FCIS Process Flow Deployment Prerequisites for Oracle FLEXCUBE Installer

Oracle FLEXCUBE Investor Servicing

Release 12.3.0.0.0

[September] [2016]

ORACLE

FINANCIAL SERVICES

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1. Introduction

1.1 Background

This document provides detailed description on deploying FCIS 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 FCIS 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

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. For instance, Oracle SOA suite – 12.1.3 + Oracle JDeveloper 12.1.3. 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

3. Creating Application Server Connection

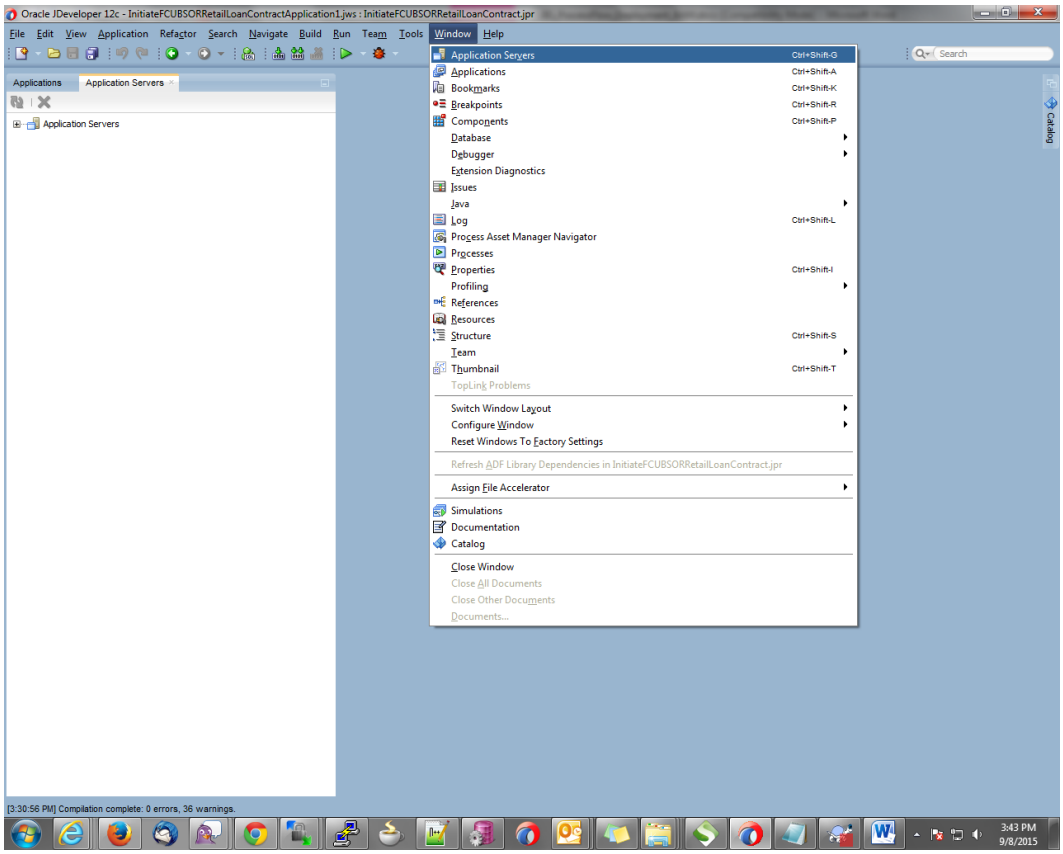
3.1 Introduction

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

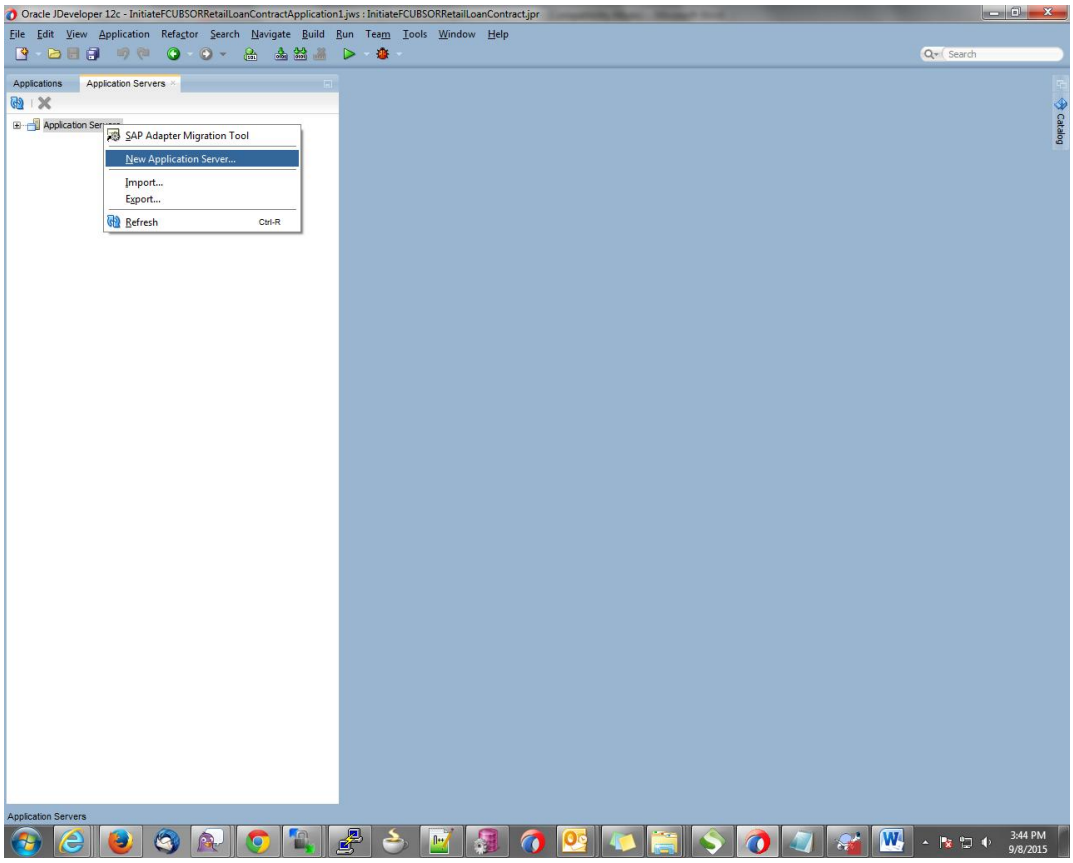
3.2 Application Sever Connection

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

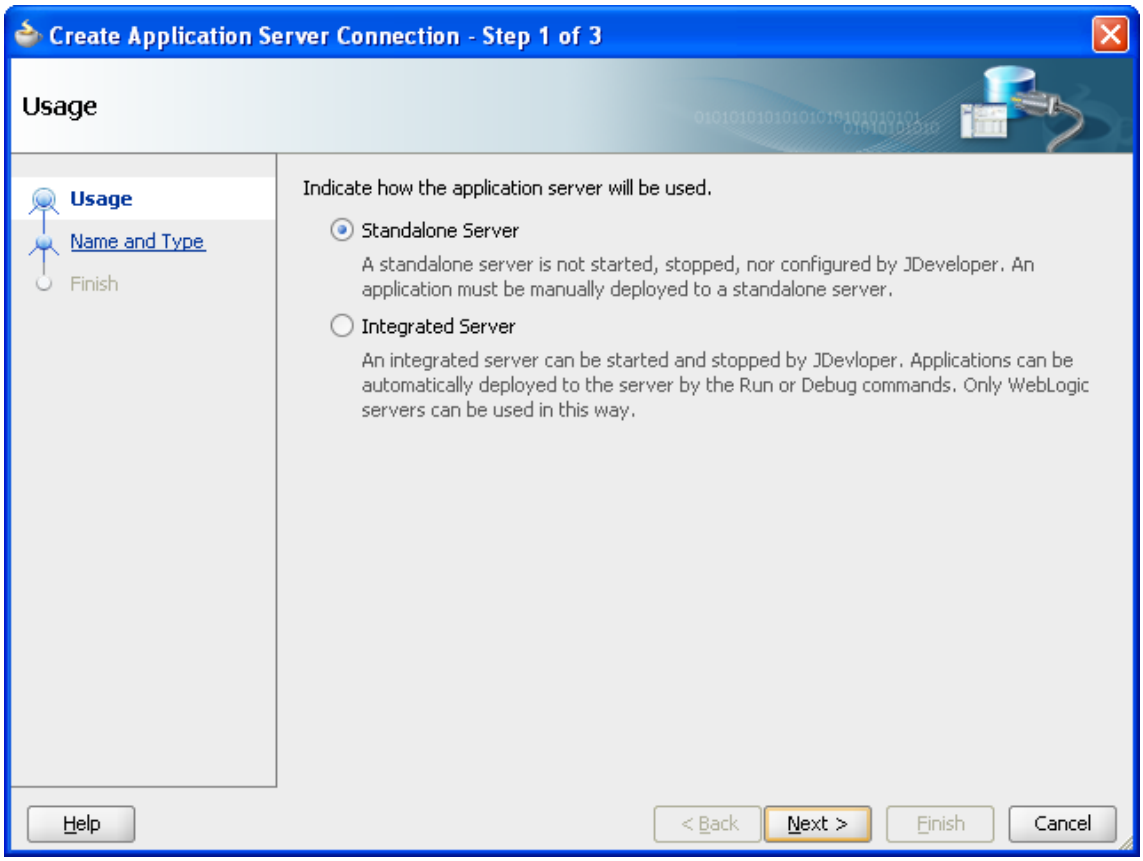
- After JDeveloper is launched
- Click on → Windows → Application Servers Navigator



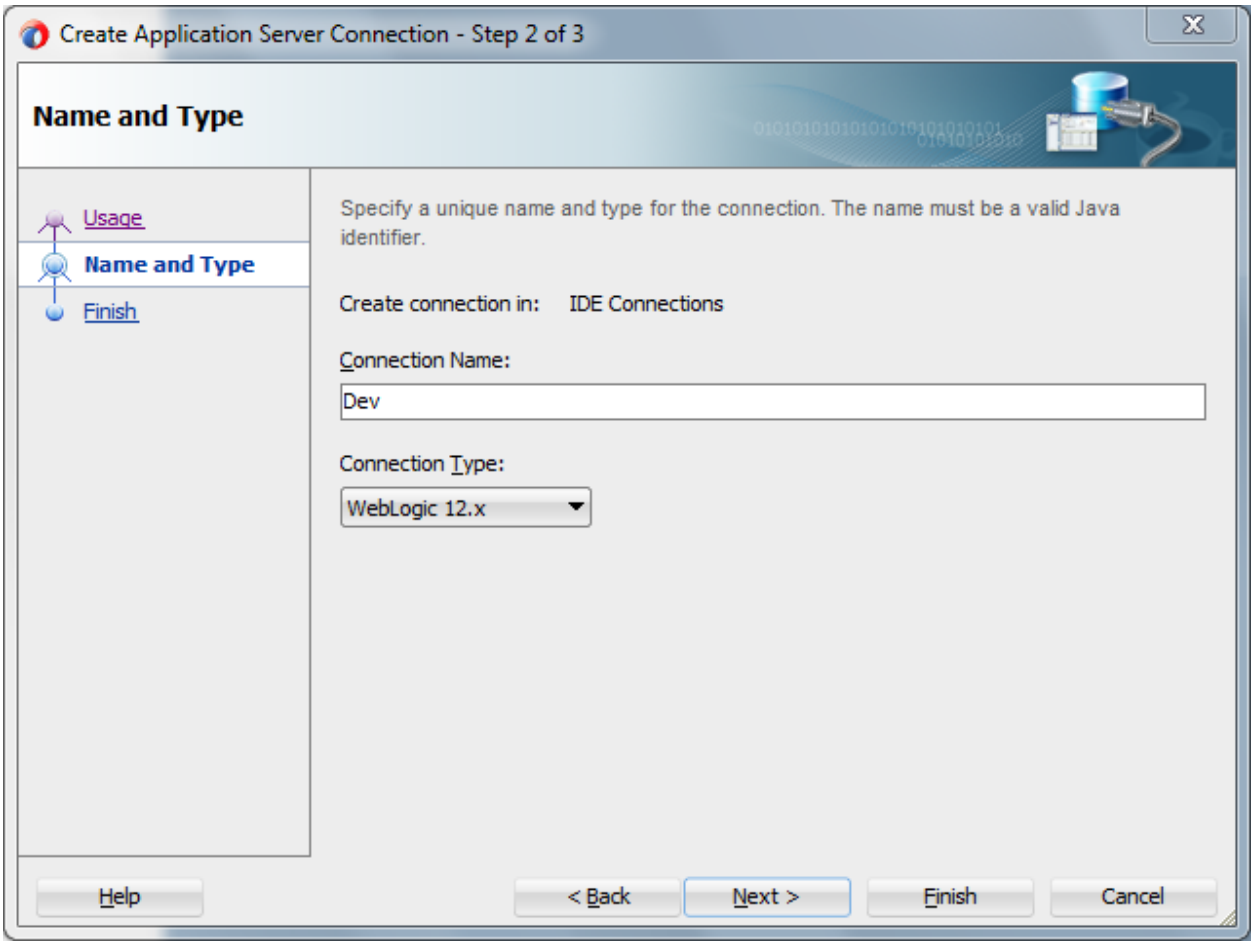
- To create a new WebLogic server connection
- Right click 'Application Servers'
- Click on → New Application Server



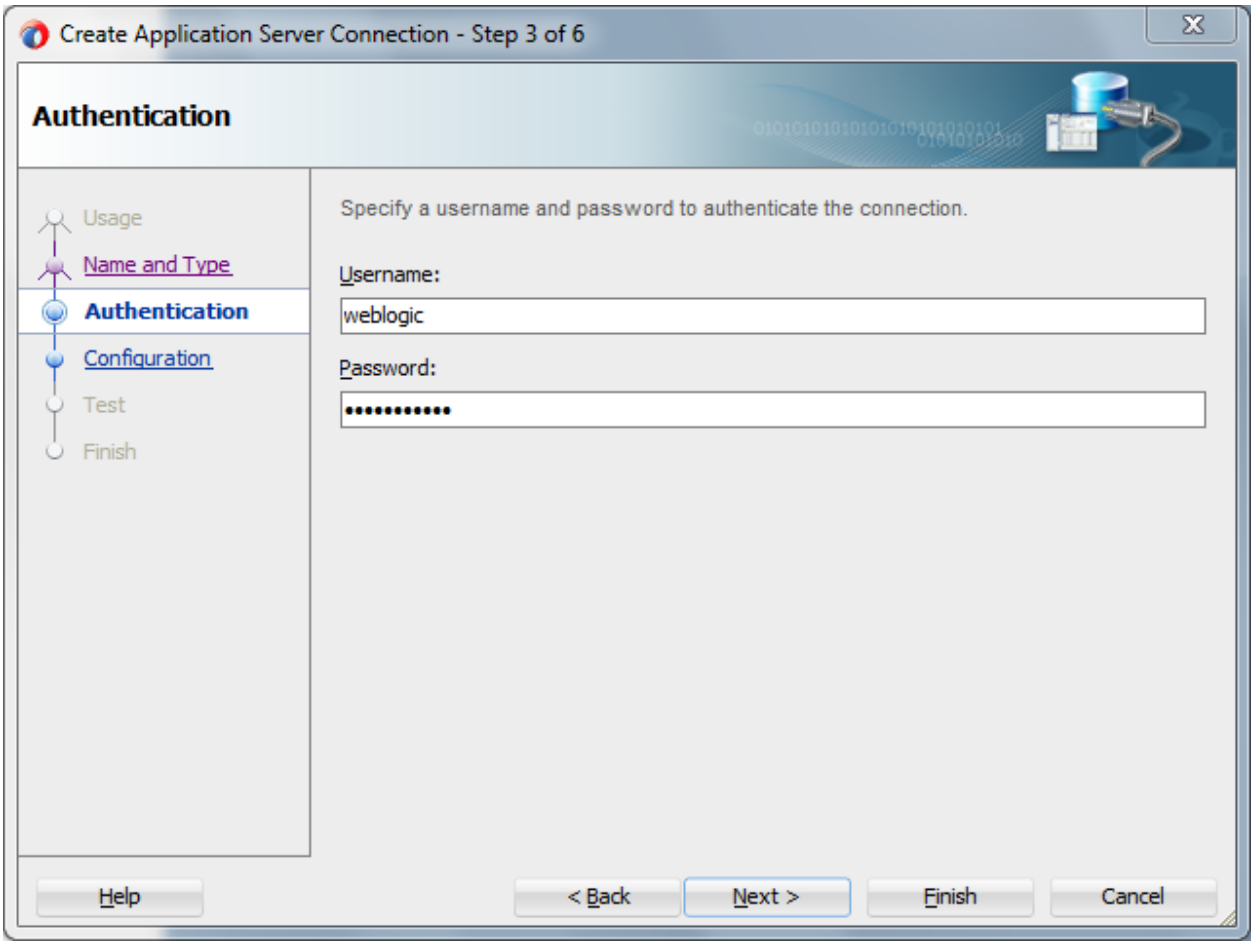
- The “Create Application Server Connection” wizard is launched as shown below.
- Select the Radio button “Standalone Server”
- Click “Next” to proceed with the configuration



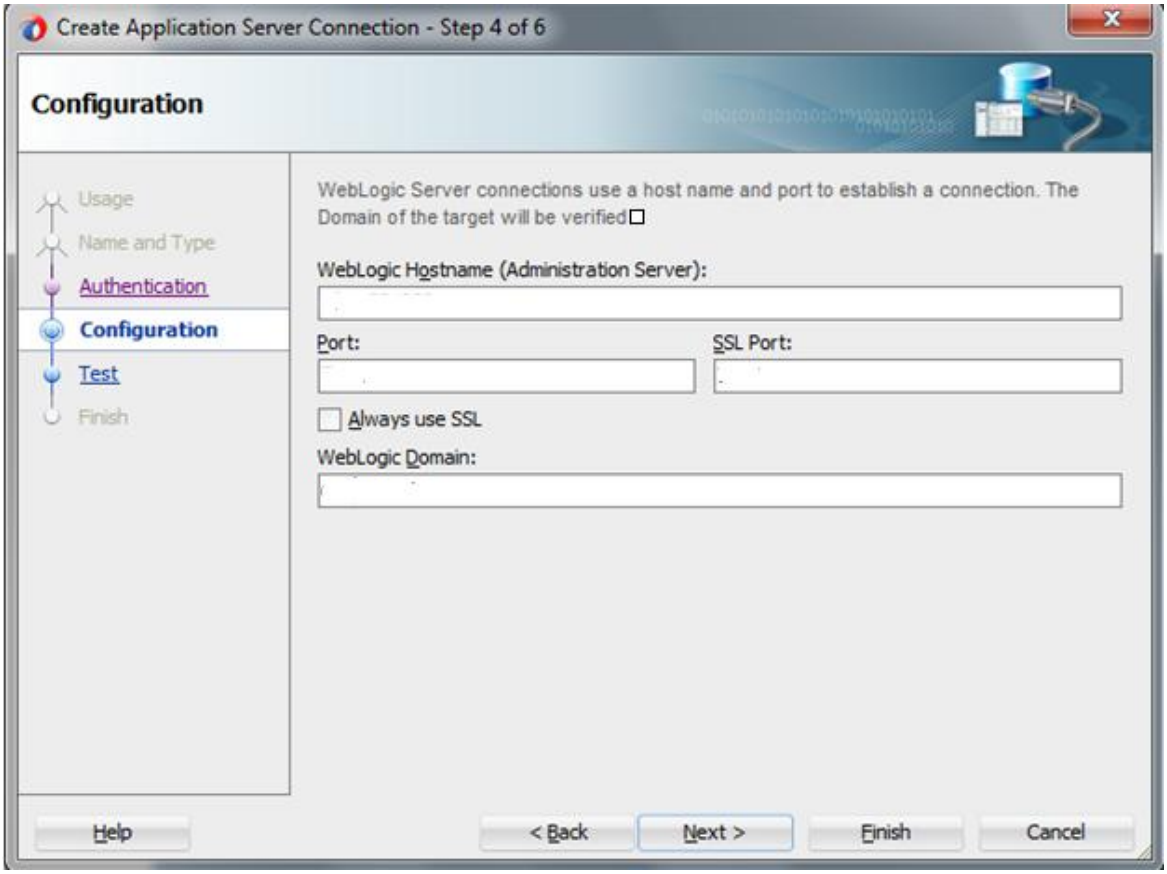
- Provide a ”Connection Name” to identify the server connection.
- Provide the ”Connection Type ” to identify the server type.
- Select “WebLogic server <version>”
- Click “Next” to proceed with the configuration



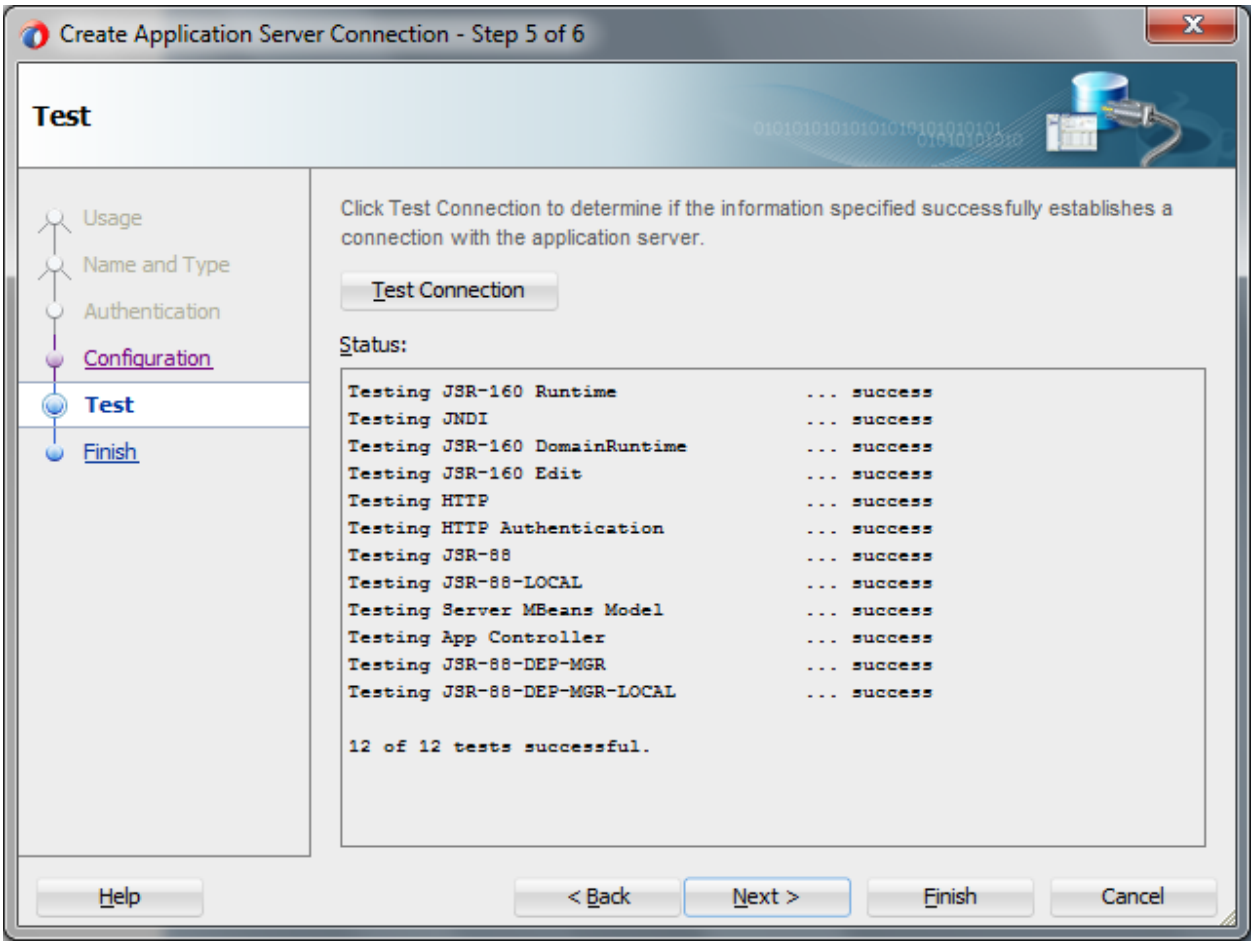
- Provide username / password to connect to the server
- The same username / password that was used while configuring the server is used.
- Click “Next” to proceed with the configuration



- 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


Create Application Server Connection - Step 5 of 6
Test
Usage
Name and Type
Authentication
Configuration
Test
Finish
Click Test Connection to determine if the information specified successfully establishes a connection with the application server.
Test Connection
Status:
Testing JSR-160 Runtime ... success
Testing JNDI ... success
Testing JSR-160 DomainRuntime ... success
Testing JSR-160 Edit ... success
Testing HTTP ... success
Testing HTTP Authentication ... success
Testing JSR-88 ... success
Testing JSR-88-LOCAL ... success
Testing Server MBeans Model ... success
Testing App Controller ... success
Testing JSR-88-DEP-MGR ... success
Testing JSR-88-DEP-MGR-LOCAL ... success
12 of 12 tests successful.
Help
< Back
Next >
Finish
Cancel

4. Loading FCIS Process flows in Oracle JDeveloper

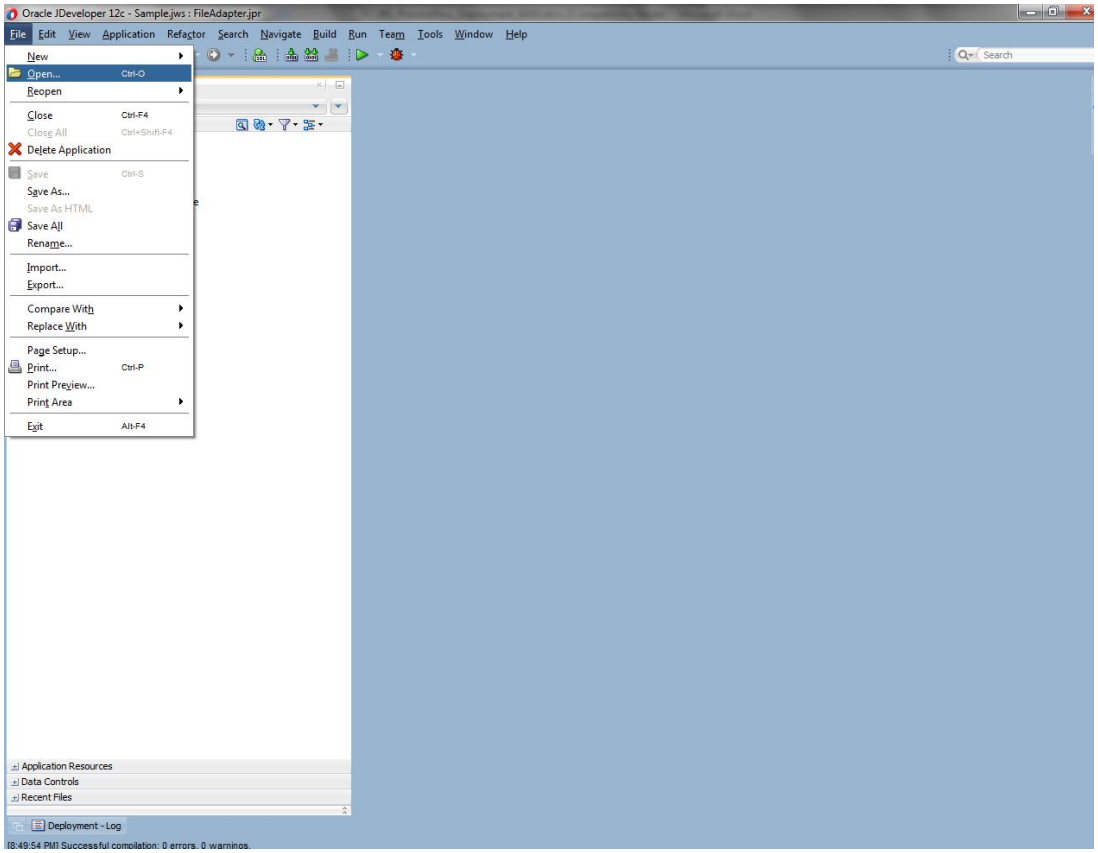
4.1 Introduction

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

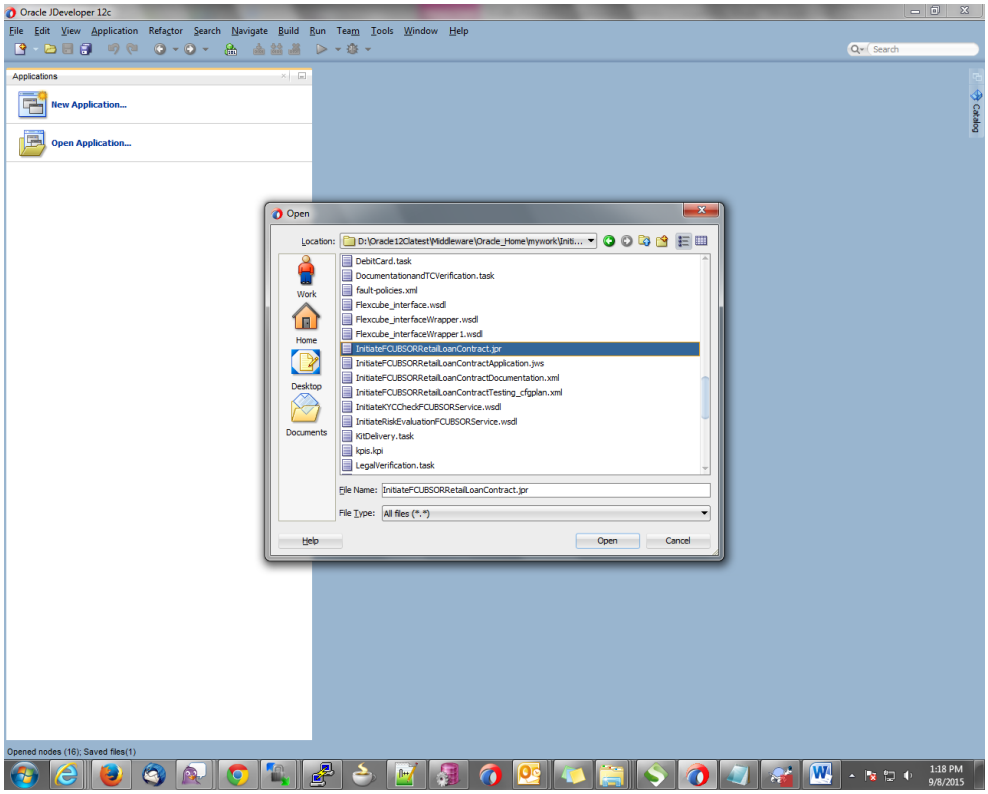
4.2 Loading the Process

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

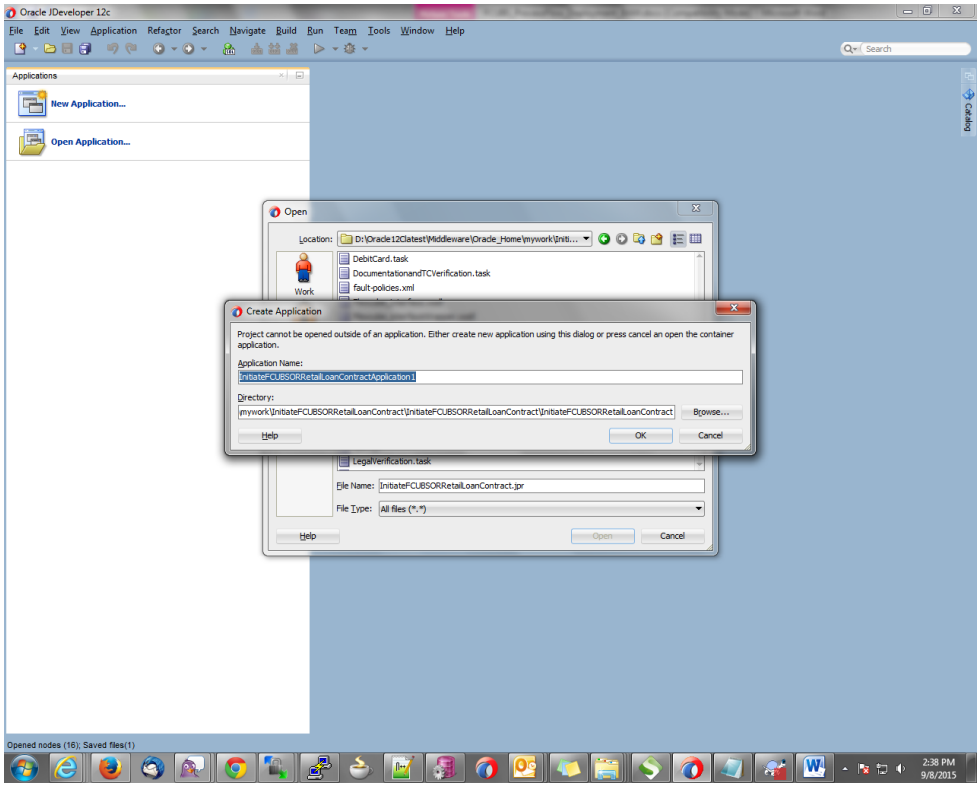
- Click on → File → Open



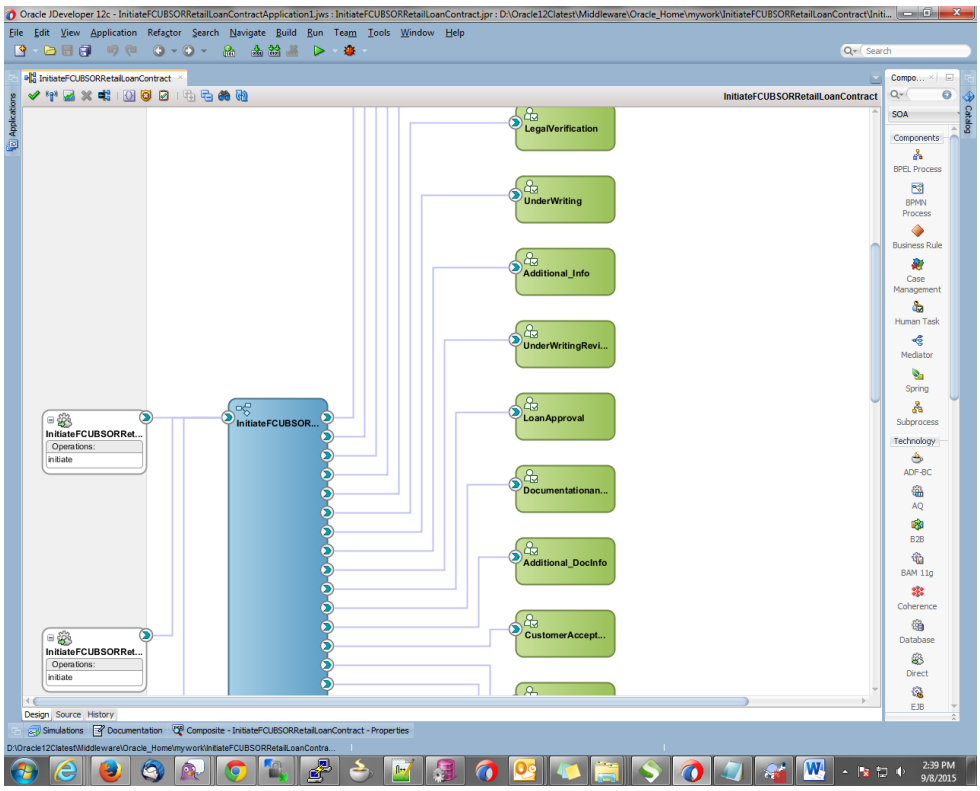
- Navigate to the folder where process flow is deployed
- Locate and select the ".jpr" file under the folder <process_name>
- Click 'Open' to load the process flow in JDeveloper



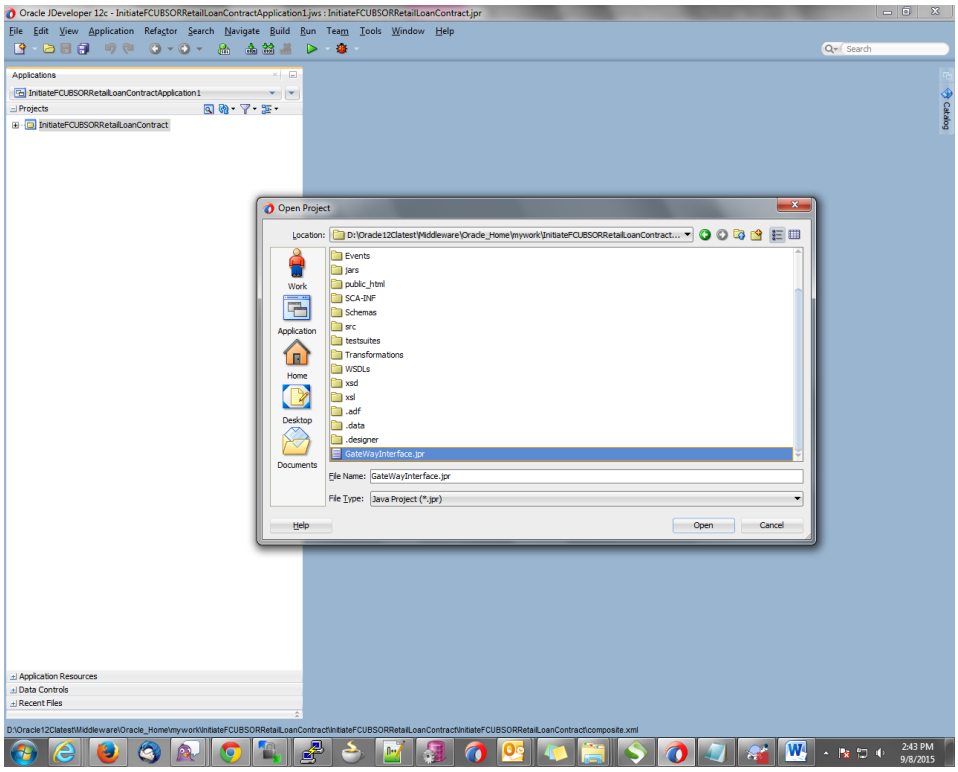
- If this is the first Process flow that is being loaded JDeveloper will prompt for an Application Name and Location where the application file will be stored
- Provide an application name and folder path for the same.
- Click in “Ok” to proceed with loading of the process flow.



- The process flow is loaded into JDeveloper and is displayed as given below
- Clicking on the “composite.xml” under “SOA Content” in Design mode will display the process flow as illustrated in the screen shot.



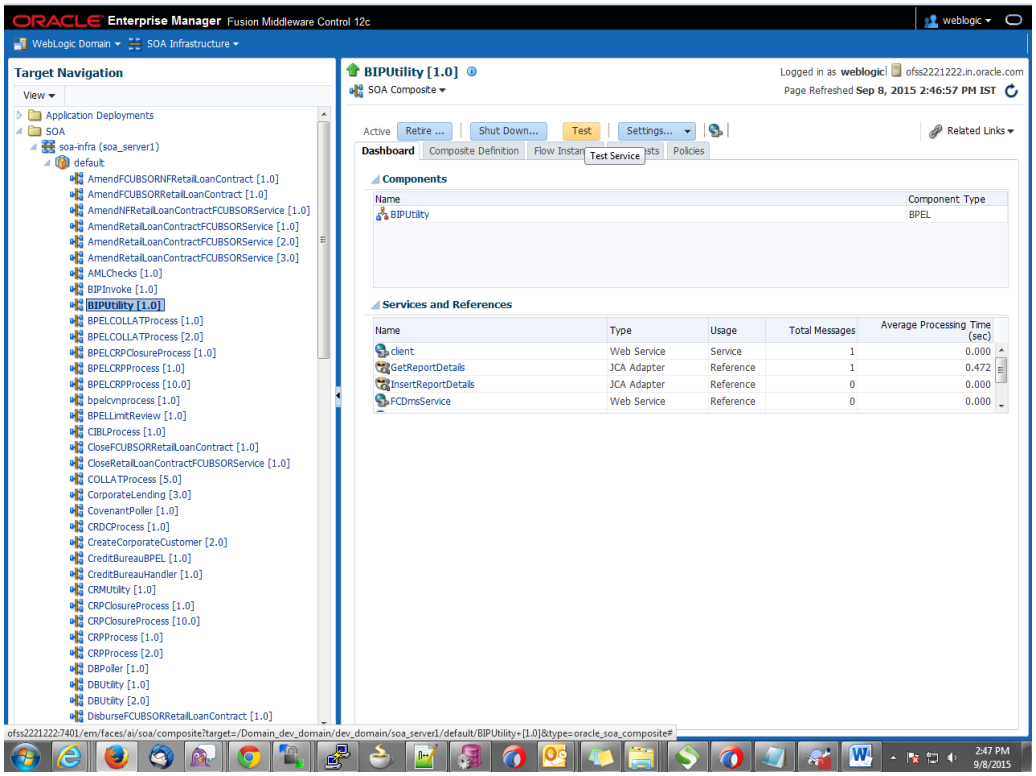
- All the required process flow can be loaded in the similar fashion from File Menu into the same application.



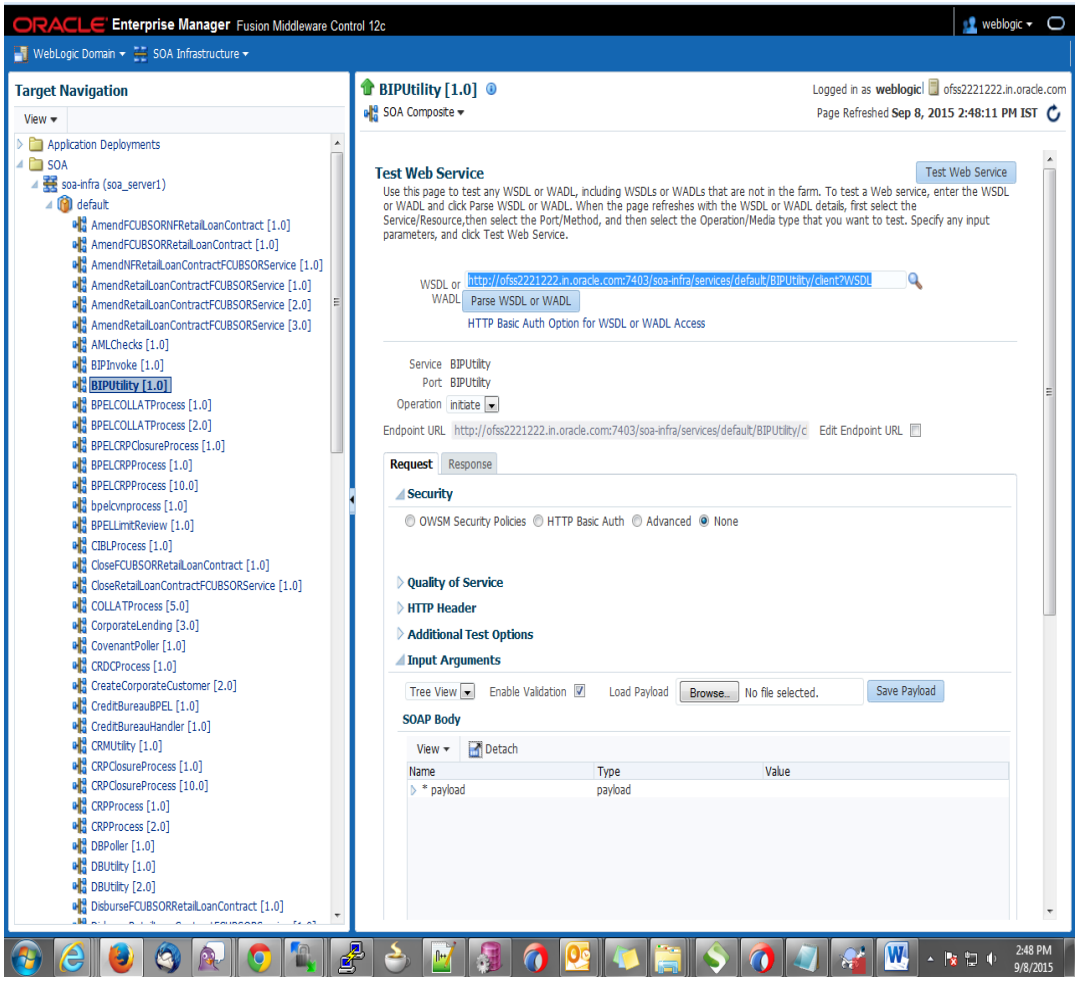
- After all the necessary process flows are loaded, all process flows will be displayed in the “Application Navigator” menu as illustrated in the screen shot.

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

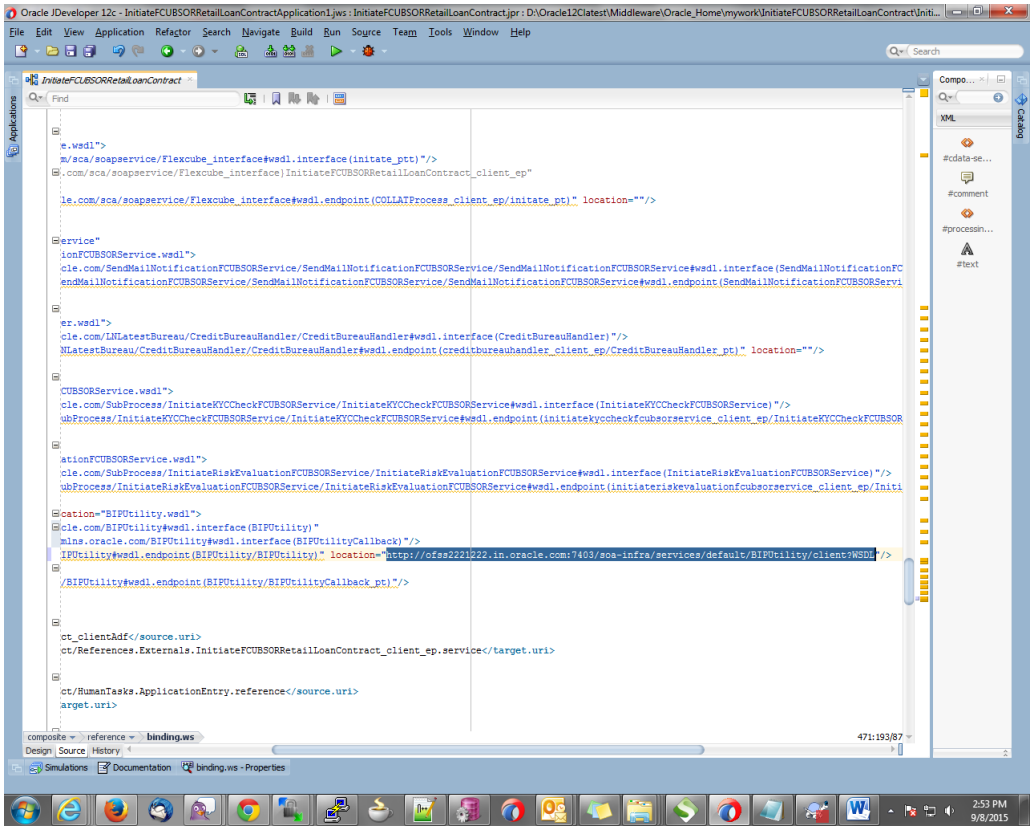
- In the em console, click the process for which runtime wsdl is required and click on Test.



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



- Now we replace this runtime wsdl in the composite.xml of the process as shown in the screen shot for that particular subprocess.


Oracle JDeveloper 12c - InitiateFCUBSORRetailLoanContractApplication1.jws : InitiateFCUBSORRetailLoanContract.jpr : D:\Oracle12Clatest\Middleware\Oracle_Home\mywork\InitiateFCUBSORRetailLoanContract\Initi...
File Edit View Application Refactor Search Navigate Build Run Source Team Tools Window Help
InitiateFCUBSORRetailLoanContract
e.wsdl">
m/sca/soapservice/Flexcube_interface#wsdl.interface(initate_ptt)"/>
.com/sca/soapservice/Flexcube_interface)InitiateFCUBSORRetailLoanContract_client_ep"
le.com/sca/soapservice/Flexcube_interface#wsdl.endpoint(COLLATProcess_client_ep/initate_pt)" location=""/>
ervice"
ionFCUBSORService.wsdl">
cle.com/SendMailNotificationFCUBSORService/SendMailNotificationFCUBSORService/SendMailNotificationFCUBSORService#wsdl.interface(SendMailNotificationFC
endMailNotificationFCUBSORService/SendMailNotificationFCUBSORService/SendMailNotificationFCUBSORService#wsdl.endpoint(SendMailNotificationFCUBSORServi
er.wsdl">
cle.com/LNLatestBureau/CreditBureauHandler/CreditBureauHandler#wsdl.interface(CreditBureauHandler)"/>
NLatestBureau/CreditBureauHandler/CreditBureauHandler#wsdl.endpoint(creditbureauhandler_client_ep/CreditBureauHandler_pt)" location=""/>
CUBSORService.wsdl">
cle.com/SubProcess/InitiateKYCCheckFCUBSORService/InitiateKYCCheckFCUBSORService#wsdl.interface(InitiateKYCCheckFCUBSORService)"/>
ubProcess/InitiateKYCCheckFCUBSORService/InitiateKYCCheckFCUBSORService#wsdl.endpoint(initiatekyccheckfcubsorservice_client_ep/InitiateKYCCheckFCUBSOR
ationFCUBSORService.wsdl">
cle.com/SubProcess/InitiateRiskEvaluationFCUBSORService/InitiateRiskEvaluationFCUBSORService#wsdl.interface(InitiateRiskEvaluationFCUBSORService)"/>
ubProcess/InitiateRiskEvaluationFCUBSORService/InitiateRiskEvaluationFCUBSORService#wsdl.endpoint(initiateriskevaluationfcubsorservice_client_ep/Initi
cation="BIPUtility.wsdl">
cle.com/BIPUtility#wsdl.interface(BIPUtility)"
mlns.oracle.com/BIPUtility#wsdl.interface(BIPUtilityCallback)"/>
IPUtility#wsdl.endpoint(BIPUtility/BIPUtility)" location="http://ofss2221222.in.oracle.com:7403/soa-infra/services/default/BIPUtility/client?WSDL"/>
/BIPUtility#wsdl.endpoint(BIPUtility/BIPUtilityCallback_pt)"/>
ct_clientAdf</source.uri>
ct/References.Externals.InitiateFCUBSORRetailLoanContract_client_ep.service</target.uri>
ct/HumanTasks.ApplicationEntry.reference</source.uri>
arget.uri>
composite reference binding.ws
471:193/87
Design Source History
Simulations Documentation binding.ws - Properties
Compo...
XML
#cdata-se...
#comment
#processin...
#text
2:53 PM
9/8/2015

5. Deployment Profile and Configuration Plan

5.1 Introduction

A deployment profile is automatically created for all FCIS 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.

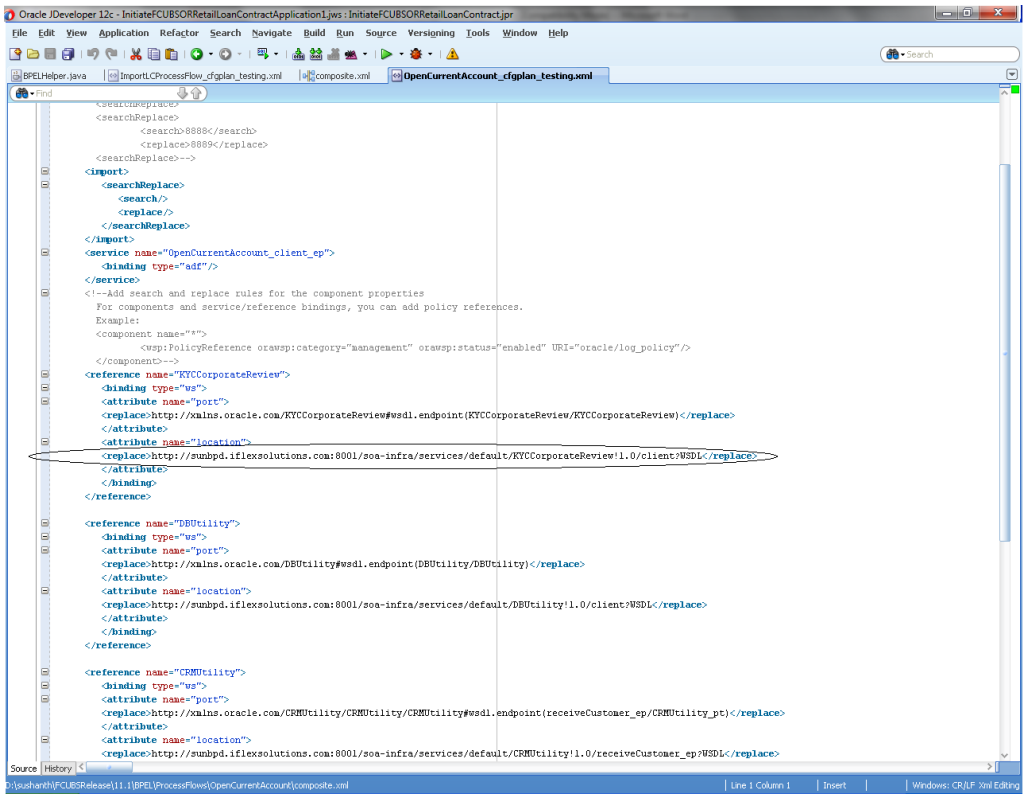
5.2 Updating the configuration plan

All the FCIS 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 there are no replacement values that needs to be replaced in the project and that project can be deployed without any config plans.

<processflow_name>_cfgplan_dev.xml

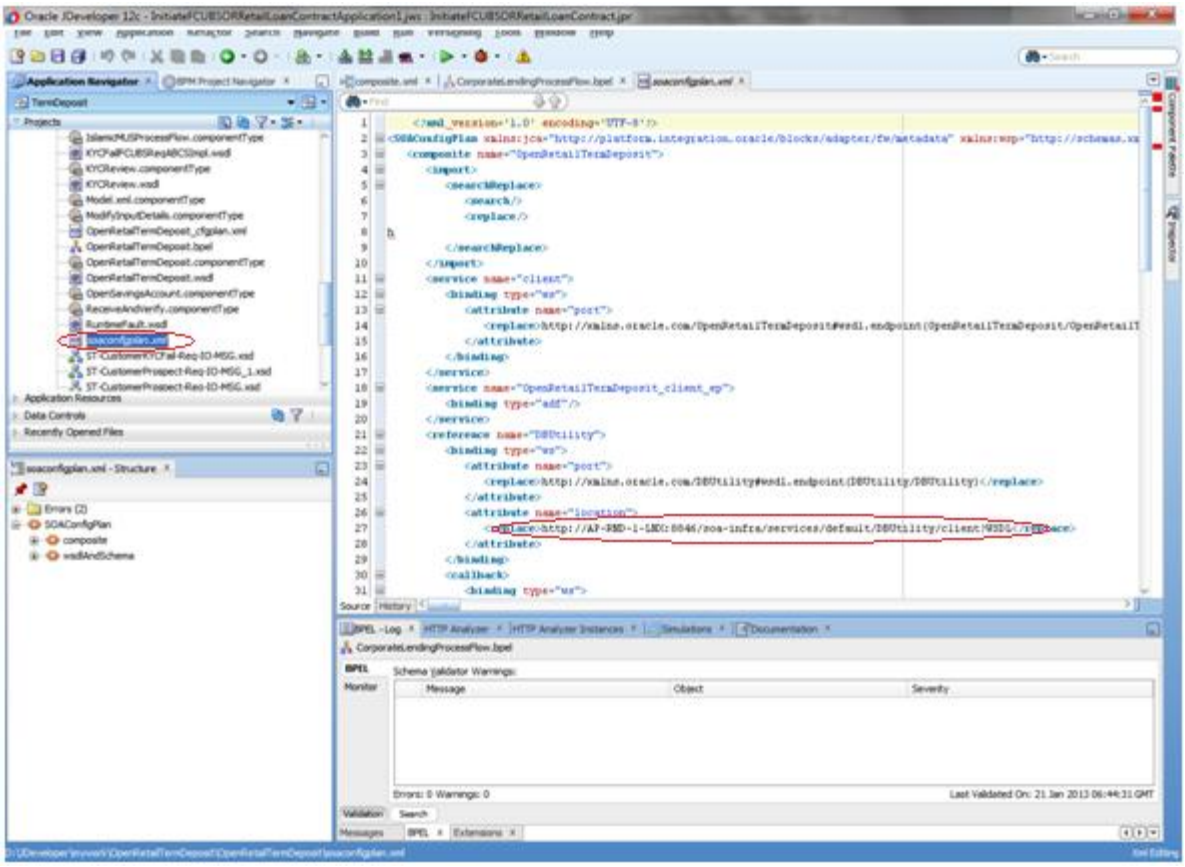
<processflow_name>_cfgplan_testing.xml

<processflow_name>_cfgplan_production.xml



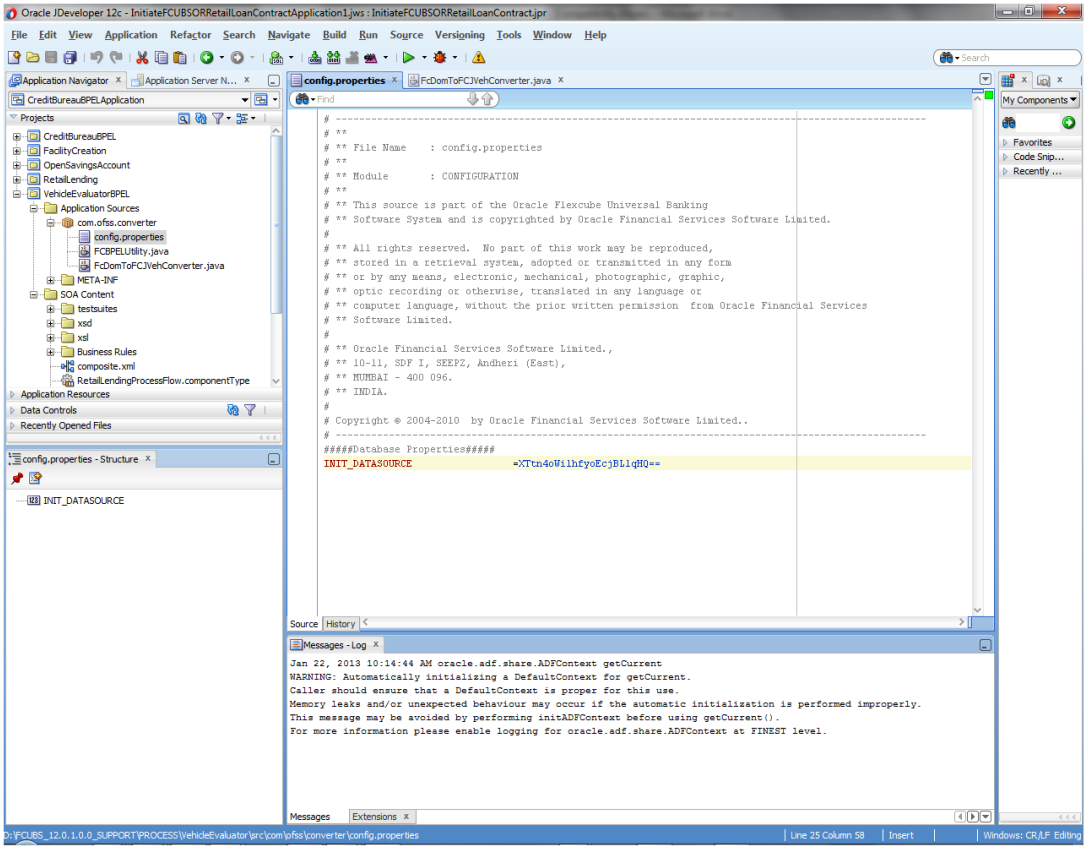
In the configuration plan we need to give the latest runtime wsdl location of the subprocesses if present. The runtime wsdl location is obtained as mentioned earlier from the em console.

⚠	**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 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.


Oracle JDeveloper 12c - InitiateFCUBSORRetailLoanContractApplication1.jws : InitiateFCUBSORRetailLoanContract.jpr
File Edit View Application Refactor Search Navigate Build Run Source Versioning Tools Window Help
Application Navigator
Application Server N...
CreditBureauBPELApplication
Projects
CreditBureauBPEL
FacilityCreation
OpenSavingsAccount
RetailLending
VehicleEvaluatorBPEL
Application Sources
com.ofss.converter
config.properties
FCBPELUtility.java
FcDomToFCJVehConverter.java
META-INF
SOA Content
testsuites
xsd
xsl
Business Rules
composite.xml
RetailLendingProcessFlow.componentType
Application Resources
Data Controls
Recently Opened Files
config.properties - Structure
INIT_DATASOURCE
config.properties
FcDomToFCJVehConverter.java
Find

**
** File Name : config.properties
**
** Module : CONFIGURATION
**
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** INDIA.
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#####Database Properties#####
INIT_DATASOURCE =XTtn4oWilhfyoEcjBL1qHQ==
Source
History
Messages - Log
Jan 22, 2013 10:14:44 AM oracle.adf.share.ADFContext getCurrent
WARNING: Automatically initializing a DefaultContext for getCurrent.
Caller should ensure that a DefaultContext is proper for this use.
Memory leaks and/or unexpected behaviour may occur if the automatic initialization is performed improperly.
This message may be avoided by performing initADFContext before using getCurrent().
For more information please enable logging for oracle.adf.share.ADFContext at FINEST level.
Messages
Extensions
My Components
Favorites
Code Snip...
Recently ...
D:\FCUBS_12.0.1.0.0_SUPPORT\PROCESS\VehicleEvaluator\src\com\ofss\converter\config.properties
Line 25 Column 58
Insert
Windows: CR/LF
Editing

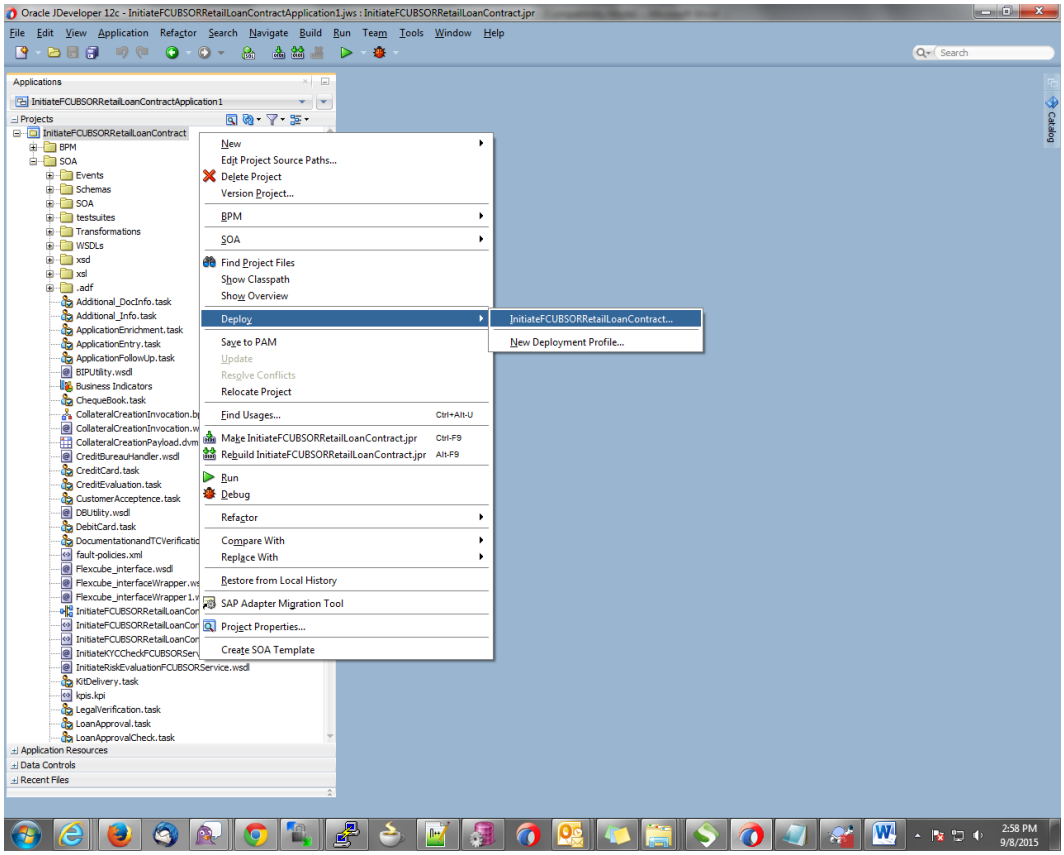
6. Deploying a Single Composite application using JDeveloper

6.1 Introduction

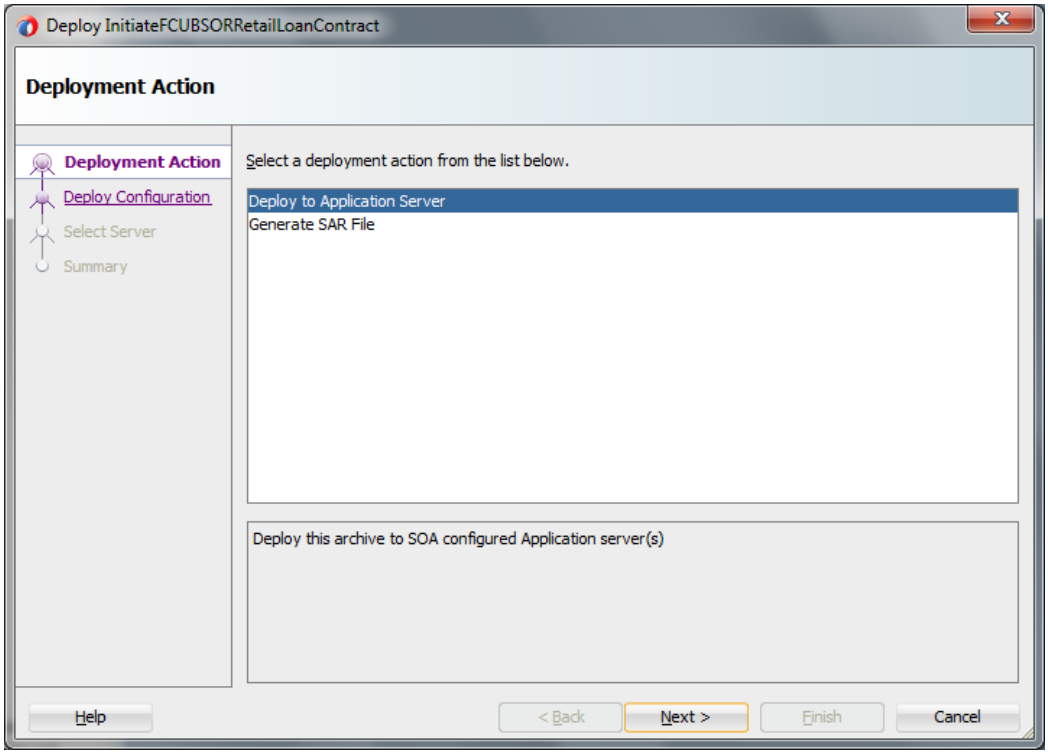
This section describes how to deploy a single SOA composite application with Oracle JDeveloper after completing updating of config plans with respective target environment replacement values.

6.2 Deploying the Application

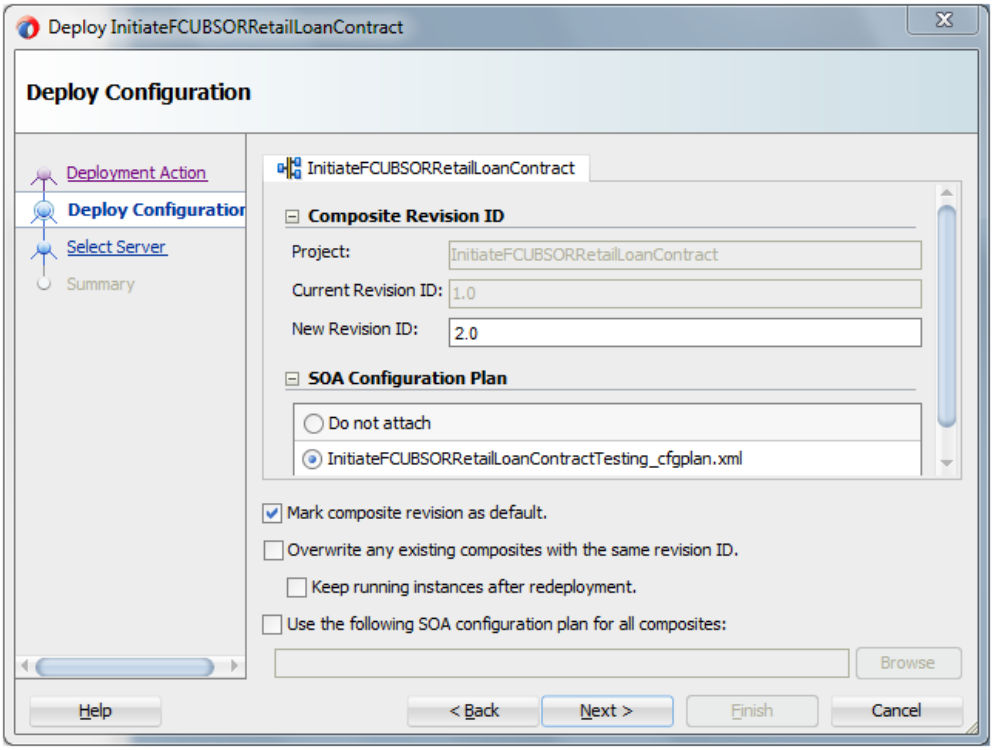
- Right click on the Application that needs to be deployed.
- Select ‘Deploy’ and then click on the default deployment profile which is the same as the application name.
- This will result in the deployment wizard screen being launched.



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

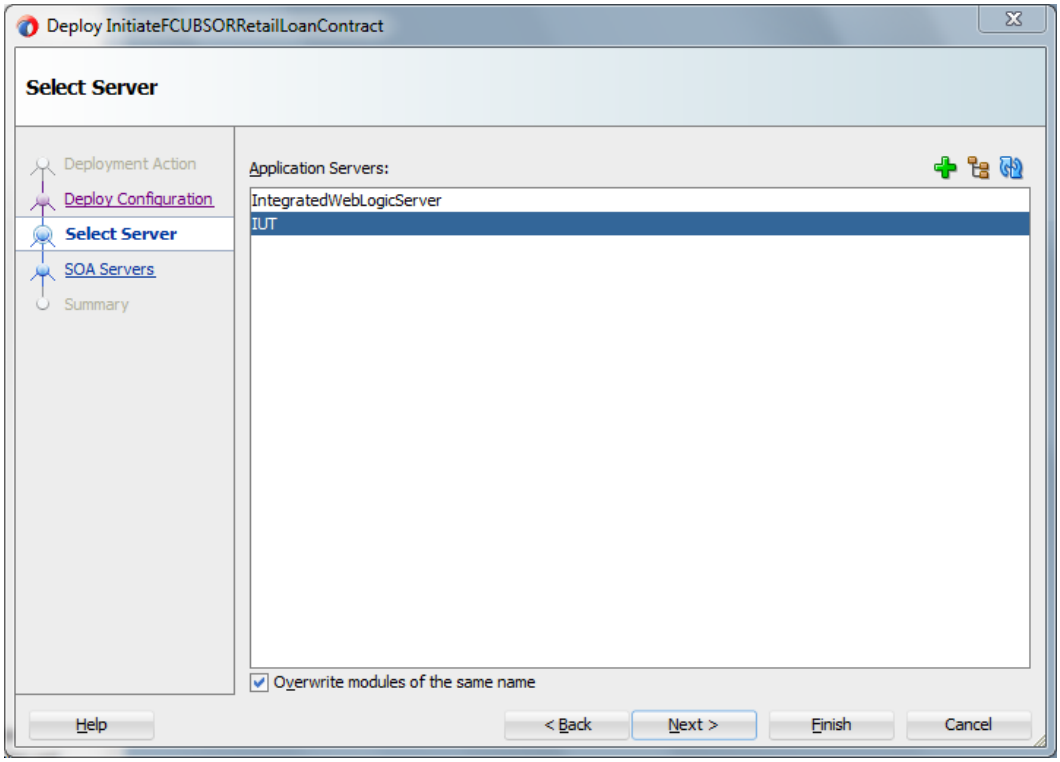


- Deployment configuration is done as illustrated in the below screen shot
- Select a Revision with which the deployment should happen
- Select a ” Configuration Plan” that was updated as given in Section 5
- Provide a new revision ID. It should be always higher than the earlier revision of the process 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.

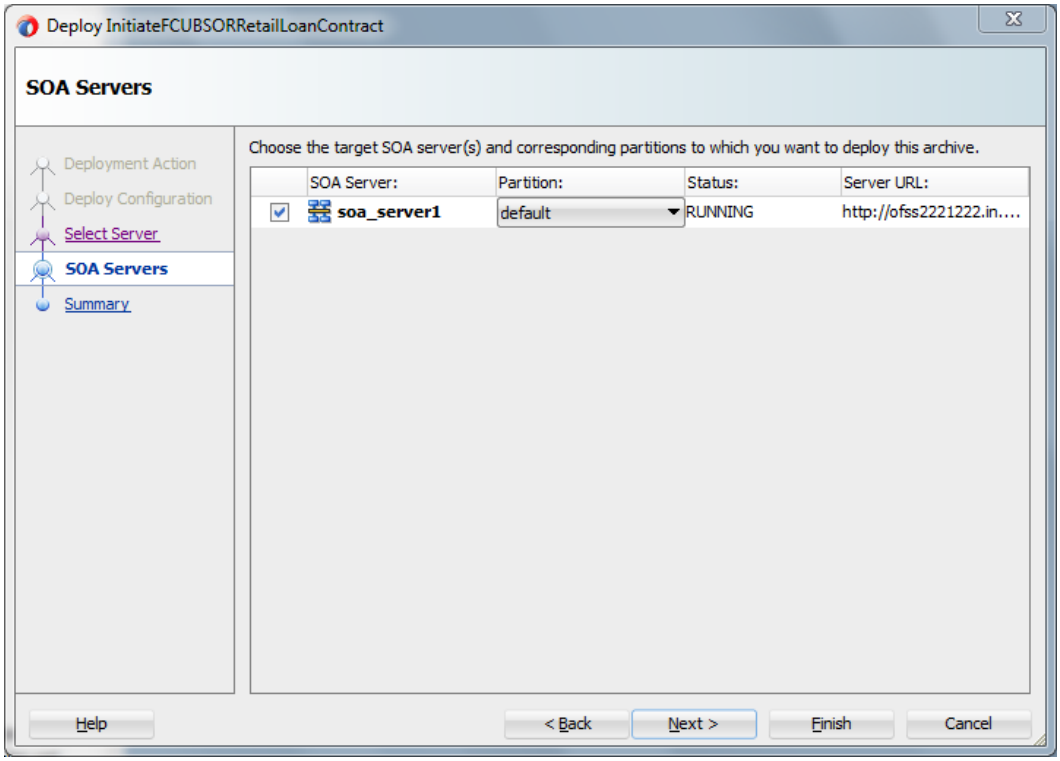


- Select the Application server 'Server Connection' configured that was done in Section 3 to which the deployment needs to be done
- Click 'Next' to proceed with the deployment.

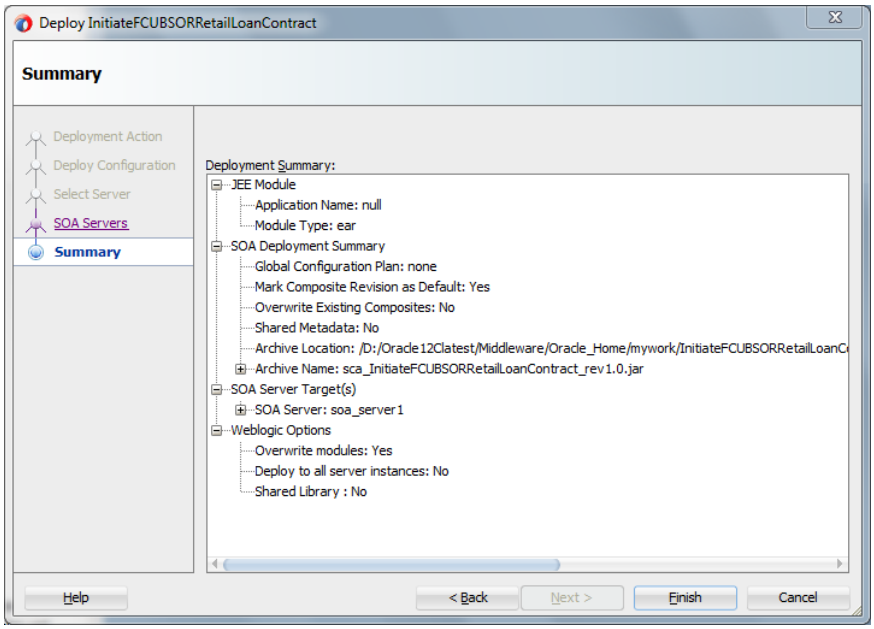
In case "Overwrite any existing composites with the same revision ID" checkbox is checked during the deployment, the active tasks which are currently running on the current revision of the process flow will be moved to "Stale" task status. The tasks which are in "Stale" status will not be displayed in 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.



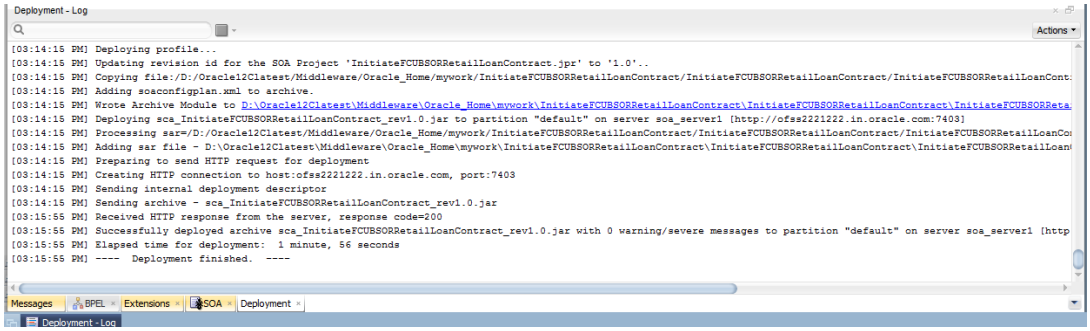
- Select the Application ‘server’ to which the deployment needs to be done.



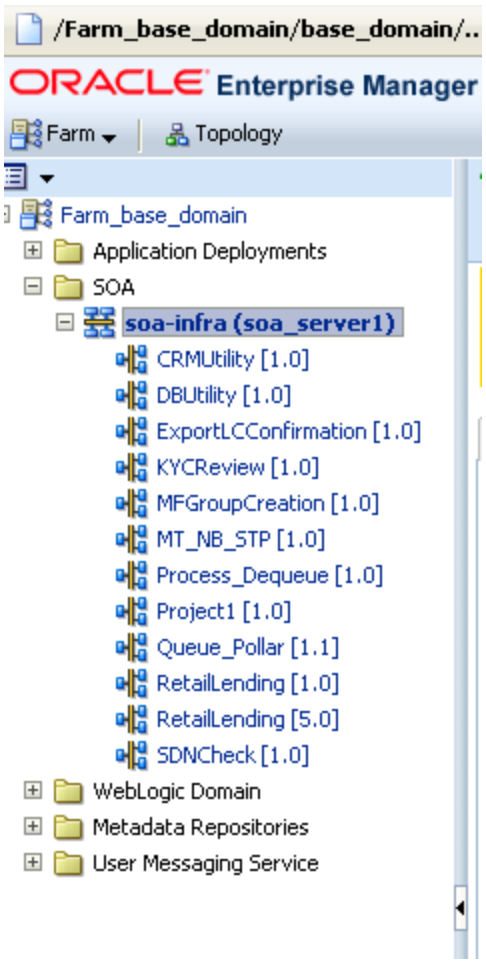
- View the summary of the deployment details and click ‘Finish’ to complete the deployment.



- 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


/Farm_base_domain/base_domain/..
ORACLE Enterprise Manager
Farm
Topology
Farm_base_domain
Application Deployments
SOA
soa-infra (soa_server1)
CRMUtility [1.0]
DBUtility [1.0]
ExportLCConfirmation [1.0]
KYCReview [1.0]
MFGroupCreation [1.0]
MT_NB_STP [1.0]
Process_Dequeue [1.0]
Project1 [1.0]
Queue_Pollar [1.1]
RetailLending [1.0]
RetailLending [5.0]
SDNCheck [1.0]
WebLogic Domain
Metadata Repositories
User Messaging Service

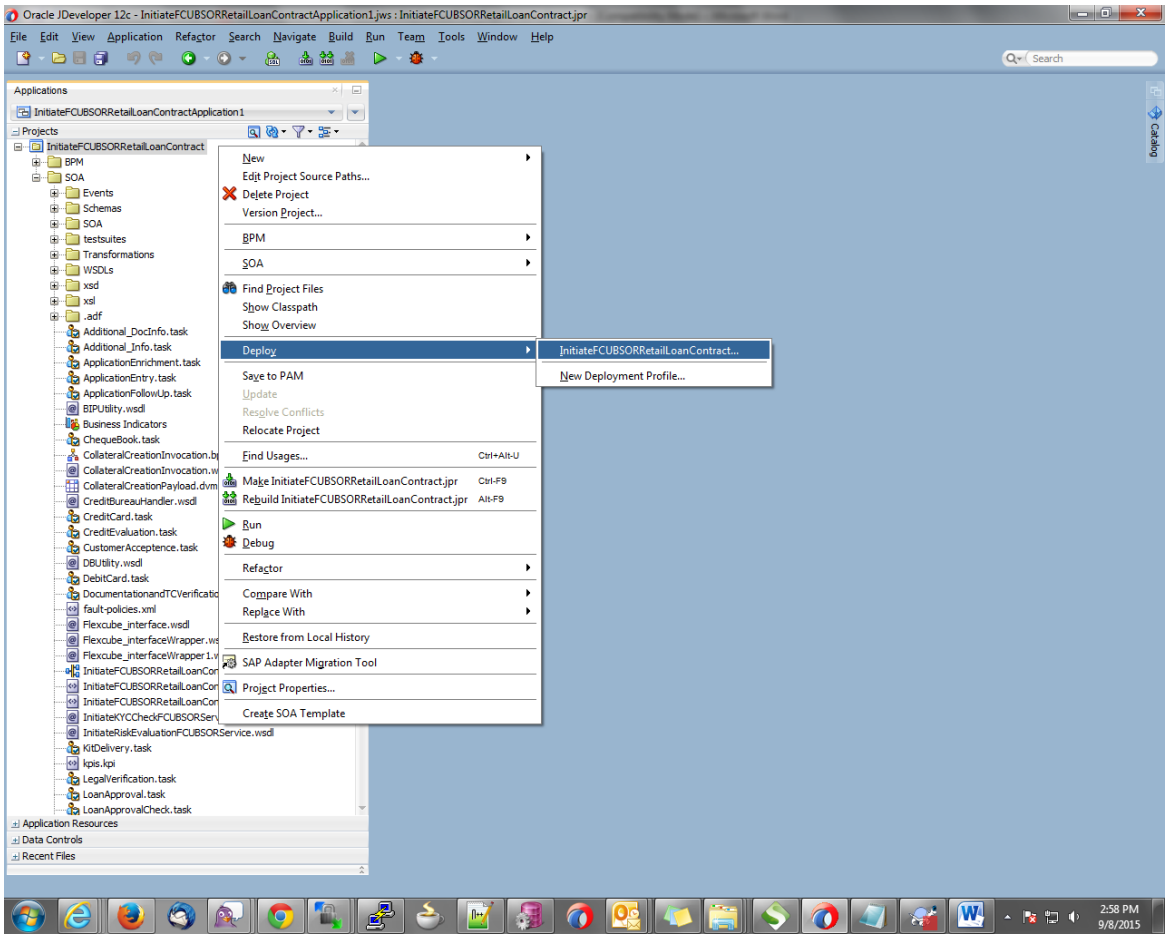
7. Deploying a Single Composite application via Enterprise manager console

7.1 Introduction

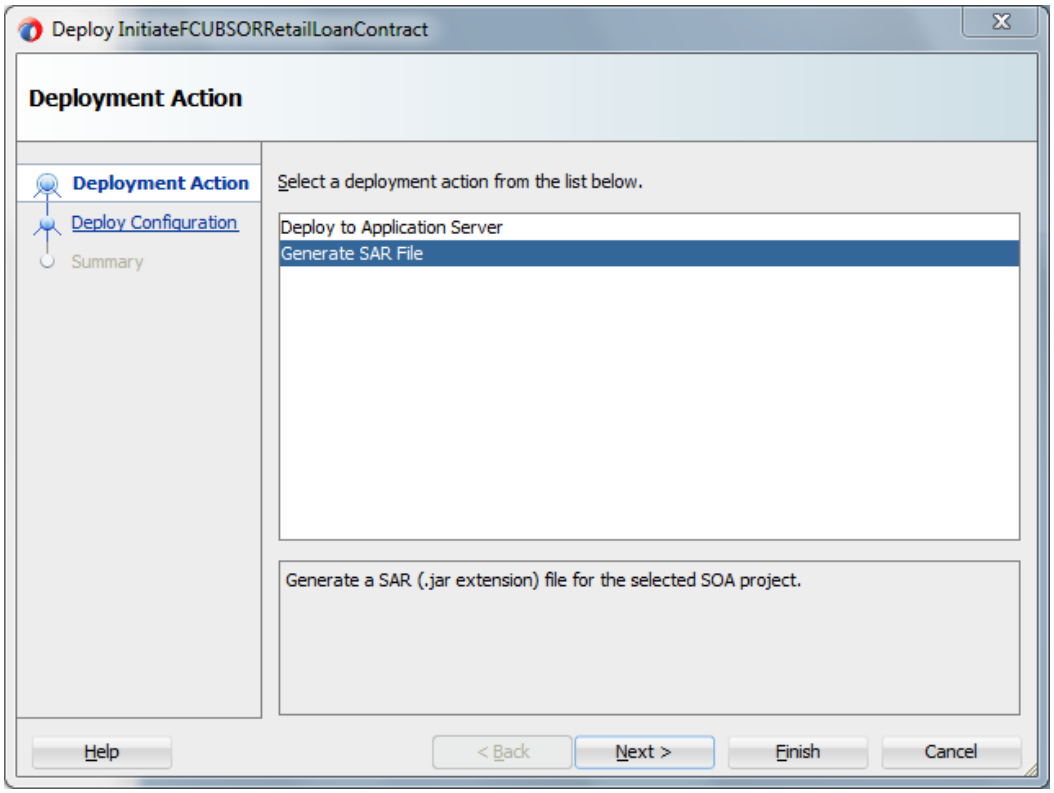
This section describes how to build a SAR file for a single SOA composite application with Oracle JDeveloper and deploy the same via enterprise manager console.

7.2 Deploying the Application

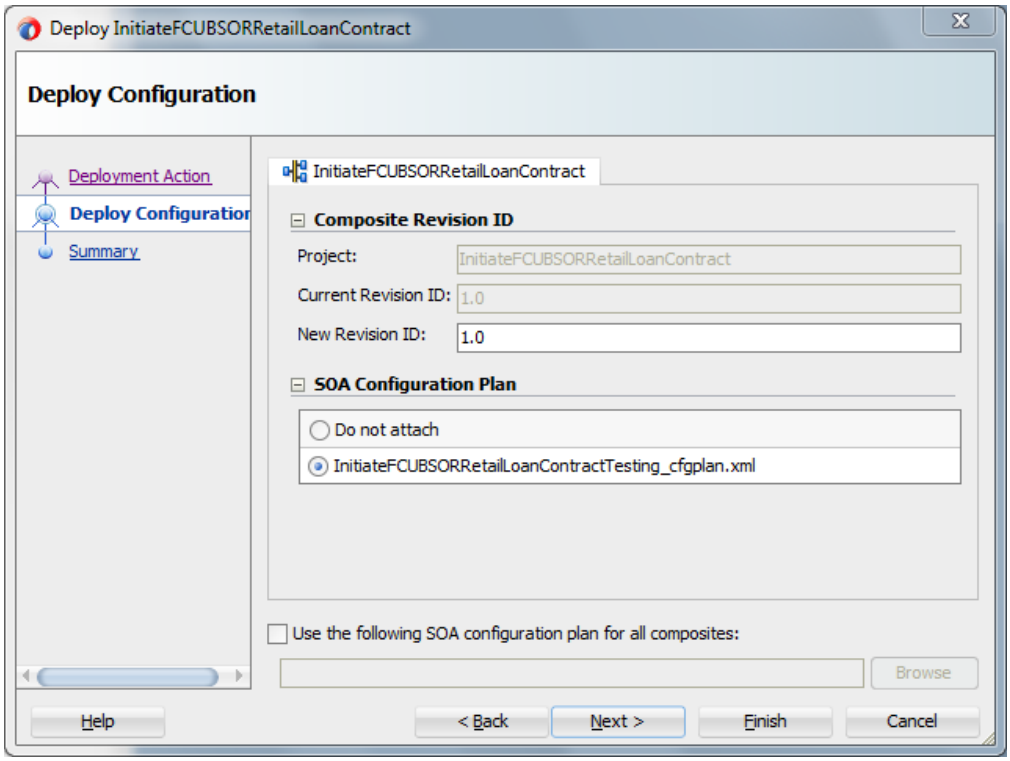
- Right click on the Application that needs to be deployed.
- Select 'Deploy' and then click on the default deployment profile which is the same as the application name.
- This will result in the deployment wizard screen being launched.



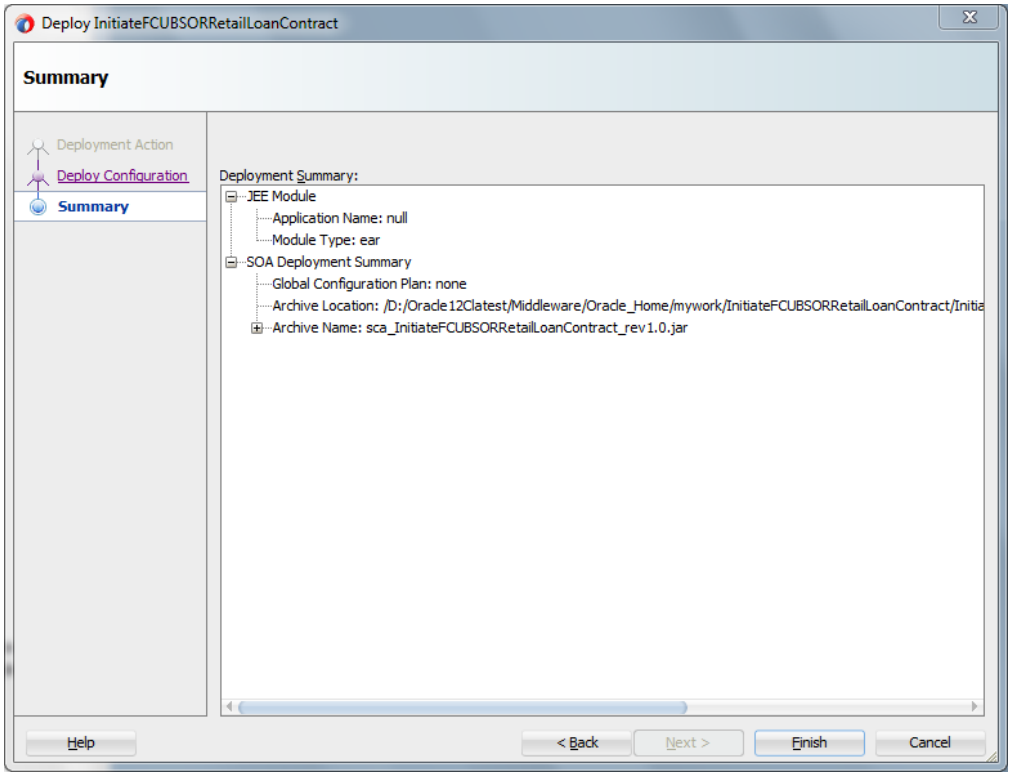
- In deployment action screen choose 'Deploy to SAR'
- Click 'Next' to proceed with the deployment.



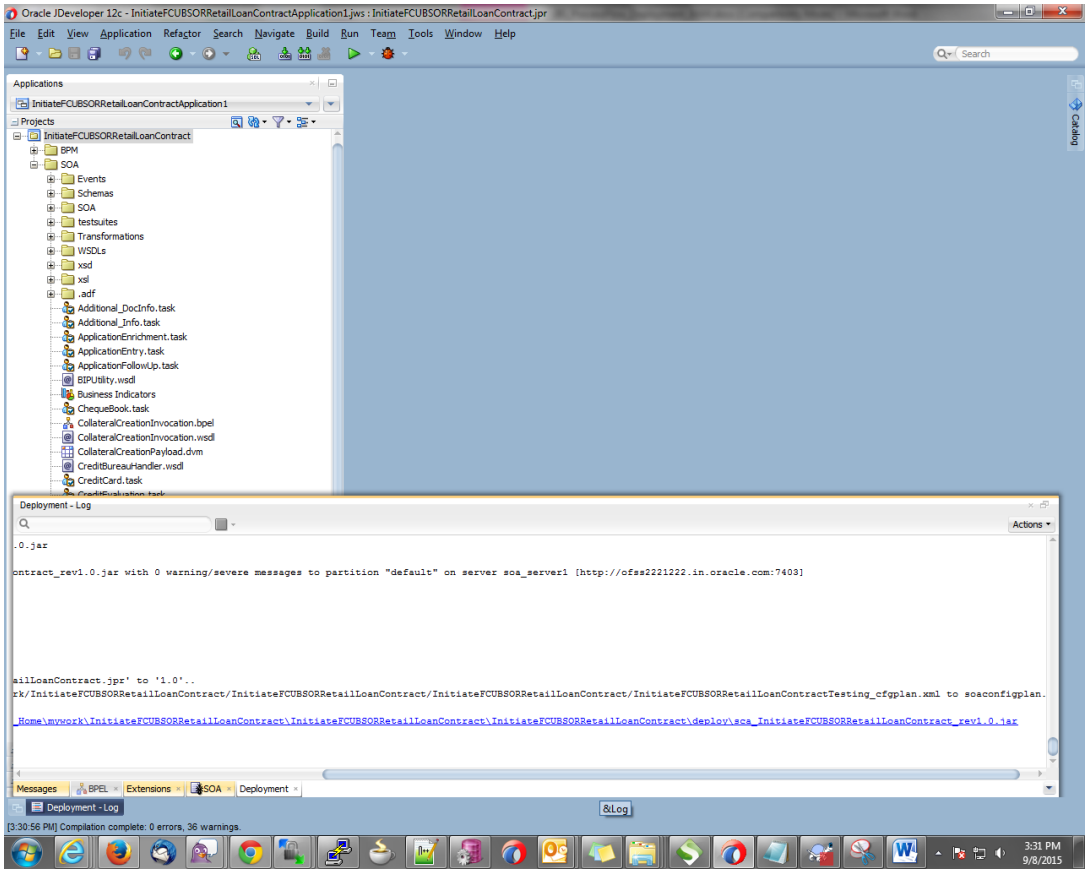
- In deployment configuration screen enter the revision
- Select the configuration plan.
- Click “Next” to proceed with the deployment.



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

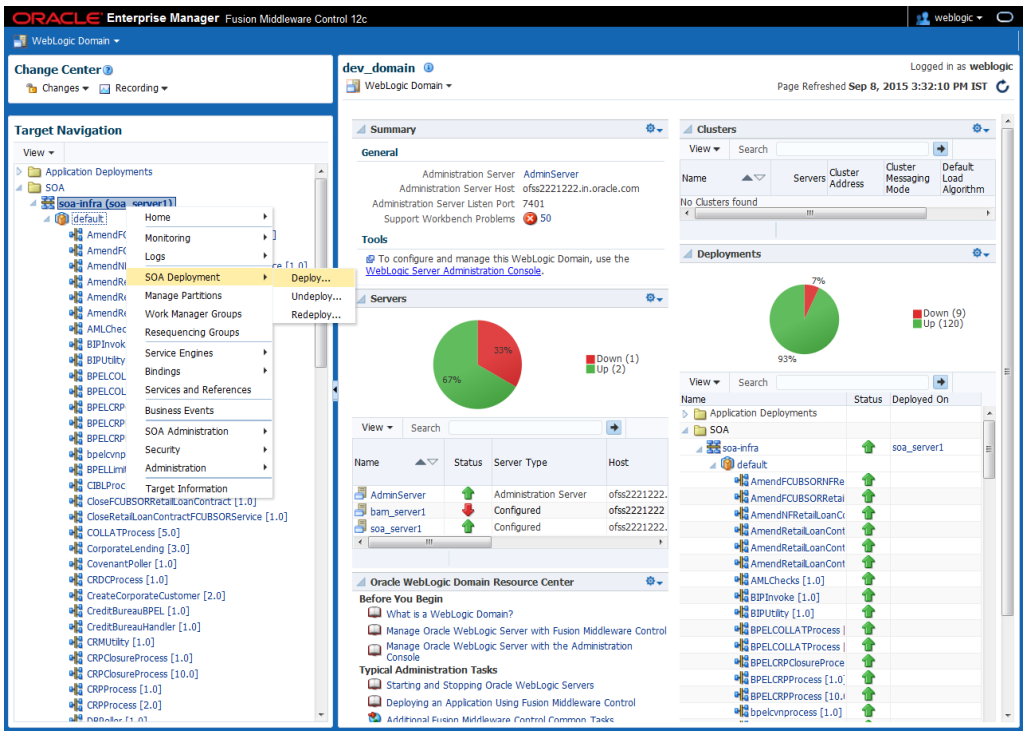


- Review the deployment log
- It shows the folder onto which the SAR file is written.

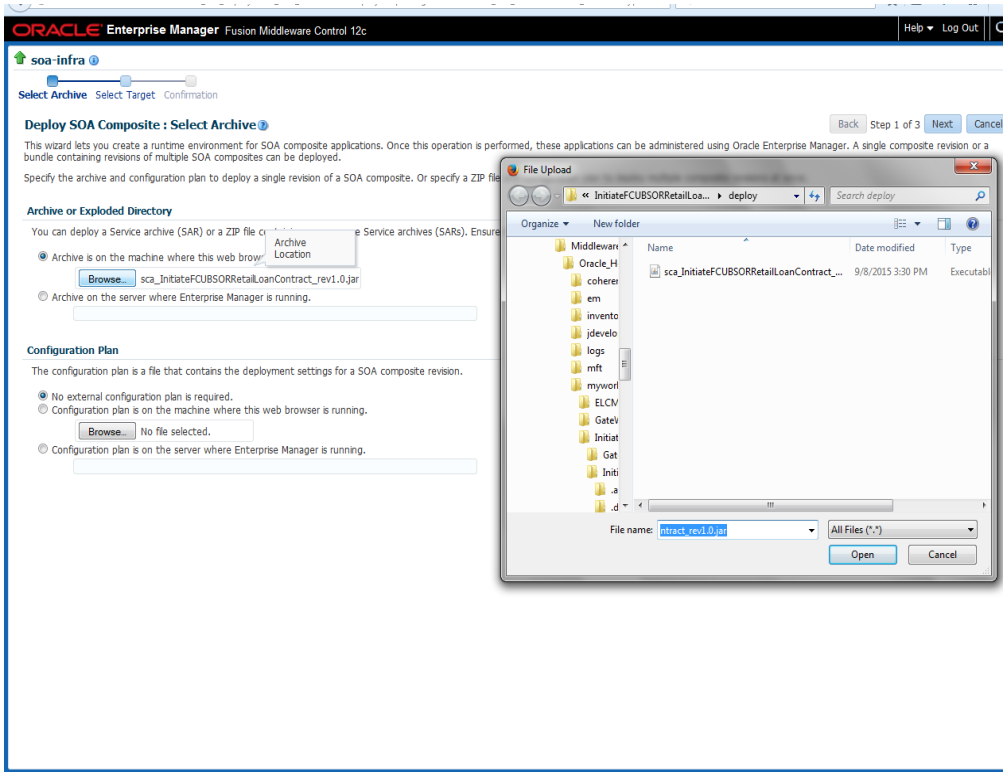


- Login to the enterprise manager console.
- Login to http://<hostname>:<port>/em

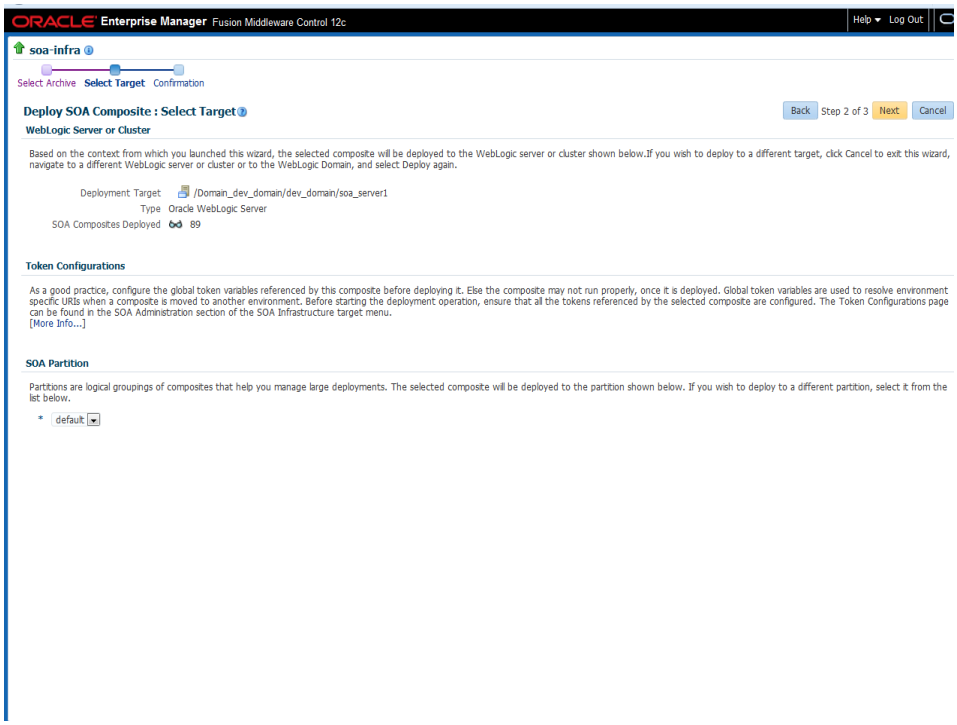
- After logging in from the left pane - Expand ‘SOA’
- Right click on soa-infra
- Choose SOA Deployment -> and click “Deploy” option.



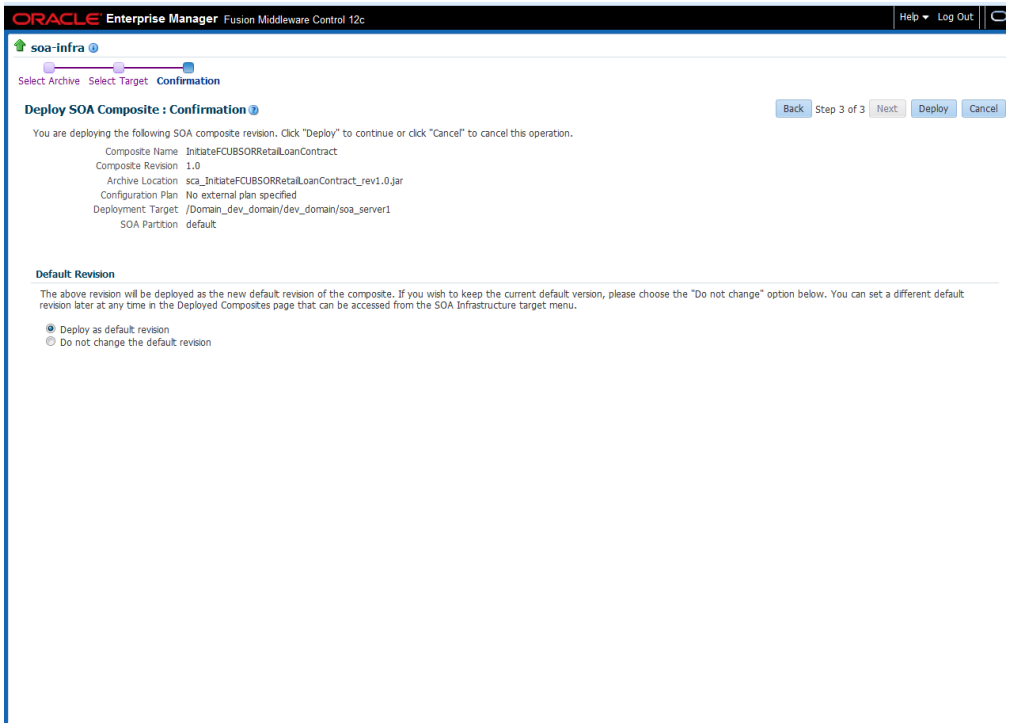
- Select the ‘SAR’ archive
- Select the deployment plan with which the application needs to be deployed as illustrated in the screen shot.



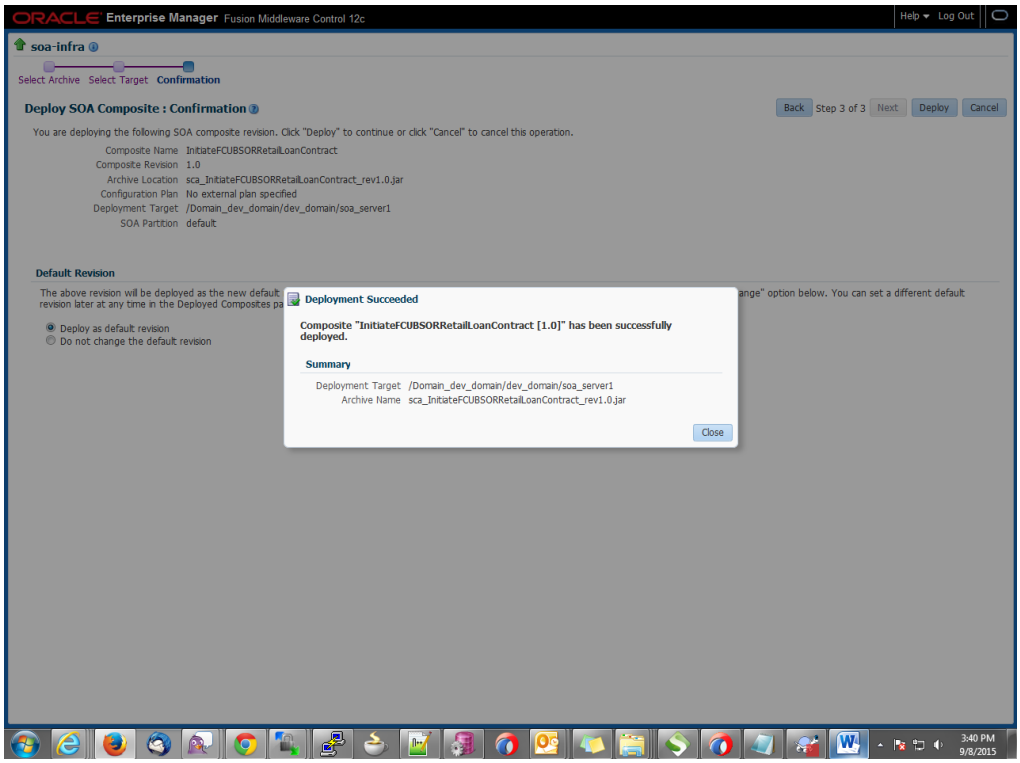
- Click on ‘Next’ to proceed with the deployment.

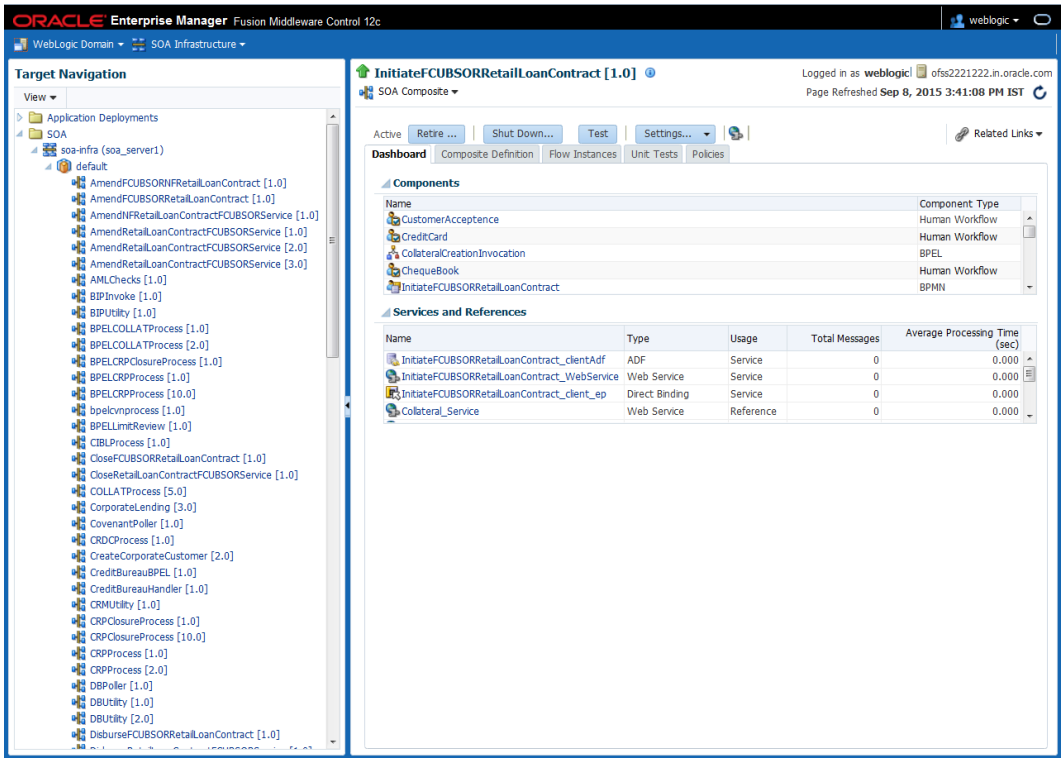


- Select default partition.
- Select the default revision option if this deployment needs to be the default one

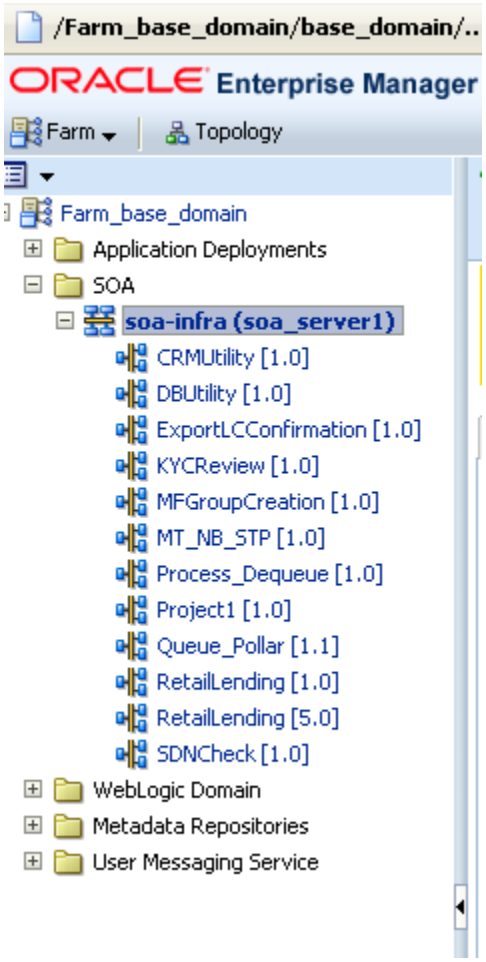


- Click on “Deploy” to complete the deployment





- Check the deployed process from the enterprise manager console



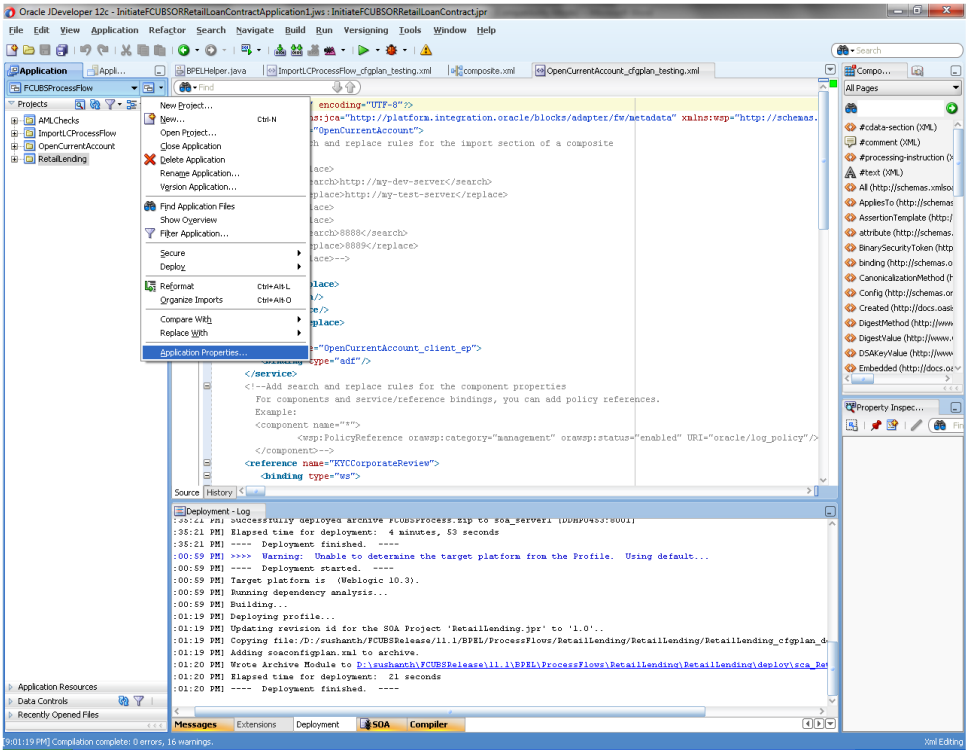
8. Deploying Multiple Composite application using JDeveloper

8.1 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.

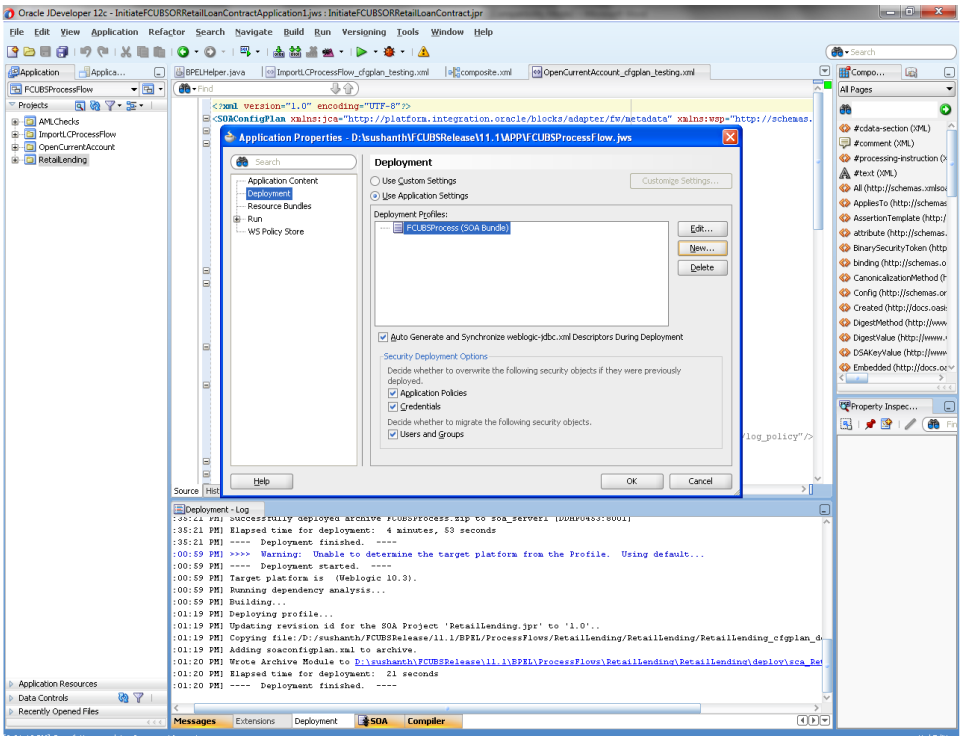
8.2 Creating the Deployment Profile

From the application menu select ‘Application Properties’ as illustrated in the screen shot.

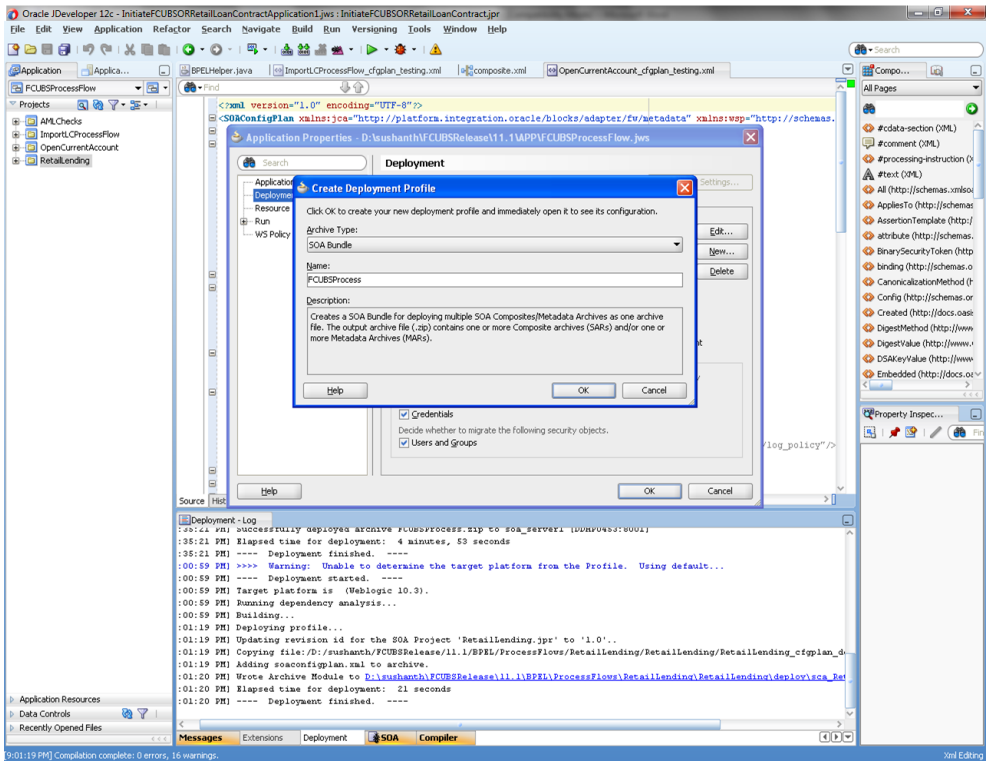


- In the Application Properties dialog, click Deployment.

- Click New.

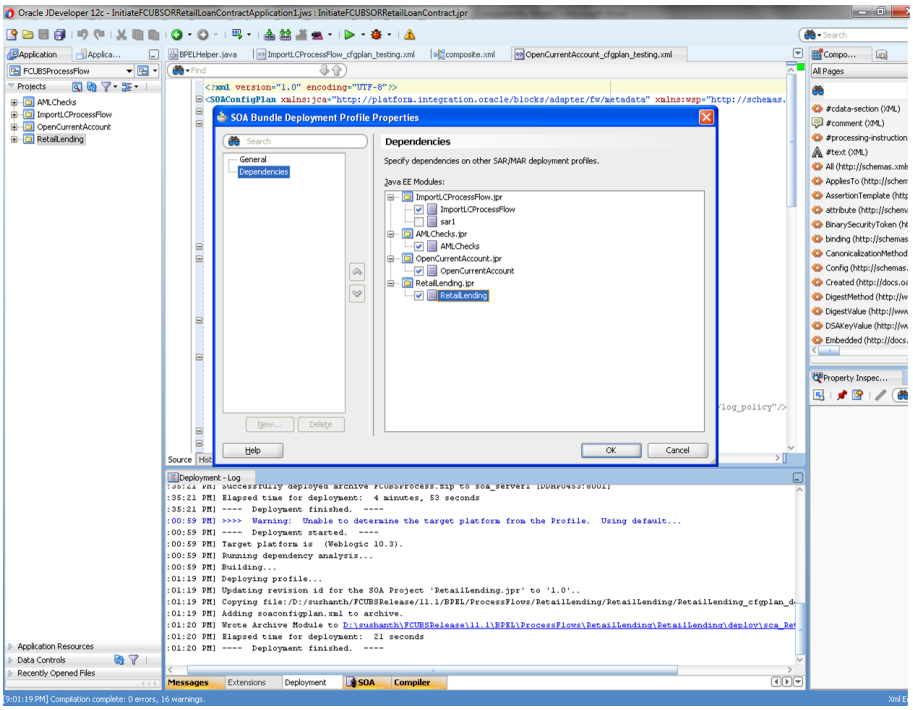


- The Create Deployment Profile dialog appears.
- In the Archive Type list, select SOA Bundle.
- In the Name field, enter a name and click ‘OK’.

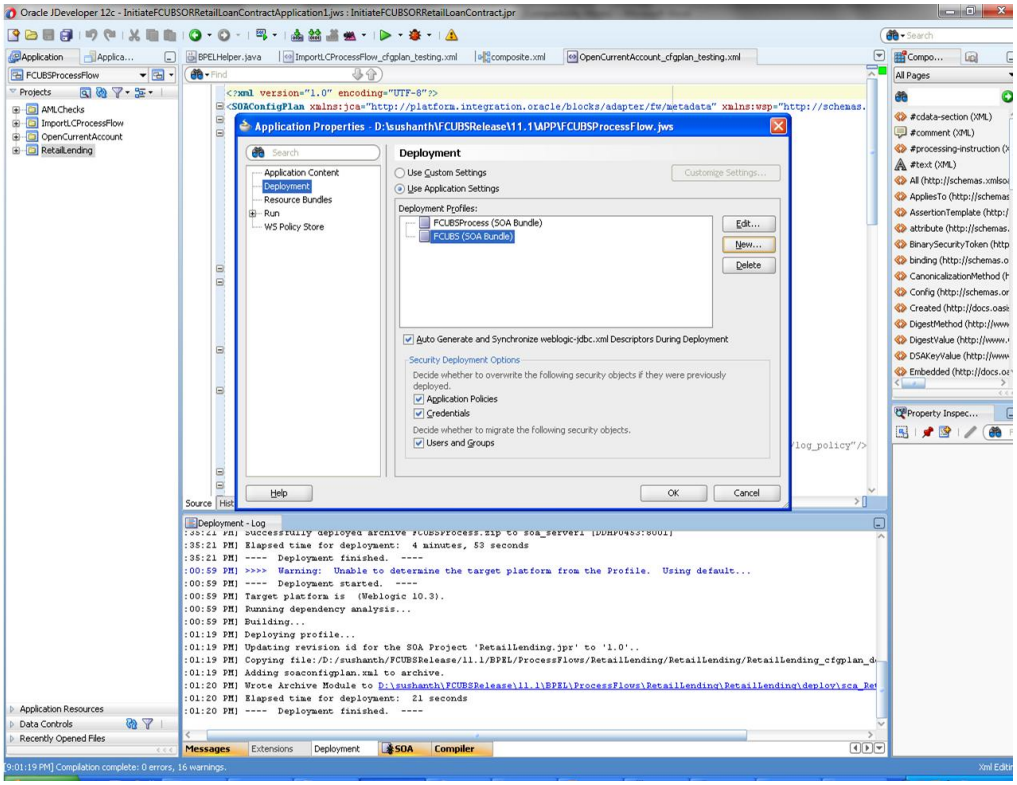


- In the navigator on the left, select the Dependencies node.
- Select the SARs you want to include in this bundle, as illustrated in the screen shot

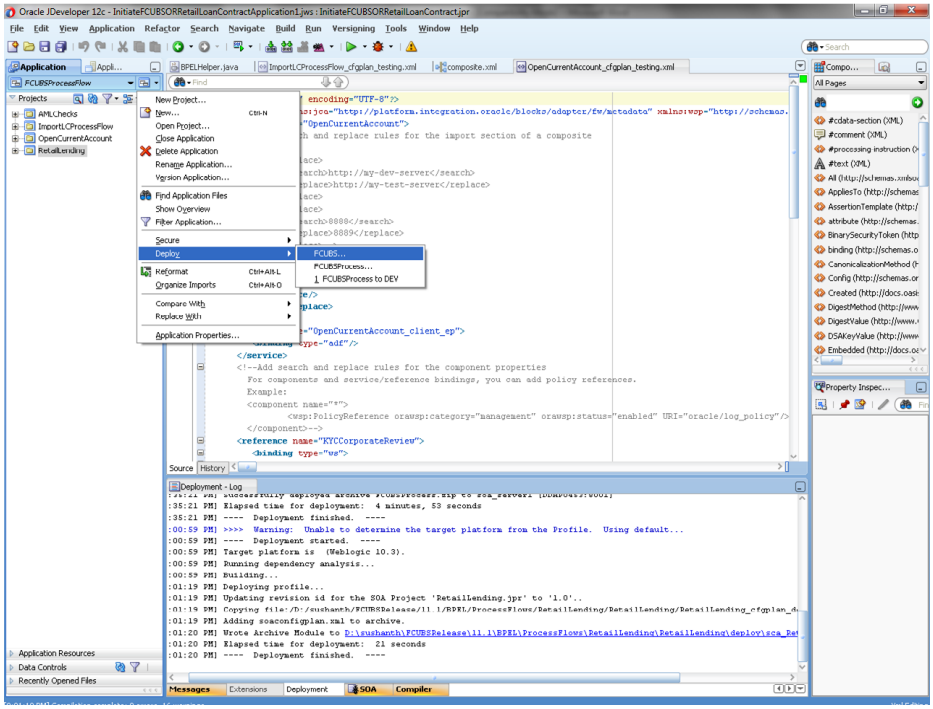
- Click OK.



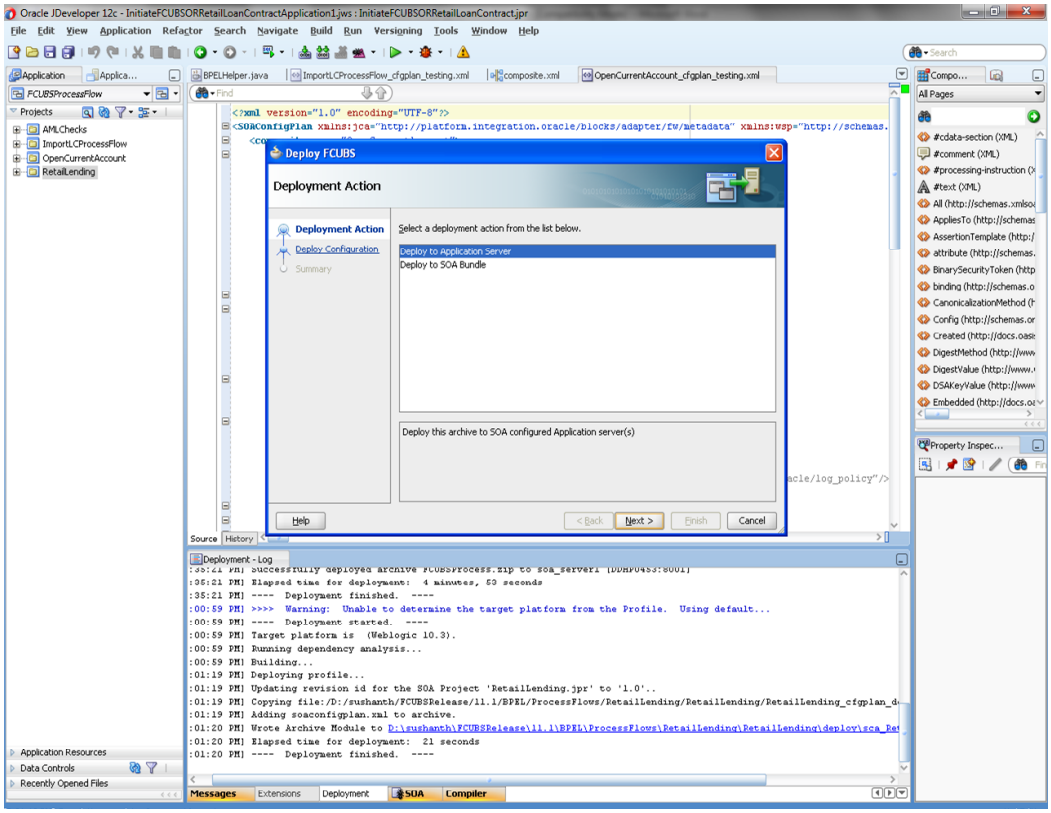
- Click OK to close the Application Properties dialog.



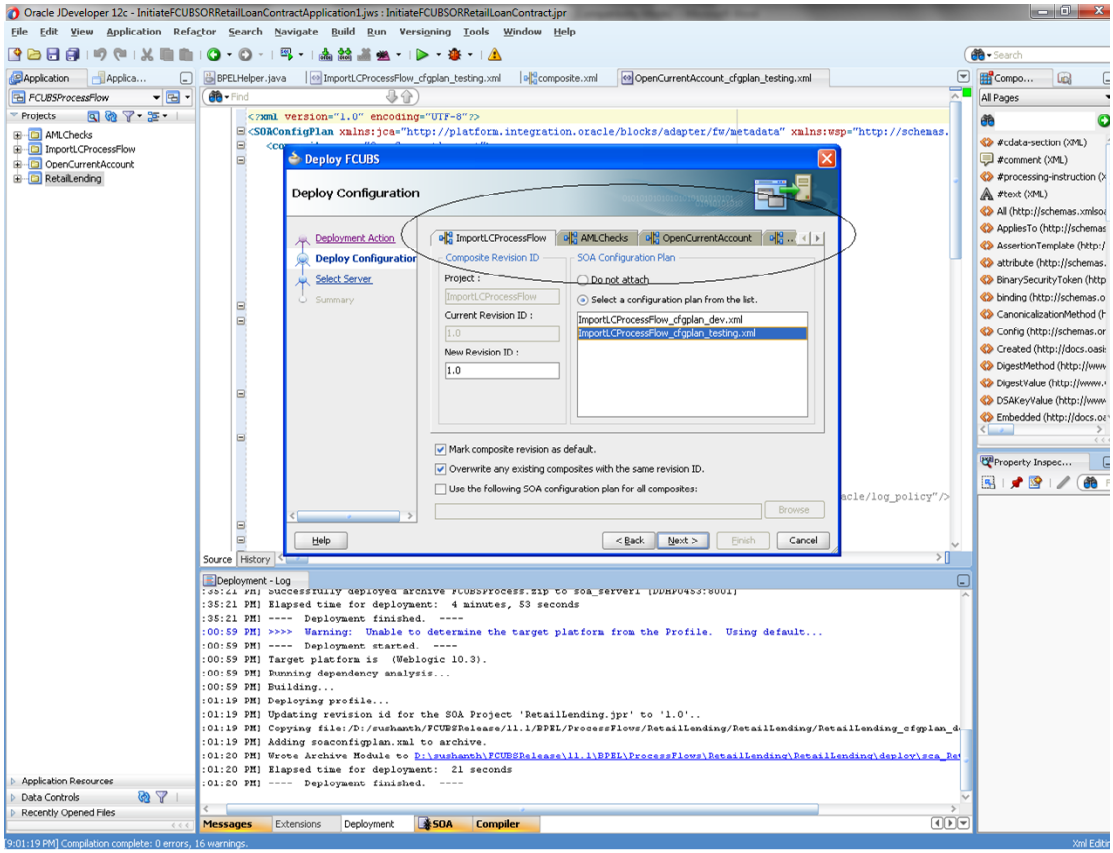
- Select the Application menu again, then select Deploy > SOA_bundle_name



- Deployment screen is launched , Select ‘Deploy to Application Server’

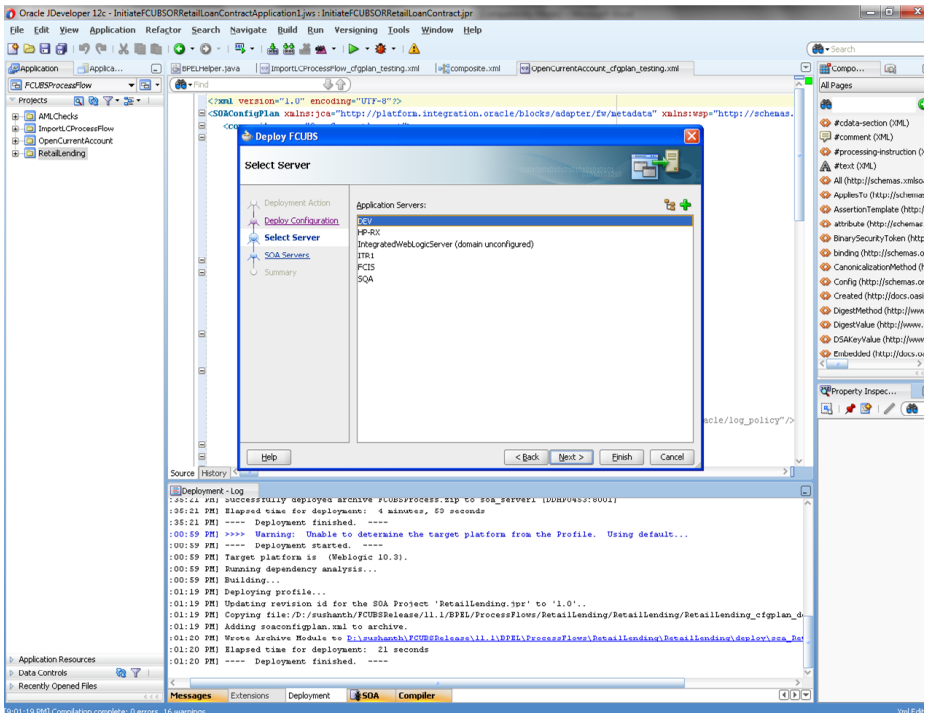


- Deployment configuration is done as illustrated in the below screen shot for each application which is displayed in the tab, application navigation can be done using the pointer provided at the end of the tab.
- Select a Revision with which the deployment should happen
- Select a ” Configuration Plan”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

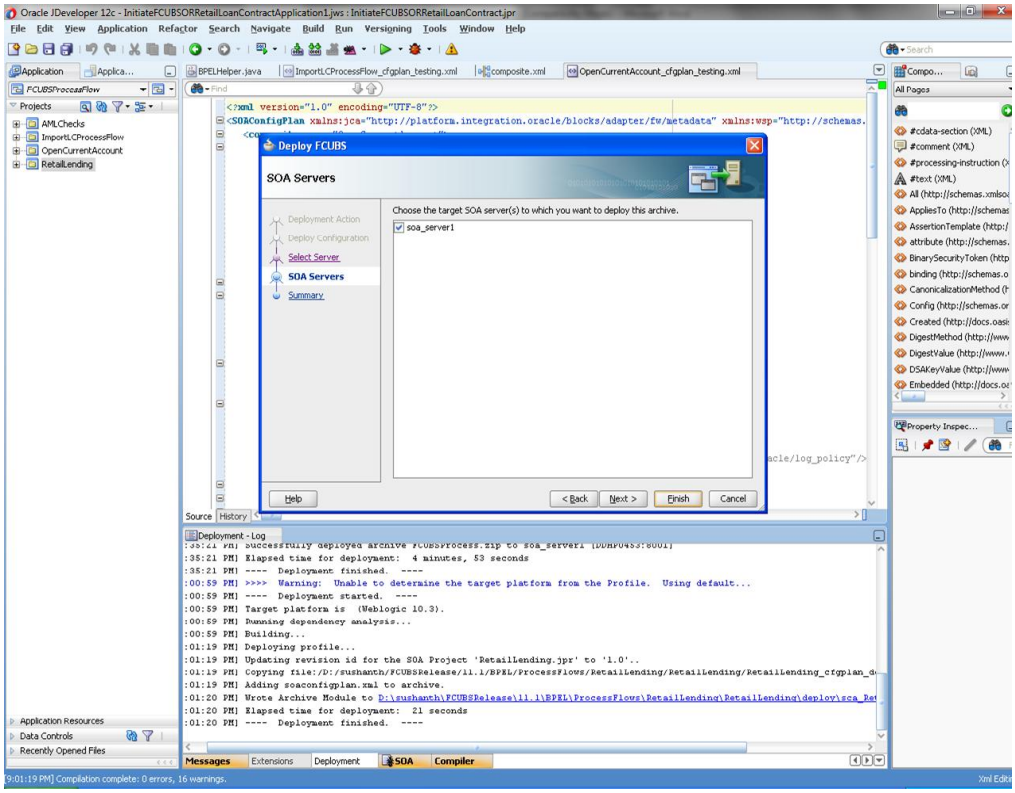


- Select the Application server ‘Server Connection’ configured that was done in Section 3 to which the deployment needs to be done

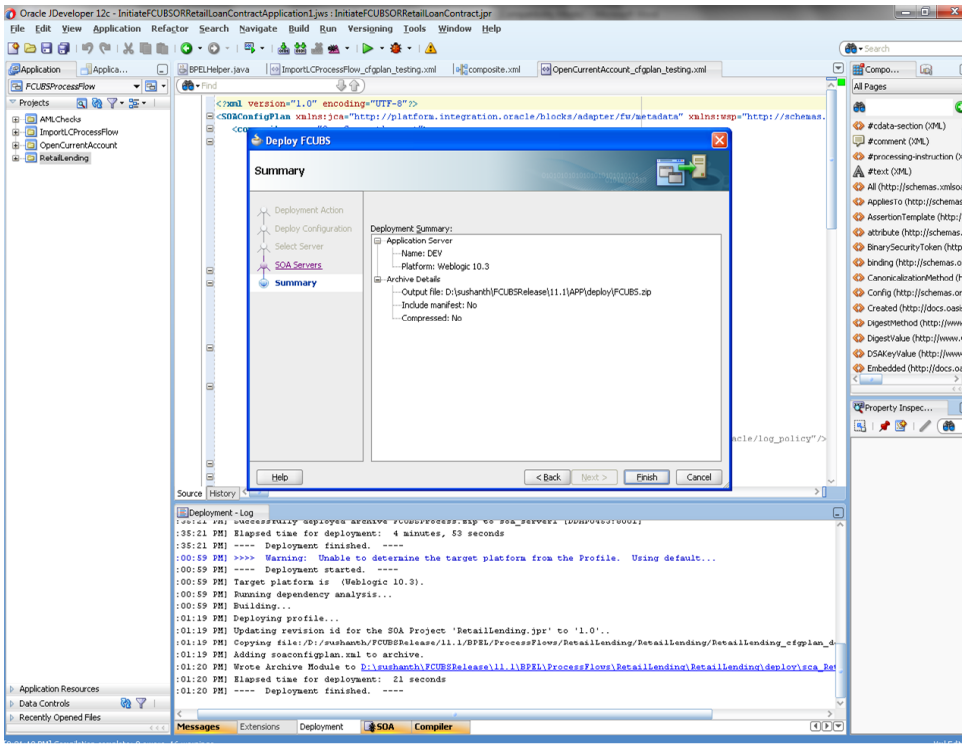
- Click ‘Next’ to proceed with the deployment.



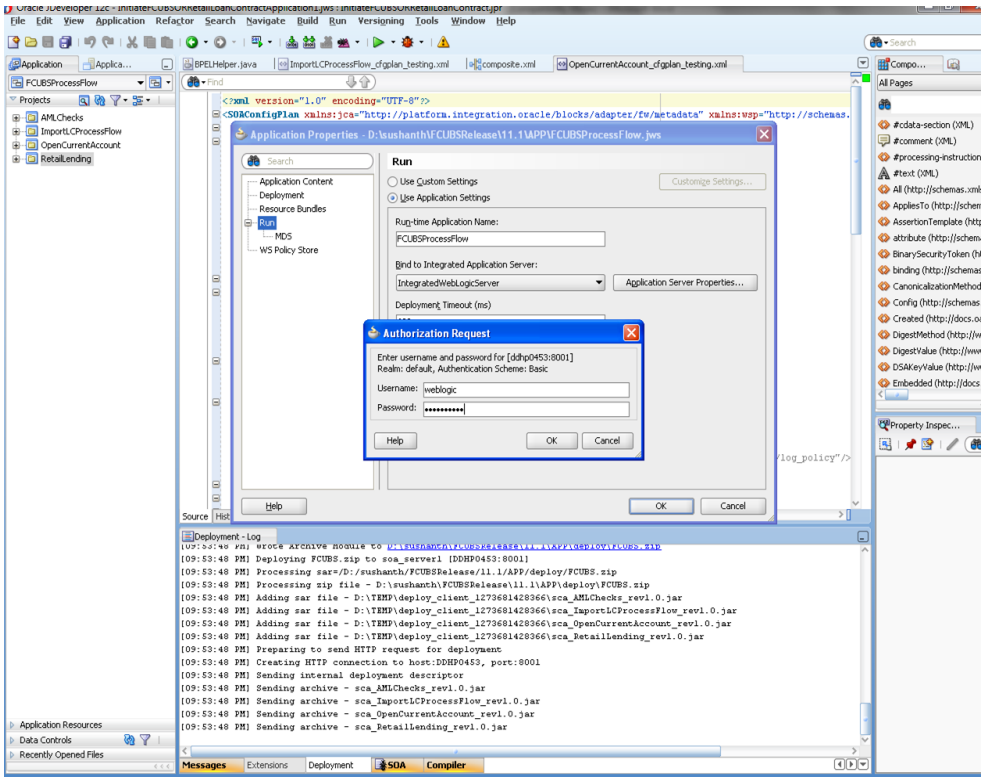
- Select the Application ‘server’ to which the deployment needs to be done.



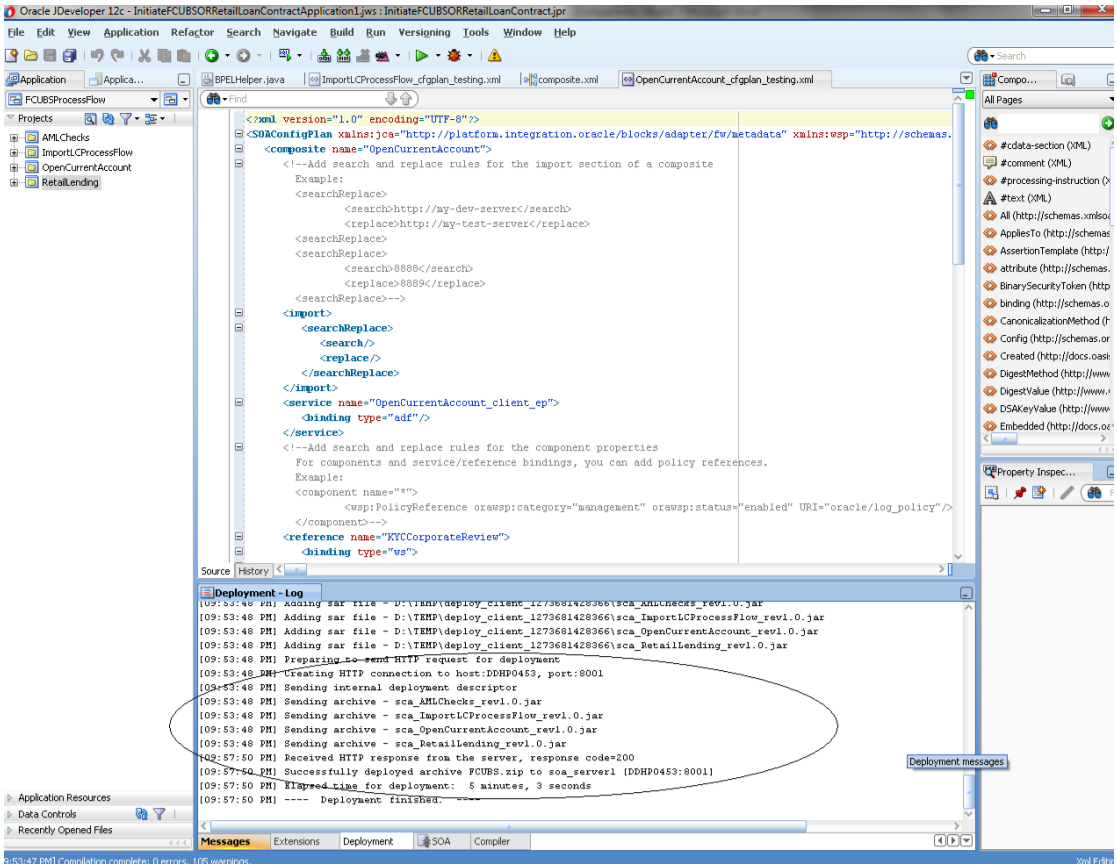
- View the summary of the deployment details and click ‘Finish’ to complete the deployment.



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

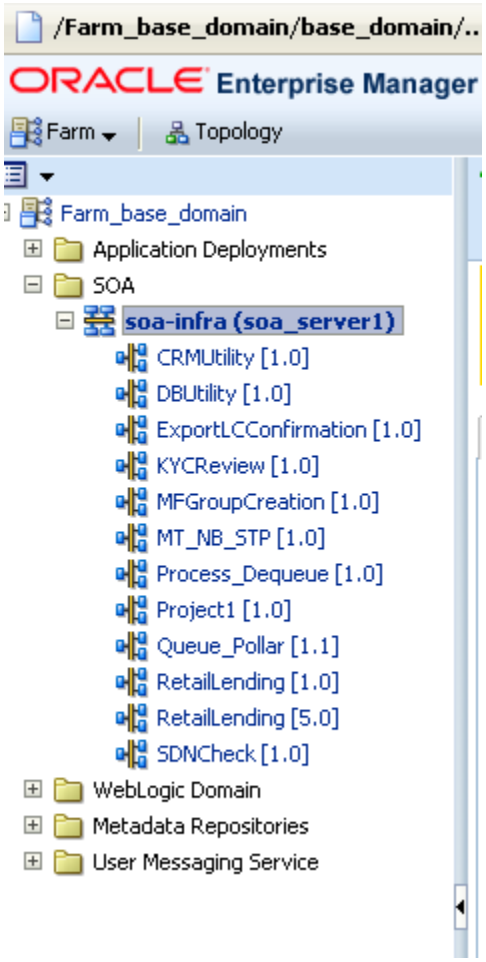


- The deployment status can be verified in the deployment status Log window.



- 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



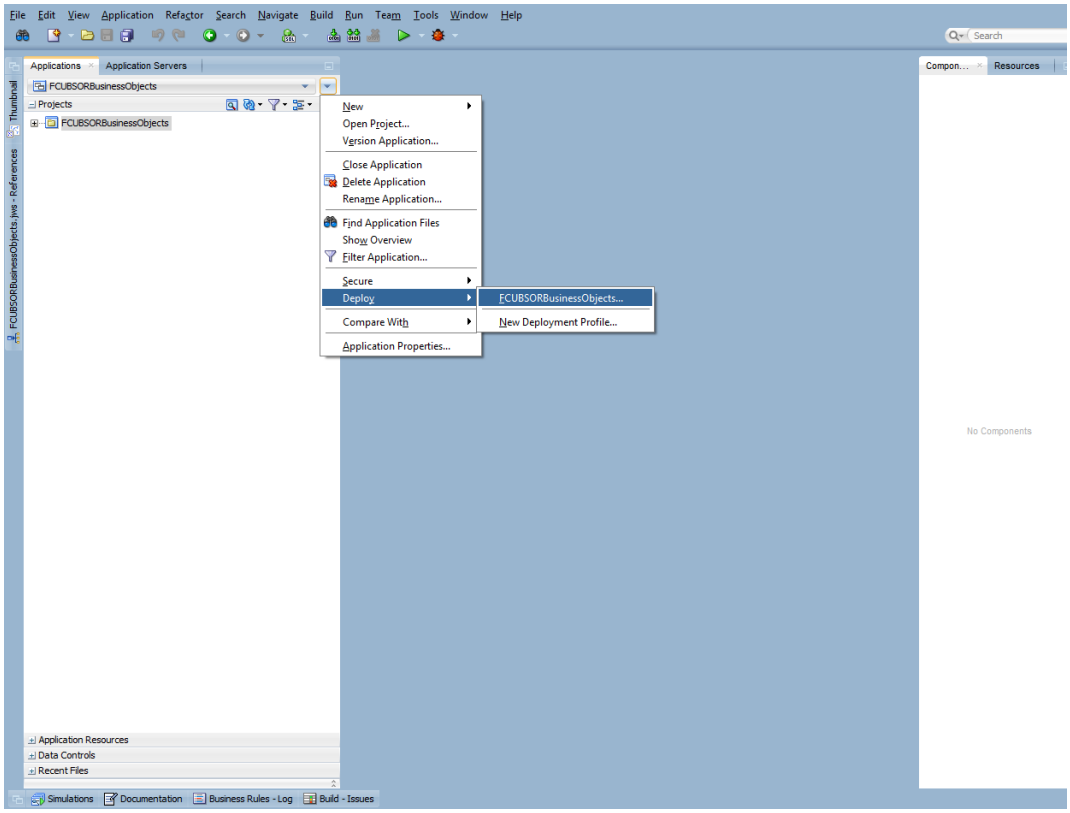
9. Deploying MDS application using JDeveloper

9.1 Introduction

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

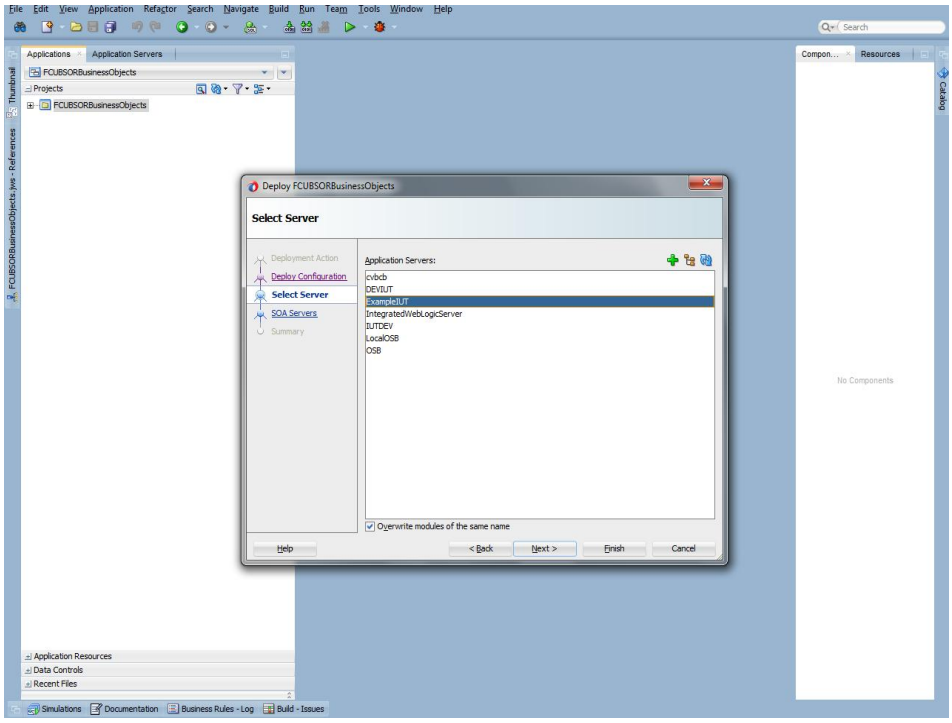
9.2 Deploying the Application

- 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.

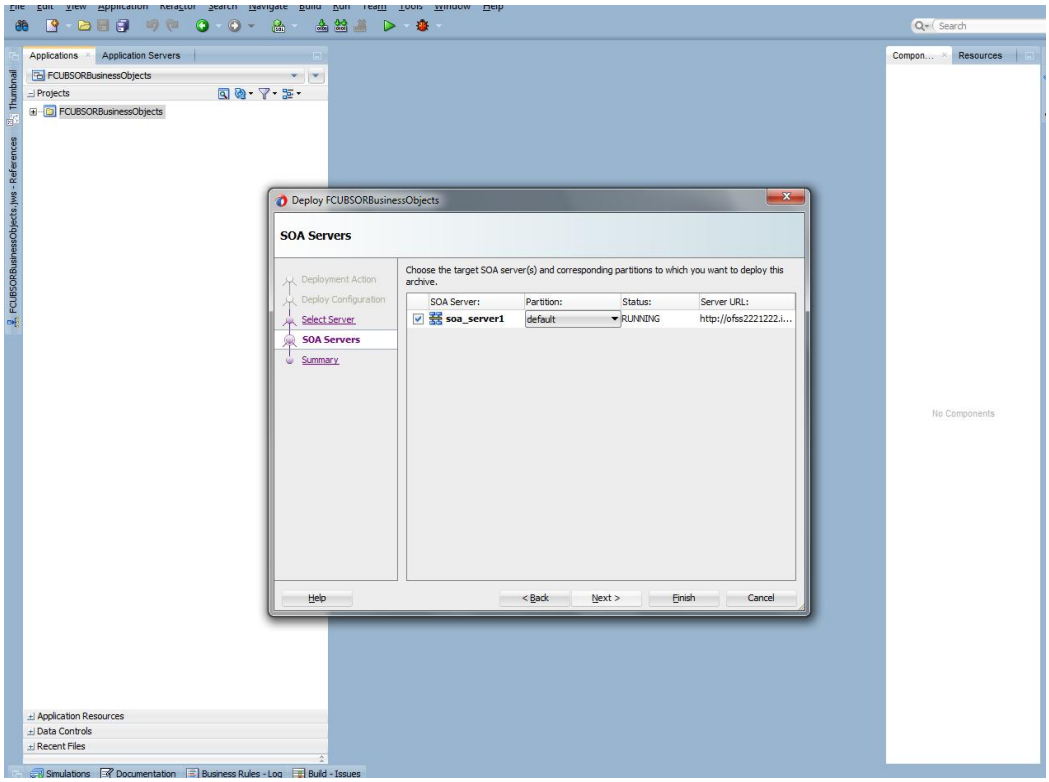


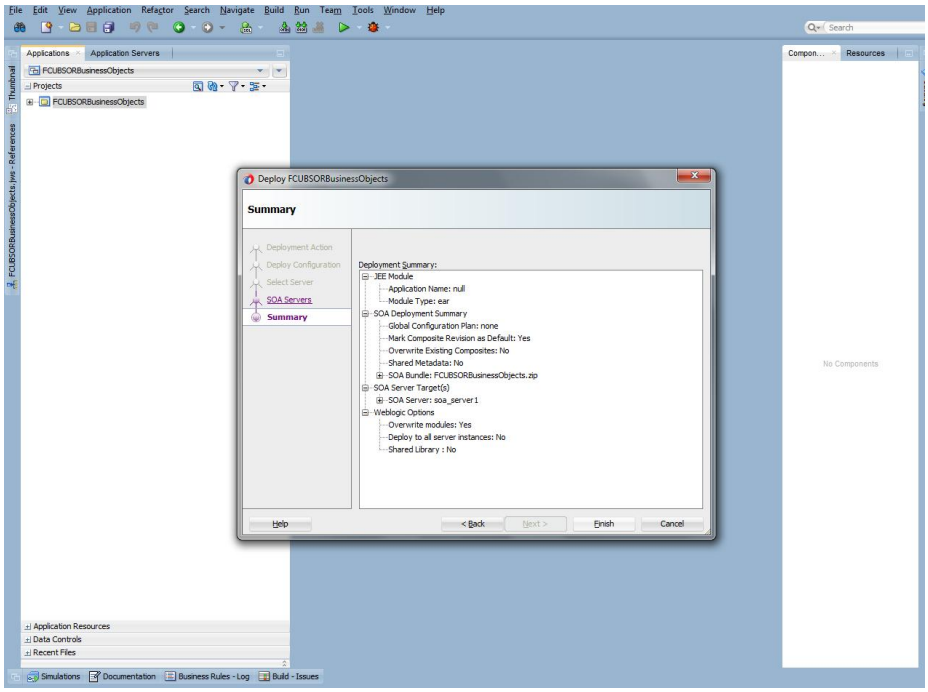
- In deployment action screen choose Deploy to Application Server.
- Click Next→Next to proceed with deployment.

- Select the Application Server to which the MDS Application Needs to Deploy.

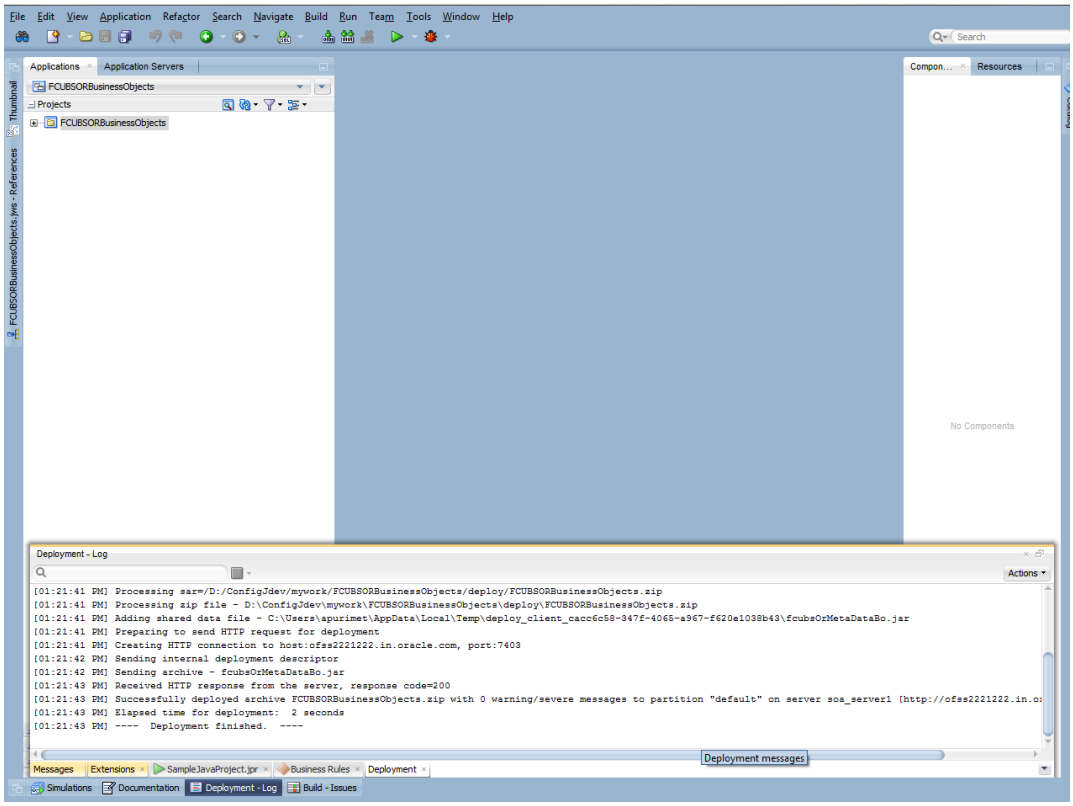


- Click Next and Finish buttons on the deployment wizard after selecting application server.



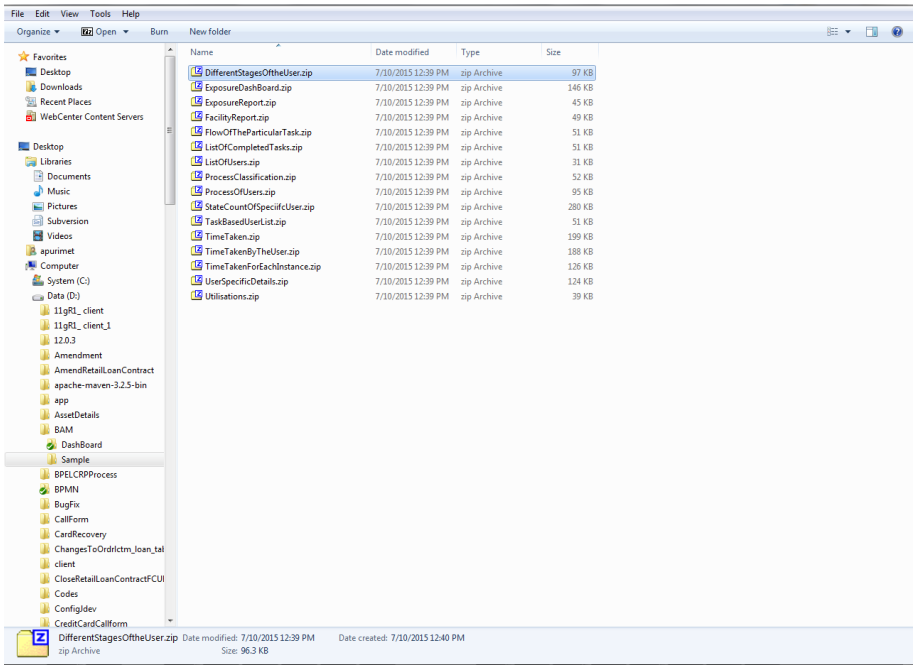


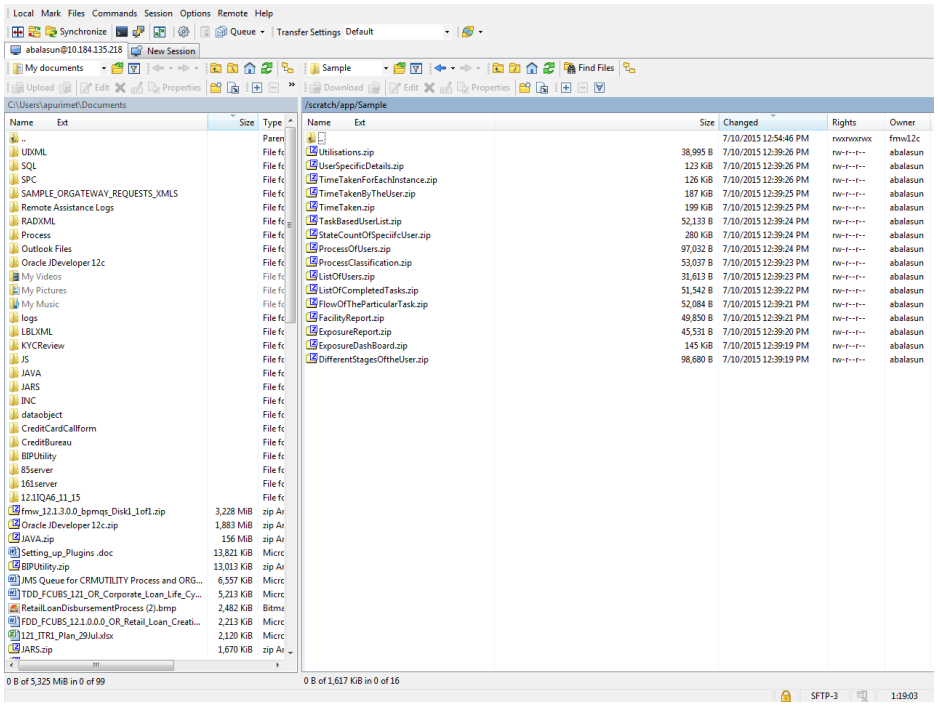
- Review the deployment log to see successfully deployed message as below



10. Deployment and configuration of Oracle BAM Reports

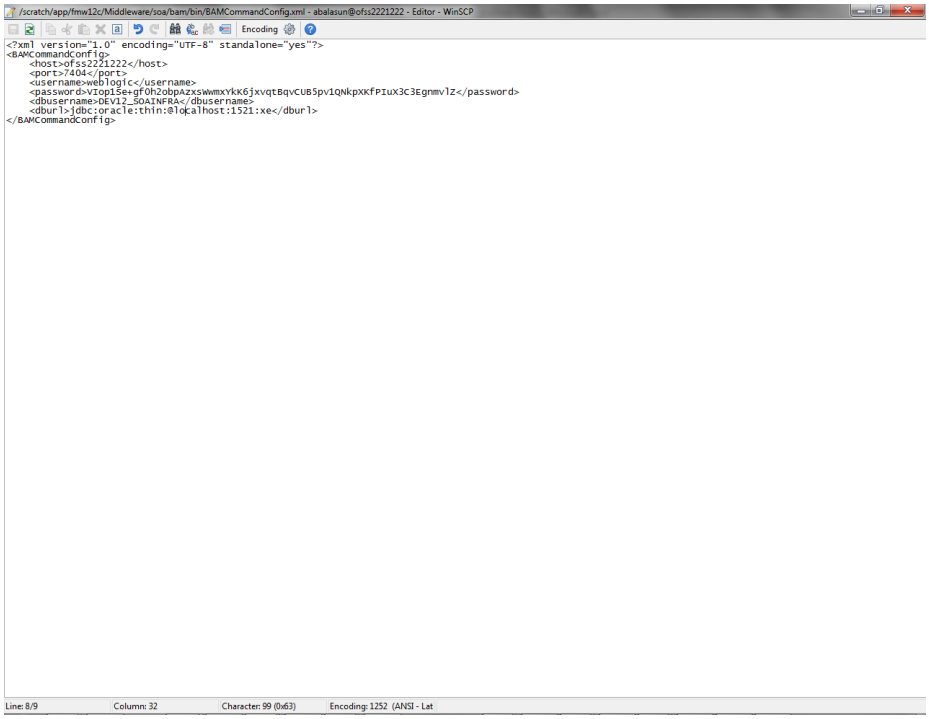
Copy the BAM Dashboards Units (.Zip) from /SOFT/MAIN/OR/Process_infra/Reports/BAM to server location.



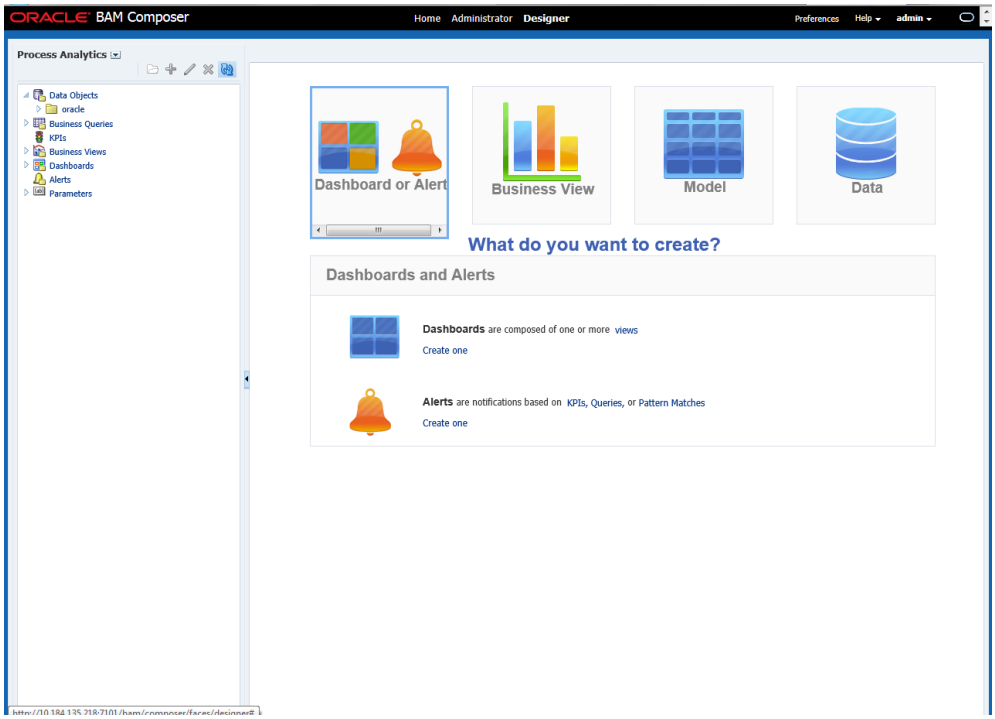


Configure the BAM server location ,port username and password in BAMCommandConfig.xml. It is available in MIDDLEWARE_HOME\soa\bam\bin\BAMCommandConfig.xml

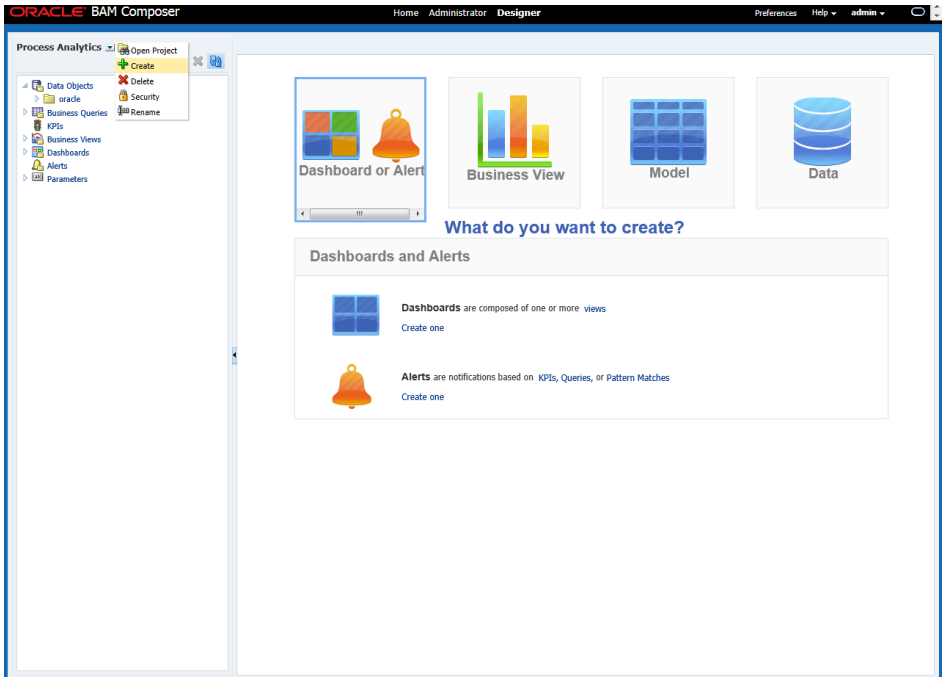
Example:



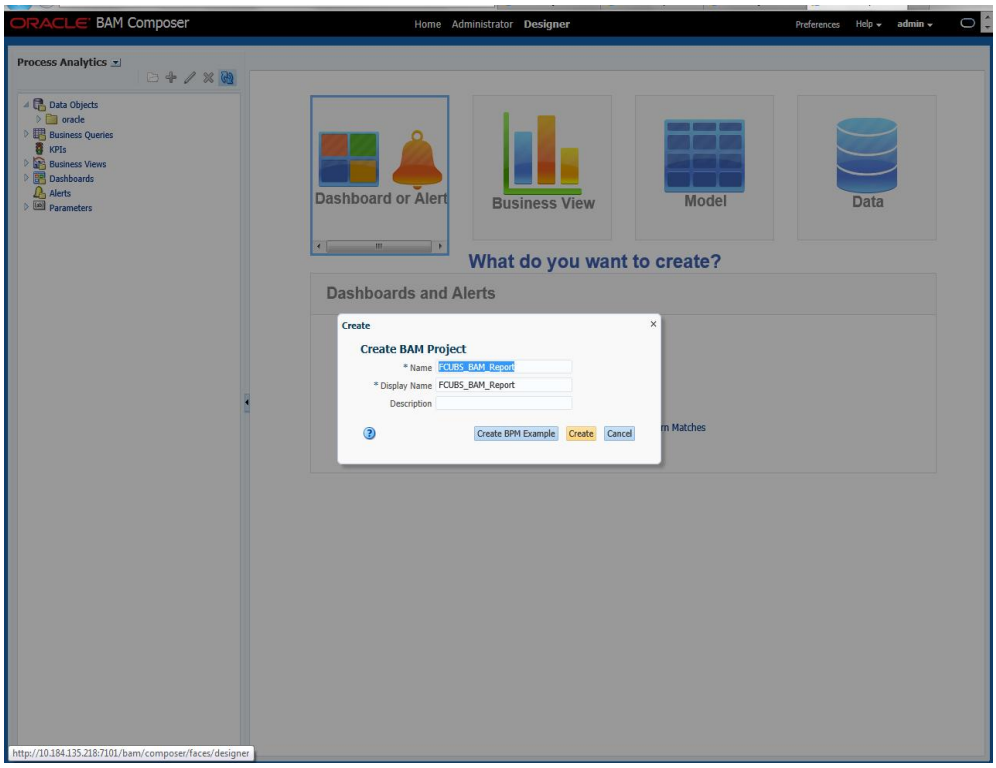
1) Login to BAM Composer. (http://hostname:BAMserverPort/bam/composer).
2) Go the Designer Page.

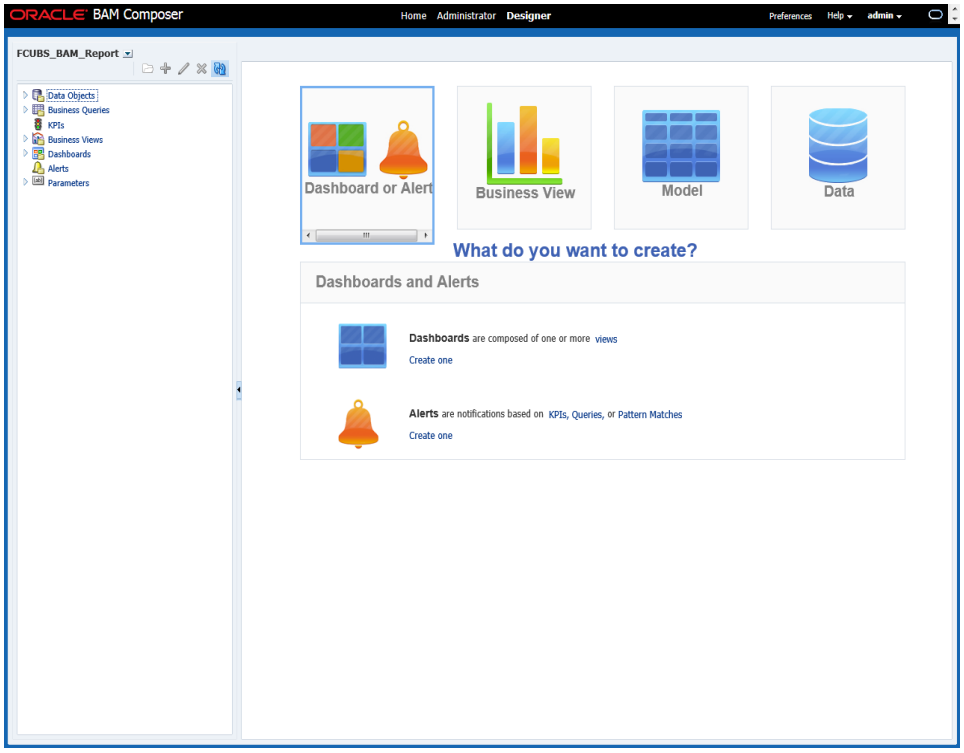


Click on create.



- Enter the Name and Display Name as **FCIS_BAM_Report** and click on create





- Set proper JAVA_HOME.

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

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

./bamcommand -cmd import -mode overwrite -name "FCUBS_BAM_Report/DifferentStagesOftheUser" -type dashboard -file "/scratch/app/Sample/DifferentStagesOftheUser.zip" from the below path MIDDLEWARE_HOME\soa\bam\bin.

FCIS Process Flow Deployment
[September] [2016]
Version 12.3.0.0.0

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