

FCUBS Process Flow Deployment
Oracle FLEXCUBE Universal Banking
Release 12.2.0.0.0
[May] [2016]



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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>

Run fmw_12.2.1.0.0_bpm_quickstart.jar to install jdeveloper with bpm enabled.

3. Creating Application server connection

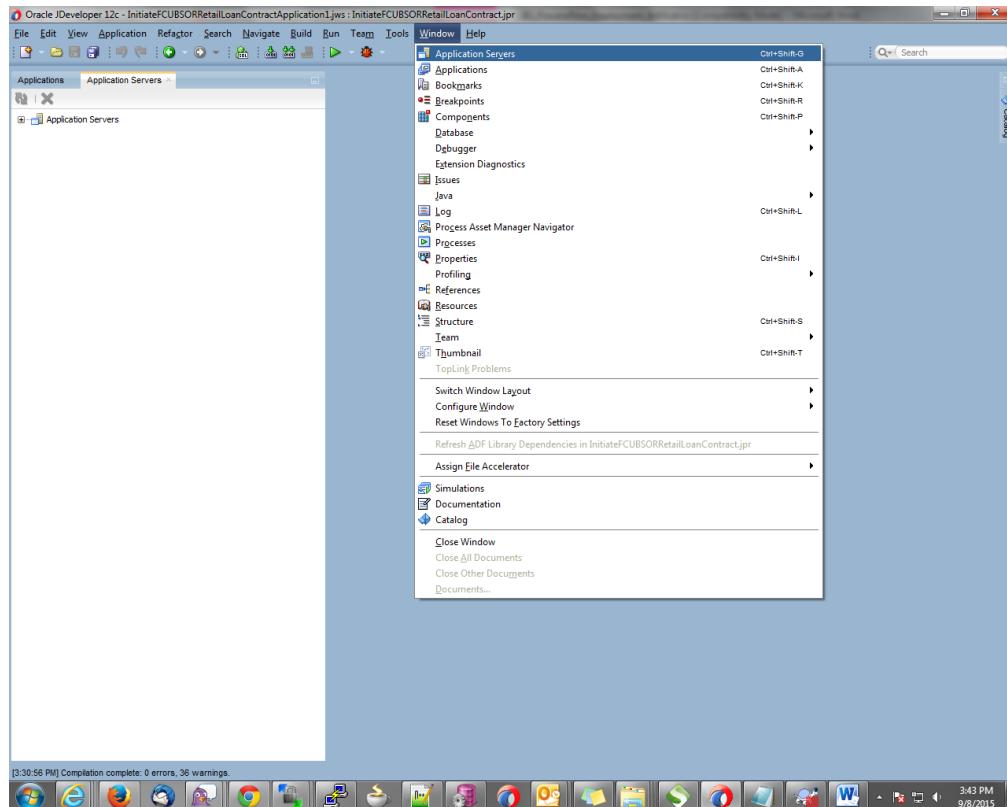
3.1 Introduction

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

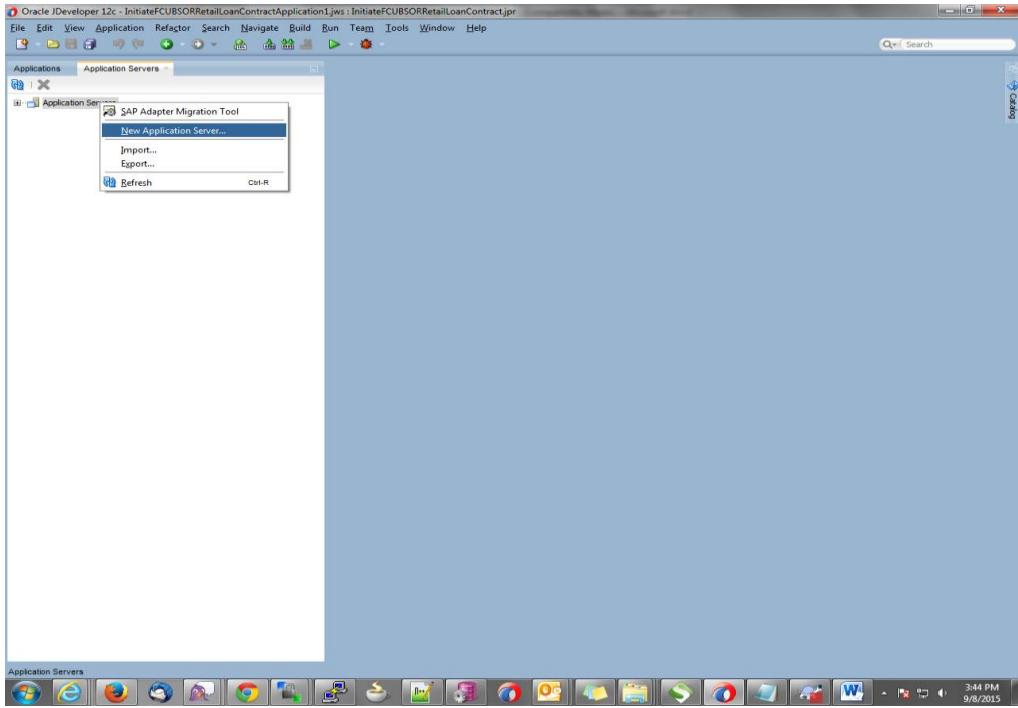
3.2 Application Sever Connection

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

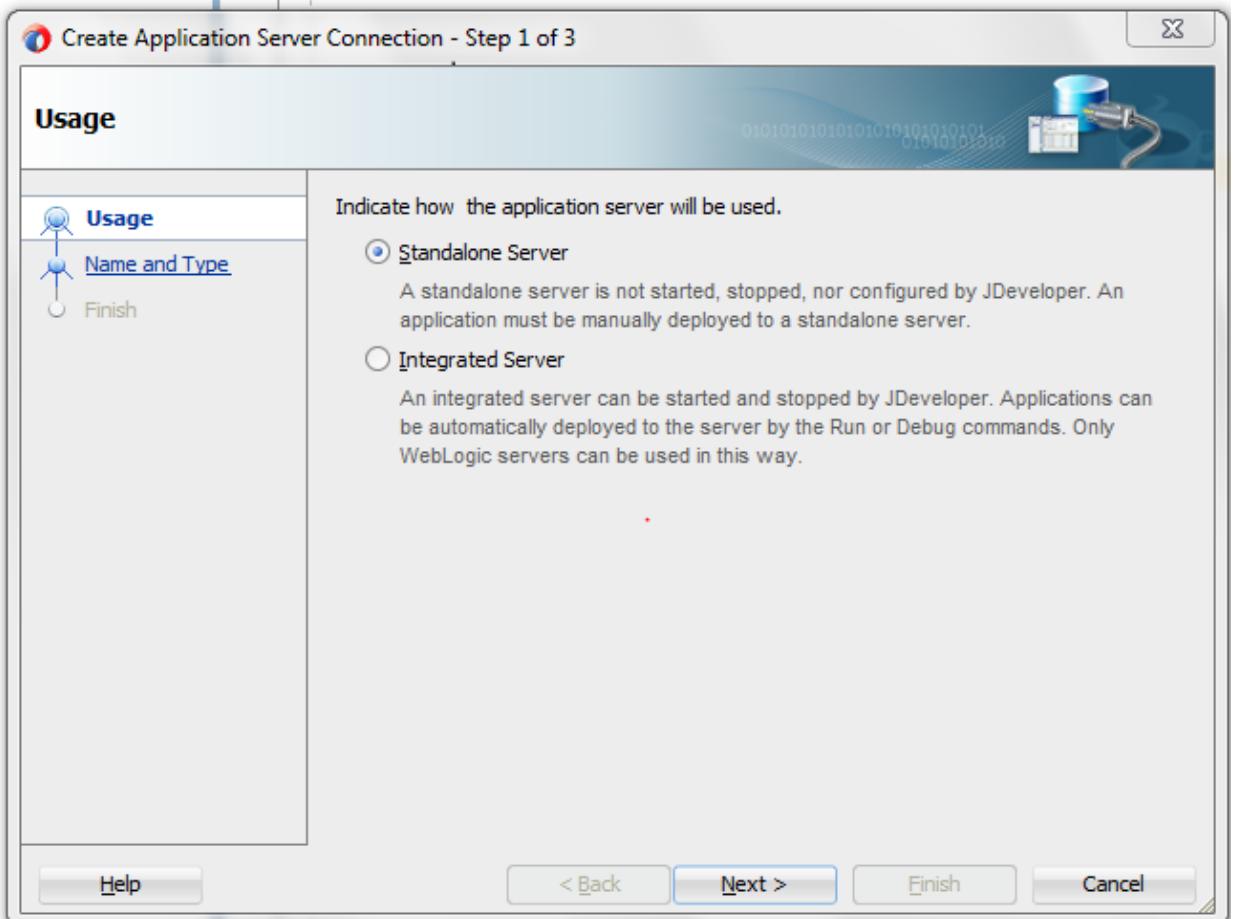
- After JDeveloper is launched
- Click on → windows → Application Servers Navigator



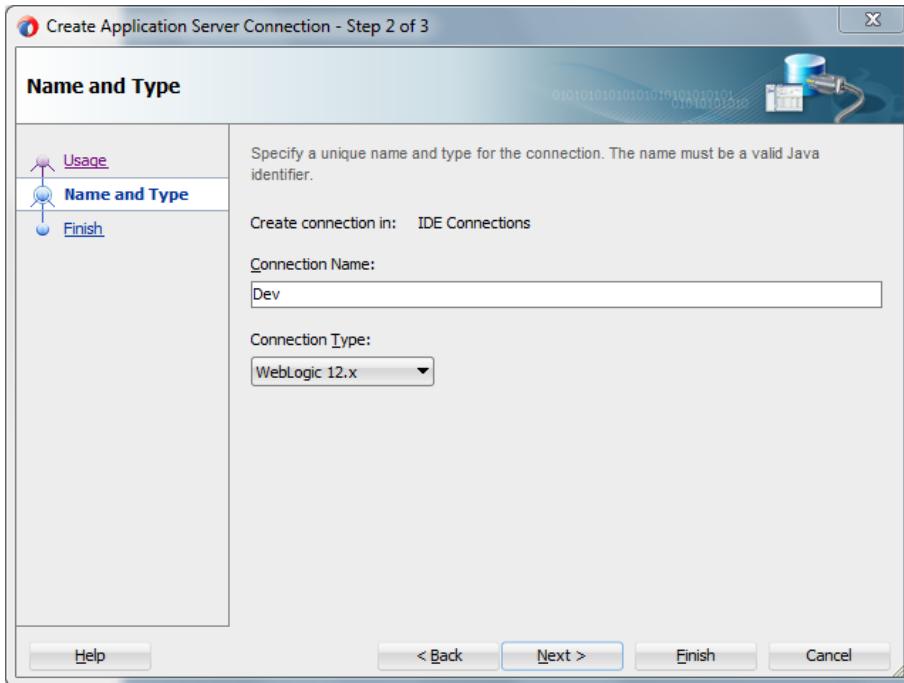
- To create a new WebLogic server connection
- Right click ‘Application Servers’
- Click on → New Application Server



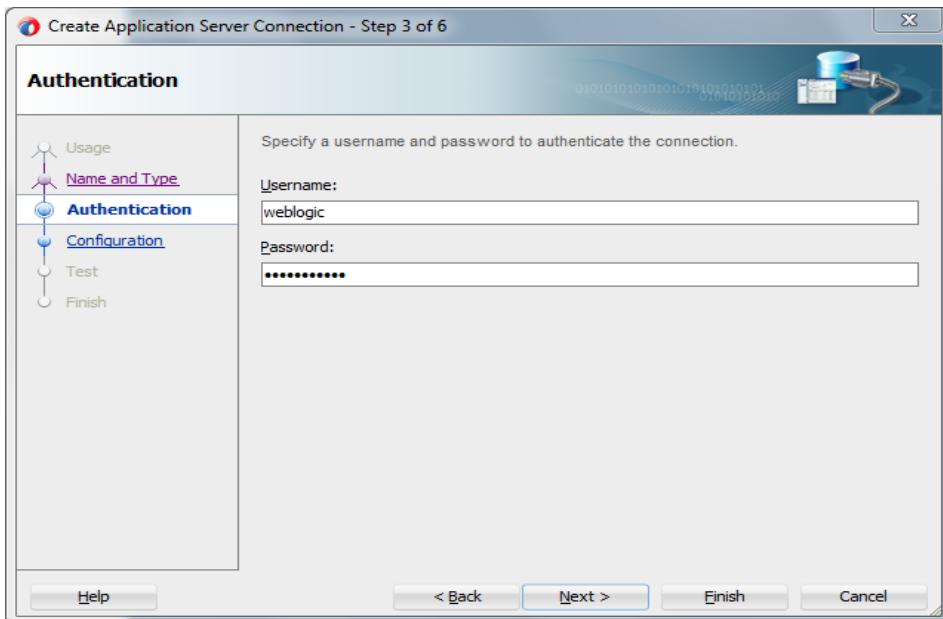
- The “Create Application Server Connection” wizard is launched as shown below.
- Select the Radio button “Standalone Server”
- Click “Next” to proceed with the configuration



- 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

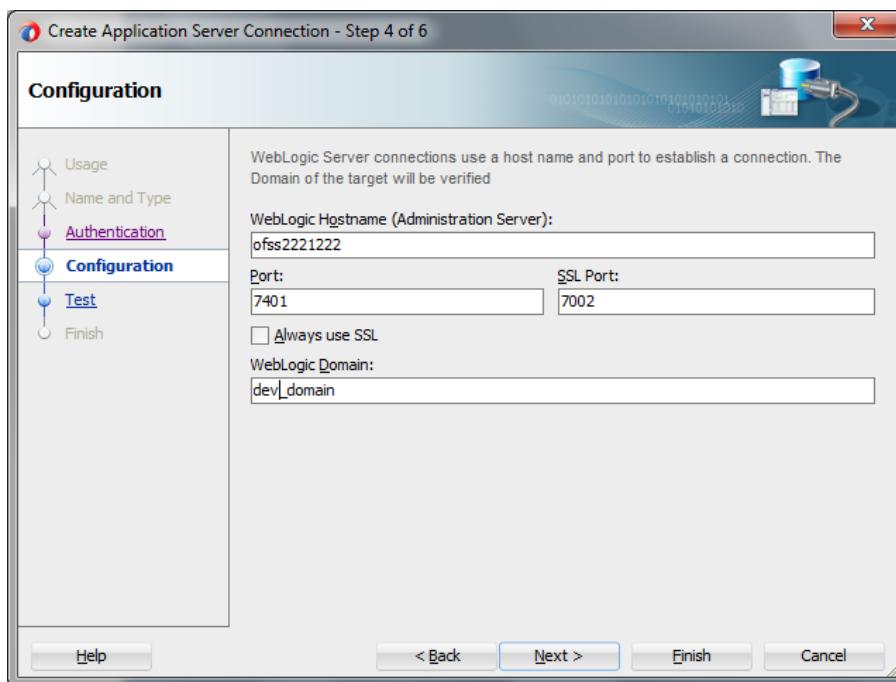


- Provide username / password to connect to the server
- The same username / password that was used while configuring the server is used.
- Click "Next" to proceed with the configuration

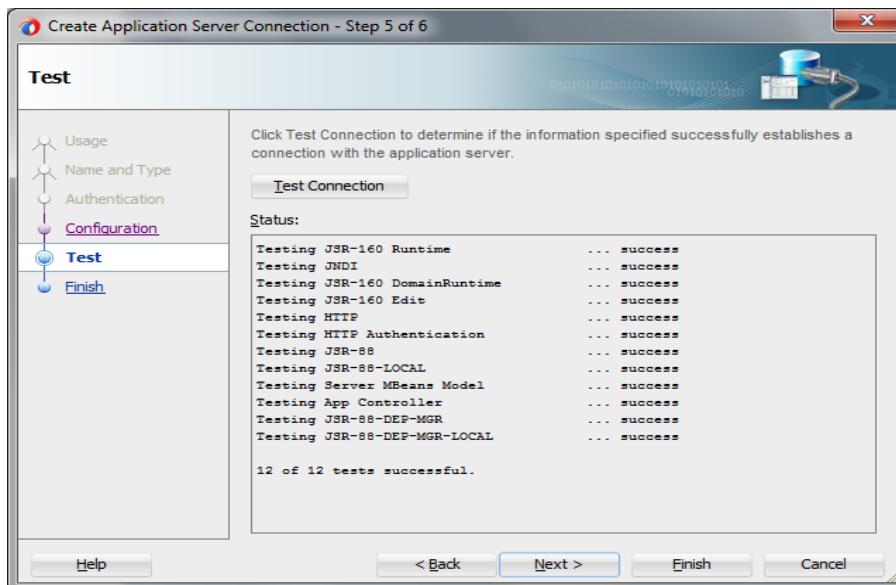


- Provide the WebLogic server hostname and the port number of the Admin server.
- Provide the domain name under which the server has been configured.
- Click "Next" to proceed with the configuration

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- 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

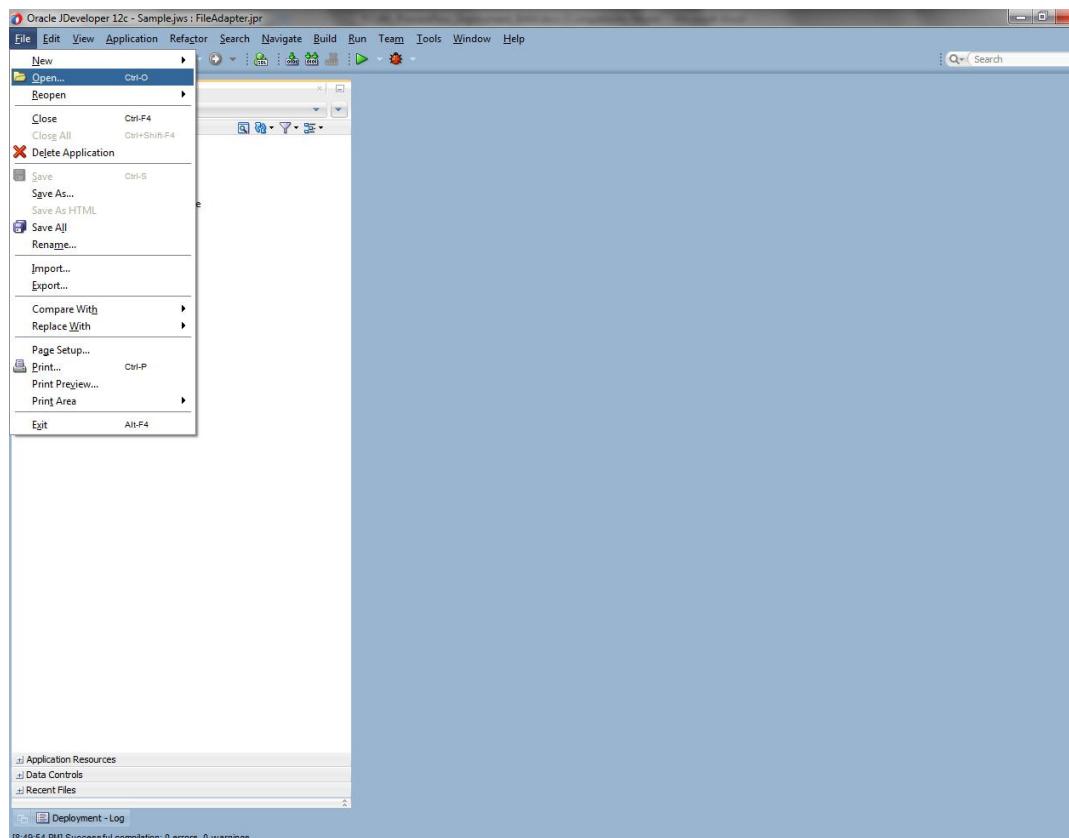
4.1 Introduction

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

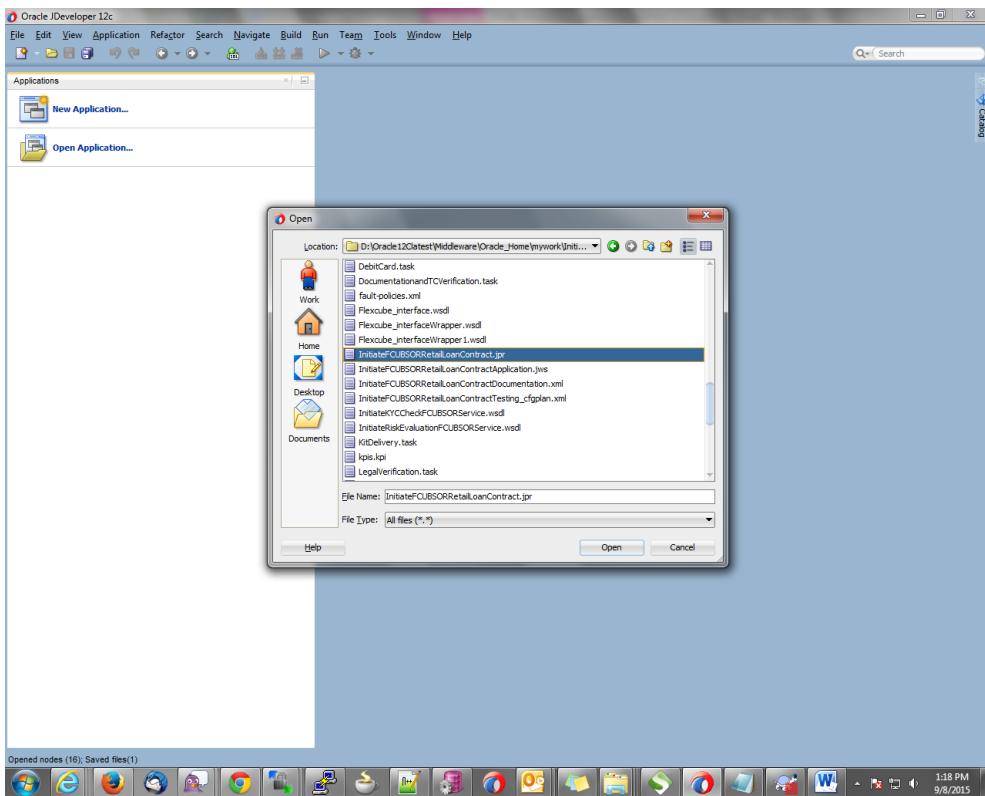
4.2 Loading the Process

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

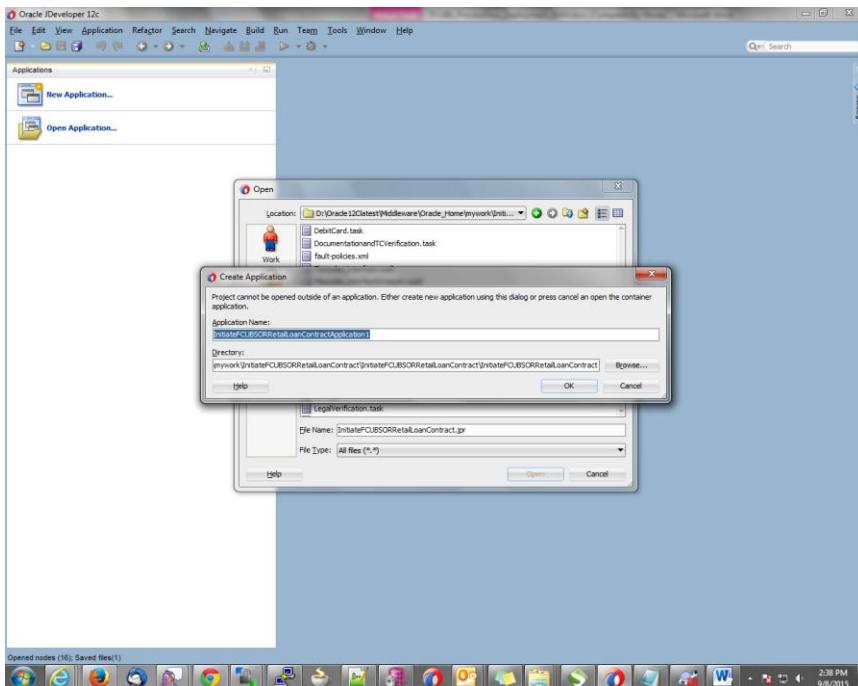
- Click on → File → Open



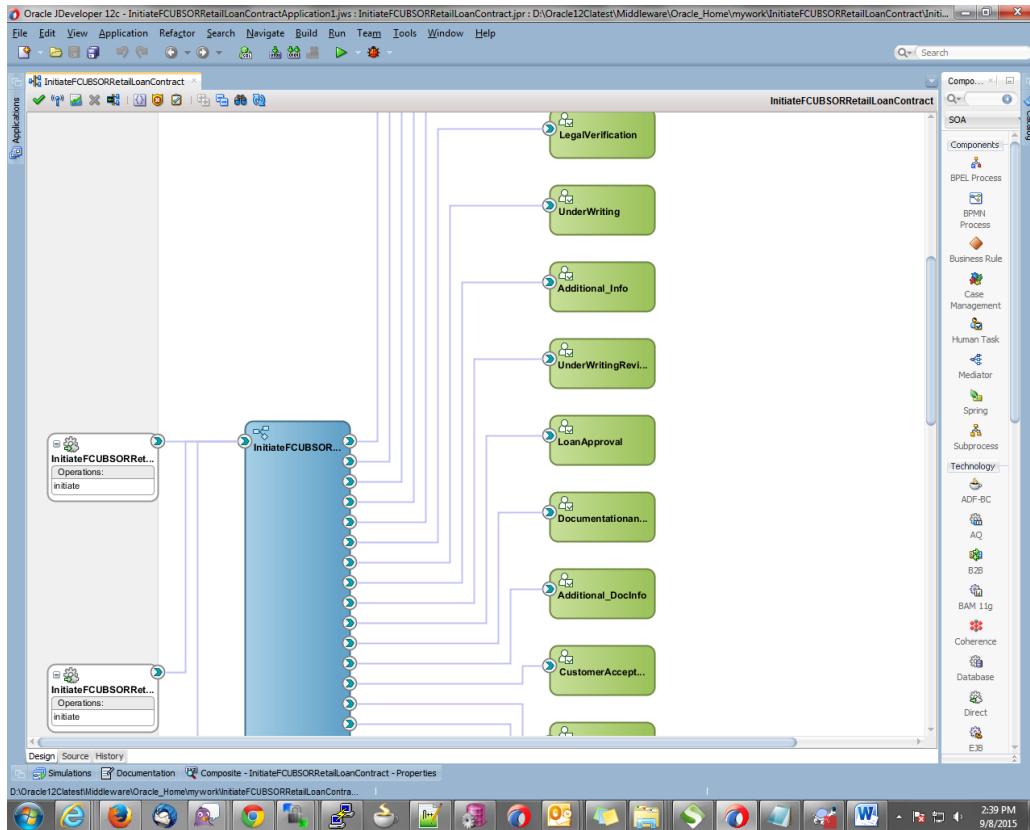
- Navigate to the folder where process flow is deployed
- Locate and select the “.jpr” file under the folder <process_name>
- Click ‘Open’ to load the process flow in JDeveloper



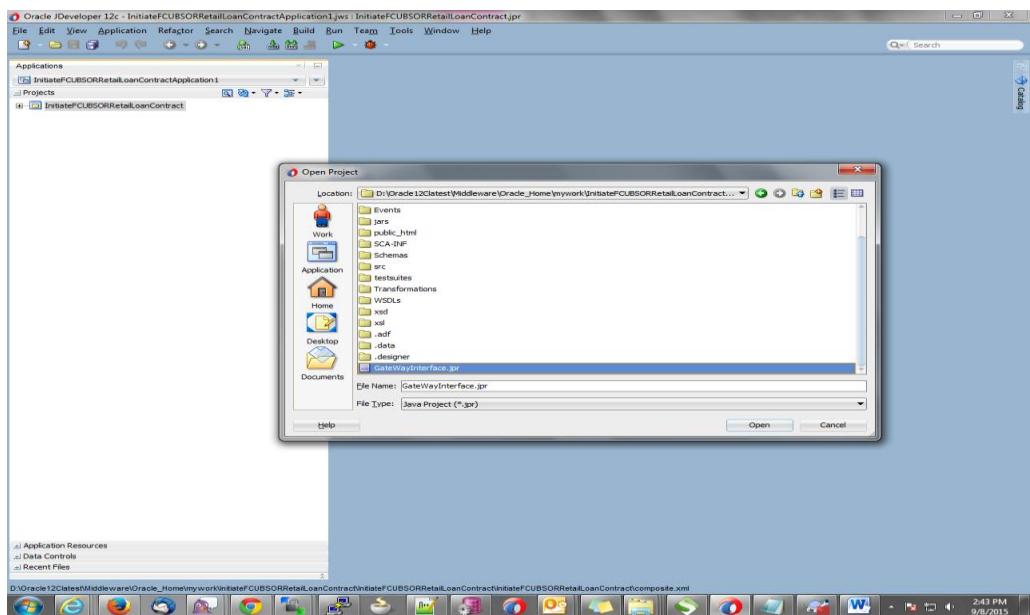
- If this is the first Process flow that is being loaded JDeveloper will prompt for an Application Name and Location where the application file will be stored
- Provide an application name and folder path for the same.
- Click in “Ok” to proceed with loading of the process flow.



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

Component Type	Type	Usage	Total Messages	Average Processing Time (sec)
BPEL	Web Service	Service	0	0.000
Human Workflow	Direct Binding	Service	0	0.000
Human Workflow	JCA Adapter	Reference	0	0.000
BPEL	Web Service	Reference	0	0.000
Human Workflow	Web Service	Reference	0	0.000
Human Workflow	Web Service	Reference	0	0.000
Human Workflow	Web Service	Reference	0	0.000
Human Workflow	Web Service	Reference	0	0.000

ORACLE® Enterprise Manager Fusion Middleware Control 12c

WebLogic Domain SOA Infrastructure weblogic ...

BPELLimitReview [1.0] 1 SOA Composite

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

Mar 29, 2016 3:55:20 PM IST

Dashboard Composite Definition Flow Insta 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.

The screenshot shows the Oracle Enterprise Manager Fusion Middleware Control 12c interface. The top navigation bar includes 'WebLogic Domain', 'SOA Infrastructure', 'weblogic', and a date/time stamp 'Mar 29, 2016 3:57:10 PM IST'. The main content area is titled 'Test Web Service' for the 'BPELLimitReview [1.0]' composite. It provides instructions for testing WSDL or WADL. Configuration fields include 'Service' (lcmmediatorprocess_client_ep), 'Port' (ICDMediatorProcess_pt), and 'Operation' (process). The 'Endpoint URL' is set to <http://ofss220216.in.oracle.com:7403/soa-infra/services/default/BPELLimitReview/lcmmediatorpt>. A 'Parse WSDL or WADL' button is present. Below these are sections for 'Request' and 'Response' with tabs for 'Security', 'Quality of Service', 'HTTP Header', and 'Additional Test Options'. Under 'Input Arguments', there's a table:

Name	Type	Value
* payload	payload	

- 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 - InitiateFCUBSRetailLoanContractApplication1.jws : InitiateFCUBSRetailLoanContract.jpr : D:\Oracle12C\latest\Middleware\Oracle_Home\mywork\InitiateFCUBSRetailLoanContract\InitiateFCUBSRetailLoanContract.ws

```

<?xml version="1.0" encoding="UTF-8"?>
<wsdl:definitions name="InitiateFCUBSRetailLoanContract" targetNamespace="http://tempuri.org/InitiateFCUBSRetailLoanContract" xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/" xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/" xmlns:xsd="http://www.w3.org/2001/XMLSchema">
    <wsdl:types>
        <xsd:schema targetNamespace="http://tempuri.org/InitiateFCUBSRetailLoanContract">
            <xsd:import namespace="http://tempuri.org/InitiateFCUBSRetailLoanContract"/>
        </xsd:schema>
    </wsdl:types>
    <wsdl:message name="InitiateFCUBSRetailLoanContractRequest">
        <wsdl:part name="parameters" type="tns:InitiateFCUBSRetailLoanContractRequestType"/>
    </wsdl:message>
    <wsdl:message name="InitiateFCUBSRetailLoanContractResponse">
        <wsdl:part name="parameters" type="tns:InitiateFCUBSRetailLoanContractResponseType"/>
    </wsdl:message>
    <wsdl:portType name="InitiateFCUBSRetailLoanContractPortType">
        <wsdl:operation name="InitiateFCUBSRetailLoanContract">
            <wsdl:input message="InitiateFCUBSRetailLoanContractRequest"/>
            <wsdl:output message="InitiateFCUBSRetailLoanContractResponse"/>
        </wsdl:operation>
    </wsdl:portType>
    <wsdl:binding name="InitiateFCUBSRetailLoanContractSoapBinding" type="tns:InitiateFCUBSRetailLoanContractPortType">
        <wsdl:operation name="InitiateFCUBSRetailLoanContract">
            <wsdl:input wsdl:soap="<?xml version='1.0' encoding='UTF-8'?><soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/" xmlns:tns="http://tempuri.org/InitiateFCUBSRetailLoanContract"><soap:Header/><soap:Body></soap:Body>" />
            <wsdl:output wsdl:soap="<?xml version='1.0' encoding='UTF-8'?><soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/" xmlns:tns="http://tempuri.org/InitiateFCUBSRetailLoanContract"><soap:Header/><soap:Body></soap:Body>" />
        </wsdl:operation>
    </wsdl:binding>
    <wsdl:service name="InitiateFCUBSRetailLoanContractService">
        <wsdl:port name="InitiateFCUBSRetailLoanContractPort" binding="InitiateFCUBSRetailLoanContractSoapBinding">
            <wsdl:address location="http://192.168.1.103:7001/FCUBSRetailLoanContract/InitiateFCUBSRetailLoanContract?wsdl" />
        </wsdl:port>
    </wsdl:service>
</wsdl:definitions>

```

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 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
```

```
<?xml version="1.0" encoding="UTF-8"?>
<configuration>
    <!-- And search and replace rules for the component properties
        For components and service/reference bindings, you can add policy references.
        Examples:
        <component name="">
            <!-->
        </component>-->
        <reference name="KYCCorporateReview">
            <binding type="wsdl">
                <attribute name="port">
                    <replace>http://xmins.oracle.com/KYCCorporateReview?wsdl.endpoint(KYCCorporateReview/KYCCorporateReview)</replace>
                </attribute>
                <attribute name="location">
                    <replace>http://subpd.iflexsolutions.com:8001/soa-infra/services/default/KYCCorporateReview!1.0/client?WSDL</replace>
                </attribute>
            </binding>
        </reference>
        <reference name="DBUtility">
            <binding type="wsdl">
                <attribute name="port">
                    <replace>http://xmins.oracle.com/DBUtility?wsdl.endpoint(DBUtility/DBUtility)</replace>
                </attribute>
                <attribute name="location">
                    <replace>http://subpd.iflexsolutions.com:8001/soa-infra/services/default/DBUtility!1.0/client?WSDL</replace>
                </attribute>
            </binding>
        </reference>
        <reference name="CRMUtility">
            <binding type="wsdl">
                <attribute name="port">
                    <replace>http://xmins.oracle.com/CRMUtility/CRMUtility?wsdl.endpoint(receiveCustomer_ep/CRMUtility_pt)</replace>
                </attribute>
                <attribute name="location">
                    <replace>http://subpd.iflexsolutions.com:8001/soa-infra/services/default/CRMUtility!1.0/receiveCustomer_ep?WSDL</replace>
                </attribute>
            </binding>
        </reference>
    </!-->
</configuration>
```

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.

```
<zend_version>1.0</zend_version>
<?xml version="1.0" encoding="UTF-8"?>
<soaConfigPlan xmlns:ca="http://platform.integration.oracle/blocks/adapters/fw/metadata" xmlns:xsp="http://schemas.xsp/oracle/blocks/adapters/fw/metadata">
  <composite name="OpenRetailTermDeposit">
    <import>
      <searchReplace>
        <search/>
        <replace/>
      </searchReplace>
    </import>
    <service name="client">
      <binding type="ws">
        <attribute name="port">
          <replace>http://wains.oracle.com/OpenRetailTermDeposit#wsdl</replace>
        </attribute>
      </binding>
    </service>
    <service name="OpenRetailTermDeposit_client_ws">
      <binding type="add"/>
    </service>
    <reference name="BIPUtility">
      <binding type="ws">
        <attribute name="port">
          <replace>http://wains.oracle.com/BIPUtility#wsdl</replace>
        </attribute>
        <attribute name="location">
          <replace>http://AP-3RD-1-LMG:8046/soa-infra/services/default/BIPUtility/client/WSDL-Interface</replace>
        </attribute>
      </binding>
      <callback>
        <binding type="ws">
          <attribute name="port">
            <replace>http://wains.oracle.com/BIPUtility#wsdl</replace>
          </attribute>
        </binding>
      </callback>
    </reference>
  </composite>
</soaConfigPlan>
```

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.

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Config_plan property	fcubs.properties
bpel.preference.BIUSERID	BI_USER
bpel.preference.BIPWD	BI_PASSWORD
bpel.preference.DOCPATH	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.DMS">
19             <replace>FM</replace>
20         </property>
21         <property name="bpel.preference.BIUSERID">
22             <replace>M/gukt0r4u2x83x20v0QA==</replace>
23         </property>
24         <property name="bpel.preference.BIPWD">
25             <replace>M/gukt0r4uks5ebp+bgkq==</replace>
26         </property>
27         <property name="bpel.preference.IPMUSERID">
28             <replace>M/gukt0r4u2x83x20v0QA==</replace>
29         </property>
30         <property name="bpel.preference.IPMFND">
31             <replace>M/gukt0r4uks5ebp+bgkq==</replace>
32         </property>
33         <property name="bpel.preference.IPMAPPLICATION">
34             <replace>OFSS</replace>
35         </property>
36         <property name="bpel.preference.IBMURL">
37             <replace>http://10.184.132.159:16002/imaging</replace>
38         </property>
39         <property name="bpel.preference.DOCPATH">
40             <replace>scratch/work_area/Dev122ProjectDebugs</replace>
41         </property>
42         <property name="bpel.preference.SYMMKEY">
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/fcjdevDS</replace>
50         </property>
51     </component>
52     <reference name="BIPartnerLink">
53         <binding type="ws">
54             <attribute name="port">
55                 <replace>http://xmlns.oracle.com/oxp/service/v2#wsdl.endpoint(ReportService/ReportService)</replace>
56             </attribute>
57             <attribute name="location">

```

soaconfigplan composite component property replace

Source History

5.4 Config plan changes for DBUtility process.

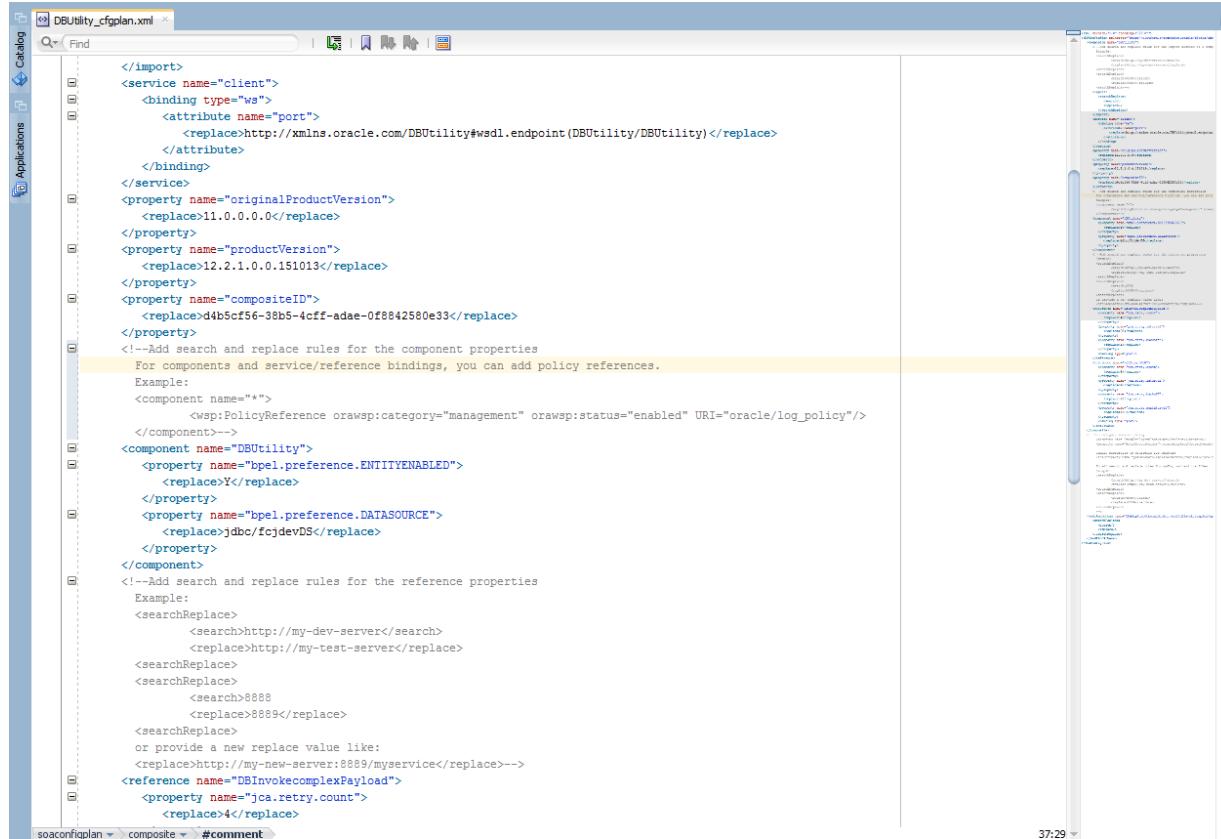
Open the DBUtility _cfgplan.xml and copy corresponding values for the below mentioned properties.

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.



```

<!--Add search and replace rules for the component properties
For components and service/reference bindings, you can add policy references.
Example:
<component name="*"
    <wp: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>dbc/fcjdevDS</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</search>
    <replace>8888</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.

```

<bpel.preference>
    <property name="bpel.preference.ENTITYENABLED">
        <replace>false</replace>
    </property>
    <property name="bpel.preference.DATASOURCE">
        <replace>jdbc/fcjdevDS</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/fcjdevDS</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/fcjdevDS</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/fcjdevDS</replace>
            </property>
        </component>
    </component>
</bpel.preference>

```

5.6 Config plan changes for InitiateCorplIslamicContract process

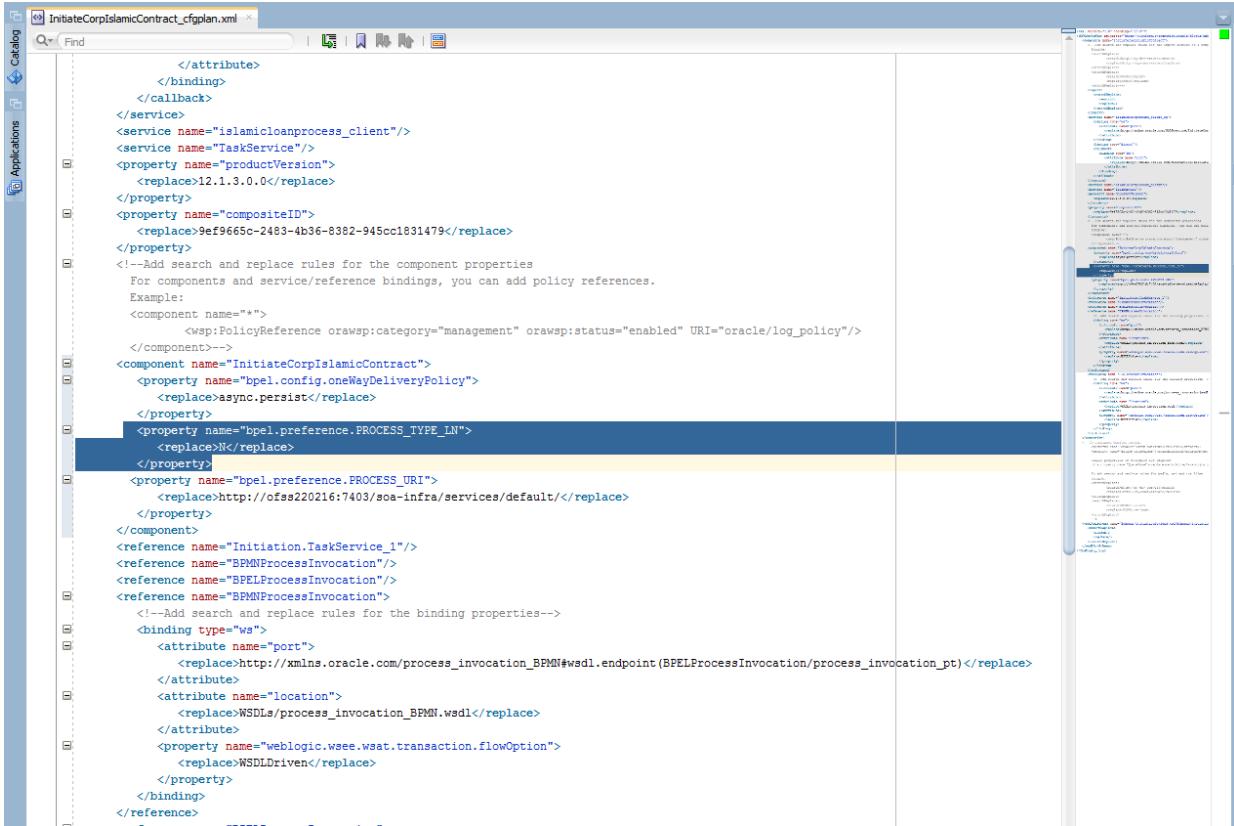
Open the InitiateCorplIslamicContract_cfgplan.xml and copy corresponding values for the below mentioned properties to initiate BPEL or BPMN process from Common process.

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.



```

<!--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://ofss20216:7403/se-a-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>WSDDDriven</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 .

Oracle JDeveloper 12c - InitiateFCUBSRetailLoanContractApplication1.jws : InitiateFCUBSRetailLoanContract.jpr

File Edit View Application Refactor Search Navigate Build Run Source Signing Tools Window Help

Application Navigator Application Server N... config.properties FdDomToFCNehConverter.java

My Components

Projects

- CreditBureauBPEL
- FacilityCreation
- OpenSavingsAccount
- RetailLending
- VehicleEvaluatorBPEL
- Application Sources
 - com.ofss.converter
 - config.properties
 - FCPBLUtility.java
 - FdDomToFCNehConverter.java
- META-INF
- SOA Content
- testsuite
- xsd
- xsl
- Business Rules
- composite.xml
- RetailLendingProcessFlow.componentType

Data Controls

Recently Opened Files

config properties - Structure

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.

INIT_DATASOURCE =XTtn4oWihfyEcjBt1qHQ==

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

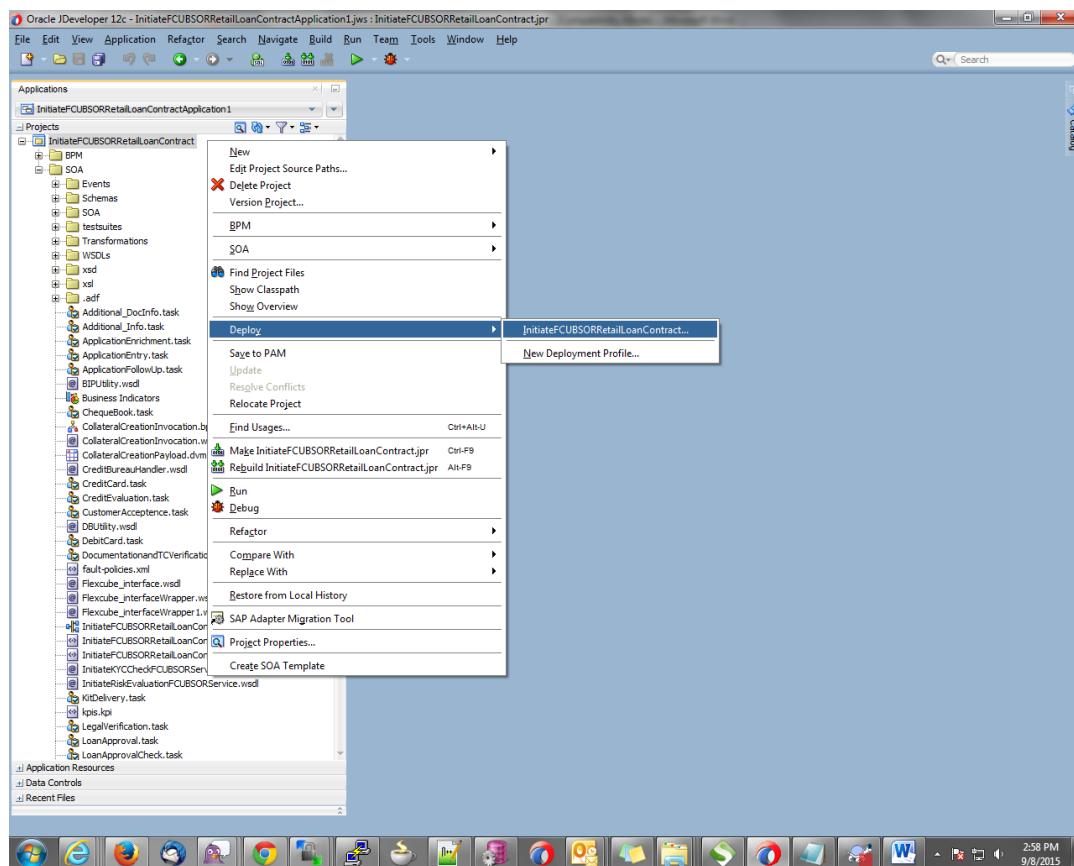
6. Deploying a Single Composite application using JDeveloper

6.1 Introduction

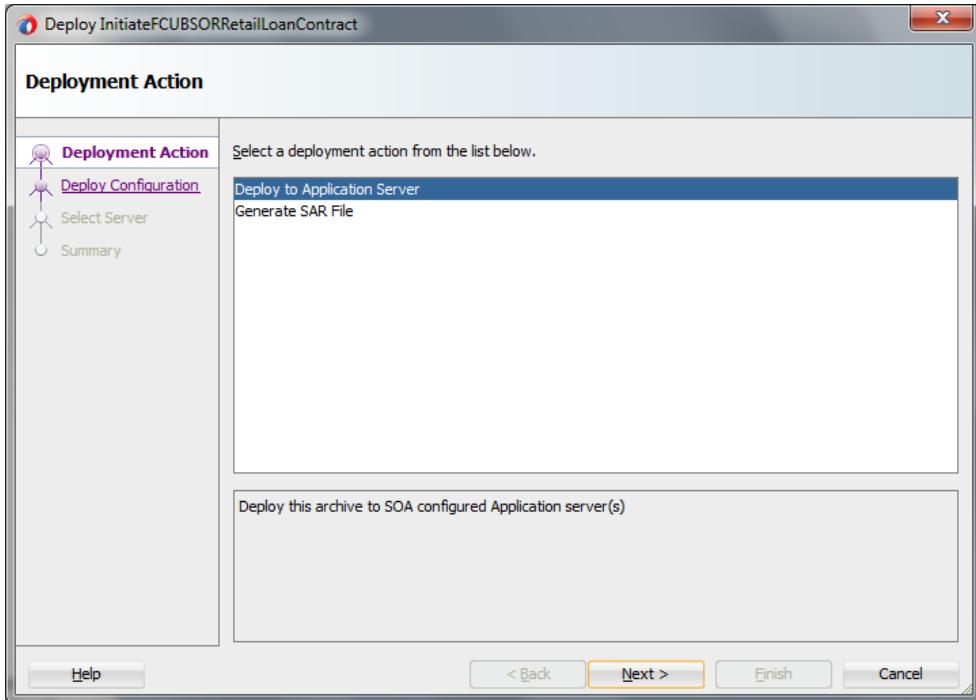
This section describes how to deploy a single SOA composite application with Oracle JDeveloper after completing updating of config plans with respective target environment replacement values.

6.2 Deploying the Application

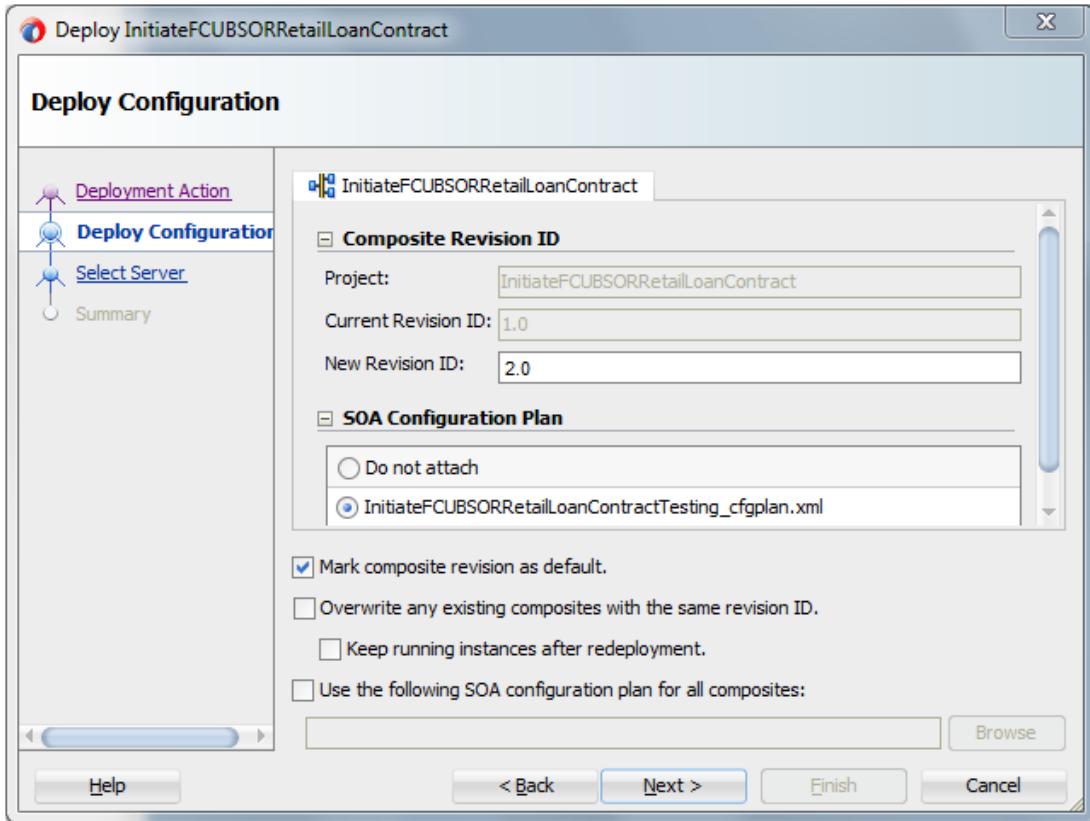
- Right click on the Application that needs to be deployed.
- Select ‘Deploy’ and then click on the default deployment profile which is the same as the application name.
- This will result in the deployment wizard screen being launched.



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



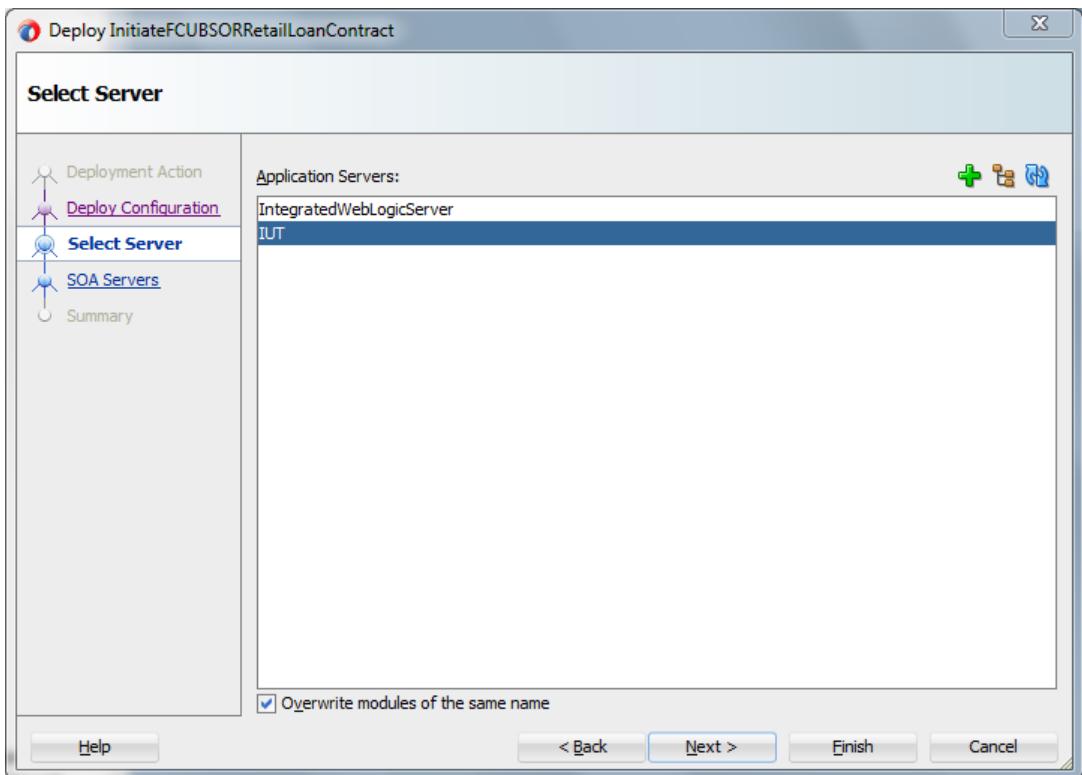
- Deployment configuration is done as illustrated in the below screen shot
- Select a Revision with which the deployment should happen
- Select a " Configuration Plan" that was updated as given in Section 5
- Provide a new revision ID. It should be always higher than the earlier revision of the process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



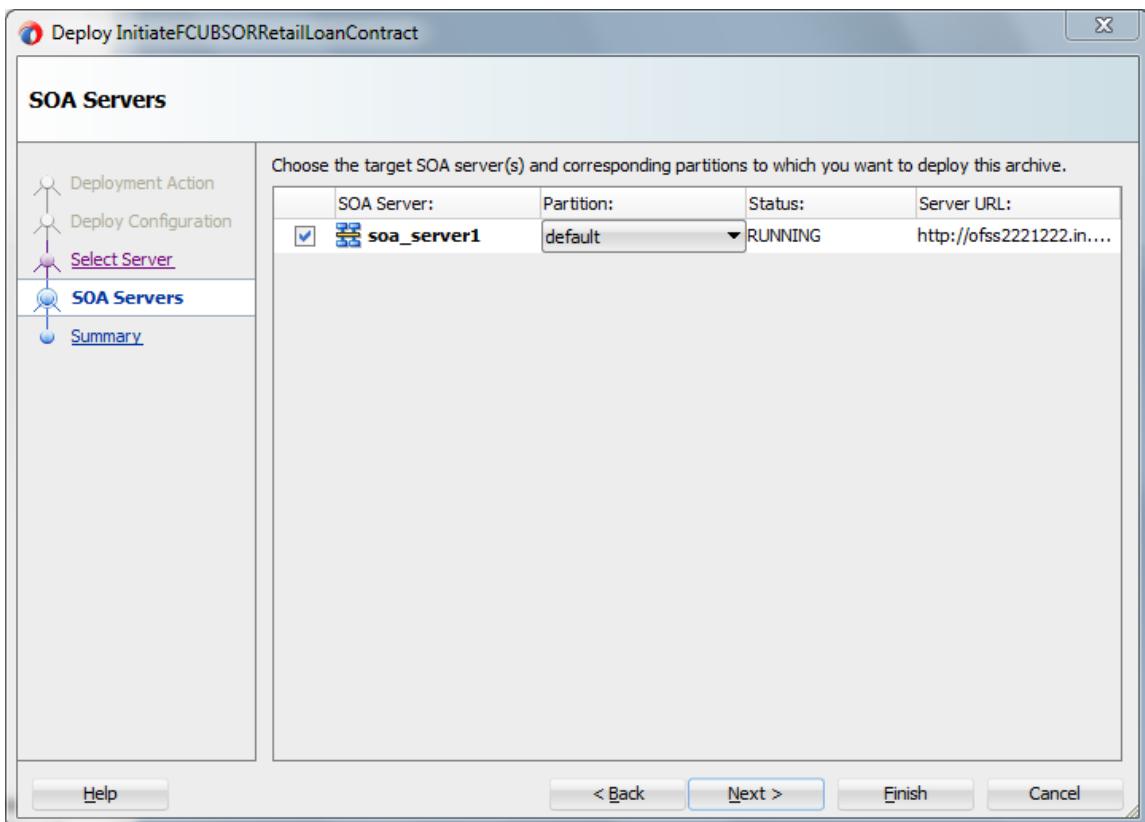
- Select the Application server ‘Server Connection’ configured that was done in Section 3 to which the deployment needs to be done
- Click ‘Next’ to proceed with the deployment.

Note :

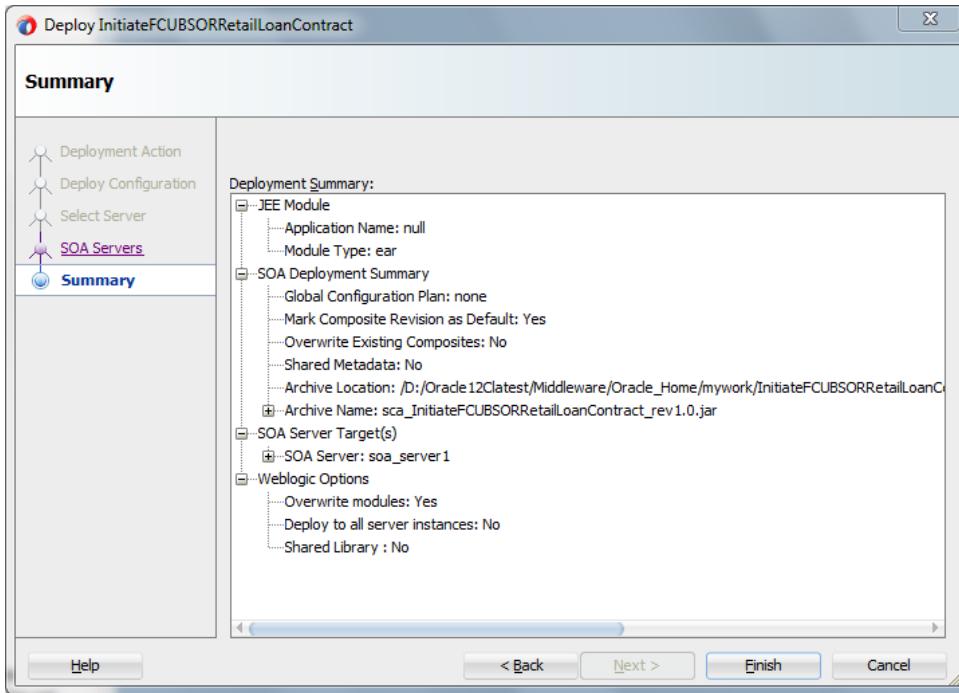
In case “Overwrite any existing composites with the same revision ID” checkbox is checked during the deployment, the active tasks which are currently running on the current revision of the process flow will be moved to “Stale” task status. The tasks which are in “Stale” status will not be displayed in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



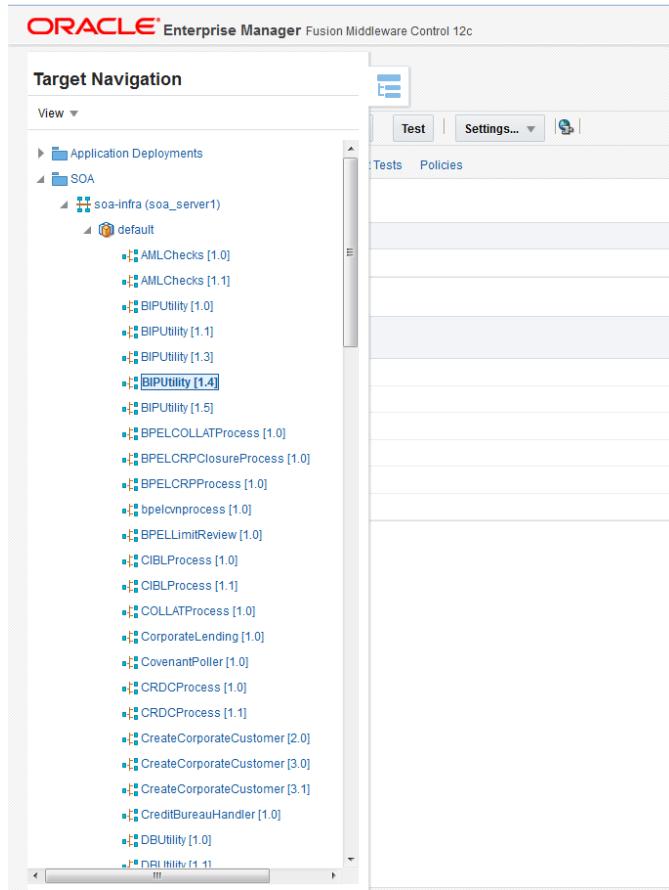
- View the summary of the deployment details and click 'Finish' to complete the deployment.



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

```
Deployment - Log
[08:14:15 PM] Deploying profile...
[08:14:15 PM] Updating revision id for the SOA Project 'InitiateFCUBSORRetailLoanContract.jpr' to '1.0'..
[08:14:15 PM] Copying file /D:/Oracle12Clatest/Middleware/Oracle_Home/mywork/InitiateFCUBSORRetailLoanContract/InitiateFCUBSORRetailLoanContract/InitiateFCUBSORRetailLoanContract_rev1.0.jar to partition "default" on server soa_server1 [http://ofss221222.in.oracle.com:7403]
[08:14:15 PM] Adding scaconfigplan.xml to archive.
[08:14:15 PM] Wrote archive Module to /D:/Oracle12Clatest/Middleware/Oracle_Home/mywork/InitiateFCUBSORRetailLoanContract/InitiateFCUBSORRetailLoanContract_rev1.0.jar
[08:14:15 PM] Deploying sca_InitiateFCUBSORRetailLoanContract_rev1.0.jar to partition "default" on server soa_server1 [http://ofss221222.in.oracle.com:7403]
[08:14:15 PM] Processing scaxml/D:/Oracle12Clatest/Middleware/Oracle_Home/mywork/InitiateFCUBSORRetailLoanContract/InitiateFCUBSORRetailLoanContract/InitiateFCUBSORRetailLoanContract_rev1.0.jar
[08:14:15 PM] Adding sca file - D:/Oracle12Clatest/Middleware/Oracle_Home/mywork/InitiateFCUBSORRetailLoanContract/InitiateFCUBSORRetailLoanContract/InitiateFCUBSORRetailLoanContract_rev1.0.jar
[08:14:15 PM] Preparing to send HTTP request for deployment
[08:14:15 PM] Creating HTTP connection to host:ofss221222.in.oracle.com, port:7403
[08:14:15 PM] Sending internal deployment descriptor
[08:14:15 PM] Sending archive - sca_InitiateFCUBSORRetailLoanContract_rev1.0.jar
[08:15:55 PM] Receiving HTTP response from the server, response code=200
[08:15:55 PM] Successfully deployed archive sca_InitiateFCUBSORRetailLoanContract_rev1.0.jar with 0 warning/severe messages to partition "default" on server soa_server1 [http://ofss221222.in.oracle.com:7403]
[08:15:55 PM] Elapsed time for deployment: 1 minute, 56 seconds
[08:15:55 PM] ----- Deployment finished. -----
```

- 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



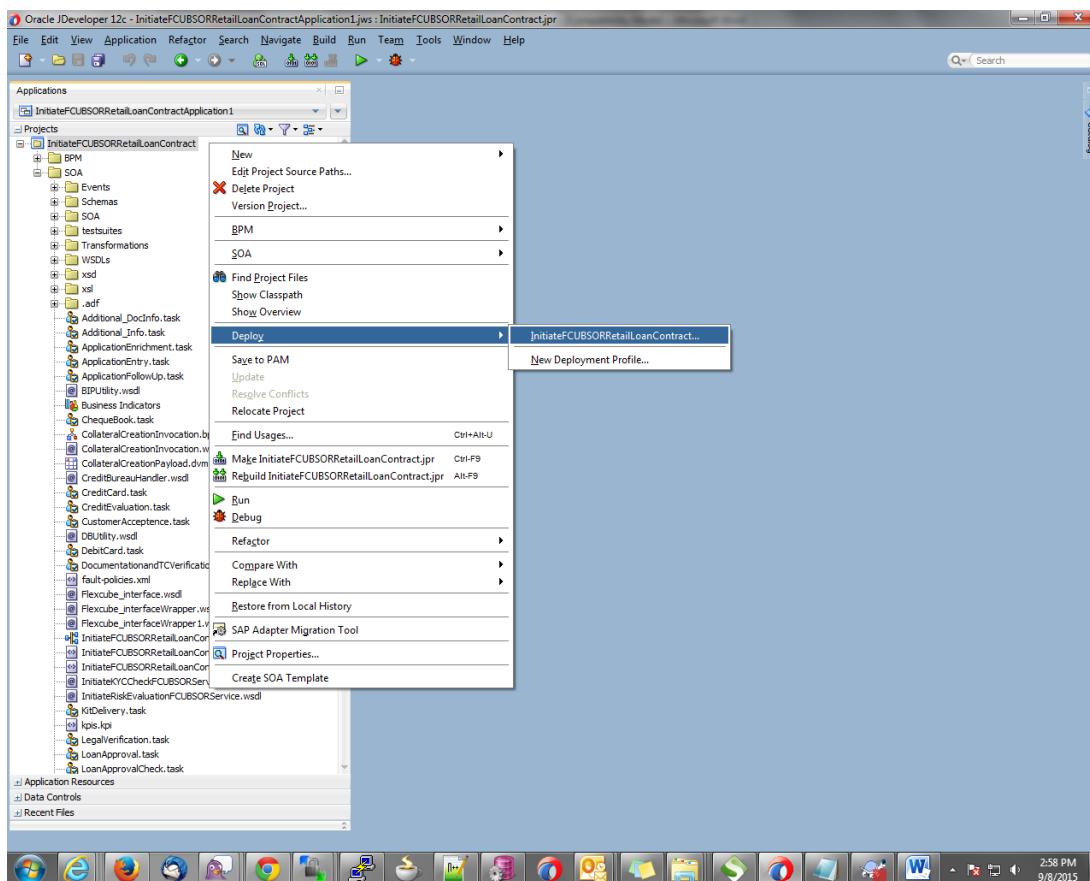
7. Deploying a Single Composite application via Enterprise manager console

7.1 Introduction

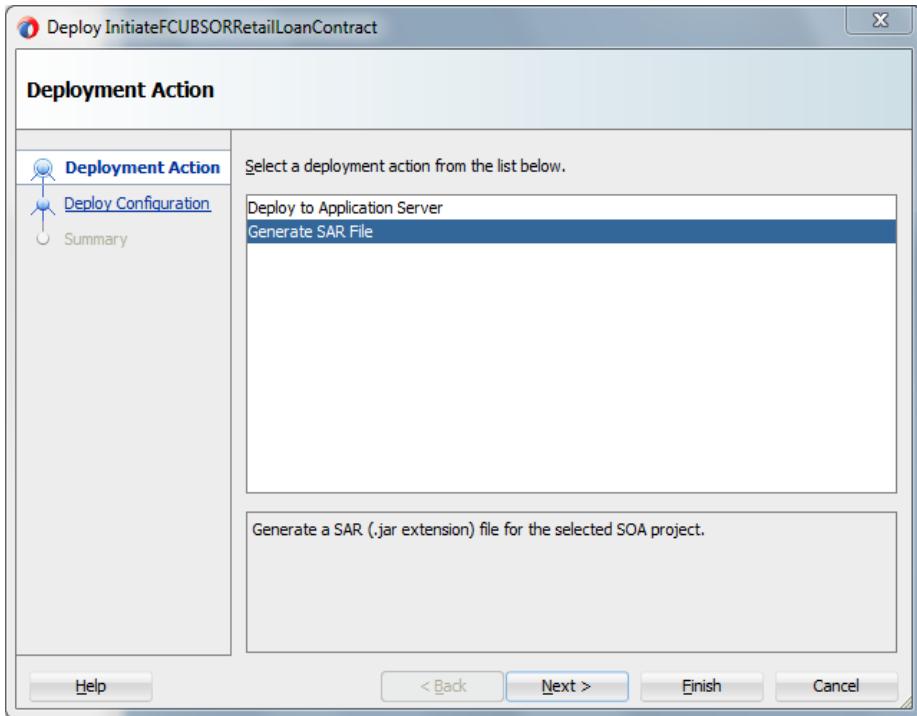
This section describes how to build a SAR file for a single SOA composite application with Oracle JDeveloper and deploy the same via enterprise manager console.

7.2 Deploying the Application

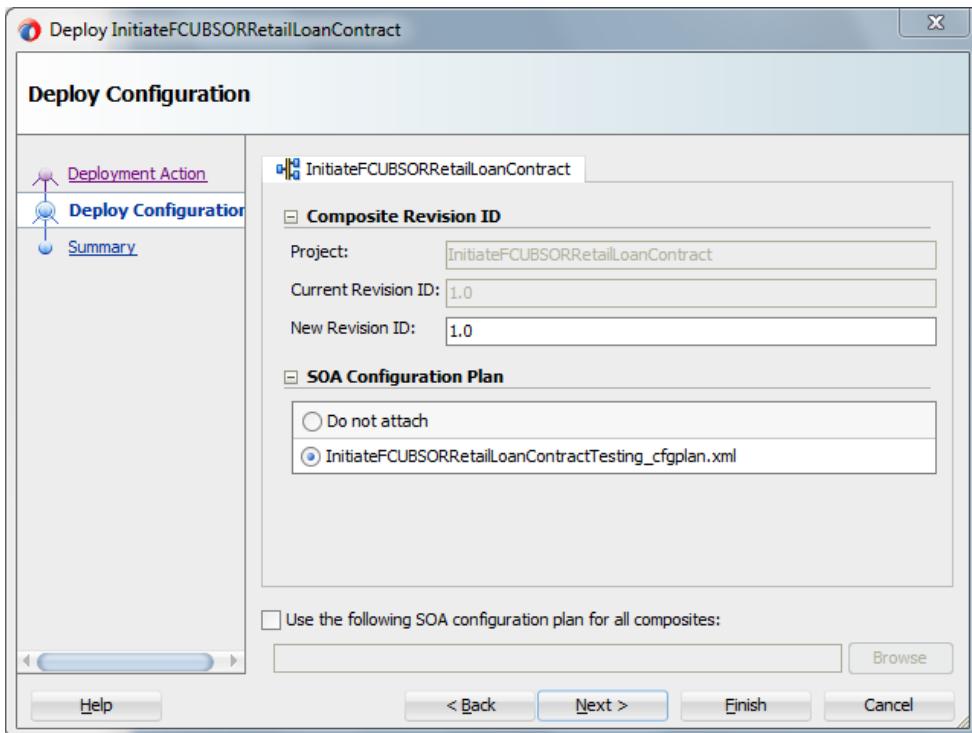
- Right click on the Application that needs to be deployed.
- Select 'Deploy' and then click on the default deployment profile which is the same as the application name.
- This will result in the deployment wizard screen being launched.



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

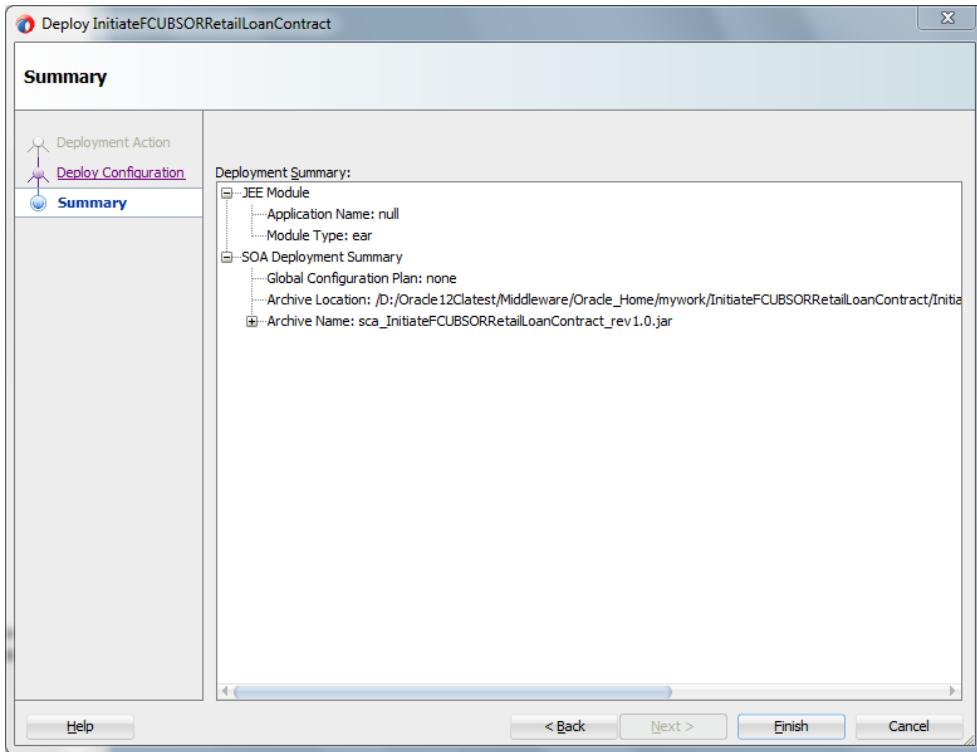


- In deployment configuration screen enter the revision
- Select the configuration plan.
- Click "Next" to proceed with the deployment.

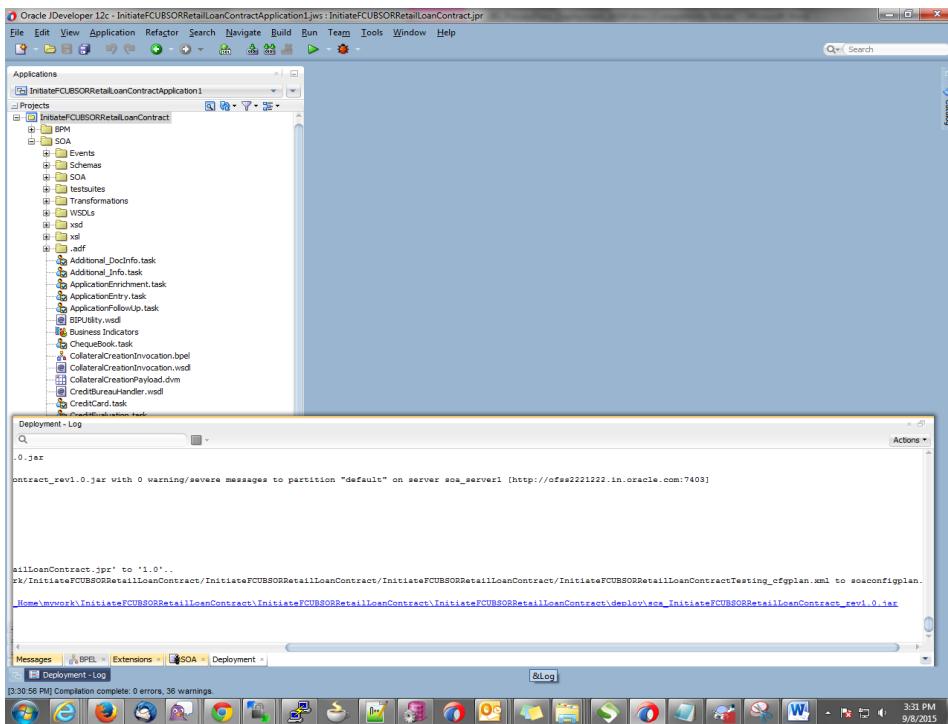


- Review the deployment summary screen

- 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.

ORACLE® Enterprise Manager Fusion Middleware Control 12c

WebLogic Domain ▾ weblogic ▾

Mar 29, 2016 4:10:23 PM IST

Target Navigation

View ▾

- Application Deployments
- SOA
 - Home
 - Monitoring
 - Logs
 - SOA Deployment
 - Deploy...
 - Undeploy...
 - Redeploy...
 - Manage Partitions
 - Work Manager Groups
 - Resequencing Groups
 - Service Engines
 - Bindings [1.0]
 - Services and References
 - Business Events
 - SOA Administration
 - Security
 - Administration
- Target Sitemap
- Target Information

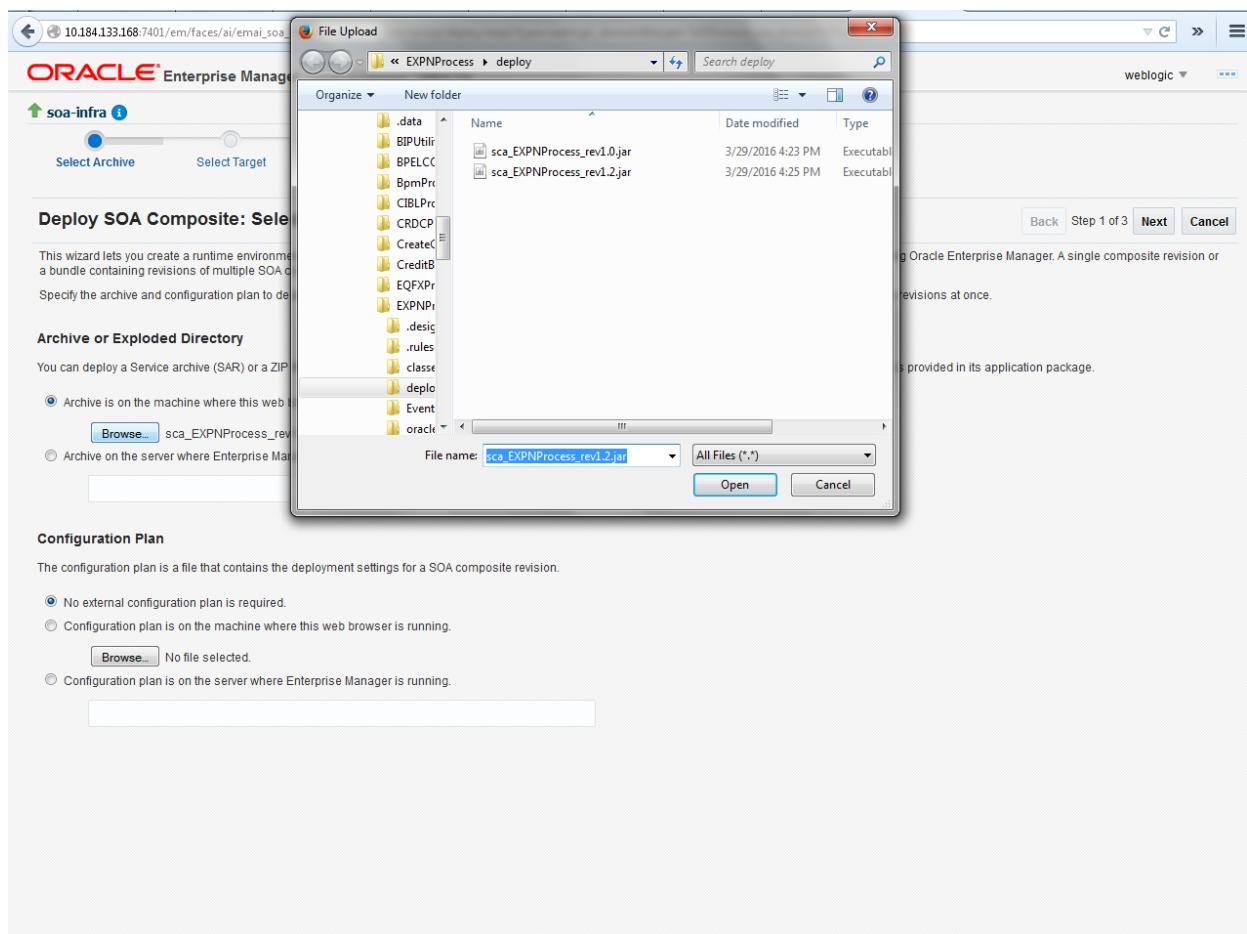
Server

Name: AdminServer
Host: ofss220216.in.oracle.com
Listen Port: 7401

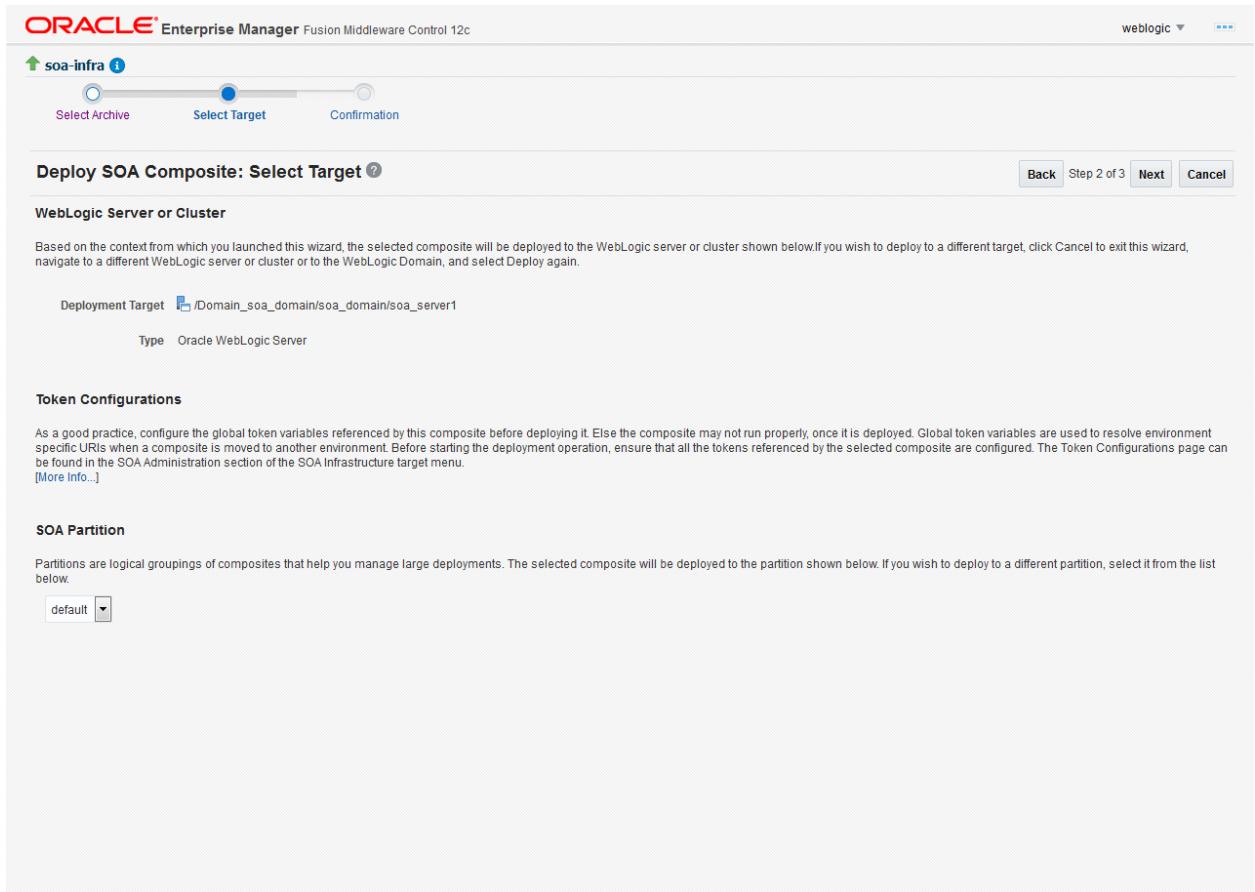
	Status	Cluster	Machine	State	Health	Listen Port	CPU U
dmin)	▲			Running	OK	7401	
	▲		new_Machine_1	Running	OK	7404	
	▲		new_Machine_1	Running	OK	7403	

Columns Hidden 33 Servers 3 of 3

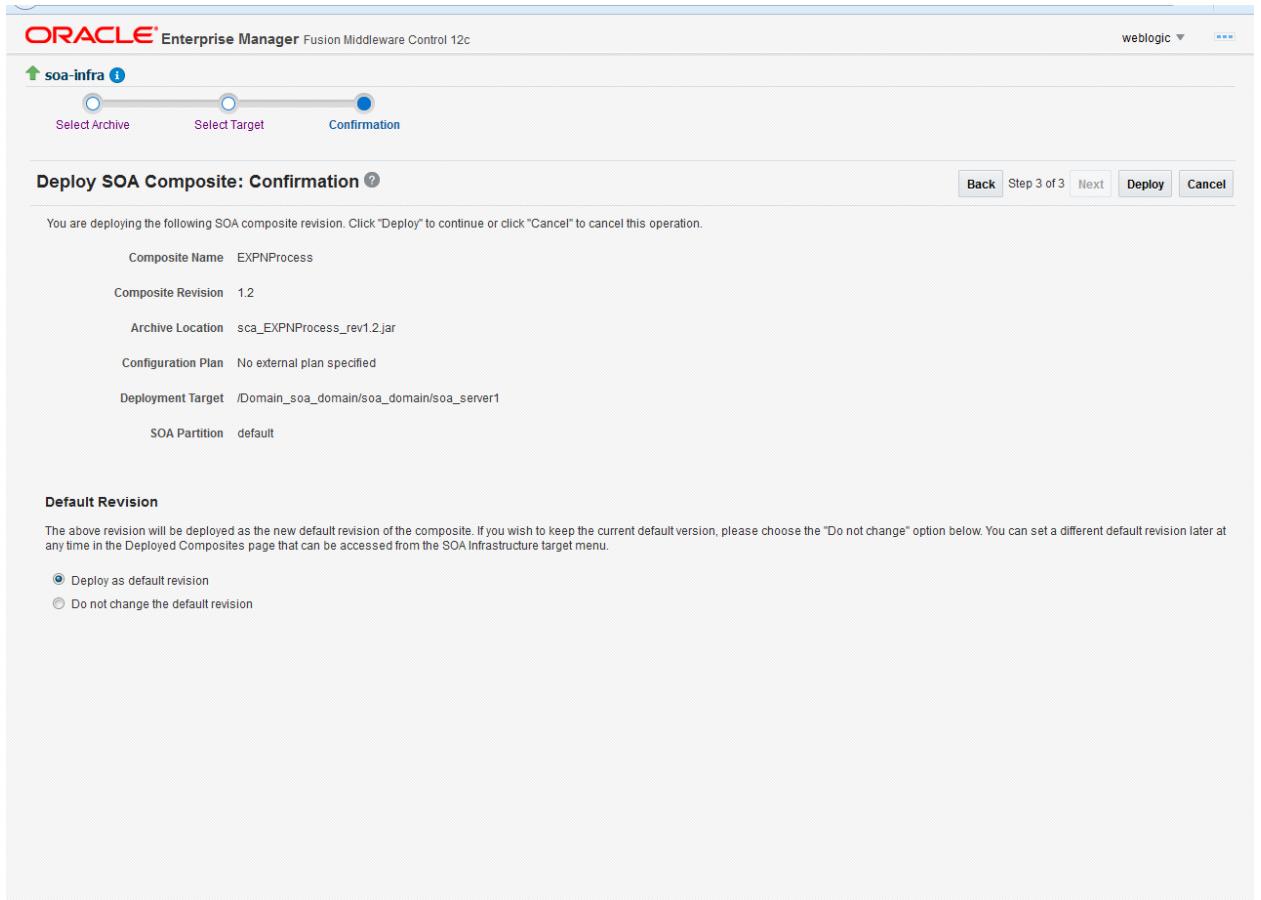
- Select the 'SAR' archive
- Select the deployment plan with which the application needs to be deployed as illustrated in the screen shot.



- 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

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

soa-infra i

Select Archive Select Target Confirmation

Deploy SOA Composite: Confirmation ?

You are deploying the following SOA composite revision. Click "Deploy" to continue or click "Cancel" to cancel this operation.

Composite Name EXPNProcess
Composite Revision 1.2
Archive Location sca_EXPNProcess_rev1.2.jar
Configuration Plan No external plan specified
Deployment Target /Domain_soa_domain/soa_domain
SOA Partition default

Default Revision
The above revision will be deployed as the new default revision of the composite. You can change the default revision at any time in the Deployed Composites page that can be accessed from the navigation bar.

Deploy as default revision
 Do not change the default revision

Deployment Succeeded

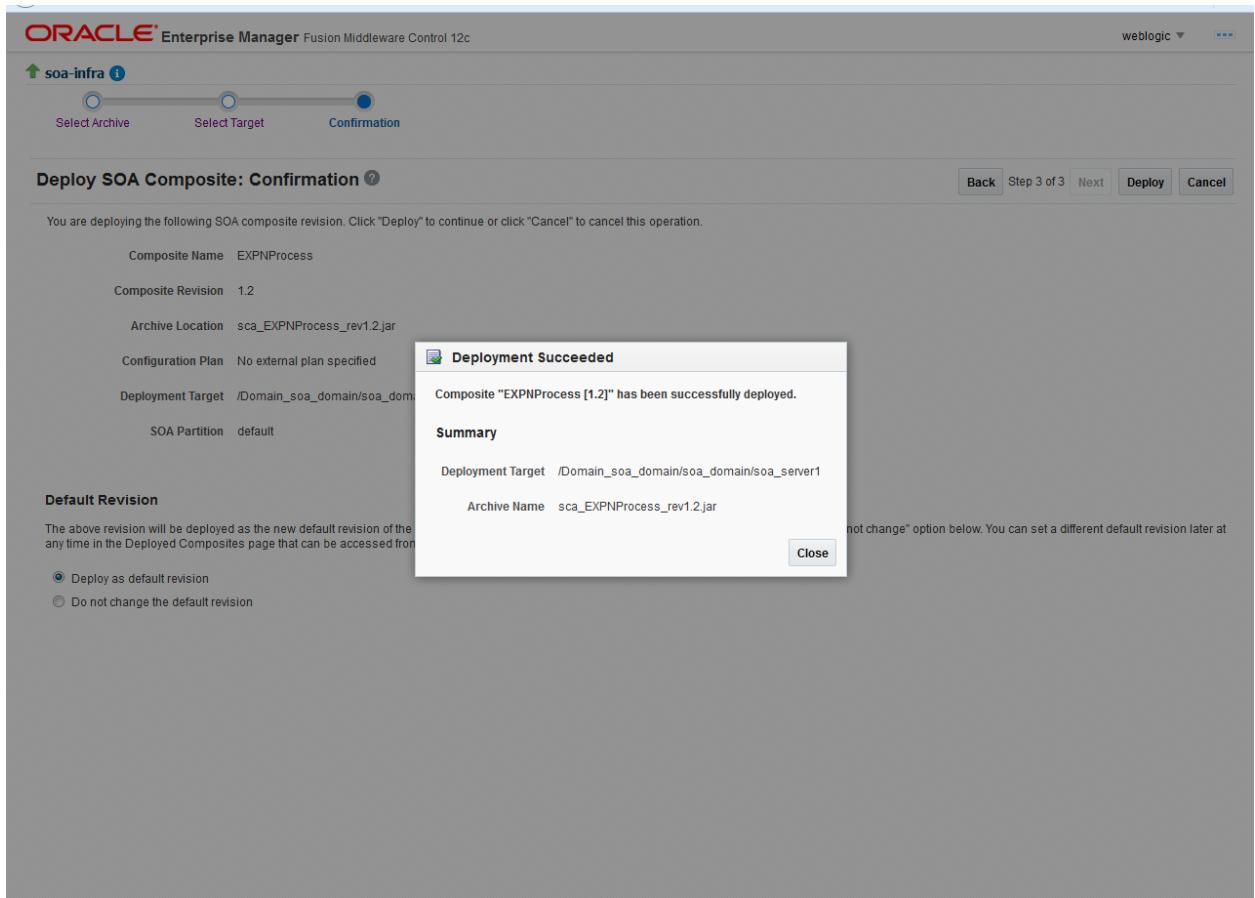
Composite "EXPNProcess [1.2]" has been successfully deployed.

Summary

Deployment Target /Domain_soa_domain/soa_domain/soa_server1
Archive Name sca_EXPNProcess_rev1.2.jar

not change" option below. You can set a different default revision later at

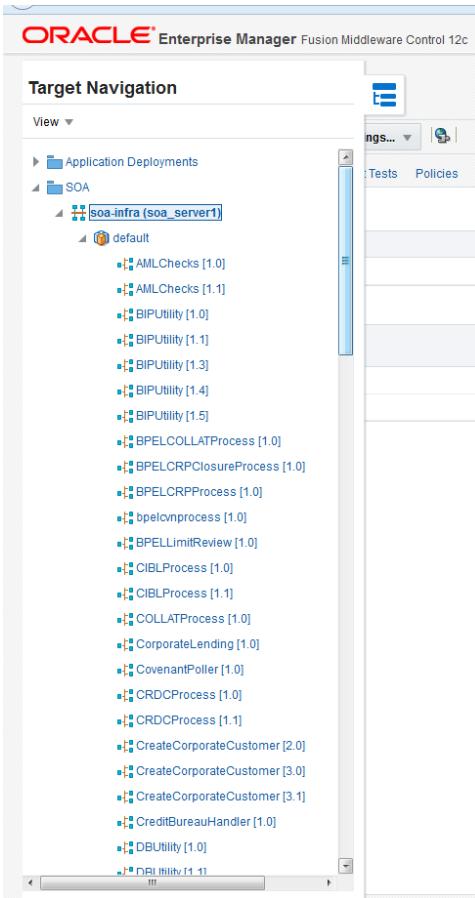
Close



The screenshot shows the Oracle Enterprise Manager Fusion Middleware Control 12c interface. The top navigation bar includes links for 'WebLogic Domain', 'SOA Infrastructure', 'weblogic', and a date/time stamp 'Mar 29, 2016 4:30:11 PM IST'. The left sidebar is titled 'Target Navigation' and lists numerous process flows, many of which begin with 'InitiateCorp...'. The main content area displays a table of deployed components:

	Type	Usage	Total Messages	Average Processing Time (sec)
Web Service	Service	0	0.000	
Web Service	Reference	0	0.000	

- Check the deployed process from the enterprise manager console



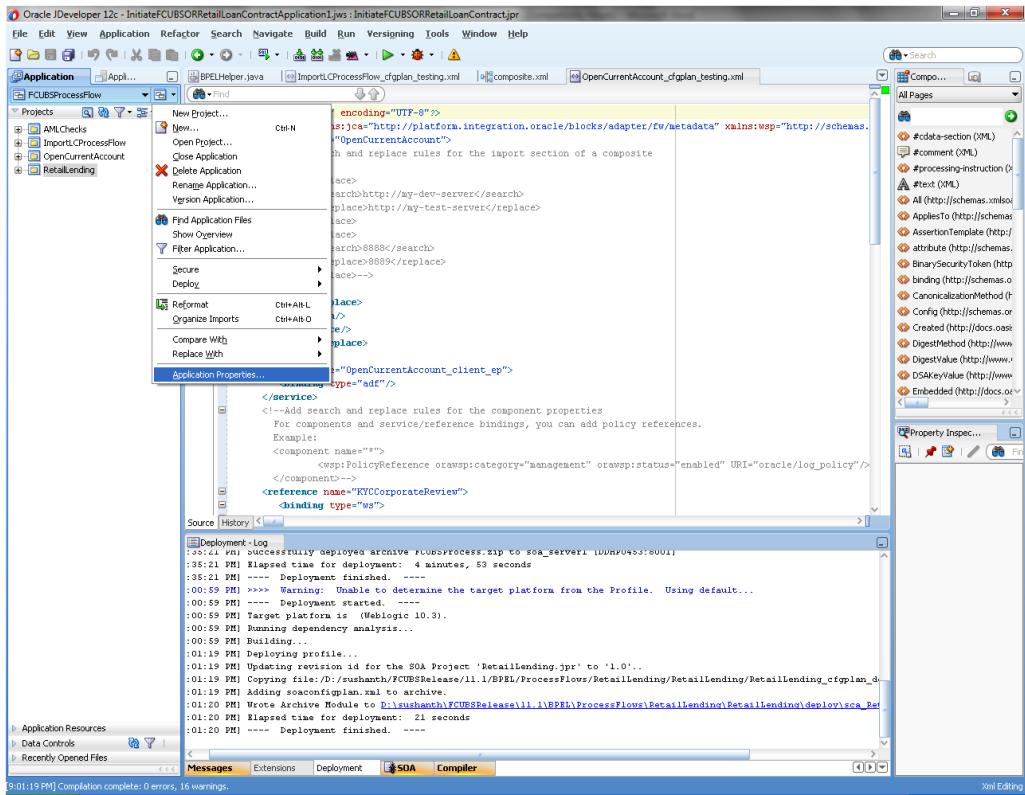
8. Deploying Multiple Composite application using JDeveloper

8.1 Introduction

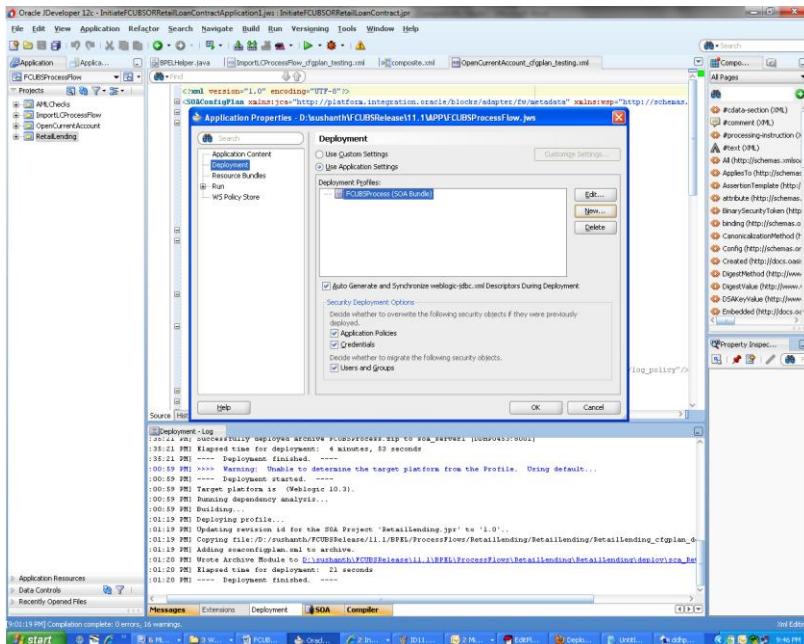
This section describes how to deploy a multiple SOA composite application with Oracle JDeveloper after completing updating of config plans with respective target environment replacement values.

8.2 Creating the Deployment Profile

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



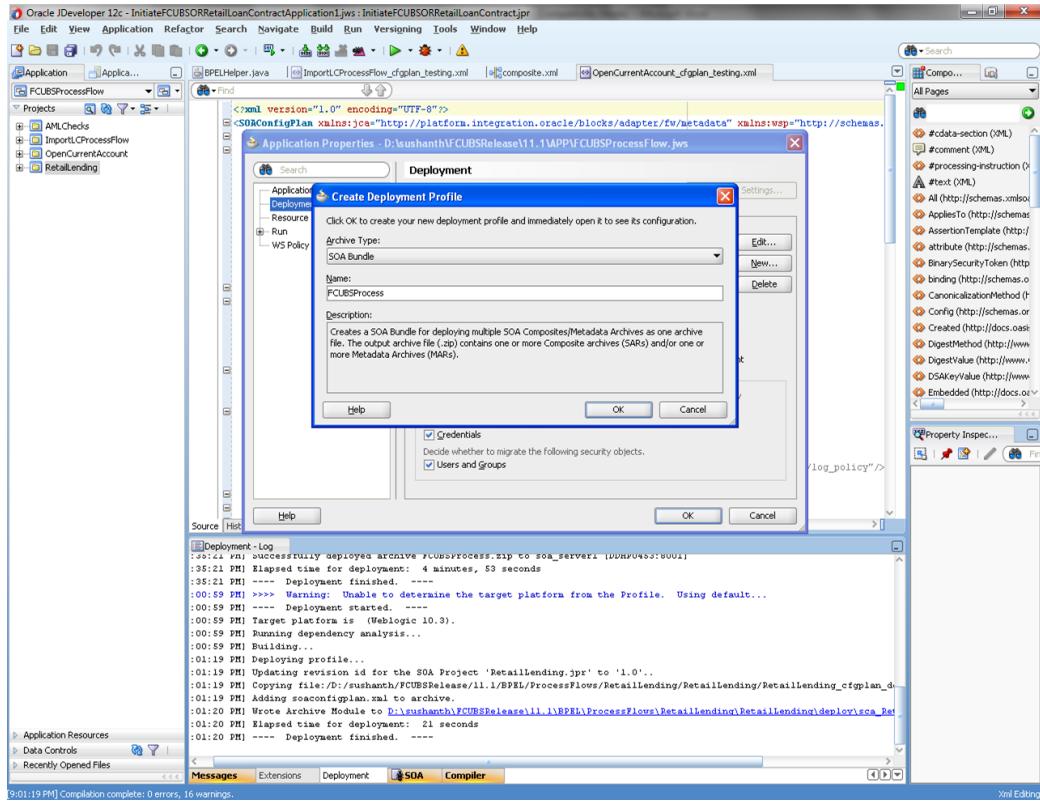
- In the Application Properties dialog, click Deployment.
- Click New.



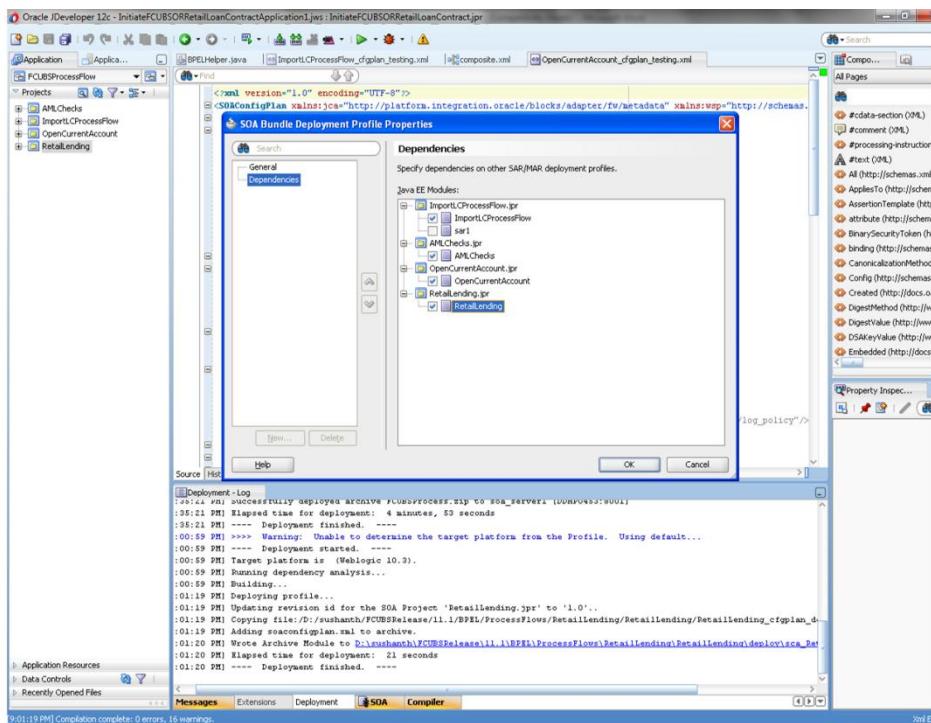
- The Create Deployment Profile dialog appears.
- In the Archive Type list, select SOA Bundle.

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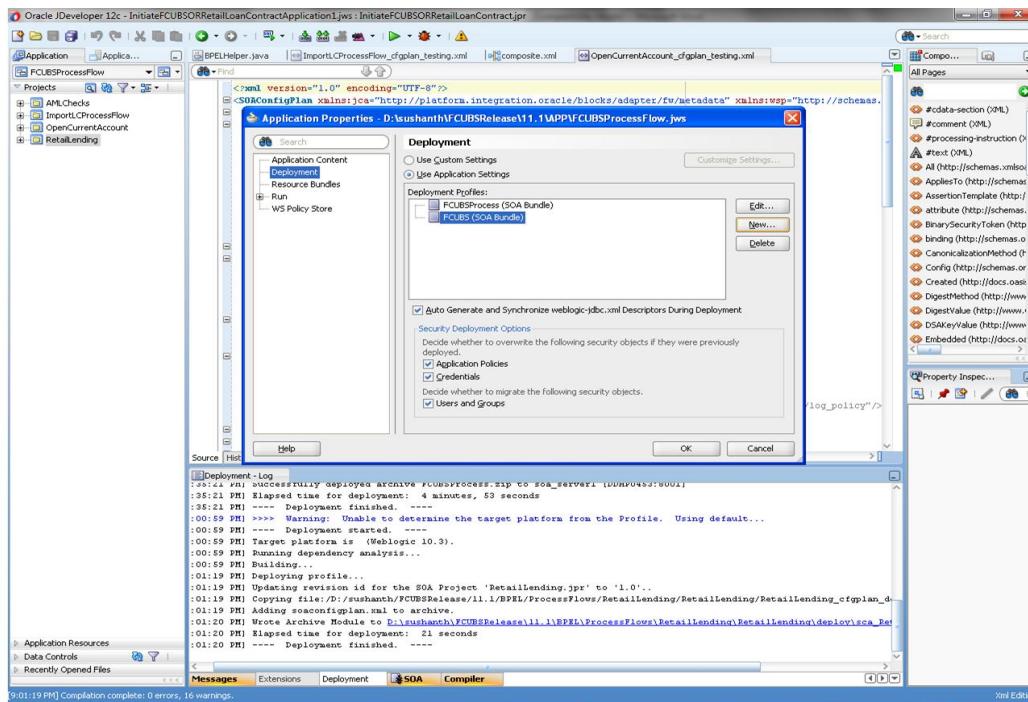
- In the Name field, enter a name and click 'OK'.



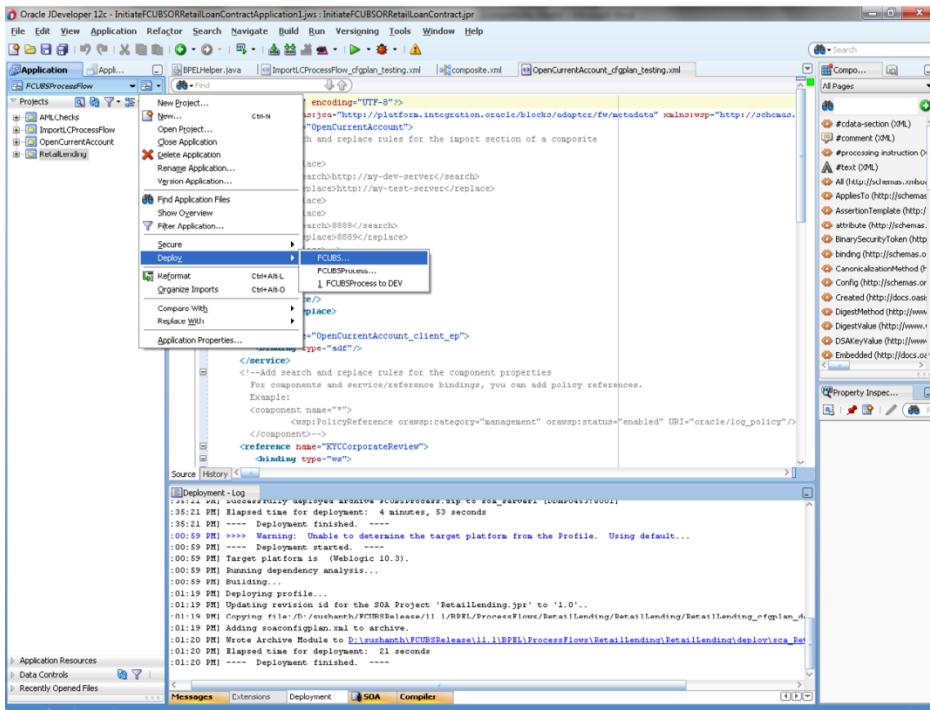
- In the navigator on the left, select the Dependencies node.
- Select the SARs you want to include in this bundle, as illustrated in the screen shot
- Click OK.



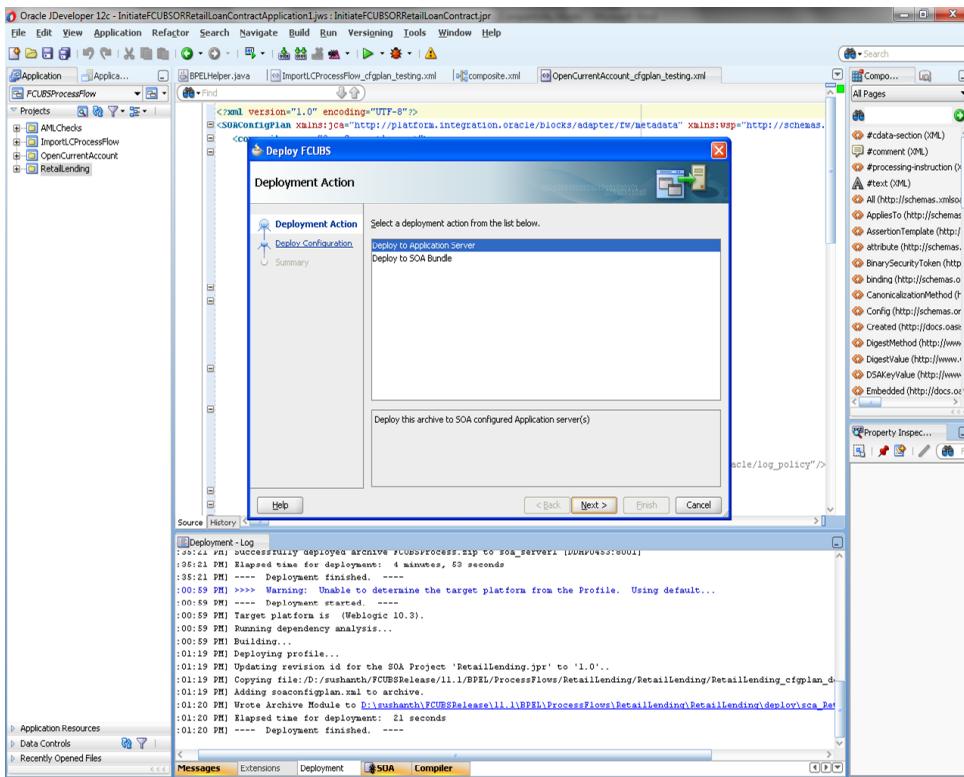
- Click OK to close the Application Properties dialog.



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



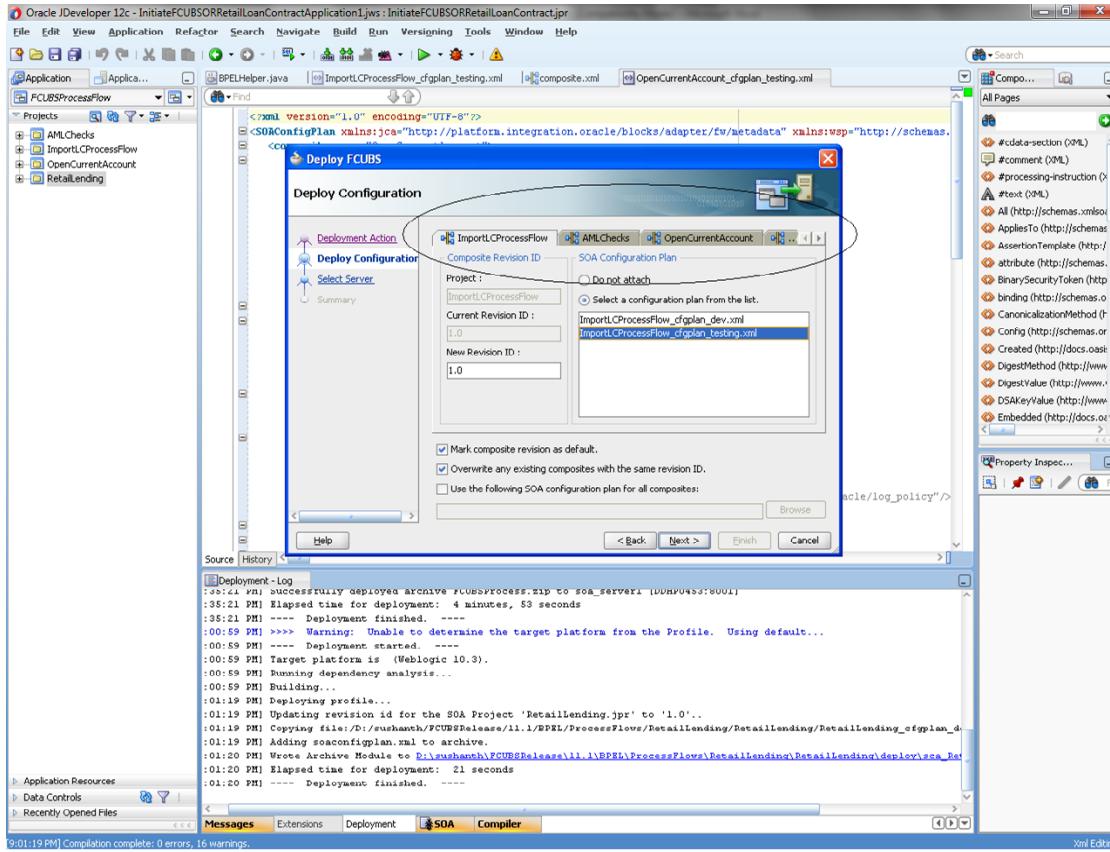
- Deployment screen is launched , Select ‘Deploy to Application Server’



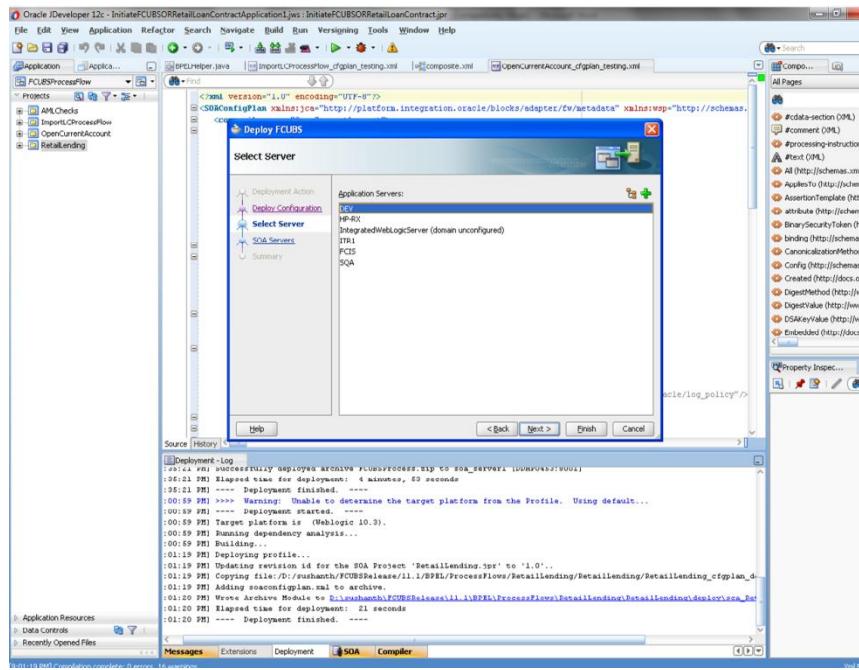
- Deployment configuration is done as illustrated in the below screen shot for each application which is displayed in the tab, application navigation can be done using the pointer provided at the end of the tab.

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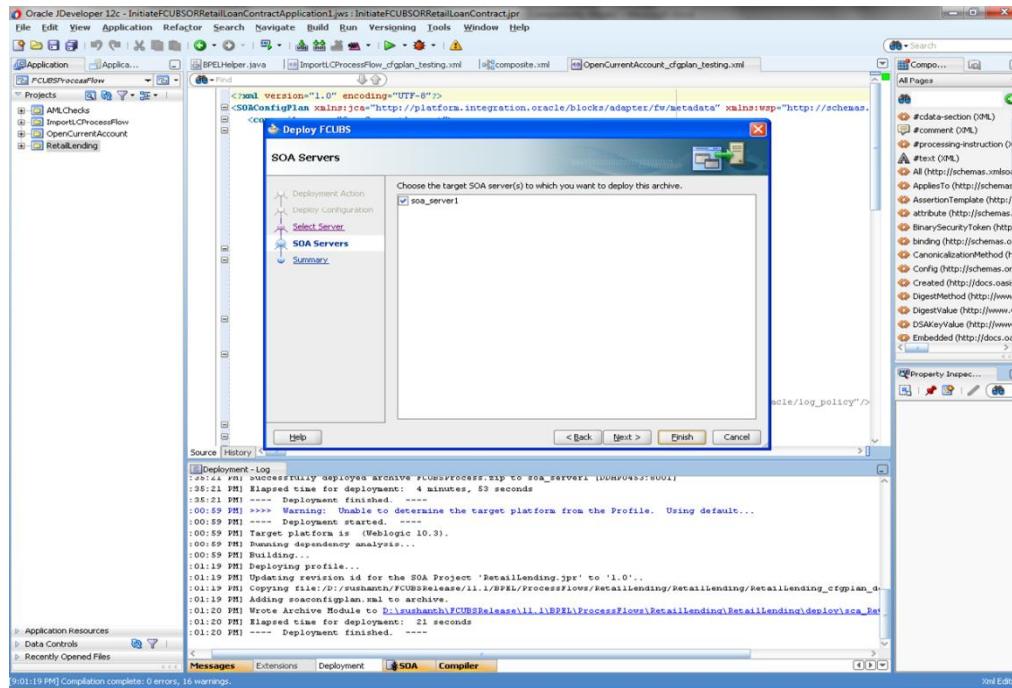
- Select a Revision with which the deployment should happen
- Select a " Configuration Plan" that was updated as given in Section 5
- Remember to check both the checkboxes
- "Mark composite revision as 'default"
- "Overwrite any existing composites with the same revision ID"
- After all the applications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



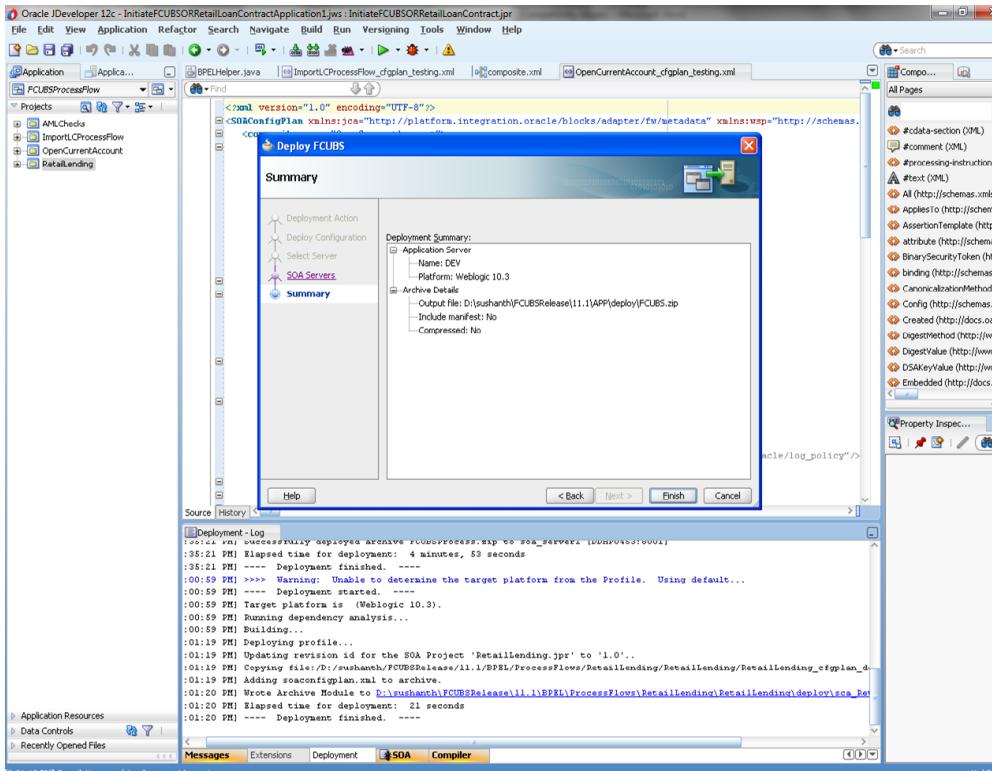
- Select the Application server 'Server Connection' configured that was done in Section 3 to which the deployment needs to be done
- Click 'Next' to proceed with the deployment.



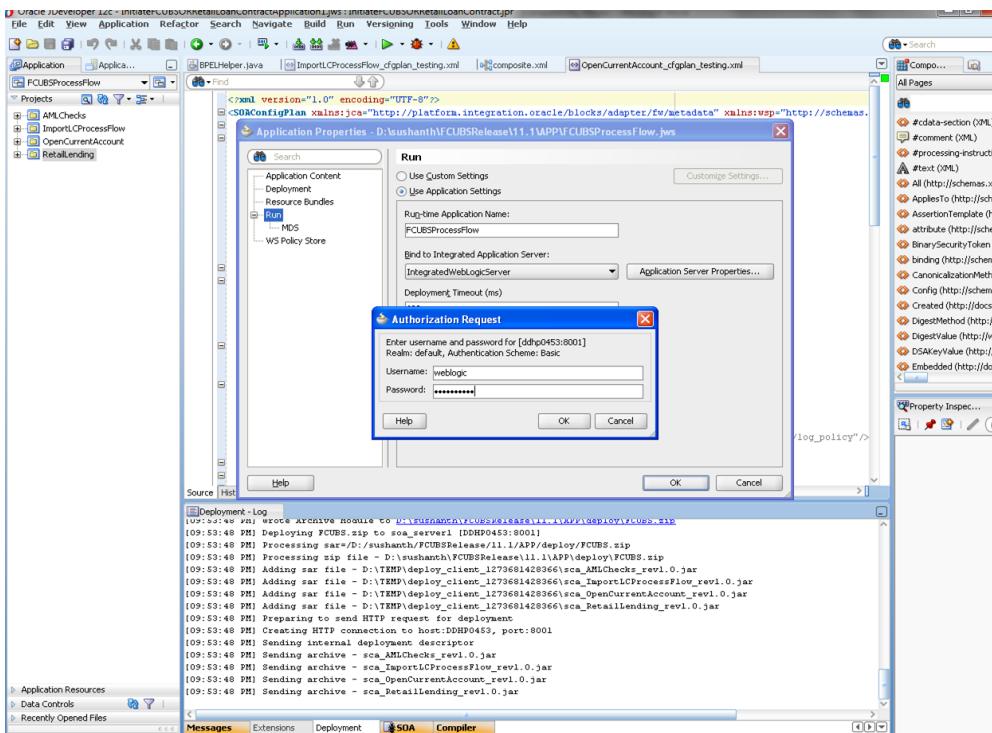
- Select the Application ‘server’ to which the deployment needs to be done.



- 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.

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- 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



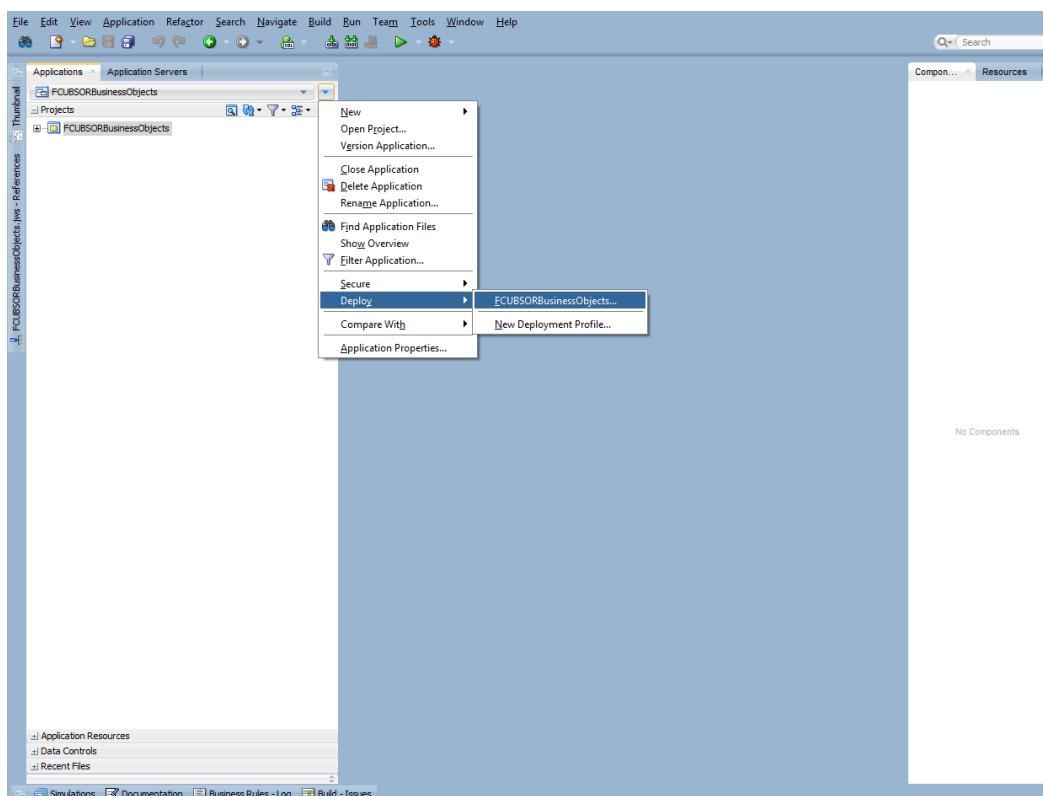
9. Deploying MDS application using JDeveloper

9.1 Introduction

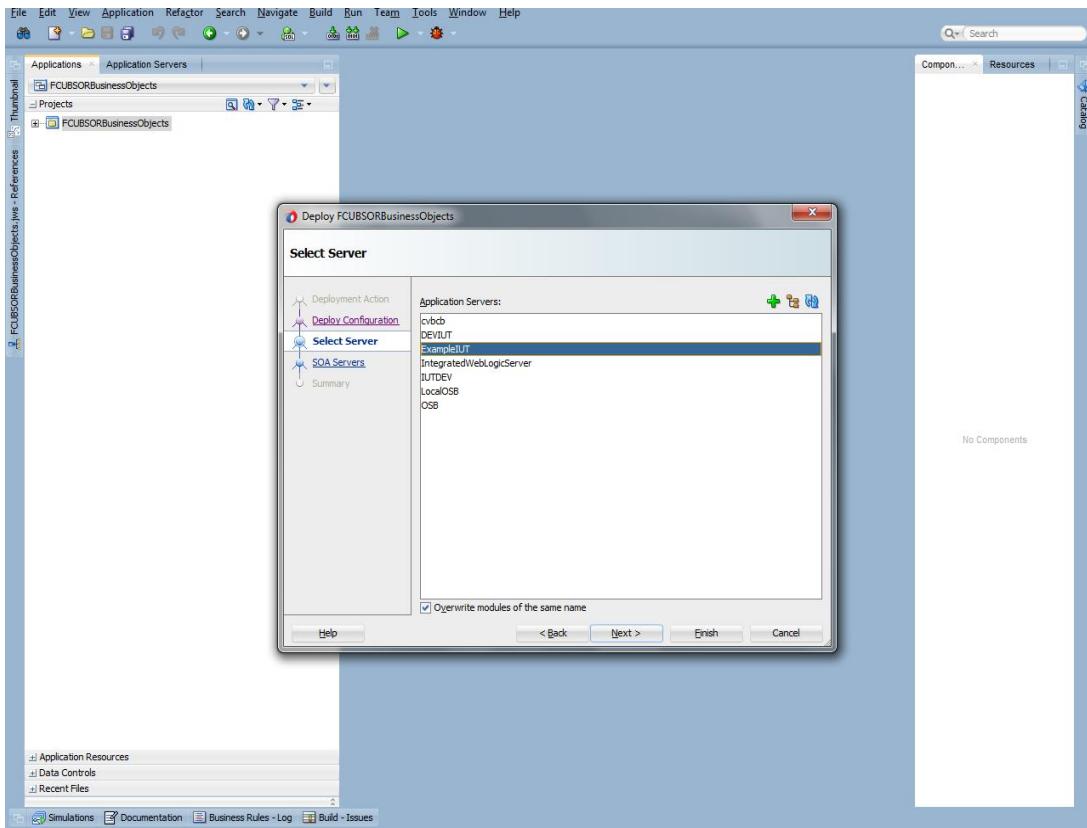
This section describes how to deploy a MDS application with Oracle JDeveloper with respective target environment.

9.2 Deploying the Application

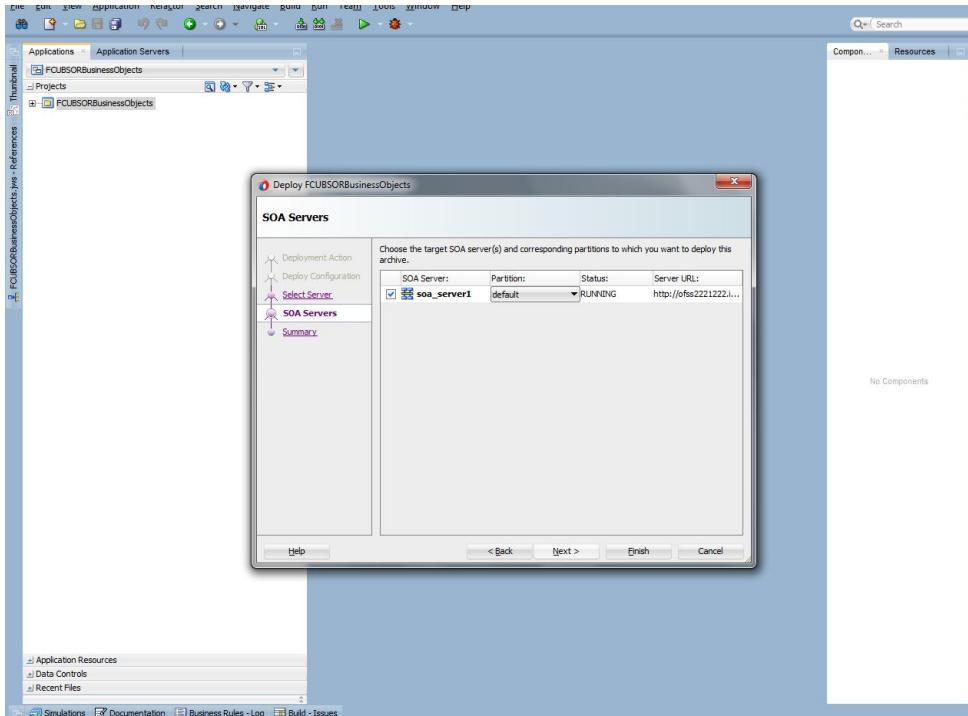
- Load the MDS Application(FCUBSORBusinessObjects,FCUBSORServiceObjects) in Jdeveloper
- Right click on the “Application” tab in the Jdeveloper
- Select ‘Deploy’ and then click on the default deployment profile which is the same as the application name.
- This will result in the deployment wizard screen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

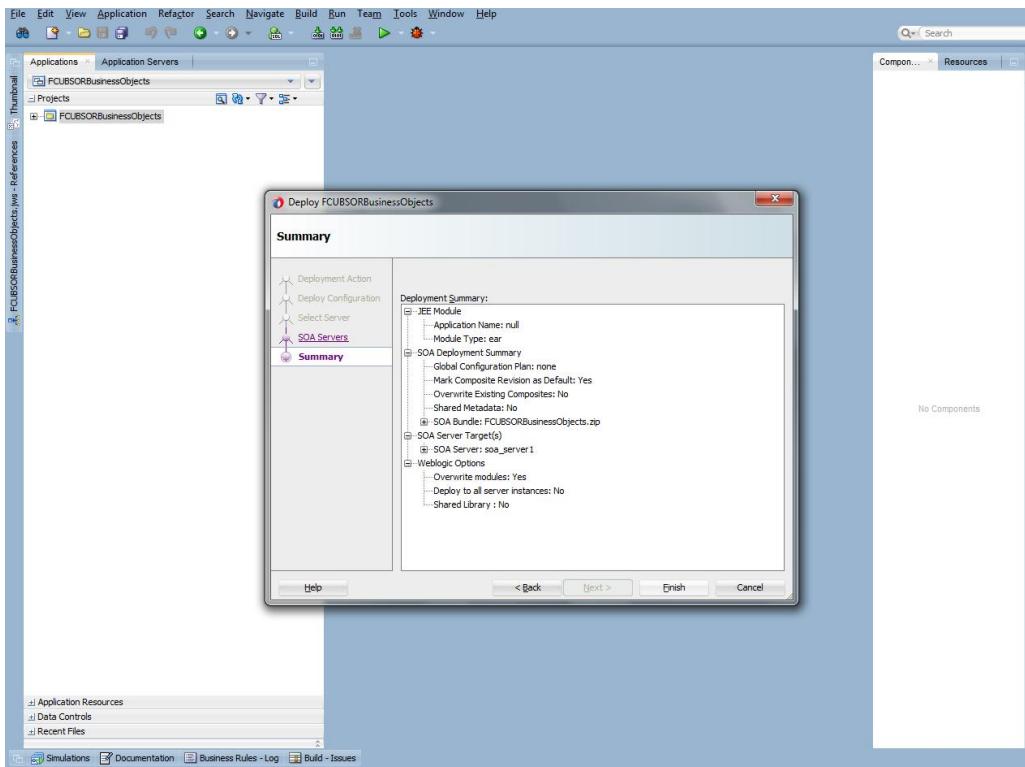


- In deployment action screen choose Deploy to Application Server.
- Click Next→Next to proceed with deployment.
- Select the Application Server to which the MDS Application Needs to Deploy.

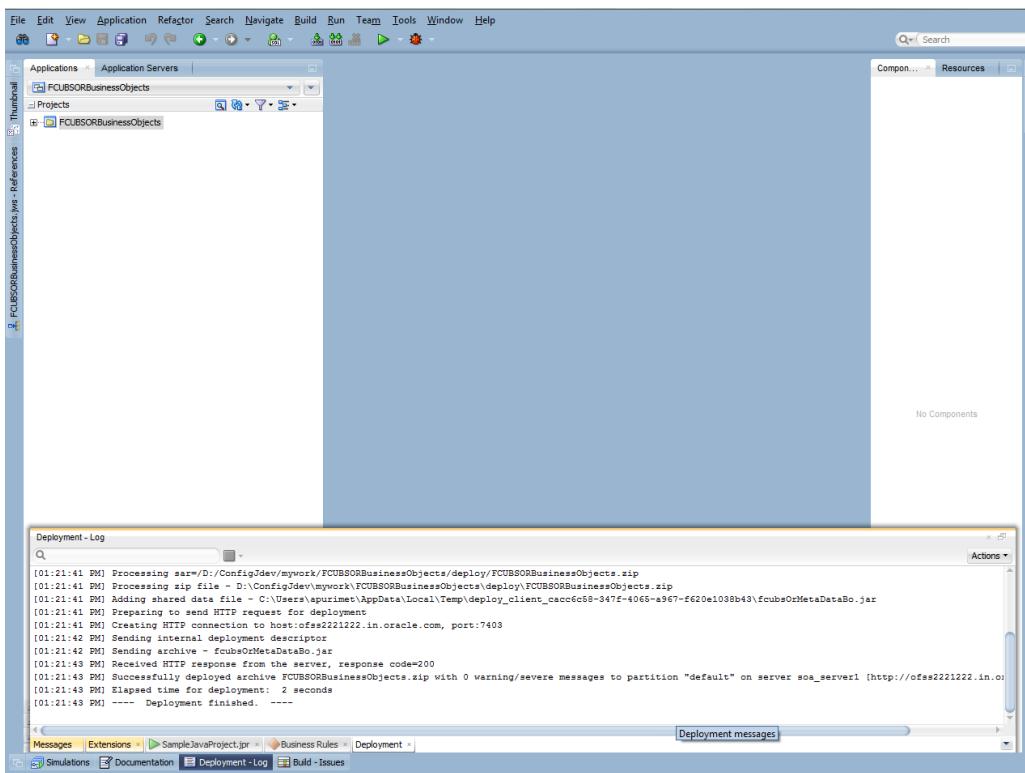


- Click Next and Finish buttons on the deployment wizard after selecting application server.





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



10. Deployment and configuration of Oracle BAM Reports

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

The screenshot shows the Oracle Administration Console interface. On the left, there is a sidebar with sections for 'View changes and restarts', 'Domain Structure' (listing 'soa_domain' with sub-nodes like 'Domain Partitions', 'Environment', 'Deployments', 'Services', 'Security Realms', 'Interoperability', and 'Diagnostics'), 'How do I...', and 'System Status' (Health of Running Servers). The main content area is titled 'Home Page >Summary of Servers >Summary of Deployments'. It includes a 'Helpful Tools' section with links to 'Configure applications', 'Configure GridLink for RAC Data Source', 'Configure a Dynamic Cluster', 'Recent Task Status', 'Set your console preferences', and 'Oracle Enterprise Manager'. Below this is a 'Domain Configurations' section with a 'Domain' node. The right side of the screen is divided into several panels: 'General Information' (links to 'Common Administration Task Descriptions', 'Read the documentation', and 'Ask a question on My Oracle Support'); 'Resource Group Templates' (link to 'Resource Group Templates'); 'Resource Groups' (link to 'Resource Groups'); 'Deployed Resources' (link to 'Deployments'); 'Services' (listing 'Messaging' (JMS Servers, Store-and-Forward Agents, JMS Modules, Path Services, Bridges), 'Data Sources', 'Persistent Stores', 'XML Registries', 'XML Entity Caches', 'Foreign JNDI Providers', 'Work Contexts', 'jCOM', 'Mail Sessions', 'FileT3', 'JTA', and 'OSGI Frameworks'); 'Interoperability' (links to 'WTC Servers' and 'Jolt Connection Pools'); 'Diagnostics' (links to 'Log Files', 'Diagnostic Modules', 'Built-in Diagnostic Modules', 'Diagnostic Images', 'Request Performance', 'Archives', 'Context', 'SNMP', and 'Interceptors'); and 'Charts and Graphs' (link to 'Monitoring Dashboard').

3) Click on the SOADataSource.

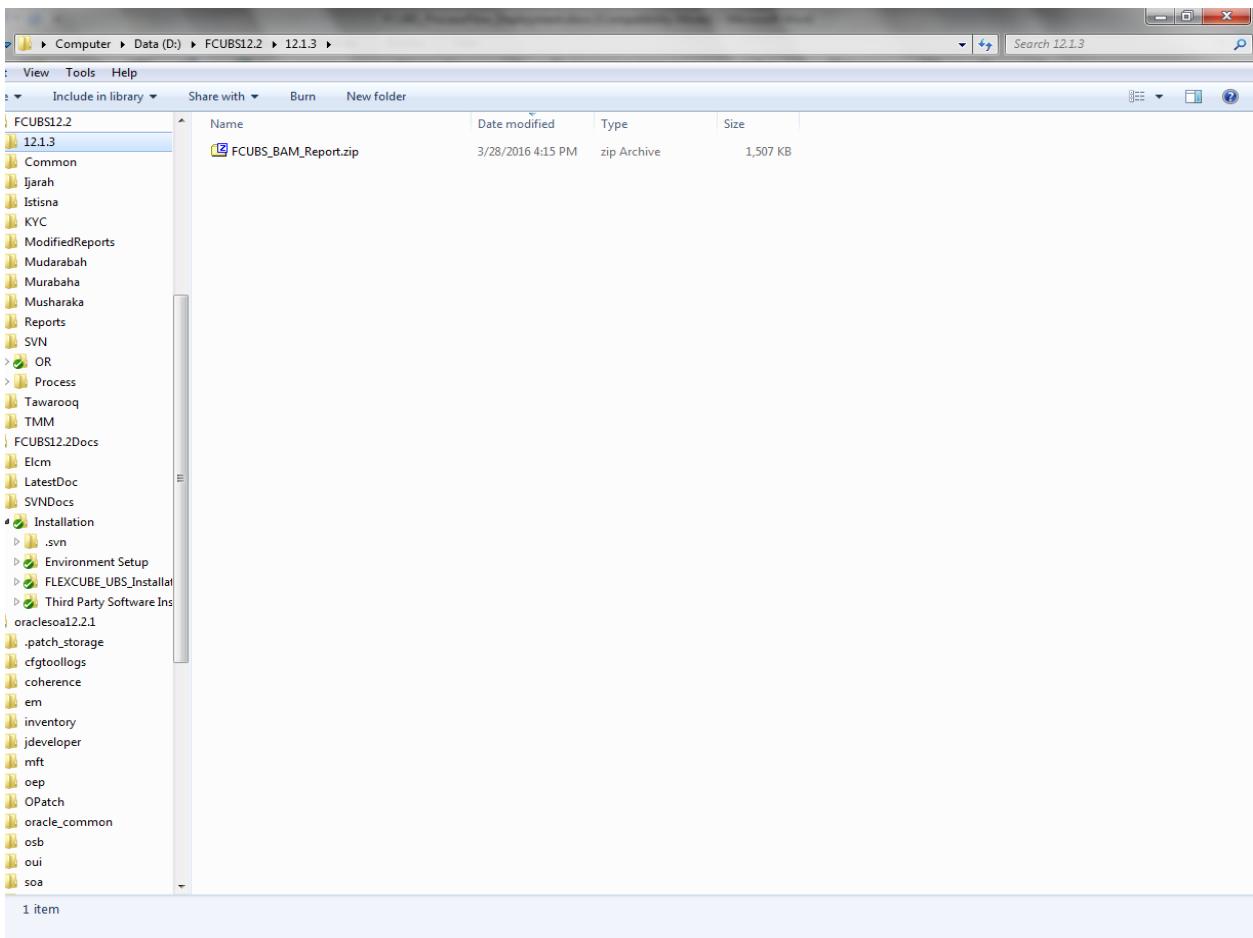
The screenshot shows the Oracle WebLogic Server Administration Console interface. The top navigation bar includes links for Home, Log Out, Preferences, Record, Help, and a search bar. The title bar indicates "Welcome, weblogic | Connected to: soa_domain". The left sidebar contains sections for Change Center, Domain Structure (showing "soa_domain" with various partitions like Environment, Deployments, Services, Security Realms, Interoperability, and Diagnostics), and System Status (Health of Running Servers). A central panel titled "Summary of JDBC Data Sources" displays a table of data sources. The table has columns for Name, Type, JNDI Name, Targets, Scope, and Domain Partitions. The table lists several entries, including "LocalSvcTblDataSource", "mds-bam", "mds-owsm", "mds-soa", "opss-audit-DBDS", "opss-audit-viewDS", "opss-data-source", "OraSDPDataSource", "SOADataSource", and "SOALocalTxDataSource". Most entries have "Generic" as the Type and "Global" as the Scope. The "Targets" column shows various server configurations. The bottom of the page includes copyright information for Oracle and a footer with the Oracle logo.

Name	Type	JNDI Name	Targets	Scope	Domain Partitions
LocalSvcTblDataSource	Generic	jdbc/LocalSvcTblDataSource	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	
OraSDPDataSource	Generic	jdbc/OraSDPDataSource	bam_server1, soa_server1	Global	
SOADataSource	Generic	jdbc/SOADataSource	bam_server1, soa_server1	Global	
SOALocalTxDataSource	Generic	jdbc/SOALocalTxDataSource	soa_server1	Global	

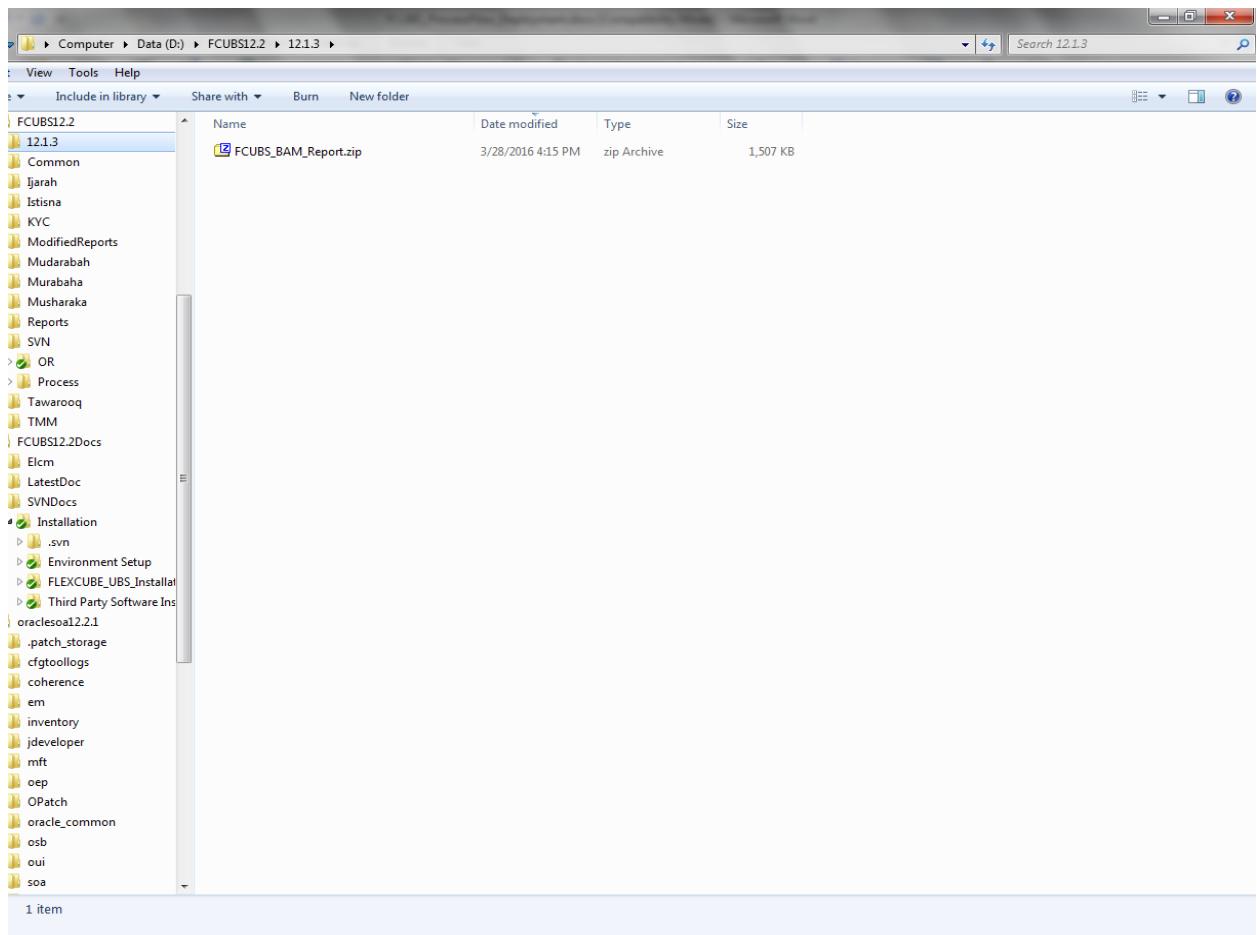
4) Click on Target tabs→Select bam_server check box→Click Save

The screenshot shows the Oracle WebLogic Server Administration Console interface. The left sidebar displays the 'Domain Structure' under 'soa_domain' with various sub-nodes like Domain Partitions, Environment, Deployments, Services, Security Realms, Interoperability, and Diagnostics. Below it is a 'How do I...' section with a link to 'Target JDBC data sources'. The main content area is titled 'Settings for SOADataSource' and shows the 'Targets' tab selected. A 'Servers' list contains three entries: 'AdminServer' (unchecked), 'bam_server1' (checked with a checked checkbox), and 'soa_server1' (checked with a checked checkbox). At the bottom of the page, there is a footer with copyright information: 'WebLogic Server Version: 12.2.1.0.0', 'Copyright (c) 1996-2015, Oracle and/or its affiliates. All rights reserved.', and 'Oracle is a registered trademark of Oracle Corporation and/or its affiliates. Other names may be trademarks of their respective owners.'

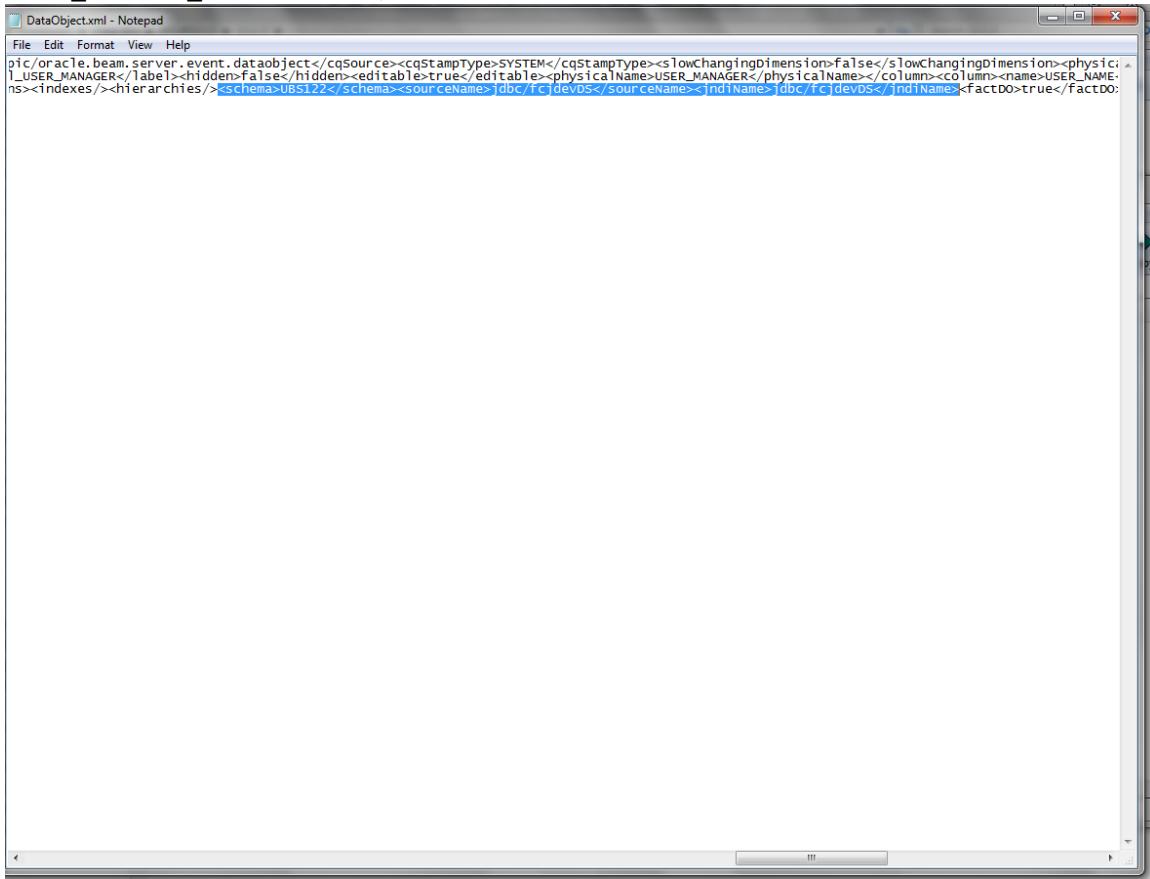
- 5) Copy the FCUBS_BAM_Report.zip project from SVN (**/SOFT/MAIN/OR/Process_infra/Reports/BAM**) to your local system.



- 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 .



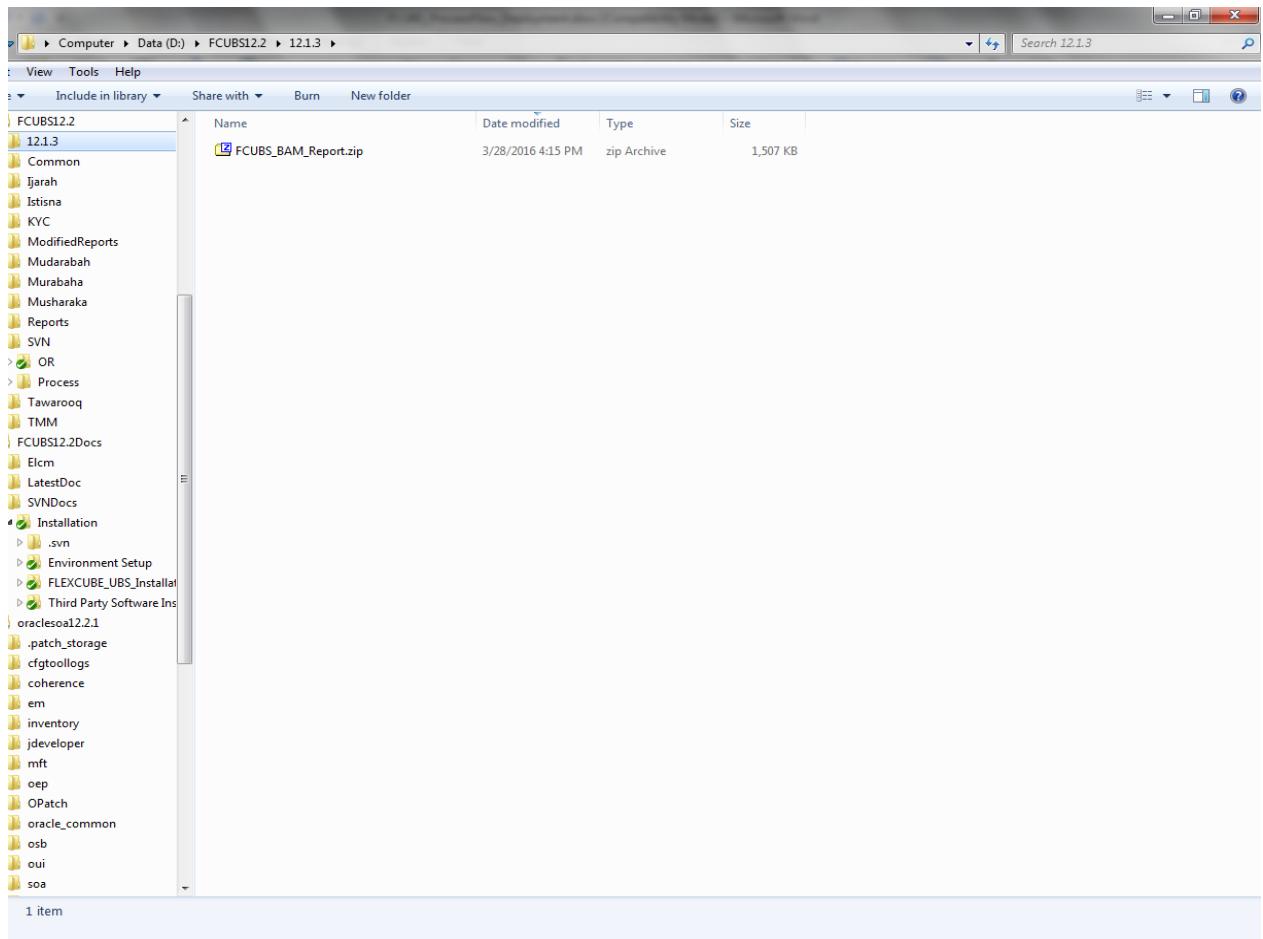
- 7) Open the FCUBS_BAM_Report.zip → Dataobject → Update the Schema element with the FCUBS schema name for SMTB_USER_TYPE_CONVERSION_VIEW.xml, ORVW_TRACK_EXPOSURE.xml, ORVW_FACILITY_EXPOSURE.xml, GetUtilsDB.xml files.

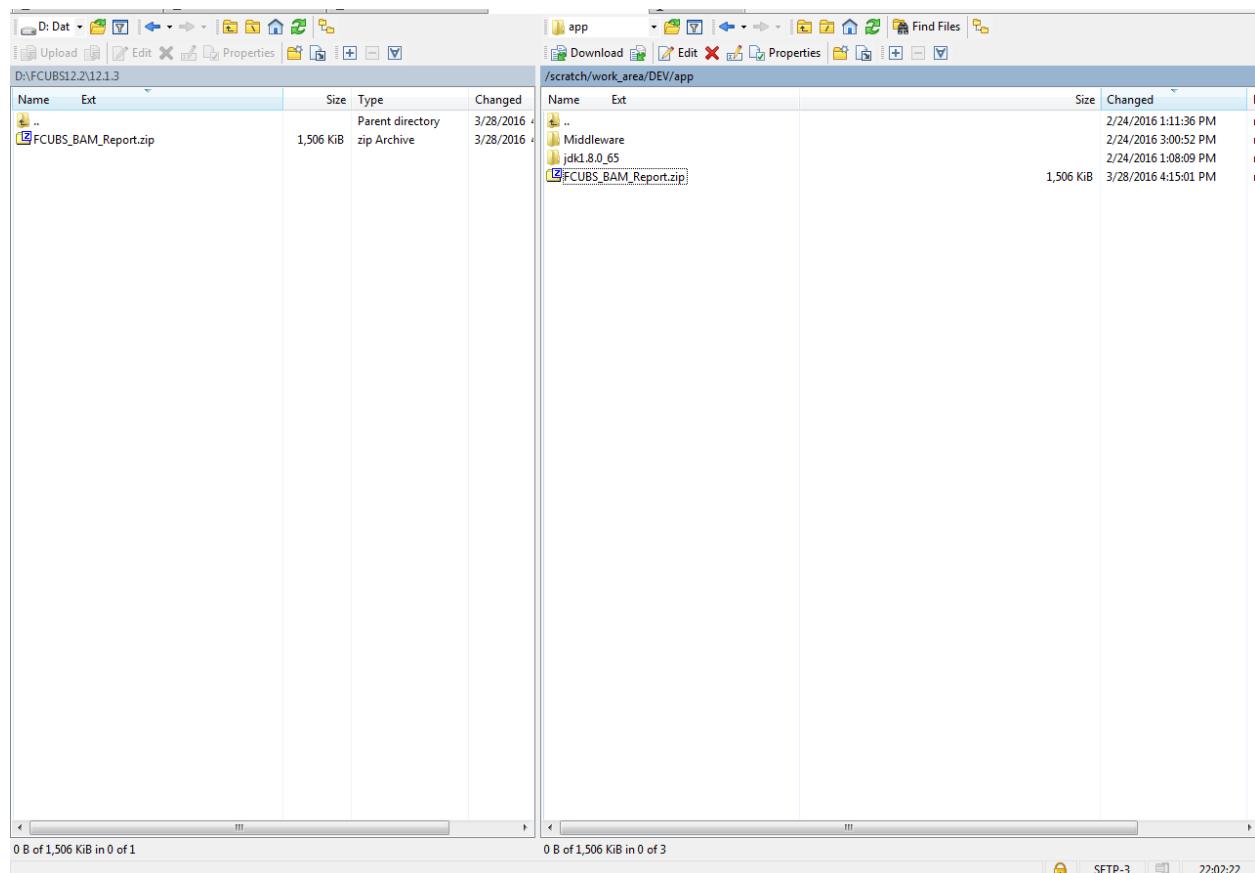


The screenshot shows a Windows Notepad window with the title "DataObject.xml - Notepad". The menu bar includes File, Edit, Format, View, and Help. The XML code in the main pane is partially visible, showing elements like cqSource, cqStampType, SYSTEM, slowChangingDimension, false, physicalName, USER_MANAGER, physicalName, column, name, USER_NAME, schema, sourceName, jdbc, fc, dev05, sourceName, jndiName, jdbc, fc, dev05, factDo, and true. The code is cut off at the top and bottom.

```
<cqSource><cqStampType>SYSTEM</cqStampType><slowChangingDimension>false</slowChangingDimension><physicalName>USER_MANAGER</physicalName><column><name>USER_NAME</name><indexes><hierarchies/><schema>UBS122</schema><sourceName>jdbc/fc/dev05</sourceName><jndiName>jdbc/fc/dev05</jndiName><factDo>true</factDo>
```

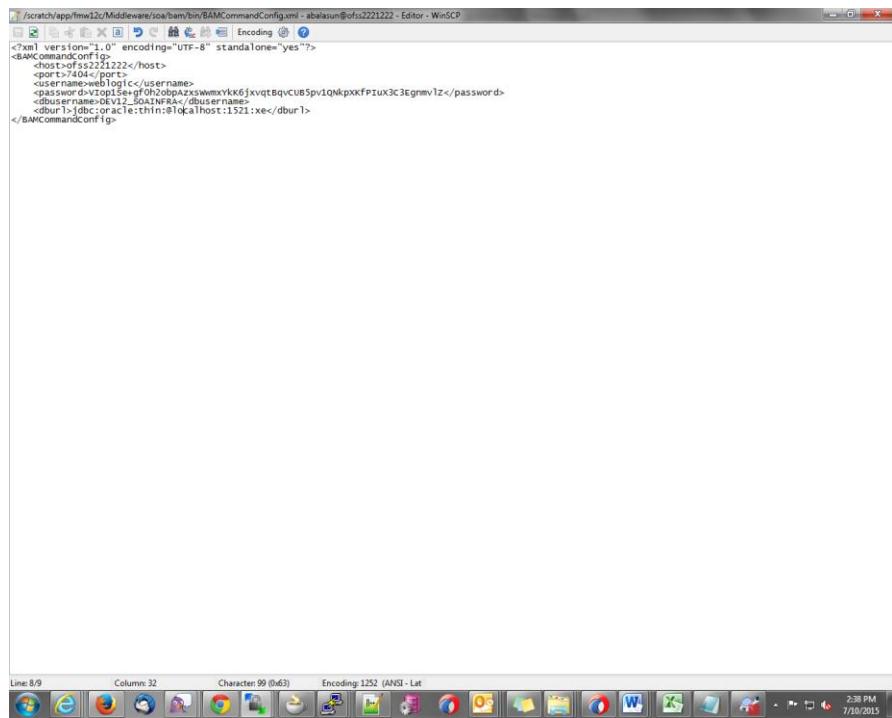
8) Move the BAM Project Unit (.Zip) Local to server location.





- 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:



The screenshot shows a Windows application window titled "WinSCP - Editor". Inside the editor, there is an XML document with the following content:

```
</scratch/app/middleware/soa/bam/bin/BAMCommandConfig.xml - atalaun@ofis222122 - Editor - WinSCP>
<?xml version="1.0" encoding="UTF-8"?> <!-- standalone="yes"-->
<BAMCommandConfig>
    <host>ofis222122</host>
    <port>7404</port>
    <username>DEV12_50AINFRA</username>
    <password>V1Op1Seegf0H2obpaxswmxYkk6jxvqtBqvcUBSpv1QnkpxxF1uX3C3Egnmv1z</password>
    <dburl>jdbc:oracle:thin:@localhost:1521:xe</dburl>
</BAMCommandConfig>
```

The status bar at the bottom of the window displays "Line: 8/9", "Column: 32", "Character: 99 (0x63)", "Encoding: 1252 (ANSI - Lat)", "2:38 PM", and "7/10/2015". Below the status bar is a toolbar with various icons.

- 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] [2016]
Version 12.2.0.0.0

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