

FCUBS Process Flow Deployment
Oracle FLEXCUBE Universal Banking
Release 14.3.0.0.0
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1. Introduction

1.1 Background

This document provides detailed description on deploying FCUBS BPEL process flows onto a weblogic server configured with soa suite components .This document will cover different approaches for deploying a process.The audience for this document will be the deployment teams of FCUBS BPEL process flows

1.2 Organization of the Document

The first chapter of this document gives an introduction with brief background and organization of the document. Subsequent chapters of this document will give the details of the various deployment options.

1.3 Acronyms and Abbreviations

Acronyms	Description
BPEL	BPEL Process Flow
BAM	Business Activity Monitoring
SOA Application	With Fusion middleware 12c BPEL process flows becomes part of a SOA Composite application.

2. Oracle JDeveloper IDE

2.1 Introduction

Oracle JDeveloper is the IDE used for BPEL process design and development. It's recommended that the version of JDeveloper used should be in sync with the Oracle SOA suite that is used for BPEL runtime. E.g. (Oracle SOA suite – 12.2.1+ Oracle JDeveloper 12.2.1). Though different versions of Oracle SOA suite and JDeveloper might be compatible it is recommended to go through the releases notes and documentation prior to their usage.

2.2 Obtaining JDeveloper IDE

Oracle JDeveloper IDE can be downloaded from oracle website, the hyperlink provided might have been updated. Please check appropriate location prior to download and refer installation and release notes documentation of Oracle JDeveloper for Installation instructions.

<http://www.oracle.com/technetwork/middleware/bpm/downloads/index.html>

<https://edelivery.oracle.com/osdc/faces/SearchSoftware>

Run `fmw_12.2.1.2.0_bpm_quickstart.jar` to install jdeveloper with bpm enabled.

3. Creating Application server connection

3.1 Introduction

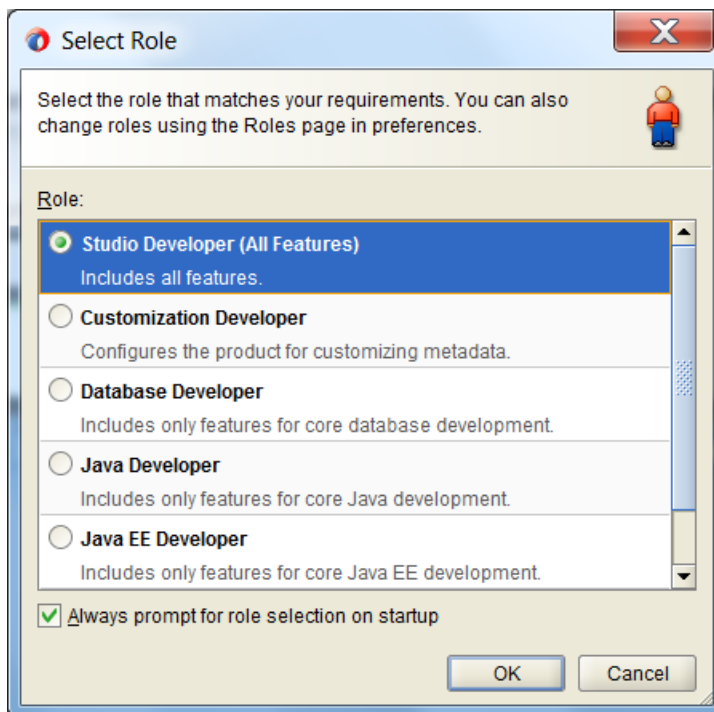
Oracle JDeveloper supports deployment of BPEL process flows to WebLogic application servers via JDeveloper application server connection.

3.2 Application Sever Connection

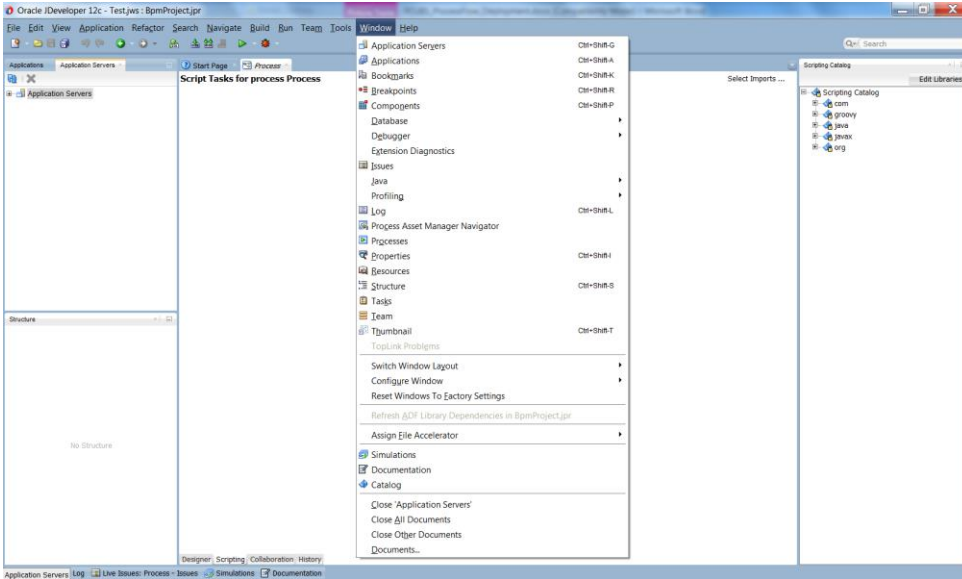
After JDeveloper has been updated with SOA extension, The IDE can be launched from 'Programs' menu or installation location.

Search 'Oracle JDeveloper Studio' in All Programs to launch JDeveloper

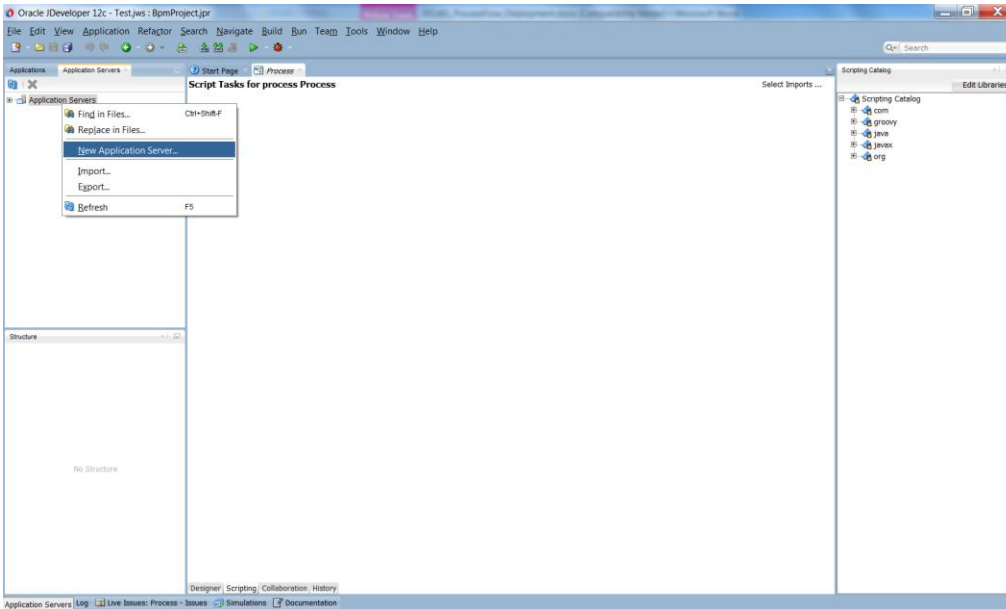
Select the role as Studio Developer



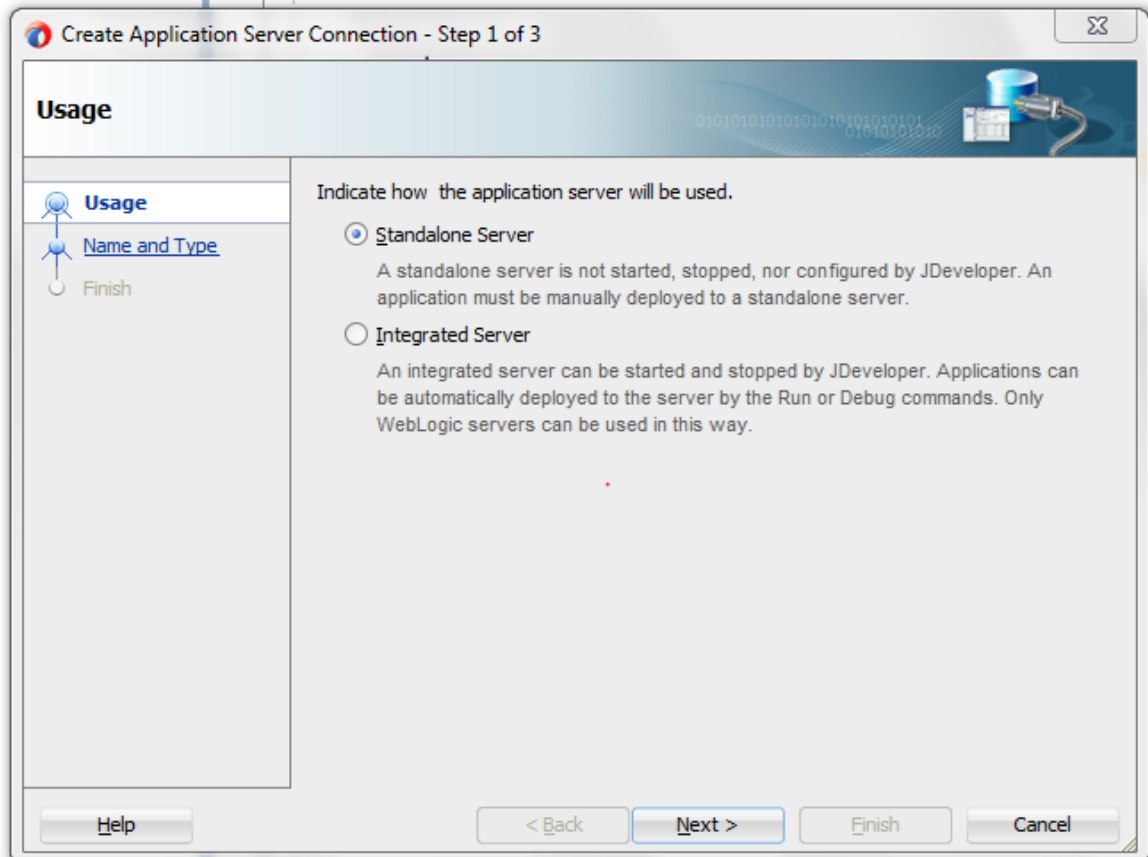
- After JDeveloper is launched
- Click on → windows → Application Servers Navigator



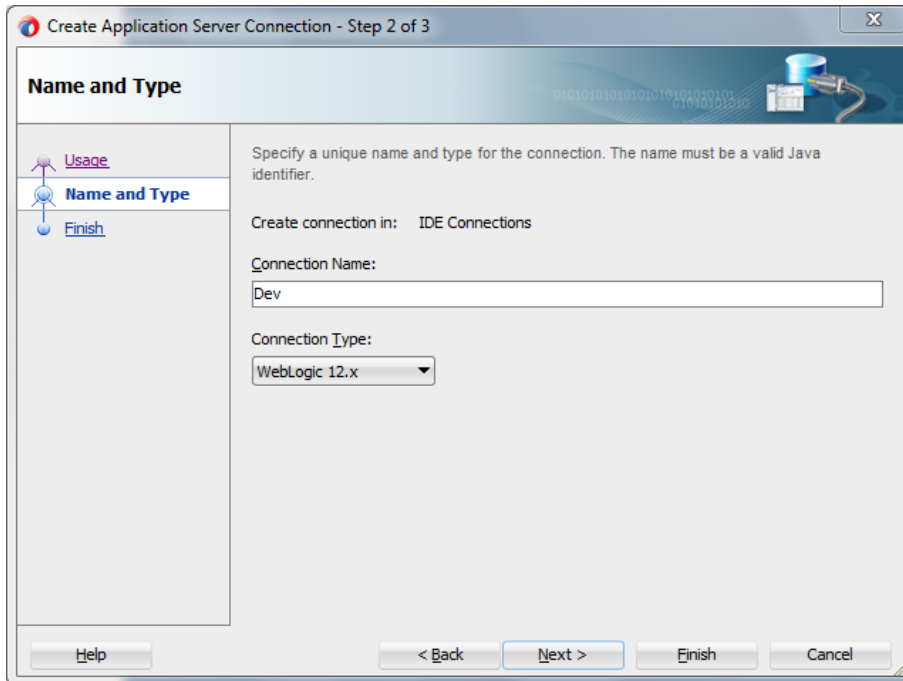
- To create a new WebLogic server connection
- Right click 'Application Servers'
- Click on → New Application Server



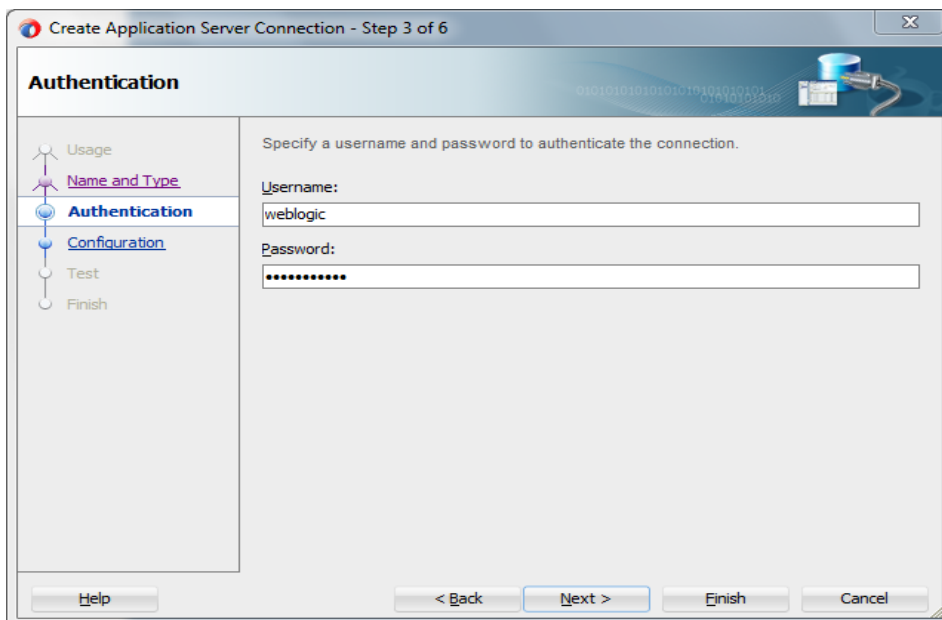
- The "Create Application Server Connection" wizard is launched as shown below.
- Select the Radio button "Standalone Server"
- Click "Next" to proceed with the configuration



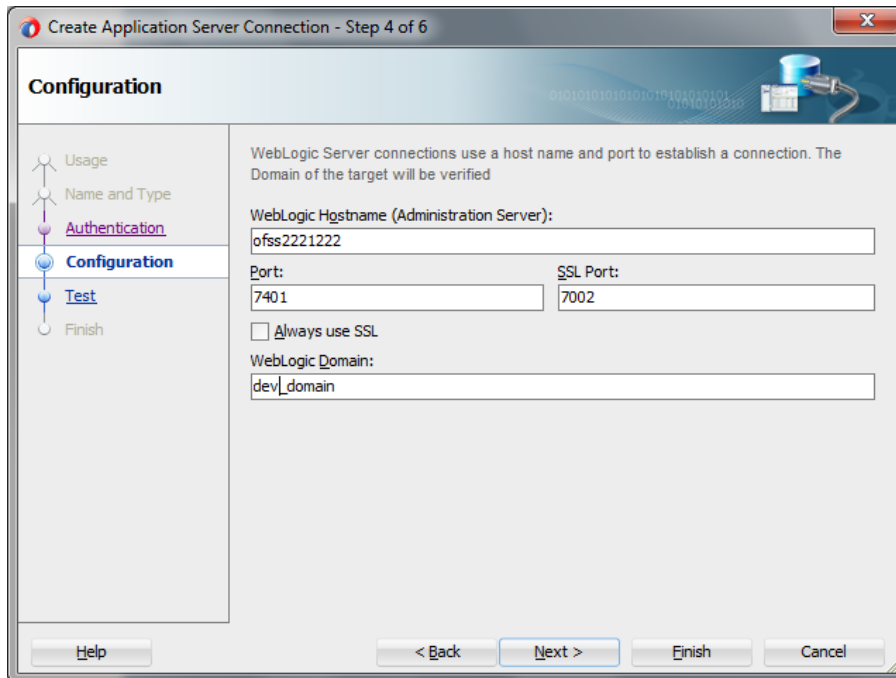
- Provide a "Connection Name" to identify the server connection.
- Provide the "Connection Type" to identify the server type.
- Select "WebLogic server <version>"
- Click "Next" to proceed with the configuration



- Provide username / password to connect to the server
- The same username / password that was used while configuring the server is used.
- Click “Next” to proceed with the configuration



- Provide the WebLogic server hostname and the port number of the Admin server.
- Provide the domain name under which the server has been configured.
- Click “Next” to proceed with the configuration



- Click on the 'Test Connection' to ensure the configuration is done correctly.
- All the tests should go thru and indicate "success" as shown below that will indicate a correct configuration
- Click "Finish" to proceed and complete the configuration

4. Loading FCUBS Process flows in Oracle JDeveloper

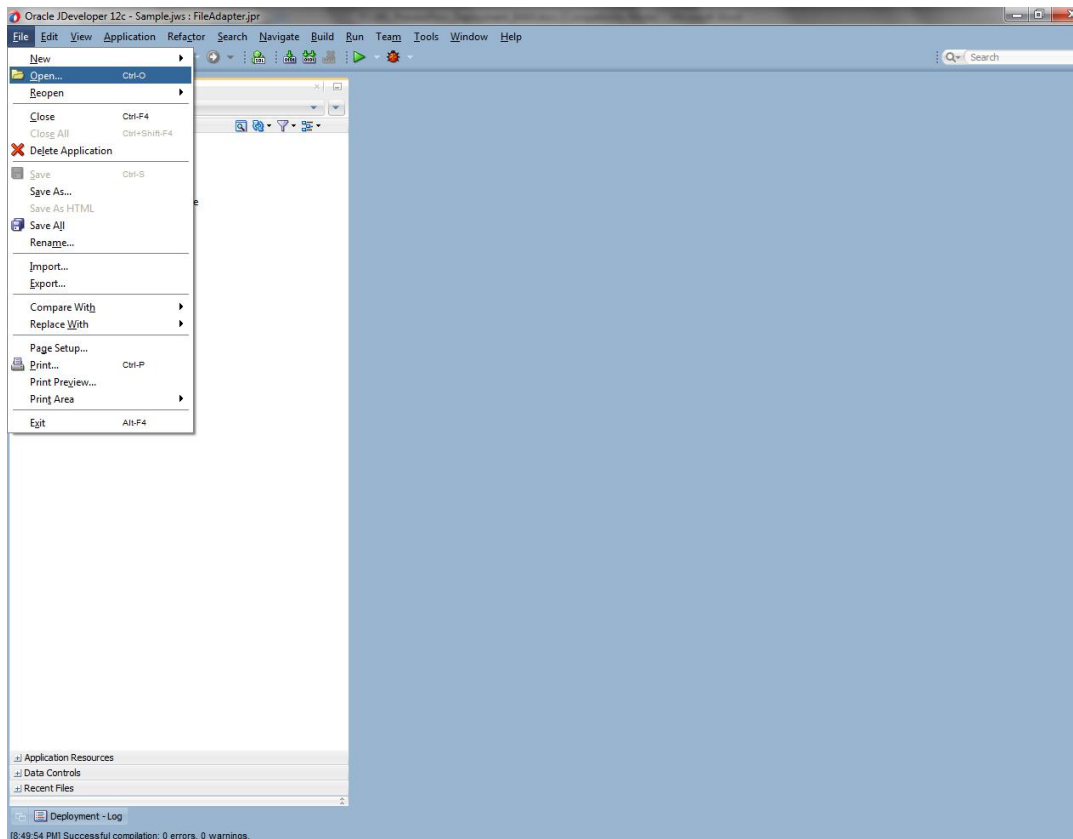
4.1 Introduction

The FCUBS BPEL process flows that are to be deployed needs to be obtained from the release area and unzipped into a folder location.

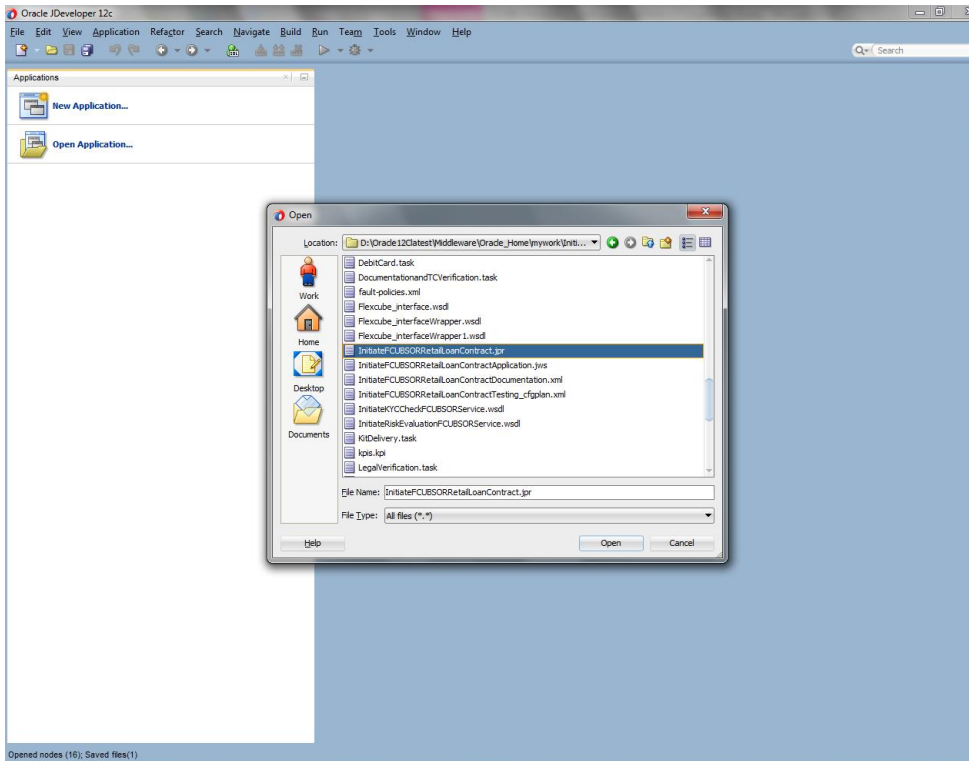
4.2 Loading the Process

After JDeveloper IDE is launched from 'Programs' menu or installation location.

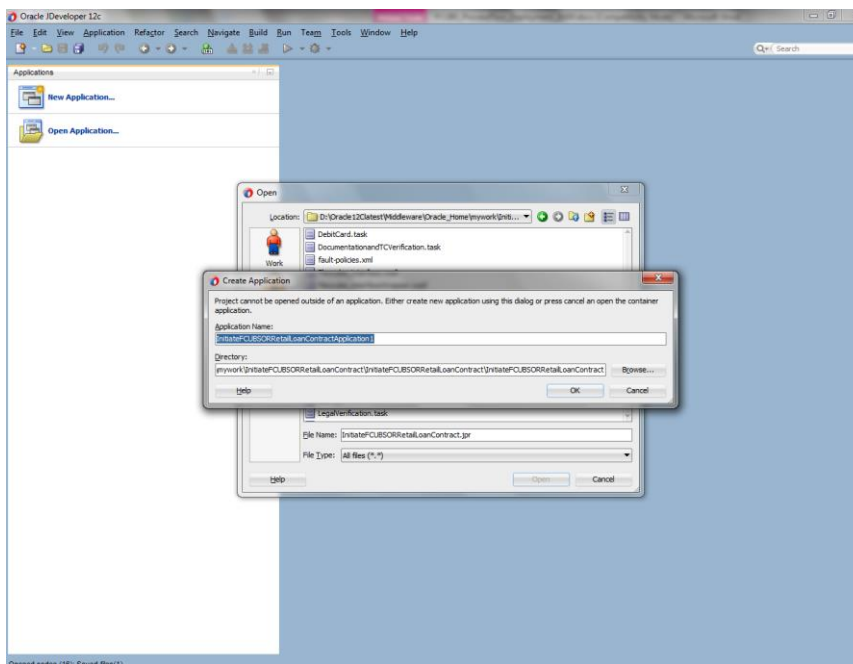
- Click on → File → Open



- Navigate to the folder where process flow is deployed
- Locate and select the “.jpr” file under the folder <process_name>
- Click 'Open' to load the process flow in JDeveloper

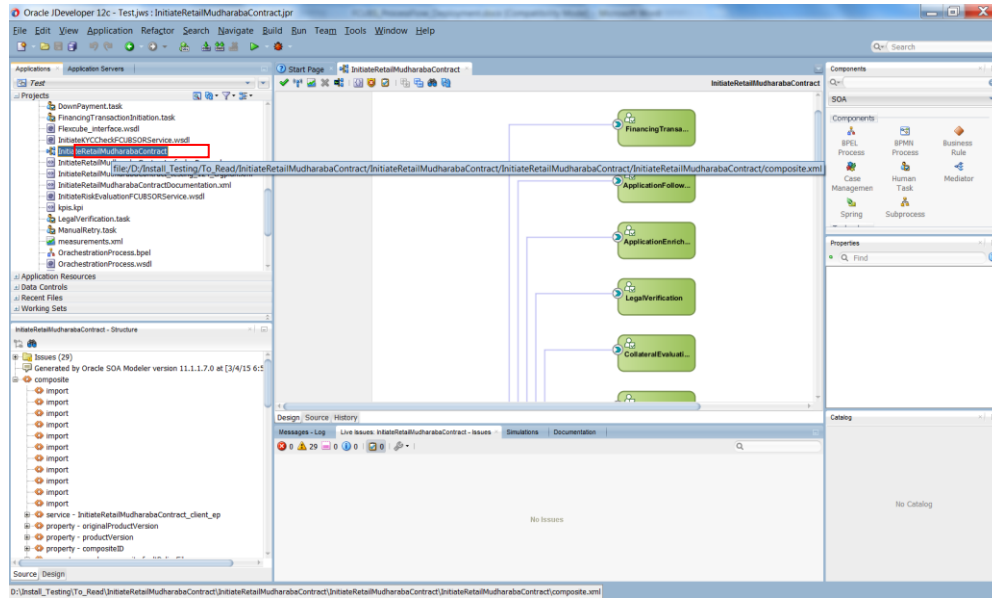


- If this is the first Process flow that is being loaded JDeveloper will prompt for an Application Name and Location where the application file will be stored
- Provide an application name and folder path for the same.
- Click in “OK” to proceed with loading of the process flow.

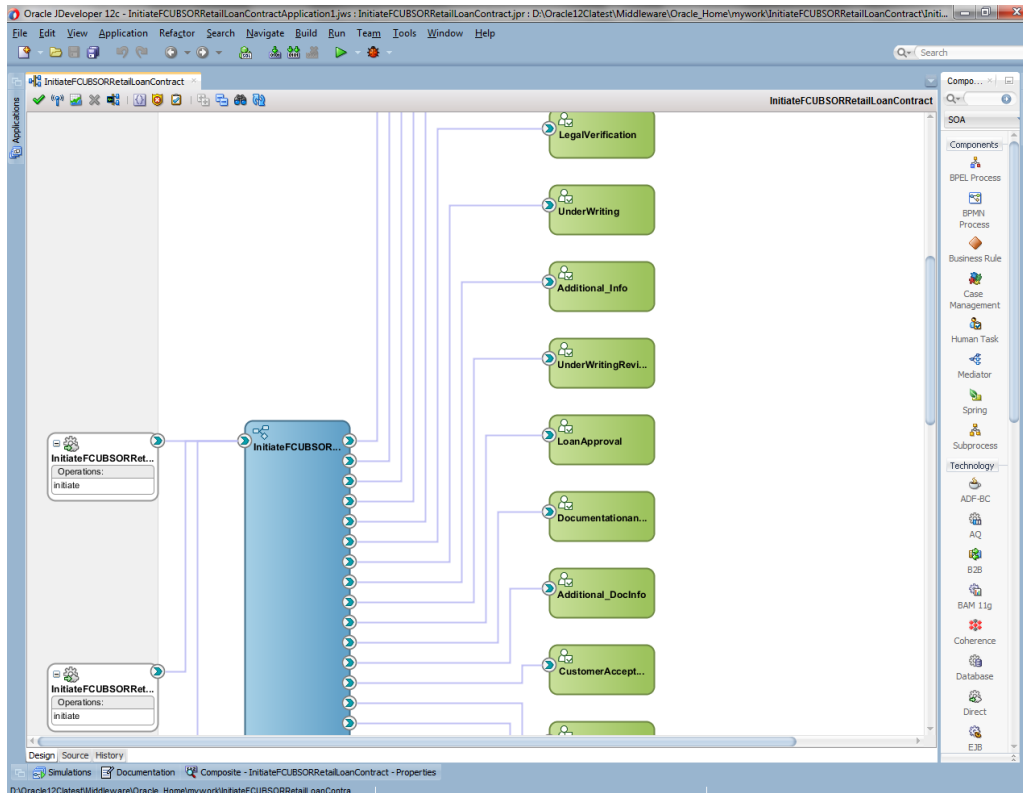


- The process flow is loaded into JDeveloper and is displayed as given below

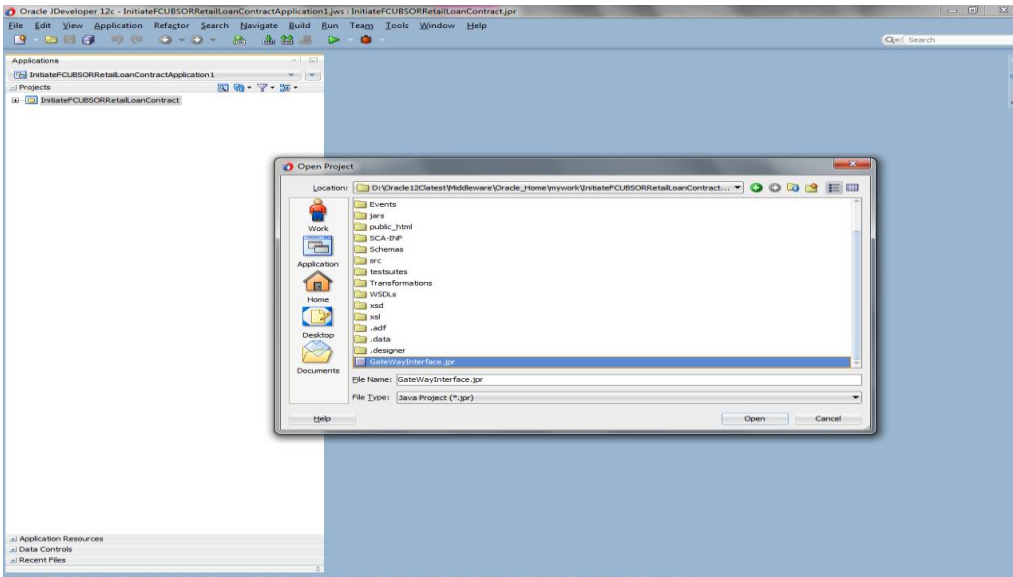
- Expand the project loaded and click on the composite.xml



- Clicking on the “composite.xml” under “SOA” in Design mode will display the process flow as illustrated in the screen shot.



- All the required process flow can be loaded in the similar fashion from File Menu into the same application.



- After all the necessary process flows are loaded, all process flows will be displayed in the “Application Navigator” menu as illustrated in the screen shot.

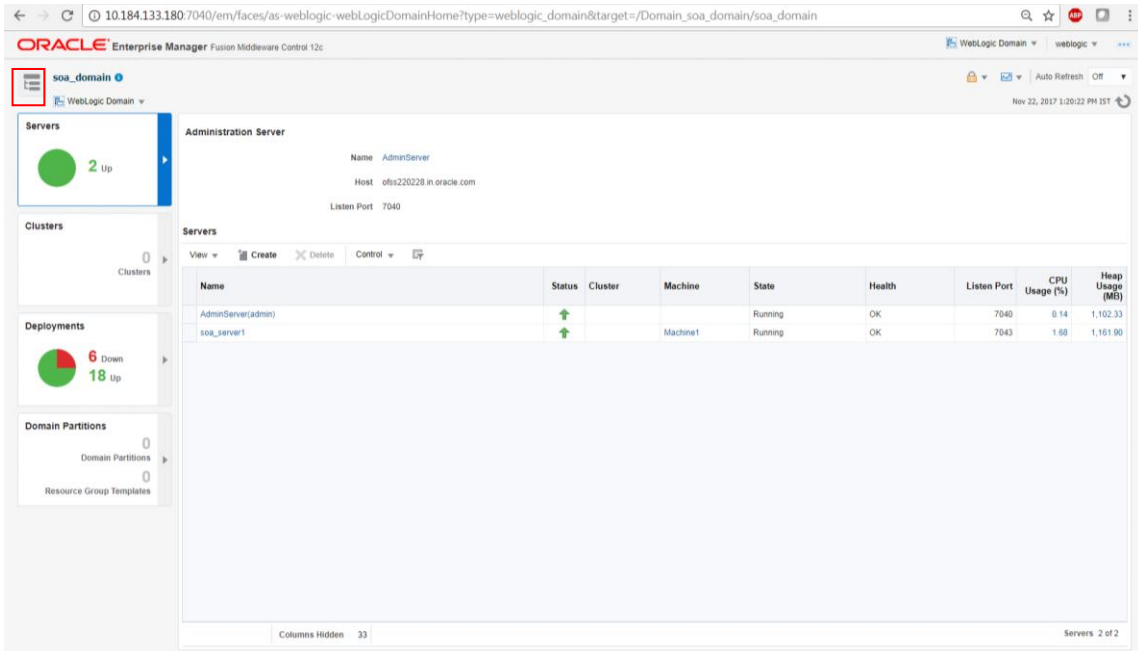
In case of Dependent Process Flows like InitiateFCUBSORRetailLoanContract, having other Process Flows as services and subprocesses the composite.xml file has to be modified with the runtime wsdl location of the subprocess (like BIPUtility).

To obtain the runtime wsdl, em console has to be launched and input the user name and password for the SOA Domain.

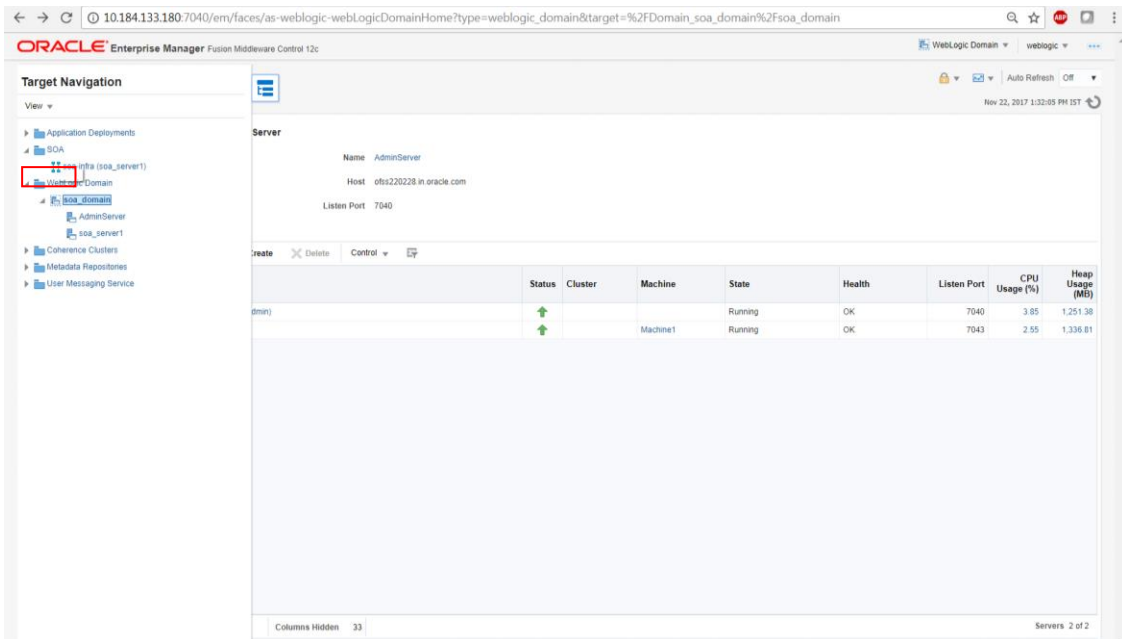
The deployed process can be verified by checking if the process is showing up in the SOA Suite enterprise manager console.

Login to <http://<hostname>:<port>/em>

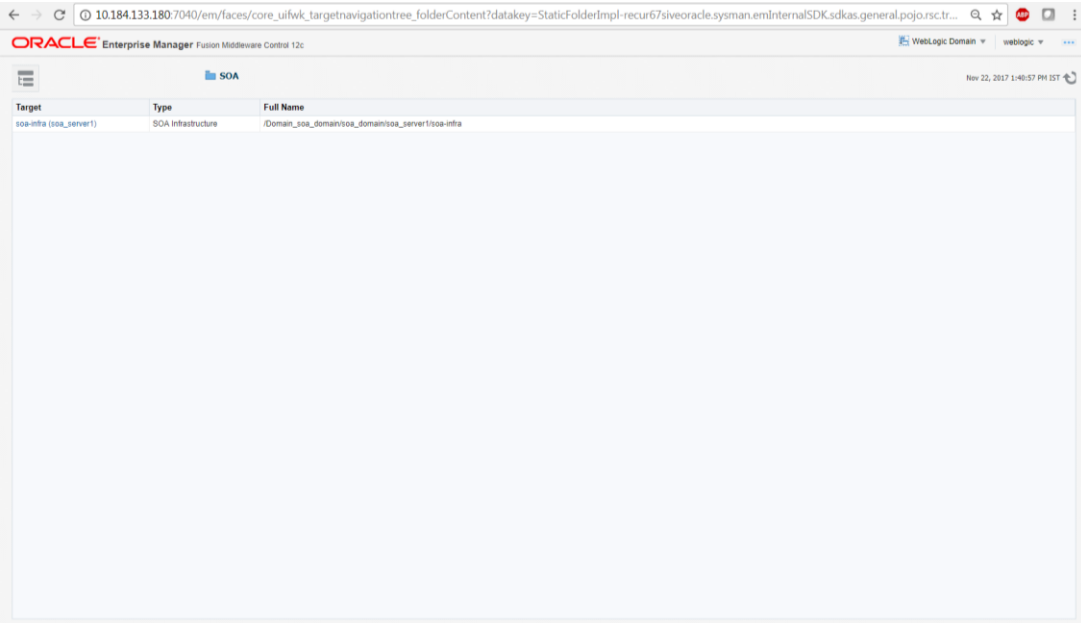
This opens the application as in the below screenshot. Now, click on Target Navigation (highlighted in the below screenshot)



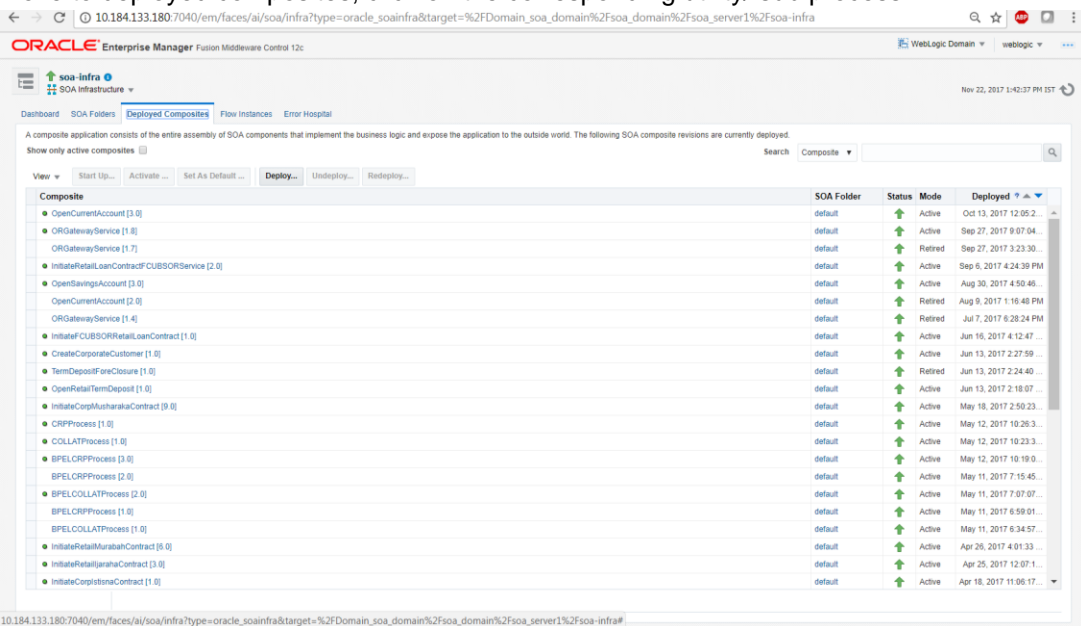
Upon opening the Target Navigation, user is presented with the below set of screens in sequence before getting the WSDL
Click on SOA



Click on the Target SOA server



Move to deployed composites, click on the corresponding utility/ sub process



The Runtime wsdl is obtained from the em console as shown in the screen shot.

- In the em console, click the process for which runtime wsdl is required and click on Test.

ORACLE Enterprise Manager Fusion Middleware Control 12c WebLogic Domain SOA Infrastructure weblogic

BPELLimitReview [1.0] Mar 29, 2016 3:55:20 PM IST

Active **Retire...** **Shut Down...** **Test** **Settings...** **Related Links**

Dashboard Composite Definition Flow Inst **Test Service** Tests Policies

Components

Name	Component Type
ICDMediatorProcess	BPEL
CreditApproval	Human Workflow
ExternalCreditRating	Human Workflow
DecisionProcess	BPEL
BPELLimitReviewProcess	BPEL
ManualRetry	Human Workflow
LimitReviewInitiationTask	Human Workflow
PendingWithCustomer	Human Workflow
CreditDecision	Human Workflow

Services and References

Name	Type	Usage	Total Messages	Average Processing Time (sec)
icdmediatorprocess_client_ep	Web Service	Service	0	0.000
BPELLimitReview_client_ep	Direct Binding	Service	0	0.000
DuplicateLimitReviewTaskChecker	JCA Adapter	Reference	0	0.000
ExternalRatingService	Web Service	Reference	0	0.000
LimitsHandoff	Web Service	Reference	0	0.000
CustomerCommunicationService	Web Service	Reference	0	0.000

- We can obtain the runtime wsdl for the process as shown below in the screen shot.

ORACLE Enterprise Manager Fusion Middleware Control 12c WebLogic Domain SOA Infrastructure weblogic

BPELLimitReview [1.0] Mar 29, 2016 3:57:10 PM IST

Test Web Service **Test Web Service**

Use this page to test any WSDL or WADL, including WSDLs or WADLs that are not in the farm. To test a Web service, enter the WSDL or WADL and click Parse WSDL or WADL. When the page refreshes with the WSDL or WADL details, first select the Service/Resource, then select the Port/Method, and then select the Operation/Media type that you want to test. Specify any input parameters, and click Test Web Service.

WSDL or WADL **Parse WSDL or WADL**

HTTP Basic Auth Option for WSDL or WADL Access

Service

Port

Operation

Endpoint URL **Edit Endpoint URL**

Request **Response**

▶ Security
 ▶ Quality of Service
 ▶ HTTP Header
 ▶ Additional Test Options
 ▶ **Input Arguments**

Tree View Enable Validation Load Payload No file selected.

SOAP Body

View

Name	Type	Value
* payload	payload	

Request **Response**

- Now we replace this runtime wsdl in the composite.xml of the process as shown in the screen shot for that particular subprocess. Click on the source tab(highlighted in the screenshot) to view the xml code of the process

5. Deployment Profile and Configuration Plan

5.1 Introduction

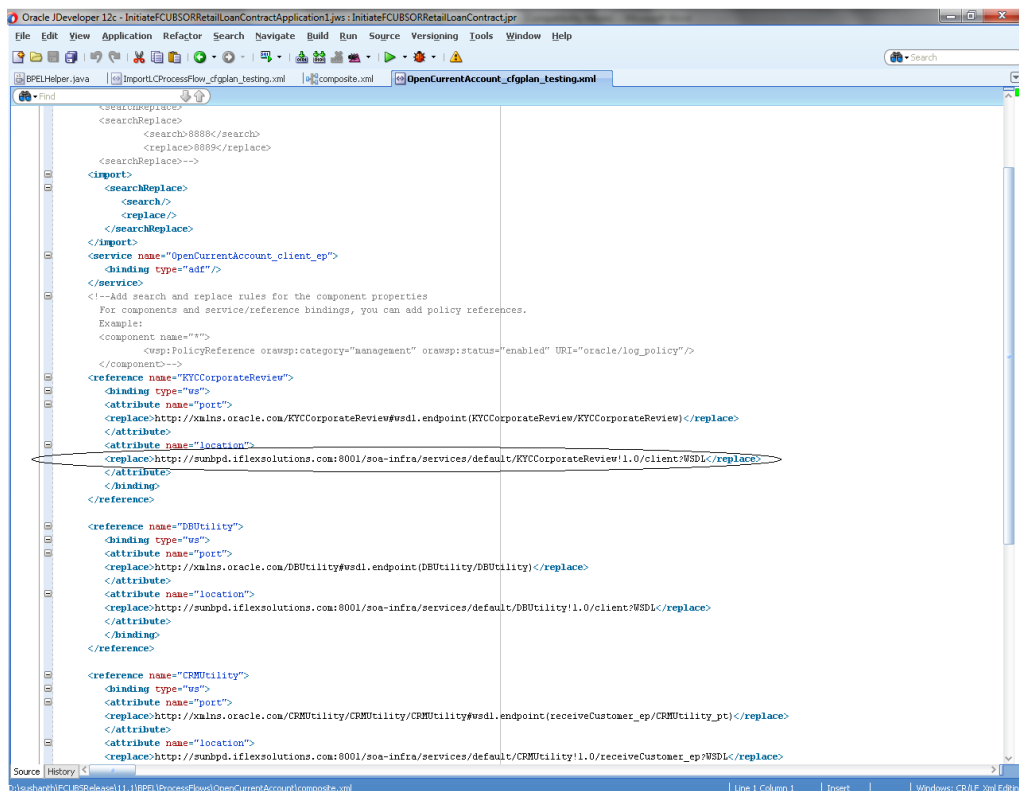
A deployment profile is automatically created for all FCUBS Process flows. The application profile includes the JAR files of SOA projects.

The configuration plan enables us to define the URL and property values to use in different environments. During process deployment, the configuration plan is used to search the SOA project for values that must be replaced to adapt the project to the target environment.

5.2 Updating the configuration plan

All the FCUBS process flows has been developed with three configuration plans with the following naming convention for development, testing & production environments. If there are no configuration plans in any process flow, it simply means that there are no replacement values that needs to be replaced in the project and that project can be deployed without any config plans.

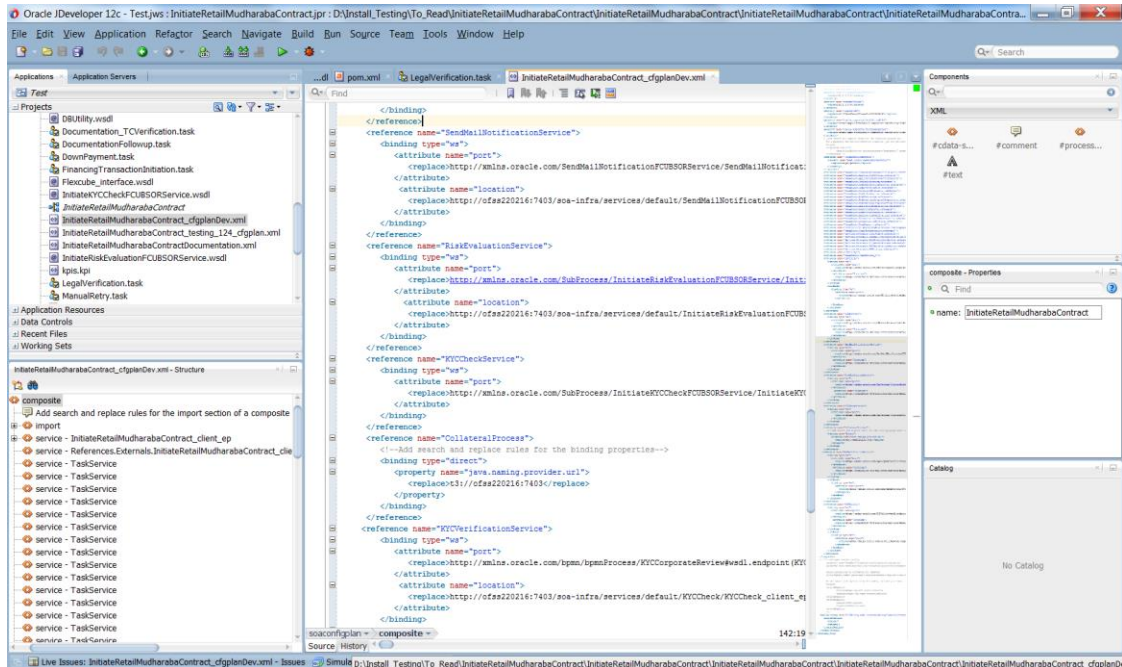
Expand the Application -> SOA -> <processflow_name>_cfgplan_dev.xml



In the configuration plan we need to give the latest runtime wsdL location of the subprocesses if present. The runtime wsdL location is obtained as mentioned earlier from the em console.



The soaconfigplan.xml, if present in the project also have to be updated with the runtime wsdl location of the subprocesses since this will be referred by the process in runtime.



5.3 Config plan changes for BIPUtility process.

Open the BIPUtility_cfgplan.xml and copy corresponding values for the below mentioned properties from fcubs.property file.

Config_plan property	fcubs.properties
bpel.preference.BIUSERID	BI_USER
bpel.preference.BIPWD	BI_PASSWORD
bpel.preference.DOC_PATH	BPEL_DOC_PATH
bpel.preference.SYMKEY	SYMMETRIC_KEY
bpel.preference.ENTITYENABLED	'Y' to enable entity OR 'N' to disable entity

bpel.preference.DATASOURCE	Map the Datasource JNDI name which is mapped for entity in the property file.
bpel.preference.IPMUSERID	Enter IPM Login Username
bpel.preference.IPMPWD	Enter IPM Login Password
bpel.preference.IPMAPPLICATION	Please provide IPM application (Which will be created after login to IPM application). Eg: OFSS or FLEXCUBE
bpel.preference.IPMURL	IPM Url upto 'imaging'. Eg: http://10.184.132.159:16002/imaging

Refer sample screen shot.

```

10 <service name="client">
11 <binding type="ws">
12 <attribute name="port">
13 <replace>http://xmlns.oracle.com/BIPUtility#wsdl.endpoint(BIPUtility/BIPUtility)</replace>
14 </attribute>
15 </binding>
16 </service>
17 <component name="BIPUtility">
18 <property name="bpel.preference.IMS">
19 <replace>IPM</replace>
20 </property>
21 <property name="bpel.preference.BIUSERID">
22 <replace>M/guktQr4u2k93x20v0QA==</replace>
23 </property>
24 <property name="bpel.preference.BIPWD">
25 <replace>M/guktQr4uksBehp+bgkg==</replace>
26 </property>
27 <property name="bpel.preference.IPMUSERID">
28 <replace>M/guktQr4u2k93x20v0QA==</replace>
29 </property>
30 <property name="bpel.preference.IPMPWD">
31 <replace>M/guktQr4uksBehp+bgkg==</replace>
32 </property>
33 <property name="bpel.preference.IPMAPPLICATION">
34 <replace>OFSS</replace>
35 </property>
36 <property name="bpel.preference.IPMURL">
37 <replace>http://10.184.132.159:16002/imaging</replace>
38 </property>
39 <property name="bpel.preference.DOC_PATH">
40 <replace>/scratch/work_area/Dev122ProjectDebugs/</replace>
41 </property>
42 <property name="bpel.preference.SYMKEY">
43 <replace>ORACLE FINANCIALSERVICES</replace>
44 </property>
45 <property name="bpel.preference.ENTITYENABLED">
46 <replace>N</replace>
47 </property>
48 <property name="bpel.preference.DATASOURCE">
49 <replace>jdbc/fejdevDS</replace>
50 </property>
51 </component>
52 <reference name="BIPartnerLink">
53 <binding type="ws">
54 <attribute name="port">
55 <replace>http://xmlns.oracle.com/oxp/aeservice/v2#wadi.endpoint(ReportService/ReportService)</replace>
56 </attribute>
57 <attribute name="location">

```


5.4 Config plan changes for DBUtility process.

Open the DBUtility_cfgplan.xml and copy corresponding values for the below mentioned properties.

Config_plan property	Property Values
bpel.preference.ENTITYENABLED	'Y' to enable entity OR 'N' to disable entity
bpel.preference.DATASOURCE	Map the Datasource JNDI name which is mapped for entity in the property file.

Refer sample screen shot.

```

</import>
<service name="client">
  <binding type="ws">
    <attribute name="port">
      <replace>http://xmlns.oracle.com/DBUtility#wsdl.endpoint(DBUtility/DBUtility)</replace>
    </attribute>
  </binding>
</service>
<property name="originalProductVersion">
  <replace>11.0.0.0.0</replace>
</property>
<property name="productVersion">
  <replace>12.2.1.0.0.151013</replace>
</property>
<property name="compositeID">
  <replace>d4b5c5f6-38b5-4cff-adae-0f8842580e33</replace>
</property>
<!--Add search and replace rules for the component properties
For components and service/reference bindings, you can add policy references.
Example:
<component name="*">
  <wsp:PolicyReference orawsp:category="management" orawsp:status="enabled" URI="oracle/log_policy"/>
</component-->
<component name="DBUtility">
  <property name="bpel.preference.ENTITYENABLED">
    <replace>Y</replace>
  </property>
  <property name="bpel.preference.DATASOURCE">
    <replace>jdbc/fcjddevDS</replace>
  </property>
</component>
<!--Add search and replace rules for the reference properties
Example:
<searchReplace>
  <search>http://my-dev-server</search>
  <replace>http://my-test-server</replace>
</searchReplace>
<searchReplace>
  <search>8888
  <replace>8889</replace>
</searchReplace>
or provide a new replace value like:
<replace>http://my-new-server:8889/myservice</replace-->
<reference name="DBInvokeComplexPayload">
  <property name="jca.retry.count">
    <replace>4</replace>
  </property>
</reference>
  
```

5.5 Config plan changes for Gateway process.

Open the GateWayInterface_cfgplanDev.xml and copy corresponding values for the below mentioned properties.

Config_plan property	Property Values
bpel.preference.ENTITYENABLED	'Y' to enable entity OR 'N' to disable entity
bpel.preference.DATASOURCE	Map the Datasource JNDI Name which is mapped for entity in the property file.

Refer sample screen shot.

```

<replace>>false</replace>
</property>
<property name="bpel.preference.ENTITYENABLED">
  <replace>N</replace>
</property>
<property name="bpel.preference.DATASOURCE">
  <replace>jdbc/fejdevDS</replace>
</property>
<property name="bpel.preference.USERNAME">
  <replace>BPELADMIN</replace>
</property>
<property name="bpel.preference.PASSWORD">
  <replace>PASSWORD</replace>
</property>
<property name="bpel.preference.IDENTITYCONTEXT">
  <replace>jazn.com</replace>
</property>
</component>
<component name="ValidationBPELProcess">
  <property name="bpel.config.transaction">
    <replace>required</replace>
  </property>
  <property name="bpel.preference.JNDI">
    <replace>jdbc/fejdevDS</replace>
  </property>
  <property name="bpel.preference.XSDVALIDATION">
    <replace>N</replace>
  </property>
  <property name="bpel.preference.ENTITYENABLED">
    <replace>N</replace>
  </property>
  <property name="bpel.preference.DATASOURCE">
    <replace>jdbc/fejdevDS</replace>
  </property>
</component>
<component name="AlertProcessor">
  <property name="bpel.config.transaction">
    <replace>required</replace>
  </property>
  <property name="bpel.config.oneWayDeliveryPolicy">
    <replace>async.persist</replace>
  </property>
  <property name="bpel.preference.ENTITYENABLED">
    <replace>N</replace>
  </property>
  <property name="bpel.preference.DATASOURCE">
    <replace>jdbc/fejdevDS</replace>
  </property>
</component>

```

5.6 Config plan changes for InitiateCorplslamicContract process

Open the InitiateCorplslamicContract_cfgplan.xml and copy corresponding values for the below mentioned properties to initiate BPEL or BPMN process from Common process.

Config_plan property	Property Values
bpel.preference.PROCESS_TYPE_LN	Set value as ' L ' to initiate BPEL Process from Common Process
bpel.preference.PROCESS_TYPE_LN	Set value as ' N ' to initiate BPMN Process from Common Process

Refer sample screen shot.

```

</attribute>
</binding>
</callback>
</service>
<service name="islamicloanprocess_client"/>
<service name="TaskService"/>
<property name="productVersion">
<replace>12.1.3.0.0</replace>
</property>
<property name="compositeID">
<replace>9ef9665c-2483-4b36-8382-945cc1831479</replace>
</property>
<!--Add search and replace rules for the component properties
For components and service/reference bindings, you can add policy references.
Example:
<component name="*">
<wsp:PolicyReference orawsp:category="management" orawsp:status="enabled" URI="oracle/log_policy"/>
</component-->
<component name="InitiateCorpIslamicContract">
<property name="bpel.config.oneWayDeliveryPolicy">
<replace>async.persist</replace>
</property>
<property name="bpel.preference.PROCESS_TYPE_LN">
<replace>N</replace>
</property>
<property name="bpel.preference.PROCESS_URI">
<replace>http://ofss220216:7403/soa-infra/services/default</replace>
</property>
</component>
<reference name="Initiation.TaskService_1"/>
<reference name="BPMNProcessInvocation"/>
<reference name="BPELProcessInvocation"/>
<reference name="BPMNProcessInvocation">
<!--Add search and replace rules for the binding properties-->
<binding type="ws">
<attribute name="port">
<replace>http://xmlns.oracle.com/process_invocation_BPMN#wSDL.endpoint(BPELProcessInvocation/process_invocation_pt)</replace>
</attribute>
<attribute name="location">
<replace>WSDLs/process_invocation_BPMN.wsdl</replace>
</attribute>
<property name="weblogic.wsee.wsat.transaction.flowOption">
<replace>WSDLDriven</replace>
</property>
</binding>
</reference>

```

5.7 **Updating the Datasource name**

The config.properties file, if present in the project of any of the sub processes, has the encrypted datasource name. This should be same as the one given in the fcubs.properties file while building the EAR .

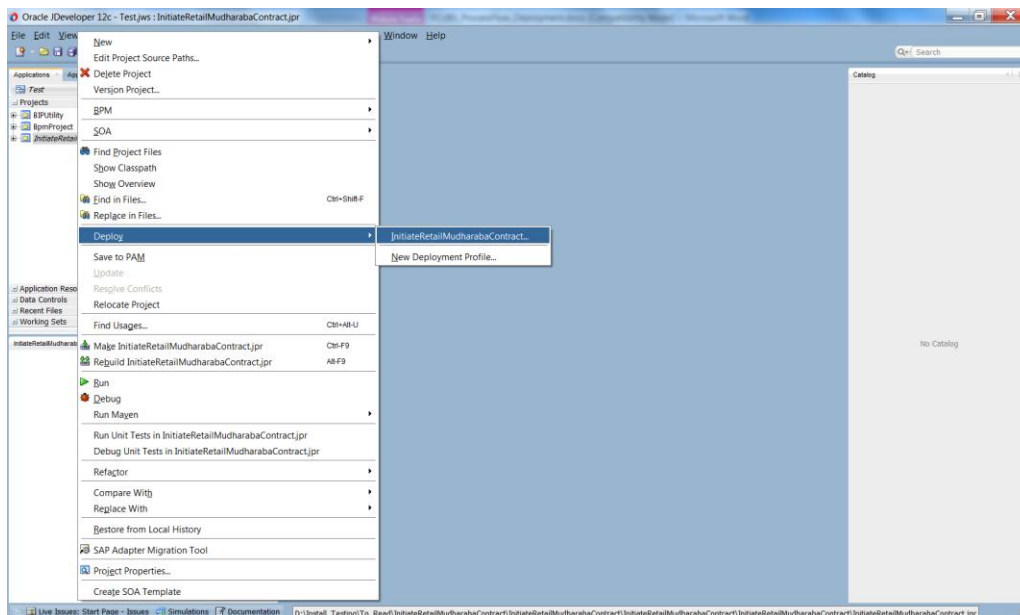
6. Deploying a Single Composite application using JDeveloper

6.1 Introduction

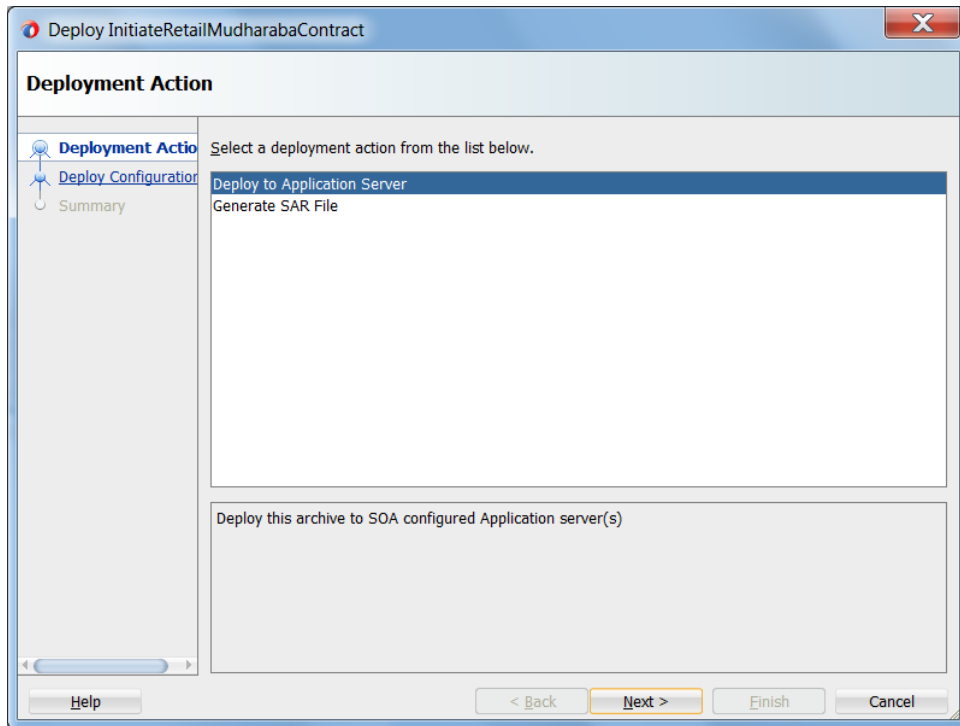
This section describes how to deploy a single SOA composite application with Oracle JDeveloper after completing updating of config plans with respective target environment replacement values.

6.2 Deploying the Application

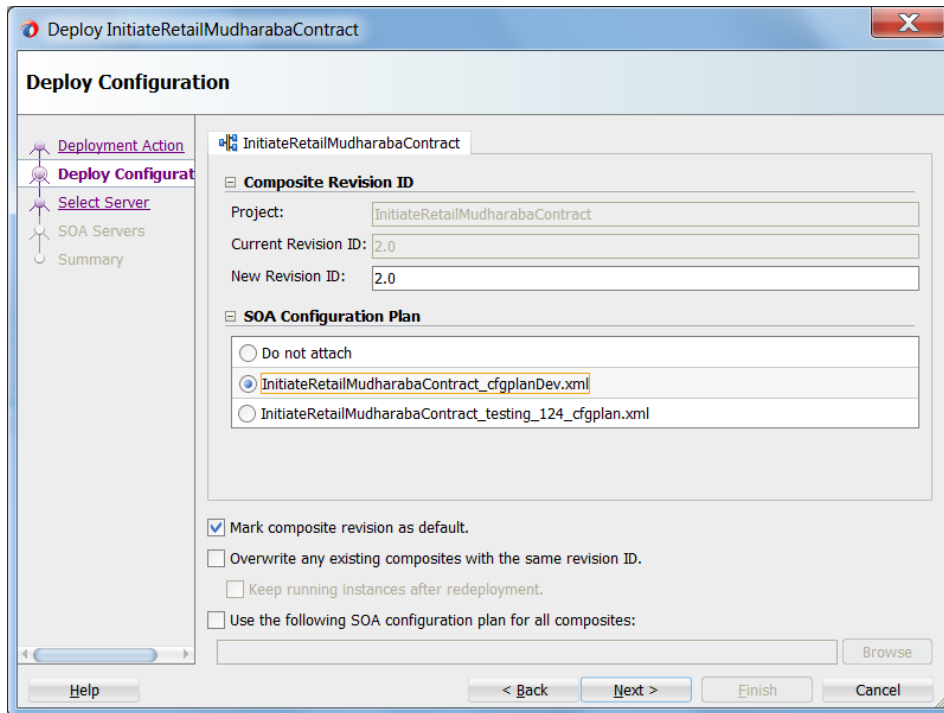
- Right click on the Application that needs to be deployed.
- Select 'Deploy' and then click on the default deployment profile which is the same as the application name.
- This will result in the deployment wizard screen being launched.



- The wizard shows the “Deployment Action” screen .Select ‘Deploy to Application server’ and click ‘Next’



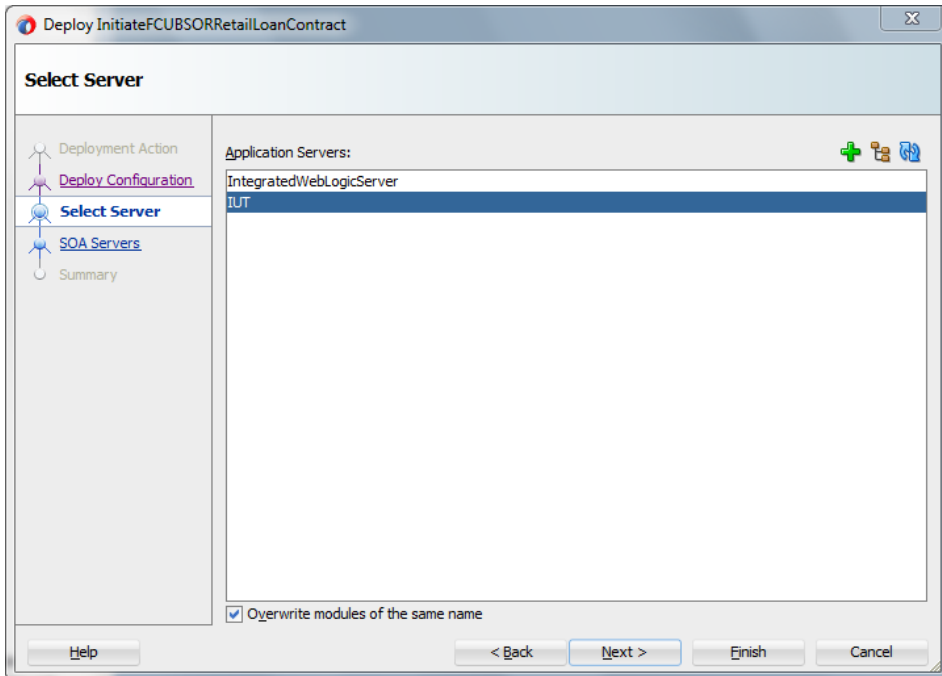
- Deployment configuration is done as illustrated in the below screen shot
- Select a Revision with which the deployment should happen
- Select a " Configuration Plan" that was updated as given in Section 5
- Provide a new revision ID. It should be always higher than the earlier revision of the process flow like 1.0, 2.0,3.0 etc
- Check the checkbox "Mark composite revision as "default"
- Uncheck the checkbox "Overwrite any existing composites with the same revision ID"
- Click "Next" to proceed with the deployment.



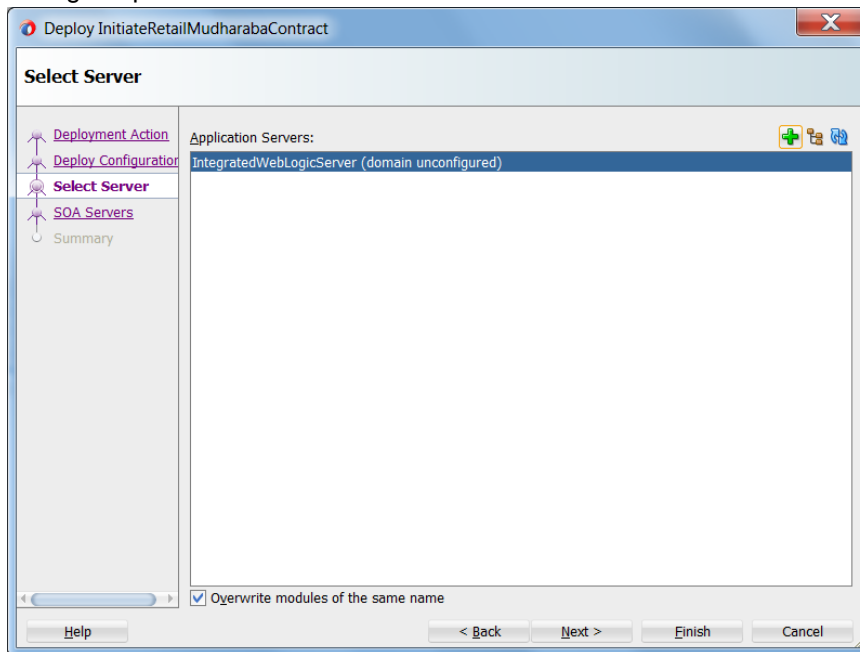
- Select the Application server 'Server Connection' configured that was done in Section 3 to which the deployment needs to be done
- Click 'Next' to proceed with the deployment.

Note :

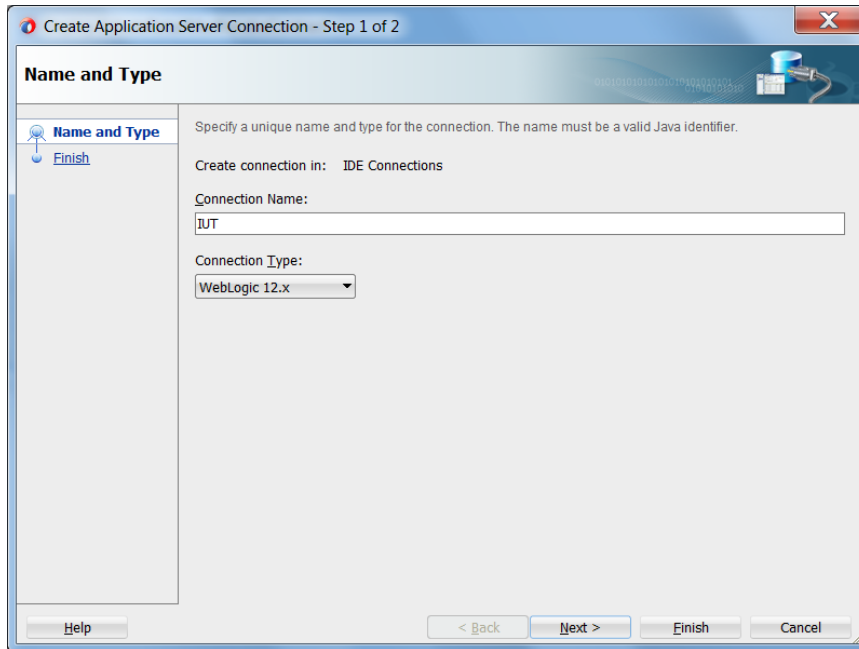
In case "Overwrite any existing composites with the same revision ID" checkbox is checked during the deployment, the active tasks which are currently running on the current revision of the process flow will be moved to "Stale" task status. The tasks which are in "Stale" status will not be displayed in the FLEXCUBE Application (under Task tab). Make sure that, before deploying the process, the "Overwrite any existing composites with the same revision ID" checkbox should be unchecked.



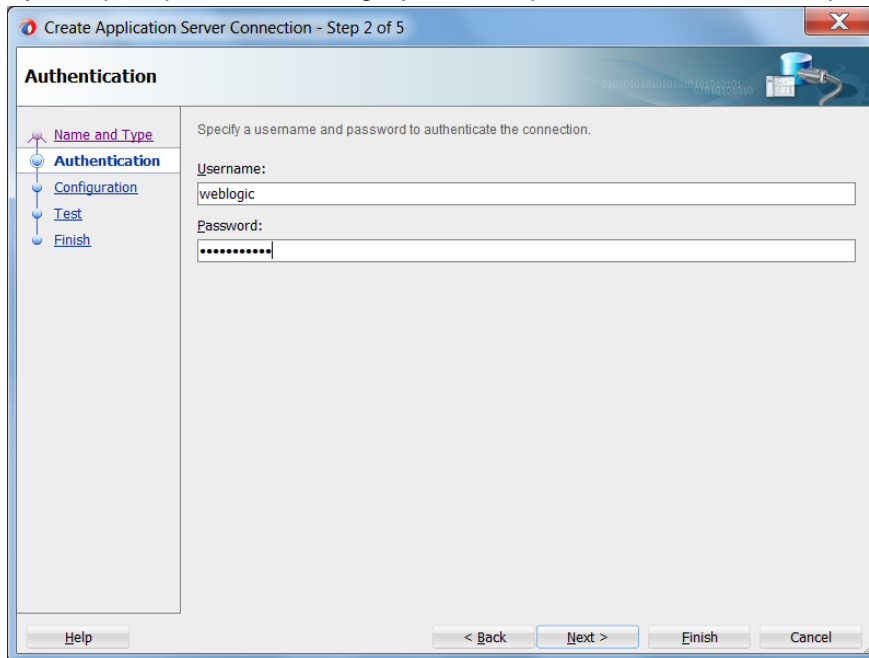
- Select the Application 'server' to which the deployment needs to be done.
- If the application server is not configured, it needs to be added by clicking on the '+' button on the right top corner



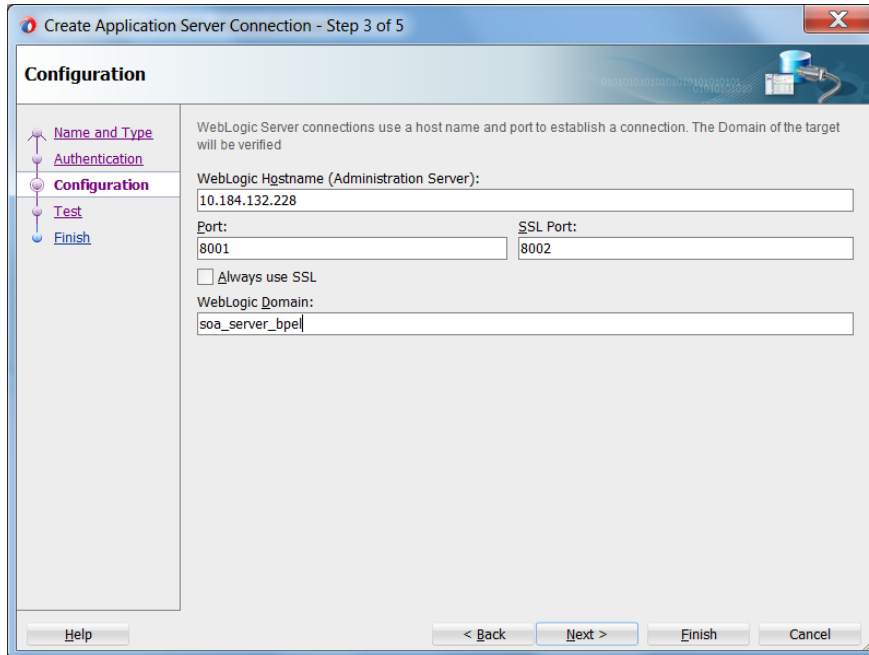
- Input the connection name and the connection type based on the weblogic console configured before and click next



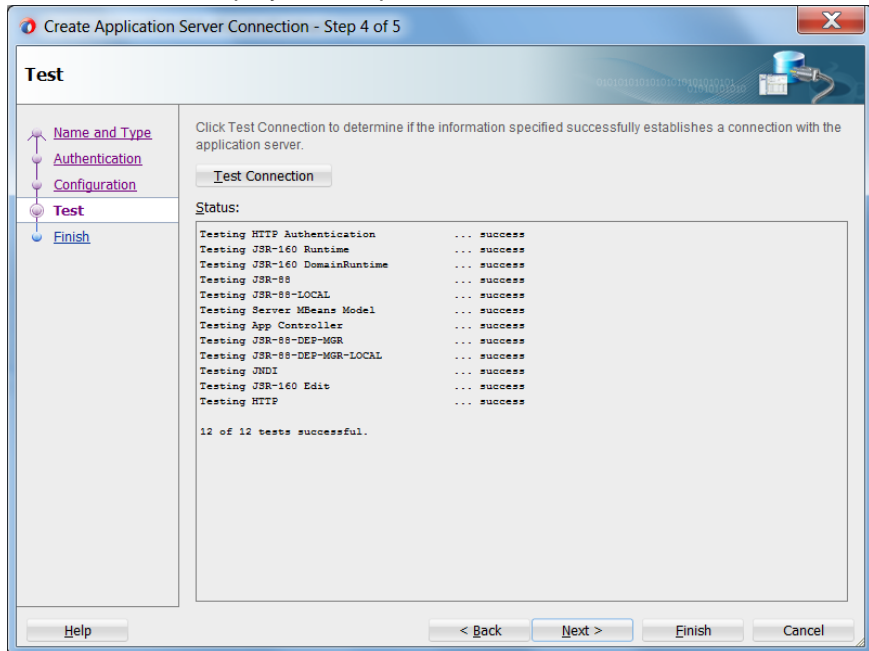
- System prompts for the weblogic password, proceed with next after inputting



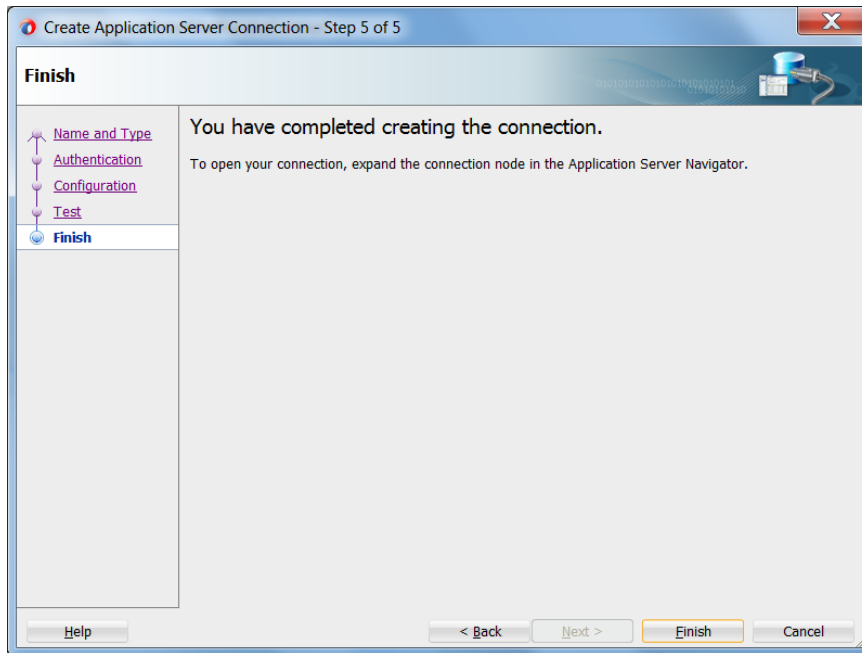
- Enter the Weblogic Hostname of the adminserver, port and domain details and click on next



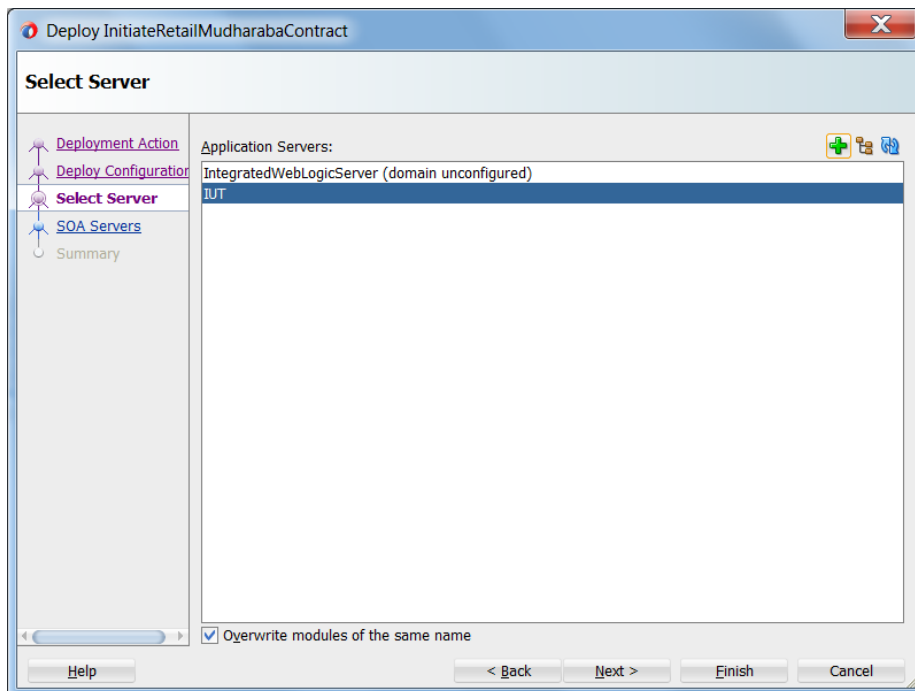
- Click on the Test Connection button to verify whether the details inputted are validated for the deployment of process
-



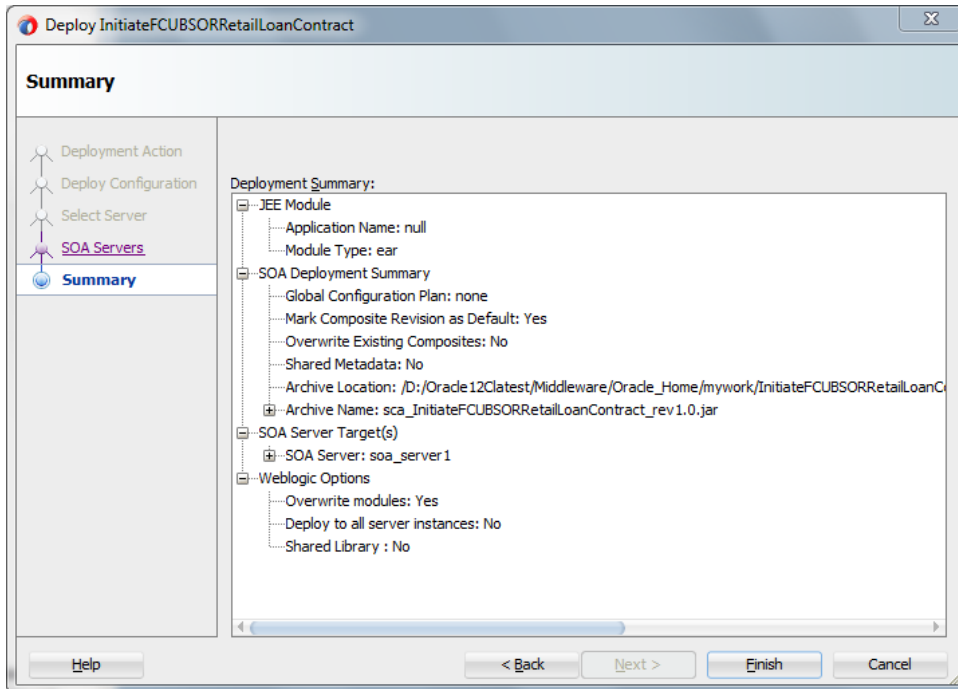
- And Once the connection is created, click on Finish



- Now the step returns to SOA servers so that the newly configured details
- can be added and deployment can be proceeded further



- Click Next after this
- View the summary of the deployment details and click 'Finish' to complete the deployment.



- The deployment status can be verified in the deployment status Log window.



- The deployed process can be verified by checking if the process is showing up in the SOA Suite enterprise manager console.
- Login to <http://<hostname>:<port>/em>
- Expand SOA - >soa-infra and view all deployed applications

The screenshot displays the Oracle Enterprise Manager console interface. At the top, there are browser tabs and a URL: `10.184.133.180/040/em/aces/ai/soa/infra?type=oracle_soainfra&target=%2FDomain_soa_domain%2Fsoa_server1%2Fsoa-infra`. The main header shows "ORACLE Enterprise Manager Fusion Middleware Control 12c" and "WebLogic Domain" with a "weblogic" dropdown. Below the header, there are navigation tabs: "Dashboard", "SOA Folders", "Deployed Composites" (selected), "Flow Instances", and "Error Hospital".

A descriptive text states: "A composite application consists of the entire assembly of SOA components that implement the business logic and expose the application to the outside world. The following SOA composite revisions are currently deployed." Below this, there is a search bar and a "Composite" dropdown menu.

The main content area is a table listing deployed composites. The table has columns for "Composite", "SOA Folder", "Status", "Mode", and "Deployed". The "Composite" column contains a tree view of composite names, such as "OpenCurrentAccount (3.0)", "ORGatewayService (1.0)", "InitiateRetailLoanContractCUBSORService (2.0)", etc. The "Status" column shows "Active" or "Retired" with a green arrow icon. The "Mode" column shows "default". The "Deployed" column shows the deployment date and time.

Composite	SOA Folder	Status	Mode	Deployed
OpenCurrentAccount (3.0)	default	Active	default	Oct 13, 2017 12:05:2...
ORGatewayService (1.0)	default	Active	default	Sep 27, 2017 9:07:04...
ORGatewayService (1.7)	default	Retired	default	Sep 27, 2017 3:23:30...
InitiateRetailLoanContractCUBSORService (2.0)	default	Active	default	Sep 6, 2017 4:24:39 PM
OpenSavingsAccount (3.0)	default	Active	default	Aug 30, 2017 4:50:46...
OpenCurrentAccount (2.0)	default	Retired	default	Aug 9, 2017 1:16:48 PM
ORGatewayService (1.4)	default	Retired	default	Jul 7, 2017 6:28:24 PM
InitiateCUBSORRetailLoanContract (1.0)	default	Active	default	Jun 16, 2017 4:12:47...
CreateCorporateCustomer (1.0)	default	Active	default	Jun 13, 2017 2:27:59...
TermDepositForeClosure (1.0)	default	Retired	default	Jun 13, 2017 2:24:40...
OpenRetailTermDeposit (1.0)	default	Active	default	Jun 13, 2017 2:18:07...
InitiateCorpMusharakahContract (0.0)	default	Active	default	May 18, 2017 2:50:23...
CRPPProcess (1.0)	default	Active	default	May 12, 2017 10:26:3...
COLLATProcess (1.0)	default	Active	default	May 12, 2017 10:23:3...
BPELCRPPProcess (3.0)	default	Active	default	May 12, 2017 10:19:0...
BPELCRPPProcess (2.0)	default	Active	default	May 11, 2017 7:15:45...
BPELCOLLATProcess (2.0)	default	Active	default	May 11, 2017 6:07:07...
BPELCRPPProcess (1.0)	default	Active	default	May 11, 2017 6:59:01...
BPELCOLLATProcess (1.0)	default	Active	default	May 11, 2017 6:34:57...
InitiateRetailMusharakahContract (6.0)	default	Active	default	Apr 26, 2017 4:01:33...
InitiateRetailIjarahContract (3.0)	default	Active	default	Apr 25, 2017 12:07:1...
InitiateCorpsIjarahContract (1.0)	default	Active	default	Apr 18, 2017 11:06:17...

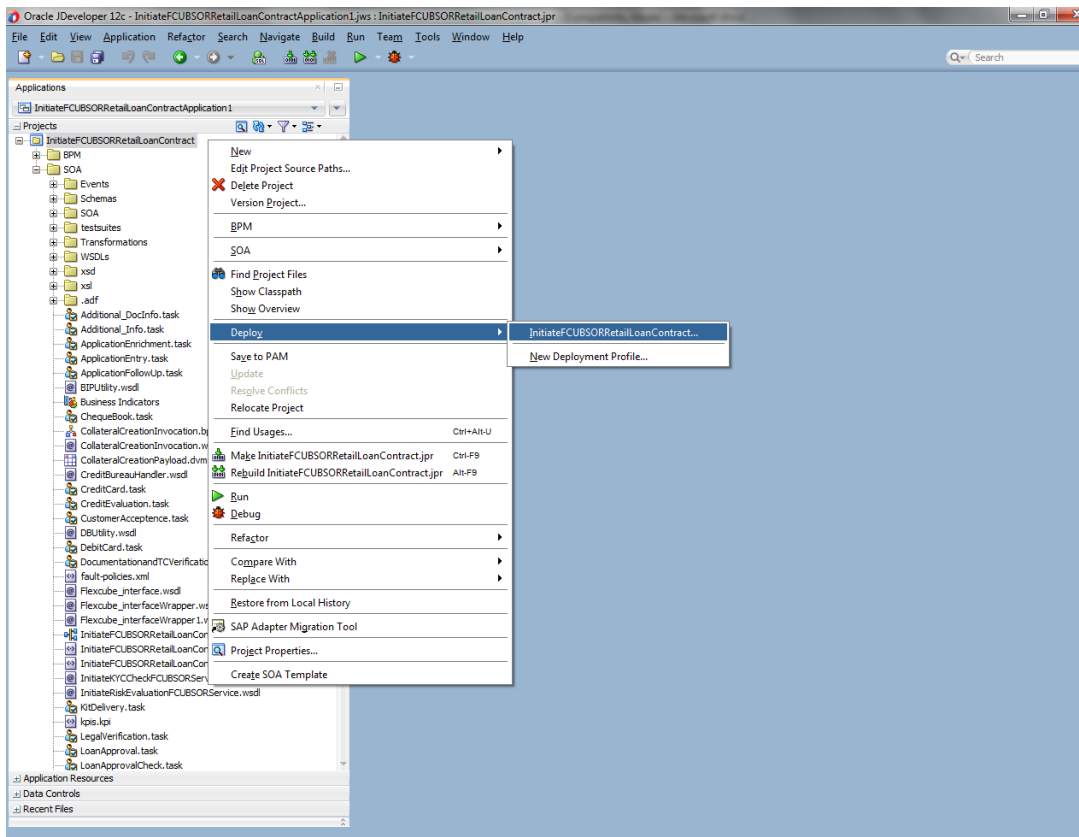
Deploying a Single Composite application via Enterprise manager console.

6.3 Introduction

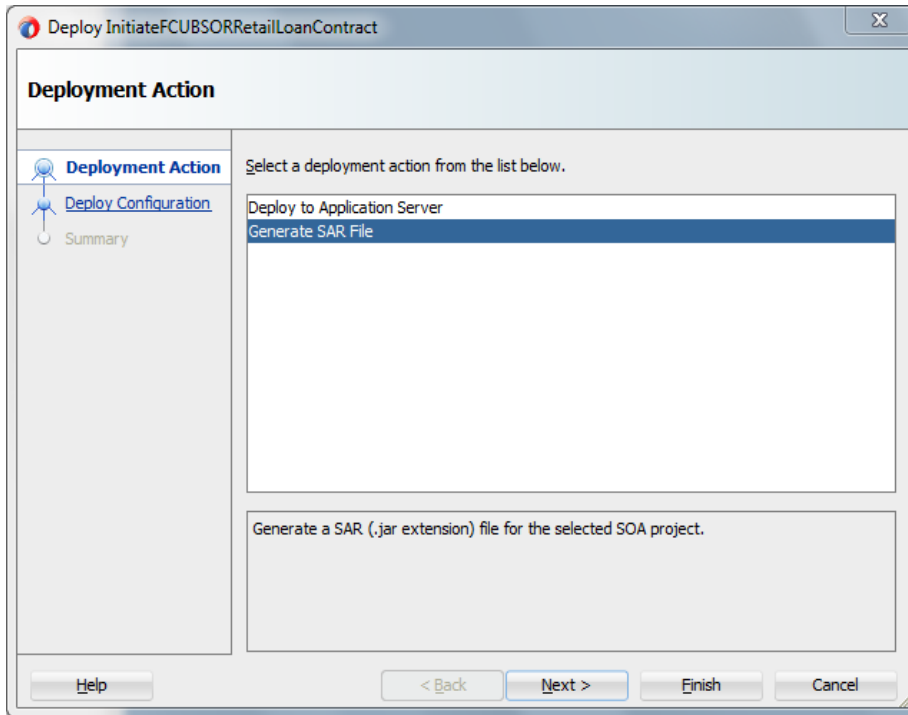
This section describes how to build a SAR file for a single SOA composite application with Oracle JDeveloper and deploy the same via enterprise manager console.

6.4 Deploying the Application

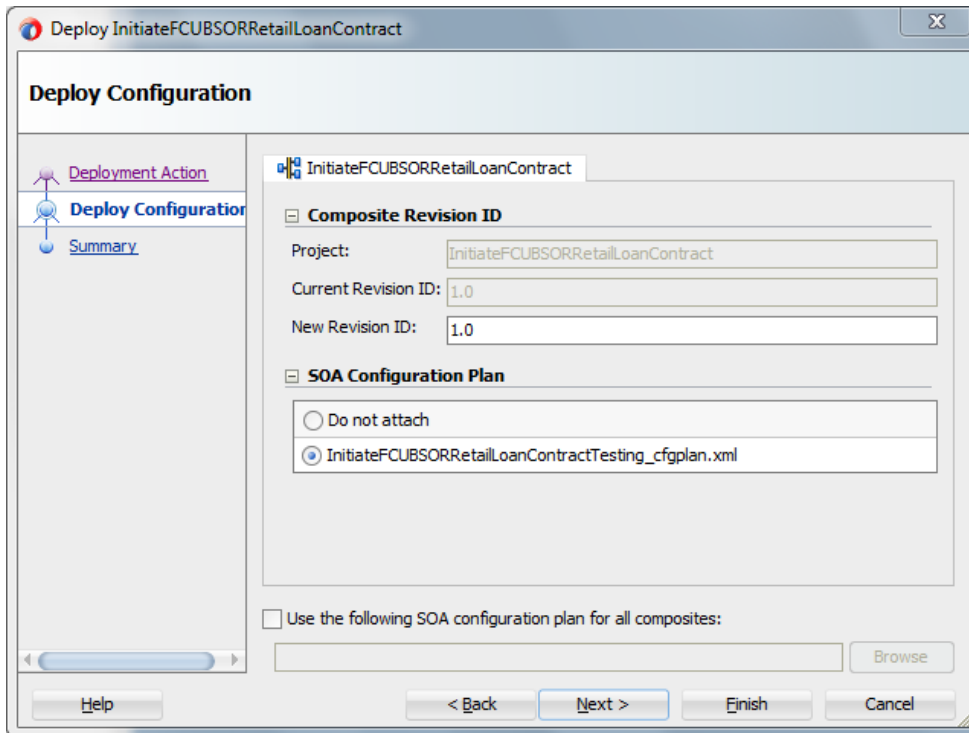
- Right click on the Application that needs to be deployed.
- Select 'Deploy' and then click on the default deployment profile which is the same as the application name.
- This will result in the deployment wizard screen being launched.



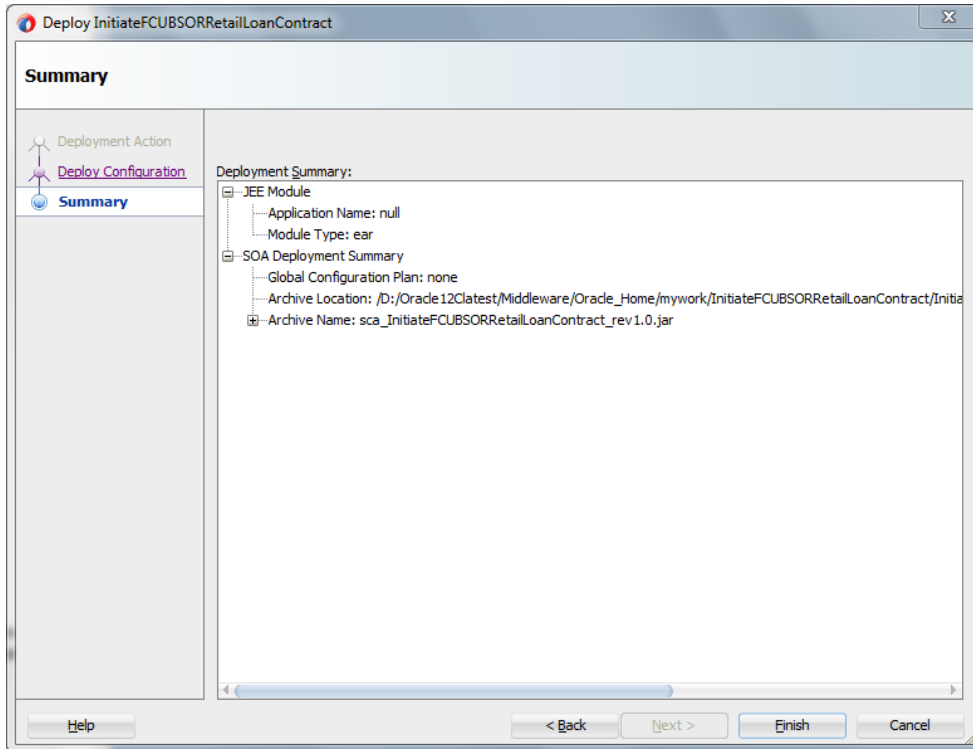
- In deployment action screen choose 'Deploy to SAR'
- Click 'Next' to proceed with the deployment.



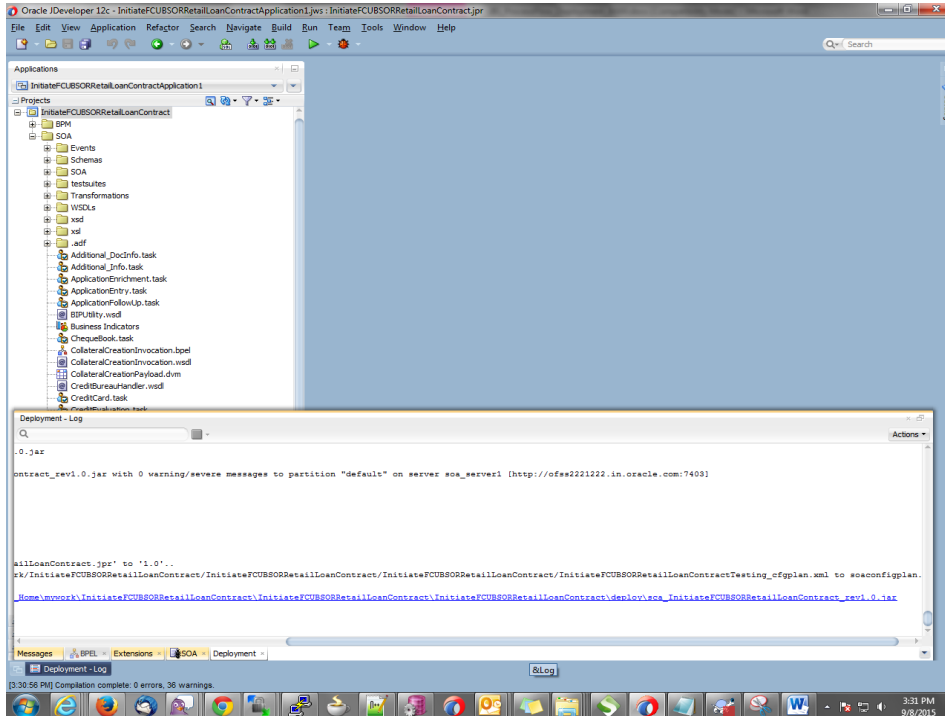
- In deployment configuration screen enter the revision
- Select the configuration plan.
- Click “Next” to proceed with the deployment.



- Review the deployment summary screen
- Click “Finish” to proceed with the deployment.



- Review the deployment log
- It shows the folder onto which the SAR file is written.



- Login to the enterprise manager console.
- Login to <http://<hostname>:<port>/em>

LOGIN TO
ORACLE ENTERPRISE MANAGER
FUSION MIDDLEWARE CONTROL 12c

Domain Domain_soa_domain

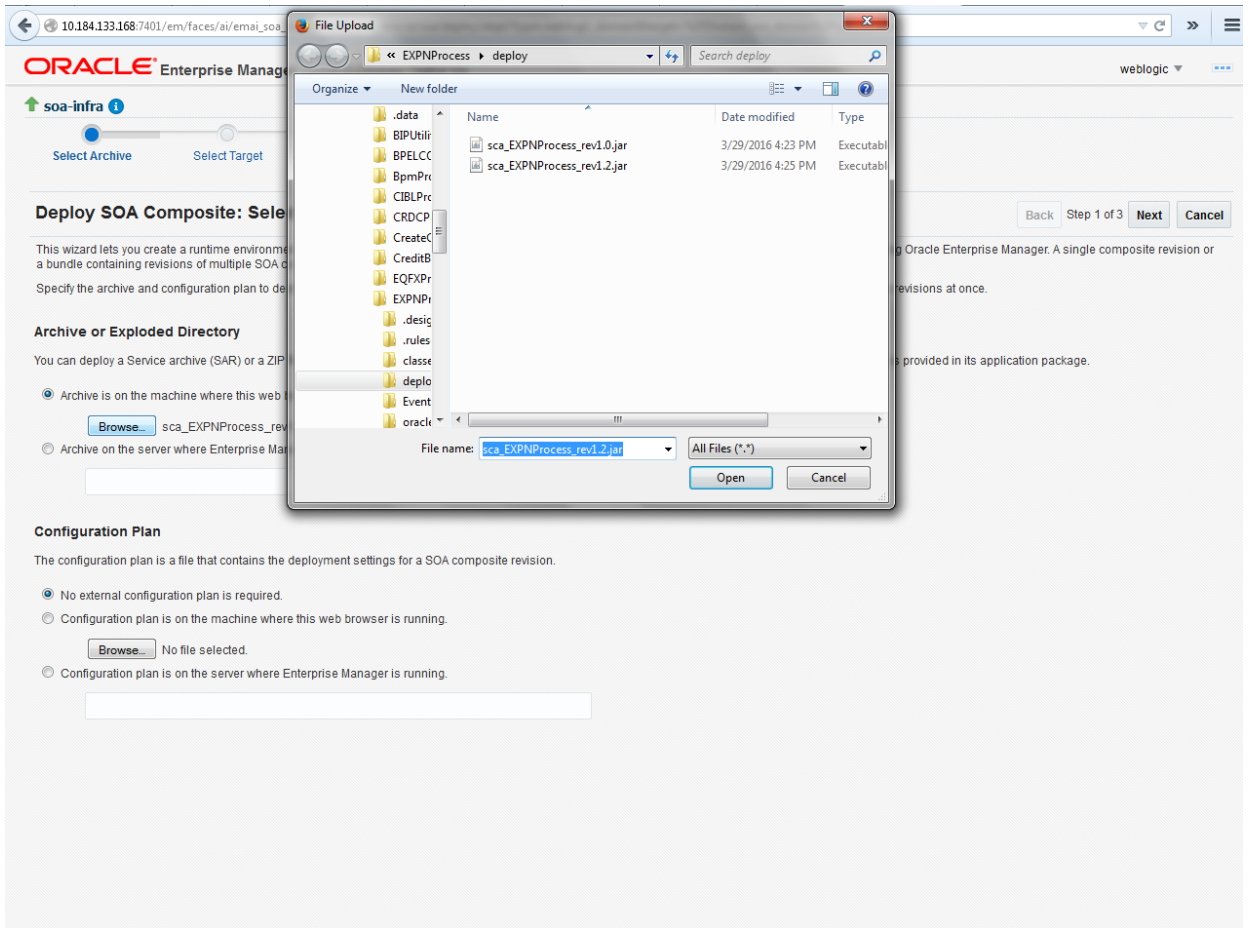
* User Name

* Password

ORACLE®

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- After logging in from the left pane - Expand 'SOA'
- Right click on soa-infra
- Choose SOA Deployment -> and click "Deploy" option.
- Select the 'SAR' archive
- Select the deployment plan with which the application needs to be deployed as illustrated in the screen shot.



- Click on 'Next' to proceed with the deployment.

ORACLE Enterprise Manager Fusion Middleware Control 12c weblogic ▾ ...

↑ soa-infra ⓘ

Select Archive **Select Target** Confirmation

Deploy SOA Composite: Select Target ⓘ Back Step 2 of 3 Next Cancel

WebLogic Server or Cluster

Based on the context from which you launched this wizard, the selected composite will be deployed to the WebLogic server or cluster shown below. If you wish to deploy to a different target, click Cancel to exit this wizard, navigate to a different WebLogic server or cluster or to the WebLogic Domain, and select Deploy again.

Deployment Target [/Domain_soa_domain/soa_domain/soa_server1](#)

Type Oracle WebLogic Server

Token Configurations

As a good practice, configure the global token variables referenced by this composite before deploying it. Else the composite may not run properly, once it is deployed. Global token variables are used to resolve environment specific URIs when a composite is moved to another environment. Before starting the deployment operation, ensure that all the tokens referenced by the selected composite are configured. The Token Configurations page can be found in the SOA Administration section of the SOA Infrastructure target menu. [\[More Info..\]](#)

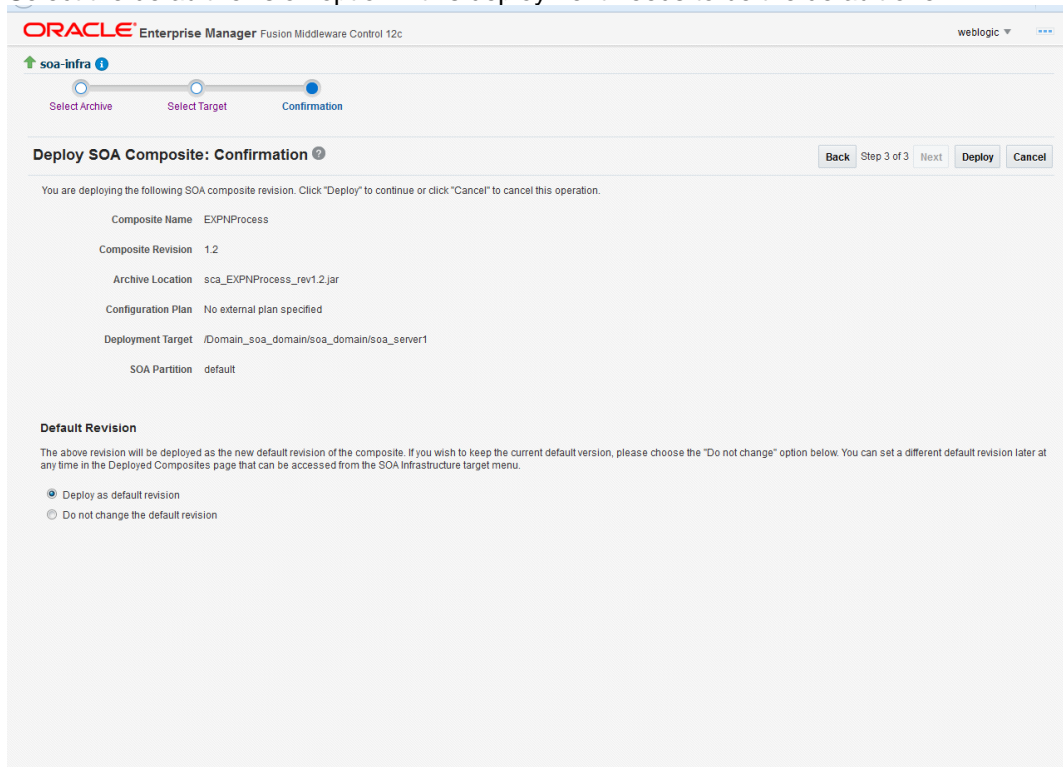
SOA Partition

Partitions are logical groupings of composites that help you manage large deployments. The selected composite will be deployed to the partition shown below. If you wish to deploy to a different partition, select it from the list below.

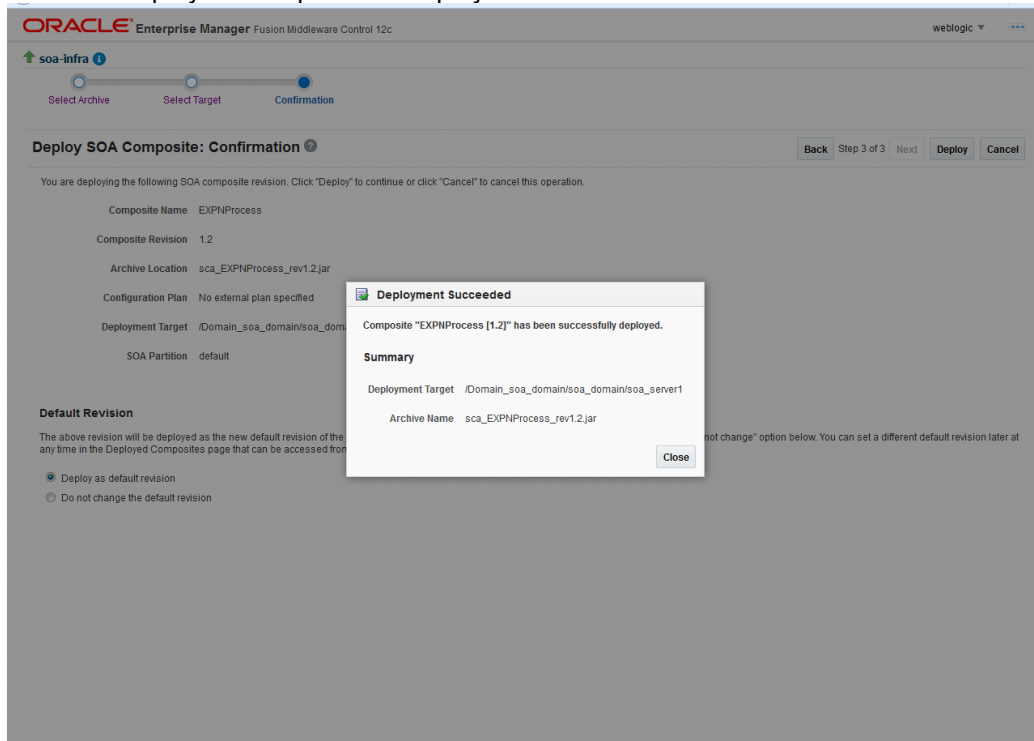
default ▾

- Select default partition.

- Select the default revision option if this deployment needs to be the default one



- Click on "Deploy" to complete the deployment.



SOA Folders are logical groupings of composites to help you manage large deployments. The following SOA composite revisions are deployed in this folder:

Composite	Status	Mode	Deployed
InitiateRetailMurabahContract [1.0]	Active		Apr 6, 2017 4:21:48 PM
EXPProcess [1.0]	Active		Mar 27, 2017 9:55:12 PM
CRPProcess [1.0]	Active		May 12, 2017 10:26:39 AM
OpenCurrentAccount [2.0]	Retired		Aug 9, 2017 1:16:48 PM
OpenCurrentAccount [3.0]	Active		Oct 13, 2017 12:05:20 PM
TR/UNProcess [1.0]	Active		Mar 27, 2017 9:58:47 PM
CreateCorporateCustomer [1.0]	Active		Jun 13, 2017 2:27:59 PM
InitiateCorpjarahContract [1.0]	Active		Apr 11, 2017 9:04:11 PM
InitiateCorpMurabahContract [1.0]	Active		Mar 27, 2017 10:13:01 PM
InitiateCorpSthanaContract [1.0]	Active		Apr 18, 2017 11:06:17 AM
SP/ELCOLLATProcess [1.0]	Active		May 11, 2017 6:34:57 PM
InitiateRetailTawarosaContract [2.0]	Active		Apr 6, 2017 7:40:55 PM
InitiateRetailAwaransaContract [3.0]	Active		Apr 3, 2017 12:09:21 PM
InitiateRetailLoanContract CUBSORServi	Active		Sep 6, 2017 4:24:39 PM
Initiate CUBSORRetailLoanContract [1.0]	Active		Jun 16, 2017 4:12:47 PM
BIPUtility [1.6]	Active		Nov 22, 2017 7:02:56 PM
InitiateRetailMurabahContract [6.0]	Active		Apr 26, 2017 4:01:33 PM
ORGatewayService [1.7]	Retired		Sep 27, 2017 3:23:30 PM

- Check the deployed process from the enterprise manager console.

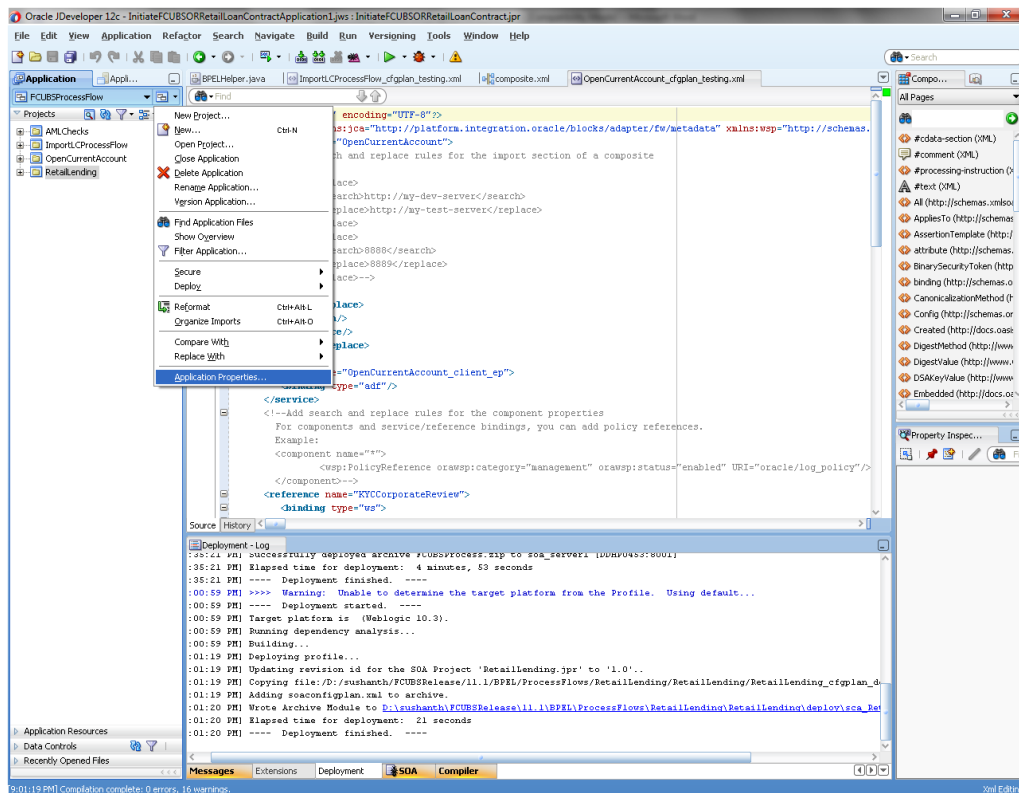
7. Deploying Multiple Composite application using JDeveloper

7.1 Introduction

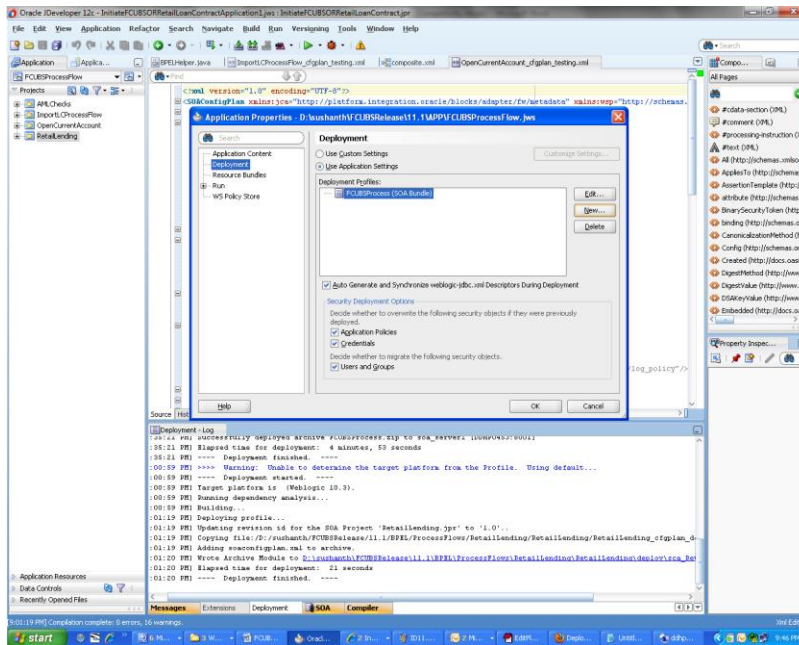
This section describes how to deploy a multiple SOA composite application with Oracle JDeveloper after completing updating of config plans with respective target environment replacement values.

7.2 Creating the Deployment Profile

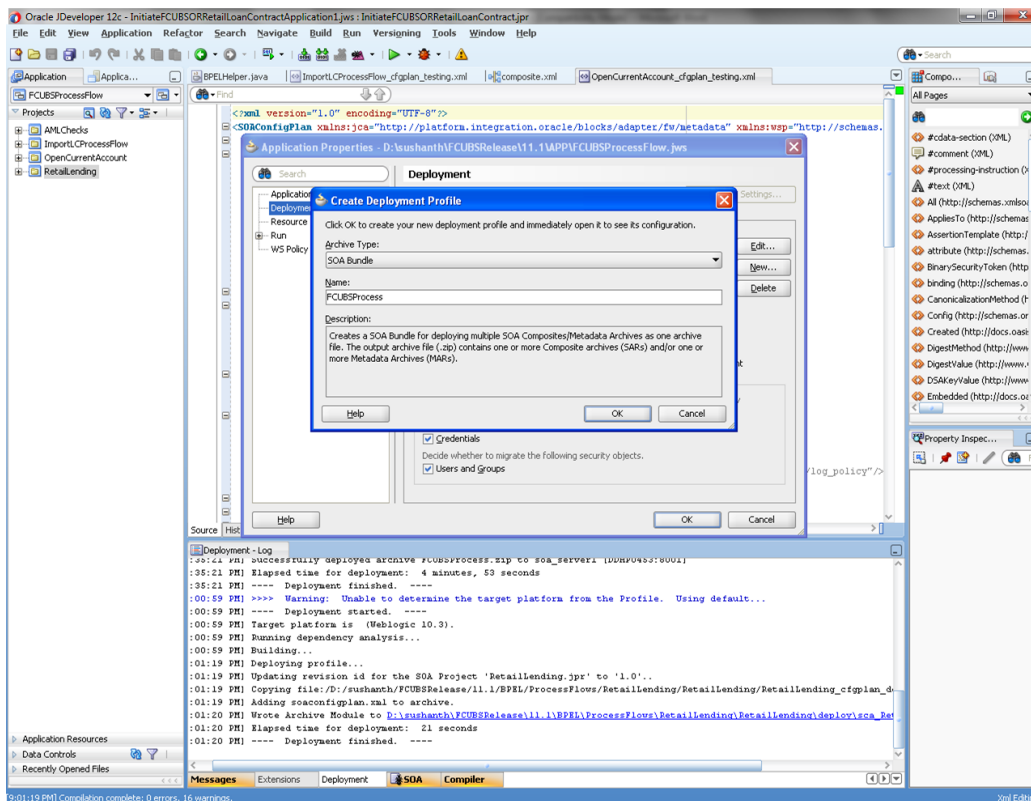
- From the application menu select 'Application Properties' as illustrated in the screen shot.



- In the Application Properties dialog, click Deployment.
- Click New.

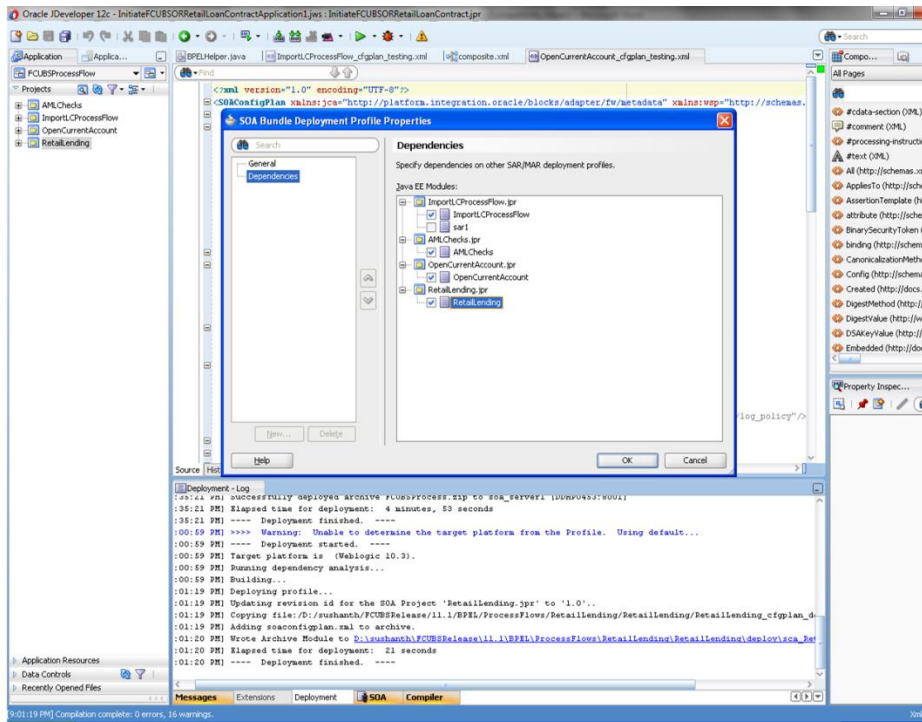


- The Create Deployment Profile dialog appears.
- In the Archive Type list, select SOA Bundle.
- In the Name field, enter a name and click 'OK'.

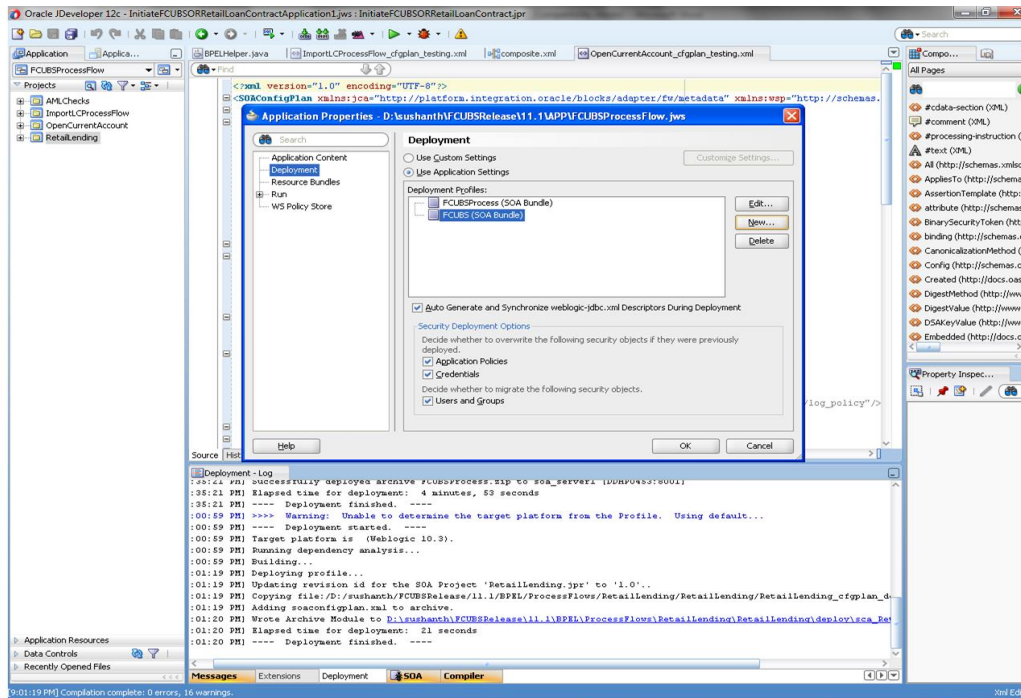


- In the navigator on the left, select the Dependencies node.
- Select the SARs you want to include in this bundle, as illustrated in the screen shot

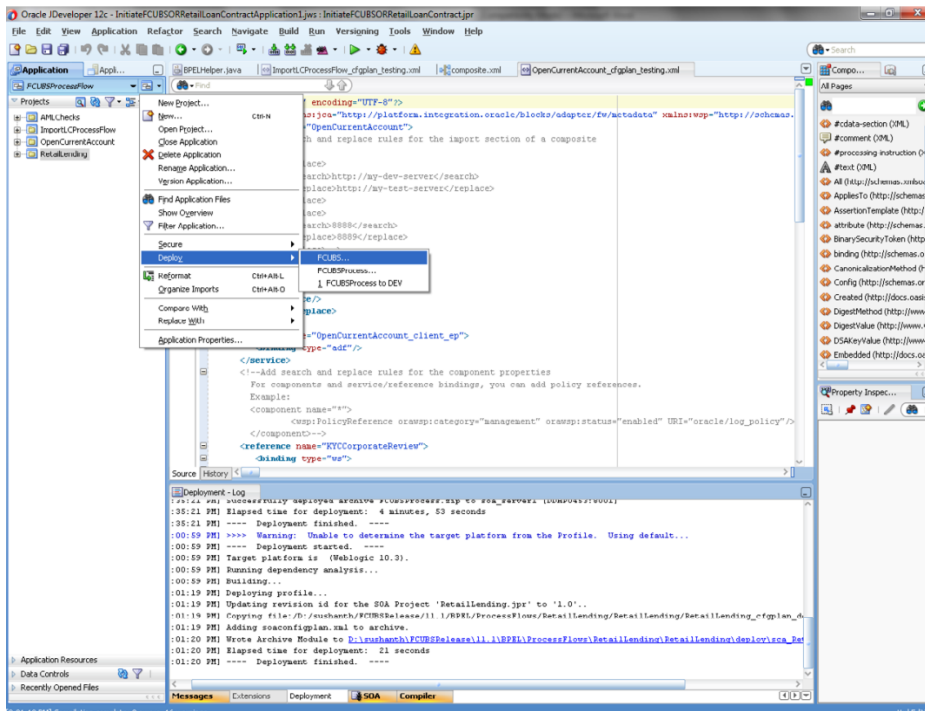
- Click OK.



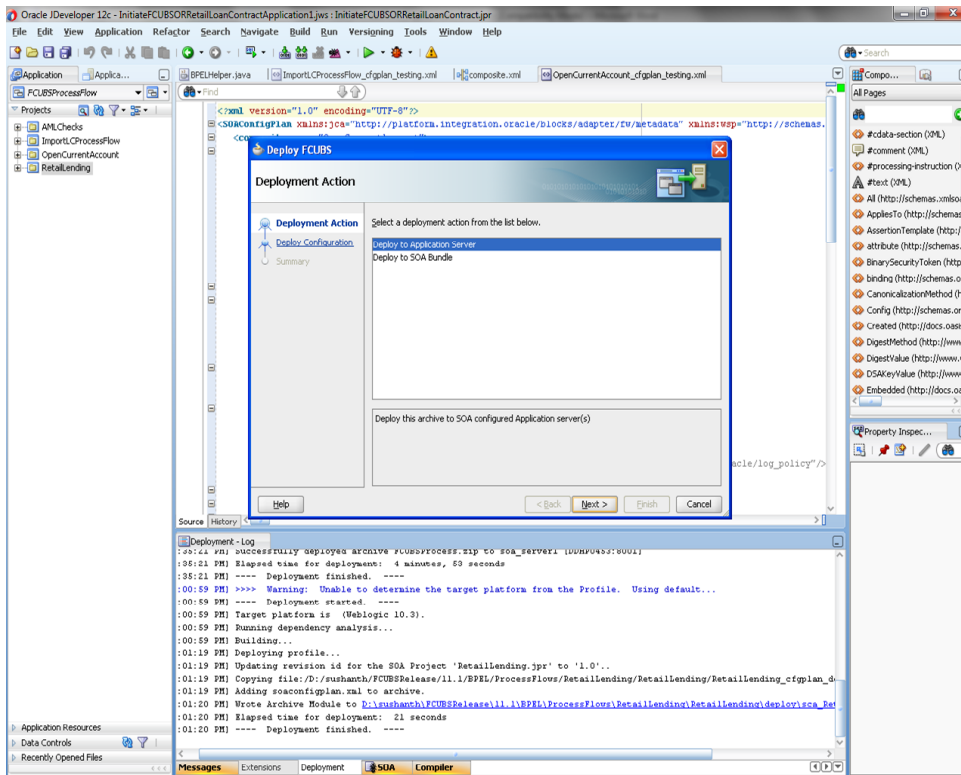
- Click OK to close the Application Properties dialog.



- Select the Application menu again, then select Deploy > SOA_bundle_name

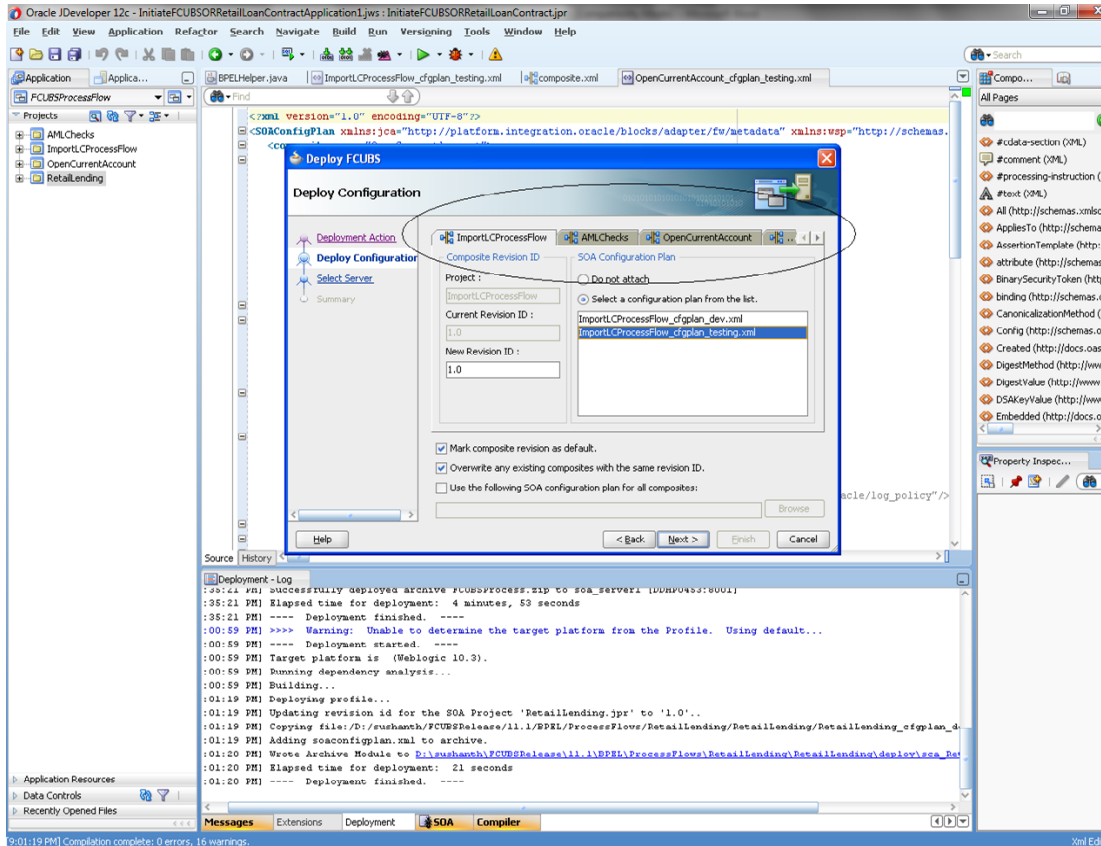


- Deployment screen is launched , Select 'Deploy to Application Server'

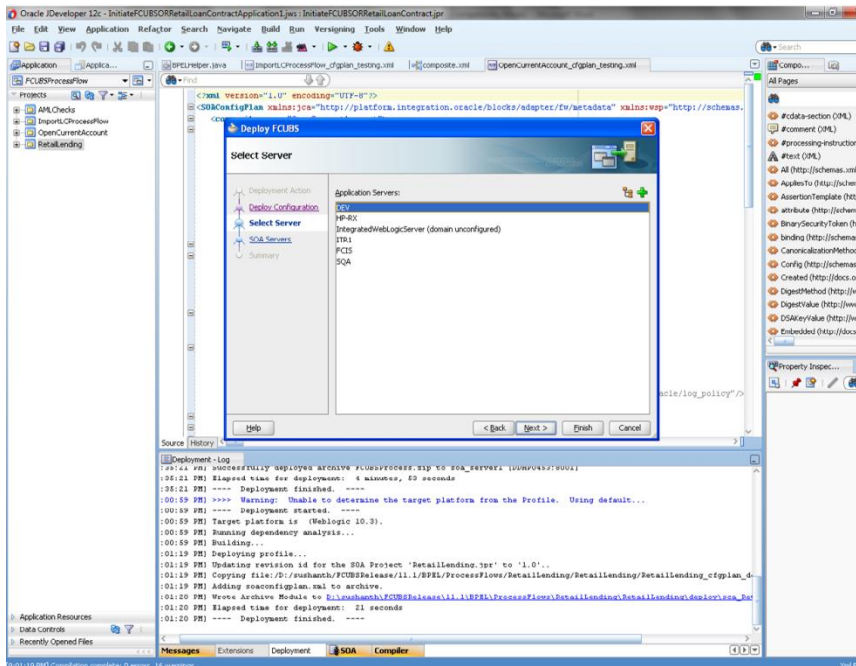


- Deployment configuration is done as illustrated in the below screen shot for each application which is displayed in the tab, application navigation can be done using the pointer provided at the end of the tab.
- Select a Revision with which the deployment should happen

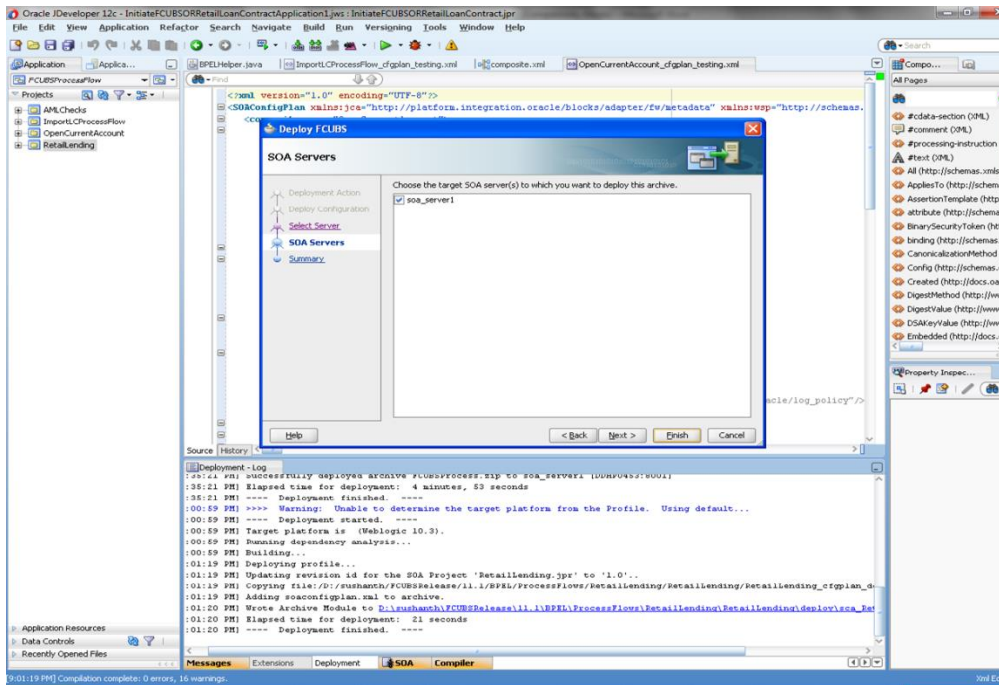
- Select a " Configuration Plan" that was updated as given in Section 5
- Remember to check both the checkboxes
- "Mark composite revision as 'default"
- "Overwrite any existing composites with the same revision ID"
- After all the applications are configured Click "Next" to proceed with the deployment.



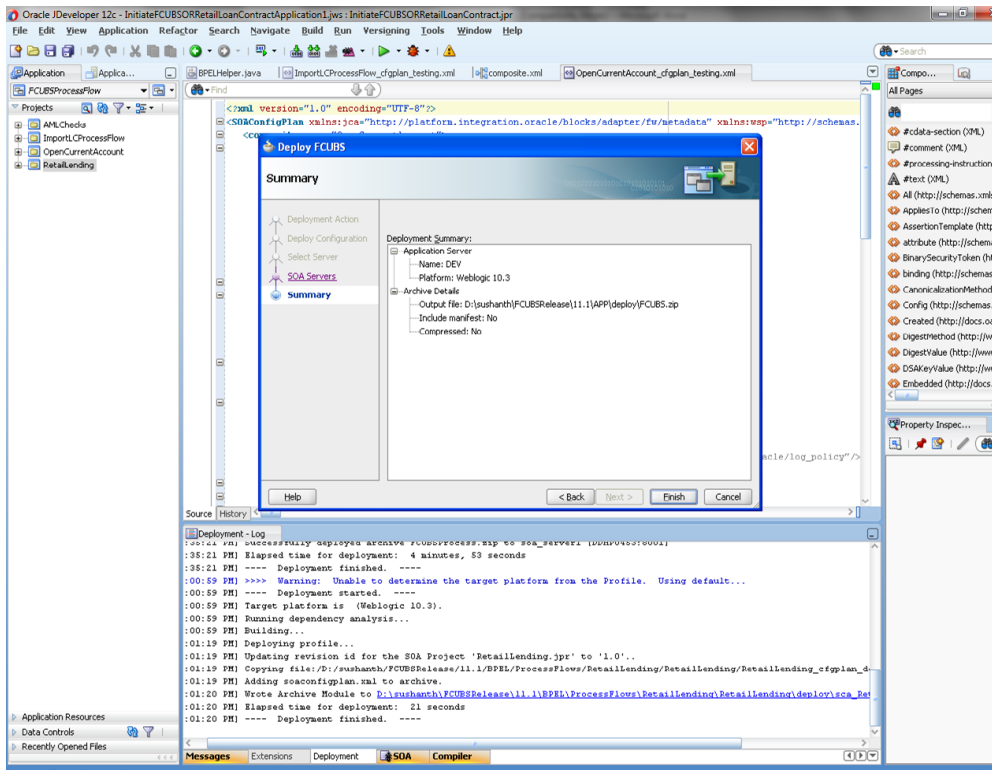
- Select the Application server 'Server Connection' configured that was done in Section 3 to which the deployment needs to be done
- Click 'Next' to proceed with the deployment.



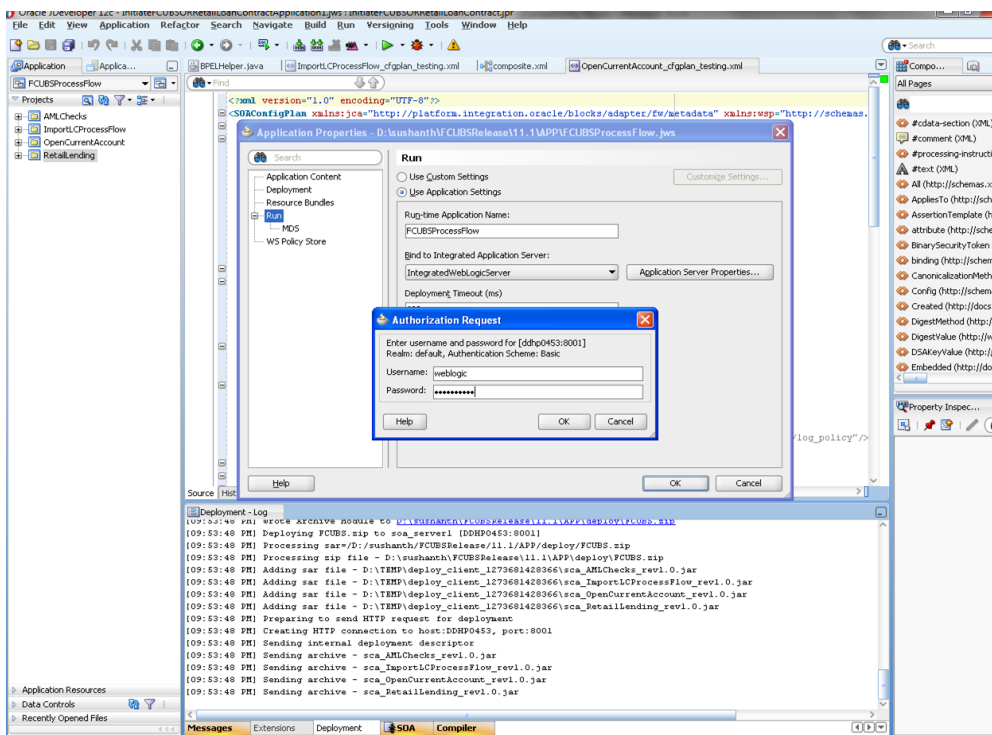
- Select the Application 'server' to which the deployment needs to be done.



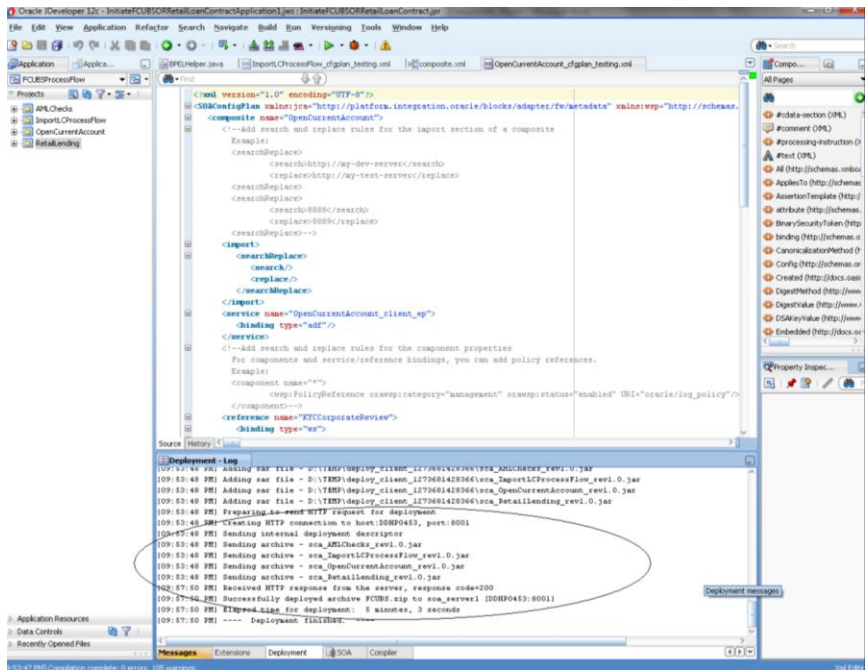
- View the summary of the deployment details and click 'Finish' to complete the deployment.



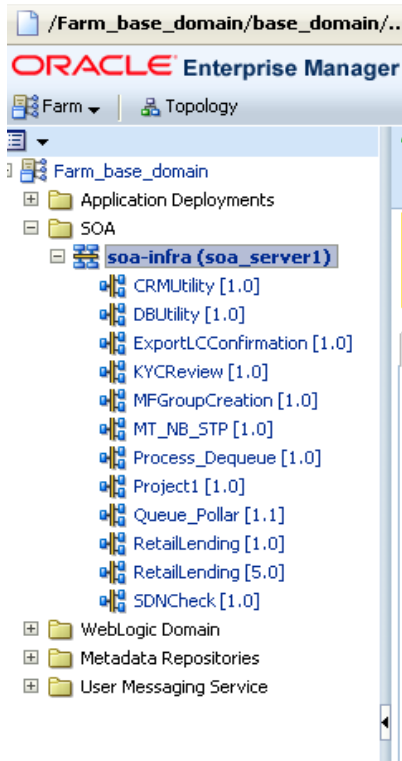
- If the server prompts for username / password provide the credentials for the server.



- The deployment status can be verified in the deployment status Log window.



- The deployed process can be verified by checking if the process is showing up in the SOA Suite enterprise manager console.
- Login to <http://<hostname>:<port>/em>
- Expand SOA - >soa-infra and view all deployed applications



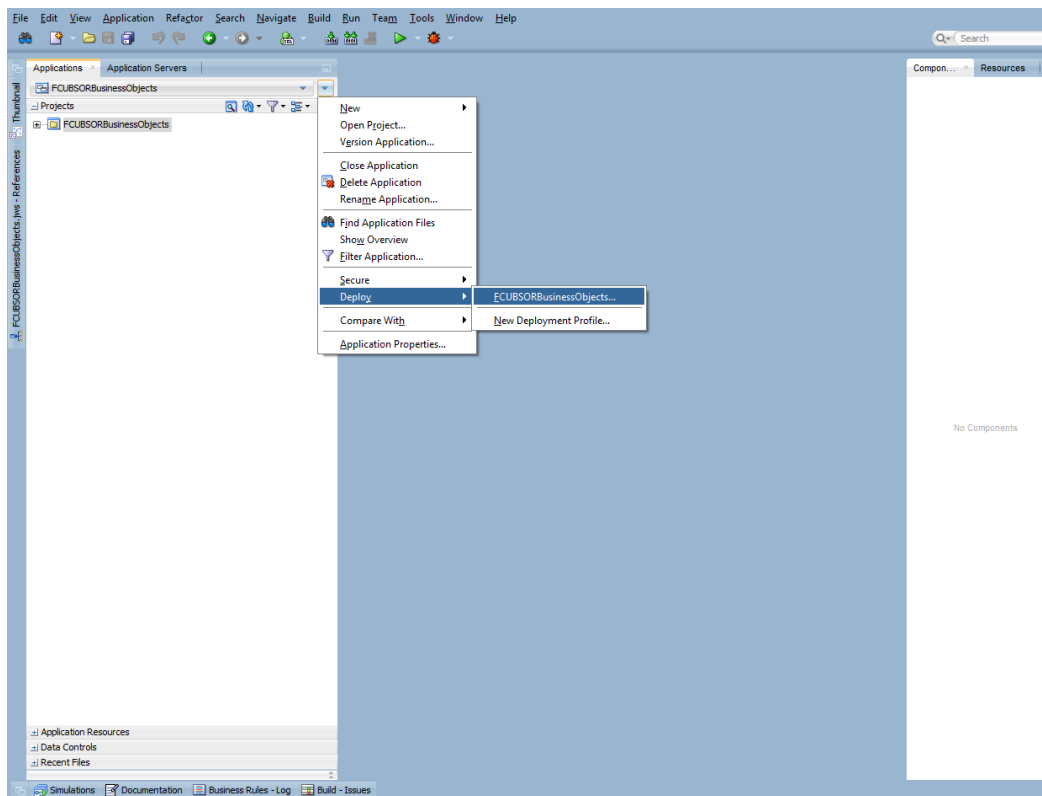
8. Deploying MDS application using JDeveloper

8.1 Introduction

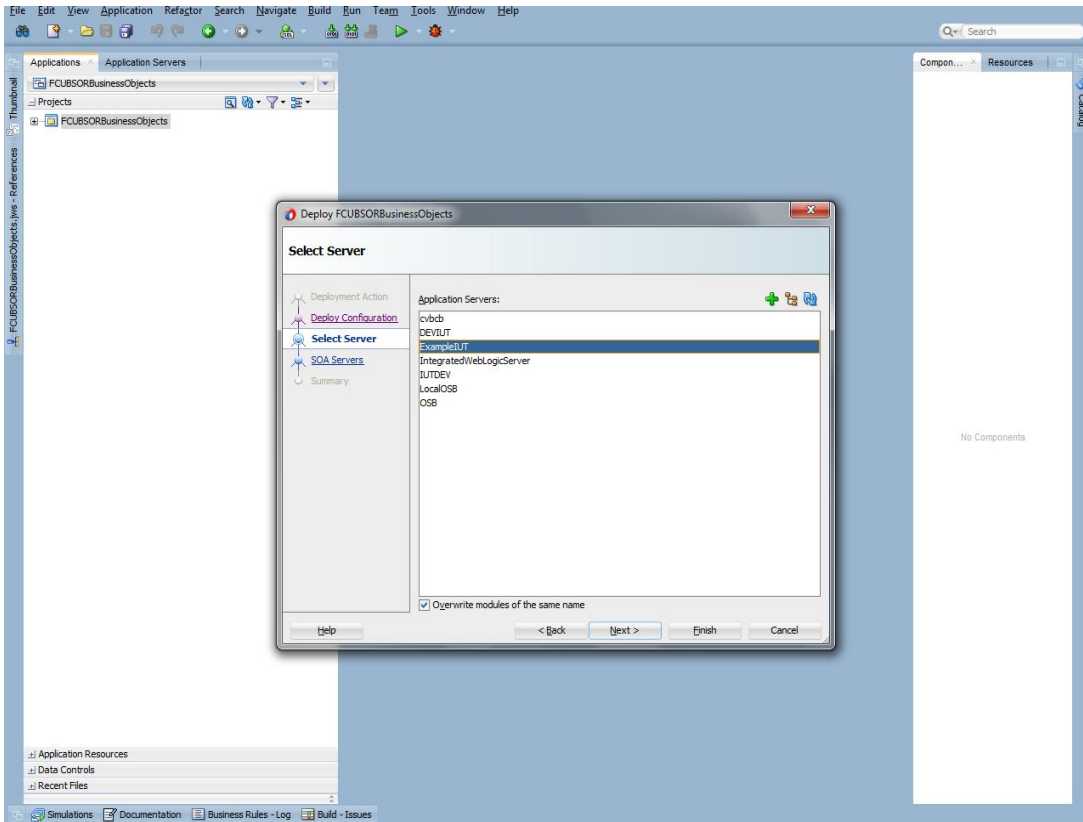
This section describes how to deploy a MDS application with Oracle JDeveloper with respective target environment.

8.2 Deploying the Application

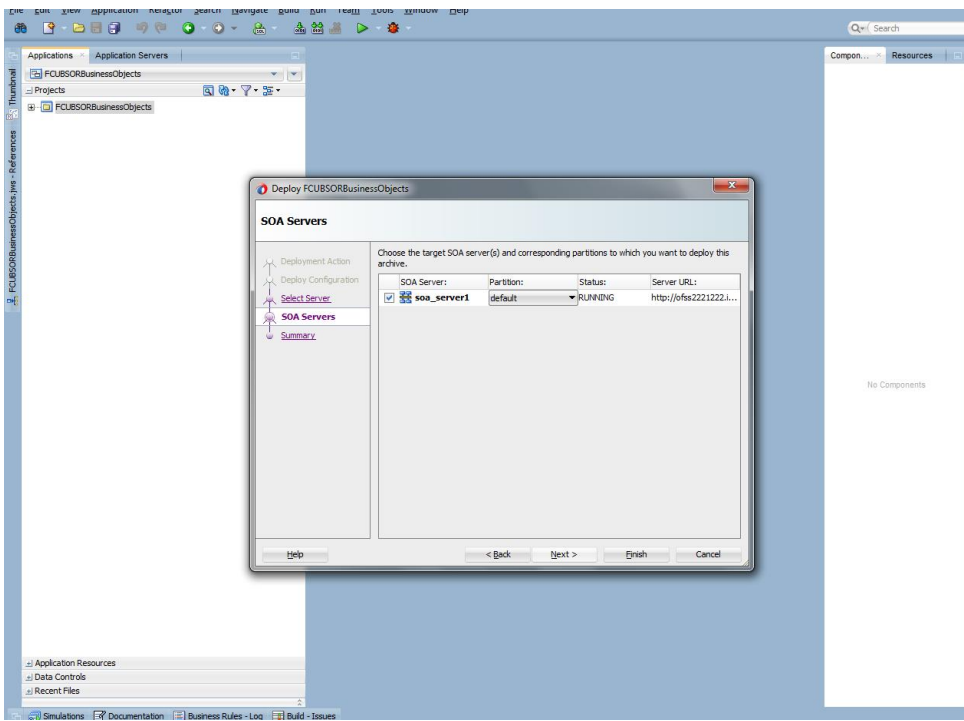
- Load the MDS Application(FCUBSORBusinessObjects,FCUBSORServiceObjects) in Jdeveloper
- Right click on the “Application” tab in the Jdeveloper
- Select ‘Deploy’ and then click on the default deployment profile which is the same as the application name.
- This will result in the deployment wizard screen being launched.

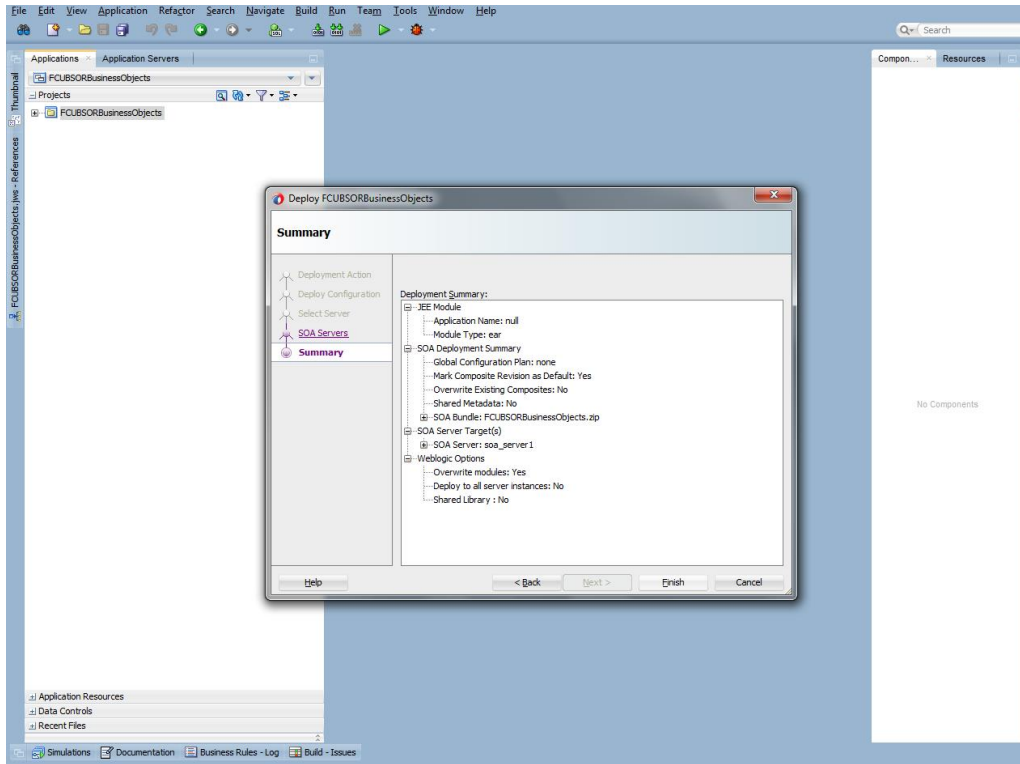


- In deployment action screen choose Deploy to Application Server.
- Click Next→Next to proceed with deployment.
- Select the Application Server to which the MDS Application Needs to Deploy.



- Click Next and Finish buttons on the deployment wizard after selecting application server.





- Review the deployment log to see successfully deployed message as below

9. Deployment and configuration of Oracle BAM Reports

- 1) Login to console <http://hostname:port/console>
- 2) Click on Data sources.

The screenshot displays the Oracle BAM console interface. On the left, a sidebar contains several utility sections: 'View changes and restarts' with a note about configuration editing; 'Domain Structure' showing a tree view of the domain hierarchy; 'How do I...' with search and configuration tips; and 'System Status' showing the health of running servers (Failed: 0, Critical: 0, Overloaded: 0, Warning: 0, OK: 3). The main content area, titled 'Home Page', is divided into several functional sections. 'Information and Resources' includes helpful tools like 'Configure applications' and 'Oracle Enterprise Manager', along with general information links. 'Domain Configurations' provides a hierarchical view of the domain, including 'Domain Partitions', 'Environment' (Servers, Clusters, Coherence Clusters, Machines, Virtual Hosts, Virtual Targets, Work Managers, Concurrent Templates, Resource Management, Startup And Shutdown Classes), and 'Application's Security Settings'. Other sections include 'Resource Group Templates', 'Resource Groups', 'Deployed Resources', 'Services' (Messaging, Data Sources, Persistent Stores, XML Registries, XML Entity Caches, Foreign JNDI Providers, Work Contexts, JCOM, Mail Sessions, FileT3, JTA, OSGI Frameworks), 'Interoperability' (WTC Servers, Jolt Connection Pools), 'Diagnostics' (Log Files, Diagnostic Modules, Built-in Diagnostic Modules, Diagnostic Images, Request Performance, Archives, Context, SNMP, Interceptors), and 'Charts and Graphs' (Monitoring Dashboard).

3) Click on the SOAData source.

The screenshot shows the Oracle WebLogic Server Administration Console interface. The main content area displays the 'Summary of JDBC Data Sources' page. A table lists various data sources, with 'SOADataSource' highlighted. The table has columns for Name, Type, JNDI Name, Targets, Scope, and Domain Partitions.

Name	Type	JNDI Name	Targets	Scope	Domain Partitions
LocalSvcTbiDataSource	Generic	jdbc/LocalSvcTbiDataSource	AdminServer	Global	
mds-bam	Generic	jdbc/mds/beamComposer	AdminServer, bam_server1	Global	
mds-owsm	Generic	jdbc/mds/owsm	AdminServer, bam_server1, soa_server1	Global	
mds-soa	Generic	jdbc/mds/MDS_LocalTxDataSource	AdminServer, soa_server1	Global	
opss-audit-DBDS	Generic	jdbc/AuditAppendDataSource	AdminServer, bam_server1, soa_server1	Global	
opss-audit-viewDS	Generic	jdbc/AuditViewDataSource	AdminServer, bam_server1, soa_server1	Global	
opss-data-source	Generic	jdbc/OpssDataSource	AdminServer, bam_server1, soa_server1	Global	
OrasDPMDDataSource	Generic	jdbc/OrasDPMDDataSource	bam_server1, soa_server1	Global	
SOADataSource	Generic	jdbc/SOADataSource	bam_server1, soa_server1	Global	
SOALocalTxDataSource	Generic	jdbc/SOALocalTxDataSource	soa_server1	Global	

4) Click on Target tabs → Select bam_server check box → Click Save

ORACLE WebLogic Server Administration Console 12c

Welcome, weblogic | Connected to: soa_domain

Home > Summary of Servers > Summary of Deployments > Summary of JDBC Data Sources > SOADataSource

Settings for SOADataSource

Configuration **Targets** Monitoring Control Security Notes

Save

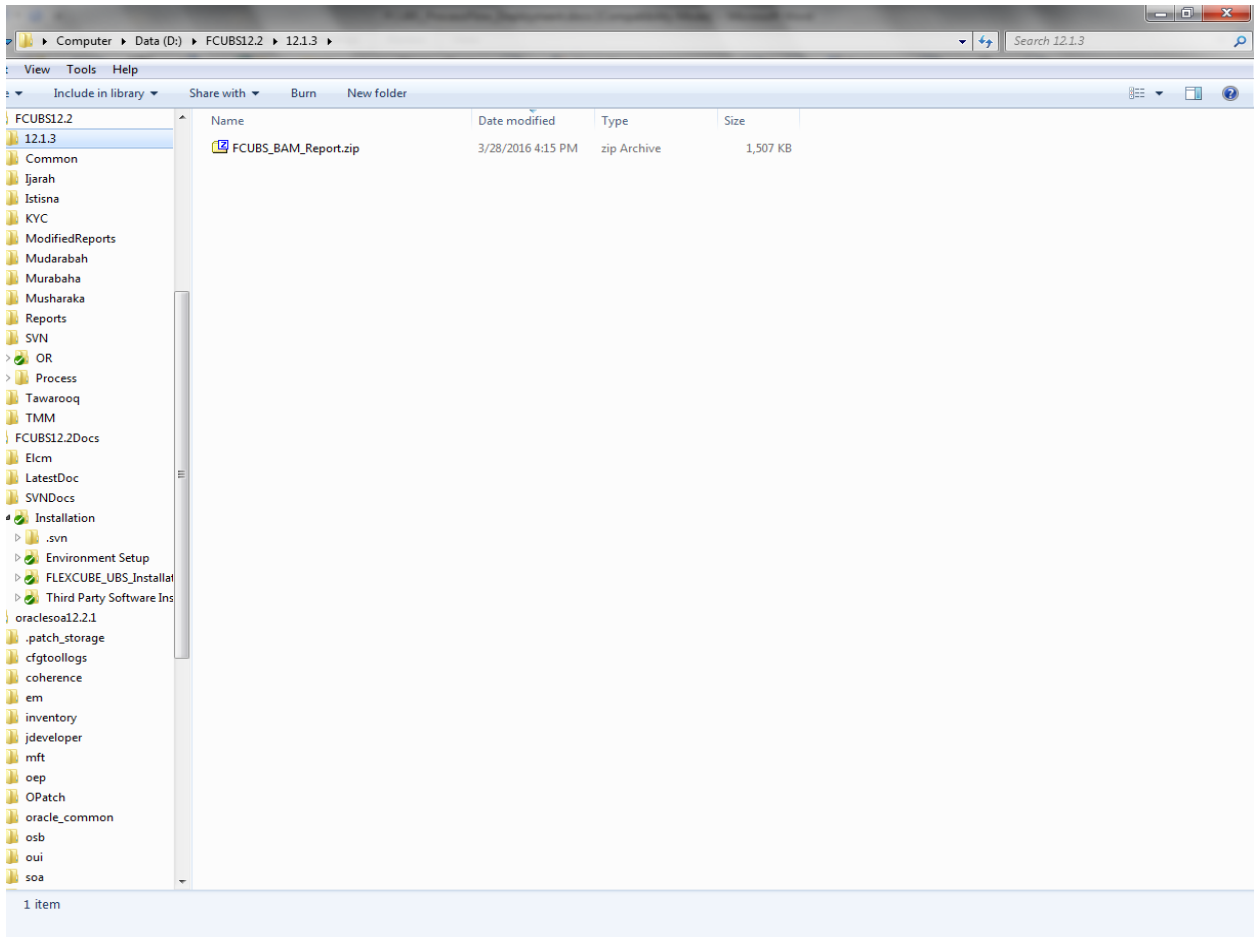
This page allows you to select the servers or clusters on which you would like to deploy this JDBC data source.

Servers	
<input type="checkbox"/>	AdminServer
<input checked="" type="checkbox"/>	bam_server1
<input checked="" type="checkbox"/>	soa_server1

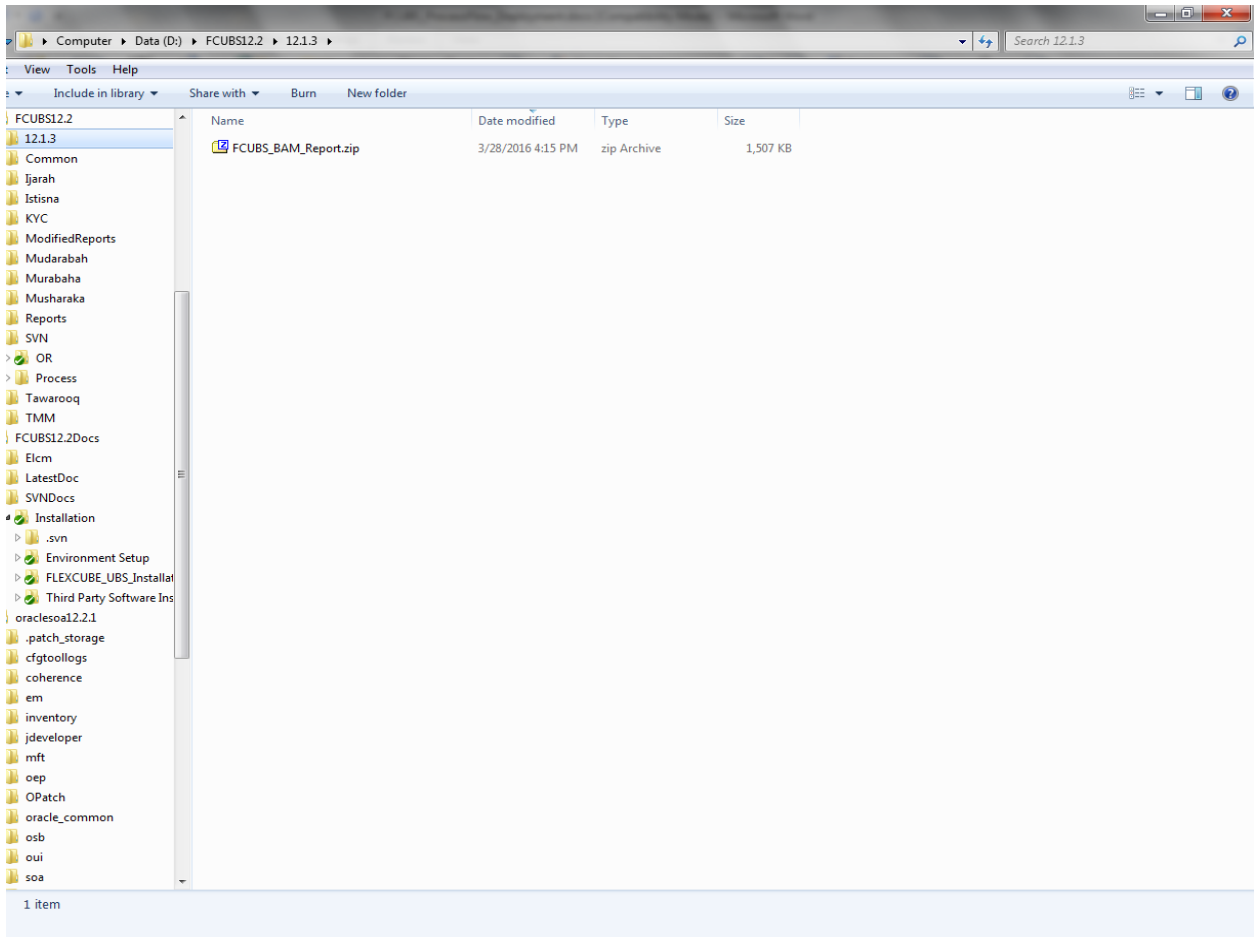
Save

WebLogic Server Version: 12.2.1.0.0
 Copyright (c) 1996-2015, Oracle and/or its affiliates. All rights reserved.
 Oracle is a registered trademark of Oracle Corporation and/or its affiliates. Other names may be trademarks of their respective owners.

- 5) Copy the FCUBS_BAM_Report.zip project from SVN (/SOFT/MAIN/OR/Process_infra/Reports/BAM) to your local system.



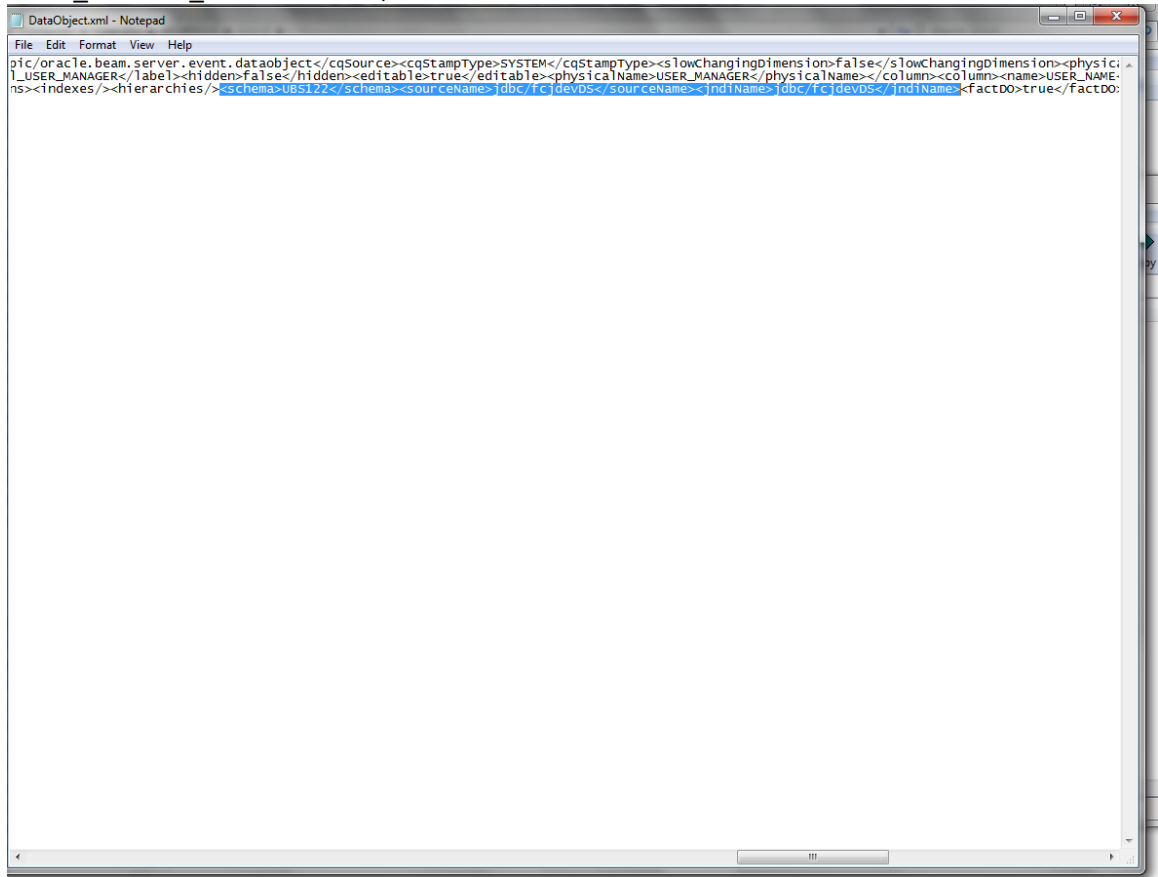
- 6) Open the FCUBS_BAM_Report.zip → Dataobject → Update the Schema element with the SOA_INFRA schema name for Wftask_Different_Stages.xml, CUBE_INSTANCE.xml, FCUBSDATAOBJECTS.xml files .



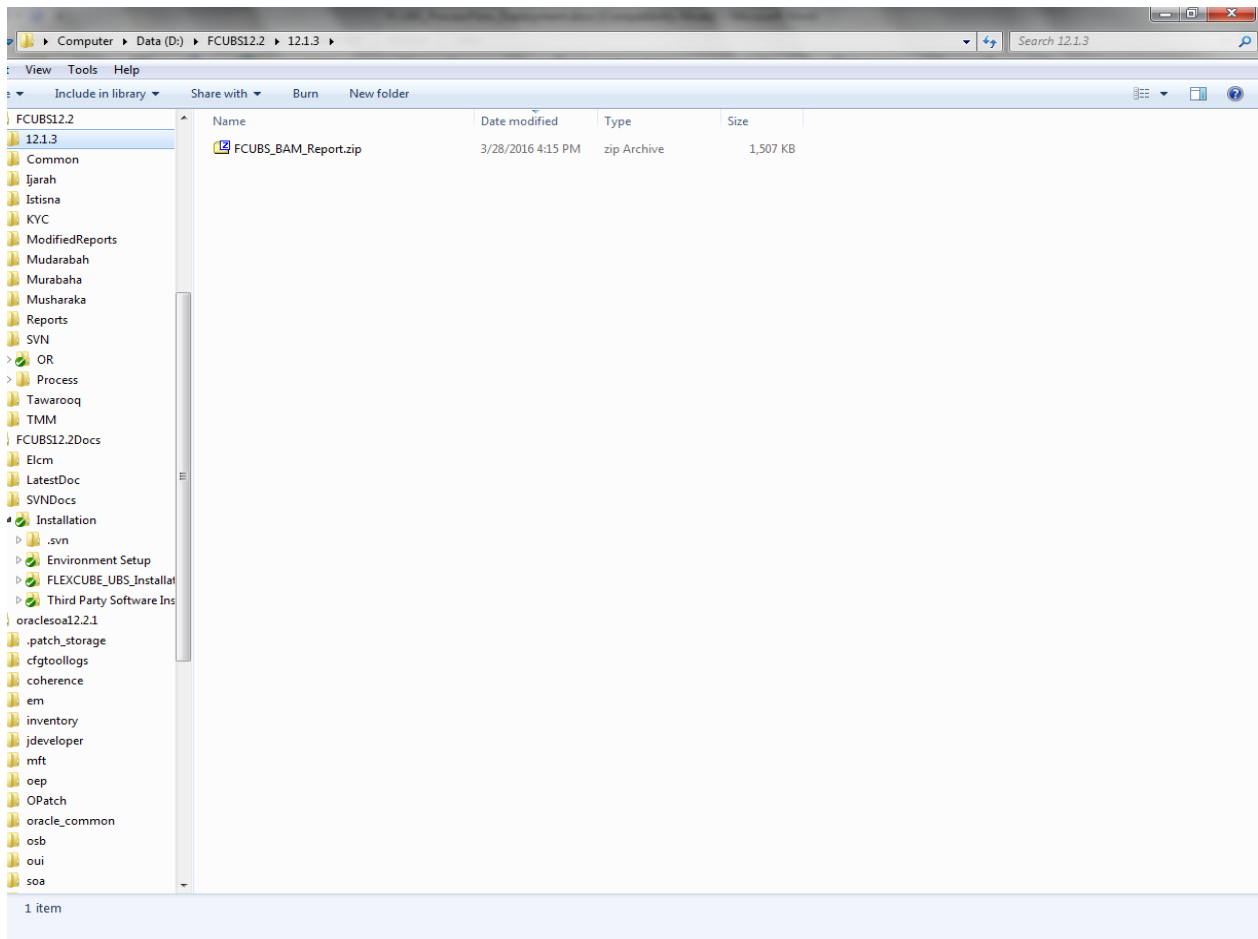
```
managed<length>500</length><nullable>true</nullable><unique>false</unique><precision>38</precision><scale>10</scale><dataType>VARCHAR</dataType>
</scale><dataType>VARCHAR</dataType><columnType>ATTRIBUTE</columnType><label>label_IDENTIFICATIONKEY</label><hidden>false</hidden><editable>true</
IPTORURI</label><hidden>false</hidden><editable>true</editable><physicalName>WORKFLOWDESCRIPTORURI</physicalName></column><column><name>TASKDE
DEFINITIONNAME</physicalName></column><column><name>APPLICATIONCONTEXT</name><id>54b1f099ed47489ead4bcf3844e2f533</id><internal>false</interna
e09dd919f7f73abe2</id><internal>false</internal><systemManaged>false</systemManaged><length>200</length><nullable>true</nullable><unique>false
</nullable><unique>false</unique><precision>38</precision><scale>10</scale><dataType>VARCHAR</dataType><columnType>ATTRIBUTE</columnType><label>
</dataType><columnType>DIMENSION</columnType><label>label_COMPOSITIONNAME</label><hidden>false</hidden><editable>true</editable><physicalName>COW
dden</editable>true</editable><physicalName>CONVERSATIONID</physicalName></column><column><name>BUEDATE</name><id>020d6730c09f40359d0d07c96c5
b</internal>false</internal><systemManaged>false</systemManaged><length>1</length><nullable>true</nullable><unique>false</unique><precision>38</
false</unique><precision>38</precision><scale>10</scale><dataType>VARCHAR</dataType><columnType>ATTRIBUTE</columnType><label>label_PARENTCOMP
10</scale><dataType>VARCHAR</dataType><columnType>ATTRIBUTE</columnType><label>label_INVOKEDCOMPONENT</label><hidden>false</hidden><editable>tr
ECOMPLETE</label><hidden>false</hidden><editable>true</editable><physicalName>PERCENTAGECOMPLETE</physicalName></column><column><name>READYBUS
imn</name><parentTaskVersion</name><id>cf30e85ac8ff47d48f2ceb1ac99b66ea</id><internal>false</internal><systemManaged>false</systemManaged><length>
<internal>false</internal><systemManaged>false</systemManaged><length>200</length><nullable>true</nullable><unique>false</unique><precision>38</pre>
```



- 7) Open the FCUBS_BAM_Report.zip →Dataobject →Update the Schema element with the FCUBS schema name for SMTB_USER_TYPE_CONVERSION_VIEW.xml, ORVW_TRACK_EXPOSURE.xml, ORVW_FACILITY_EXPOSURE.xml, GetUtilsDB.xml files.



- 8) Move the BAM Project Unit (.Zip) Local to server location.



9) Configure the BAM server location ,port username and password in BAMCommandConfig.xml. It is available in MIDDLEWARE_HOME\soa\bam\bin\BAMCommandConfig.xml

EX:

```
<?xml version='1.0' encoding='UTF-8' standalone='yes'?>
<BAMCommandConf>
  <host>f5221222</host>
  <port>704</port>
  <username>weblog1</username>
  <password>v70p15e-gf0h2obpazxwmxk6jxvqtqvcu85pv10NkpXfPzuX3C3Egmv1Z</password>
  <dbuser>scv12</dbuser>
  <dburl>jdbc:oracle:thin:@10.10.10.1:1521:xe</dburl>
</BAMCommandConf>
```

10) Set proper JAVA_HOME.

```
bash-4.1$ export JAVA_HOME=/usr/java/jdk1.7.0_60
bash-4.1$ e
```

11) Execute the Below BAM Command to import the Dash Board in to the server.

./bamcommand -cmd import -file /scratch/work_area/DEV/app/FCUBS_BAM_Report.zip -mode append

from the below path MIDDLEWARE_HOME\soa\bam\bin.

```
Enter User Name: weblogic
Enter Password:
Connecting to BAM Server.."weblogic@10.184.133.168:7404".
Connected to BAM Server successfully.
Attempting import of artifacts from file "/scratch/work_area/DEV/app/FCUBS_BAM_Report.zip".....
"FCUBS_BAM_Report" has been imported successfully from file "/scratch/work_area/DEV/app/FCUBS_BAM_Report.zip" in 63,498 milliseconds.
Import of 1 artifacts completed successfully in 64,251 milliseconds.
[fmw122@ofss220216 bin]$ ./bamcommand -cmd import -file /scratch/work_area/DEV/app/FCUBS_BAM_Report.zip -mode append

Oracle BAM Import/Export Utility [Build 1, BAM Repository Version 2020] Copyright © 2014, Oracle and/or its affiliates. All rights reserved.
Enter User Name: weblogic
Enter Password:
Connecting to BAM Server.."weblogic@10.184.133.168:7404".
Connected to BAM Server successfully.
Attempting import of artifacts from file "/scratch/work_area/DEV/app/FCUBS_BAM_Report.zip".....
"FCUBS_BAM_Report" has been imported successfully from file "/scratch/work_area/DEV/app/FCUBS_BAM_Report.zip" in 75,498 milliseconds.
Import of 1 artifacts completed successfully in 75,815 milliseconds.
```



FCUBS Process Flow Deployment
[May] [2019]
Version 14.3.0.0.0

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