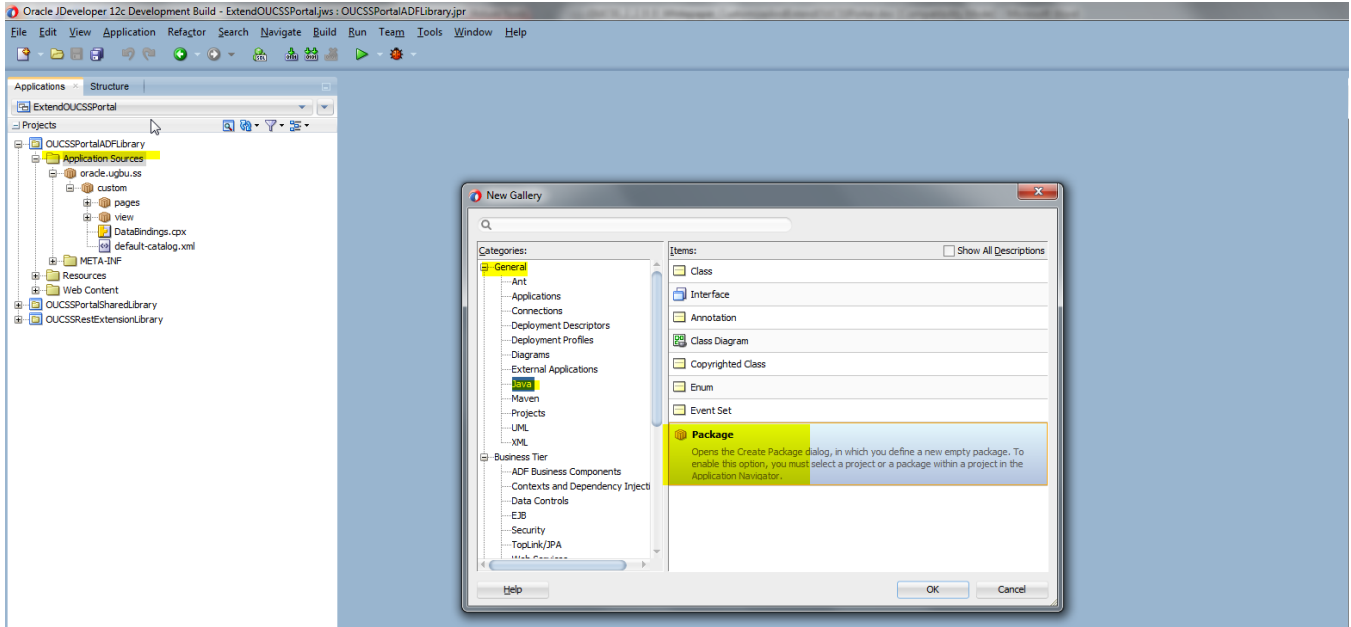
Adding Support for a New Language

OUCSS Portal by default is configured only to support English. In order to translate page titles in OUCSS Portal, Portal bundles for the additional bundles are required to be created. In order to add a Portal Bundle for your supported language(s),

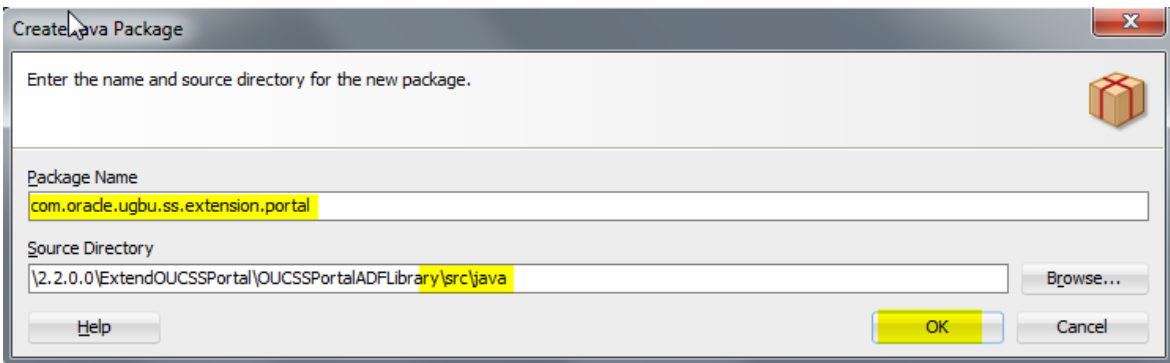
- 1 Create a new package in the Application Sources under the project OUCSSPortalADFLibrary. Right click on the 'Application Sources' directory and select 'New' and then choose 'From Gallery'.



- 2 Select Java under 'General' categories in the left panel. Select 'Java Package' in the right panel. Click 'Ok'.



- 3 Enter `com.oracle.ugbu.ss.extension.portal` as the **Package Name** and click **OK**.

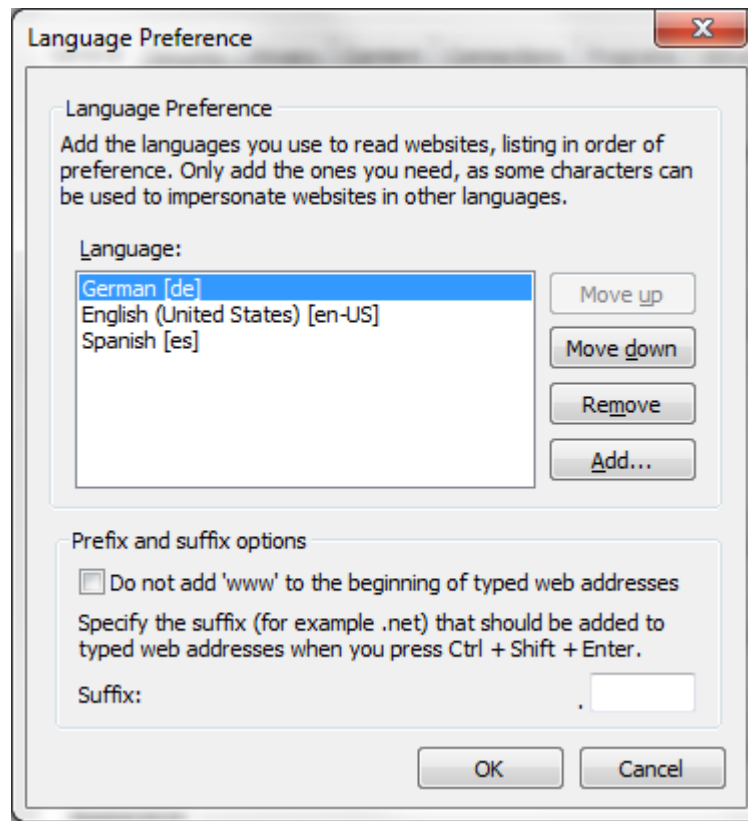


- 4 Create a new resource bundle with the appropriate locale and the name format **PortalBundle_<<locale>>.properties** under the package created in step 3. A separate bundle must be created for each supported locale.

For example, the following **PortalBundle_de.properties** bundle is created to support the German language/locale. See [Appendix-A](#) for the list of properties to be added to the Portal Bundle.

```
PortalBundle_de.properties x
Find
1 APP_TITLE=[PX][Oracle Utilities \u00E4]
2 DASHBOARD_TITLE=[PX][Dashboard \u00E4]
3 ACCOUNTS_TITLE=[PX][Accounts \u00E4]
4 ACCOUNT_LIST_TITLE=[PX][Account List \u00E4]
5 ACCOUNT_SEARCH_TITLE=[PX][Account Search \u00E4]
6 BILLING_HISTORY_TITLE=[PX][Billing History \u00E4]
7 FINANCIAL_HISTORY_TITLE=[PX][Financial History \u00E4]
8 BUDGET_BILLING_TITLE=[PX][Budget Billing \u00E4]
9 VIEW_BILL_TITLE=[PX][View Bill \u00E4]
10 HOME_TITLE=[PX][Home \u00E4]
11 COMPARE_RATES_TITLE=[PX][Compare Rates \u00E4]
12 USAGE_DETAILS_TITLE=[PX][Usage Details \u00E4]
13 PERSONAL_INFO_TITLE=[PX][Personal Information \u00E4]
14 OUTAGE_DETAIL_TITLE=[PX][My Outages \u00E4]
15 REPORT_OUTAGE_TITLE=[PX][Report Outage \u00E4]
16 SERVICE_MGMT_TITLE=[PX][Service Magement \u00E4]
17 START_SERVICE_TITLE=[PX][Start Service \u00E4]
18 STOP_SERVICE_TITLE=[PX][Stop Service \u00E4]
19 TRANSFER_SERVICE_TITLE=[PX][Transfer Service \u00E4]
20 OUTAGES_TITLE=[PX][Outages \u00E4]
21 OUTAGE_MAP_TITLE=[PX][Display Map \u00E4]
22 OUTAGE_TABLE_TITLE=[PX][Display List \u00E4]
23 REPORT_PUBLIC_OUTAGE_TITLE=[PX][Report Public Outage \u00E4]
24 NEW_CUSTOMER_TITLE=[PX][New Customer \u00E4]
25 SCALAR_READ_TITLE=[PX][Add Scalar Read \u00E4]
26 CHANGE_PASSWORD_TITLE=[PX][Change Password \u00E4]
27 CHANGE_USER_INFO_TITLE=[PX][Change User Profile \u00E4]
28 MANAGE_ADDRESS_TITLE=[PX][Manage Address \u00E4]
29 MANAGE_PHONE_TITLE=[PX][Manage Phone \u00E4]
30 MANAGE_EBILL_TITLE=[PX][Manage Electronic Billing \u00E4]
31 MANAGE_AUTOPAY_TITLE=[PX][Manage Automatic Payment \u00E4]
32 MANAGE_BILLNOTIFY_TITLE=[PX][Manage Billing Notification \u00E4]
33 ONETIME_PAY_TITLE=[PX][Payment \u00E4]
34 PAY_ARRANGEMENT_TITLE=[PX][Payment Arrangement \u00E4]
35 RESET_PAGE_TITLE=[PX][Forgot User ID/Password? \u00E4]
Source | History | <
```

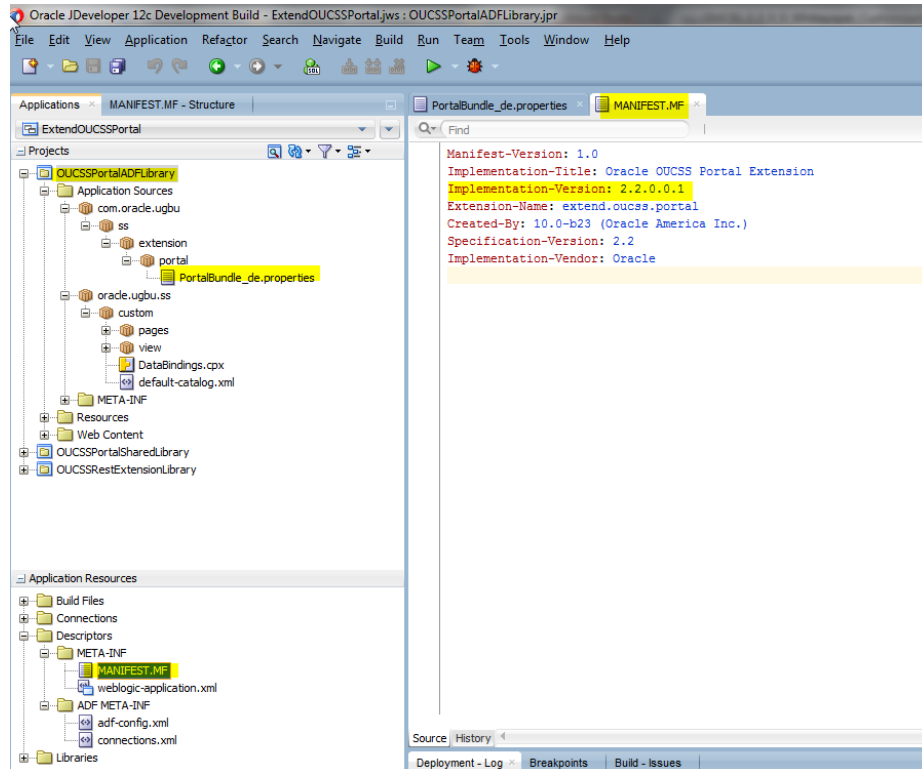
- 5 [Deploy the extension library](#) and restart the managed server to load the bundle.
- 6 Set the browser language to the appropriate locale and access the portal to see the translated labels. In the following example, the browser locale is set to German.



Deploying the *extend.oucss.portal* as a Shared Library

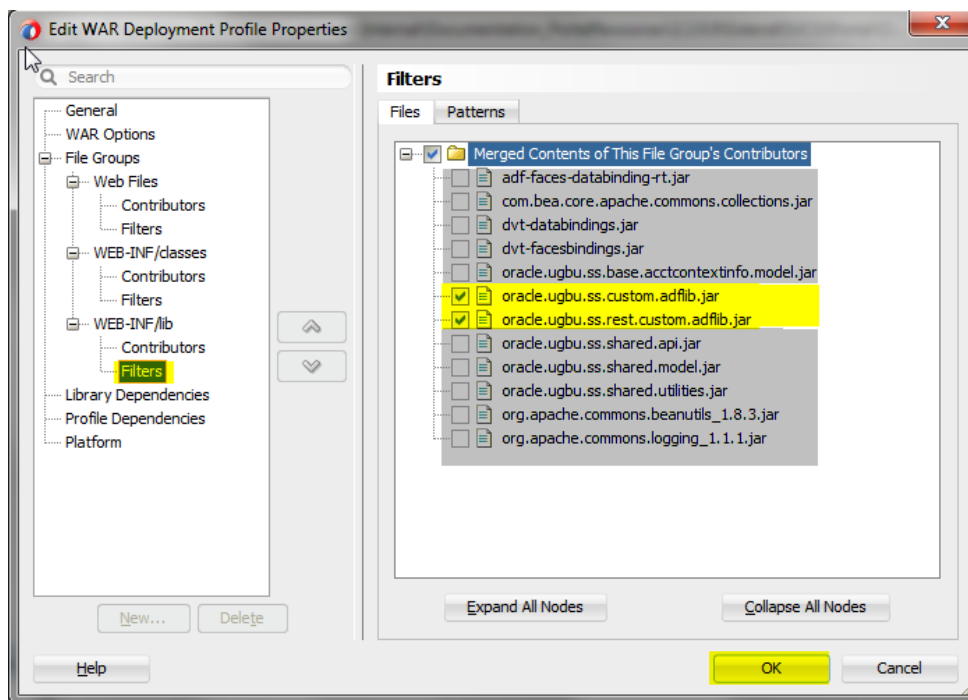
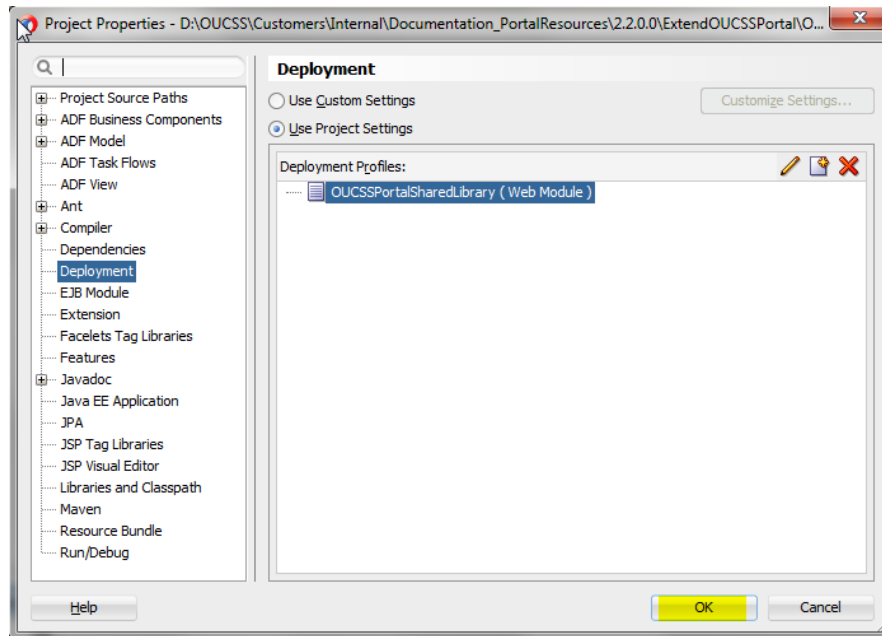
- 1 Modify the implementation version number in the `MANIFEST.MF` file in the **OUCSSPortalExtension** shared library (`<<Application_Home>>/src/META-INF/MANIFEST.MF`) before redeploying.

Note: The default implementation version number is 2.2.0.0.0. You can increment the major or minor version for every new revision deployed. For the purposes of this demo, the new implementation version number will be incremented to 2.2.0.0.1.

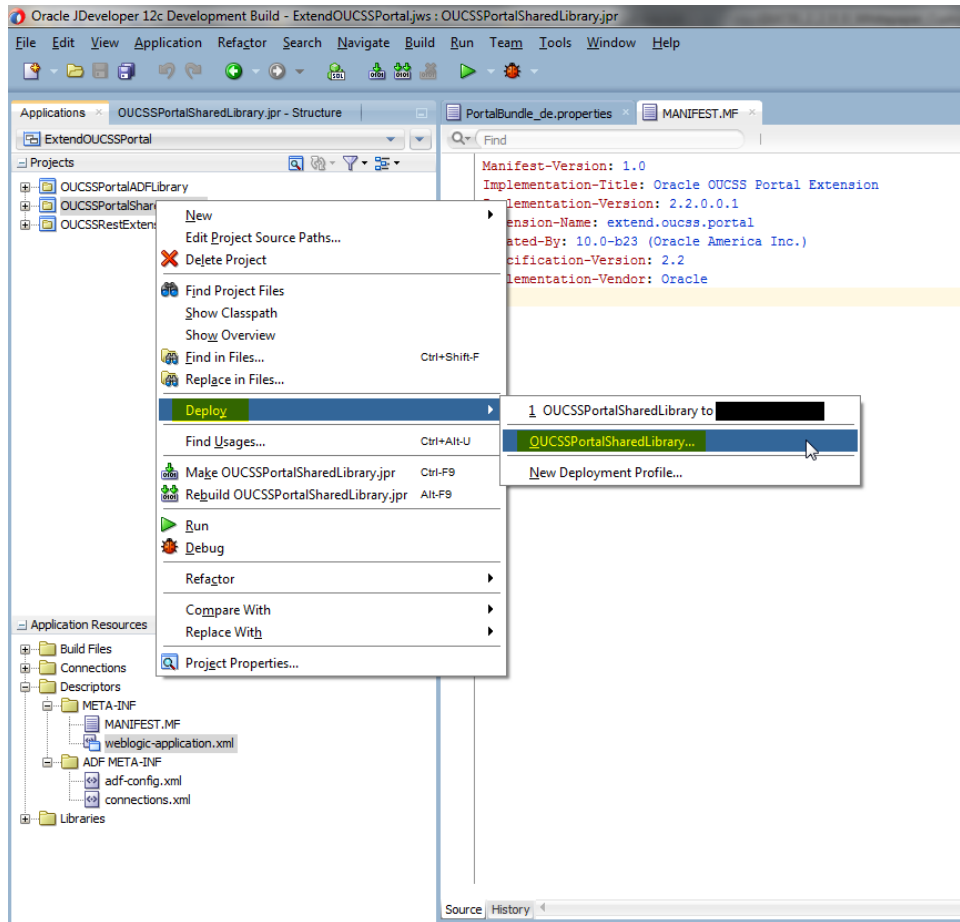


- 2 Edit the OUCSSPortalSharedLibrary project properties. Select **Deployments** and then edit the **OUCSSPortalSharedLibrary** deployment profile. Review the library references of the profile. Uncheck all jars references except **oracle.ugbu.ss.custom.adflib.jar** and **oracle.ugbu.ss.custom.rest.adflib.jar**.

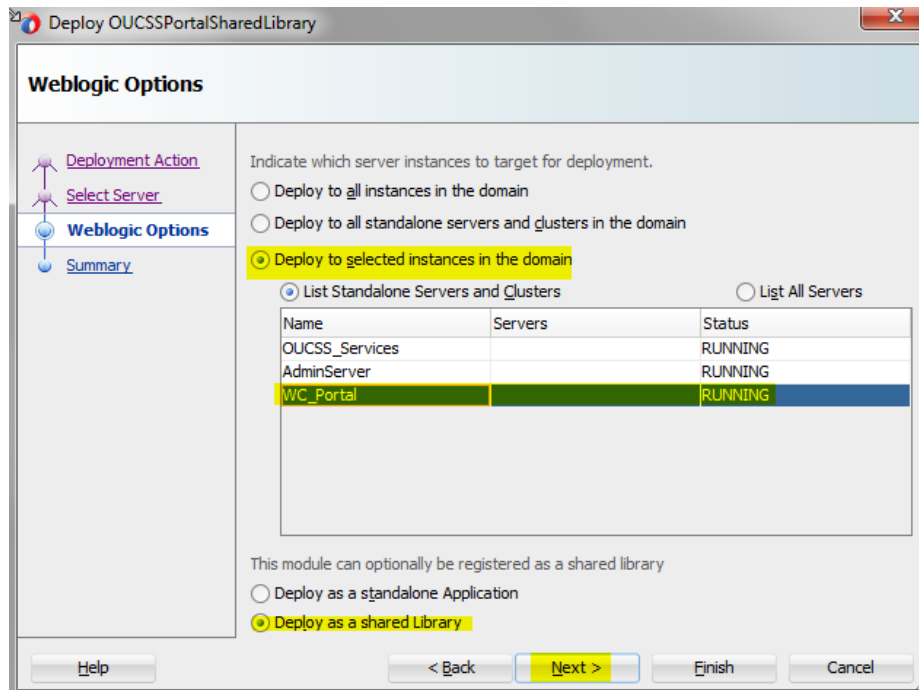
Important: Remove any references to other jars from the extension library. If they are not removed, additional copies of these jars will be loaded at runtime and impact the application of patches and upgrades, and may cause other issues.



- 3 Deploy the OUCSS Portal Extension Shared Library to consume the taskflow in the portal. Right-click on the **OUCSSPortalSharedLibrary** project and select the **OUCSSPortalSharedLibrary** deployment profile to redeploy the extension to the managed server running the OUCSS Portal application.



4 Be sure to choose the option to deploy the war as a *shared library* and not as a standalone application.



5 Check **Deployments** in the WebLogic Console to verify that the deployment was successful and the library is **Active**.

extend.oucscs.portal(2.2.2.2.0.0.0)	Active	Library	WC_Portal	Global		300
extend.oucscs.portal(2.2.2.2.0.0.1)	Active	Library	WC_Portal	Global		300
extend.oucscs.portal(2.2.2.2.0.0.2)	Active	Library	WC_Portal	Global		300

- The custom managed server must be restarted for the newly-created taskflows and pages to be consumed in Portal.

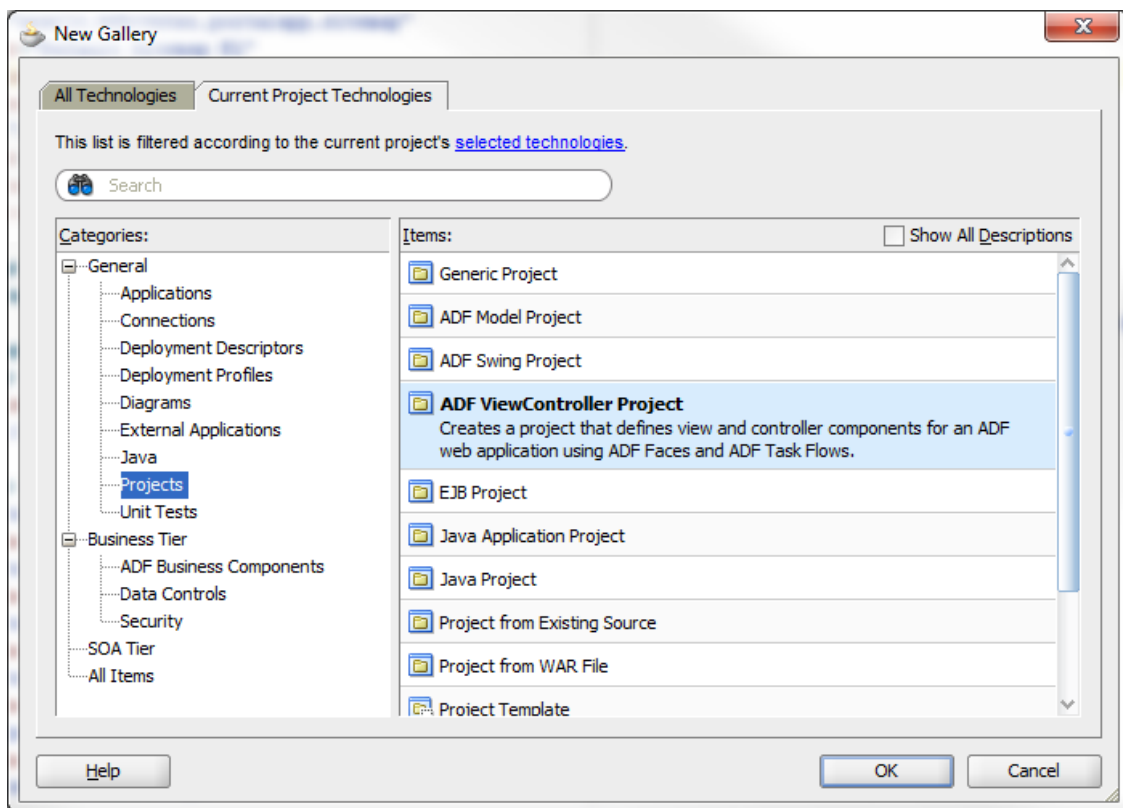
Parallel Development on the Portal Extension

The previous topic described how to use the portal extension project ExtendOUCSSPortal to create and deploy custom task flows and pages. This procedure describes how custom portal artifacts can be developed and maintained by multiple developers working in parallel, each creating individual projects inside the ExtendOUCSSPortal. The projects can then be bundled together to create an extend.oucscs.portal application to be deployed onto the portal server.

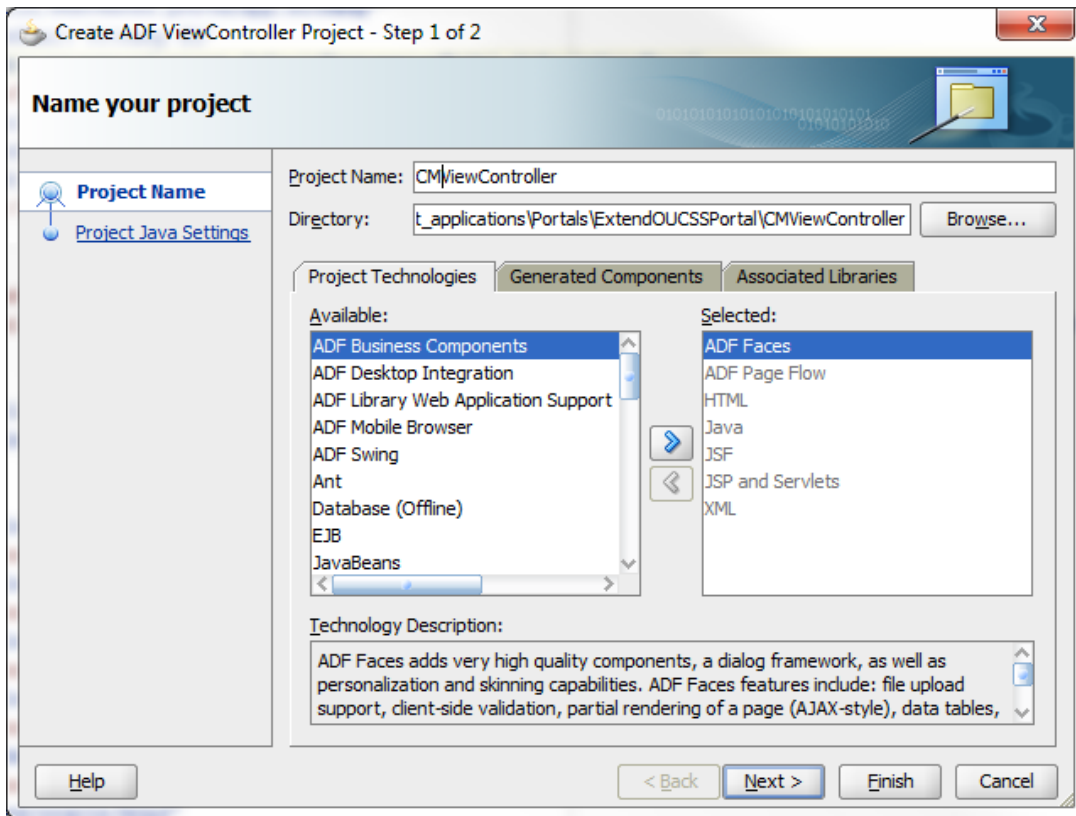
To enable parallel development on the portal extension:

- Open the application **ExtendOUCSSPortal** in JDeveloper. Right-click on the application name under **Application Navigator**, then select **New**. From the **New Gallery** popup, navigate to the category **Projects** under **General** and select the project template for **ADF ViewController Project** or **ADF Model Project**.

To create new taskflows, pages, or Managed Beans, create an ADF ViewController Project.

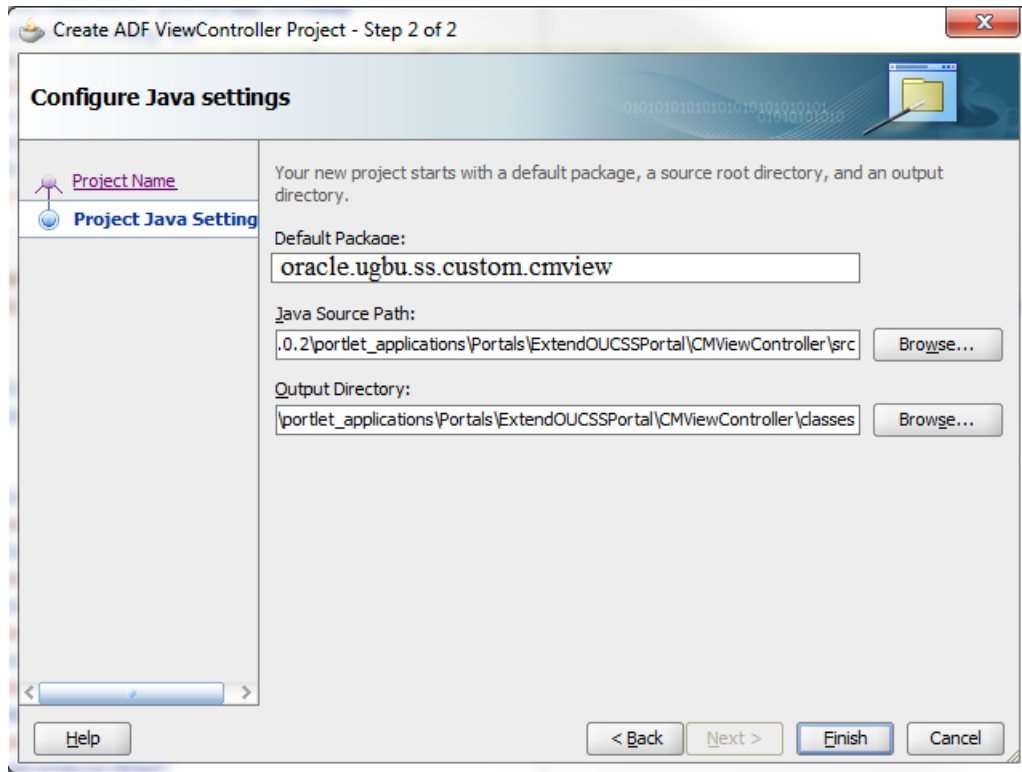


- Since the project **Name** must be unique, choose a Name in coordination with other team members. For illustration purposes, the project name used in this procedure is **CMViewController**.

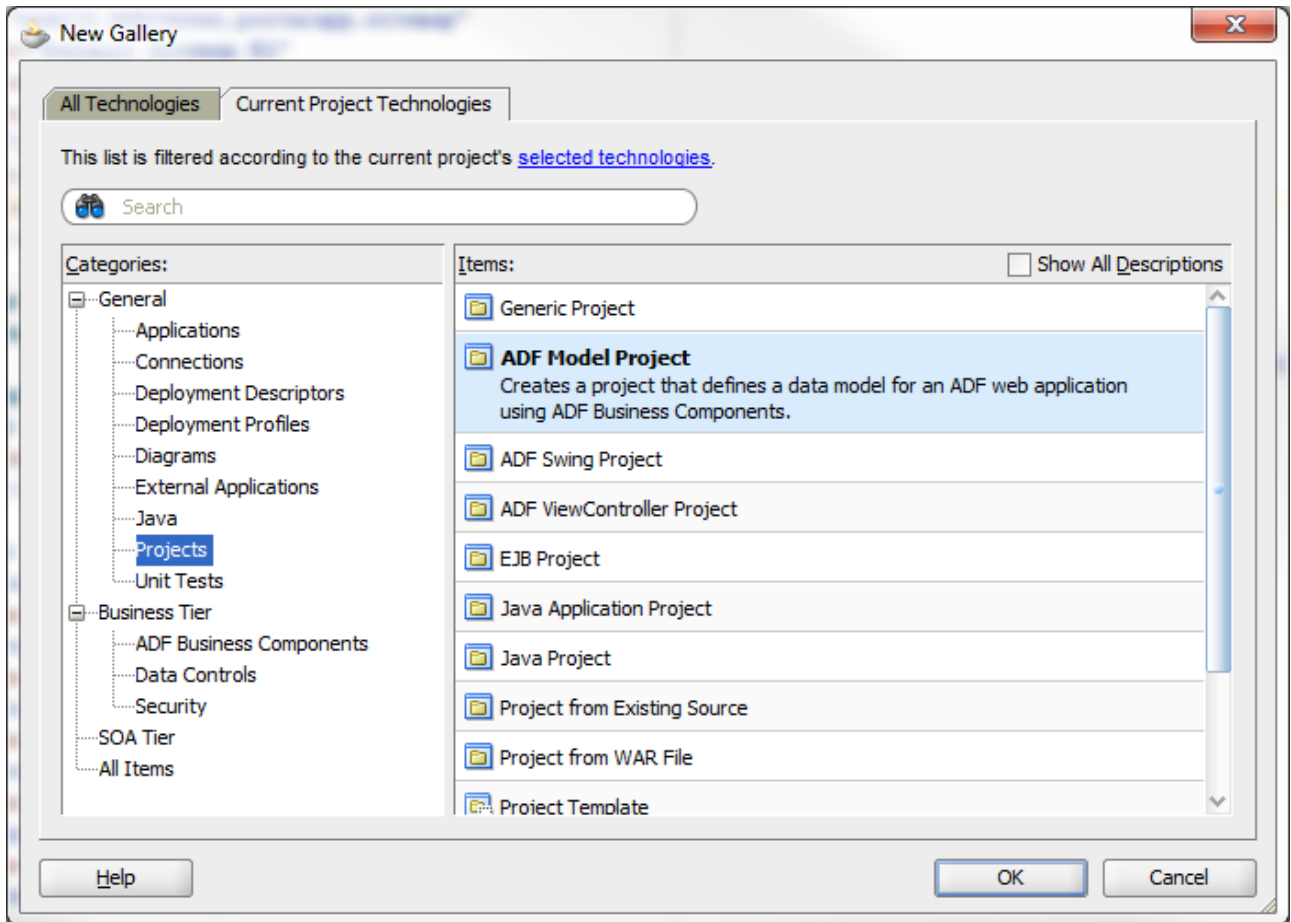


- 3 Select the default package, java source path, and output directory in the next screen to create the project.

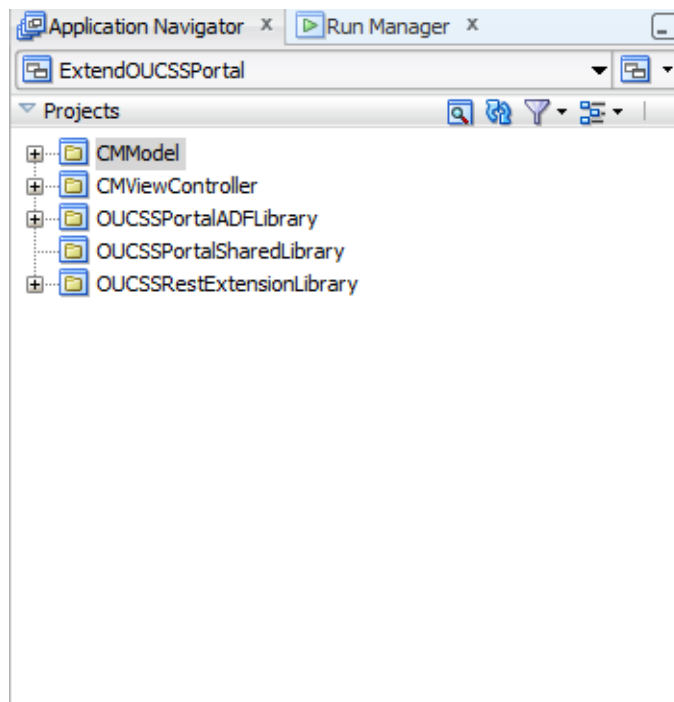
Important: To avoid ADF metadata conflicts (e.g., DataBindings.cpx, etc), ensure that the default package is unique among all custom projects. Choose the default package as `oracle.ugbu.ss.custom.<<Unique_Modulename>>`. For illustrative purposes, the default package used in this example is `oracle.ugbu.ss.custom.cmview`.



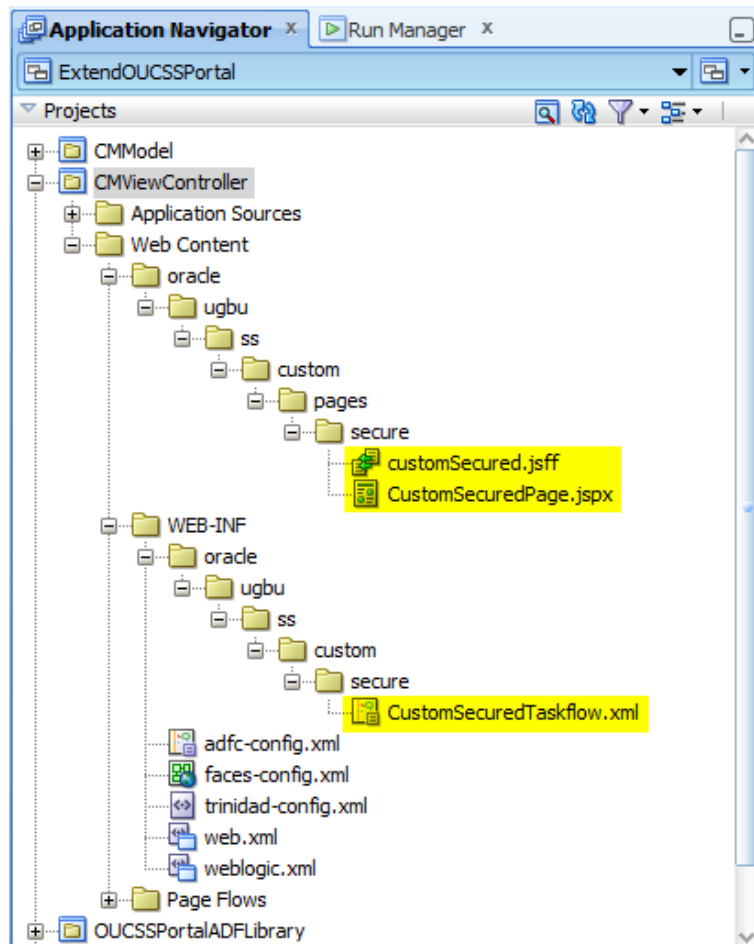
- 4 If required, create another project of category **ADF Model Project** following the same steps as described earlier for the ADF ViewController Project. Model projects are required when there is a need to create data controls, proxy classes, or another business model/ADFBC.



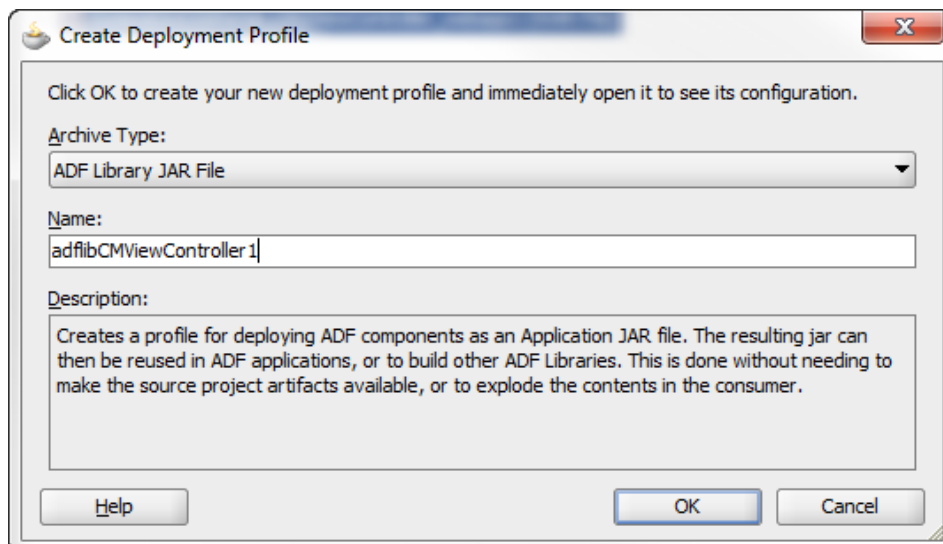
- 5 When completed, the ExtendOUCSSPortal should contain the new projects along with the out-of-the-box projects, as shown in the following image:



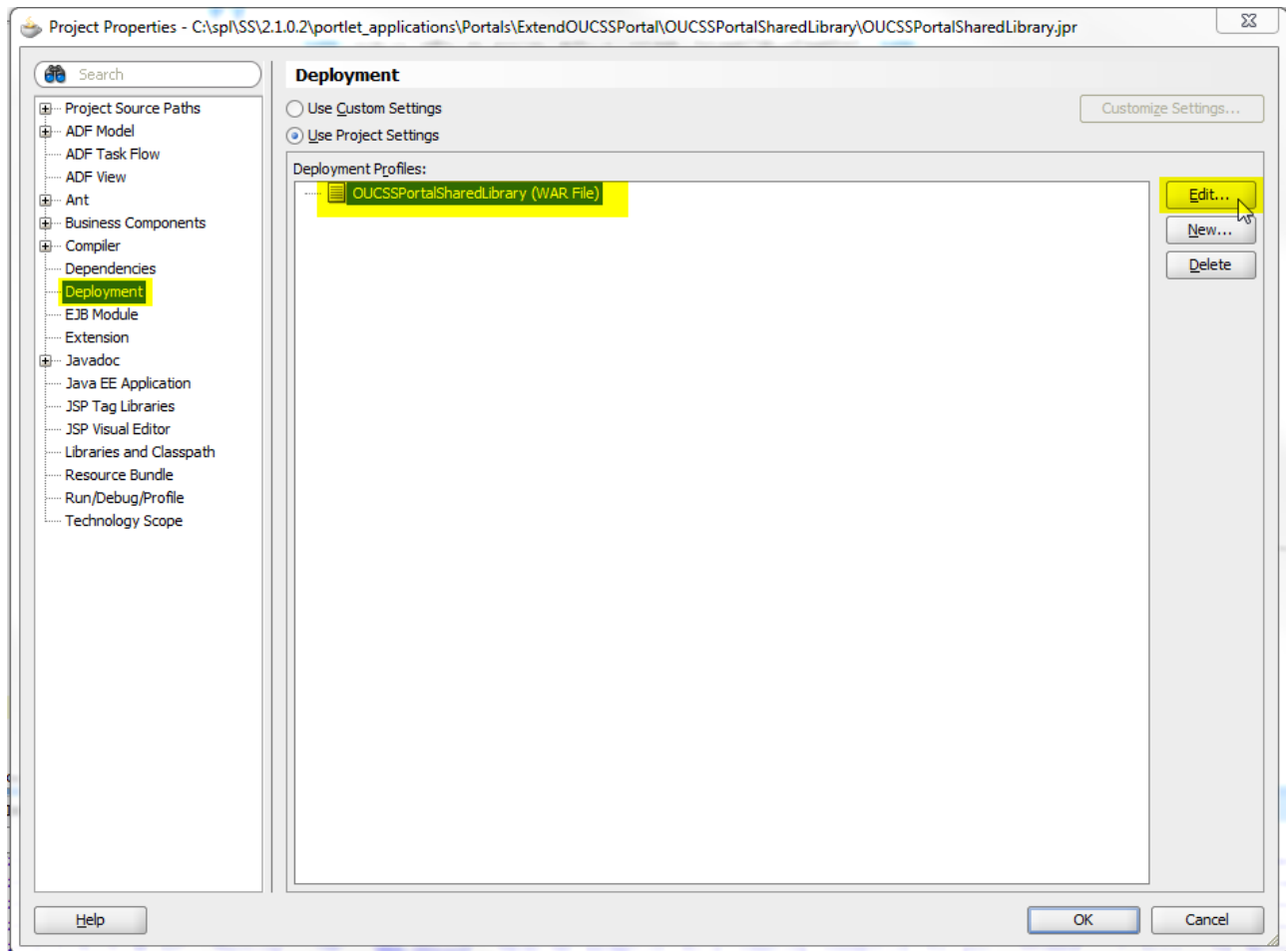
- 6 Create custom task flows and pages inside the new projects following the same steps as described in the [Adding New Taskflows and Pages](#) section of this document. Also review the [About Security](#) section to understand the folder structure that should be maintained while creating portal resources.
- 7 For the purposes of this example, a secured taskflow and page has been created inside the CMViewController project.



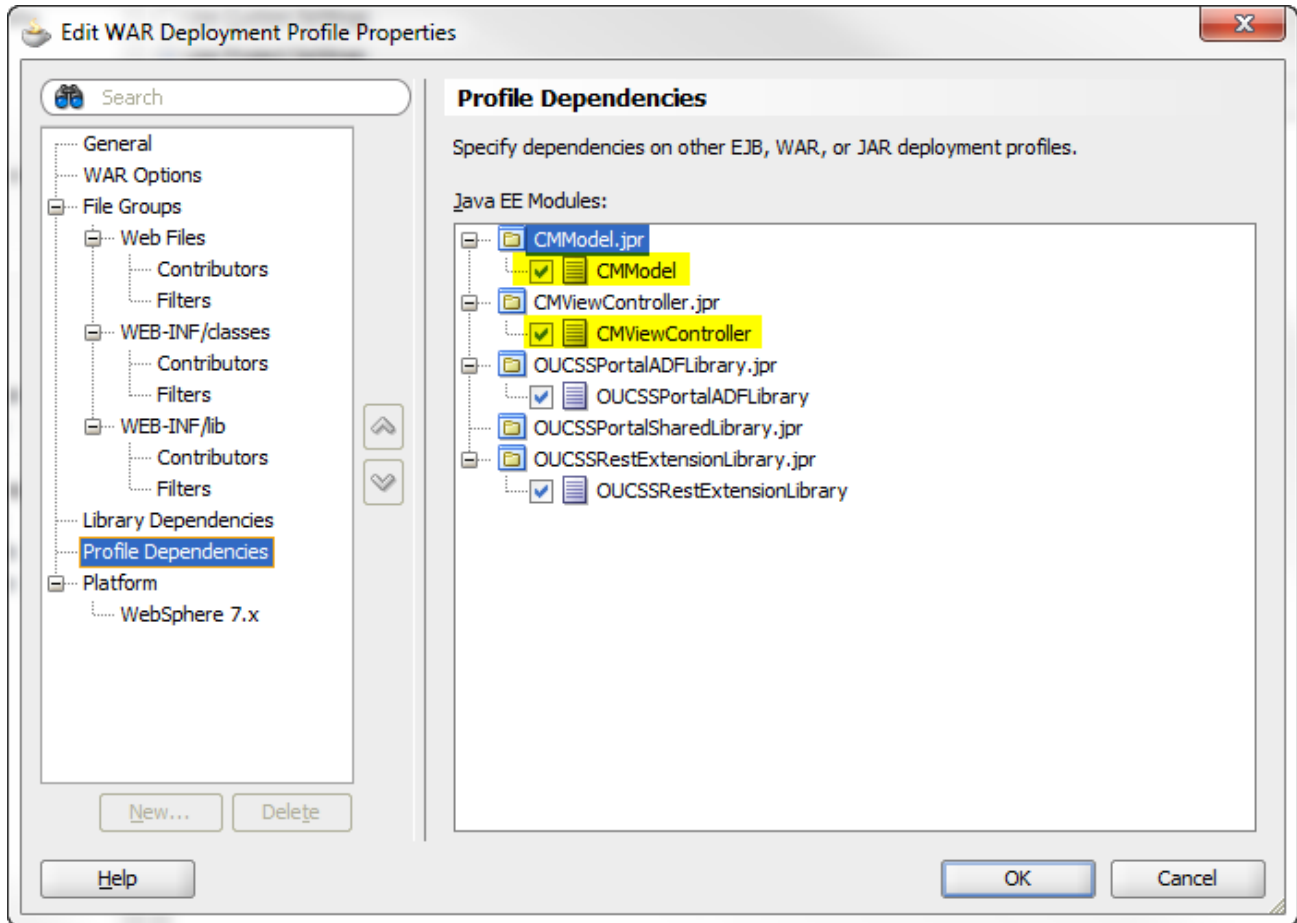
- 8 Create an ADF Library JAR deployment profile for the new projects.



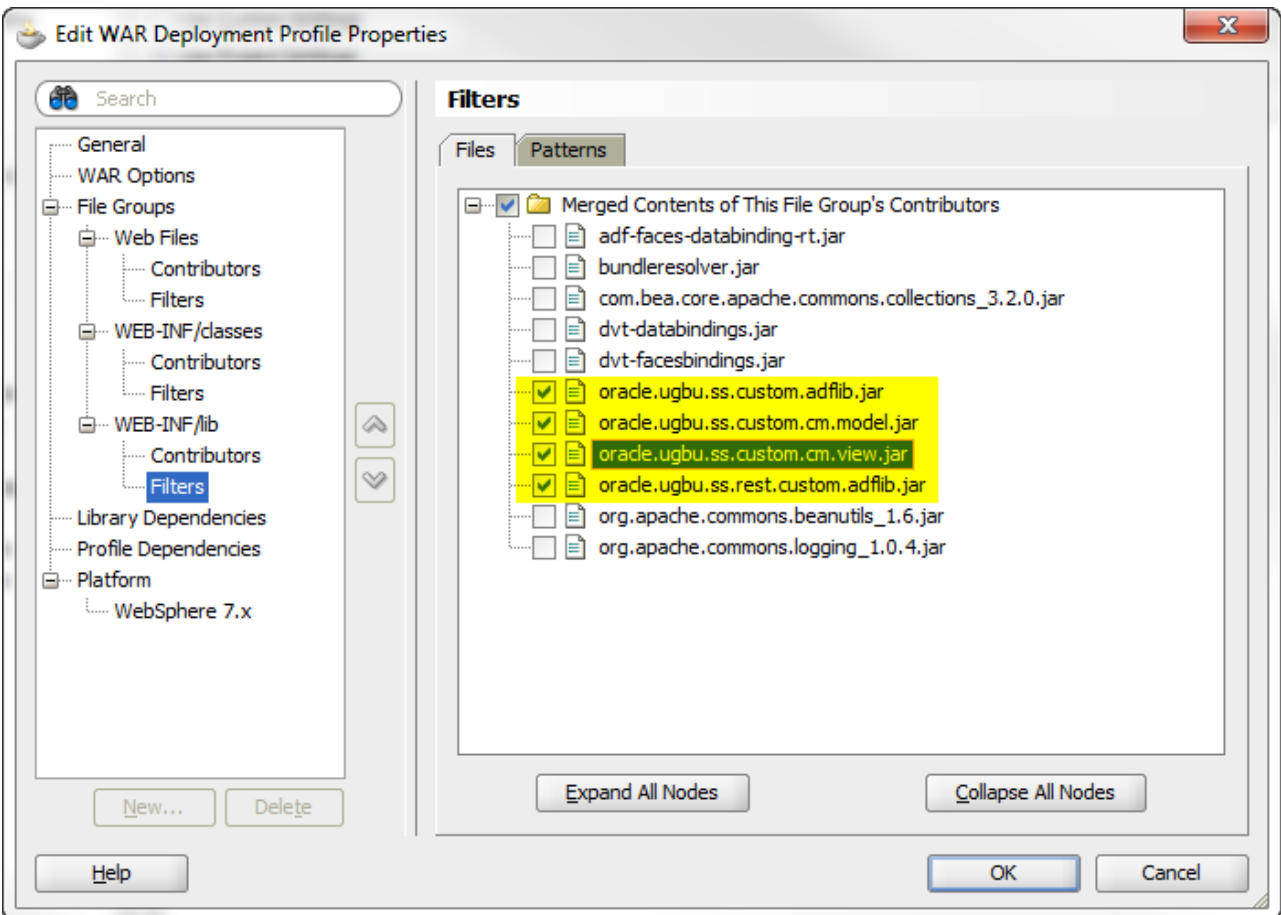
- 9 Edit **Project Properties** for the OUCSSPortalSharedLibrary, then navigate to **Deployment** and select and edit the deployment profile.



- 10 Review **Profile Dependencies** in the deployment profile to make sure all relevant projects inside ExtendOUCSSPortal are checked in.



- 11 Verify the library references for this profile and make sure the relevant libraries for projects inside ExtendOUCSSPortal are checked. The other libraries should not be checked, else those can have multiple copies during runtime creating issues.



- 12 Review the [Deploying the extend.ouc.ss.portal as a Shared Library](#) section in this document for information on deploying ExtendOUCSSPortal as a shared library.
- 13 Review the [Configure the Resource Catalog](#) section of this document for information on consuming the taskflow in OUCSS Portal.
- 14 Review the [Access Pages from Extend OUCSS Portal](#) section of this document for information on accessing pages in the OUCSS Portal.

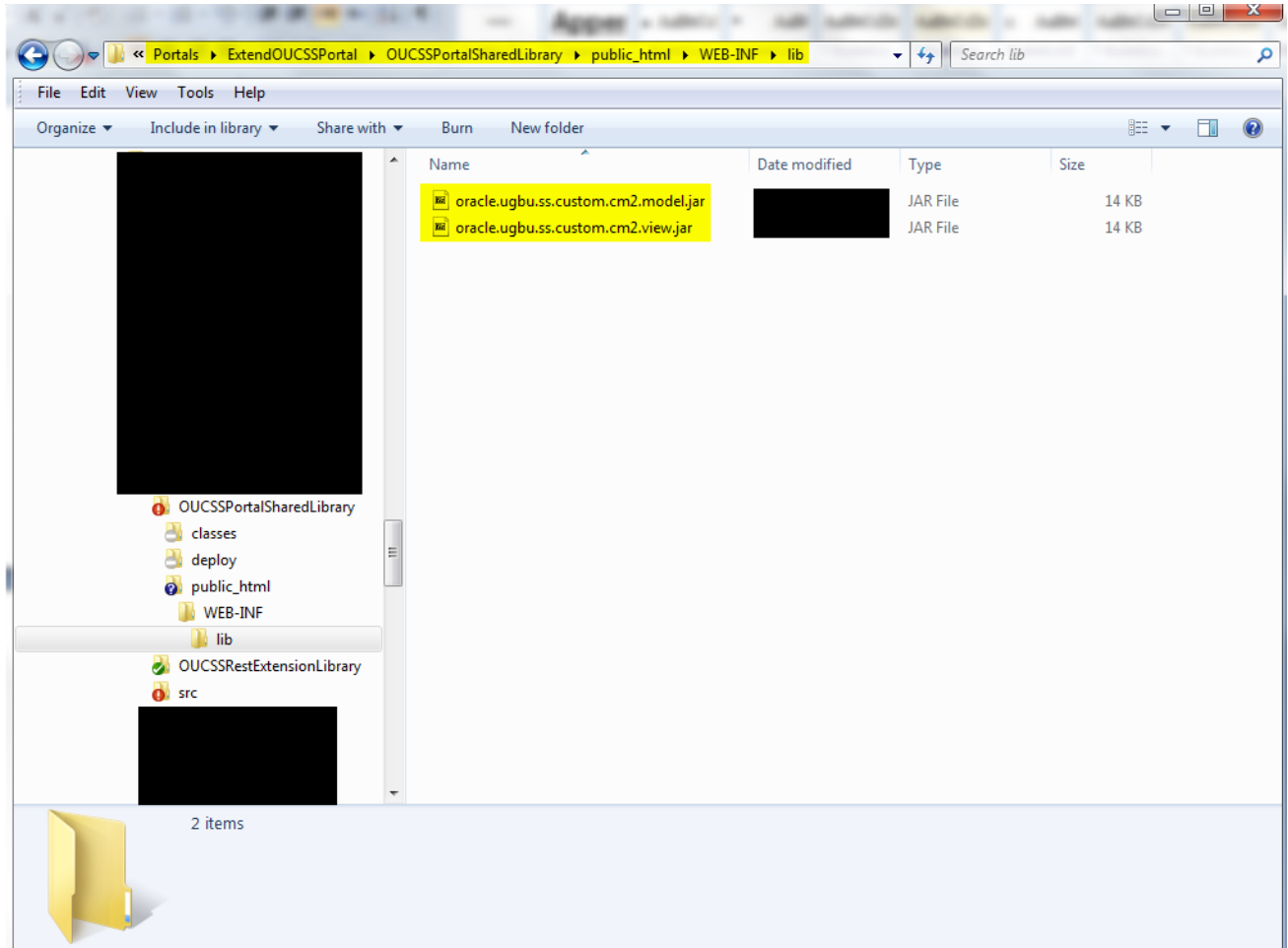
Deploying CM ExtendOUCSSPortal Projects

The previous topic described how individual developers can create and develop custom portal resources using CM projects. As multiple CM projects are created by developers, they need to be deployed together onto the portal server.

This procedure describes how to deploy multiple CM projects.

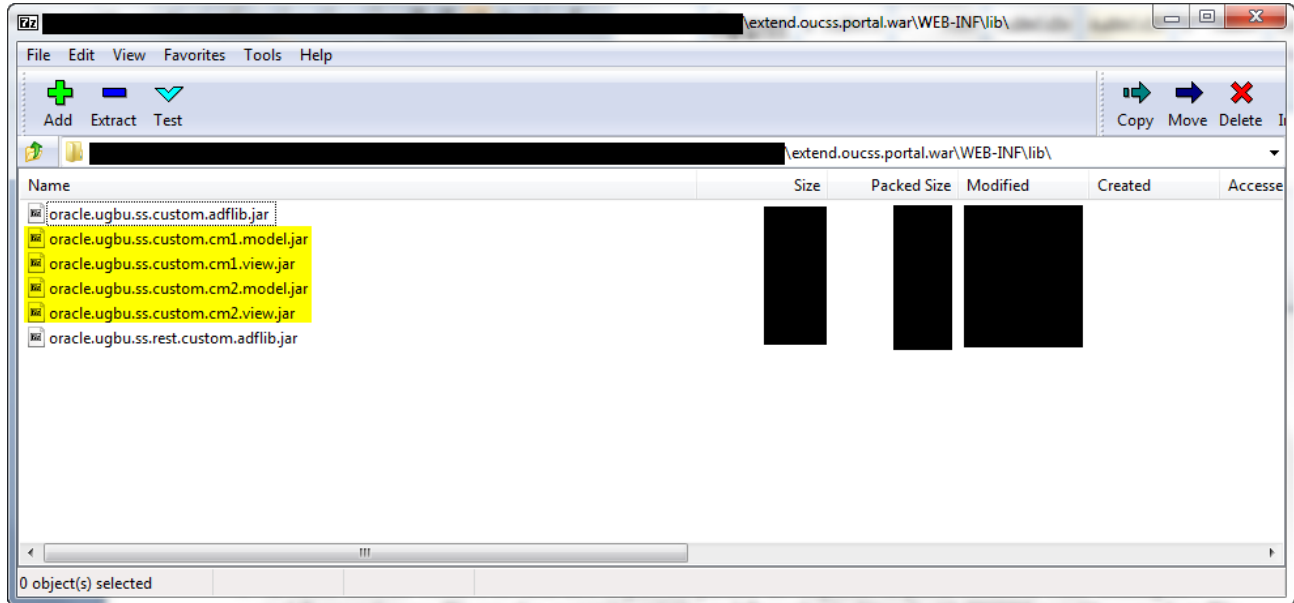
- 1 Create the folder structure `public_html\WEB-INF\lib` in `<ApplicationFolder>\OUCSSPortalSharedLibrary` and put the ADF library jars for all CM projects that are *not* part of this application into this folder. There is no need to copy the ADF library jar of the CM projects that are part of the same ExtendOUCSSPortal application, since they will already be linked with the OUCSSPortalSharedLibrary as described in the previous topic.

- For illustration purposes, assume there are two CM projects, *CM1* and *CM2*, which need to be deployed to the portal server. Let's also assume that the ExtendOUCSSPortal application used to create final deployable `extend.oucss.portal.war` contains *CM1* projects, and *CM2* projects were created outside this application. In this case, the `public_html\WEB-INF\lib` folder created in the OUCSSPortalSharedLibrary project will contain only the ADF library jar of *CM2* projects. You may use a shared folder or source control tool to store all such ADF library jars and include them into a lib folder while creating the final deployable war file.



- Refer to the [Deploying the extend.oucss.portal as a Shared Library](#) topic earlier in this document for instructions on deploying ExtendOUCSSPortal.

- 4 To verify deployment of all CM projects (both internal and external to the ExtendOUCSSPortal application used for .war creation), you can expand the `extend.oucss.portal.war` and navigate to `WEB-INF\lib`.

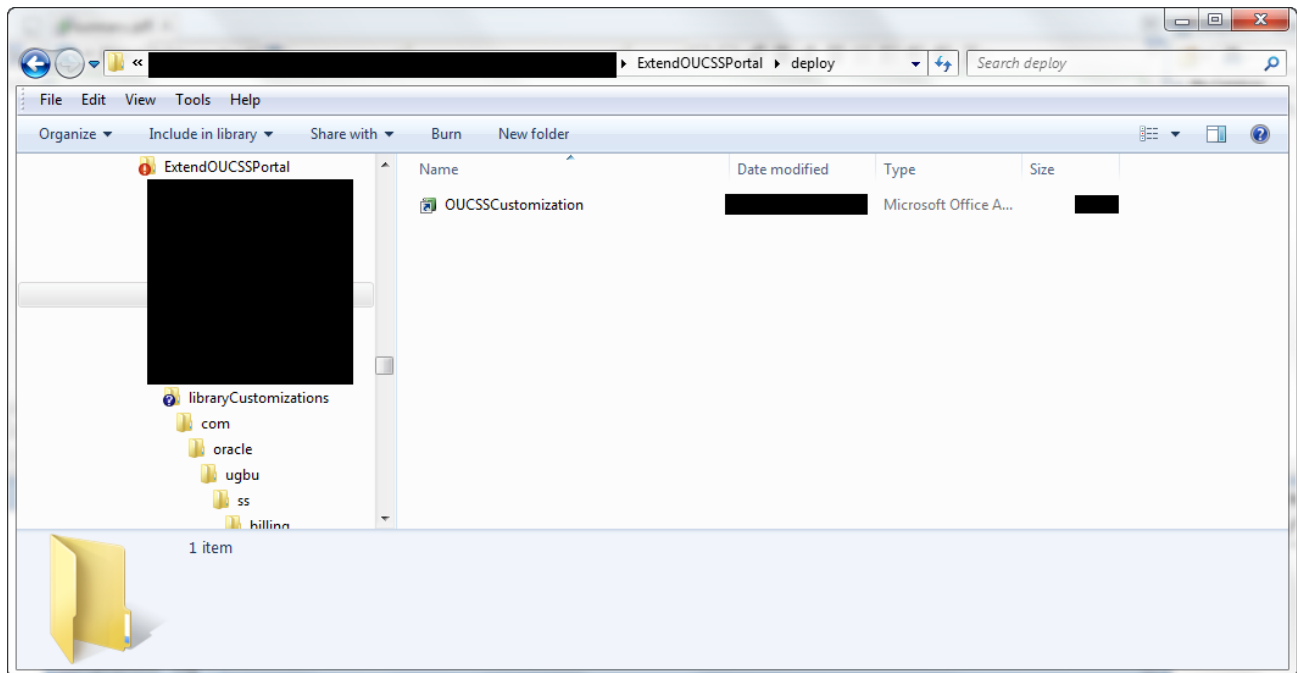
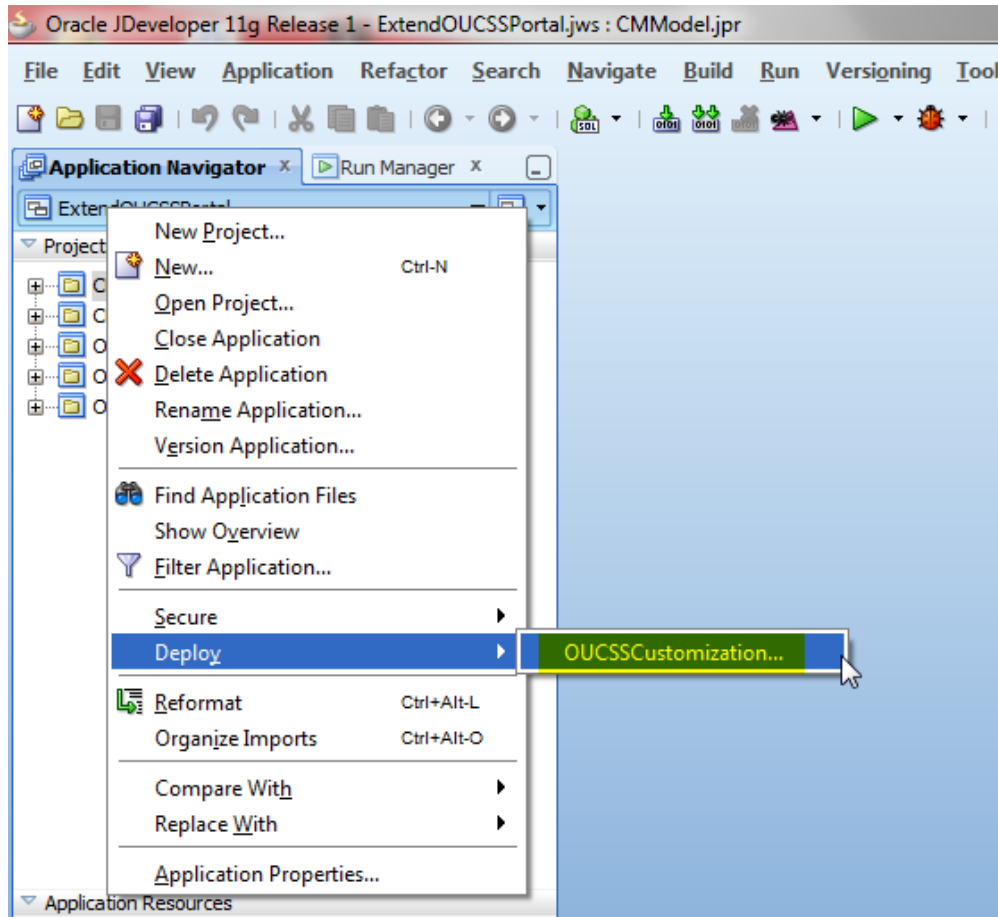


Parallel Customization of Existing Taskflows

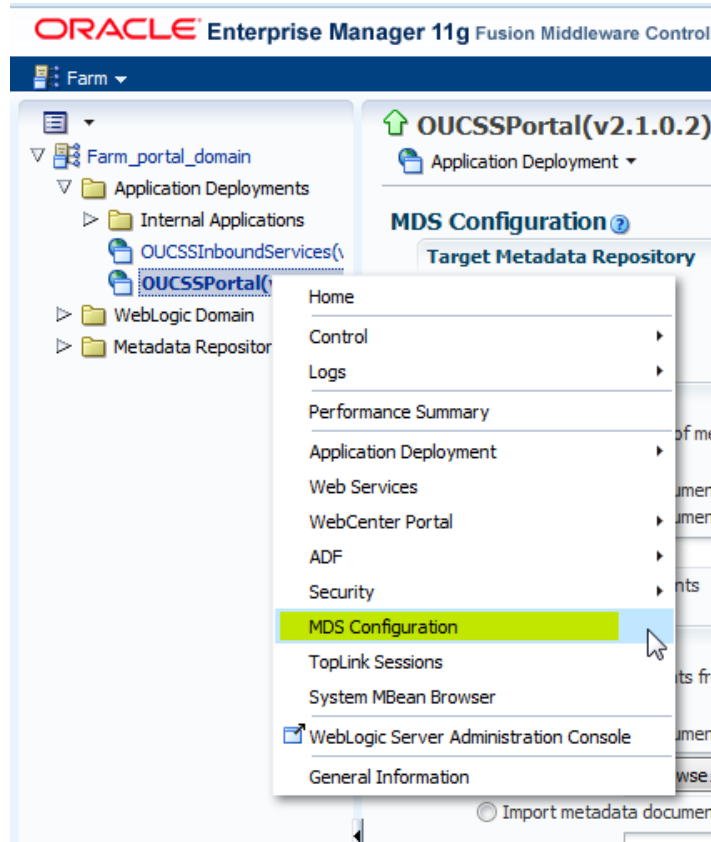
Previous topics described how to perform parallel development on a portal extension while creating new taskflows and pages. You can also customize existing taskflows that are provided with the OUCSS portal base product. This procedure describes how to perform such customization in parallel.

- 1 Review **Chapter 9 – Customization and Extension** in the *OUCSS Implementation Guide* for the steps to follow for customizing existing taskflows.
- 2 Once a customization is performed on a taskflow, JDeveloper will create a customization file containing only the differences between the original and the customized portal artifact. These files need to be uploaded to MDS and can be found in the `<ApplicationFolder>\OUCSSPortalADFLibrary\libraryCustomizations` folder.
- 3 The customization files generated by JDeveloper will be XML files, typically named `*.jsff.xml` or `*pageDef.xml.xml`. These files are created in a folder structure within the `<<ApplicationFolder>>\OUCSSPortalADFLibrary\libraryCustomizations` folder. It is important to keep this folder structure unaltered.
- 4 Combine all the customization artifacts created by multiple developers into the `libraryCustomizations` folder of the `ExtendOUCSSPortal` application which will be used to create the final deployable `.MAR` file. In case of any conflict, merge the customization artifacts to make sure one doesn't override another customization.

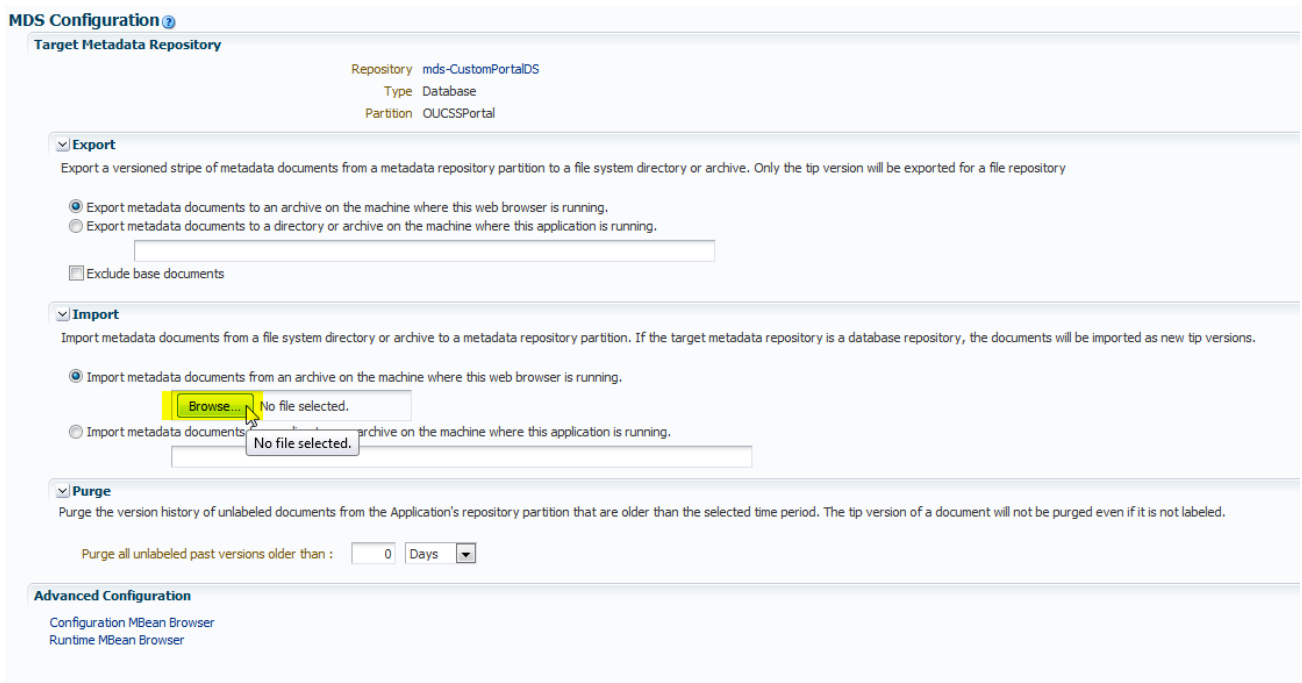
- 5 Right click on **ExtendOUCSSPortal** under **Application Navigator** and select **Deploy**, then **OUCSSCustomization**. ExtendOUCSSPortal already contains the deployment profile to create the .MAR file from its customization folder.



- 6 To deploy the .MAR file to the portal server, log in to the Enterprise Manager (EM) console of the server running the OUCSS portal, then navigate to the portal application under **Application Deployment**. Right-click and select **MDS Configuration** from the pop-up menu.



- 7 Browse to and select the .MAR file to be uploaded to MDS.



8 Click on **Import** to import the .MAR.

Import

Import metadata documents from a file system directory or archive to a metadata repository partition. If the target metadata repository is a database repository, the documents will be imported as new tip versions.

Import metadata documents from an archive on the machine where this web browser is running.

Import metadata documents from a directory or archive on the machine where this application is running.

OUCSSCustomization.mar

Portal Rebranding

To rebrand the portal, implementation tasks include:

- [Customize the Page Template](#)
- [Customize the Navigation Model](#)
- [Customize the Resource Catalog](#)
- [Customize the Skin](#)

Customizing the Page Template

The default OUCSS solution imports OUCSS Residential Template and OUCSS Commercial Template to Oracle WebCenter Portal instance. The default page templates can be replaced by:

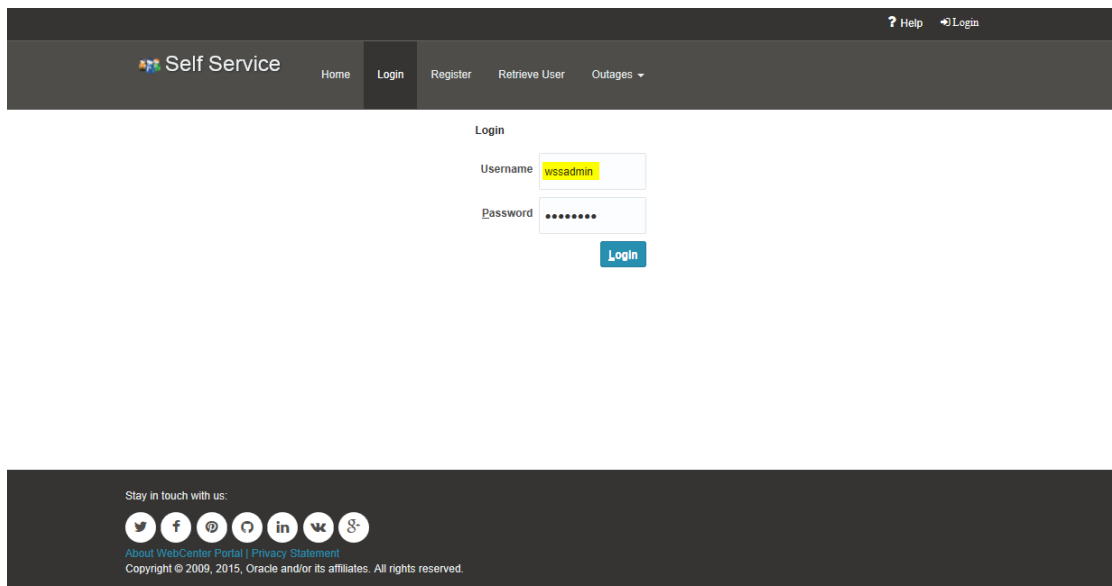
- Customizing the existing page templates
- Creating a brand new page template.
- Importing new page templates exported from another Portal Server instance or JDeveloper.

For more information on page template customization, refer WebCenter Portal Documentation <http://docs.oracle.com/middleware/12211/wcp/develop/GUID-58D55604-83C7-4660-8FE6-D385767D5B95.htm>

Customizing an Existing Page Template

The following steps describe how to customize the page template that exists on a deployed OUCSS Portal.

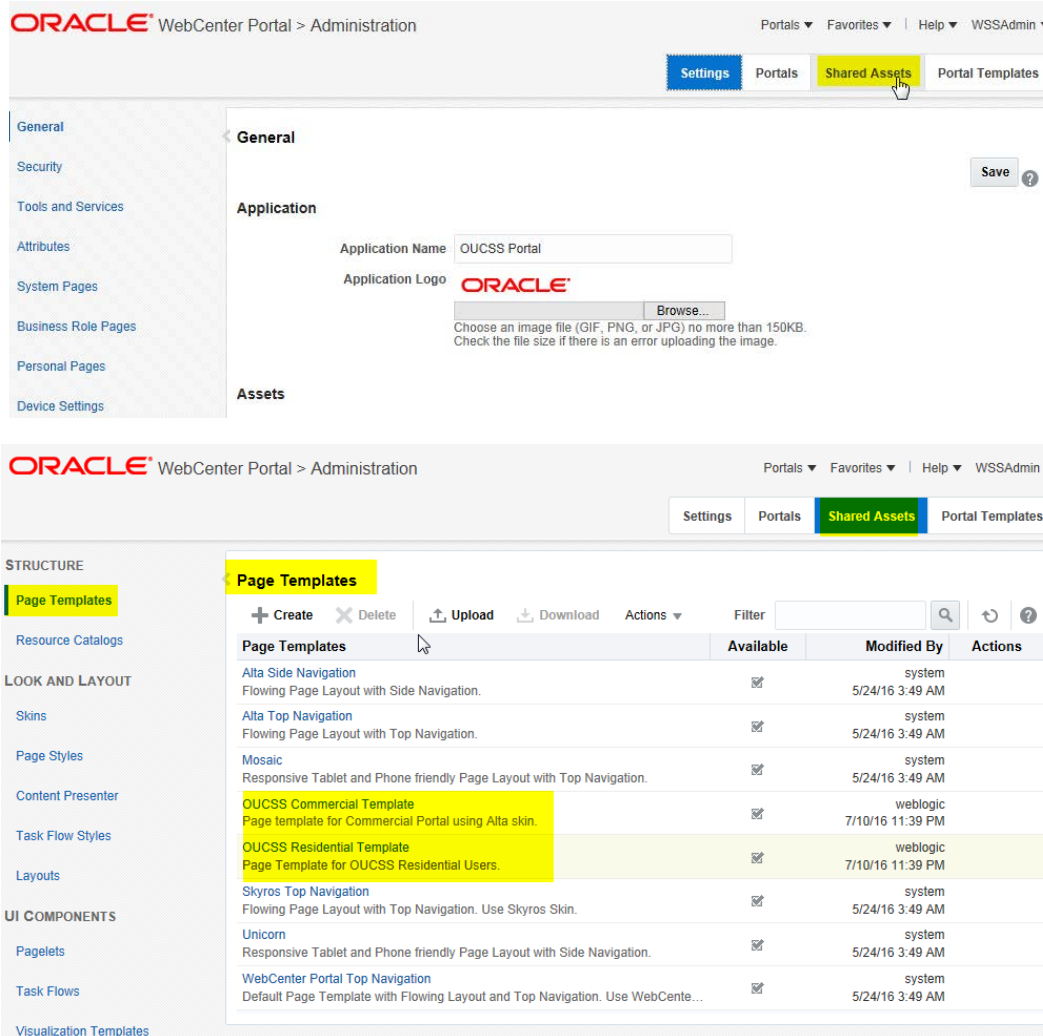
- 1 Log in to the OUCSS Portal with a user with WebCenter Administrator permission (WSSAdmin user is seeded with the required permission).



- 2 Click the **Administration** link on the top-right section of the screen.

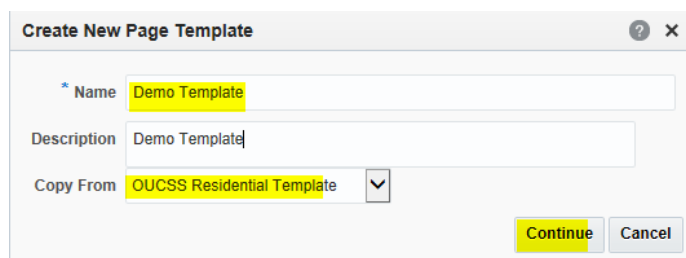


3 In the **Administration** console, click the **Shared Assets** tab, then choose **Page Templates** in the **Structure** section:

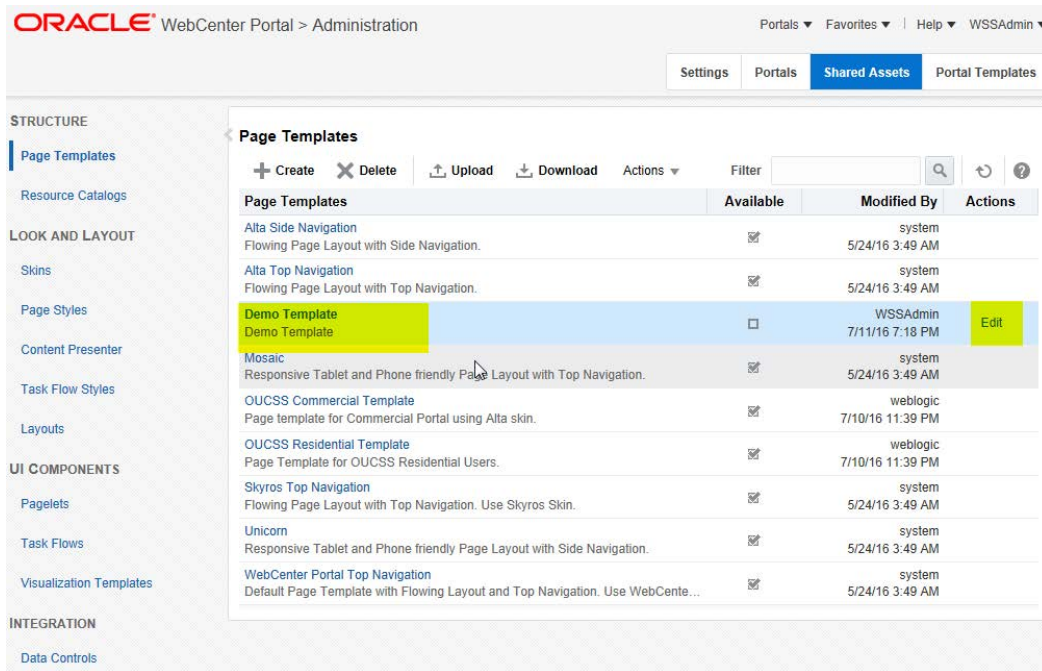


4 The **OUCSS Residential Template** is provided with the product and is set to read-only. To create a new customized template based on the OUCSS Residential template:

- A Click **Create**.
- B Enter a name and description (optional), then select the **OUCSS Residential Template** from the **Copy From** list box:

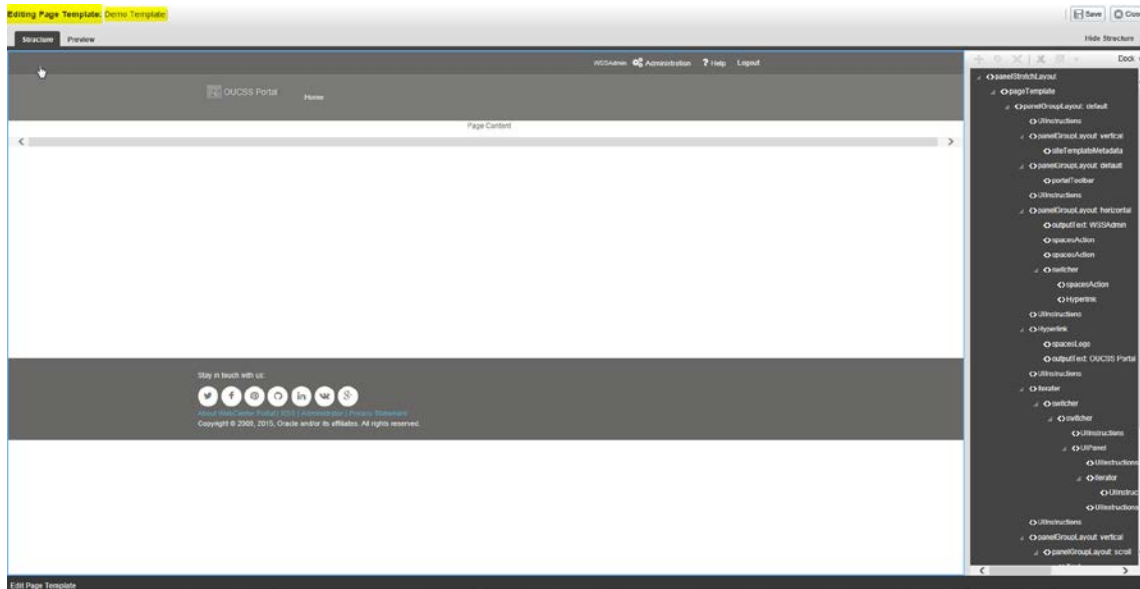


C Click **Continue** to create the new template.



5 Select the new template, then click the **Edit** link to open the template for customization.

Demo Template in Edit Mode



6 Customize as required, and then click **Save**, and then **Close**.

7 Click on the page template Name to preview the changes.

Page Templates

+ Create X Delete Upload Download Actions Filter [] [] [] [] []

Page Templates	Available	Modified By	Actions
Alta Side Navigation Flowing Page Layout with Side Navigation.	<input checked="" type="checkbox"/>	system 5/24/16 3:49 AM	
Alta Top Navigation Flowing Page Layout with Top Navigation.	<input checked="" type="checkbox"/>	system 5/24/16 3:49 AM	
Demo Template Demo Template	<input type="checkbox"/>	WSSAdmin 7/11/16 7:28 PM	Edit
Mosaic Responsive Tablet and Phone friendly Page Layout with Top Navigation.	<input checked="" type="checkbox"/>	system 5/24/16 3:49 AM	
OUCSS Commercial Template Page template for Commercial Portal using Alta skin.	<input checked="" type="checkbox"/>	weblogic 7/10/16 11:39 PM	
OUCSS Residential Template Page Template for OUCSS Residential Users.	<input checked="" type="checkbox"/>	weblogic 7/10/16 11:39 PM	
Skyros Top Navigation Flowing Page Layout with Top Navigation. Use Skyros Skin.	<input checked="" type="checkbox"/>	system 5/24/16 3:49 AM	
Unicorn Responsive Tablet and Phone friendly Page Layout with Side Navigation.	<input checked="" type="checkbox"/>	system 5/24/16 3:49 AM	
WebCenter Portal Top Navigation Default Page Template with Flowing Layout and Top Navigation. Use WebCente...	<input checked="" type="checkbox"/>	system 5/24/16 3:49 AM	

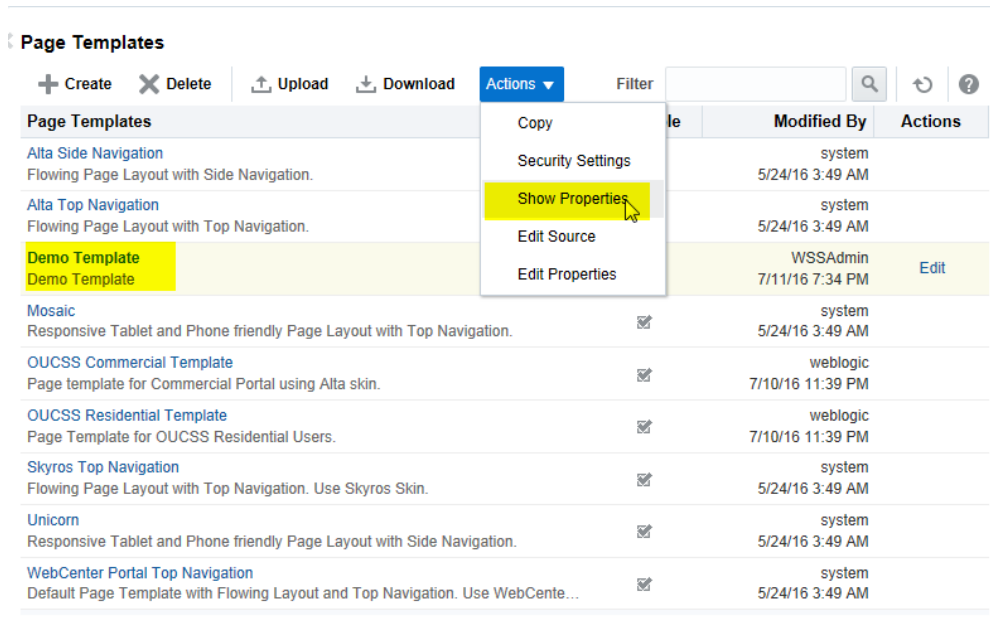
8 Click **Edit** to further modify the template. When complete, click **Save** and **Close**.



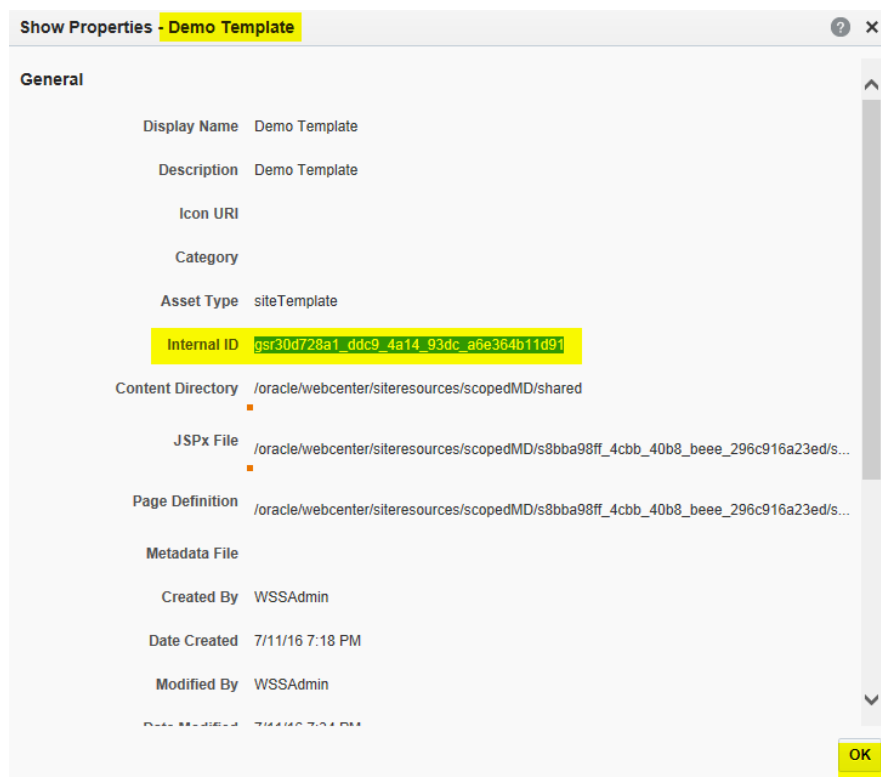
9 The newly created templates are hidden by default. To unhide the template, check the **Available** checkbox.

Alta Top Navigation Flowing Page Layout with Top Navigation.	<input checked="" type="checkbox"/>	system 5/24/16 3:49 AM	
Demo Template Demo Template	<input checked="" type="checkbox"/>	WSSAdmin 7/11/16 7:34 PM	Edit
Mosaic Responsive Tablet and Phone friendly Page Layout with Top Navigation.	<input checked="" type="checkbox"/>	system 5/24/16 3:49 AM	
OUCSS Commercial Template Page template for Commercial Portal using Alta skin.	<input checked="" type="checkbox"/>	weblogic 7/10/16 11:39 PM	
OUCSS Residential Template Page Template for OUCSS Residential Users.	<input checked="" type="checkbox"/>	weblogic 7/10/16 11:39 PM	

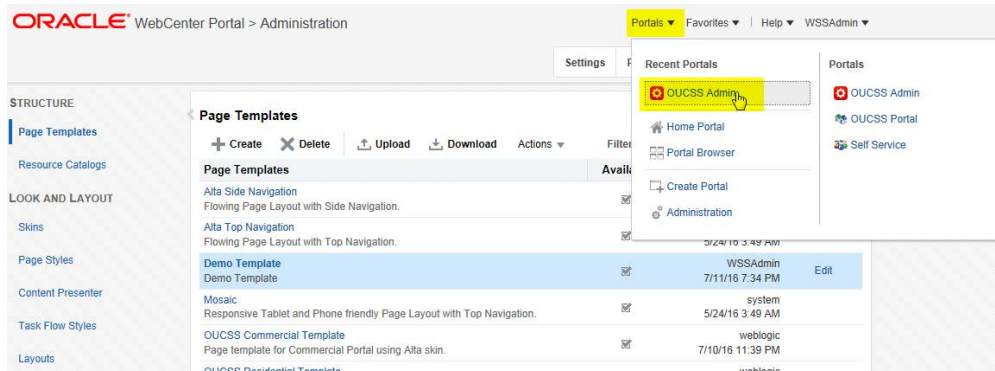
10 To activate and use the new Demo Template as the site template for one or more contexts, copy the template path of the new template, then choose **Action > Show Properties**.



11 Copy the Internal ID, then click **Ok** to close the popup.



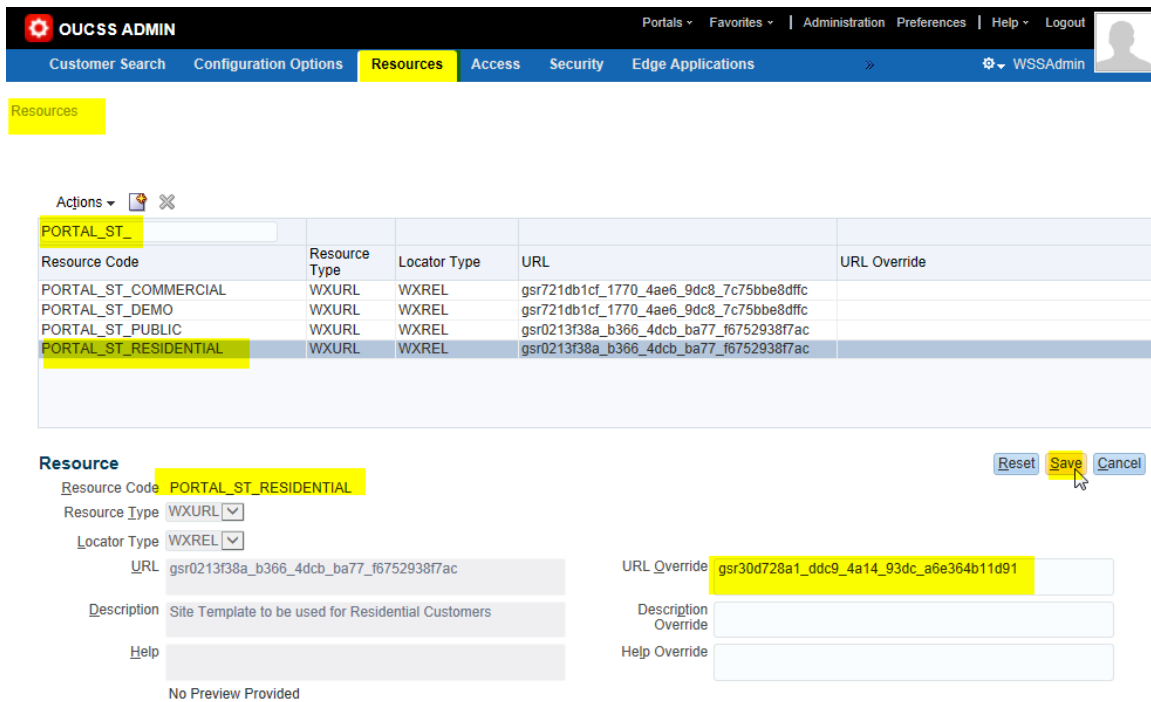
12 From the Portal Menu, choose OUCSS Admin to go **back to Portal**.



13 Filter the resources with resource codes **PORTAL_ST_**.

Update the **URL Override** property by selecting a **PORTAL_ST_<<Context>>** (**RESIDENTIAL, PUBLIC**, etc.) resource with the Internal ID that was copied in step 10.

Note: To update **Mobile** page template, filter for **MOB_B_PORTAL_ST_**.



14 Repeat the process to update other Contexts with a custom **Site Template**.

15 Restart the OUCSS Portal managed server and verify that the changes are reflected in the portal.

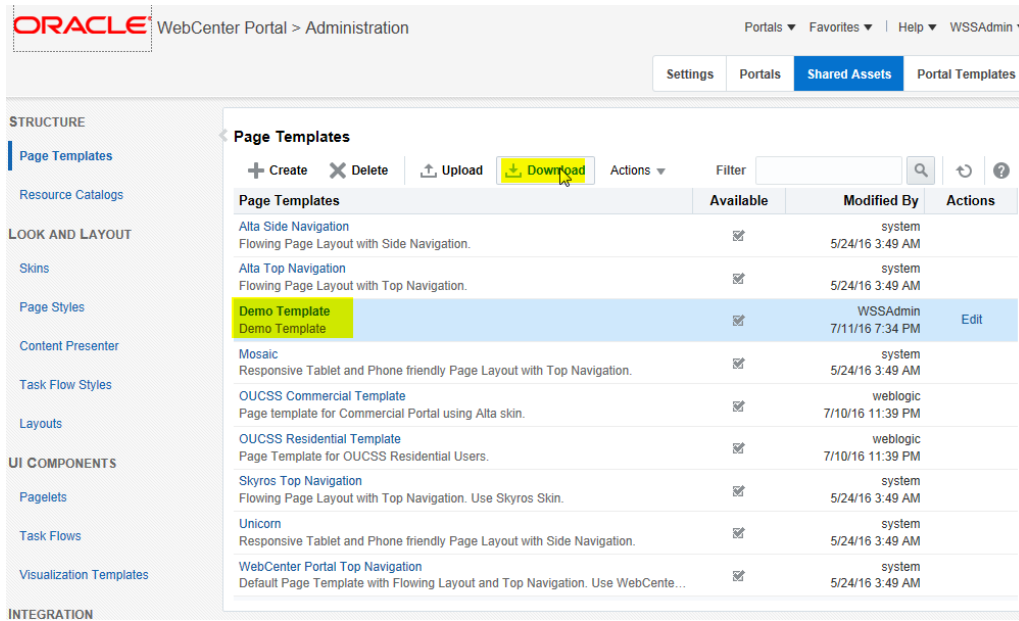
Exporting Page Templates

Page templates from other WebCenter portal instances or from JDeveloper, can be exported and then imported into the OUCSS Portal for rebranding.

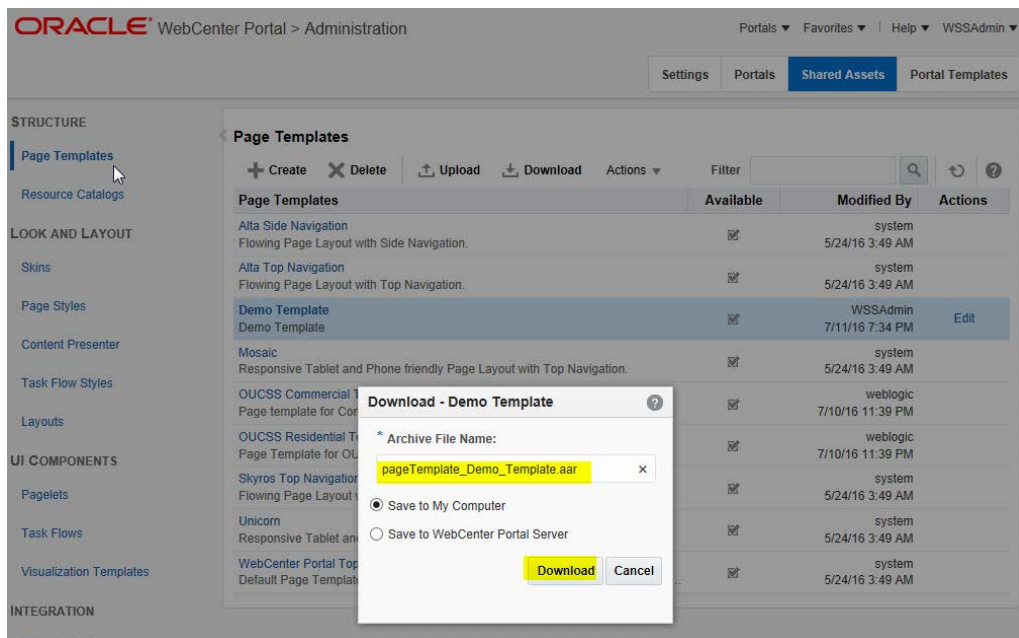
To export an existing template:

- 1 Log in to the instance of the existing page template with Administrator privileges, and then click on the **Administration** link to launch the Administration Console.

- Choose the **Shared Assets** tab, then click the **Page Templates** link in the **Structure** section. Select the template to be migrated.



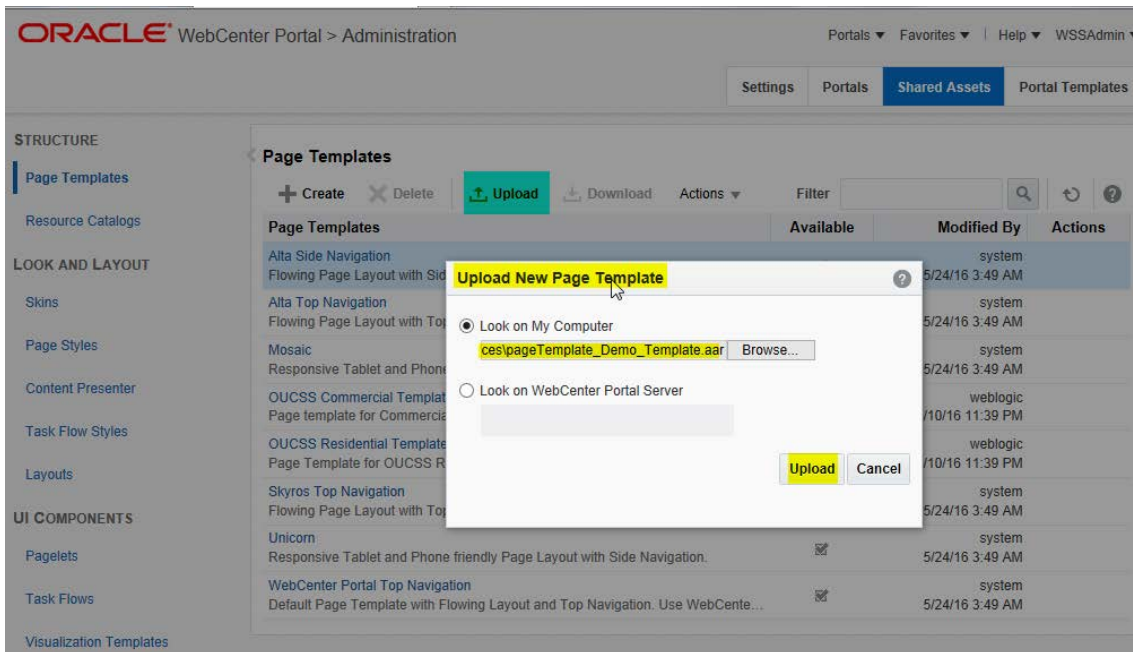
- Click **Download** on the toolbar to open the **Download** dialog.
- Enter the **Archive File Name**, choose the location for the exported archive on your local machine, then click **Download**.



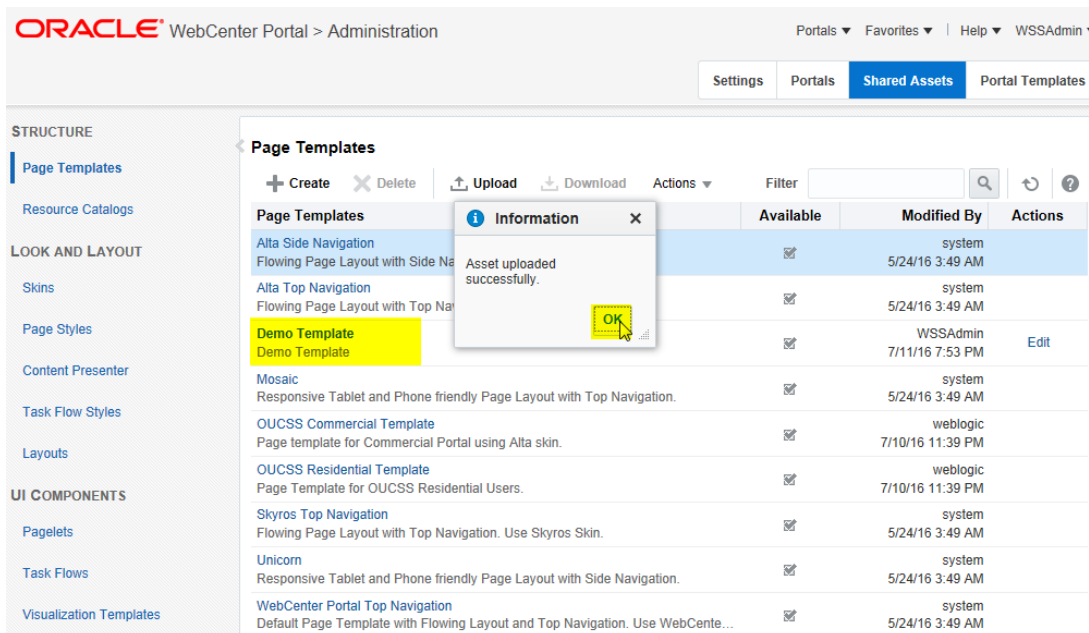
- Choose **Save File** to save the exported template on your local machine.

Importing Page Templates

- 1 Log in to the portal instance with Administrator privileges in the location in which the template is to be migrated/imported.
- 2 Click **Administration** and go to the **Shared Assets > Page Templates** page.
- 3 Click **Upload**.
- 4 Select the **pageTemplate_Demo_Template.aar** or **Page Template** export archive that was downloaded from the previous portal instance, then click **Upload**.



- 5 Click **OK** to confirm. The newly-uploaded **Page Template** should be visible on the list.



- 6 To configure the page template, follow steps 10 to 15 from the topic [Customizing an Existing Page Template](#).

Customizing the Resource Catalog

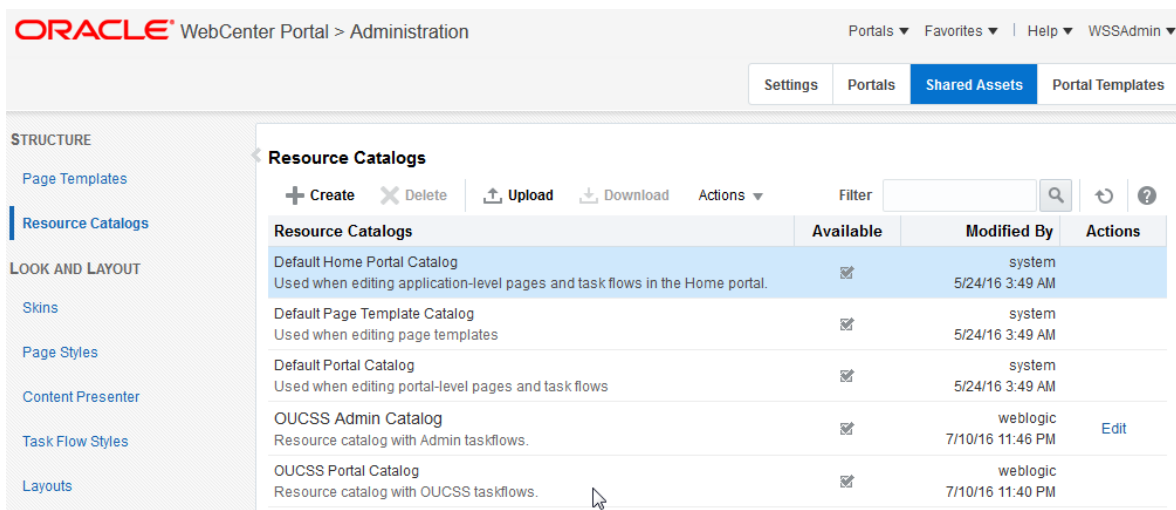
Portal application is configured to use separate catalogs for OUCSS related pages and OUCSS Admin pages. The following example describes customizing the OUCSS Portal Catalog. The same steps can be followed to customize the OUCSS Admin Catalog.

For additional information on customizing the resource catalog, see

<http://docs.oracle.com/middleware/12211/wcp/build/GUID-B2EE448F-2E0D-45F0-AC7C-327C2615B912.htm>

To consume the taskflow from the `extend.oucss.portal` library, the provided (out-of-the-box) resource catalog must be customized as follows:

- 1 Log in to the OUCSS Portal with Administrator privileges and go to the Administration Console.
- 2 Choose the **Shared Assets** tab and click on the **Resource Catalogs** link in the **Structure** section.



ORACLE WebCenter Portal > Administration

Portals ▾ Favorites ▾ | Help ▾ WSSAdmin ▾

Settings Portals **Shared Assets** Portal Templates

STRUCTURE

- Page Templates
- Resource Catalogs**

LOOK AND LAYOUT

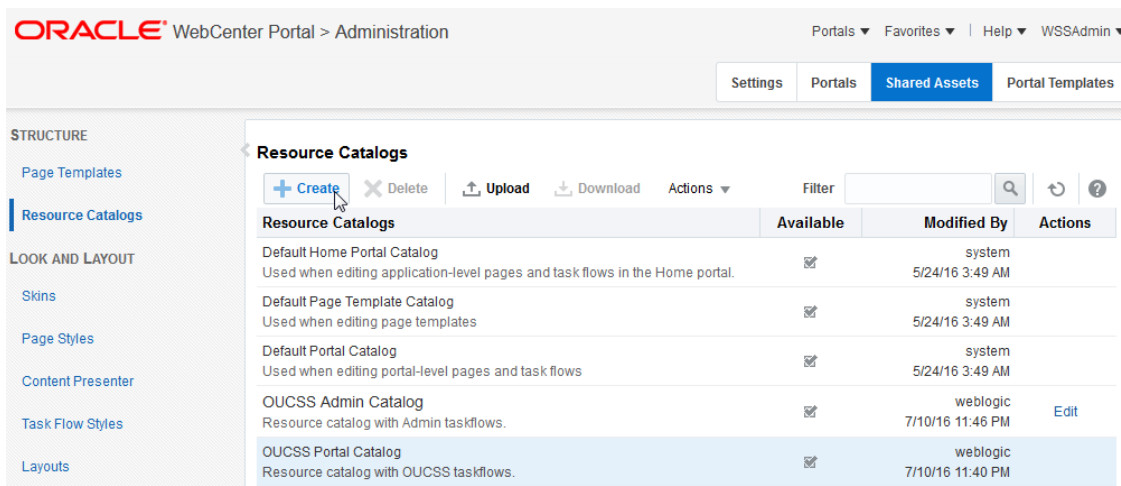
- Skins
- Page Styles
- Content Presenter
- Task Flow Styles
- Layouts

Resource Catalogs

+ Create ✕ Delete Upload Download Actions ▾ Filter [] [] [] []

Resource Catalogs	Available	Modified By	Actions
Default Home Portal Catalog Used when editing application-level pages and task flows in the Home portal.	<input checked="" type="checkbox"/>	system 5/24/16 3:49 AM	
Default Page Template Catalog Used when editing page templates	<input checked="" type="checkbox"/>	system 5/24/16 3:49 AM	
Default Portal Catalog Used when editing portal-level pages and task flows	<input checked="" type="checkbox"/>	system 5/24/16 3:49 AM	
OUCSS Admin Catalog Resource catalog with Admin taskflows.	<input checked="" type="checkbox"/>	weblogic 7/10/16 11:46 PM	Edit
OUCSS Portal Catalog Resource catalog with OUCSS taskflows.	<input checked="" type="checkbox"/>	weblogic 7/10/16 11:40 PM	

- 3 Create a new catalog and click **Create** and select OUCSS Portal Catalog from the **Copy from** list box. Click Continue to create the catalog.



ORACLE WebCenter Portal > Administration

Portals ▾ Favorites ▾ | Help ▾ WSSAdmin ▾

Settings Portals **Shared Assets** Portal Templates

STRUCTURE

- Page Templates
- Resource Catalogs**

LOOK AND LAYOUT

- Skins
- Page Styles
- Content Presenter
- Task Flow Styles
- Layouts

Resource Catalogs

+ Create ✕ Delete Upload Download Actions ▾ Filter [] [] [] []

Resource Catalogs	Available	Modified By	Actions
Default Home Portal Catalog Used when editing application-level pages and task flows in the Home portal.	<input checked="" type="checkbox"/>	system 5/24/16 3:49 AM	
Default Page Template Catalog Used when editing page templates	<input checked="" type="checkbox"/>	system 5/24/16 3:49 AM	
Default Portal Catalog Used when editing portal-level pages and task flows	<input checked="" type="checkbox"/>	system 5/24/16 3:49 AM	
OUCSS Admin Catalog Resource catalog with Admin taskflows.	<input checked="" type="checkbox"/>	weblogic 7/10/16 11:46 PM	Edit
OUCSS Portal Catalog Resource catalog with OUCSS taskflows.	<input checked="" type="checkbox"/>	weblogic 7/10/16 11:40 PM	

Create New Resource Catalog

* Name: Demo Resource Catalog

Description: Demo Resource Catalog

Copy From: OUCSS Portal Catalog

Continue Cancel

4 Click **Edit** to edit the catalog.

ORACLE WebCenter Portal > Administration

Portals Favorites Help WSSAdmin

Settings Portals **Shared Assets** Portal Templates

STRUCTURE

- Page Templates
- Resource Catalogs**

LOOK AND LAYOUT

- Skins
- Page Styles
- Content Presenter
- Task Flow Styles
- Layouts

UI COMPONENTS

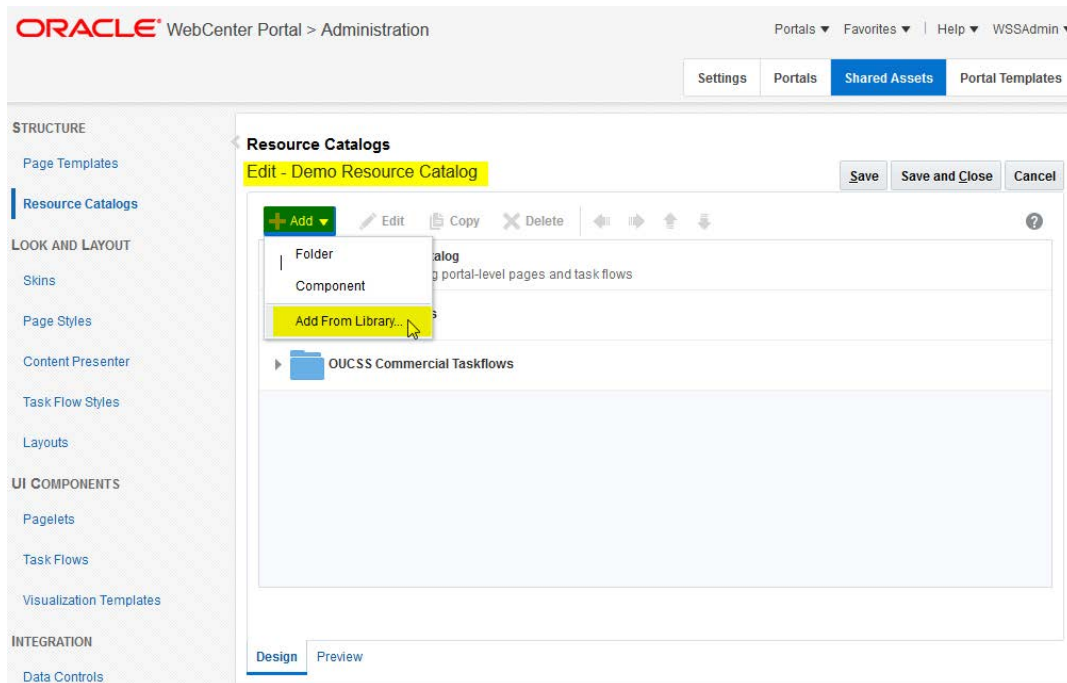
Resource Catalogs

+ Create X Delete Upload Download Actions Filter

Resource Catalogs	Available	Modified By	Actions
Default Home Portal Catalog Used when editing application-level pages and task flows in the Home portal.	<input checked="" type="checkbox"/>	system 5/24/16 3:49 AM	
Default Page Template Catalog Used when editing page templates	<input checked="" type="checkbox"/>	system 5/24/16 3:49 AM	
Default Portal Catalog Used when editing portal-level pages and task flows	<input checked="" type="checkbox"/>	system 5/24/16 3:49 AM	
Demo Resource Catalog Demo Resource Catalog	<input type="checkbox"/>	WSSAdmin 7/12/16 3:06 PM	Edit
OUCSS Admin Catalog Resource catalog with Admin taskflows.	<input checked="" type="checkbox"/>	weblogic 7/10/16 11:46 PM	
OUCSS Portal Catalog Resource catalog with OUCSS taskflows.	<input checked="" type="checkbox"/>	weblogic 7/10/16 11:40 PM	

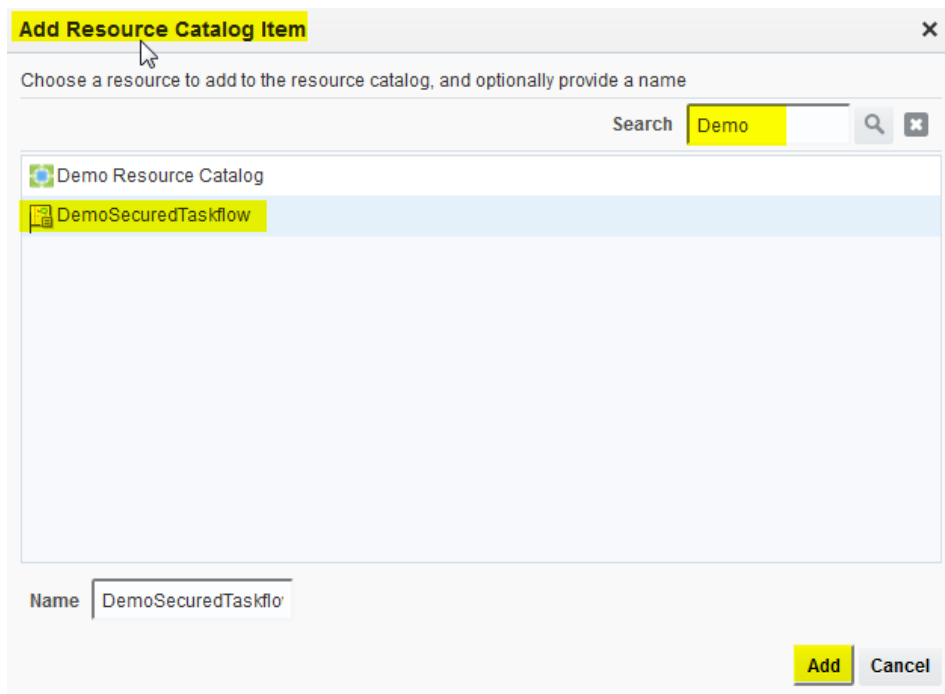
5 In the **Edit** dialog, click **Add > Add From Library...** to add the new taskflow to the catalog.

Note: You can also add folders or add the taskflow to another location in the catalog. For the purposes of this demo, the new taskflow (TestTaskflow) will be added at the catalog’s root level.

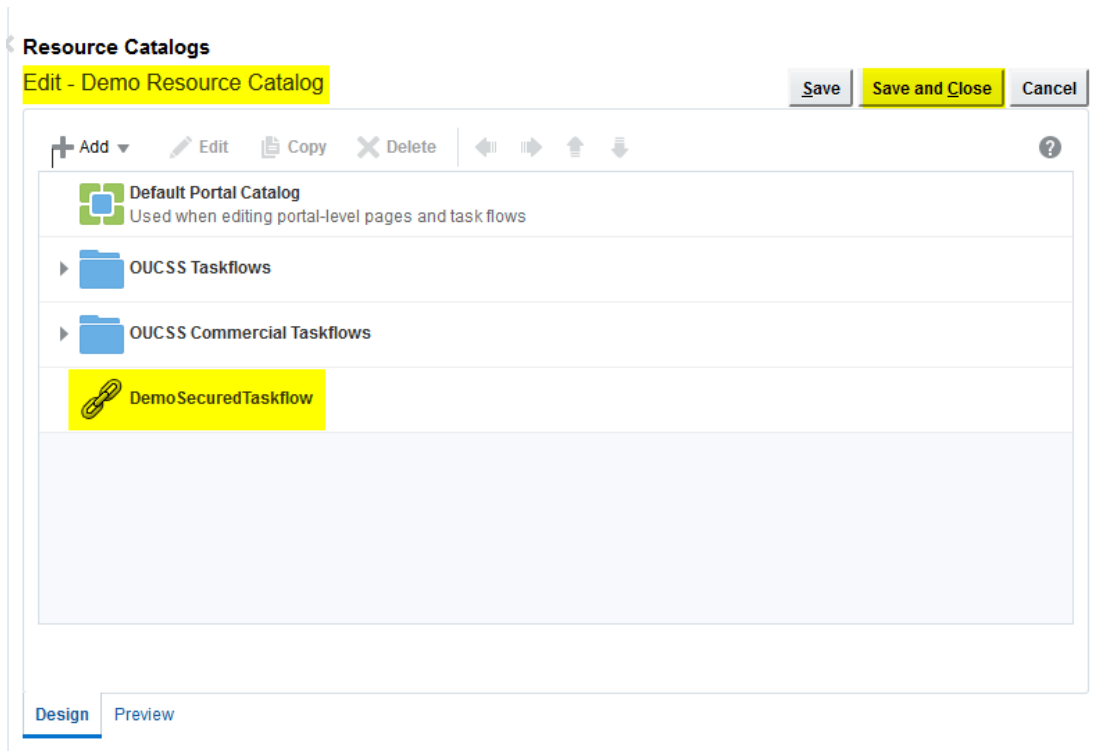


- In the **Add Resource Catalog Item** dialog, search for the taskflow/ resource to add. For example, search for Demo to and choose the **DemoSecuredTaskflow** (that was created earlier).

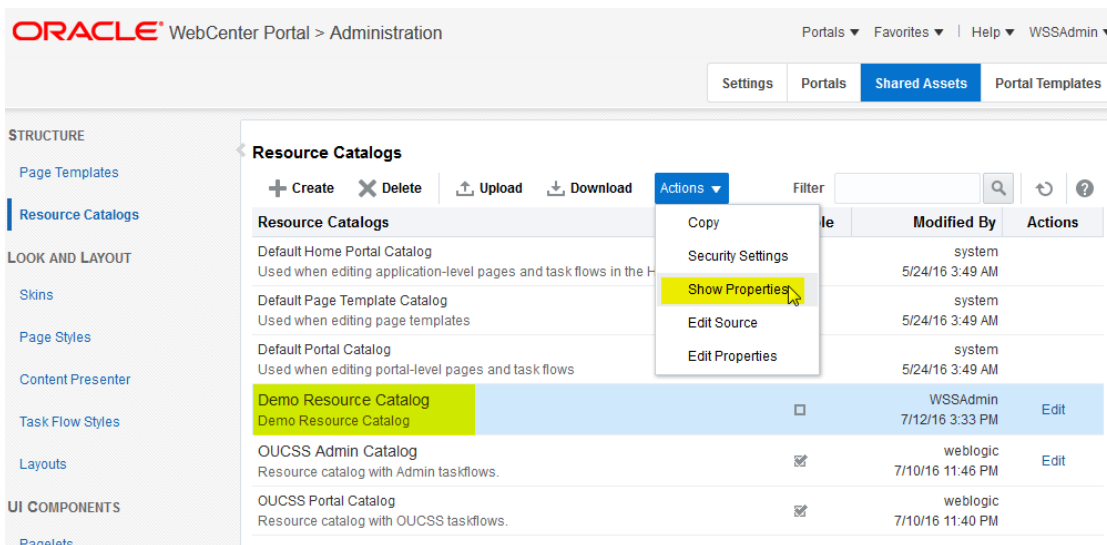
When the taskflow/ resource to add is selected, click the **Add** button.



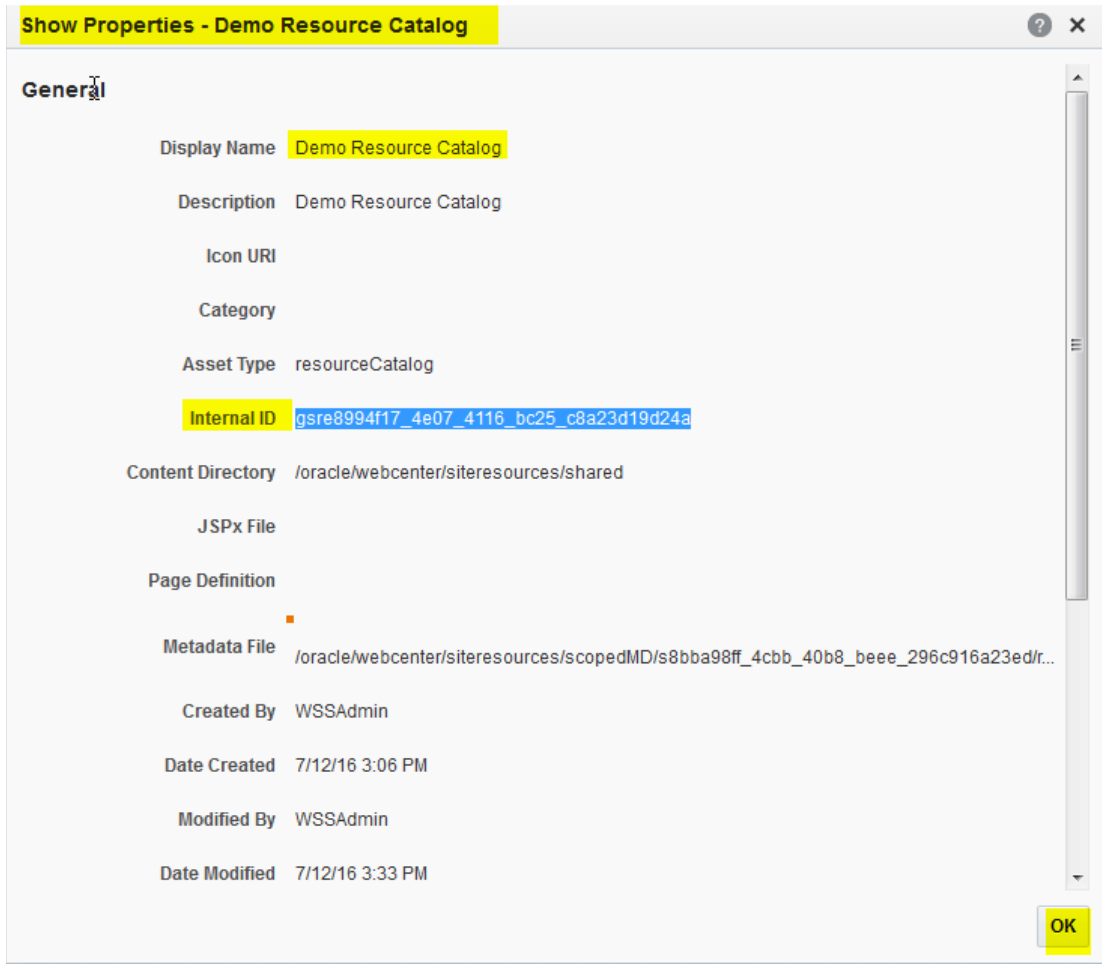
- The new taskflow now appears in the catalog list. Click **OK** to save the changes.



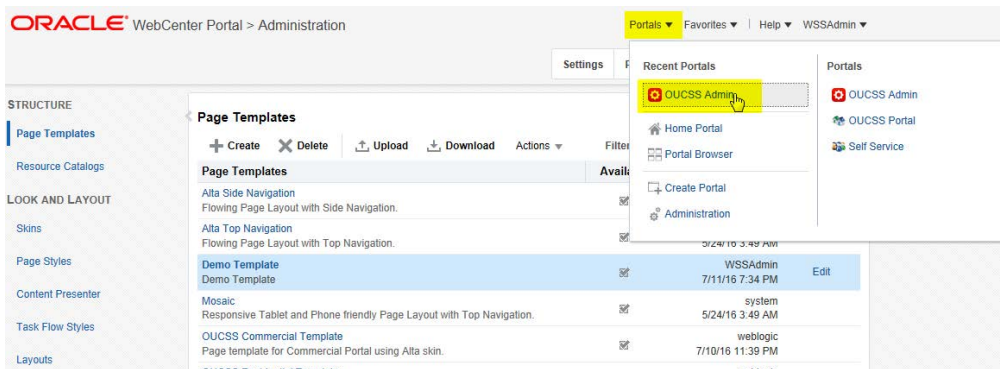
- 8 To activate and use the new **Demo Resource Catalog** for one or more contexts, first copy the Internal ID of the new catalog by choosing **Actions > Show Properties**.



- 9 Select and copy the **Internal ID** from the **Show Properties** dialog.



10 From the Portal Menu, choose OUCSS Admin to go back to Portal.



11 Goto Resource tab then filter the resources with resource codes **PORTAL_RC_**. Update the **URL Override** property by selecting the **PORTAL_RC_<<Context>>** resource with the **Internal ID** path copied before.

Resources

Actions

Resource Code	Resource Type	Locator Type	URL	URL Override
PORTAL_RC_COMMERCIAL	WXURL	WXREL	gsr31c6ba47_35f3_4923_b699_580fd92cd76a	
PORTAL_RC_DEMO	WXURL	WXREL	gsr31c6ba47_35f3_4923_b699_580fd92cd76a	
PORTAL_RC_RESIDENTIAL	WXURL	WXREL	gsr31c6ba47_35f3_4923_b699_580fd92cd76a	

Resource Reset Save Cancel

Resource Code: PORTAL_RC_RESIDENTIAL

Resource Type: WXURL

Locator Type: WXREL

URL: gsr31c6ba47_35f3_4923_b699_580fd92cd76a

URL Override: gsre8994f17_4e07_4116_bc25_c8a23d19d24a

Description: Resource Catalog URL for Residential Customers

Description Override:

Help:

No Preview Provided

- 12 Save your changes and repeat the same process to update other Contexts with the custom **Resource Catalog**.
- 13 Restart the OUCSS Portal managed server and verify that your changes are reflected in the portal.
- 14 Edit a page and add the **Demo Secured taskflow** from the **Resource Catalog**. Click **Save**.

OUCSS Portal > Home DRAFT

WSS Admin Administration Help Logout

Home Accounts Details Multi-Account Notifications Forms Outages New Customer User Profile Admin

DemoSecuredTaskflow

Hello World! Demo Secured Taskflow

First Name: WSS
Last Name: Admin1
Email: wssadmin@oracle.com

Account Id	Person Id
37 00 00 00	00
32 84 00 00	90
80 78 00 00	00
57 40 00 00	10
21 37 00 00	83
13 04 00 00	39
59 45 00 00	84
83 87 00 00	03
76 34 00 00	00

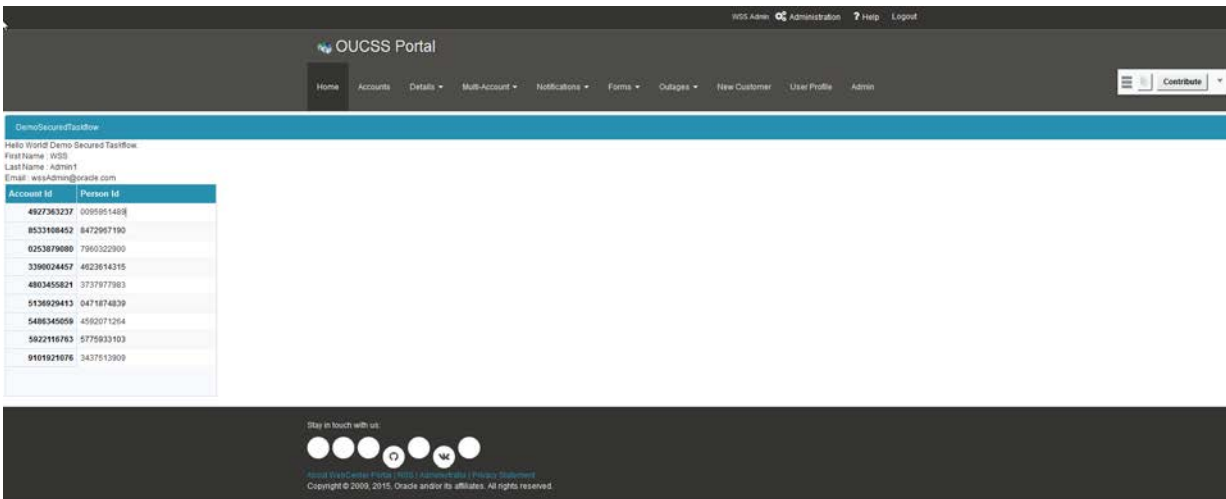
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Note: Changes to a page needs to be published in Portal to take effect. To publish a page, click on the Drafts icon on the left and select the pages that should commit the changes and click on Publish button.



After publishing the page, click on “View Portal” link on the top boiler to see the changes.



Customizing Skins

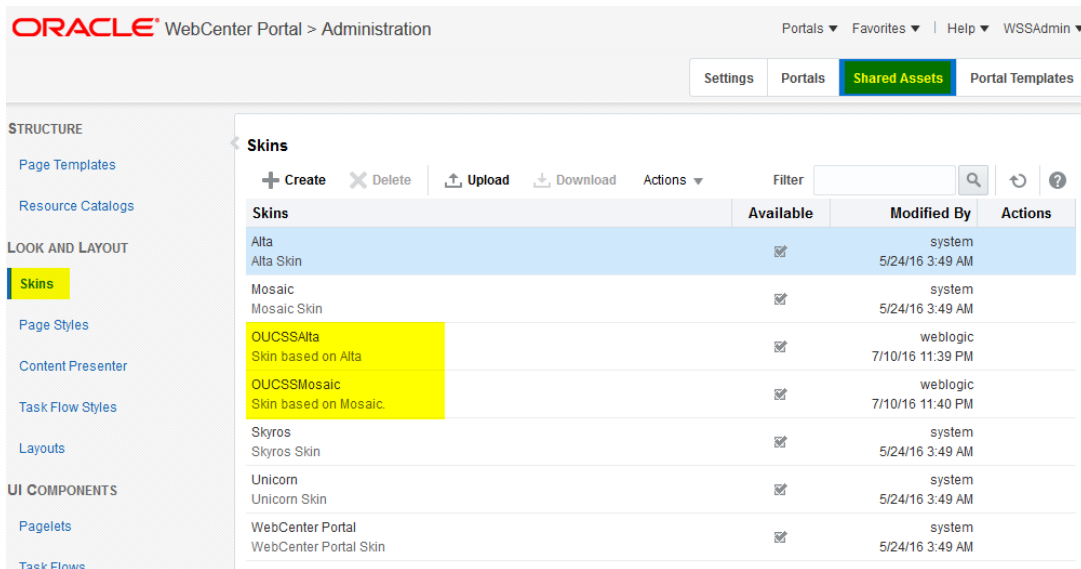
OUCSS Portal is configured to use OUCSSMosaic and OUCSSAlta skins for OUCSS Residential Template and OUCSS Commercial Template respectively. The following example describes customizing the OUCSSMosaic Skin. The same steps can be followed to customize other skins.

For additional information on customizing the resource catalog, see

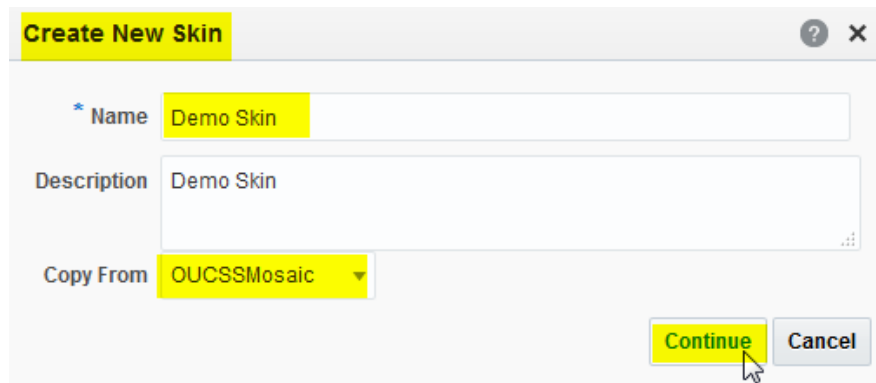
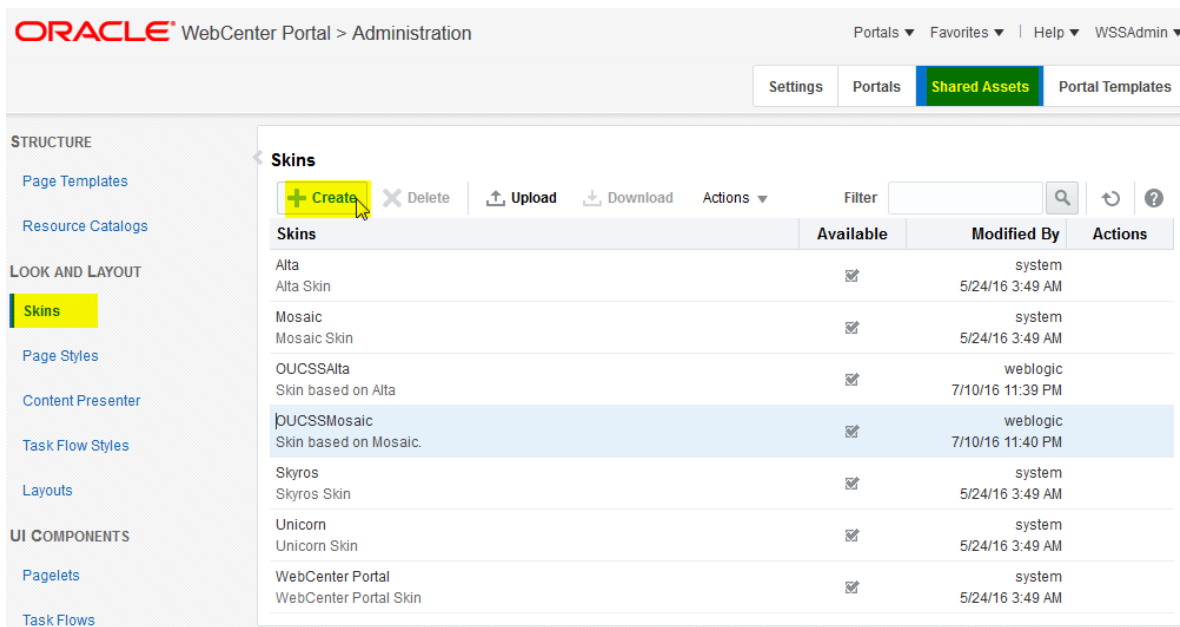
<http://docs.oracle.com/middleware/12211/wcp/build/GUID-D062C69E-9EA3-46EC-9E9F-C226E9B95B2C.htm>

OUCSS Residential Skin customization example:

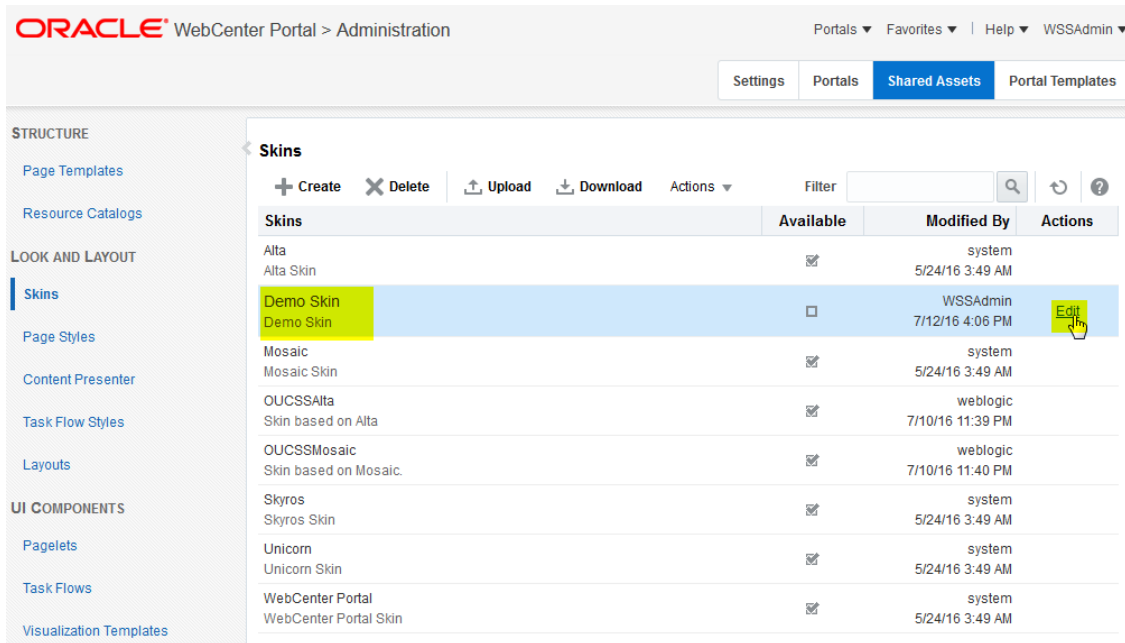
- 1 Log in to the OUCSS Portal with Administrator privileges and go to the Administration Console.
- 2 Choose the **Shared Assets** tab and click on the **Skins** link in the **Structure** section.



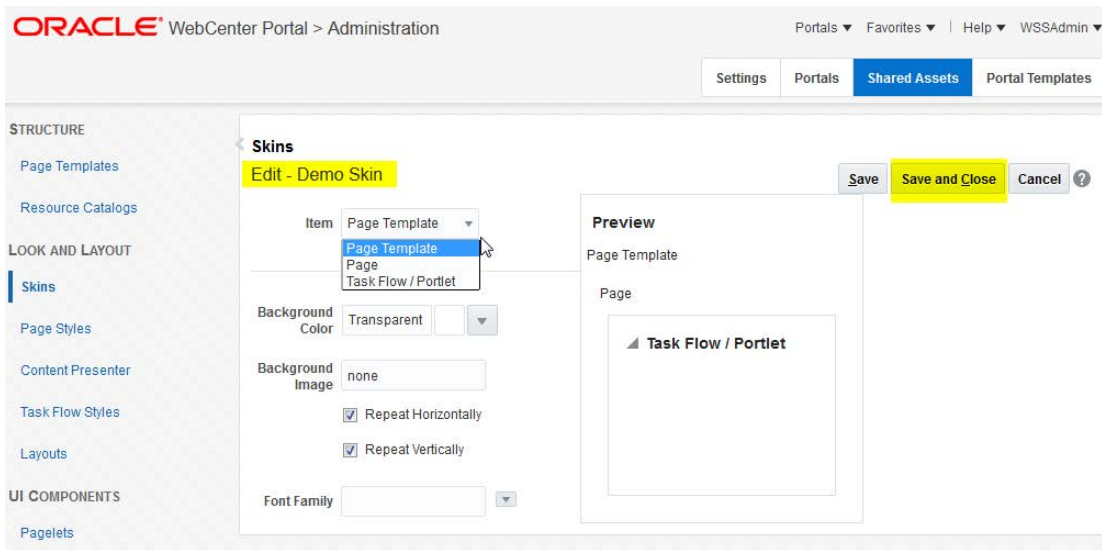
- 3 Click **Create** to create a new Skin and choose **OUCSSMosaic** from the **Copy from** list box. Click continue to create the skin.



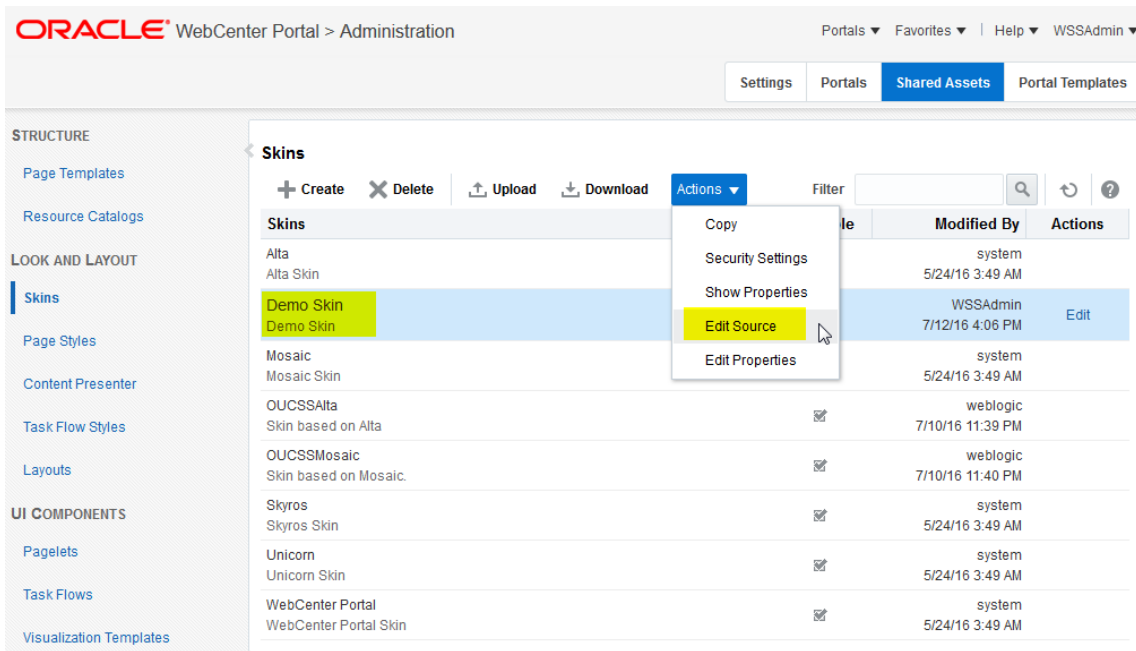
- Click **Edit** to edit the skin.



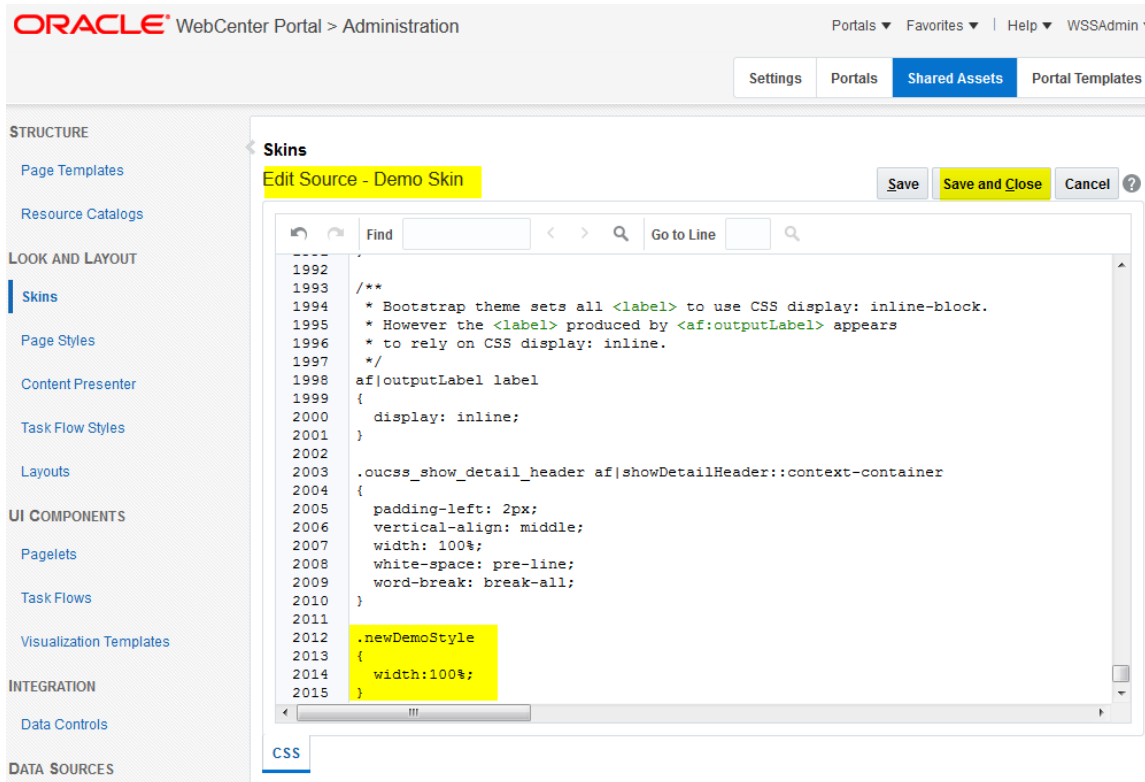
- In **Edit** mode, customize the skin. When editing is complete, click **Save and Close**.



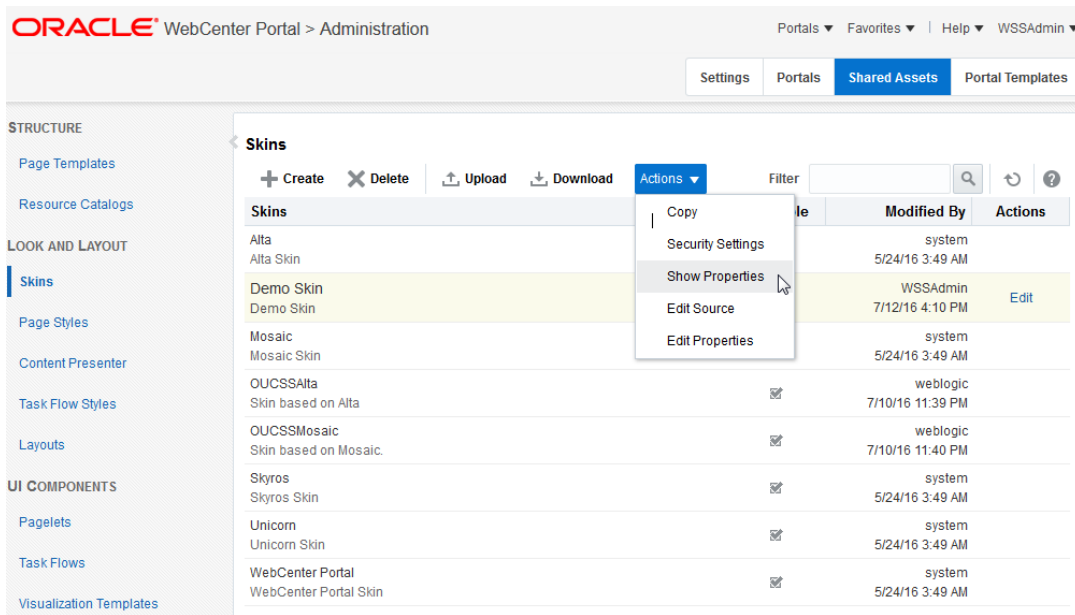
- Skin styles can also be modified by editing the source. To edit the source, Select the **Demo Skin** and click **Actions > Edit Source**.



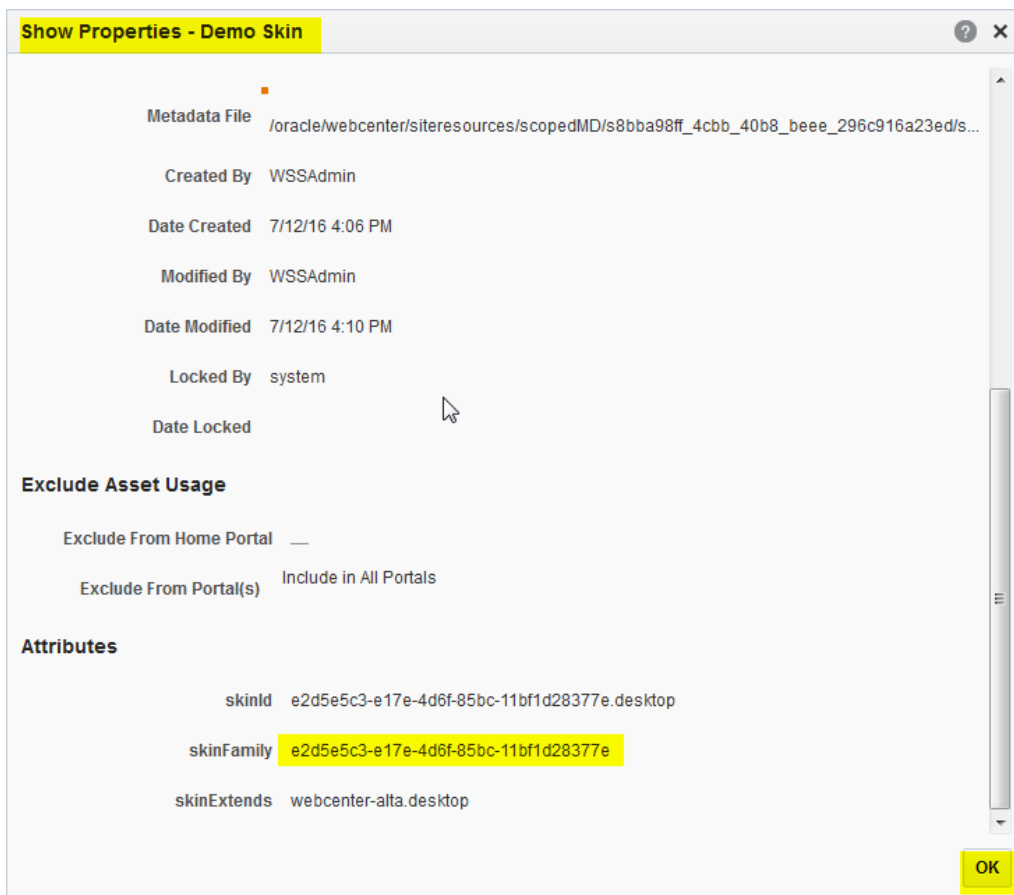
7 Edit the source. When the modification is complete, click **Save**, then **Close**.



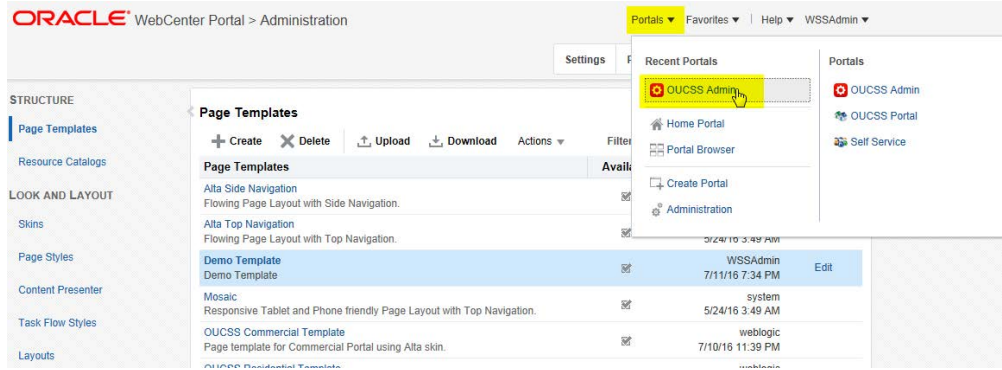
8 To activate and use the **Demo Skin**, copy the **skinFamily** name of the new skin, then click **Actions -> Show Properties**.



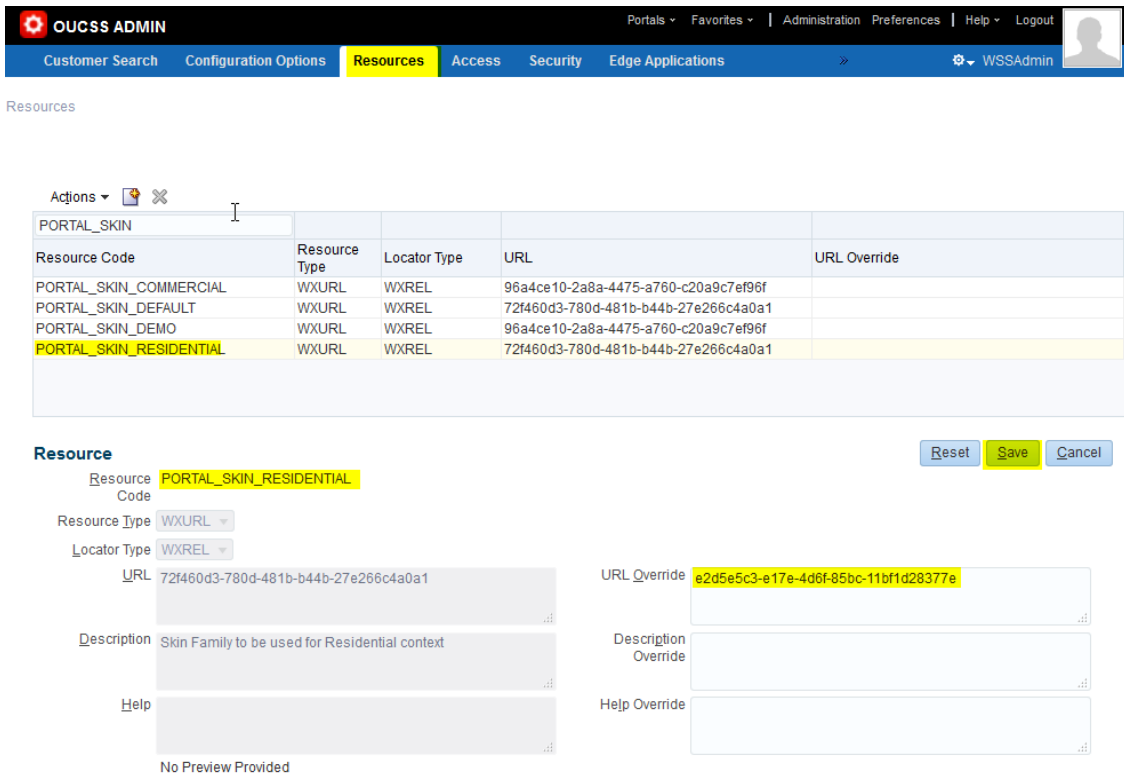
9 Select and copy the `skinFamily` attribute value from the **Show Properties** dialog.



10 From the Portal Menu, choose OUCSS Admin to go **back to Portal**.



11 Select Resource tab and filter the resources with resource codes **PORtal_SKIN_**. Select a row and update the **URL Override** property with the **skinFamily** name.



12 Save your changes and repeat the same process to update other Context with the custom skin.

13 Restart the OUCSS Portal managed server and verify that you changes are reflected in the portal.

Appendix A

Portal Labels

Portal labels and their descriptions are mentioned in the table below.

**Customers upgrading to 2.2.0.0, please update existing resource bundles with properties added for 2.2.0.0 in this table. (search for ## Added for 2.2.0.0 below)

LABEL	DESCRIPTION
APP_TITLE	Application Title
DASHBOARD_TITLE	Dashboard Title
ACCOUNTS_TITLE	Accounts Title
ACCOUNT_LIST_TITLE	Accounts List Title
ACCOUNT_SEARCH_TITLE	Account Search Title
BILLING_HISTORY_TITLE	Billing History Title
FINANCIAL_HISTORY_TITLE	Financial History Title
BUDGET_BILLING_TITLE	Budget Billing Title
VIEW_BILL_TITLE	View Bill Title
HOME_TITLE	Home Title
COMPARE_RATES_TITLE	Compare Rates Title
USAGE_DETAILS_TITLE	Usage Details Title
PERSONAL_INFO_TITLE	Personal Info Title
OUTAGE_DETAIL_TITLE	Outage Detail Title
REPORT_OUTAGE_TITLE	Report Outage Title
SERVICE_MGMT_TITLE	Service Management Title
START_SERVICE_TITLE	Start Service Title
STOP_SERVICE_TITLE	Stop Service Title
TRANSFER_SERVICE_TITLE	Transfer Service Title
OUTAGES_TITLE	Outage Title
OUTAGE_MAP_TITLE	Outage Map Title
OUTAGE_TABLE_TITLE	Outage Table Title
REPORT_PUBLIC_OUTAGE_TITLE	Report Public Outage Title
NEW_CUSTOMER_TITLE	New Customer Title

SCALAR_READ_TITLE	Scalar Read Title
CHANGE_PASSWORD_TITLE	Change Password Title
CHANGE_USER_INFO_TITLE	Change User Info Title
MANAGE_ADDRESS_TITLE	Manage Address Title
MANAGE_PHONE_TITLE	Manage Phone Title
MANAGE_EBILL_TITLE	Manage EBill Title
MANAGE_AUTOPAY_TITLE	Manage Autopay Title
MANAGE_BILLNOTIFY_TITLE	Manage Bill Notify Title
ONETIME_PAY_TITLE	One-time Payment Title
PAY_ARRANGEMENT_TITLE	Pay Arrangement Title
RESET_PAGE_TITLE	Forgot User Id/Password Title
PASSWORD_RESET_TITLE	Password Reset Title
RETRIVE_USERID_TITLE	Retrieve User ID Title
REGISTER_TITLE	Register Title
EDUCATION_TITLE	Education Title
ENVIRONMENT_TITLE	Environment Title
EDU_SERVICE_TITLE	Service Title
EDU_SAFETY_TITLE	Safety Title
EDU_CONSERVATION_TITLE	Conservation Title
ABOUT_TITLE	About Title
ABOUT_ORACLE_TITLE	About Oracle Title
ABOUT_UGBU_TITLE	About UGBU Title
ABOUT_OUCSS_TITLE	About OUCSS Title
HOME_BANNER_DESC	Home Banner
HOME_SECTION_DESC	Home Section Links
LOGIN_TITLE	Login Title
USER_PROFILE_TITLE	User Profile Title
WEBCENTER_RC_ITEMS	WebCenter Items
ENROLL_WRAPPER	Enroll Wrapper
ENROLL	Enroll
ADMIN_USER_TITLE	Admin User Title
ADMIN_LABEL_TITLE	Label Title
ADMIN_LOOKUP_TITLE	Lookup Title
ADMIN_SECURITY_TITLE	Security Title

ADMIN_MESSAGE_TITLE	Message Title
ADMIN_TRAIN_TITLE	Train Title
ADMIN_RESOURCE_TITLE	Resource Title
ADMIN_ACCESS_TITLE	Access Title
ADMIN_EDGEAPP_TITLE	Edge Application Title
ADMIN_TITLE	Admin Title
ADMIN_SYSTEM_TITLE	Admin Configuration Options
ADMIN_LOB_TITLE	Line of Business Title
ADMIN_PORTLET_TITLE	Portlets Title
ADMIN_LANGUAGE_TITLE	Language Title
ADMIN_OFFERS_TITLE	Offers Title
OUCSS_ADMIN_TASKFLOWS	OUCSS Admin Taskflows
VIEW_ACCOUNT_TITLE	View Account Title
DETAILS_MENU	Details Menu Title
BANNER_PROMOTION_TITLE	Promotional Banner Title
ACCOUNT_SUMMARY_TITLE	Account Summary Title
OUCSS_BASE_TASKFLOWS	OUCSS Base Taskflows Title
BASE_RC_TITLE	Base Title
BILLING_AND_PAYMENT_RC_TITLE	Billing and Payment Title
BILLING_AND_PAYMENT_RC_DESC	OUCSS Billing and Payment Taskflows Title
CUSTOMER_SERVICE_RC_TITLE	Customer Service Management Title
TASKFLOWS_RELATED_TO_OUCSS_SER	Taskflows related to OUCSS Service Management
ADMIN_RC_TITLE	Admin Title
ADMIN_RC_DESC	Taskflows related to OUCSS Administration.
OFFERS_RC_TITLE	Offers Title
OFFERS_RC_DESC	Taskflows related to OUCSS Offers
BASE_RC_DESC	Taskflows related to OUCSS Base/Core functionality
OUCSS_TASKFLOWS_TITLE	OUCSS Taskflows Title
OUCSS_TASKFLOWS_RC_TITLE	OUCSS Taskflows Title
OUCSS_COMM_TASKFLOWS_RC_TITLE	OUCSS Commercial Taskflows Title
ERR_UNAUTH_TITLE	Un-Authorized Title
ERR_UNAUTH_ERROR_DESC	User Un-Authorized Error Description
ERR_PAGENOTFOUND_TITLE	Page Not Found Error Title
ERR_PAGENOTFOUND_DESC	Page Not Found Error Description

ERR_TITLE	Error Title
ERR_DESC	Description for Unknown Exception
GOTO_HOME_LINK	Go to Home Link
LOGIN_TASKFLOW_RC_TITLE	Login Taskflow Title
LOGIN_TASKFLOW_RC_DESC	Description for Login Taskflow with Context enabled
USAGE_COMPARE_TITLE	Usage Compare Title
USAGE_AGGREGATE_TITLE	Usage Aggregate Title
COMMERCIAL_BCONTEXT_TITLE	Commercial Business Context Title
SET_ACCOUNTS_TITLE	Set Accounts Title
SET_MANAGEMENT_TF_TITLE	Set Management Title
CREATE_SET_TITLE	Create Set Title
NOTIFICATIONS	Notifications Title
NOTIFICATION_LIST	Notification Inbox Title
NOTIFICATION_CHANNELS	Notification Profile Title
NOTIFICATION_PREFERENCES	Notification Preferences Title
CUSTOMER_SEARCH_TITLE	Customer Search Title
ACCOUNT_SEARCH	Account Search Title
NAME_AND_ADDRESS_SEARCH	Name and Address Search
SEARCH_RESULTS_GRID	Search Results
ENTER_FORM	Enter Form
FORMS_MANAGEMENT	Forms Management Title
LOG_AN_ISSUE	Log an Issue Description
FORM_LIST	Form List Title
UPDATE_FORM	Update Form Title
SCALAR_USAGE_DETAILS	Scalar Usage Details Description
ACCOUNT_DOCUMENTS_TITLE	Account Documents Title
PREPAID_BALANCE_AND_CHARGES	Prepaid Balance And Charges Title
PREPAID_ESTIMATES_AND_COST	Prepaid Estimates And Cost Title
SERVICE_CHARGES_TITLE	Service Charge To Date Title
USAGE_OVERVIEW_TITLE	Usage Overview Title
CONSUMPTION_SUMMARY_TITLE	Consumption Summary Title
ALERTS_TITLE	Alerts Title
OLD_SUPPORTED_PORTLETS	Old (Supported) Portlets Title
MULTIACCOUNT	Multi-Account Title

VALIDATE_EMAIL_TITLE	Validate Email
CSR_VIEW_TITLE	CSR View
MANAGE_AUTOMATIC_PAYMENT	Manage Automatic Payment Title
AUTOMATIC_PAYMENT	Automatic Payment Title
STANDARD_MOBILE_PROMOTION	Standard Mobile Promotion
ACCOUNT_ACCESS_TITLE	Account Access Title
ACCOUNTS	Accounts Page Title
NAVIGATION	Navigation
ACCESSIBILITY	Accessibility Link
ACCESSIBILITY_DESC	Accessibility Link Description
ACCESSIBILITY_TITLE	Accessibility Popup Title
SCREEN_READER	Accessibility Screen Reader Option
HIGH_CONTRAST	Accessibility High Contrast Option
LARGE_FONTS	Accessibility Large Fonts Option
OK_BUTTON	Accessibility popup Ok button label
CANCEL_BUTTON	Accessibility popup Cancel button label
LOGOUT	Logout link label
CHANGE_ACCOUNT_ACCESS	Change Account Access
LOGOUT_CONFIRM_MSG	Message in popup before logout
ORACLE_LOGO	Oracle logo description
GOBACK_LINK	Go Back button label
MENU_LBL	Menu Label
PROMOTION__OFFERS	Promotion Offers Title
ENTER_METER_READING	Enter Meter Reading title
DEPRECATED_TASKFLOWS	Deprecated taskflows folder title in resource catalog
REMOVE_ACCOUNT_TASKFLOW	Remove Account taskflow label in resource catalog
ACCOUNT_NICK_NAME_TASKFLOW	Account Nickname taskflow label in resource catalog
INVITE_TASKFLOW	Invite taskflow label in resource catalog
ACCOUNT_ACCESS_TASKFLOW	Account Access taskflow label in resource catalog
DEPRECATED_TASKFLOWS_DESC	Description for deprecated taskflows folder in resource catalog.
## Added for 2.2.0.0	
LOGIN_PAGE_MESSAGE	You are logged out.
LANGUAGE_TIMEZONE_RC_TITLE	Language & Timezone Taskflow
USER_LINK_RC_TITLE	U ser Link Taskflow

BILL_CHARGES_PROJECTION_TITLE

Bill Charges Projection

HIDE_CSR_USER_PROFILE

For security reasons CSR and Admin user cannot update their profile
