Application Installation Guide

Oracle Financial Services Lending and Leasing

Release 14.1.0.0.0

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ORACLE

Application Installation Guide
November 2013
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1. Preface

For recommendations on security configuration, refer Security Configuration Guide.

This document contains notes and installation steps needed to install and setup Oracle Financial Services Lending and Leasing. Oracle Financial Services Lending and Leasing relies on several pieces of Oracle software in order to run and this document is in no way meant to replace Oracle documentation supplied with these Oracle products or available via Oracle technical support. The purpose of this document is only meant to supplement the Oracle documentation and to provide Oracle Financial Services Lending and Leasing specific installation instructions.

It is assumed that anyone installing Oracle Financial Services Lending and Leasing will have a thorough knowledge and understanding of Oracle Weblogic Server 10.3.5/10.3.6, Oracle BI Publisher 11.1.1.6.

Application installation is a seven step process.

1. Installing Software
2. Creating Domains, Repositories, Data Sources
3. Configuring Policies
4. Configuring Oracle BI Publisher for Application
5. Deploying Application
6. Enabling SSL
7. Launching Application

1.1 Prerequisites

The following software are required to install Oracle Financial Services Lending and Leasing application.

1. Sun JDK Version 1.6 update 31 or above http://www.oracle.com/technetwork/java/javase/downloads/index.html

   OR

   Oracle JRockit JDK Version 1.6 update 22 or above http://www.oracle.com/technetwork/middleware/jrockit/downloads/index.html
2. Oracle Repository Creation Utility (RCU) Version 11.1.1.6.0. Download RCU for the respective platform from the "Required Additional Software" section of http://www.oracle.com/technetwork/middleware/bi-publisher/downloads/index.html
3. Oracle WebLogic Server 11gR1 Version 10.3.5/10.3.6

   http://www.oracle.com/technetwork/middleware/weblogic/downloads/wls-main-097127.html)

   Navigate to Oracle WebLogic Server 11gR1 (10.3.5/10.3.6) + Coherence - Package Installer and download the file for respective OS.

   To use WebLogic Server with 64-bit JVM's on Linux and Solaris or to use WLS on other supported platforms, use the WebLogic Server generic installer listed under "Additional Platforms". The generic installers do not include a JVM/JDK. These are to be downloaded and installed prior to installing the Weblogic Server.
4. Oracle ADF 11g
   http://www.oracle.com/technetwork/developer-tools/adf/downloads/index.html

Note

Please use all 64-bit software's for machine hosted with 64-bit O/S.

Note

Use XManager for remote UNIX/LINUX machine. Please refer XManager Usage.

1.2 Audience

This document is intended for system administrators or application developers who are installing Oracle Financial Services Lending and Leasing Application.

1.3 Conventions Used

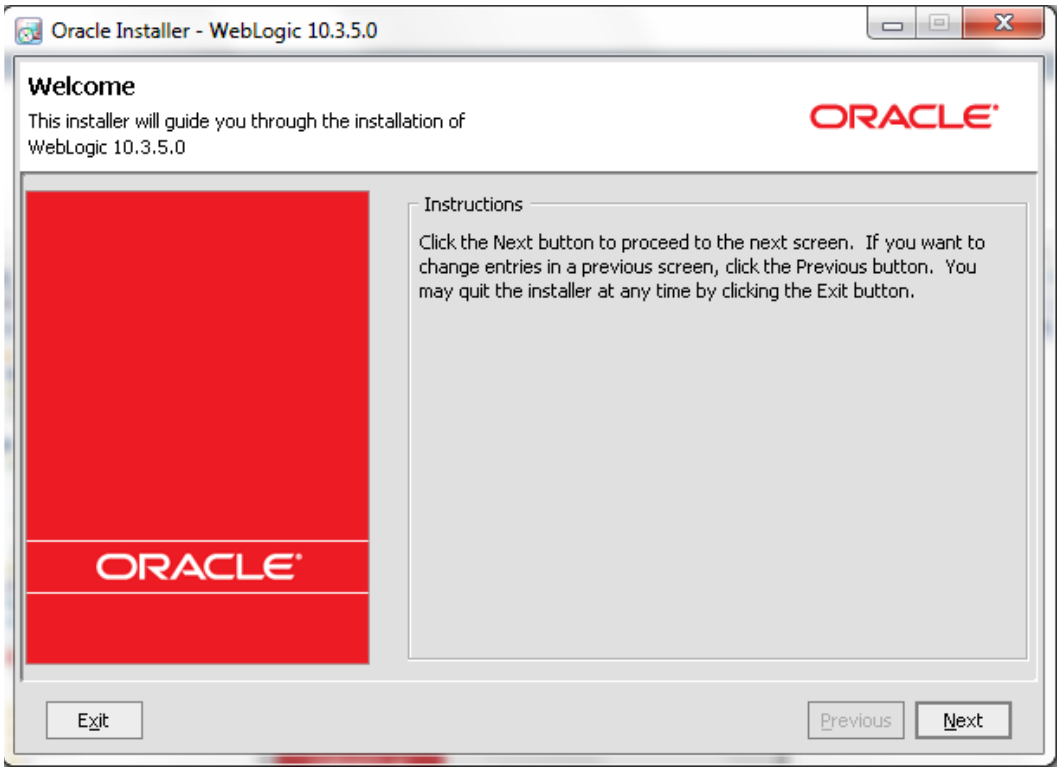
Term	Refers to
Application	Oracle Financial Services Lending and Leasing

2. Installing Software

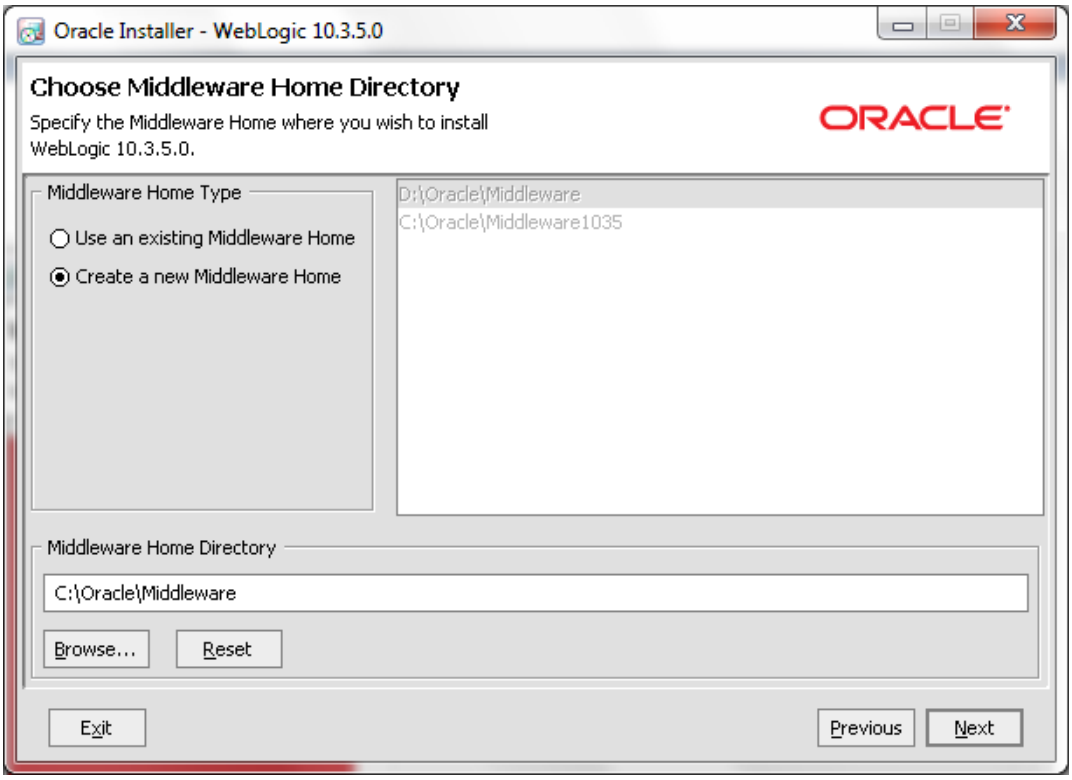
2.1 Installing Oracle WebLogic Server 11g

To install using generic Weblogic installer -

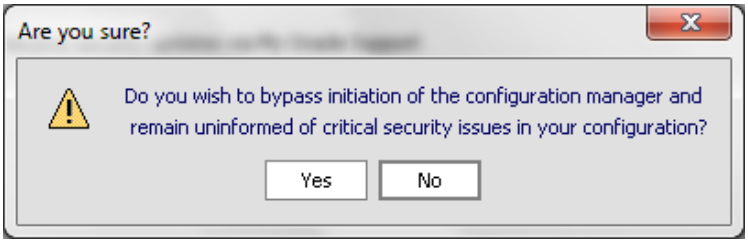
1. Run the command → java -jar wls1035_generic.jar / java -jar wls1036_generic.jar
2. Welcome screen is displayed as shown below.



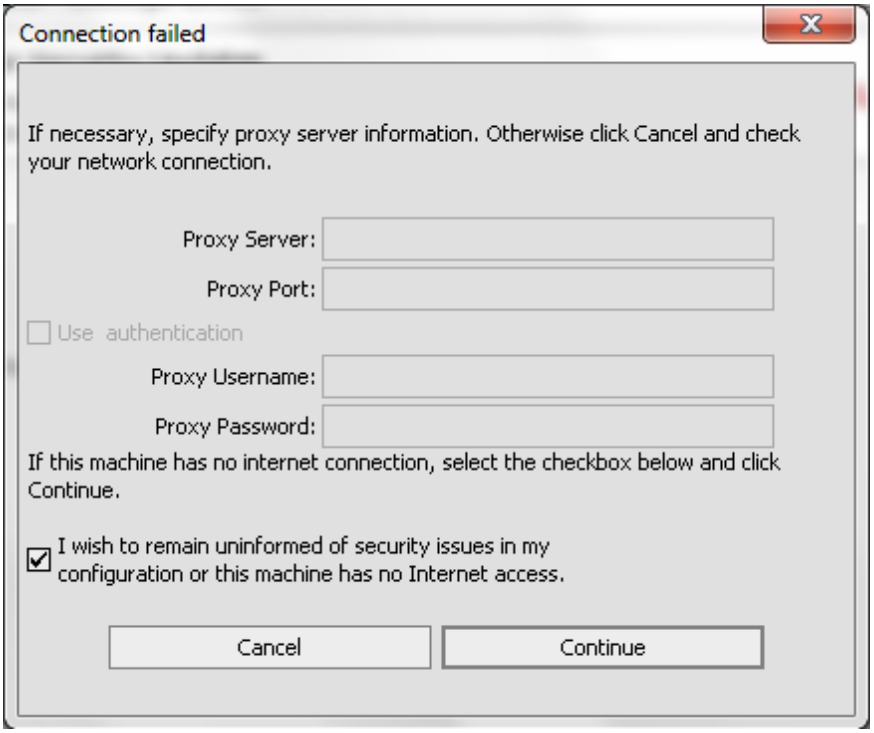
3. Click **Next** to continue.



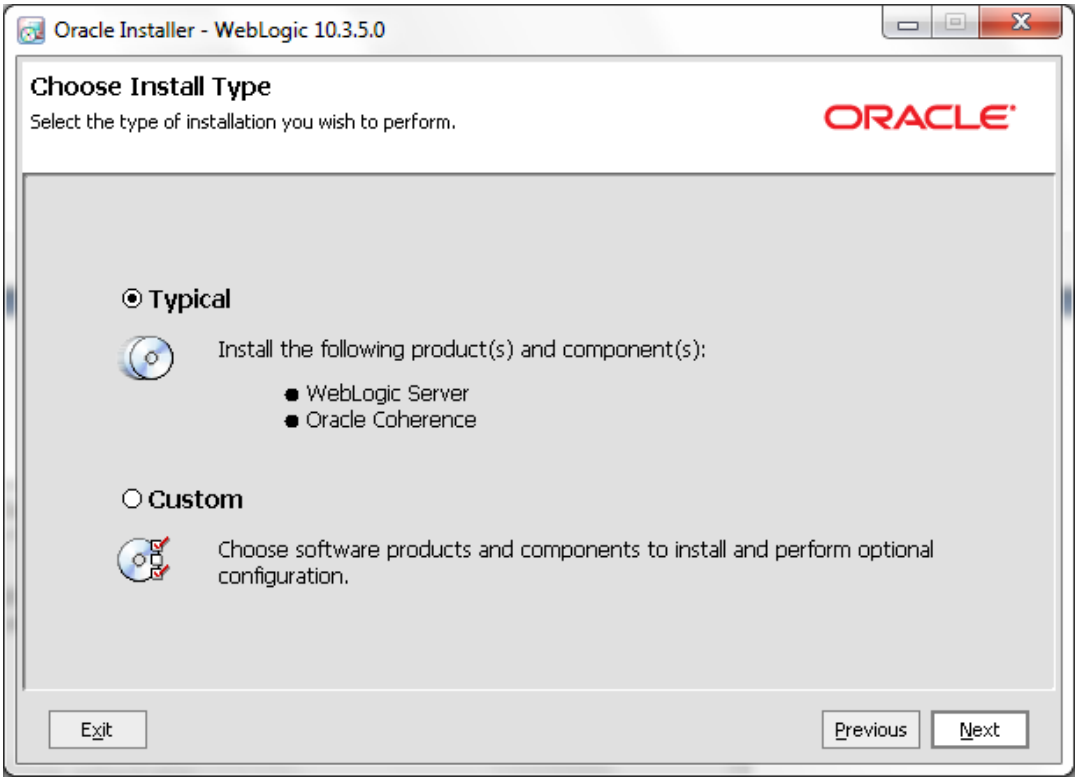
4. Select **Create a new Middleware Home** as **Middleware Home Type**
5. Specify the path for **Middleware Home Directory**, and then click **Next**.
6. Confirmation window is displayed as shown below.



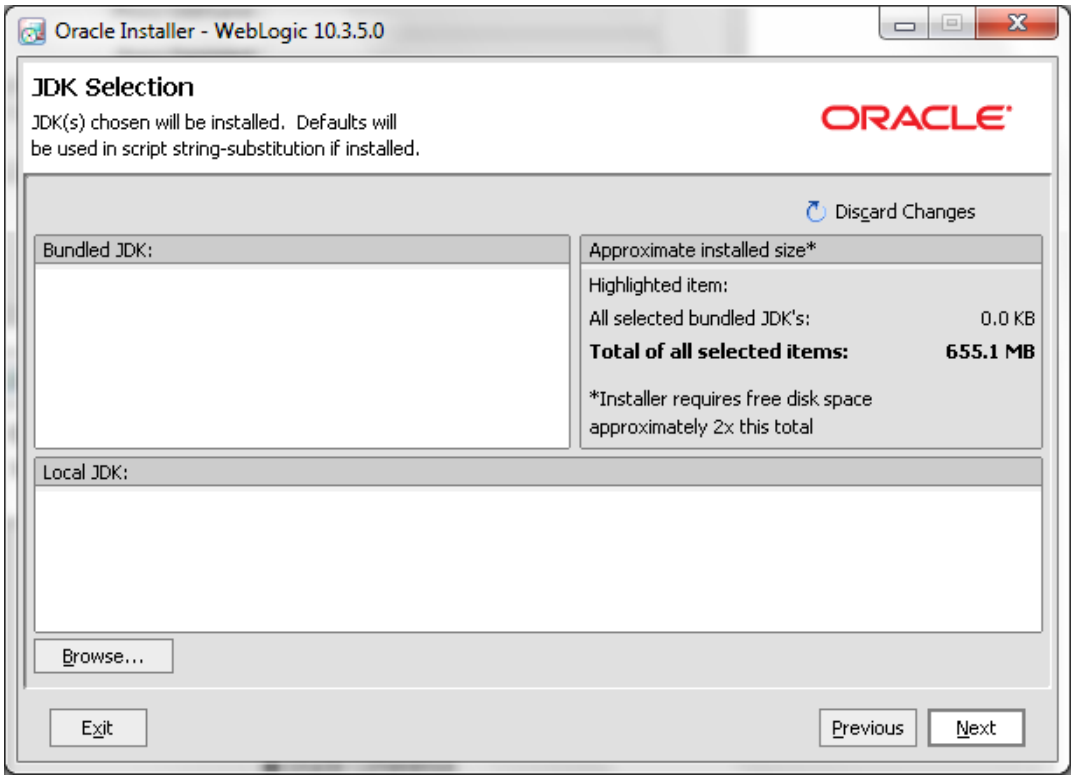
7. Click **Yes** to continue.



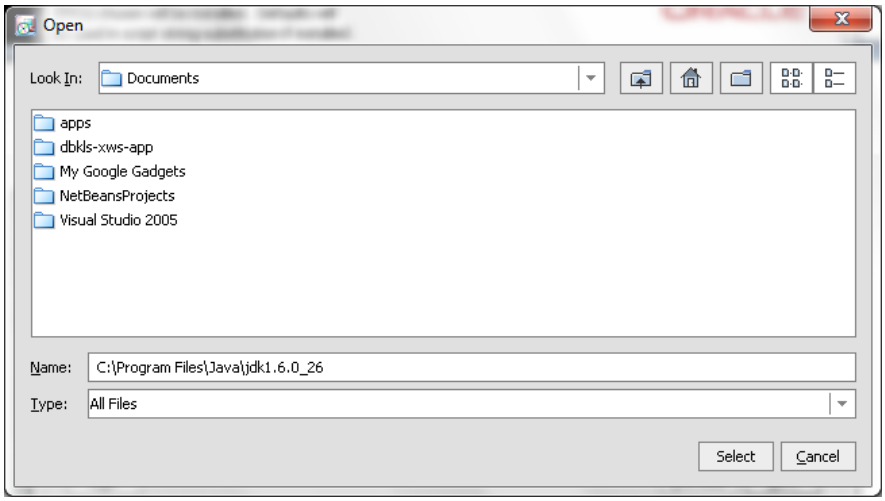
8. Check the check box as shown in the above screen shot and click **Continue**. The following window is displayed.



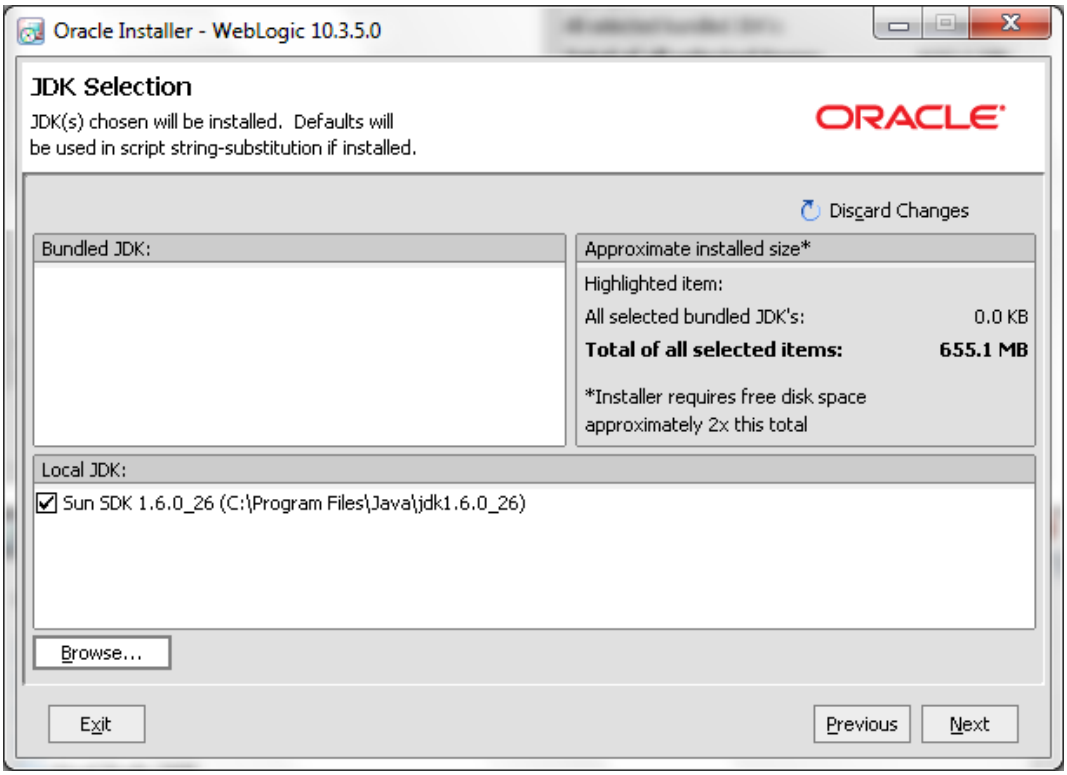
9. Select 'Typical' as the 'Install Type' and click **Next.** The following window is displayed.



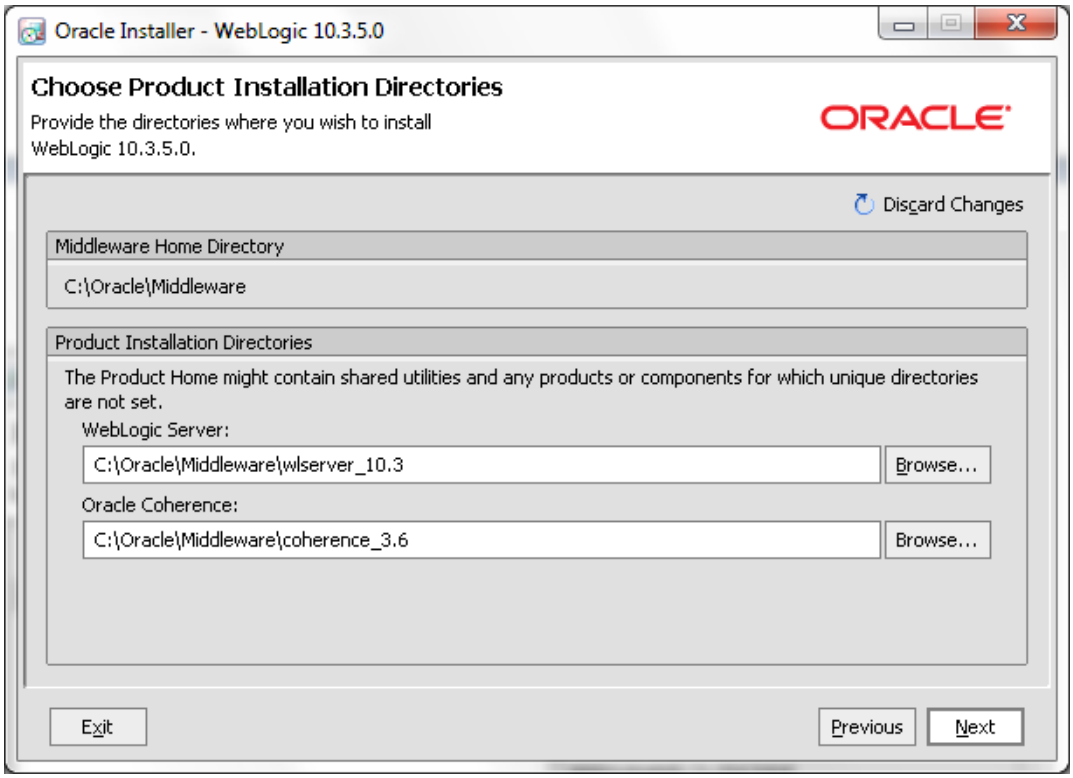
10. Click Browser button and select existing JDK Home Path as shown below.



11. The selected Java Home is displayed as shown below.



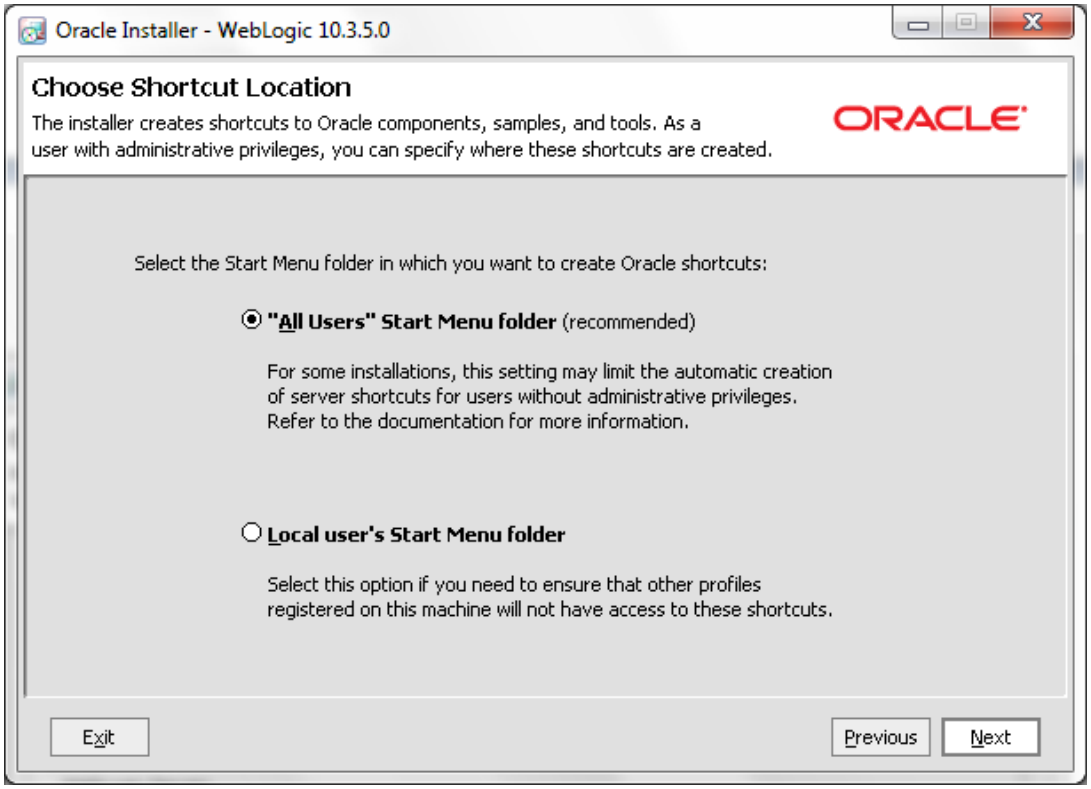
12. Click **Next**. The following window is displayed.



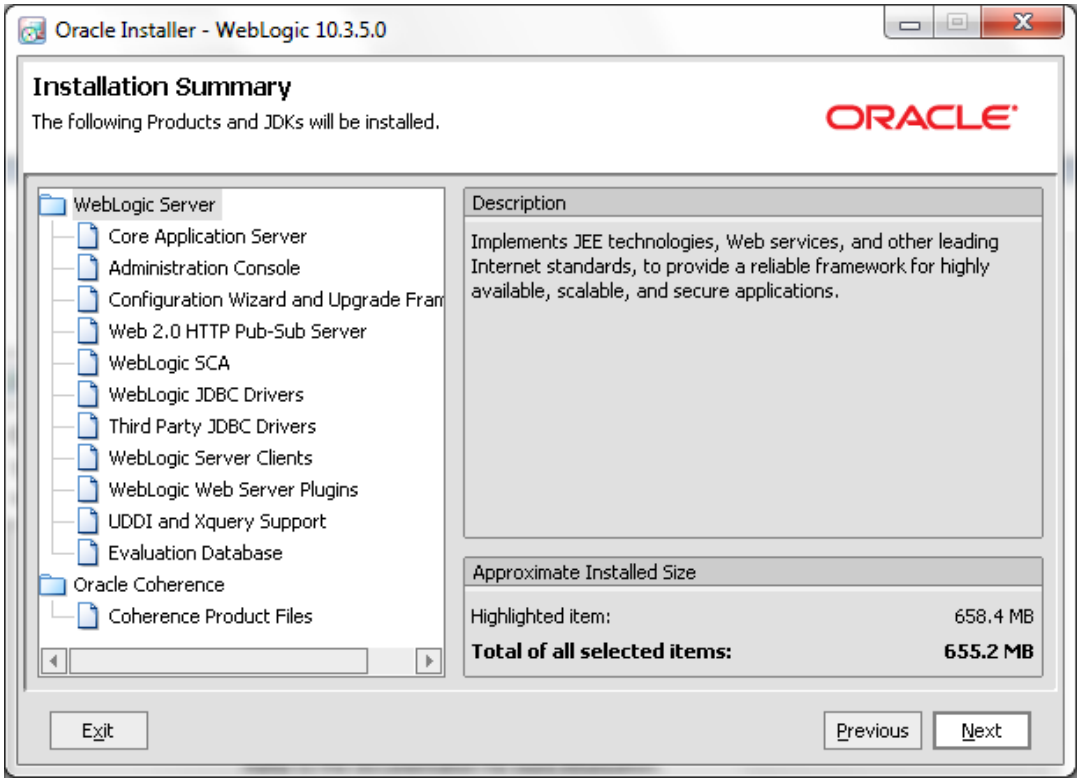
13. Click **Next**. The following window is displayed.

Note

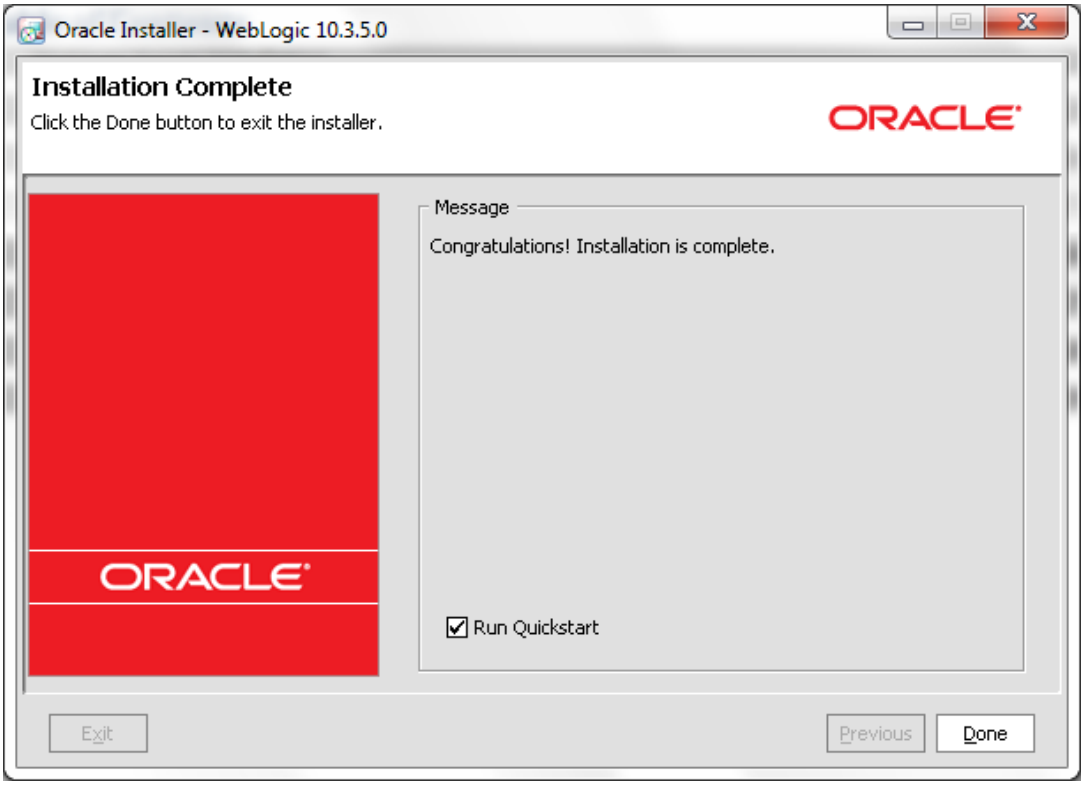
You can change the Oracle WebLogic Server and Oracle Coherence paths, if needed.



14. Select the recommended option for the Shortcut Location and click **Next**. The following window is displayed.



15. Click **Next**. The following window is displayed.



16. Click **Done** to close the window.

2.2 Installing Oracle ADF Runtime

1. Extract the zipped file ofm_appdev_generic_11.1.1.6.0_disk1_1of1.zip.
2. Go to Disk1 folder of the above unzipped file. Run the following command

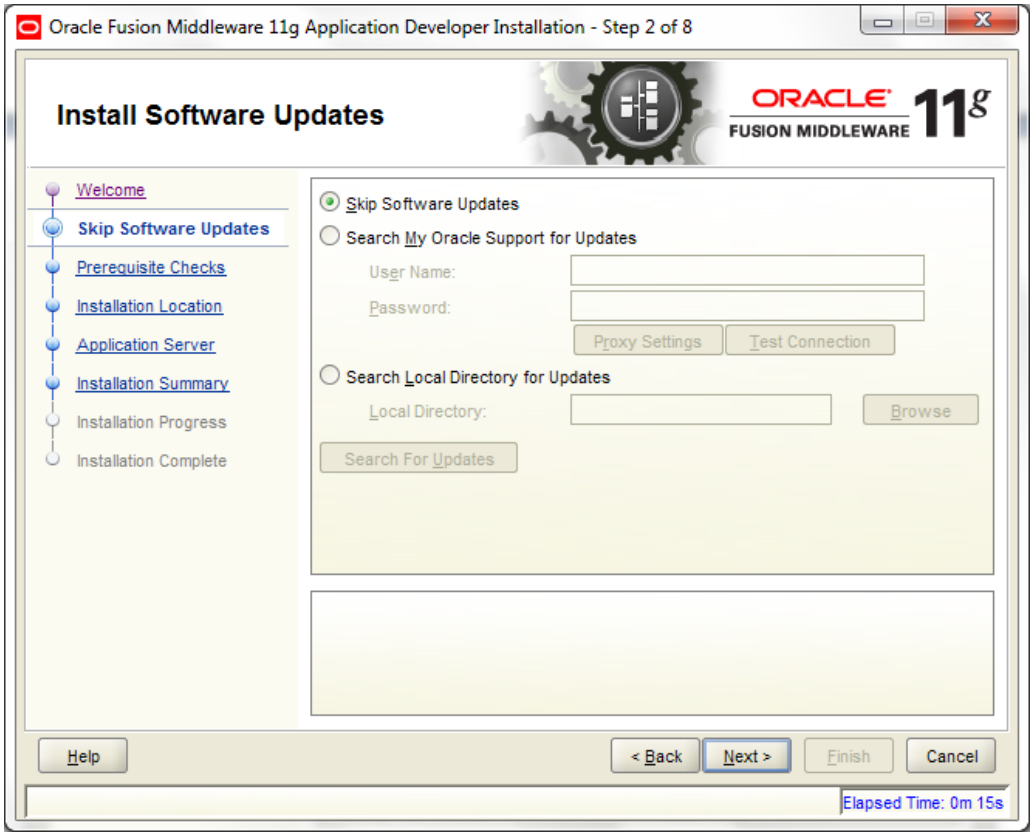
In Unix\Linux:./runInstaller

3. Enter JDK/JRE Home Path, when prompted.

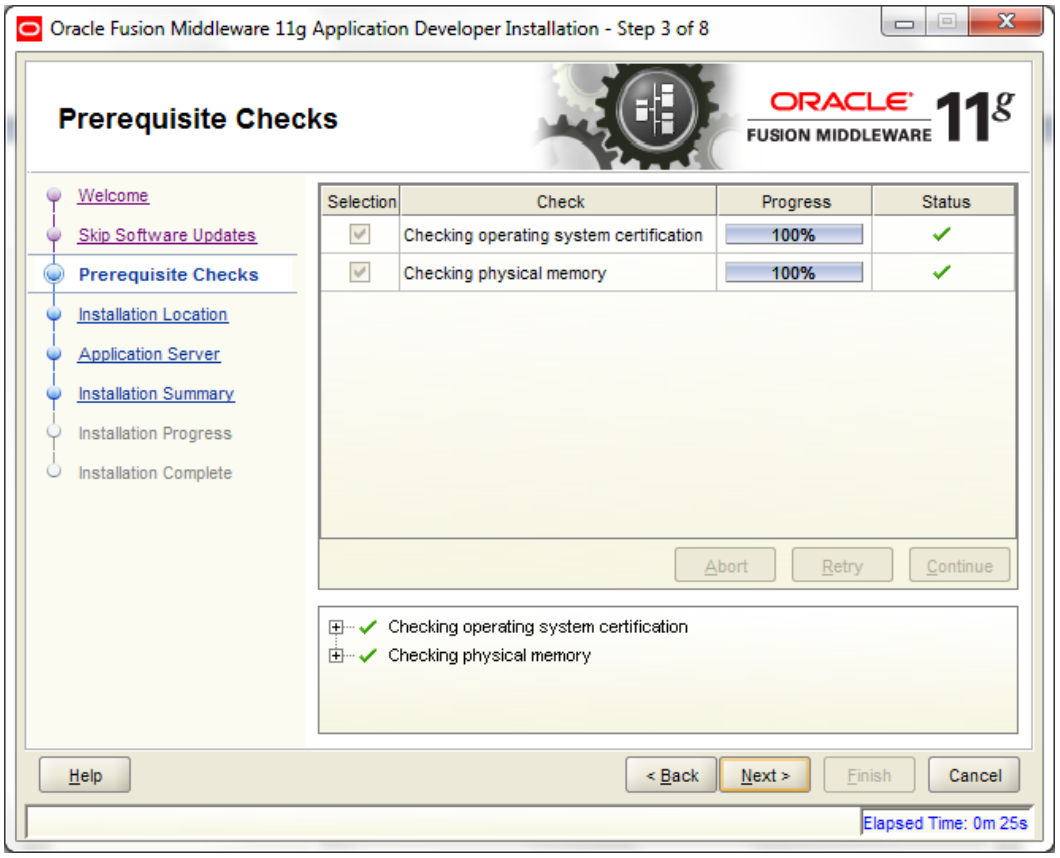
In Windows:setup.exe –jreLoc <JDK/JRE Home Path>

4. Welcome window is displayed.

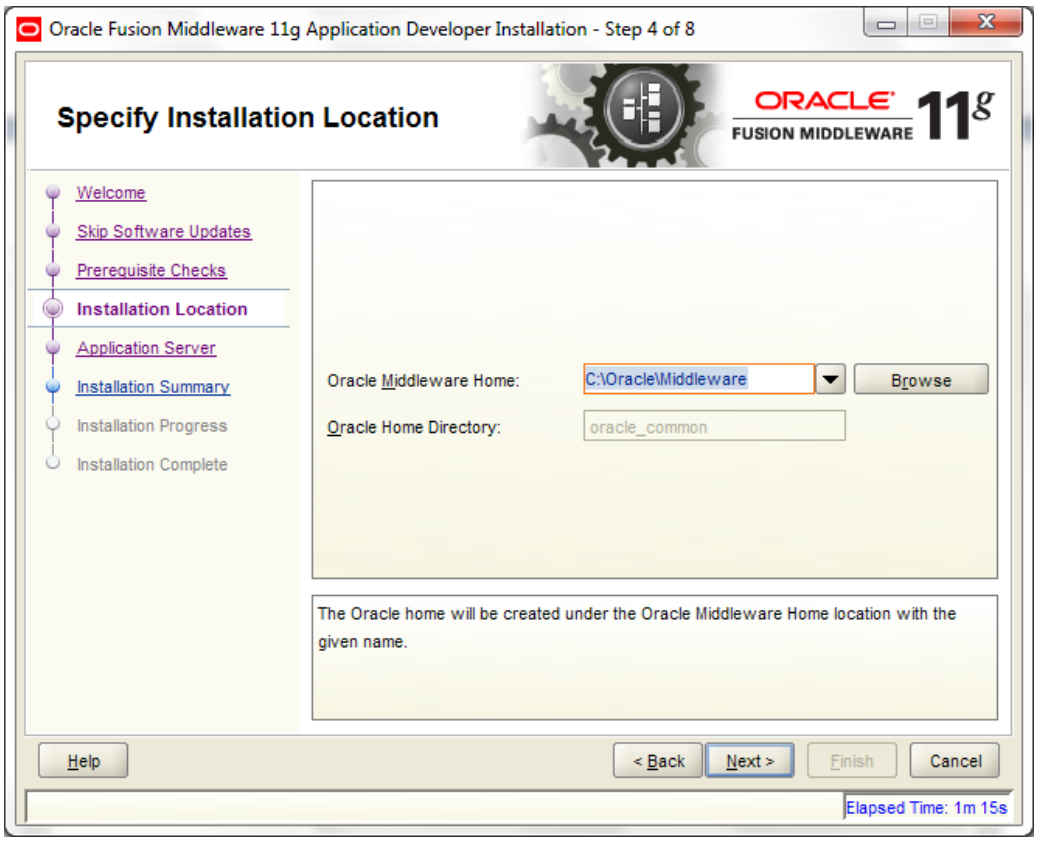
5. Click **Next**. The following window is displayed.



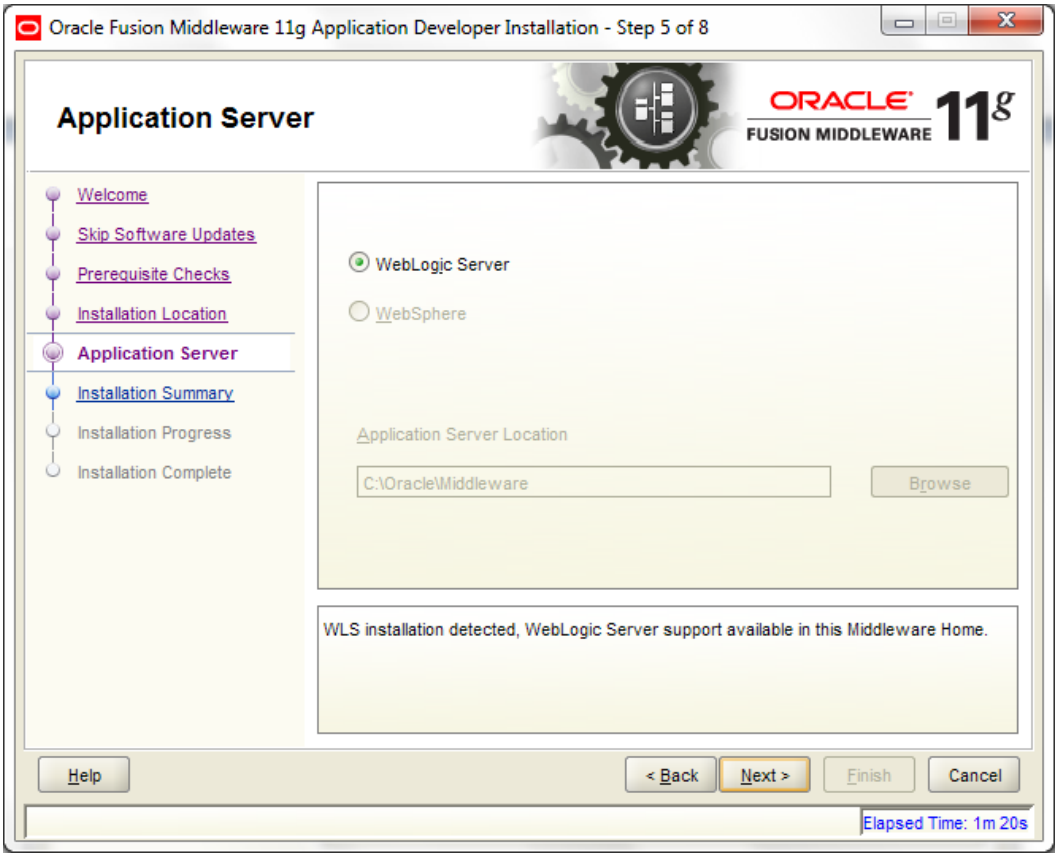
6. Select **Skip** Software **Updates** and click **Next**. The following window is displayed.



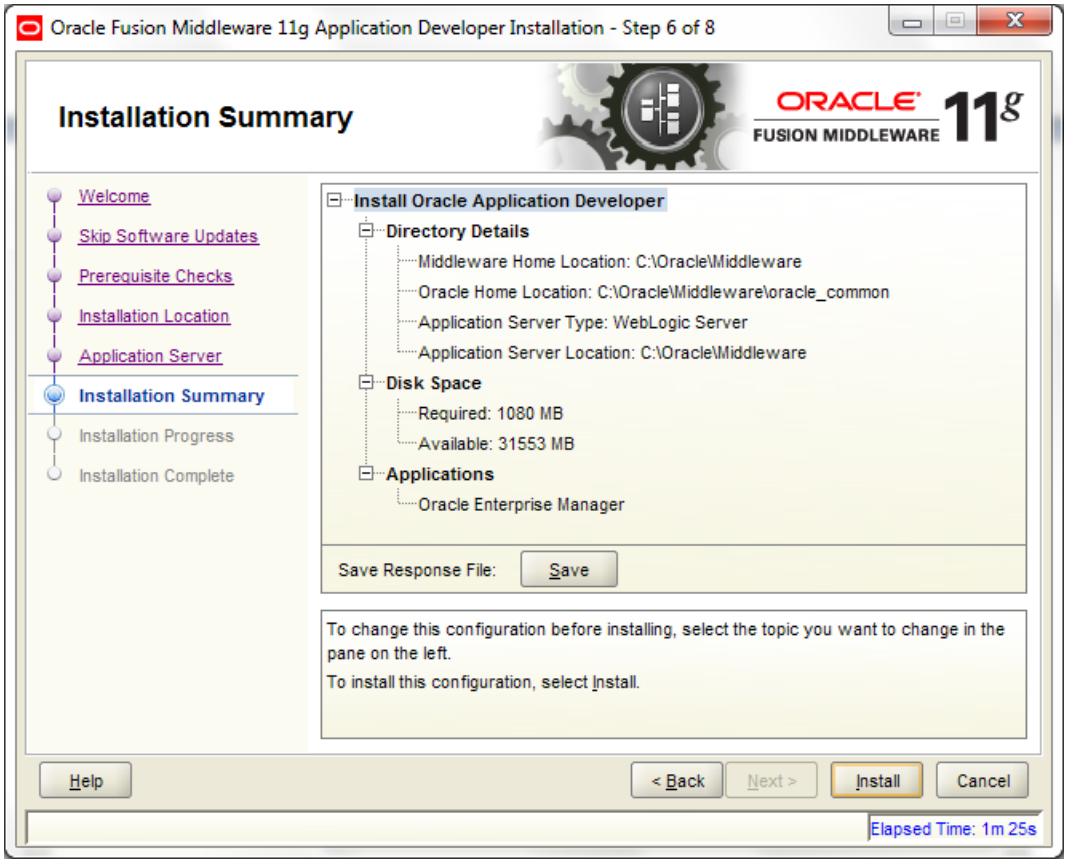
7. Click Next. The following window is displayed.



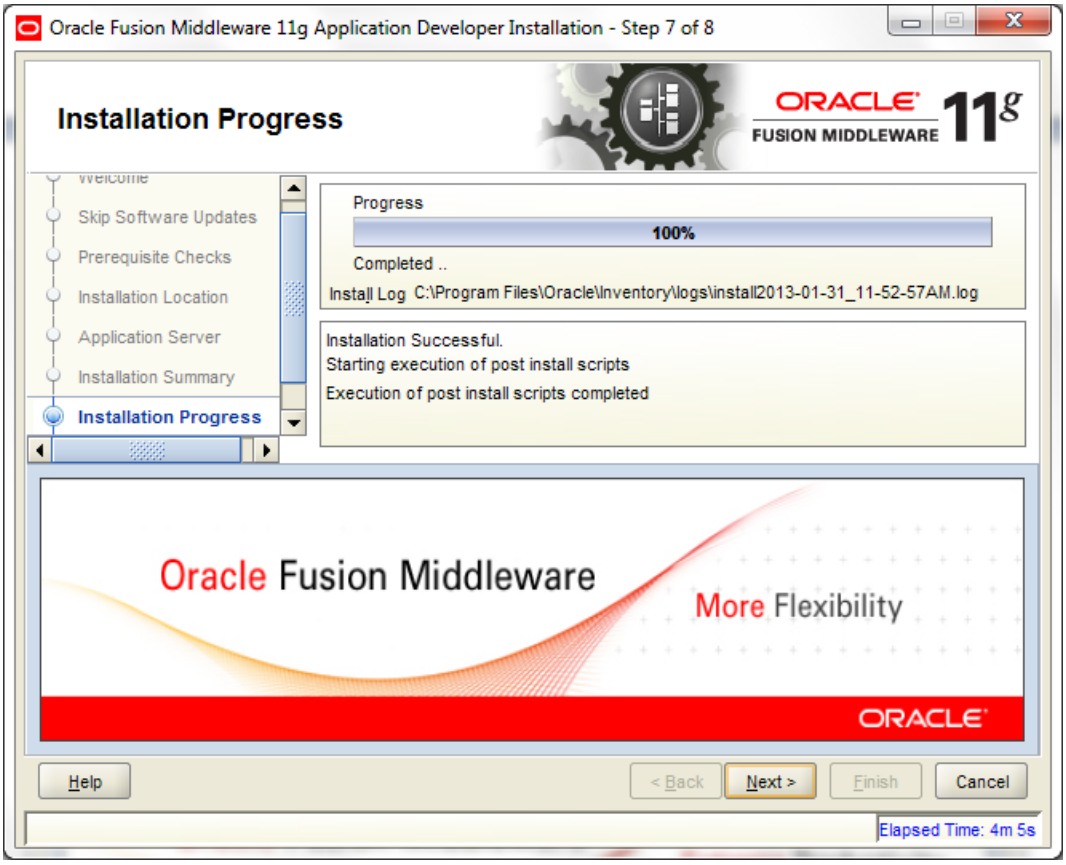
8. Select Oracle **Middleware Home Path** as highlighted and click **Next**. The following window is displayed.



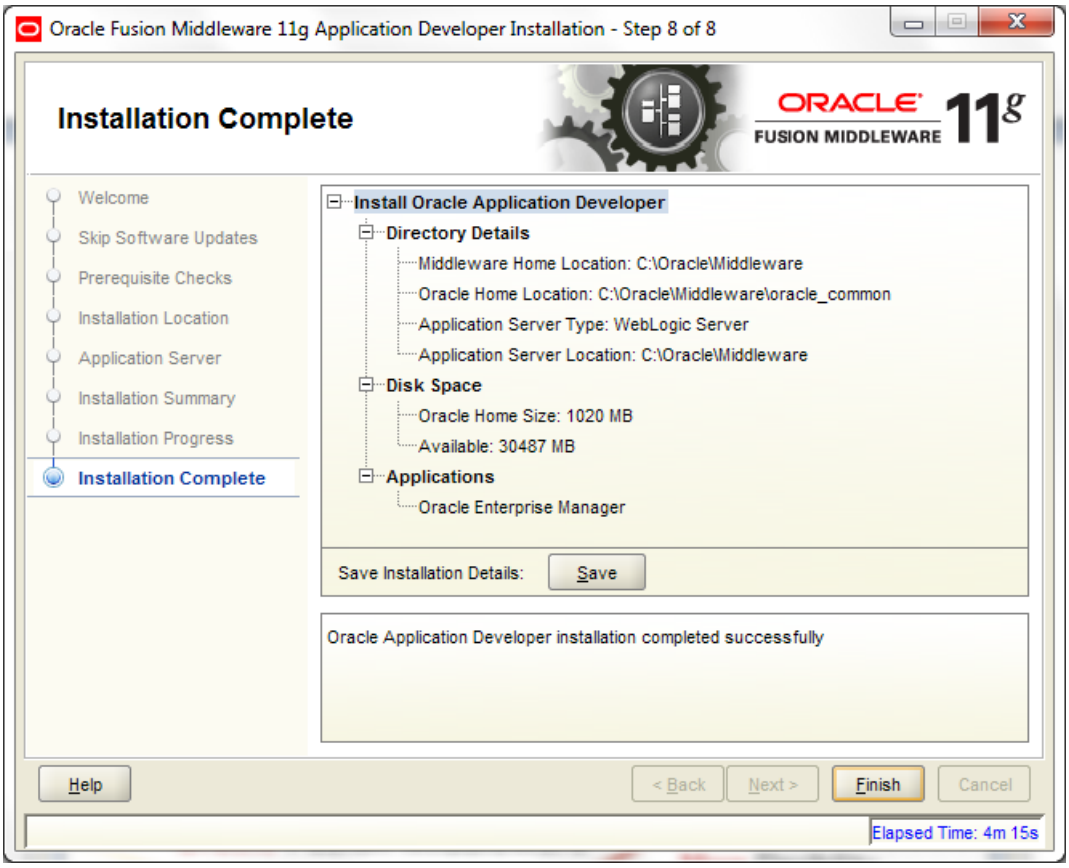
9. Select **WebLogic Server** and click **Next**. The following window is displayed.



10. Click **Install**. The following window is displayed.



11. Once the installation is complete, click **Next**. The following window is displayed.



12. Click Finish to close the window.

3. Creating Domains, Repositories, Data Sources

3.1 Creating Domain and Servers

1. In Unix/Linux machine, once the Oracle WebLogic Server is installed, navigate to the following path.

<WL_HOME>/wlserver_10.3/common/bin

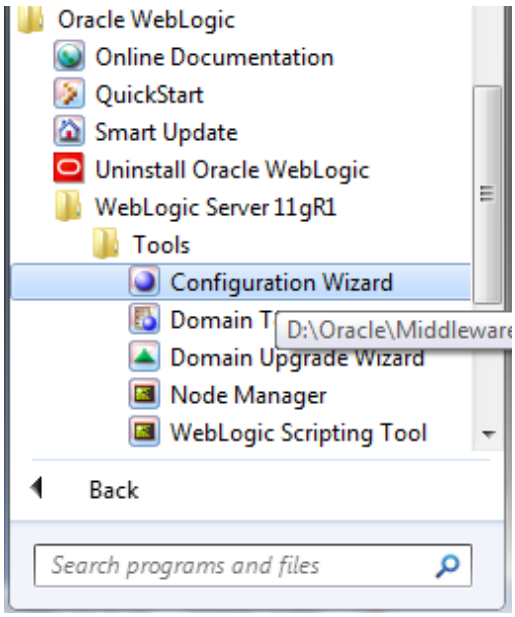
Note

Use XManager for remote UNIX/LINUX machine. Refer XManager Usage.

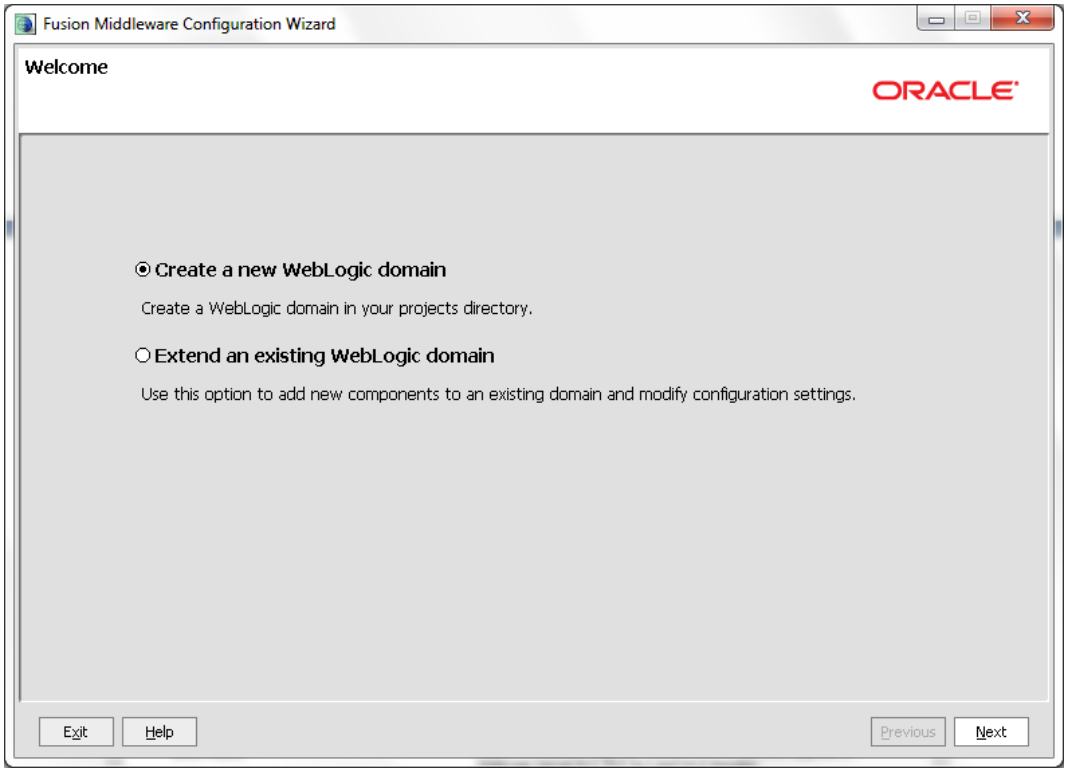
Here, WL_HOME is **/home/Oracle/Middleware**.

2. In Unix run **config.sh.**

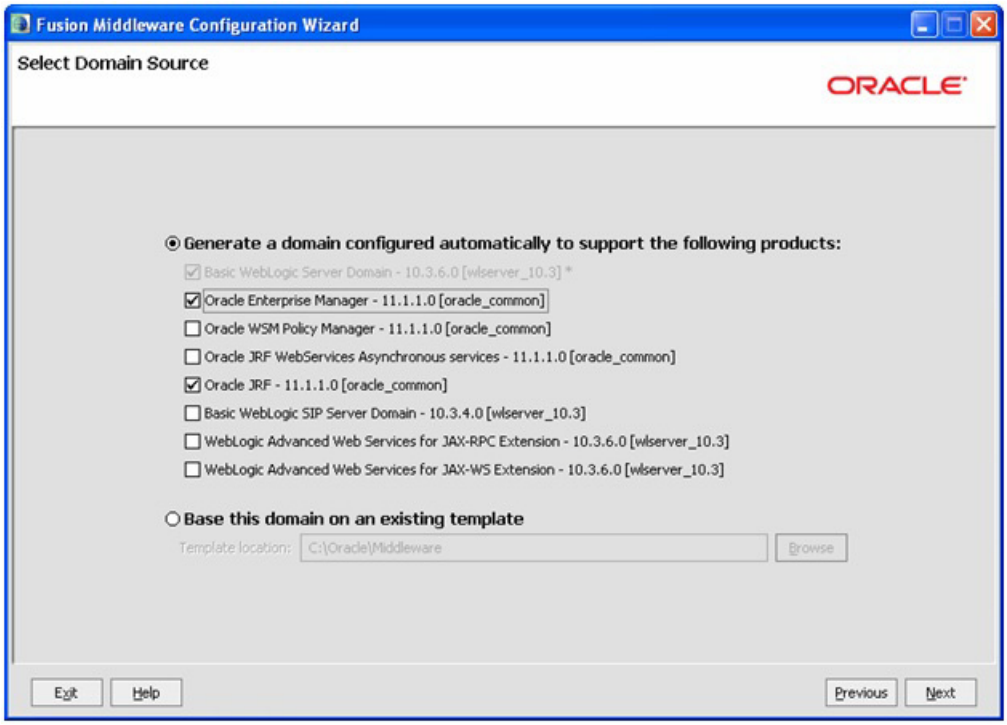
   In Windows Go to Start Menu → All Programs → Oracle WebLogic → WebLogic Server 11gR1 → Tools,



3. Click Configuration Wizard icon.

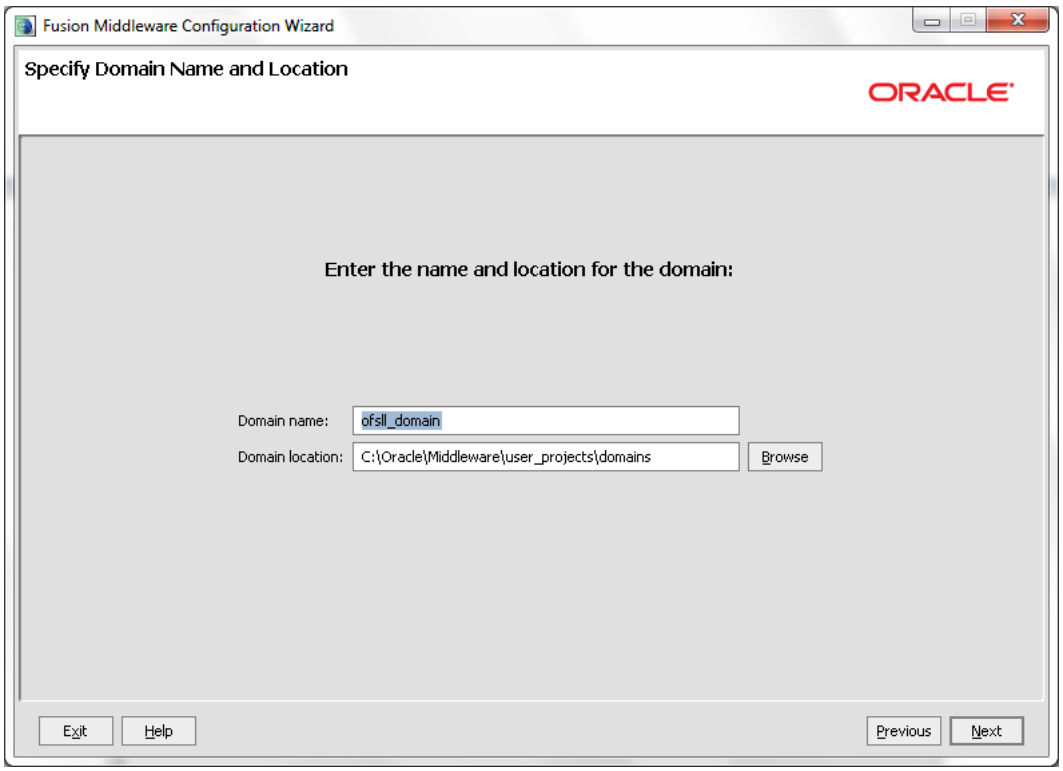


4. Select **Create a new WebLogic domain** and click **Next**. The following window is displayed.

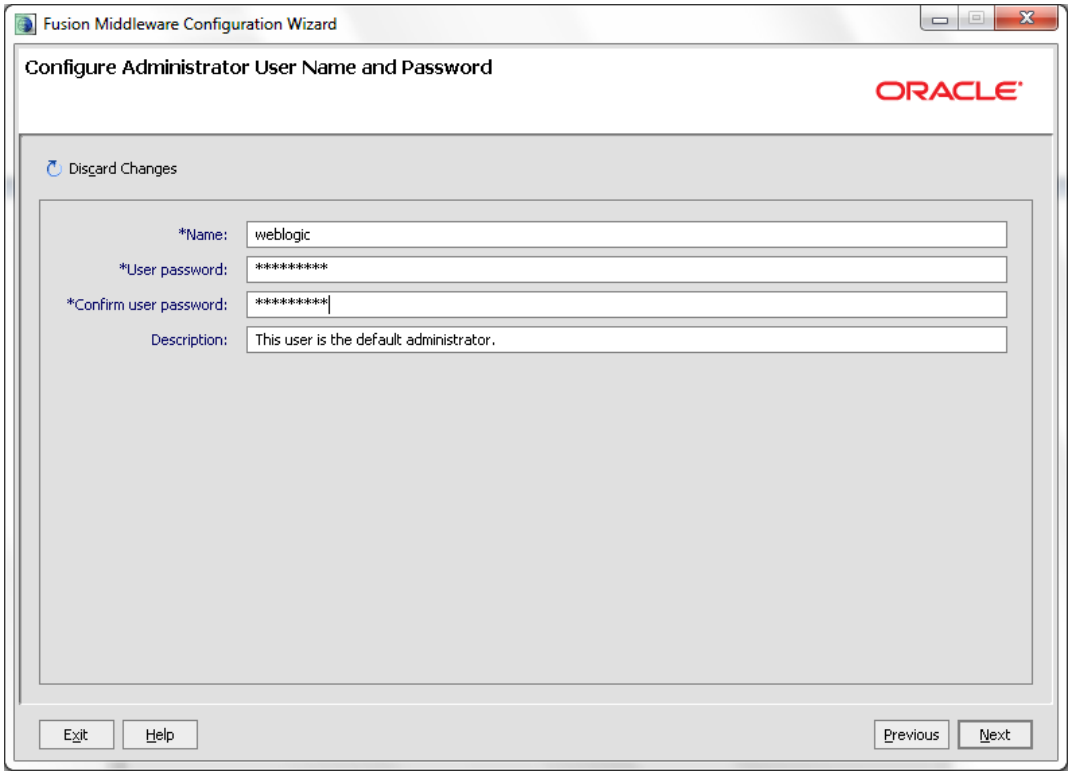


5. Select **Generate a domain configured automatically to support the following products** option.
6. Select **Oracle Enterprise Manager - 11.1.1.0 [oracle_common]** check box.
7. Select **Oracle JRF - 11.1.1.0 [oracle_common]** check box.

8. Click **Next**. The following window is displayed.



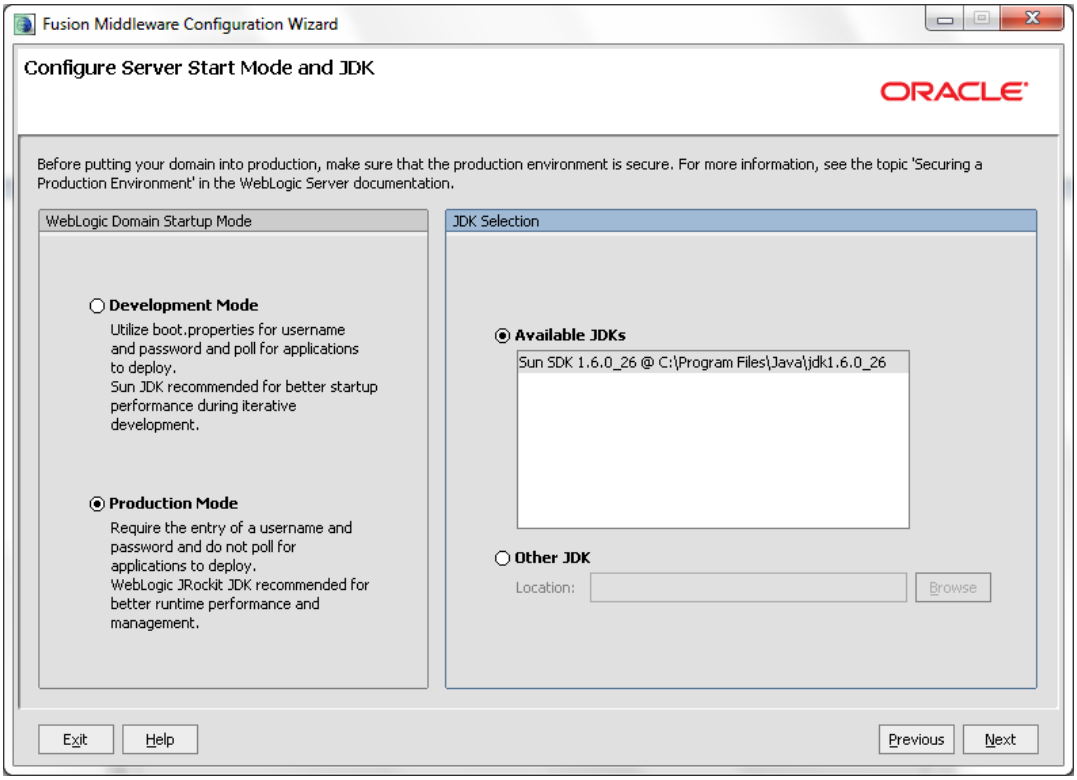
9. Enter **Domain** Name and click **Next**. The following window is displayed.
10. Edit Domain Location, if needed.



11. Enter credentials for the following:
    - Name
    - User password

- Confirm user password
- Description

12. Click **Next**. The following window is displayed.

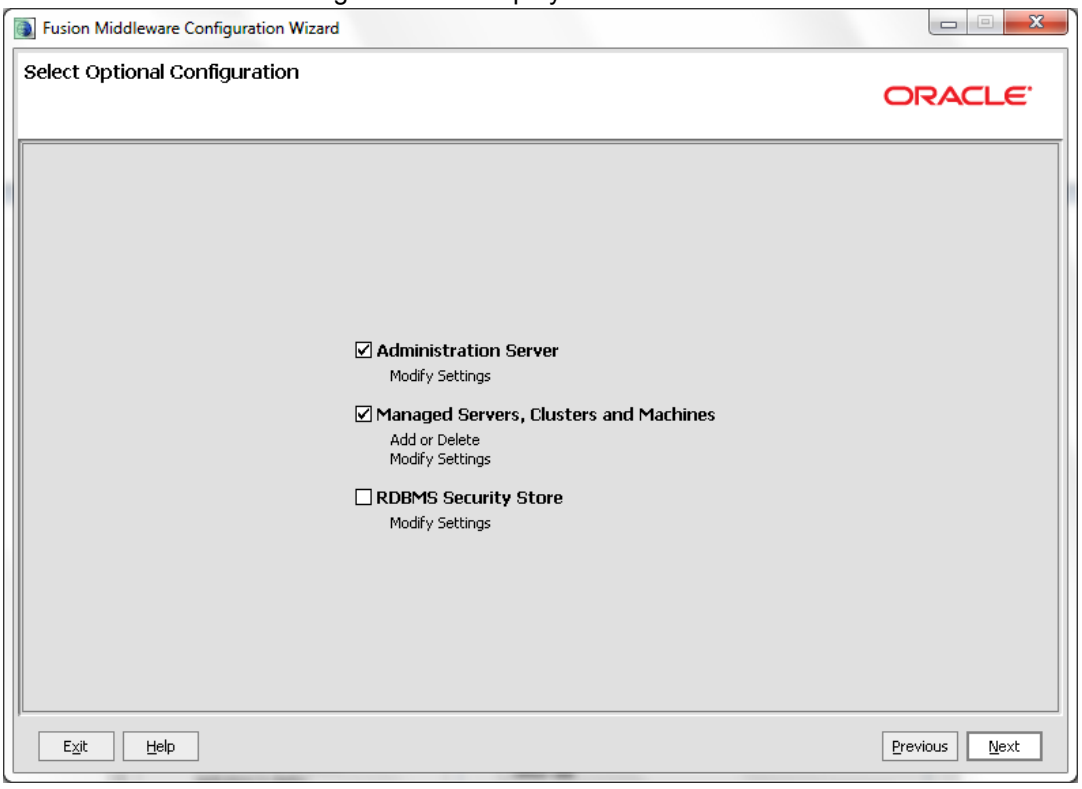


13. Select **Production Mode** and **JDK/JRockit** from **Available JDKs**

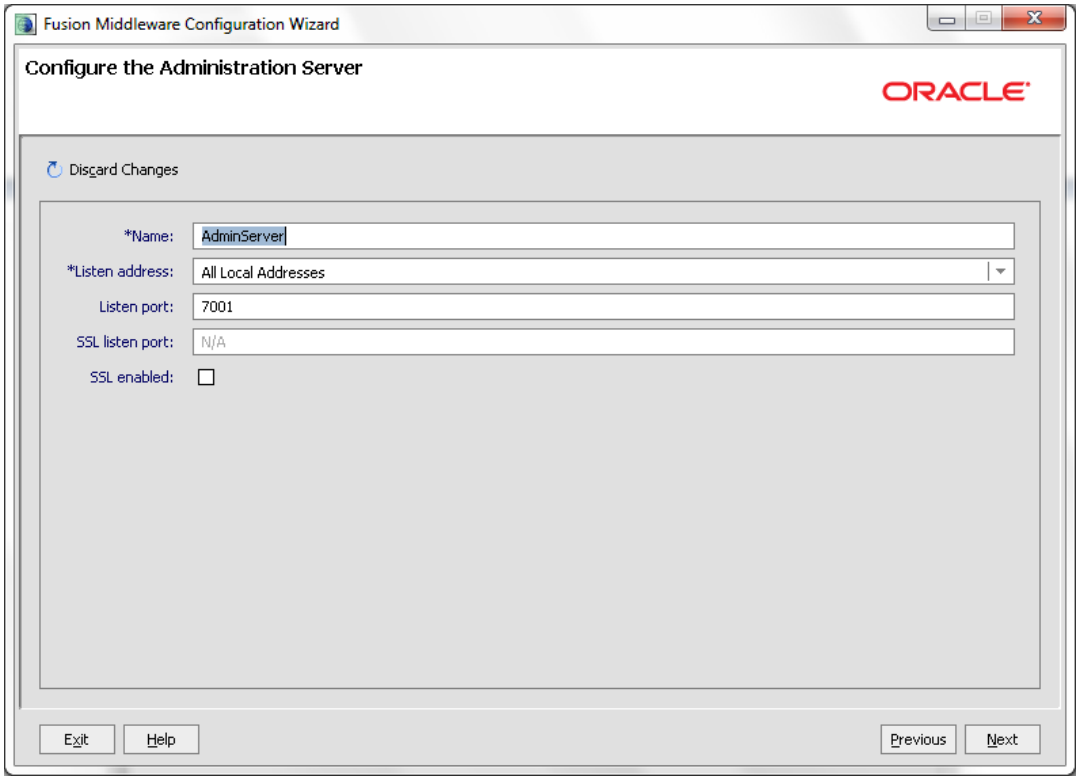
    OR

    Select **Other JDK** option to select any other JDK/JRockit .

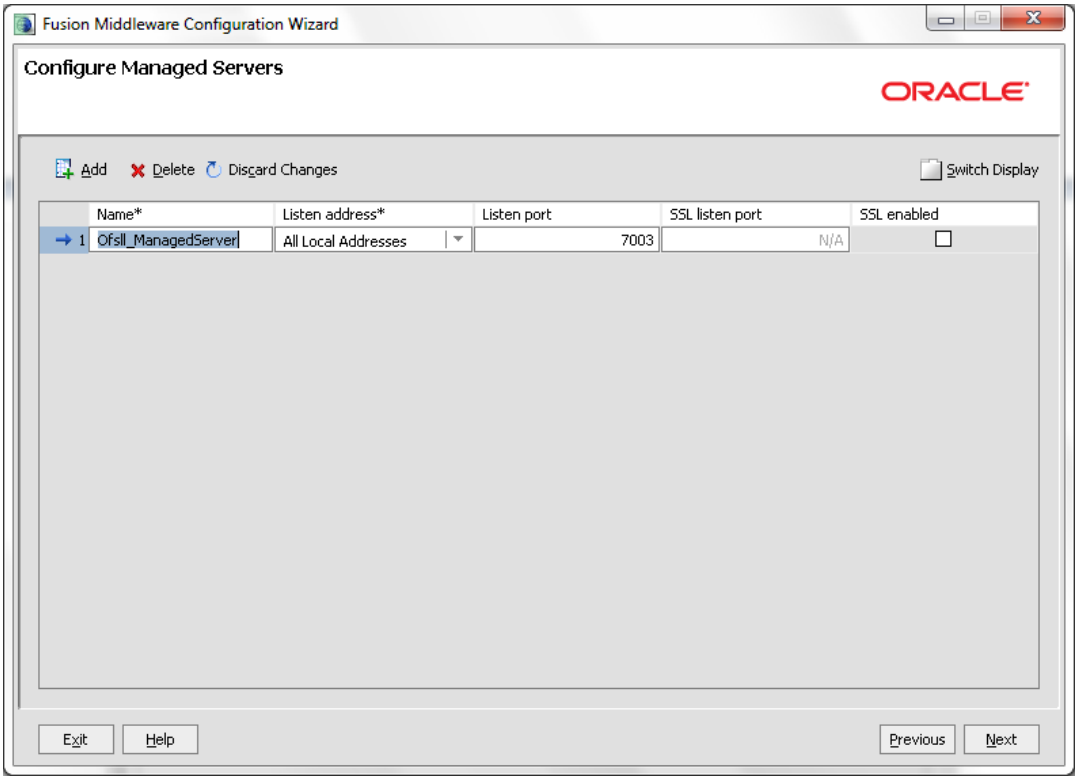
14. Click **Next**. The following window is displayed.



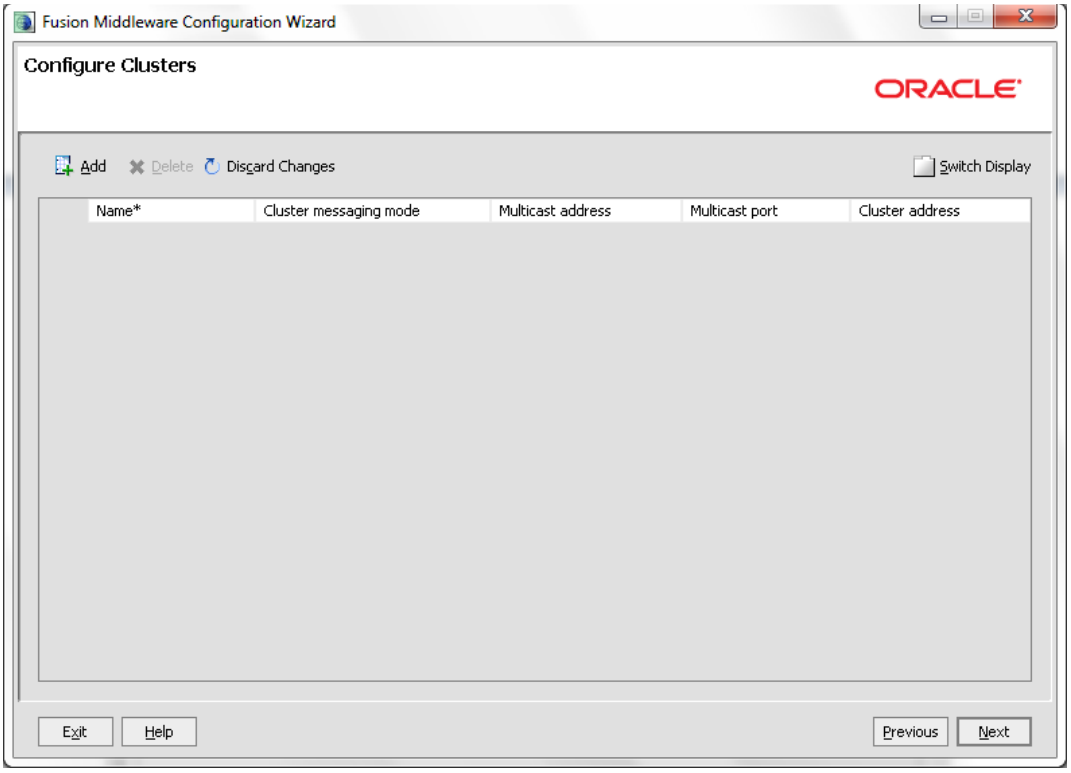
15. Select **Administration Server** and **Managed Servers, Clusters and Machines** and click **Next**. The following window is displayed.



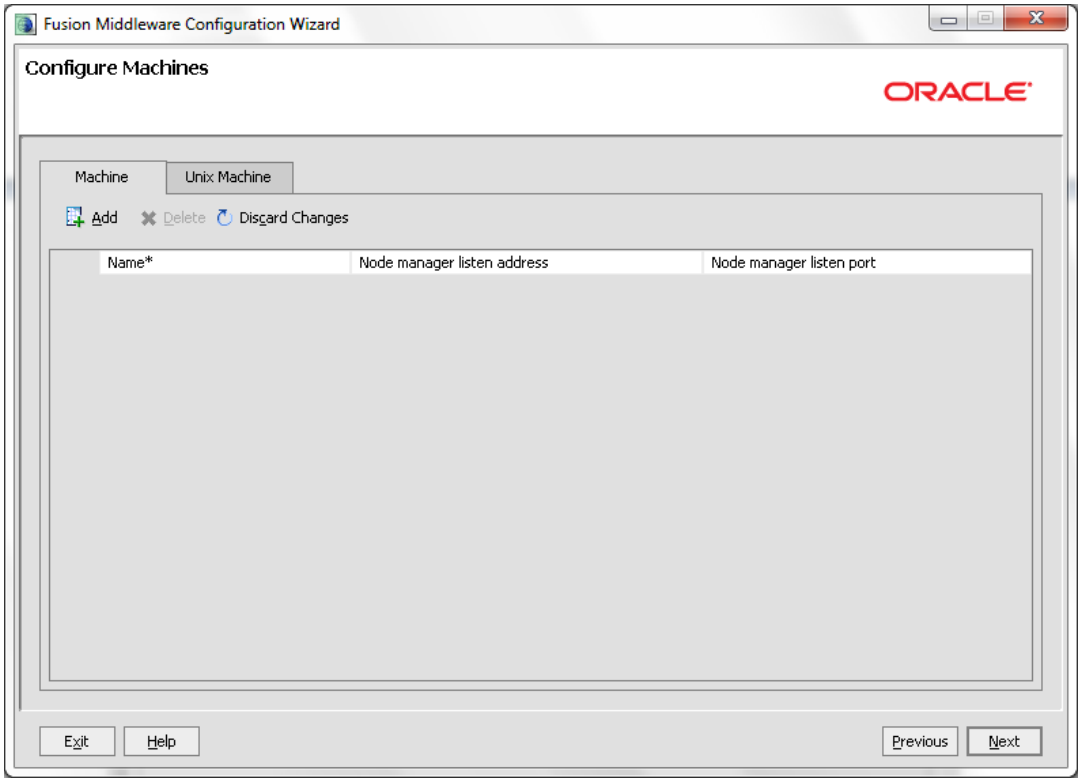
16. Enter Administration Server **Name** and **Listen Port** details and click **Next**. The following window is displayed.



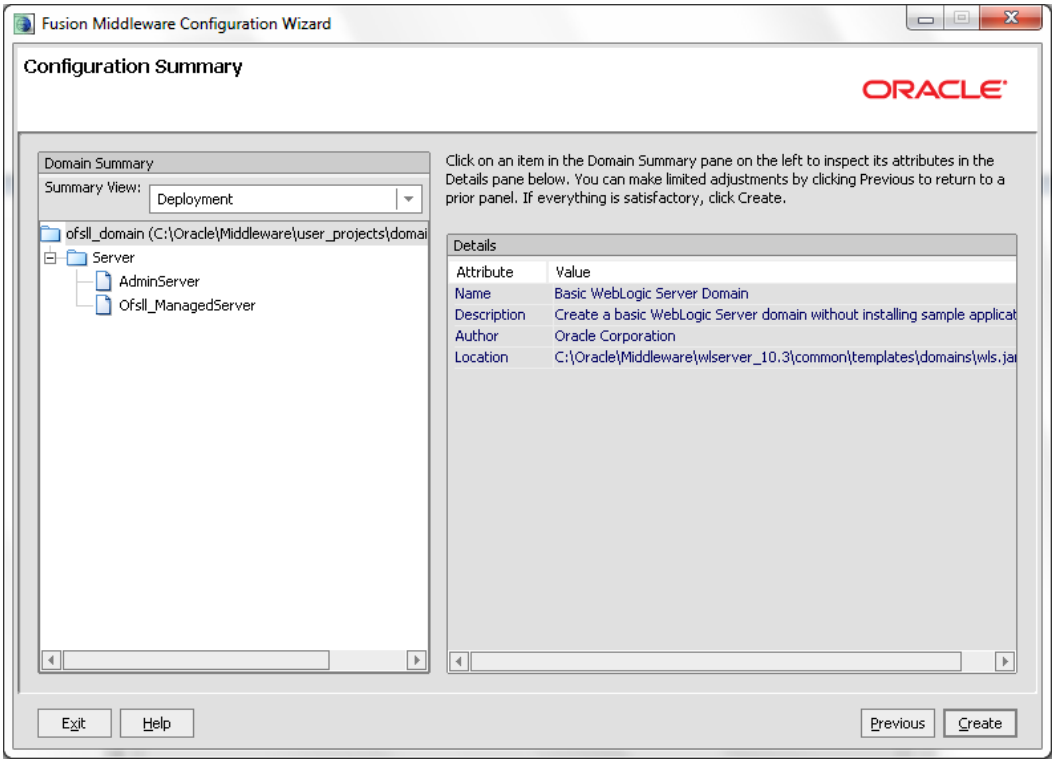
17. Enter **Name** and **Listen Port** details in Configure Managed Servers window and click **Next**. The following window is displayed.



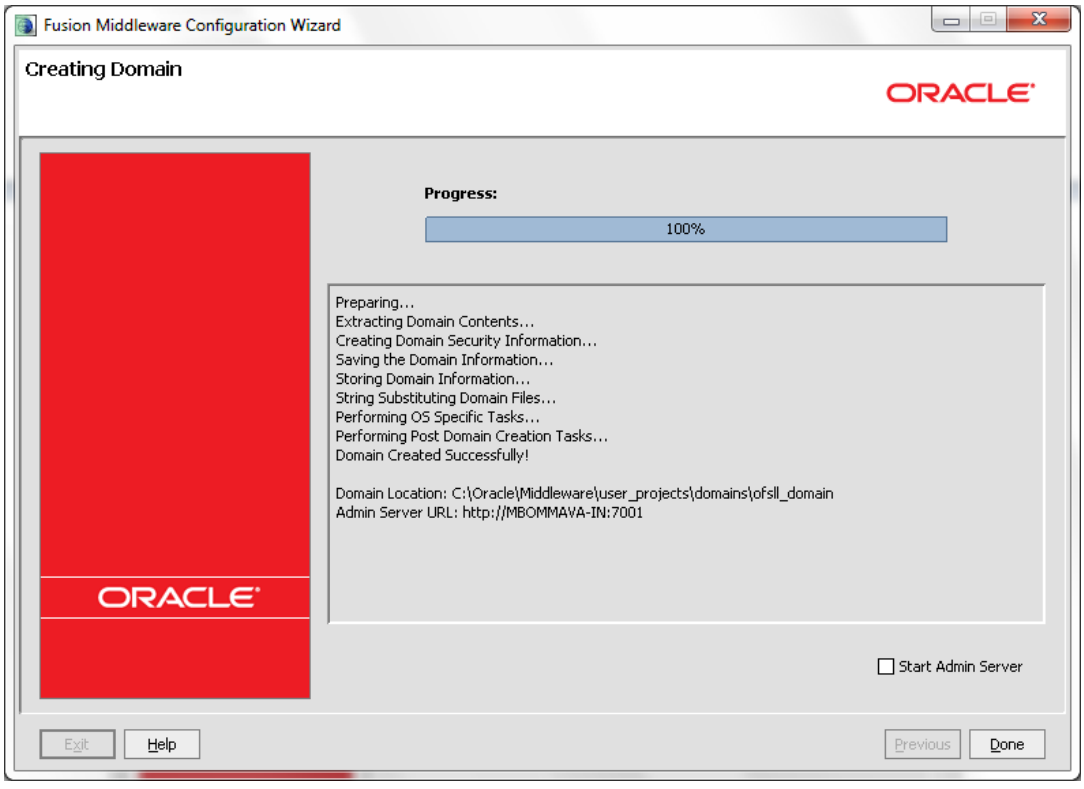
18. Configure as required and click **Next**. The following window is displayed.



19. Configure as required and click **Next**. The following window is displayed.



20. Click **Create**. The following window is displayed.



21. Once the creation of the Domain is complete.
22. Click **Done** to close the window.

Note

The default Weblogic installation will be running JVM with 512MB, this has to be increased for the ADF managed server. Say, for a 2 CPU Quad Core with 16 GB it could have the JVM running at 8 GB as:

USER_MEM_ARGS="-Xms8192m –Xmx8192m -XX:PermSize=2048m -XX:Max-PermSize=2048m"

23. The "$MW_HOME/user_projects/domains/mydomain" directory contains a script that can be used to start the Admin server. Use the "&" if you want access to the command line to be returned.

    $ cd $MW_HOME/user_projects/domains/mydomain

    $ ./startWebLogic.sh &

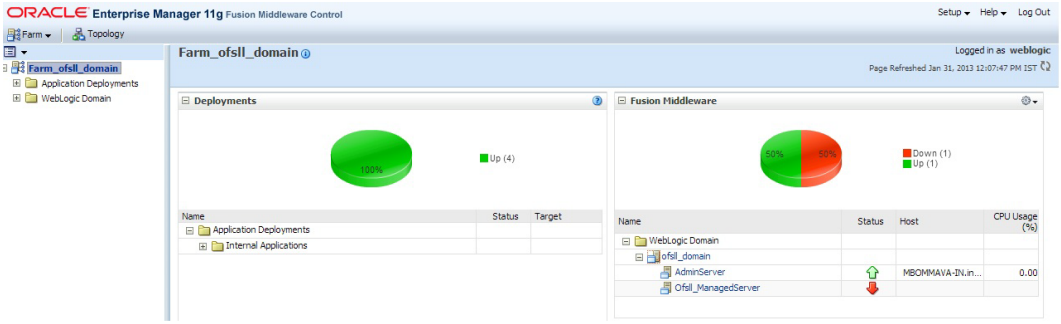
24. To Start Managed Server

    $ cd $MW_HOME/user_projects/domains/mydomain/bin

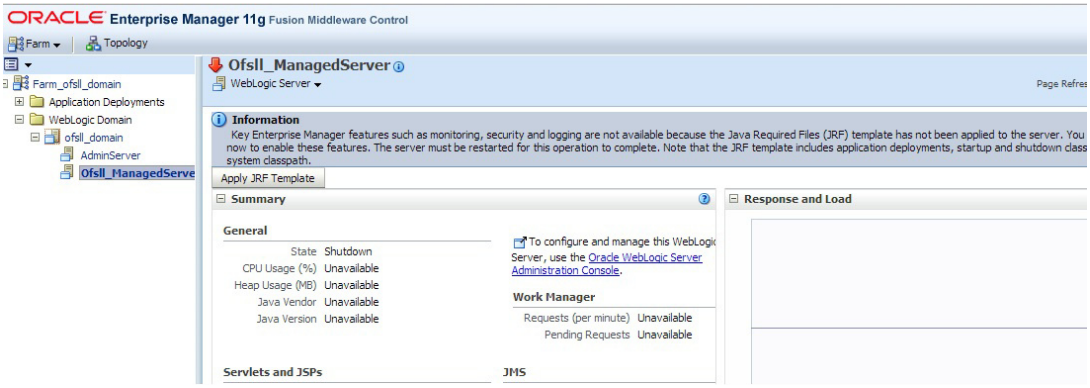
    $ $MW_HOME/user_projects/domains/mydomain/bin/startManagedWebLogic.sh {Man-agedServer_name} {AdminServer URL} &

3.2 Applying the JRF Template

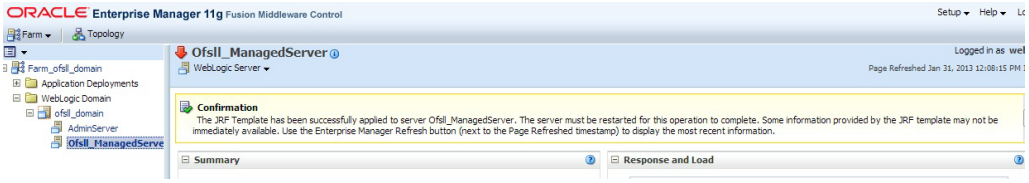
1. Start Oracle WebLogic Server
2. Login to Oracle Enterprise Manager 11g Console (http://hostname:port/em).



3. On Left window panel, expand **WebLogic Domain → ofsll_domain** and click **OfsII_ManagedServer** as shown below**.**



4. On right window panel, click **Apply JRF Template** Button. The confirmation message is displayed as shown below.

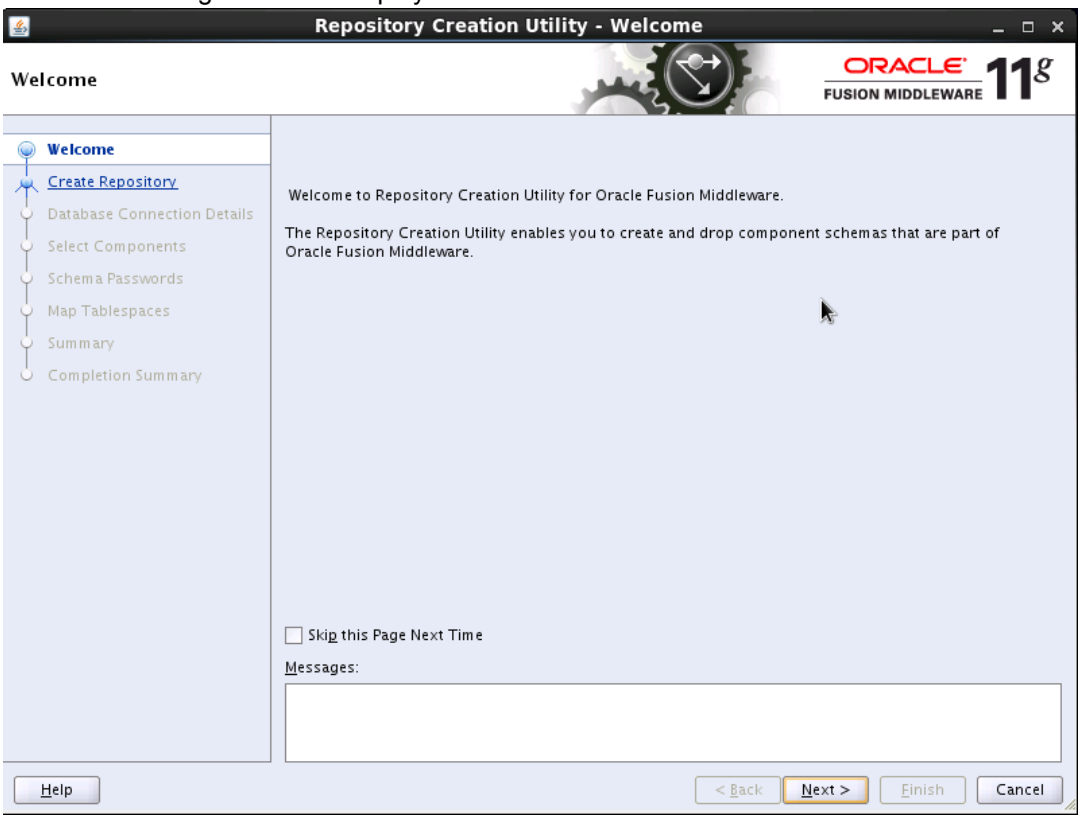


3.3 Creating Schemas using Repository Creation Utility

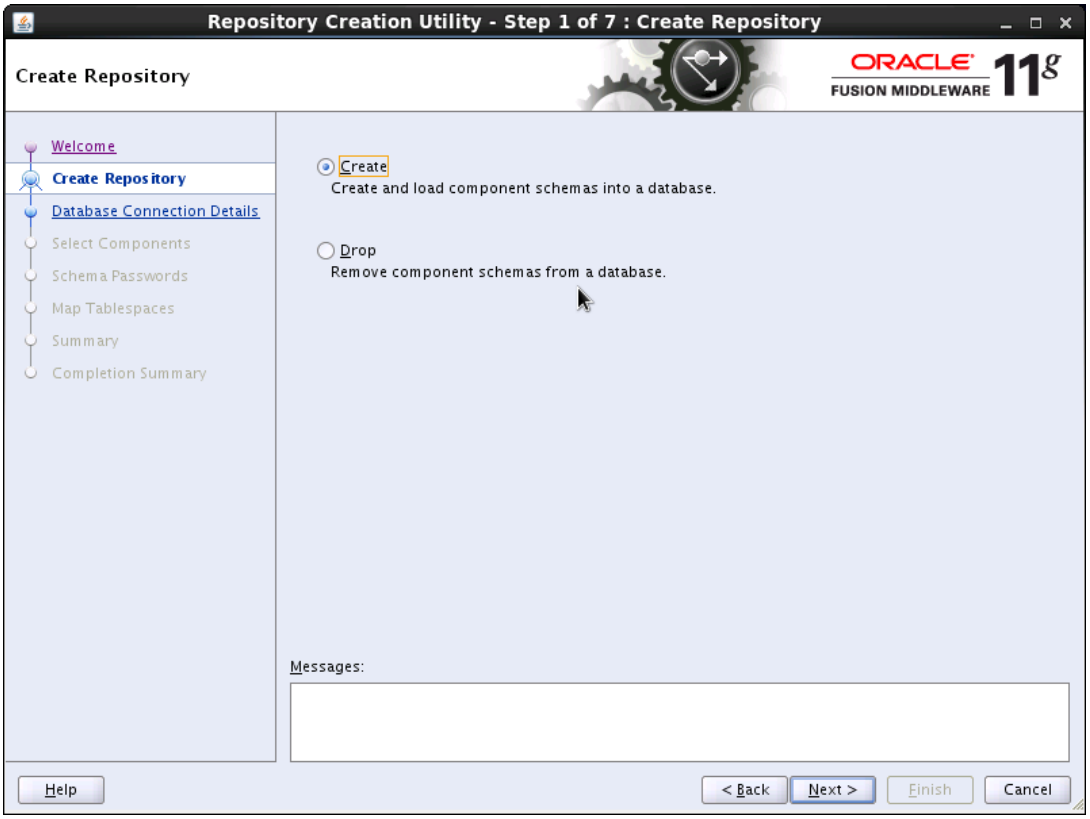
1. Download Oracle Repository Creation Utility Tool (ofm_rcu_linux_11.1.1.6.0_disk1_1of1.zip) from the link mentioned in prerequisites.
2. Unzip the ofm_rcu_linux_11.1.1.6.0_disk1_1of1.zip to your local drive.
3. On windows, assume that it is unzipped to C:/oracle/rcuHome and set the value as RCU_HOME.

i.e. export RCU_HOME=C:/oracle/rcuHome

4. Open command prompt and browse to $RCU_HOME/bin and run **./rcu**
5. On Unix, /home/oracle/rcuHome/bin and run **./rcu**
6. The following window is displayed.



7. Click Next. The following window is displayed.

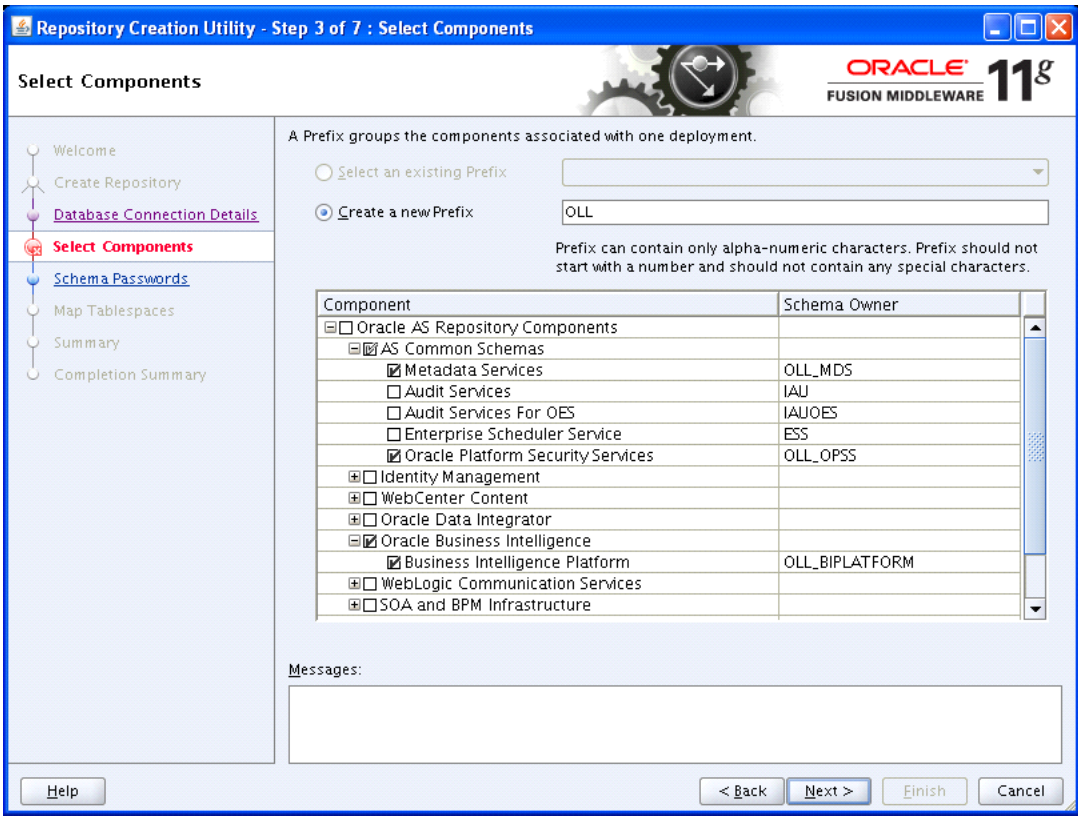


8. Select **Create** to create new schemas and click **Next**. The following window is displayed.

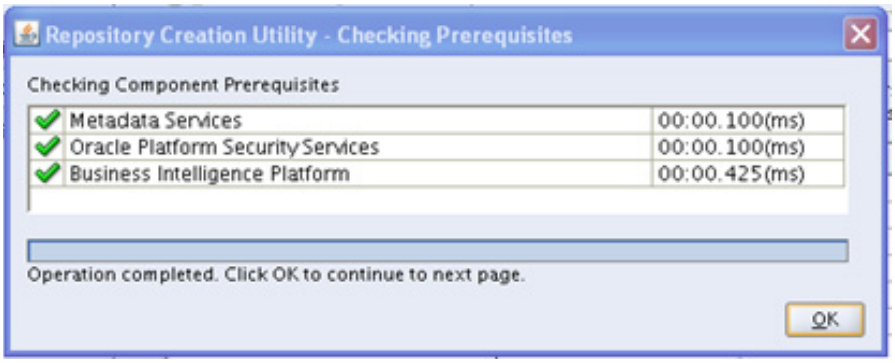
9. Provide database details where you want to create schemas, as shown in the above screen.

Note

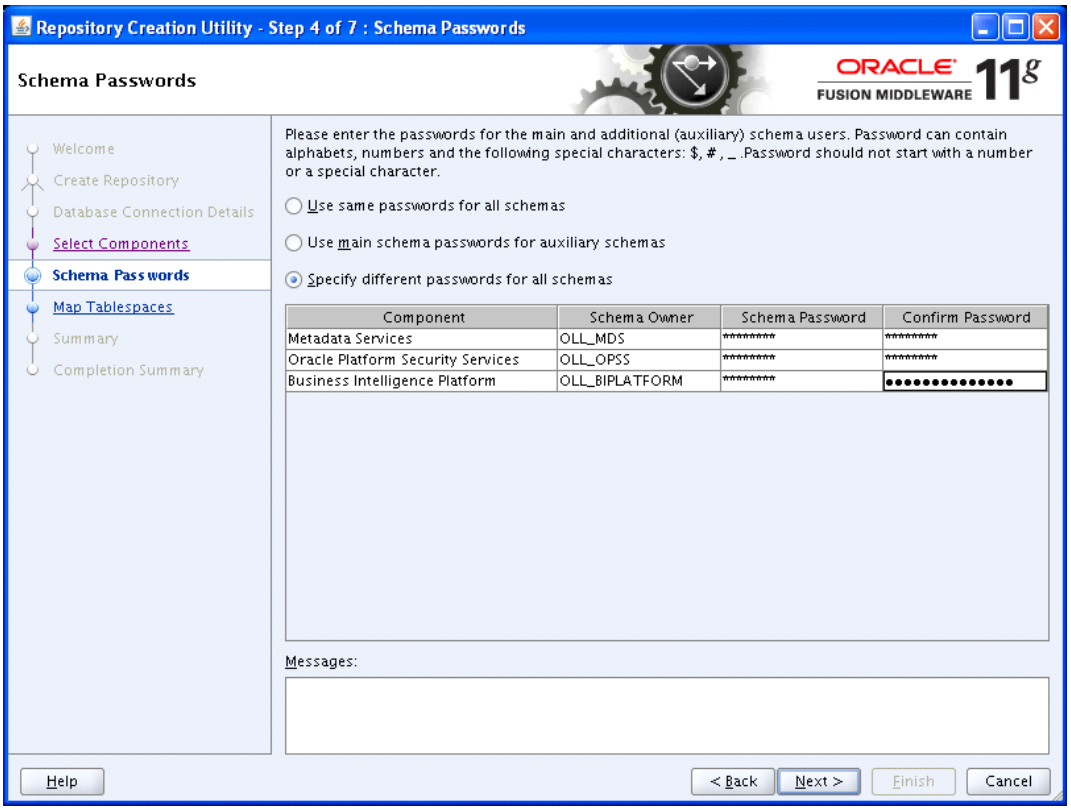
You will require a user with SYSDBA role to create schemas.



10. Select **Create a new Prefix** option and specify value. For example, OLL
11. Check **Metadata Services, Oracle Platform Security Services** and **Business Intelligence Platform** as shown in the above screen.
12. Click **Next**. The following window is displayed.

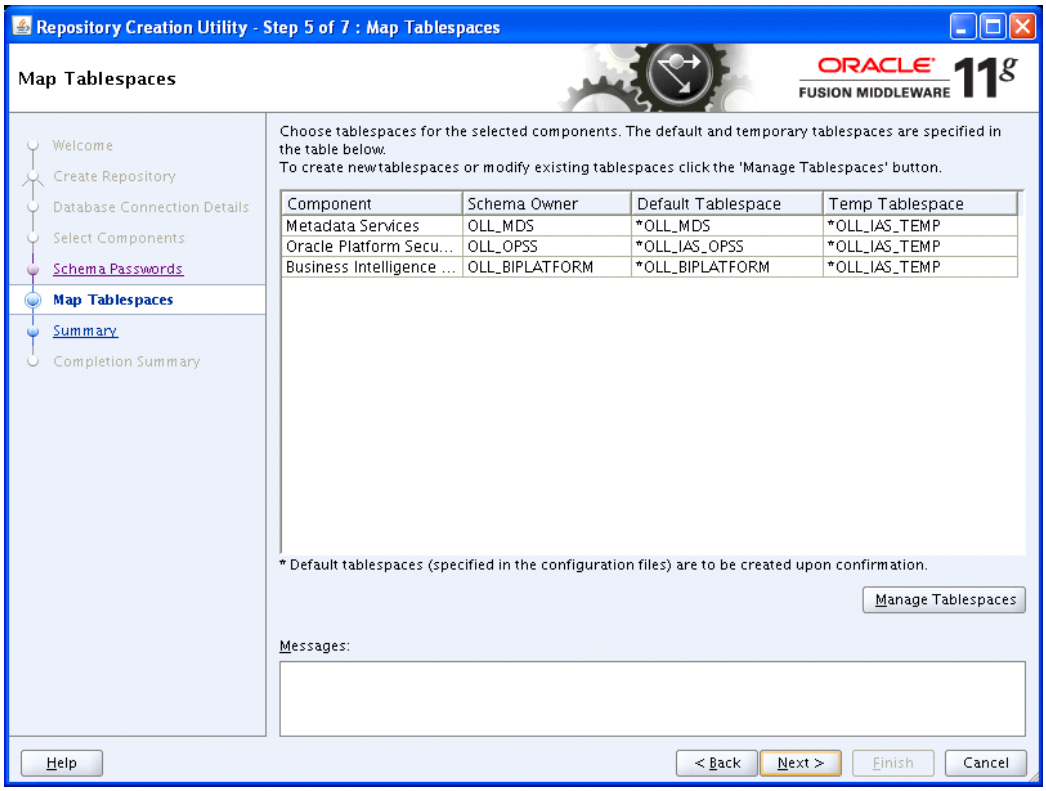


13. Once the operation is complete, click **OK**. The following window is displayed.

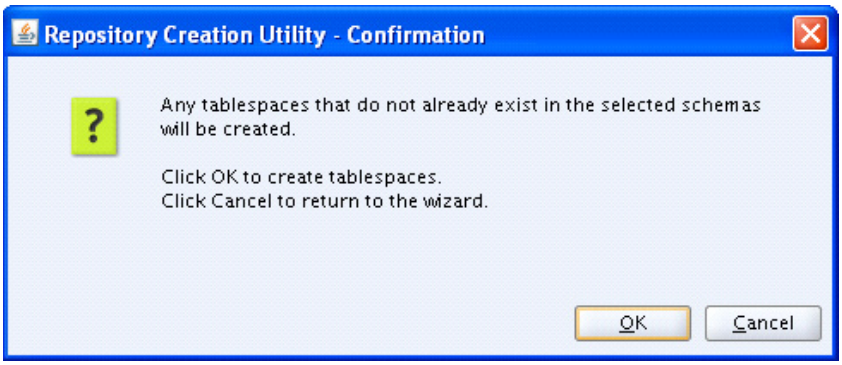


14. Select **Specify different passwords for all schemas** and provide Schema Passwords for each server as shown above.

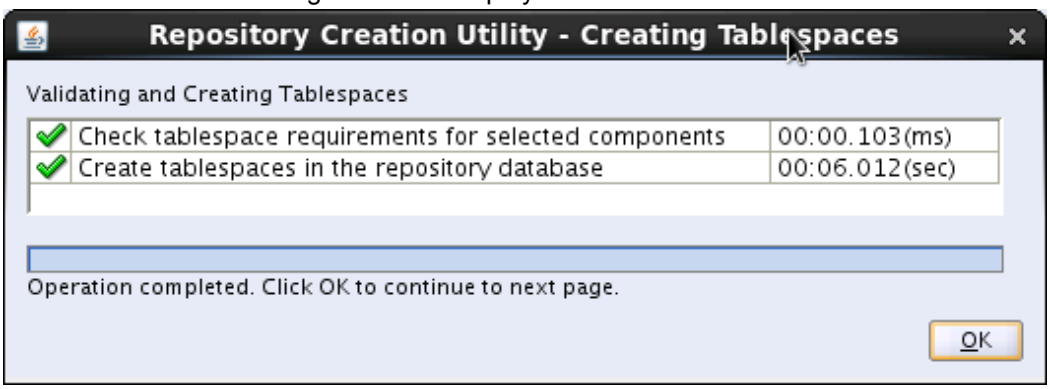
15. Click Next., The following window is displayed.



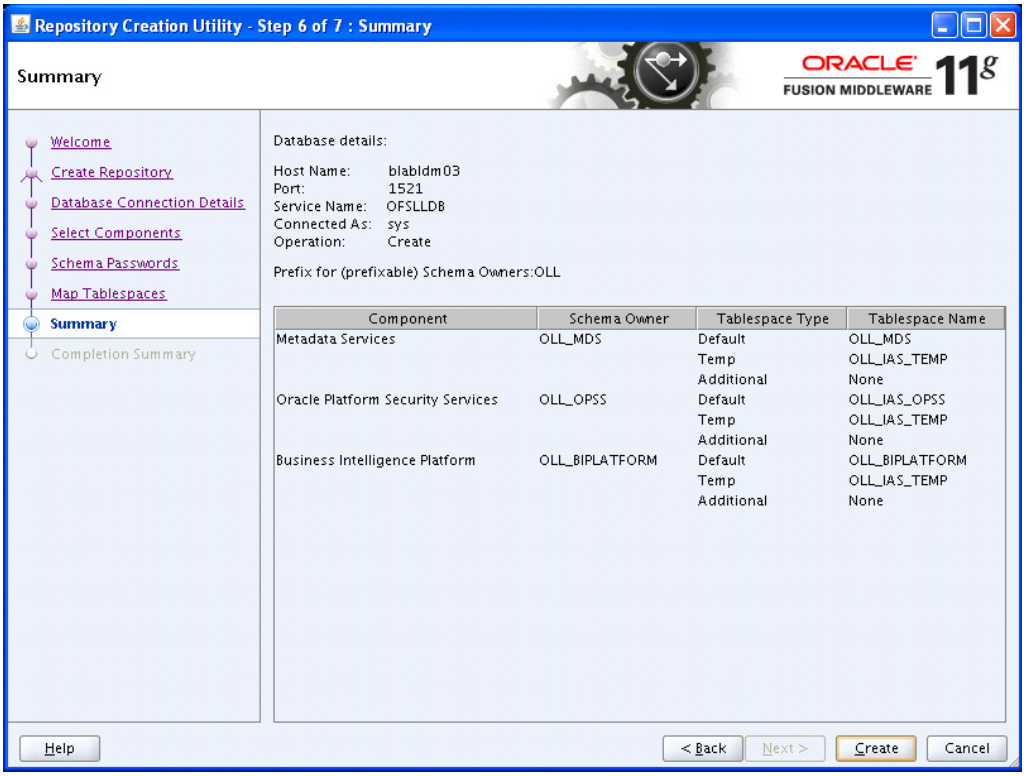
16. Click **Next**. The following window is displayed.



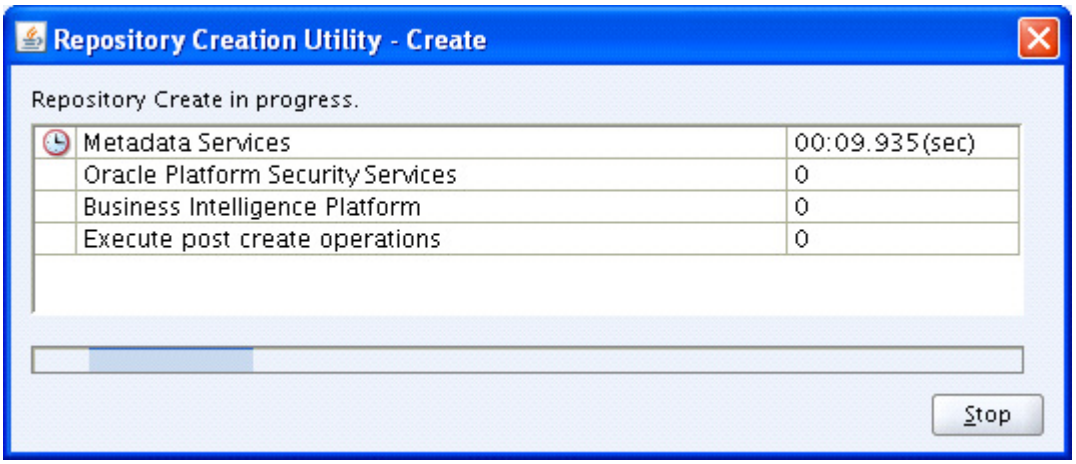
17. Click **OK**. The following window is displayed.

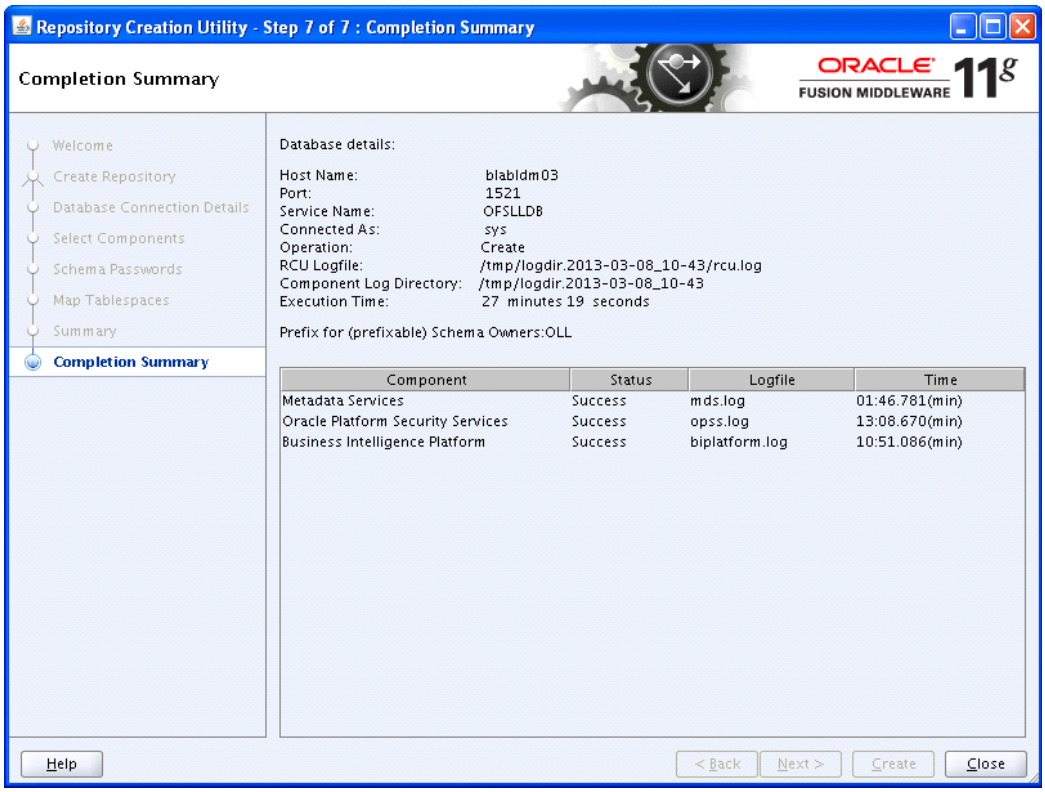


18. Click **OK** to continue to the next page. The following window is displayed.



19. Click **Create.** The following windows are displayed.



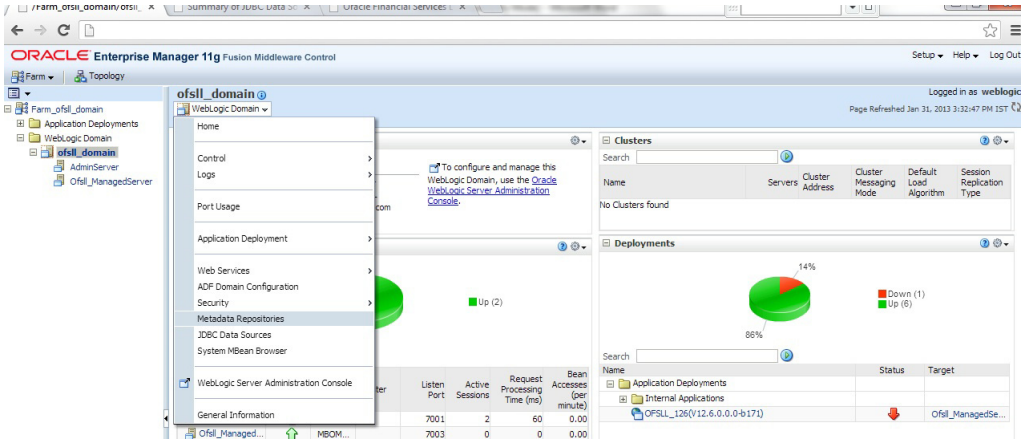


20. Click **Close** to close the window.

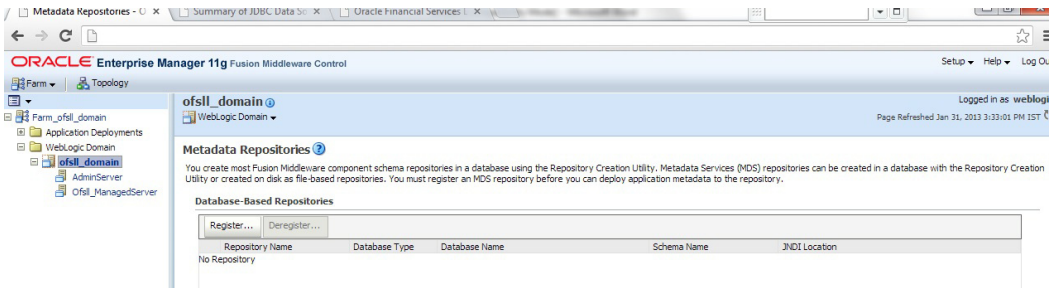
3.4 Creating Metadata Repository

Assuming that **DEV_MDS** schema is created using Oracle Repository Creation Utility (RCU) as mentioned in Creating Schemas using Repository Creation Utility section, follow the below steps to create the repository.

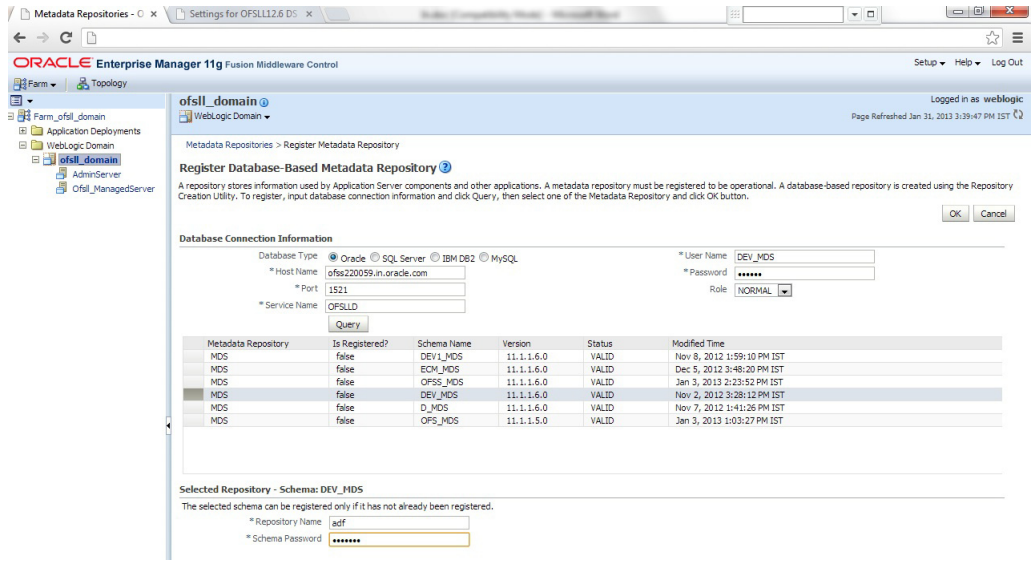
1. Login to Oracle Enterprise Manager 11g console (http://hostname:port/em).



2. Click on domain name ofsll_domain on the left side panel.
3. Expand Weblogic domain ofsll_domain and click Metadata Repositories on right side panel, as shown above screen.
4. The following window is displayed.

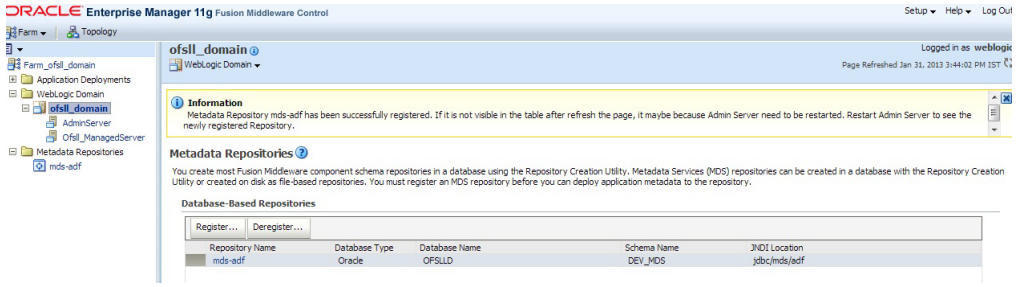


5. Click Register button. The following window is displayed.

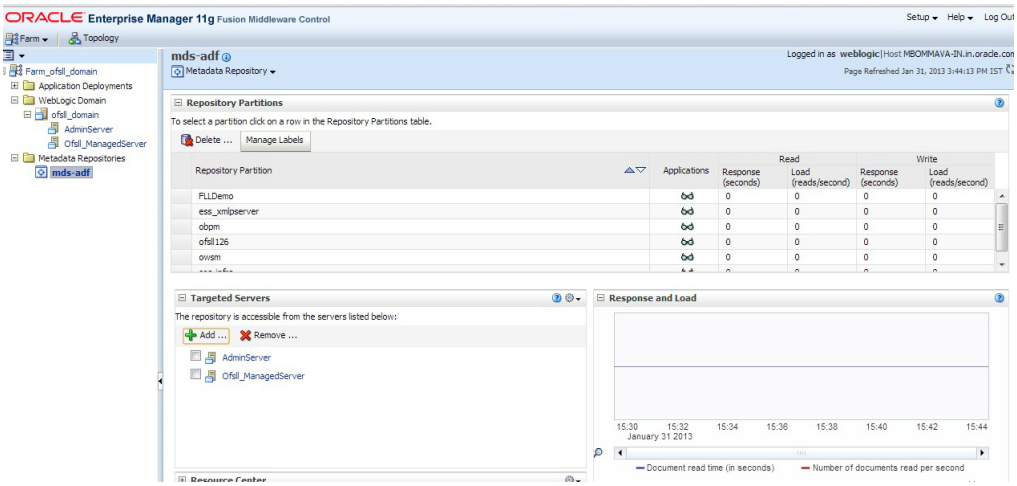


6. Enter database instance details under Database Connection Information section and click **Query**.
7. All available schemas in the given database instance are listed.
8. Select the schema you require and enter **Repository Name (adf)** and the password under Selected Repository – Schema **DEV_MDS** section.

9. Click OK. The following window is displayed.



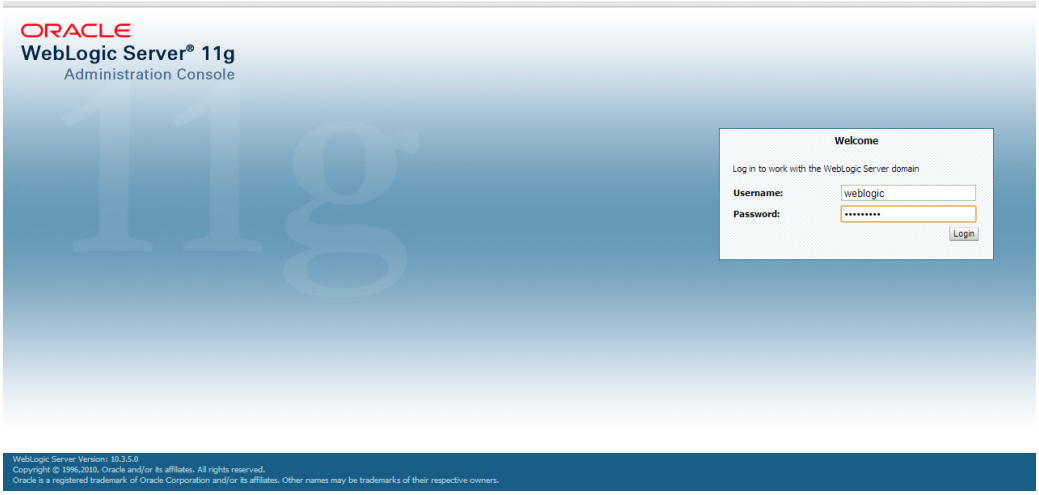
10. Click Repository name **mds-adf** on left panel. You can even select it from right panel.



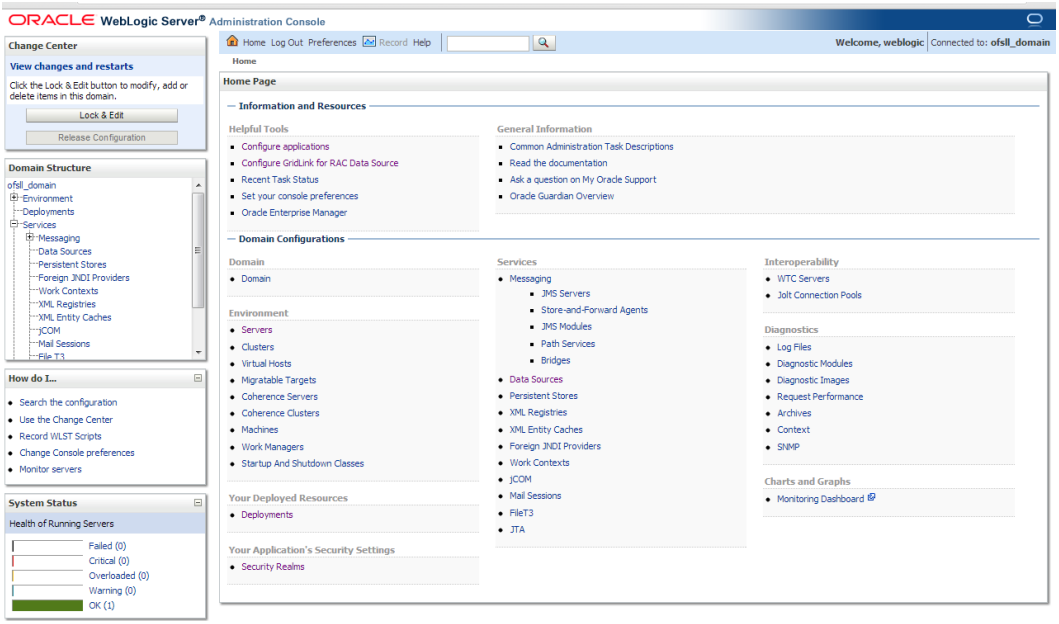
11. And target to AdminSever and Ofsll_ManagedServer as on right panel.

3.5 Creating Data Source

1. Login to WebLogic Server 11g console (http://hostname:port/console).

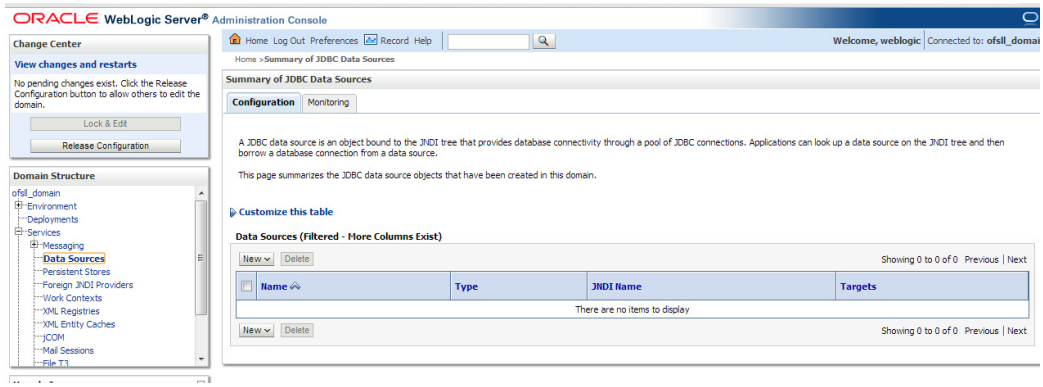


2. The following window is displayed.

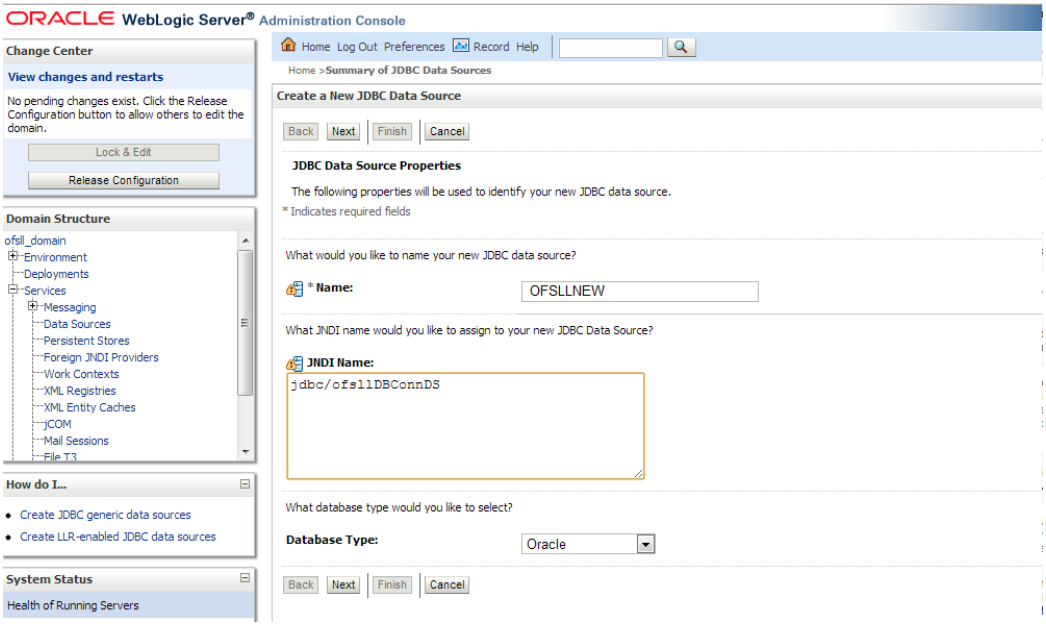


3. Click Domain Name → Services → Data Sources.

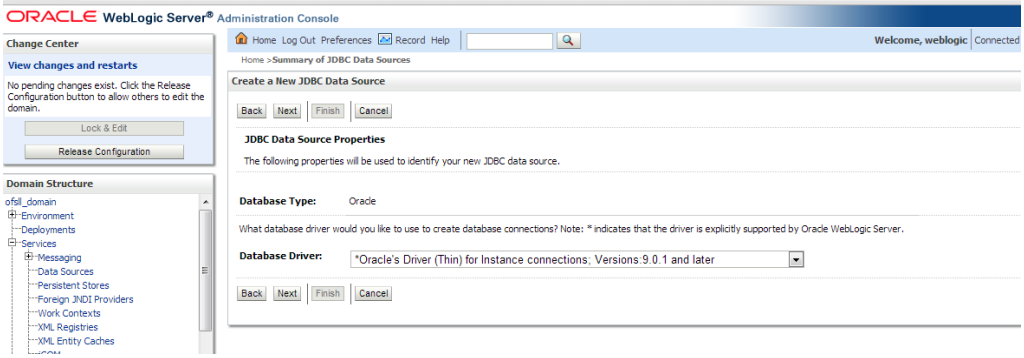
4. The following window is displayed.



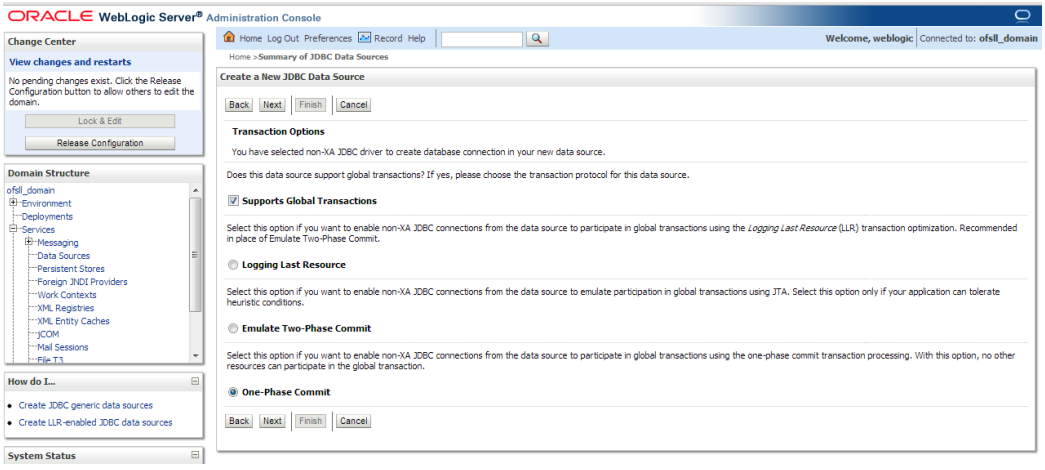
5. Click **Lock & Edit** button on the left panel. Click **New** on right panel and select **Generic Data Source**.



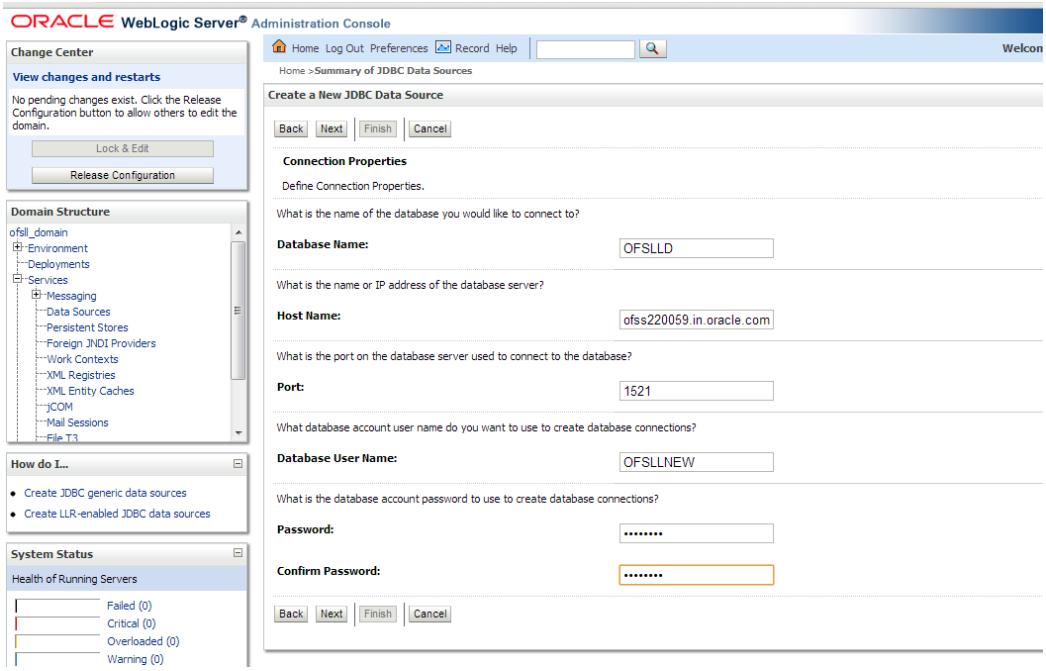
6. Enter Data source **Name**
7. Enter **JNDI Name** as **jdbc/ofsllDBConnDS**.
8. Select **Oracle** as **Database Type** and click **Next**. The following window is displayed.



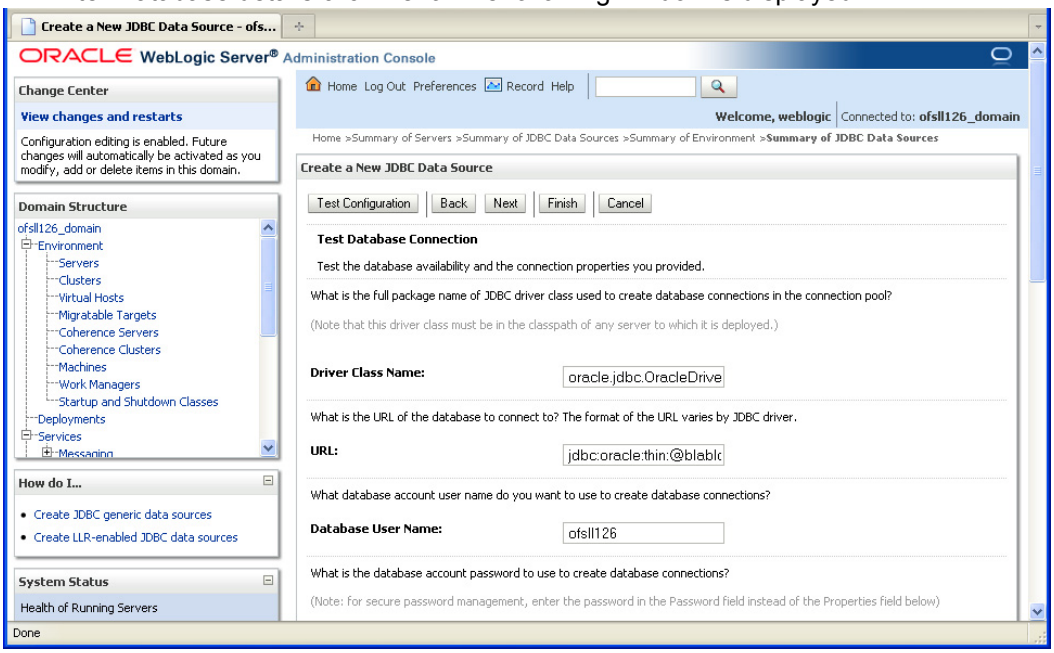
9. Select the Database Driver "Oracle's Driver(Thin) for Instance connections; Versions:9.0.1 and later" as shown above.
10. Click **Next**. The following window is displayed.



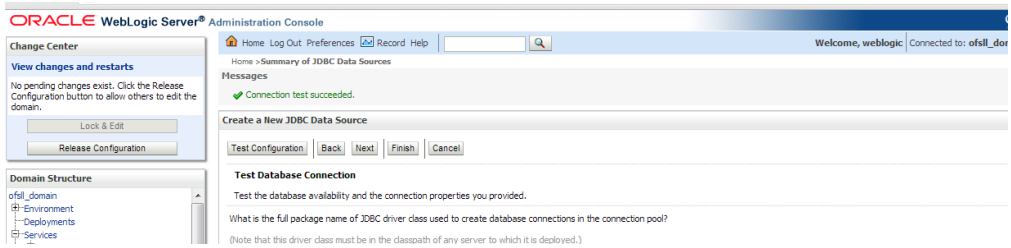
11. Click **Next**. The following window is displayed.



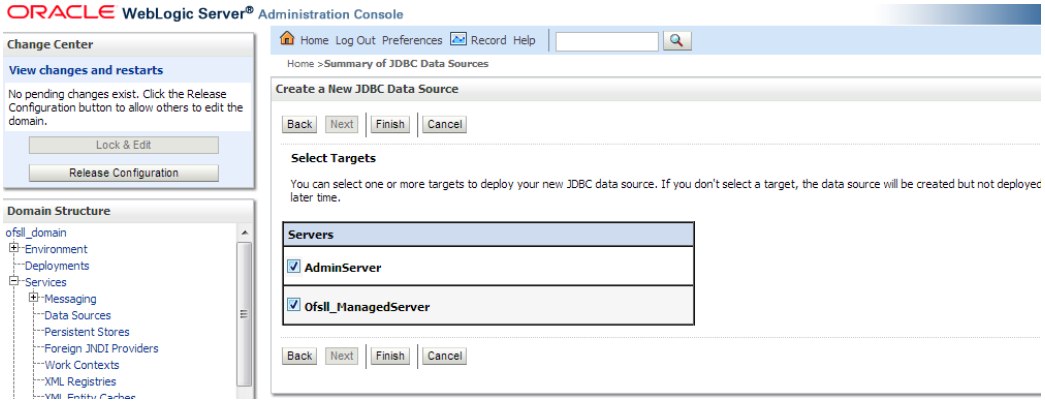
12. Enter Database details click **Next**. The following window is displayed.



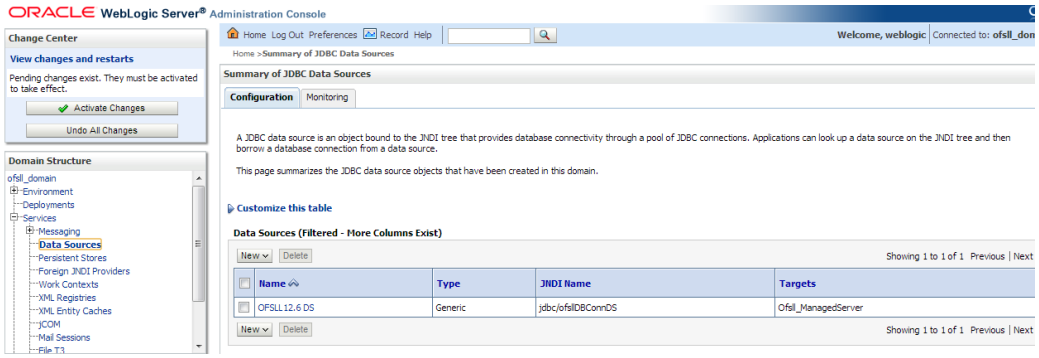
13. Click **Test Configuration.** The following window is displayed.



14. Displays confirmation message as “Connection test succeeded”. Click **Next**. The following window is displayed.



15. Select target Servers **AdminServer** and **OfsII_ManagedServer** and click **Finish.** The following window is displayed.



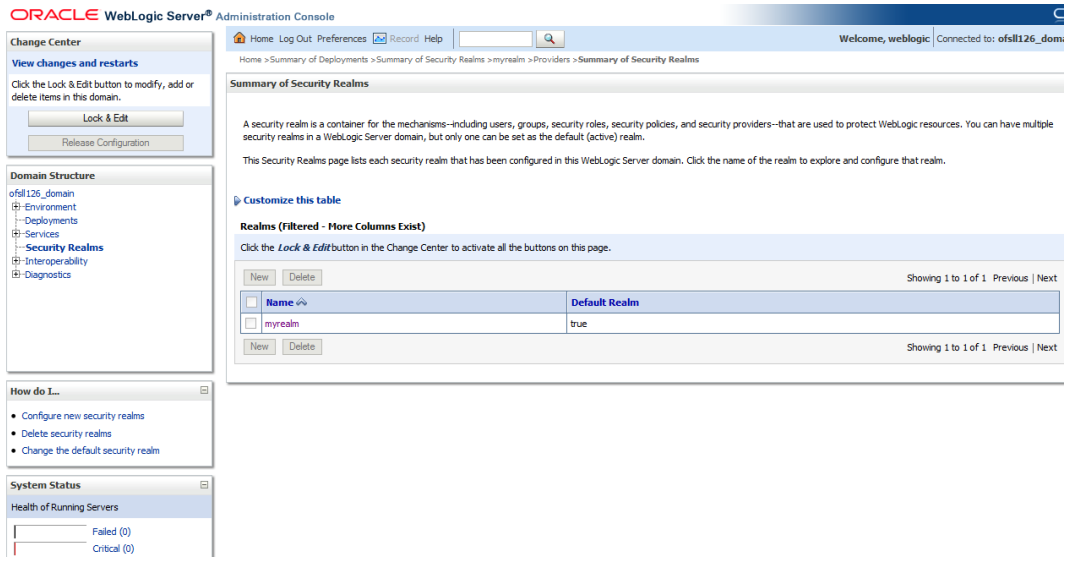
16. Click **Activate Changes**.

Update the following parameters in JDBC data source connection pool:

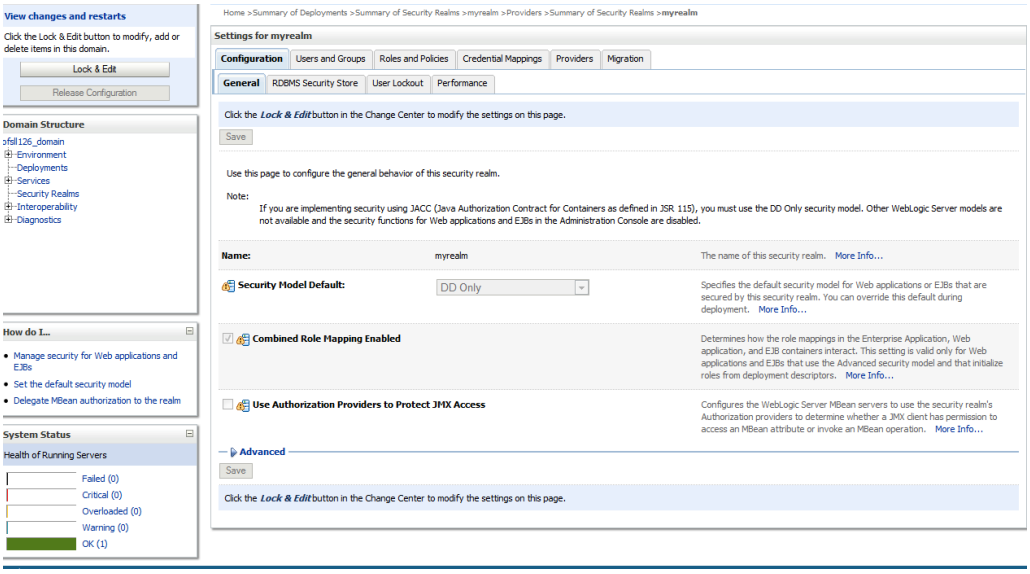
1. Select **Services→Data Sources→select the OFSLL data source→Connection Pool**.
2. Initial capacity and Maximum capacity is defaulted to 15, if the number of concurrent users are more this needs to be increased.
3. Click **Advanced** button and update the following:
   - Inactive Connection Timeout=900
   - Uncheck the "Wrap Data Types" parameter for better performance.
4. Click **Save**.

3.6 Creating SQL Authentication Provider

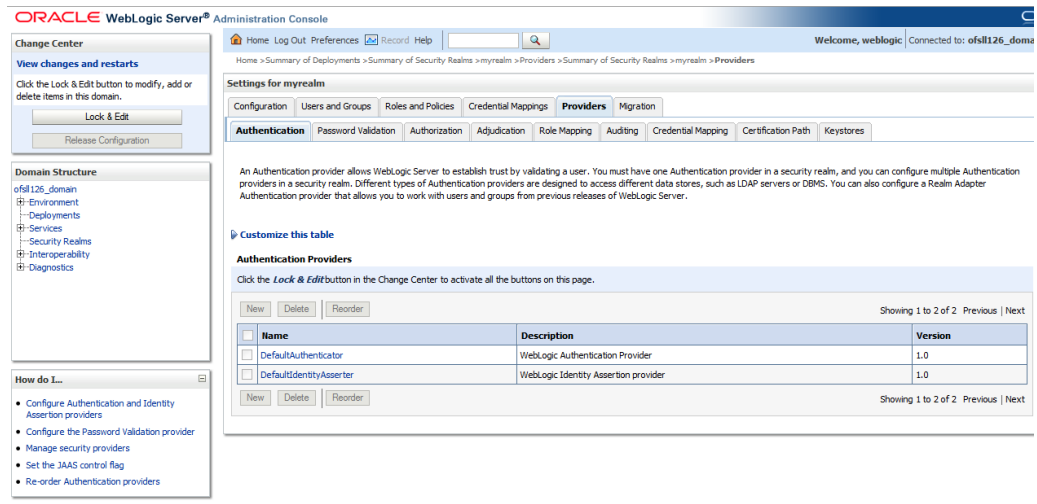
1. Login to WebLogic server administration console and click Security Realms in left panel. The following window is displayed..



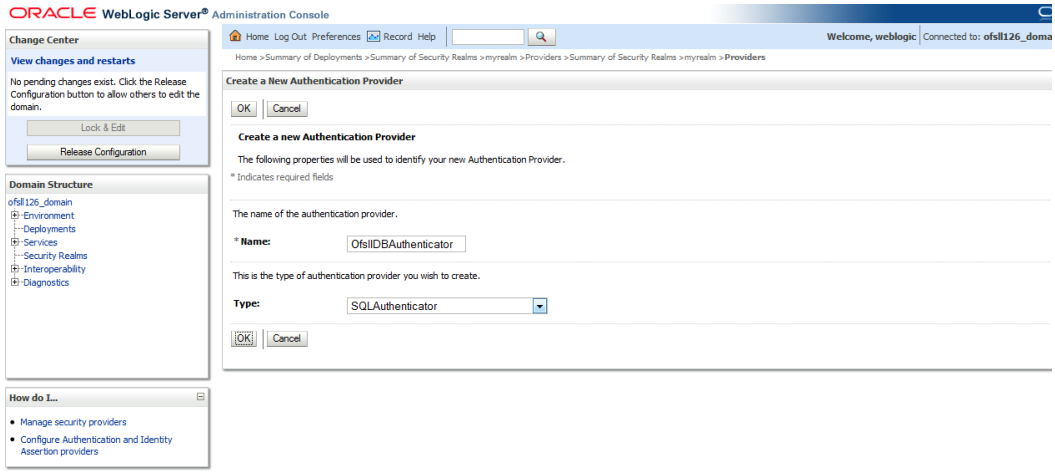
2. Click **myrealm** in the right panel. The following window is displayed.



3. Click on Providers tab. The following window is displayed.



4. Click **Lock & Edit** to unlock the screen and click **New** button in Authentication Providers sub tab. The following window is displayed.

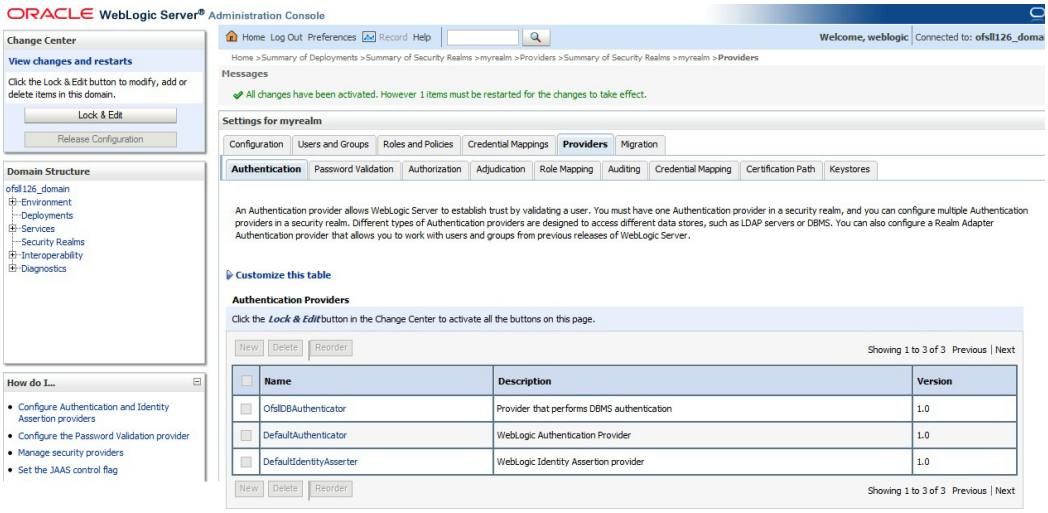


5. Create Authentication provider with following values.

Name: **OfsllDBAuthenticator**

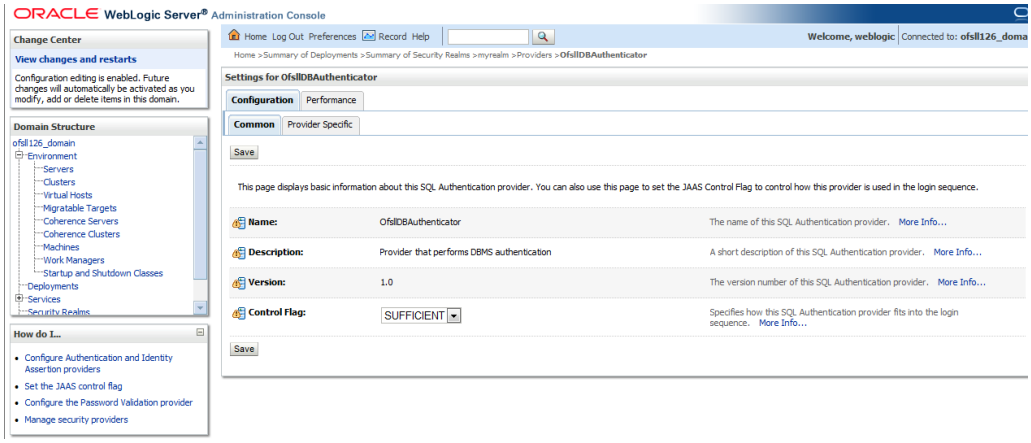
Type: **SQLAuthenticator**

6. Click OK button. The following window is displayed.



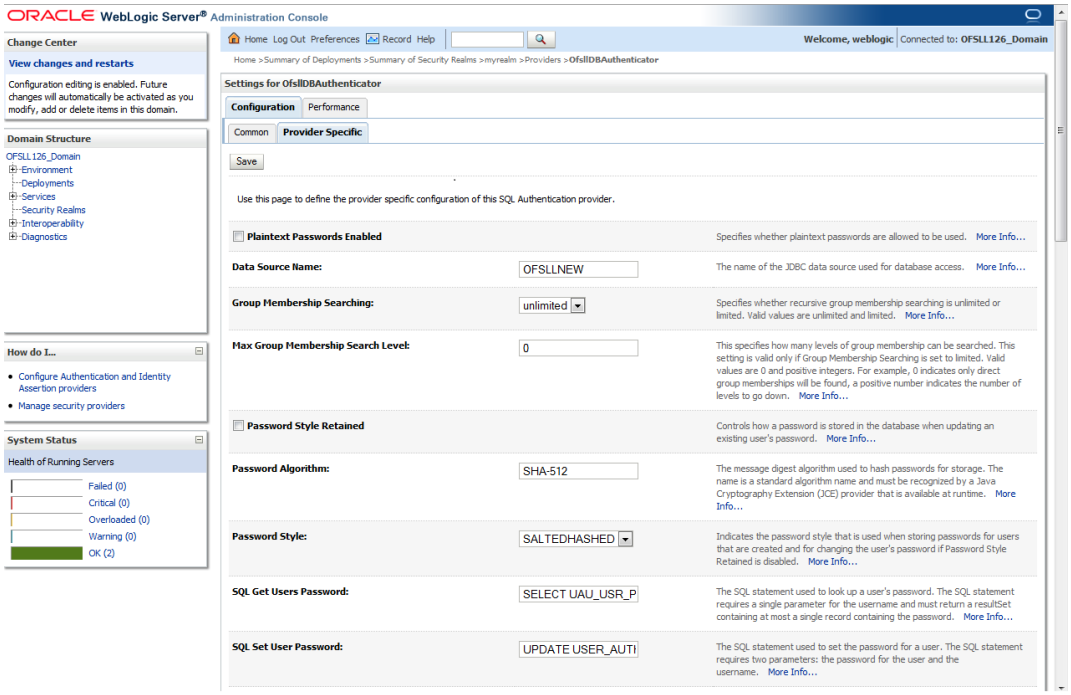
Authentication order should be maintained as mentioned in the above screen.

7. **OfsllDBAuthenticator** will be displayed as above.
8. Click on **OfsllDBAuthenticator**.
9. The following window is displayed.



10. Select SUFFICIENT as the **Control Flag** and click Save.

11. Click Provider Specific sub tab under Configuration tab. The following window is displayed.



12. Provide the following values in corresponding fields.

Data Source Name: **OFSLLNEW**

Password Style Retained: **Uncheck**

Password Algorithm: **SHA-512**

Password Style: **SALTEDHASHED**

Provide the SQL Queries from the column **Corresponding SQL Queries as per OFSLL Tables** as given below.

Operation	Default SQL Query from Weblogic	Corresponding SQL Queries as per our Tables
SQL Get Users Password:	SELECT U_PASS-WORD FROM USERS WHERE U_NAME = ?	SELECT UAU_USR_PASSWORD FROM USER_AUTHORISATIONS WHERE UAU_USR_CODE = ?
SQL Set User Password:	UPDATE USERS SET U_PASSWORD = ? WHERE U_NAME = ?	UPDATE USER_AUTHORISATIONS SET UAU_USR_PASSWORD = ? WHERE UAU_USR_CODE = ?
SQL User Exists:	SELECT U_NAME FROM USERS WHERE U_NAME = ?	SELECT UAU_USR_CODE FROM USER_AUTHORISATIONS WHERE UAU_USR_CODE = ?
SQL List Users:	SELECT U_NAME FROM USERS WHERE U_NAME LIKE ?	SELECT UAU_USR_CODE FROM USER_AUTHORISATIONS WHERE UAU_USR_CODE LIKE ?

Operation	Default SQL Query from Weblogic	Corresponding SQL Queries as per our Tables
SQL Create User:	INSERT INTO USERS VALUES (? , ? , ?)	INSERT INTO USER_AUTHORISA-TIONS(UAU_USR_CODE, UAU_USR_-PASSWORD,UAU_DESC) VALUES(?,?,?)
SQL Remove User:	DELETE FROM USERS WHERE U_NAME = ?	DELETE FROM USER_AUTHORISA-TIONS WHERE UAU_USR_CODE= ?
SQL List Groups:	SELECT G_NAME FROM GROUPS WHERE G_NAME LIKE ?	SELECT UGR_GROUP_CODE FROM USER_GROUPS WHERE UGR_GROUP_CODE LIKE ?
SQL Group Exists:	SELECT G_NAME FROM GROUPS WHERE G_NAME = ?	SELECT UGR_GROUP_CODE FROM USER_GROUPS WHERE UGR_GROUP_CODE = ?
SQL Create Group:	INSERT INTO GROUPS VALUES (? , ?)	INSERT INTO USER_GROUPS(UGR_GROUP_CODE,U GR_GROUP_DESC) VALUES(?,?)
SQL Remove Group:	DELETE FROM GROUPS WHERE G_NAME = ?	DELETE FROM USER_GROUPS WHERE UGR_GROUP_CODE = ?
SQL Is Mem-ber:	SELECT G_MEMBER FROM GROUPMEM-BERS WHERE G_NAME = ? AND G_MEMBER = ?	SELECT UGM_MEMBER_USR_CODE FROM USER_GROUP_MEMBERS WHERE UGM_MEM-BER_GROUP_CODE= ? AND UGM_MEMBER_USR_CODE = ?
SQL List Mem-ber Groups:	SELECT G_NAME FROM GROUPMEM-BERS WHERE G_MEMBER = ?	SELECT UGM_MEM-BER_GROUP_CODE FROM USER_GROUP_MEMBERS WHERE UGM_MEMBER_USR_CODE= ?
SQL List Group Mem-bers:	SELECT G_MEMBER FROM GROUPMEM-BERS WHERE G_NAME = ? AND G_MEMBER LIKE ?	SELECT UGM_MEMBER_USR_CODE FROM USER_GROUP_MEMBERS WHERE UGM_MEM-BER_GROUP_CODE= ? AND UGM_MEMBER_USR_CODE LIKE ?
SQL Remove Group Mem-berships:	DELETE FROM GROUPMEMBERS WHERE G_MEMBER = ? OR G_NAME = ?	DELETE FROM USER_GROUP_MEM-BERS WHERE UGM_MEMBER_US-R_CODE= ? OR UGM_MEMBER_GROUP_CODE= ?
SQL Add Member To Group:	INSERT INTO GROUPMEMBERS VALUES(?, ?)	INSERT INTO USER_GROUP_MEM-BERS (UGM_MEM-BER_GROUP_CODE,UGM_MEMBER_US R_CODE) VALUES(?,?)

Operation	Default SQL Query from Weblogic	Corresponding SQL Queries as per our Tables
SQL Remove Member From Group:	DELETE FROM GROUPMEMBERS WHERE G_NAME = ? AND G_MEMBER = ?	DELETE FROM USER_GROUP_MEMBERS WHERE UGM_MEMBER_GROUP_CODE= ? AND UGM_MEMBER_USR_CODE= ?
SQL Remove Group Member:	DELETE FROM GROUPMEMBERS WHERE G_NAME = ?	DELETE FROM USER_GROUP_MEMBERS WHERE UGM_MEMBER_GROUP_CODE= ?
SQL Get User Description:	SELECT U_DESCRIPTION FROM USERS WHERE U_NAME = ?	SELECT UAU_DESC FROM USER_AUTHORISATIONS WHERE UAU_USR_CODE = ?
SQLSet User Description:	UPDATE USERS SET U_DESCRIPTION = ? WHERE U_NAME = ?	UPDATE USER_AUTHORISATIONS SET UAU_DESC= ? WHERE UAU_USR_CODE= ?
SQL Get Group Description:	SELECT G_DESCRIPTION FROM GROUPS WHERE G_NAME = ?	SELECT UGR_GROUP_DESC FROM USER_GROUPS WHERE UGR_GROUP_CODE= ?
SQL Set Group Description:	UPDATE GROUPS SET G_DESCRIPTION = ? WHERE G_NAME = ?	UPDATE USER_GROUPS SET UGR_GROUP_DESC= ? WHERE UGR_GROUP_CODE= ?
Provider Name	OfsllDBAuthenticator	

13. Click Save.

Note

Application server needs to be restarted for these changes to take effect.

3.7 Creating User Groups and Users

3.7.1 Creating Users

Create an OFSLL application super user to login to the application.

A script is provided in the distribution media in the dba_utils folder to create an user.

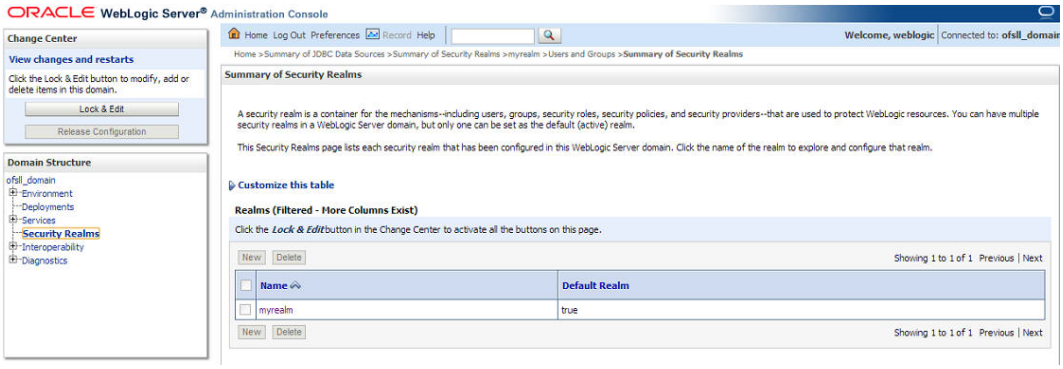
Note

By default there are no users created to login to OFSLL application.

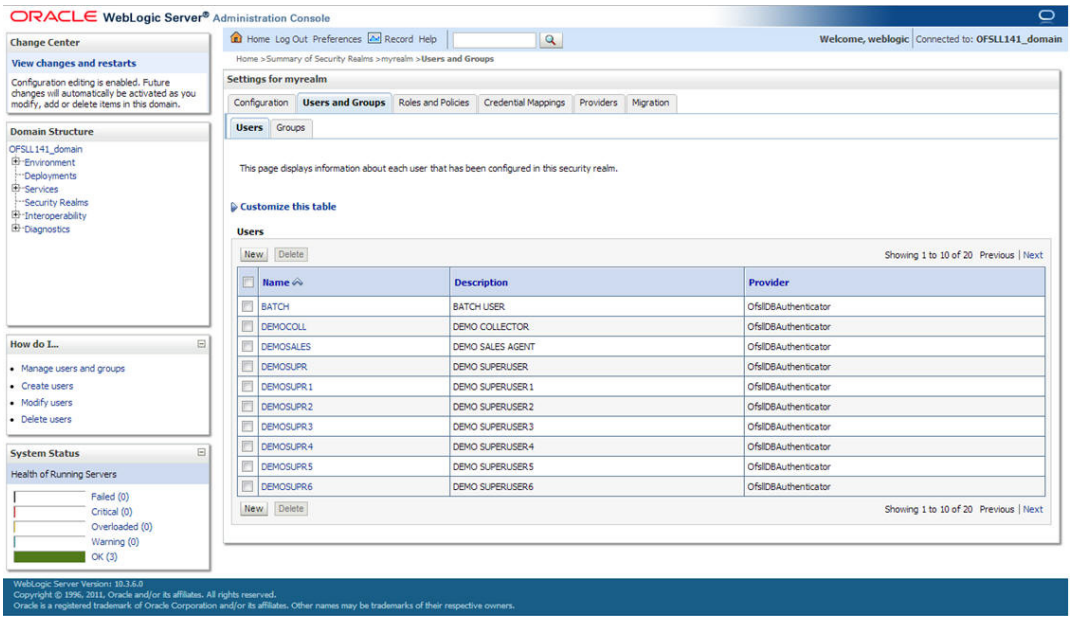
Run the script "crt_app_user.sql script" as a OFSLL application owner user.

```
$ sqlplus

SQL*Plus: Release 11.2.0.3.0 Production on Wed Nov 27 15:06:06 2013

Copyright (c) 1982, 2011, Oracle.  All rights reserved.

Enter user-name: OFSLL141
Enter password:

Connected to:
Oracle Database 11g Enterprise Edition Release 11.2.0.3.0 - 64bit Production
With the Partitioning, OLAP, Data Mining and Real Application Testing options

SQL>  @/tmp/dba_utils/crt_app_user.sql
Enter the name of the OFSLL App user Id you
Want to create user: OLLUSER
Enter the First Name for this user: OLL
Enter the Last Name for this user: USER
Enter the Phone Number for this user: 9090900990
Enter the Fax Number for this user: 8976986798

1 row created.


1 row created.


1 row created.

SQL>
```

1. Login into WebLogic server console.
2. Click **Security Realms** on the left panel.
3. Click **myrealm** on the right panel..



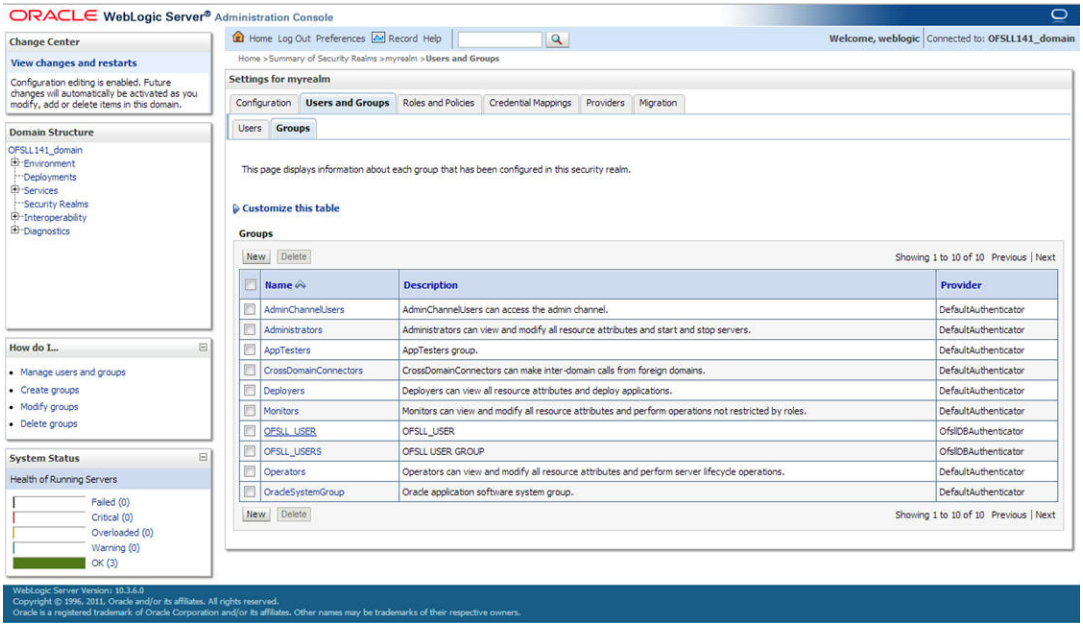
1. Select **Users** tab under **Users and Groups**.
2. If SQLAuthenticator is configured as a Security Provider for the OFSLL application, the Users are automatically created in weblogic when created through an application.



3.7.2 Creating User Groups

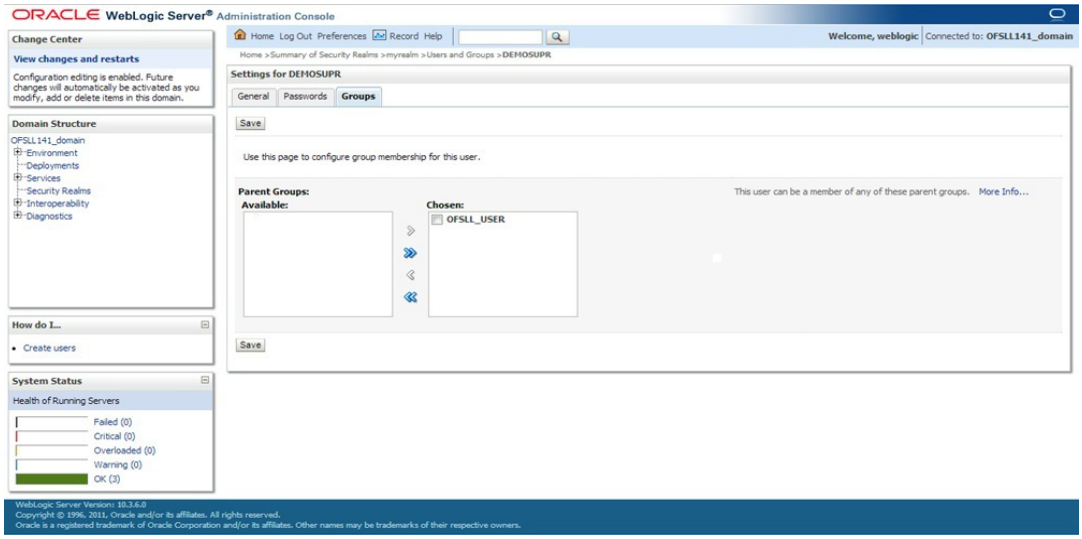
1. Select **Groups** tab under **Users and Groups**.

2. If SQLAuthenticator is configured as a Security Provider for the OFSLL application, the Groups are automatically created in weblogic when created through an application.



3.7.3 Assigning Users to Groups

The USERS are automatically mapped to default application group - OFSLL_USER.

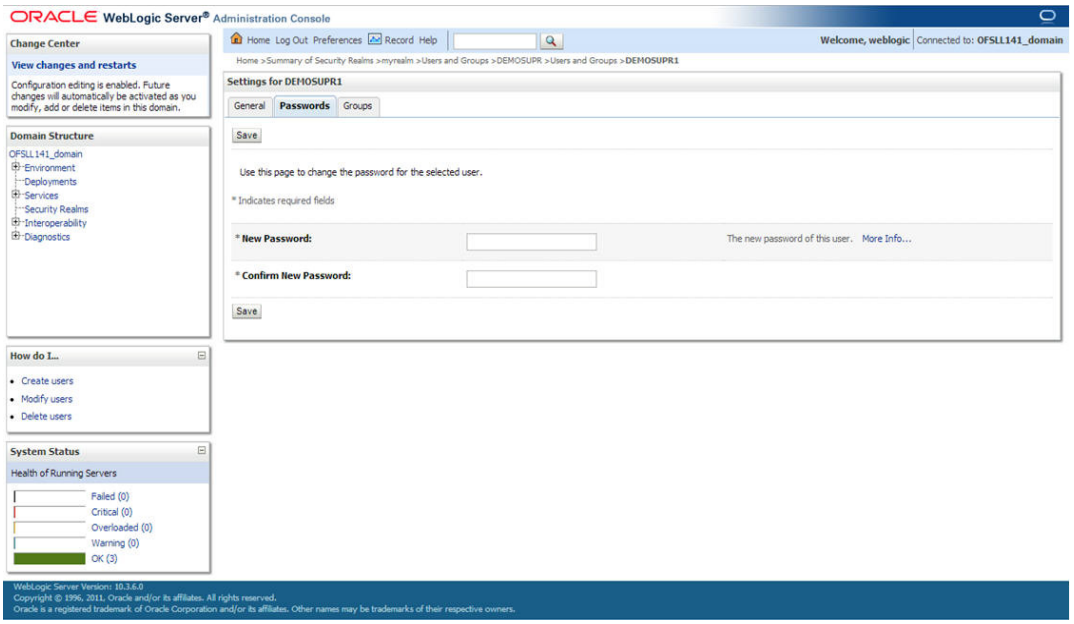


3.7.4 Resetting password

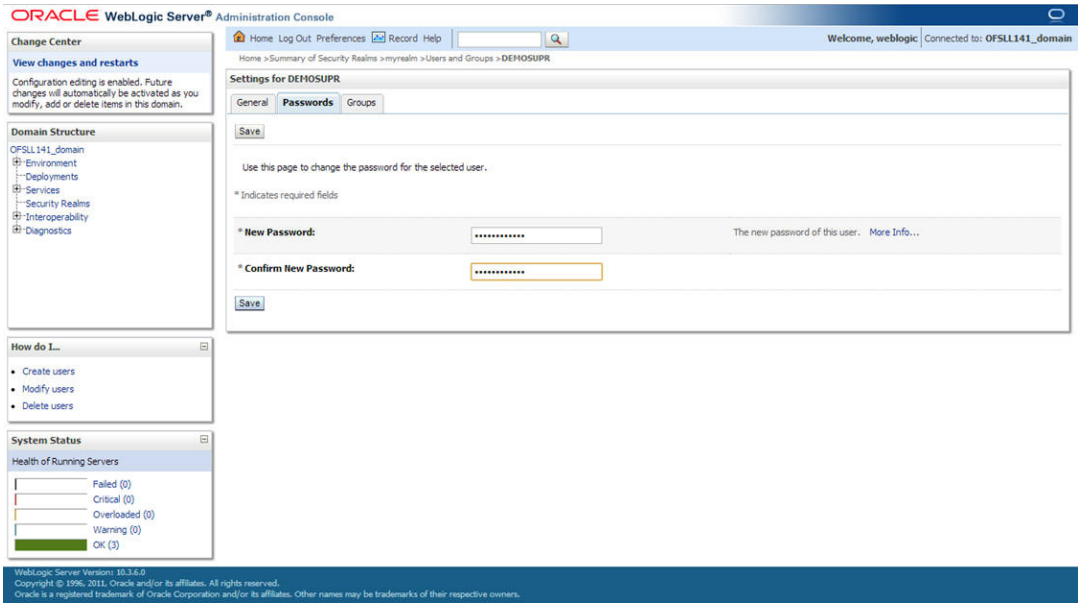
The password for the USER can be reset in weblogic using console or through a sample python script provided with the distribution Media. The script is available in the utils directory of the media with the instructions. The script resets the password of OFSLL users defined within Weblogic Application Server in bulk.

3.7.5 Resetting password via weblogic console

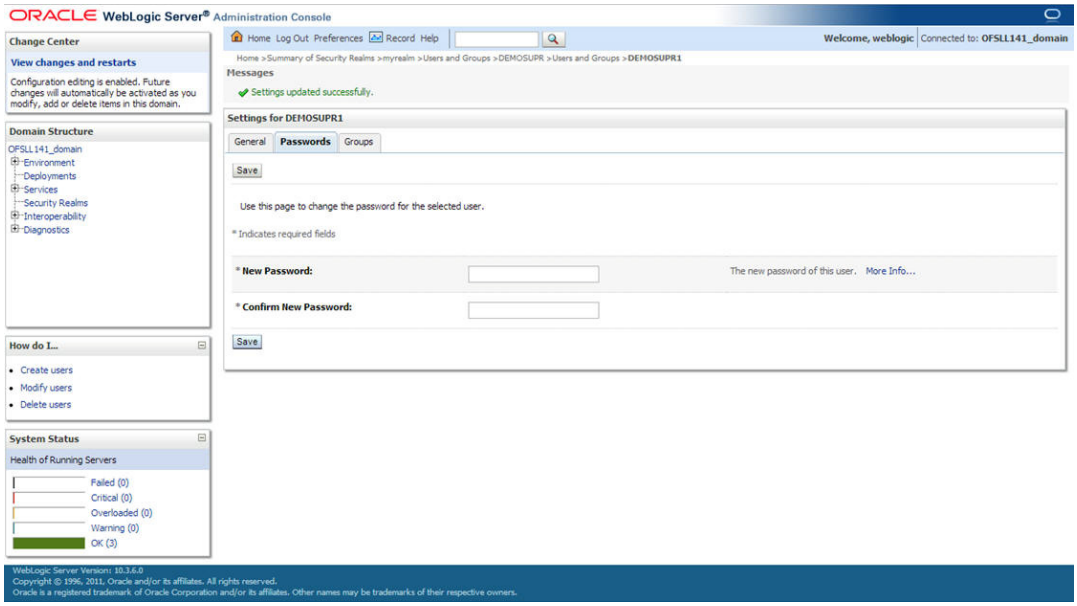
1. Click on **User**. Select **Passwords** tab**.** The following window is displayed.



2. Enter the new password and confirm password.



3. Click on **Save**.The following window displayed.



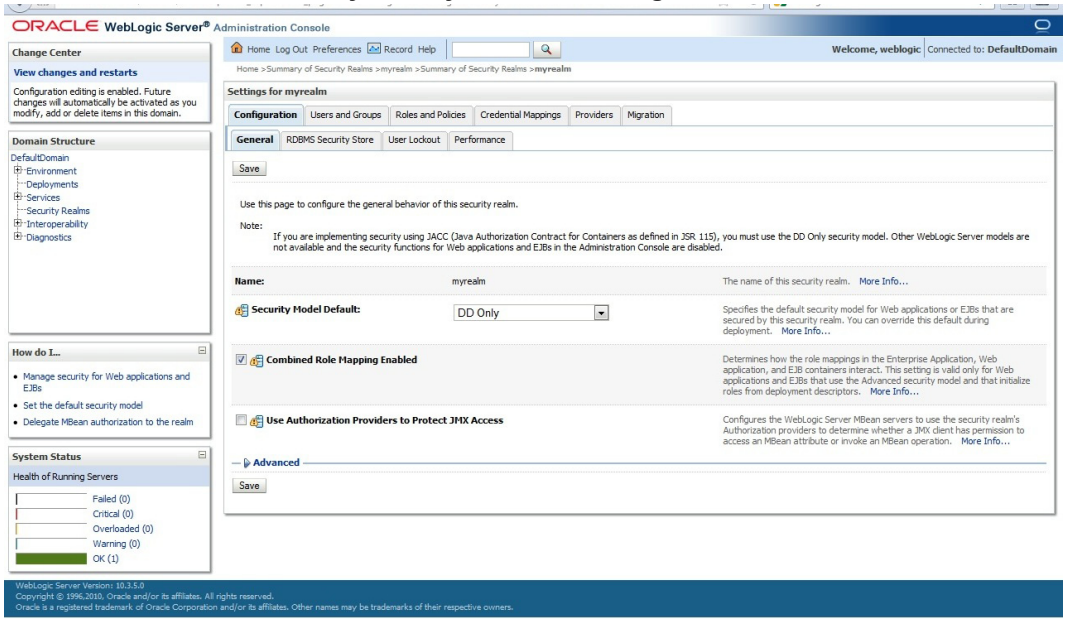
3.8 Implementing JMX Policy for Change Password

1. Login to Oracle WebLogic Server 11g console (http://hostname:port/console)

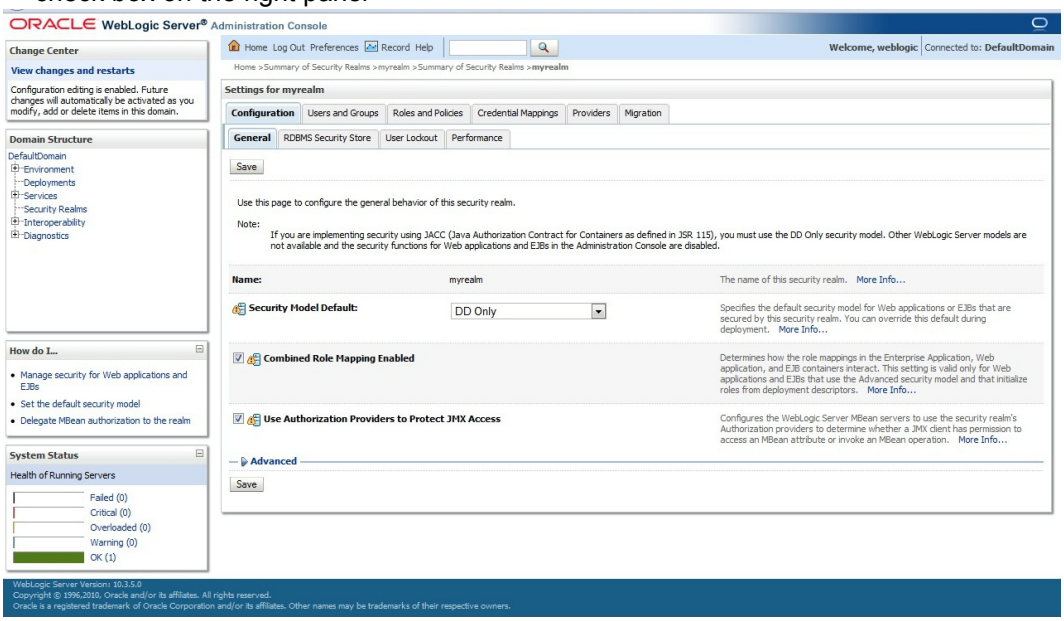
Note

The Change Password feature uses the JMX Policy configured on the domain. Hence, the AdminServer is required to be up and running to enable this.

2. Click **Domain** → **Security** → **myrealm** → **Configuration**



3. To enable JMX policy select the "Use Authorization Providers to Protect JMX Access" check box on the right panel

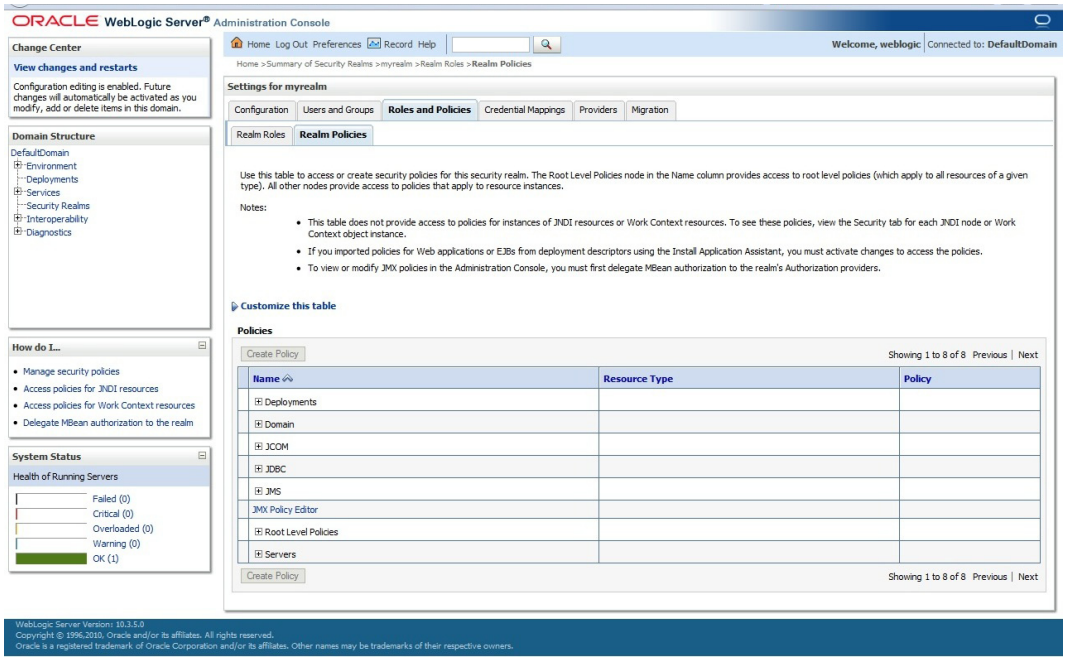


4. Click **Save** and restart the server.
5. Re-login to console.
6. Click **Domain** → **Security** → **myrealm** → **Roles and Policies**→**Realm Policies**

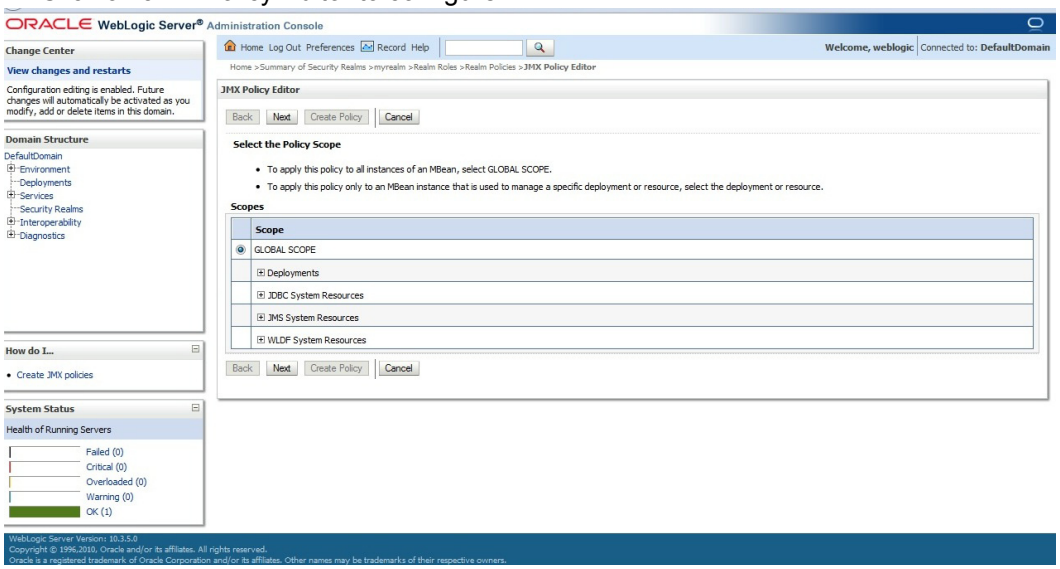
Note

If server is not restarted, JMX Policy Editor option will not appear

---

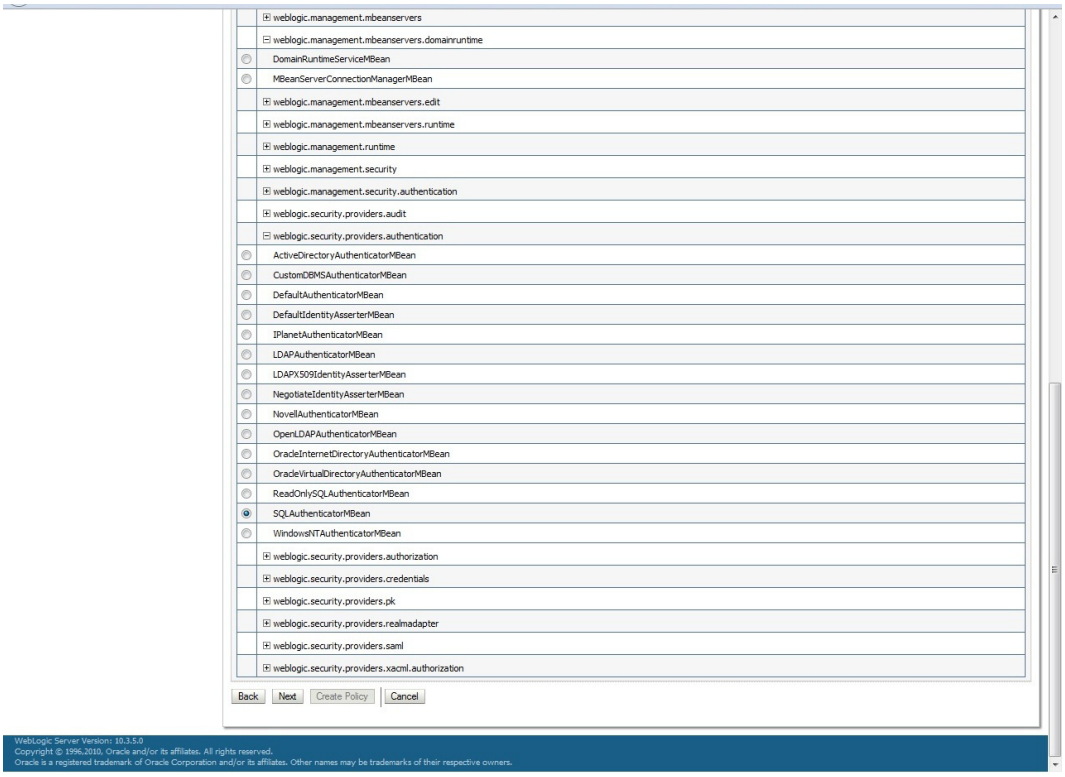


7. Click on JMX Policy Editor to configure



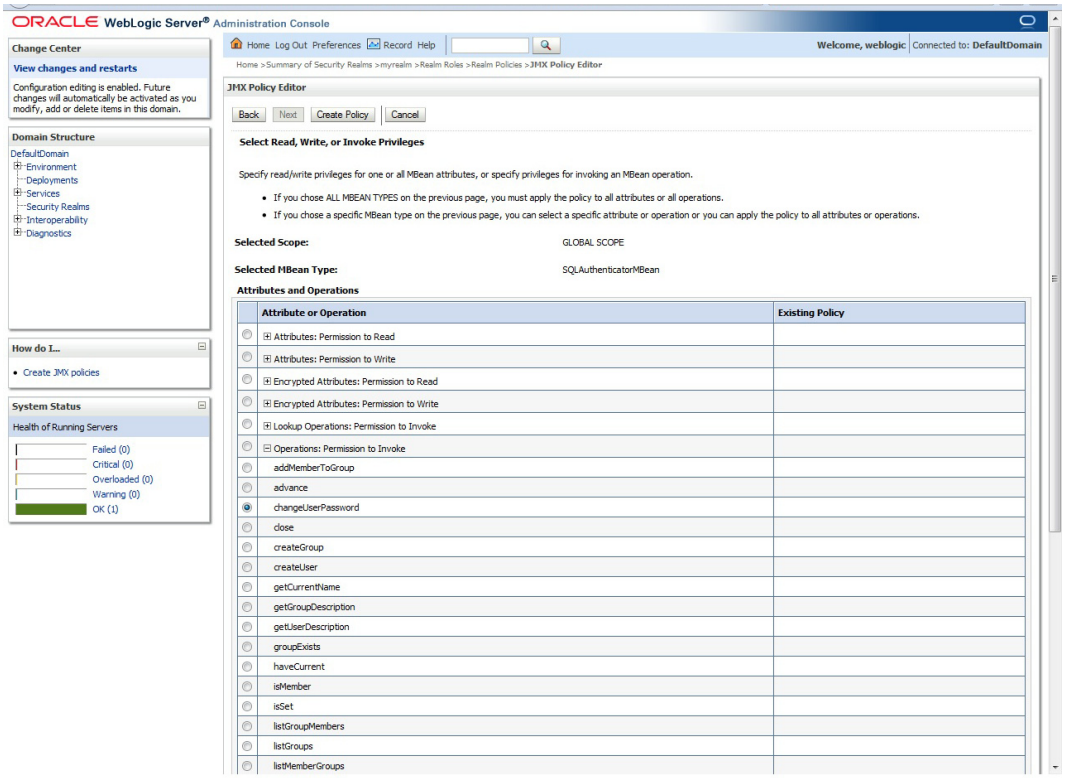
8. Select GLOBAL SCOPE

9. Click Next

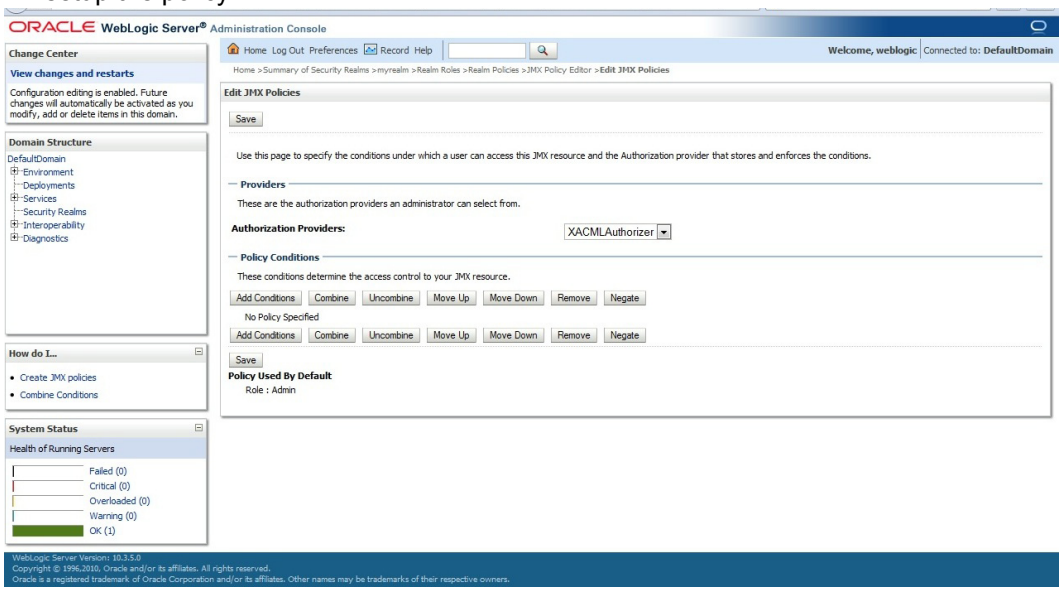


10. Select weblogic.security.providers.authentication

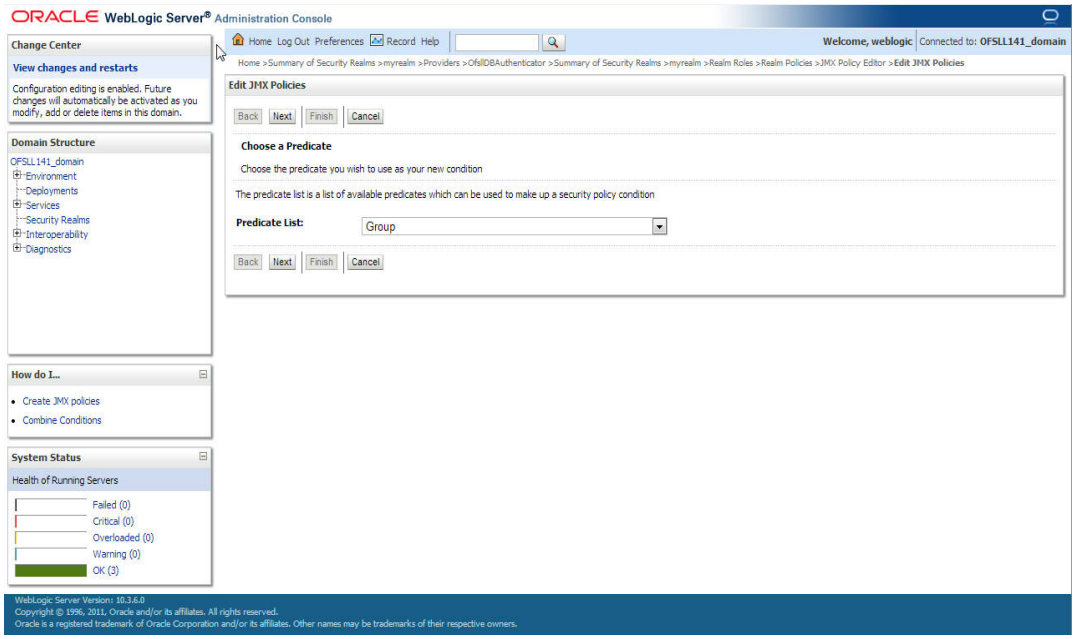
11. Select "SQLAuthenticatorMBean". Click **Next**.



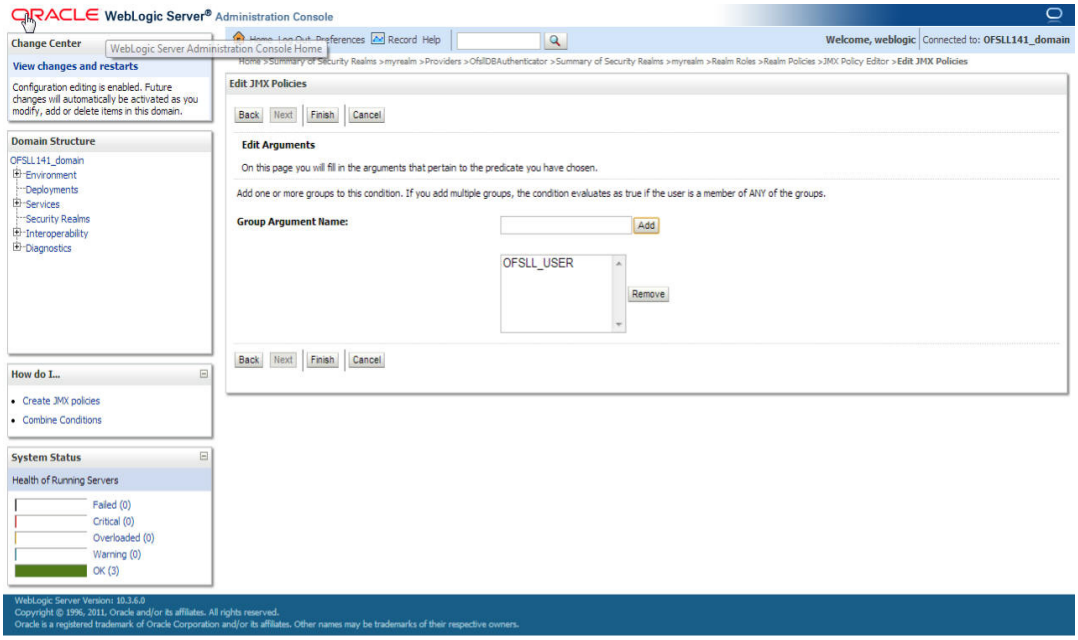
12. Expand "**Operations: Permissions to Invoke**" and select "**ChangePassword**"
13. Click "Create Policy"
14. It opens the below screen for Authorization providers where you can add conditions to setup the policy.



15. Click **Add Condition**. The below screen will be displayed.



16. For **Predicate List**, select **Group** for configuration.
17. Click Next.



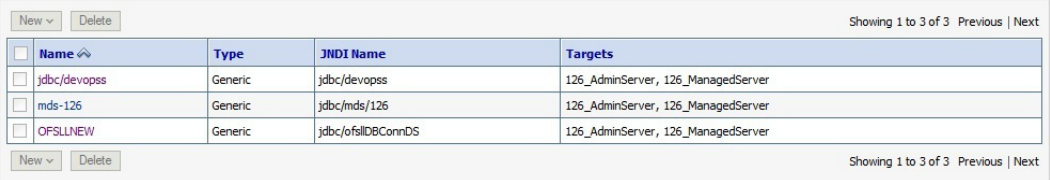
18. Select user roles for application.
19. Click Finish to complete the configuration.

3.9 Migrating Policy from File to Database

For the scalability and manageability of the policy, you must migrate them from a file to database.

To migrate policy from File to Database:

1. Create a data source for OPSS schema with non XA and non global transaction.



New | Delete — Showing 1 to 3 of 3 Previous | Next

Name	Type	JNDI Name	Targets
jdbc/devopss	Generic	jdbc/devopss	126_AdminServer, 126_ManagedServer
mds-126	Generic	jdbc/mds/126	126_AdminServer, 126_ManagedServer
OFSLLNEW	Generic	jdbc/ofsllDBConnDS	126_AdminServer, 126_ManagedServer

New | Delete — Showing 1 to 3 of 3 Previous | Next

For data source creation refer Creating Data Source *section of this chapter.*

2. Go to $MW_Home/oracle_common/common/bin.
3. Run /setWlstEnv.sh
4. Run /wlst.sh.
5. When prompted, enter **connect( )**
6. Enter Username, Password and Server URL
7. Run the below command:

```
reassociateSecurityStore(domain="ofsll_domain",servertype="DB_ORA-
CLE",datasourcename="jdbc/devopss",jpsroot="cn=opssNode",join="false")
```

datasourcename is the data source created in Step 1.

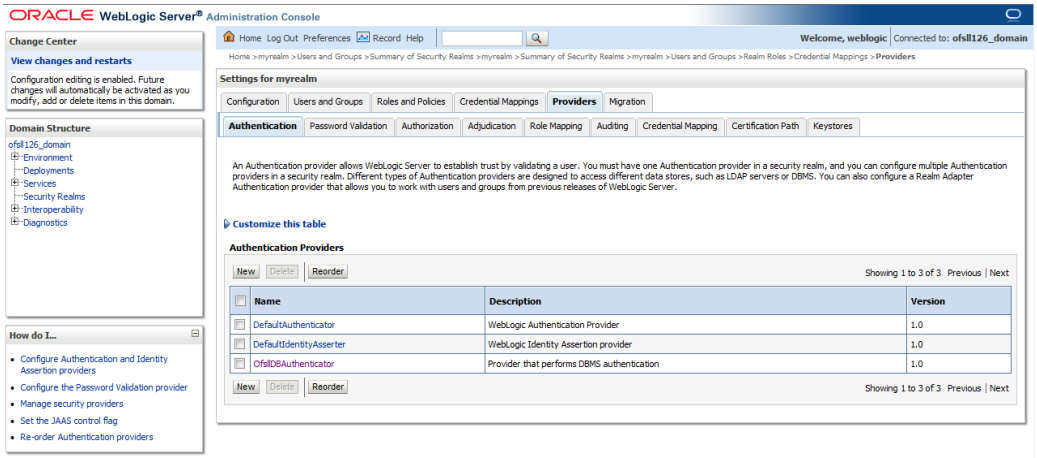
```
wls:/OFSLL_domain/serverConfig> reassociateSecurityStore(domain="OFSLL_domain",servertype="DB_ORACLE",datasourcename="jdbc/devopss",jpsroot="cn=opssNode",joi
n="false")
Location changed to domainRuntime tree. This is a read-only tree with DomainMBean as the root.
For more help, use help(domainRuntime)

Starting policy store reassociation.
The store and ServiceConfigurator setup done.
Schema is seeded into the store
Data is migrated to the store. Check logs for any failures or warnings during migration.
Data in the store after migration has been tested to be available
Update of in-memory jps configuration is done
Policy store reassociation done.
Starting credential store reassociation
The store and ServiceConfigurator setup done.
Schema is seeded into the store
Data is migrated to the store. Check logs for any failures or warnings during migration.
Data in the store after migration has been tested to be available
Update of in-memory jps configuration is done
Credential store reassociation done
Starting Keystore reassociation
The store and ServiceConfigurator setup done.
Schema is seeded into the store
Data is migrated to the store. Check logs for any failures or warnings during migration.
Data in the store after migration has been tested to be available
Update of in-memory jps configuration is done
Keystore reassociation done
Starting audit store reassociation
The store and ServiceConfigurator setup done.
Schema is seeded into the store
Data is migrated to the store. Check logs for any failures or warnings during migration.
Data in the store after migration has been tested to be available
Update of in-memory jps configuration is done
Audit store reassociation done
Jps Configuration has been changed. Please restart the application server.
```

8. The policy gets migrated from file to Database.
9. Restart the server for the changes to take effect.

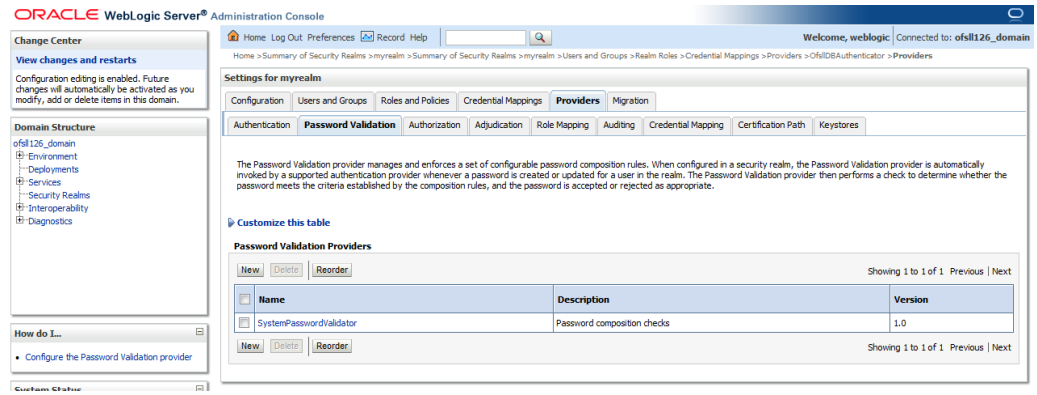
4. Configuring Policies

4.1 Configuring Password Policy for SQL Authenticator

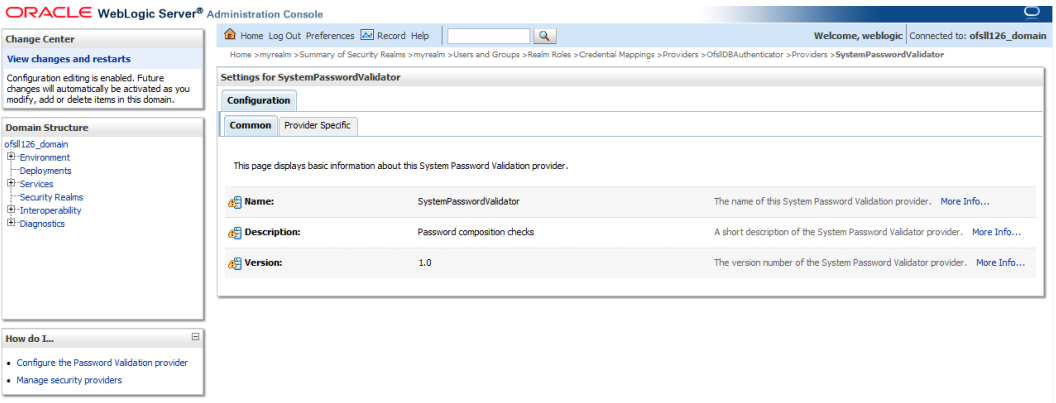
1. Login to the WebLogic server administration console with user login credentials.
2. Browse to **Security Realms →myRealm→ Providers** as shown below. The following window is displayed



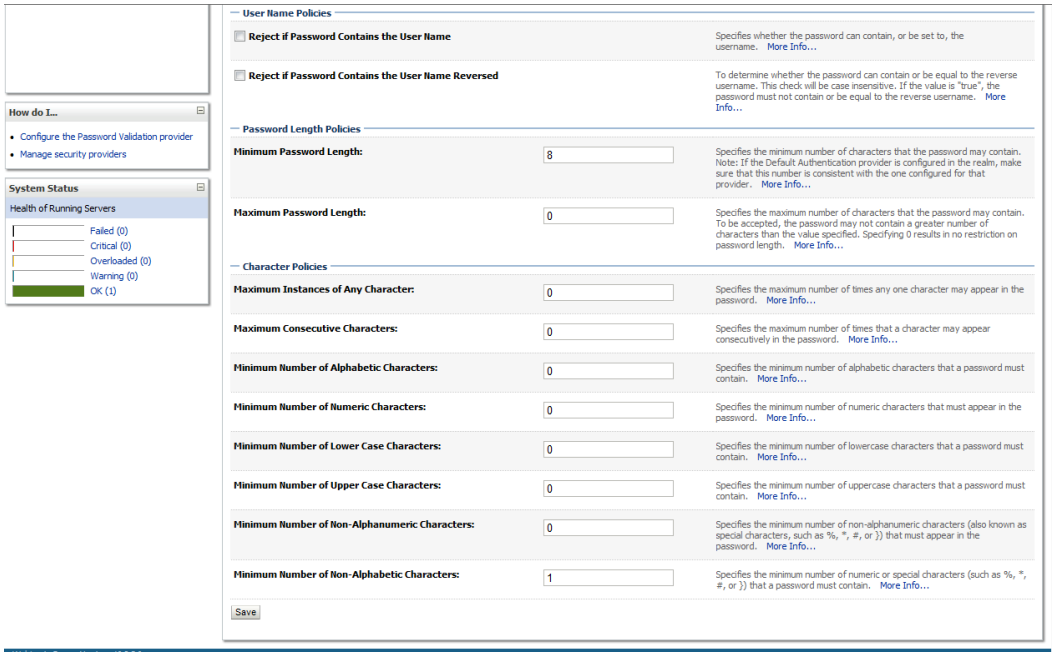
3. Click **Password Validation** tab. The following window is displayed



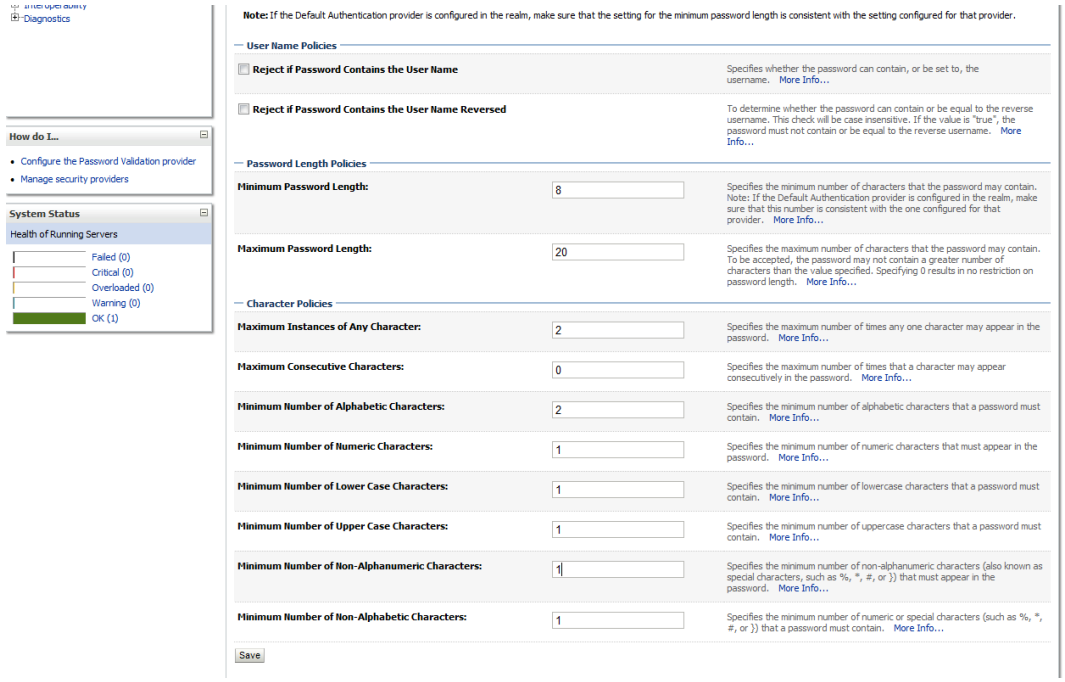
4. Click **SystemPasswordValidator** link. The following window is displayed



5. Click **Provider Specific** Tab. The following window is displayed



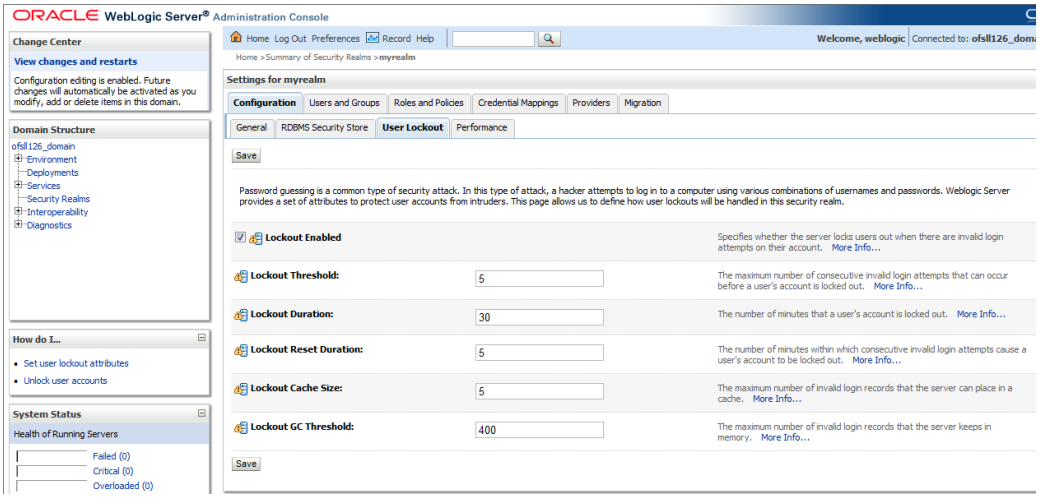
6. Configure the password policy as per the requirement. An example is provided below.



7. Click Save.

4.2 Configuring User Lockout Policy

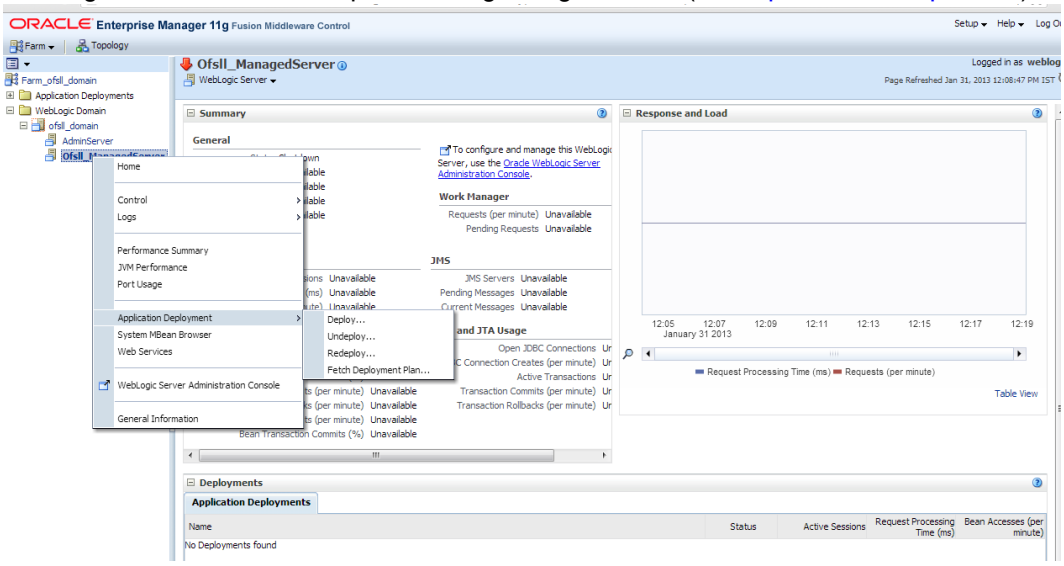
1. To Change User lockout policy, browse to **Security Realms** → →**Configuration** Tab → **User Lockout** Tab. The following window is displayed



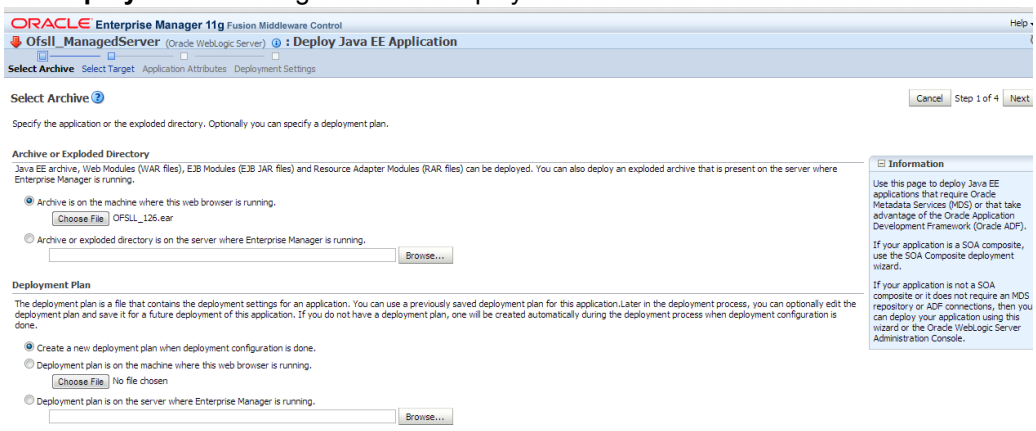
2. Configure the User Lockout details as per the requirement. An example is provided above.

5.1 Deploying Application

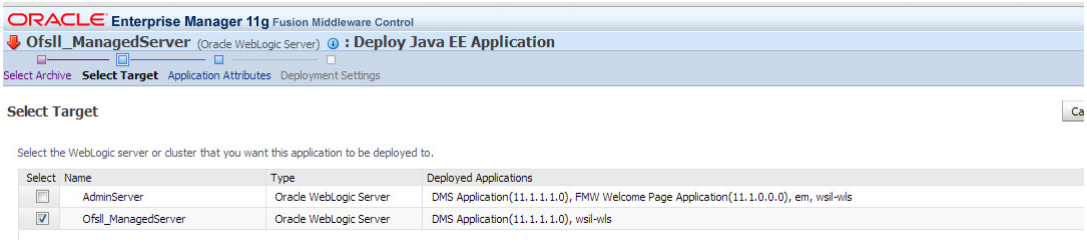
1. Login to the Oracle Enterprise Manager 11g console. (i.e. http://hostname:port/em)



2. Right click on **OfsII_ManagedServer** in left panel, select **Application Deployment** → **Deploy**. The following window is displayed.

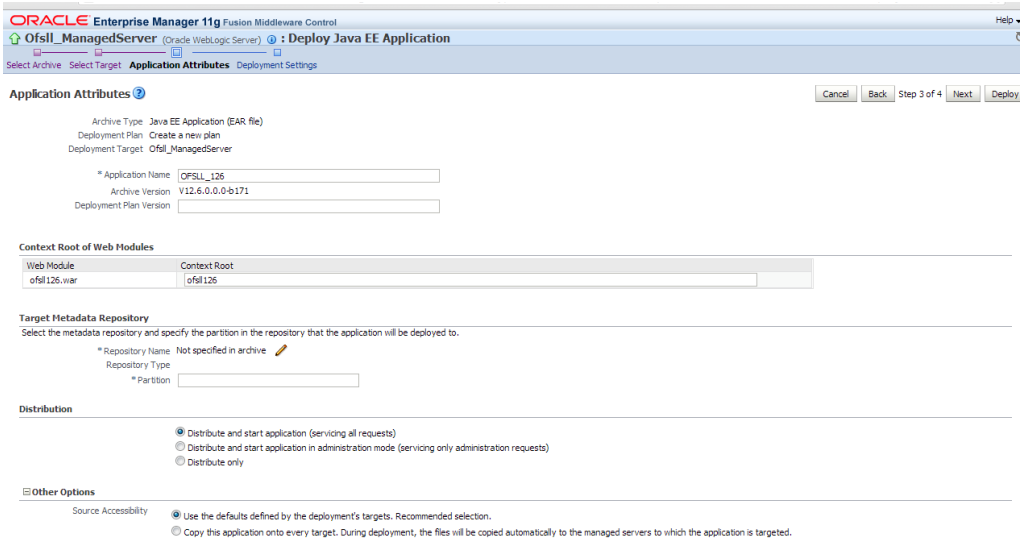


3. Click Choose File button and select OFSLL application archive file i.e. OFSLL_141.ear
4. Click **Next**. The following window is displayed

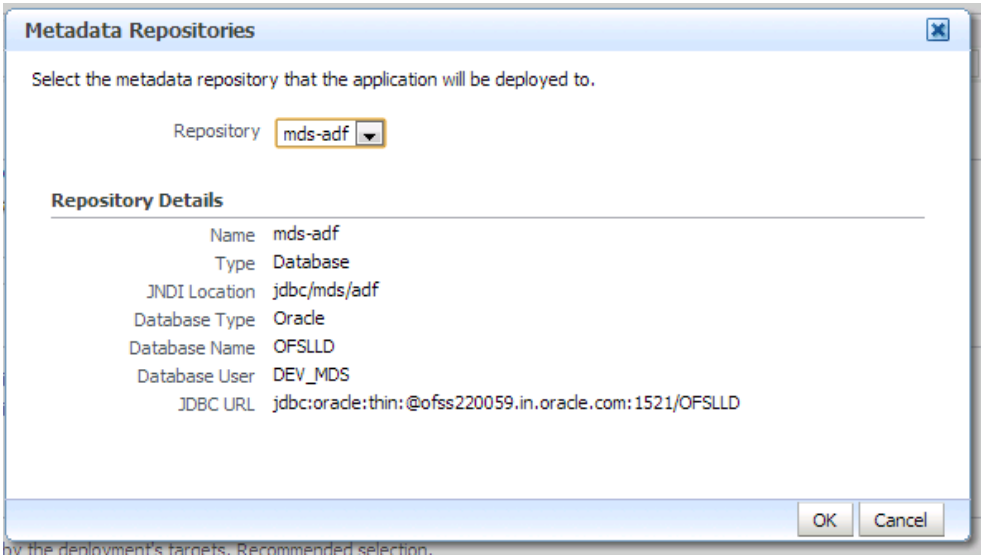


5. Check target server as per the requirement **OfsII_ManagedServer** and click **Next**.

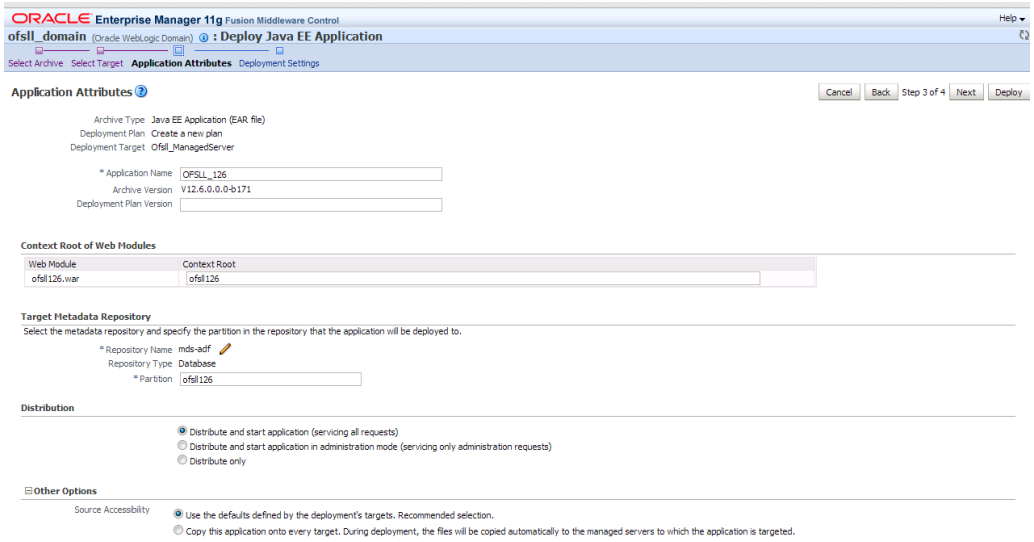
6. The following window is displayed.



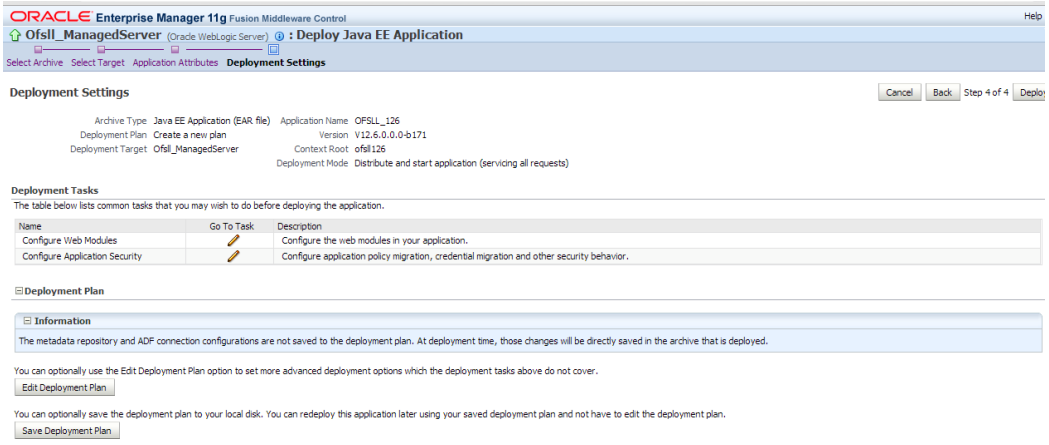
7. Click button to select Repository Name. The following window is displayed.



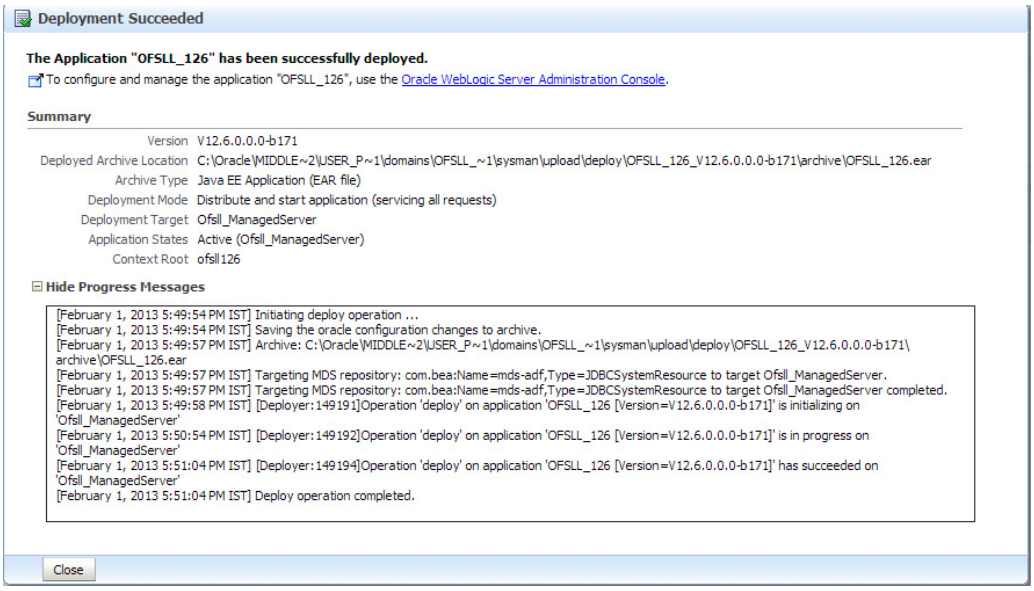
8. Select Repository as per requirement and click **OK**.



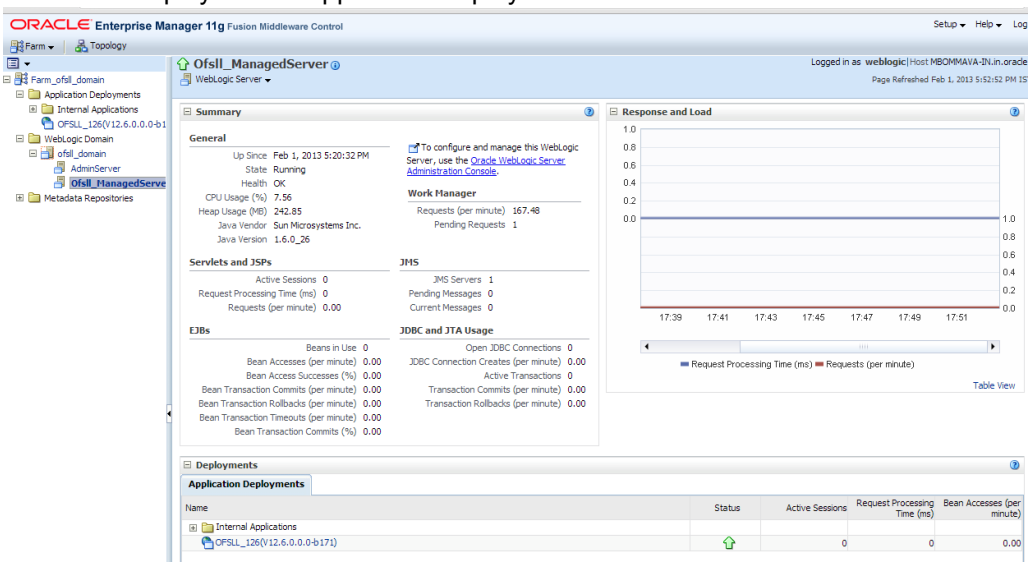
9. Enter Partition name as per the requirement and click **Next**.



10. Click **Deploy**. The following window is displayed



11. Click Close once the message “Deploy operation completed” is displayed.The following window is displayed with Application deployment status



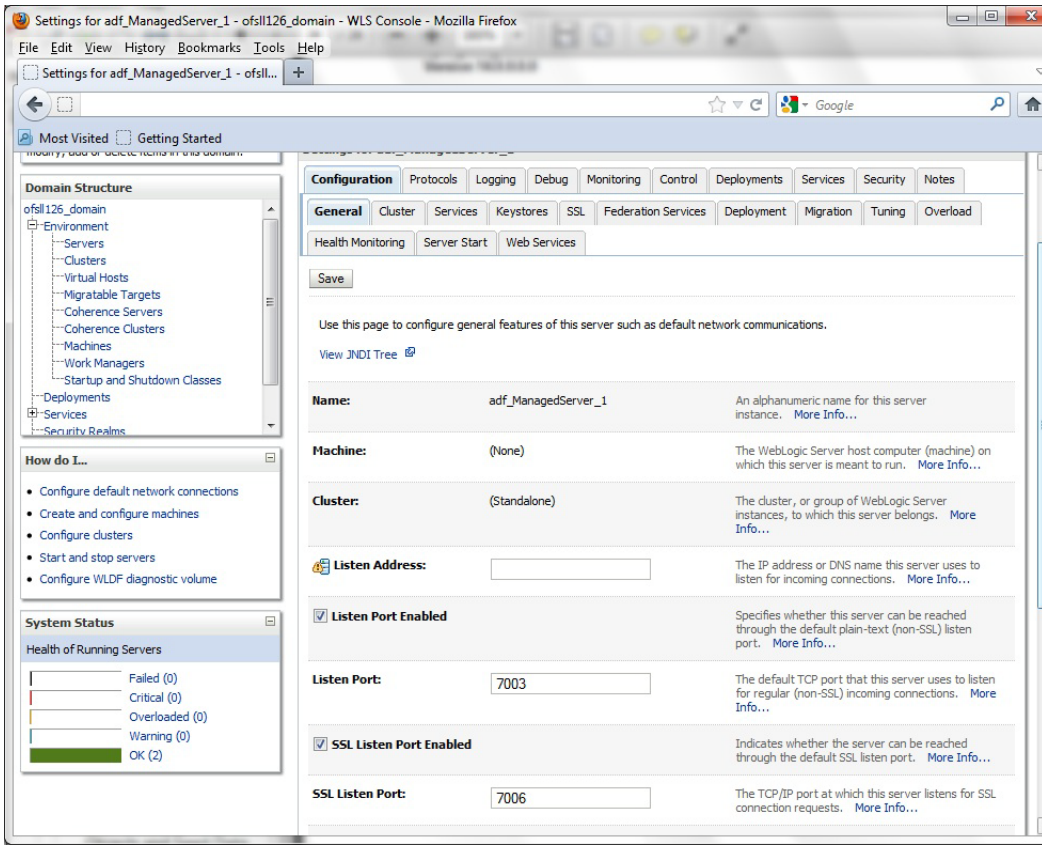
5.2

6. Enabling SSL

The application is accessible only via https protocol; hence, after the deployment of the application, you need to enable SSL.

To enable SSL:

1. Login to console.
2. **$Domain_Home→Servers→Manage Servers→Configuration→General**. The below screen is displayed.



3. Check the ‘SSL Listen Port Enabled’ check box.
4. Specify the port for ‘SSL Listen Port’.

> **Note**
>
> It is recommended to disable http protocol.

7. Launching Application

Verifying Successful Application Deployment and Launching Application

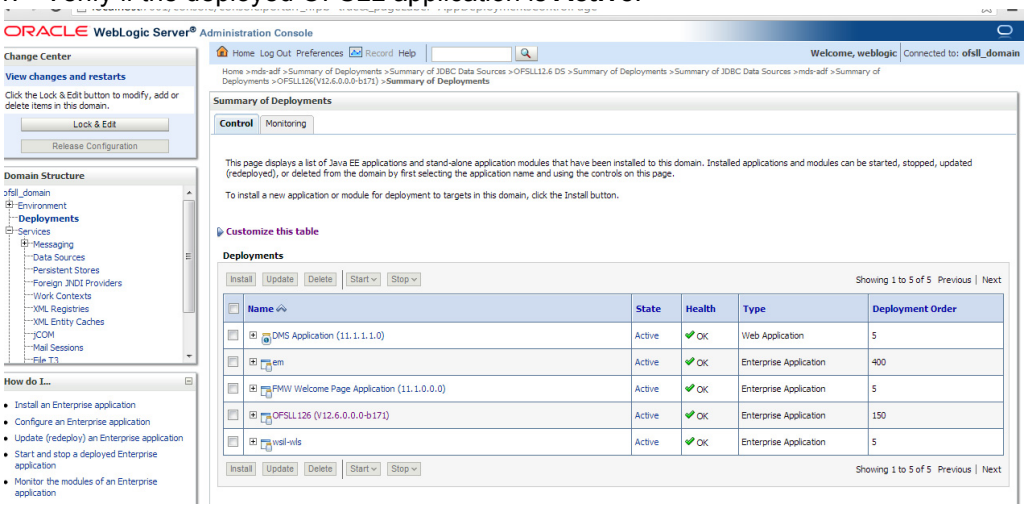
Successful Application deployment can be verified by following:

- Making sure that the state is ACTIVE and health in OK in the Weblogic
- Access and log into the application.

After you enable SSL you can launch the application via https:\\ protocol.

To launch application

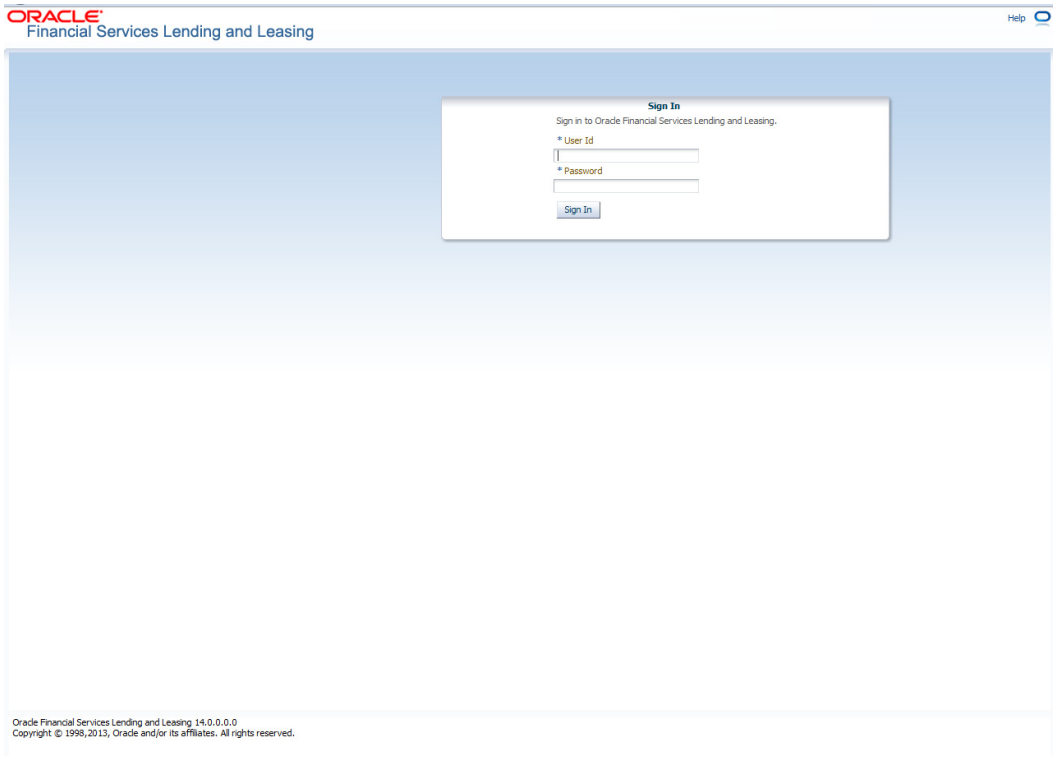
1. Verify if the deployed OFSLL application is **Active**.



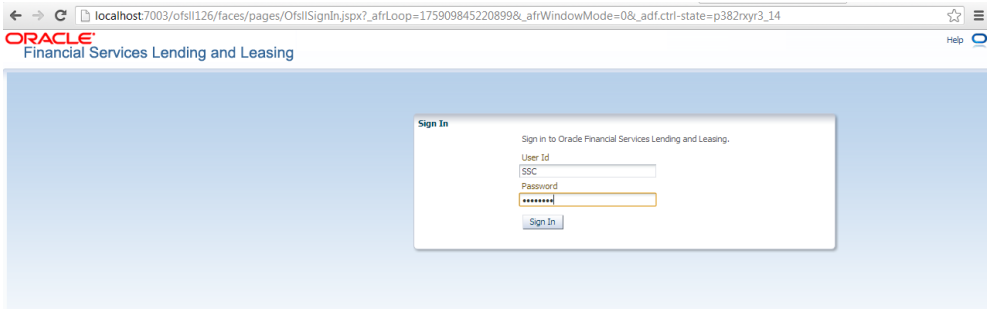
2. The URL of the OFSLL application will be

https://<hostname>:<Port>/<ContextName>/faces/pages/OfsllSignIn.jspx

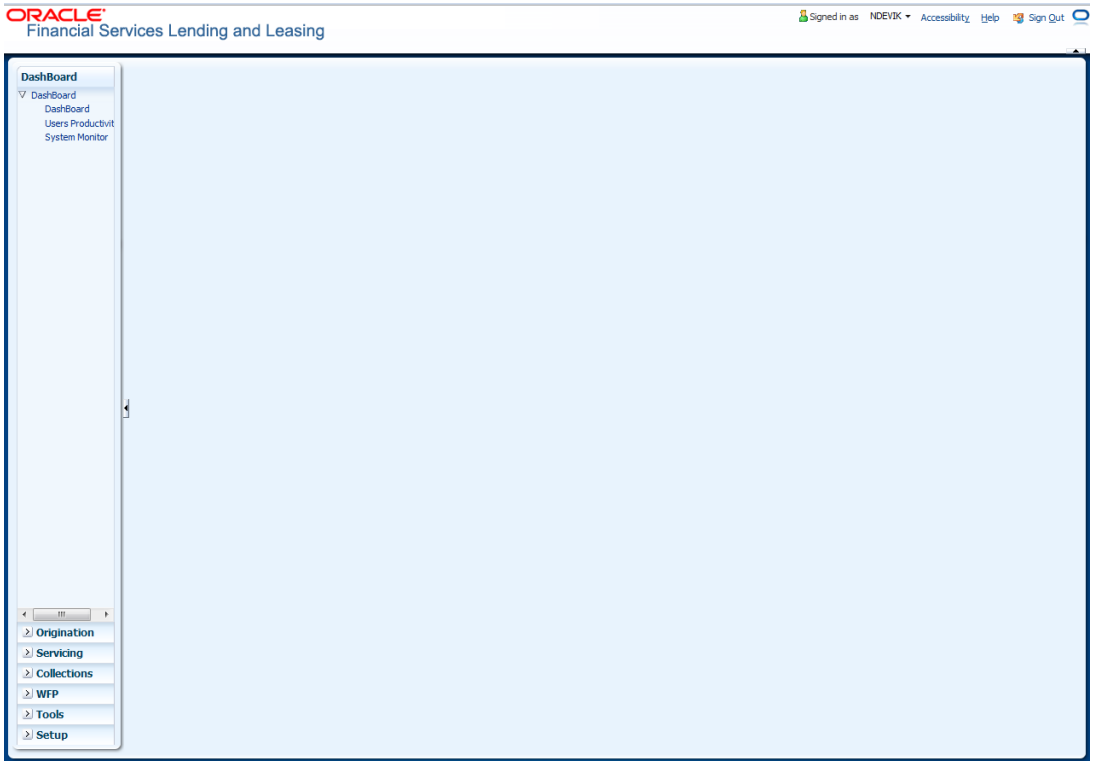
(eg. https://localhost:7003/ofsll140/faces/pages/OfsllSignIn.jspx)



3. Login with the user credentials that was created in Users Creation.



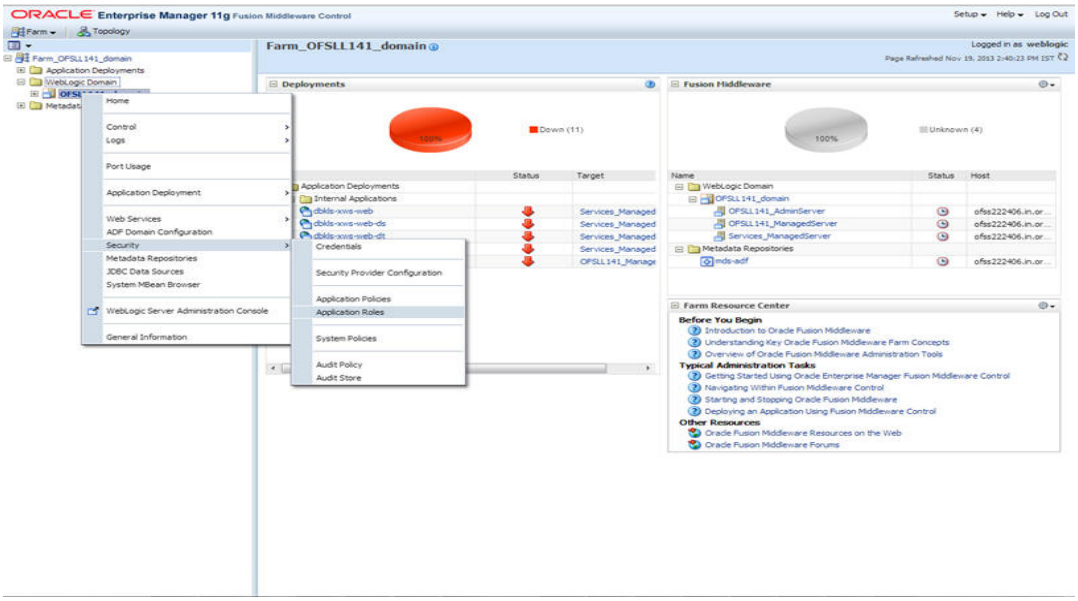
4. After successful login, the following screen is displayed



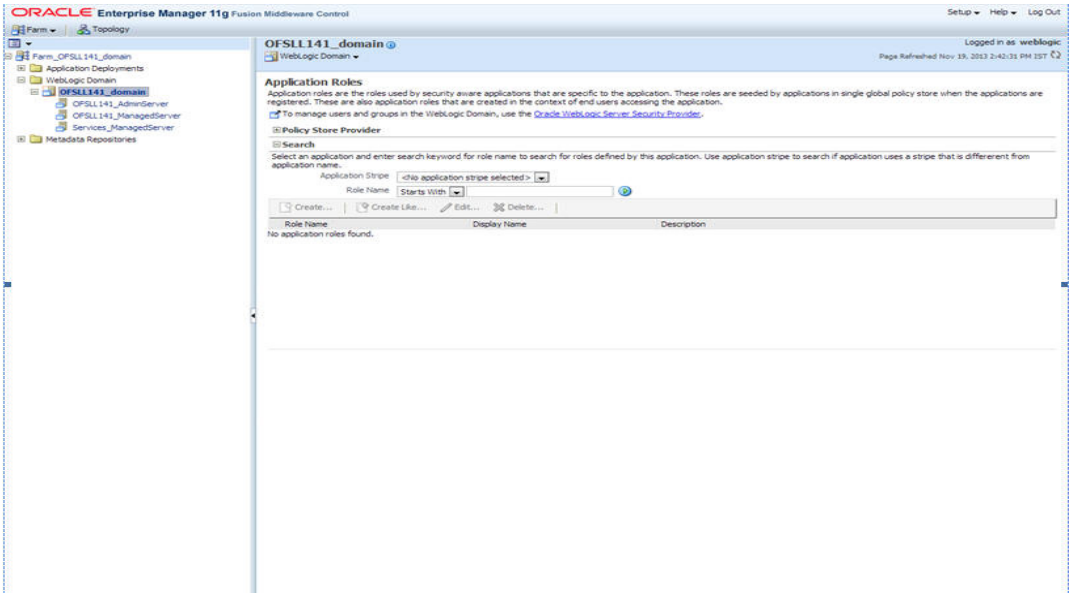
8. Mapping of Enterprise Group with Application Role

Follow the below steps to add an user to the group:

1. Login to Oracle Enterprise Manager 11g console (http://hostname:port/em).
2. Click **WebLogic Domain** → **Security** → **Application Roles** on the right panel..

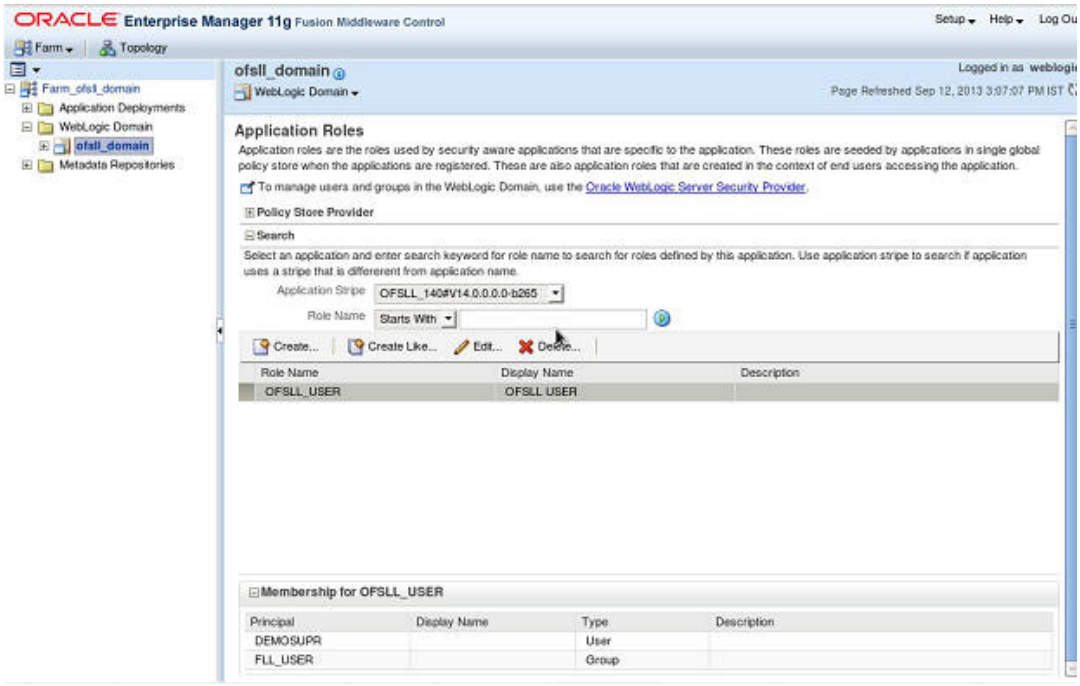


3. On clicking **Application Roles**, the following screen is displayed:

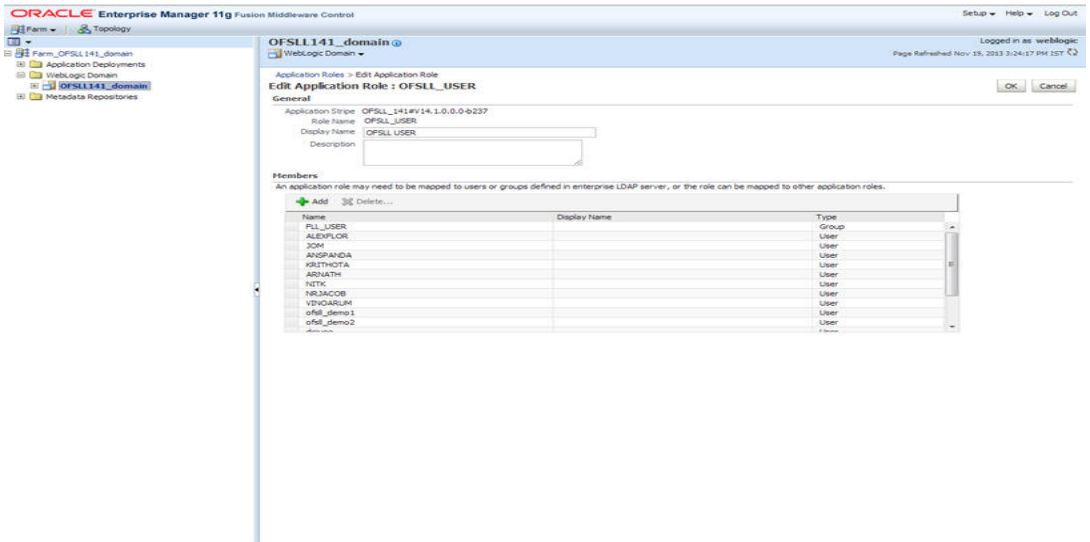


4. Select **Application Stripe** from the drop-down menu.
5. Click the arrow head button. Details of the existing Roles are displayed below.

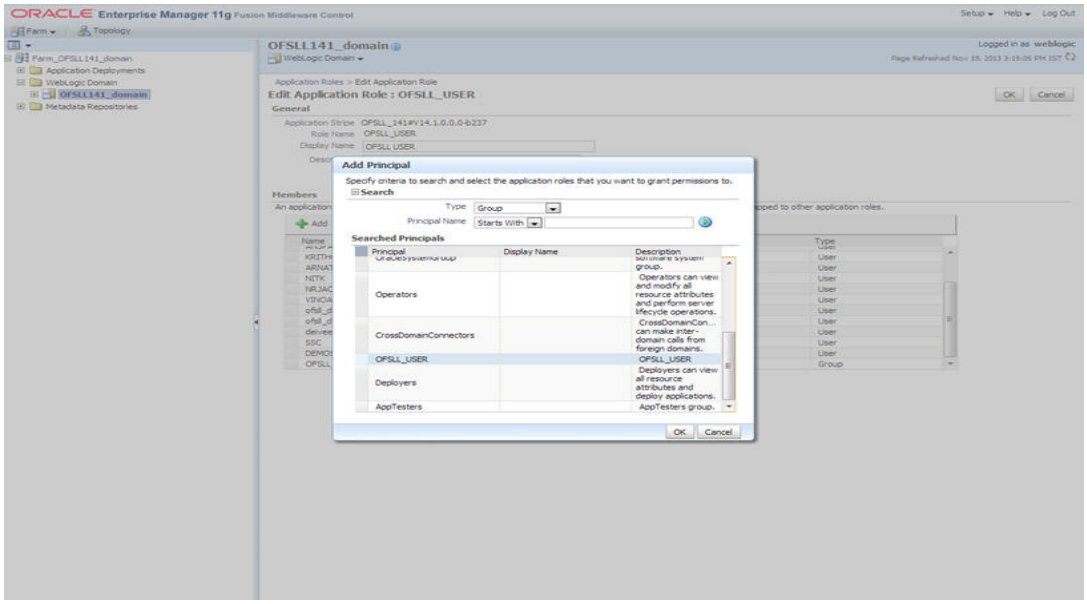
6. Select the **Role Name**. Membership details of the selected Role Name are displayed under **Membership for "role_name"**...



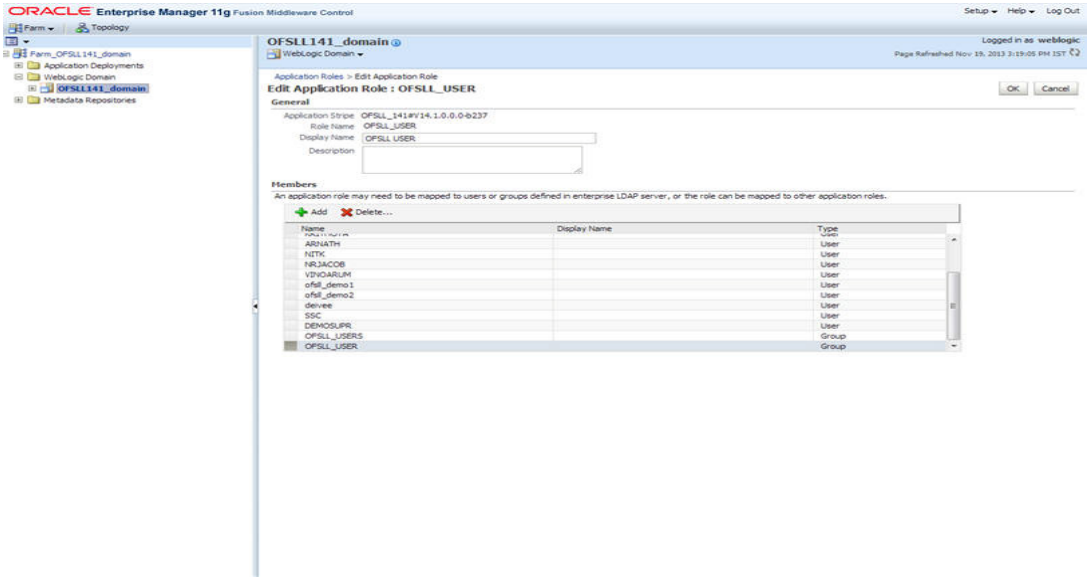
7. Click **Edit**. The following window is displayed.



8. Click **Add**. Select type as **Group**. Click on the arrow head button.

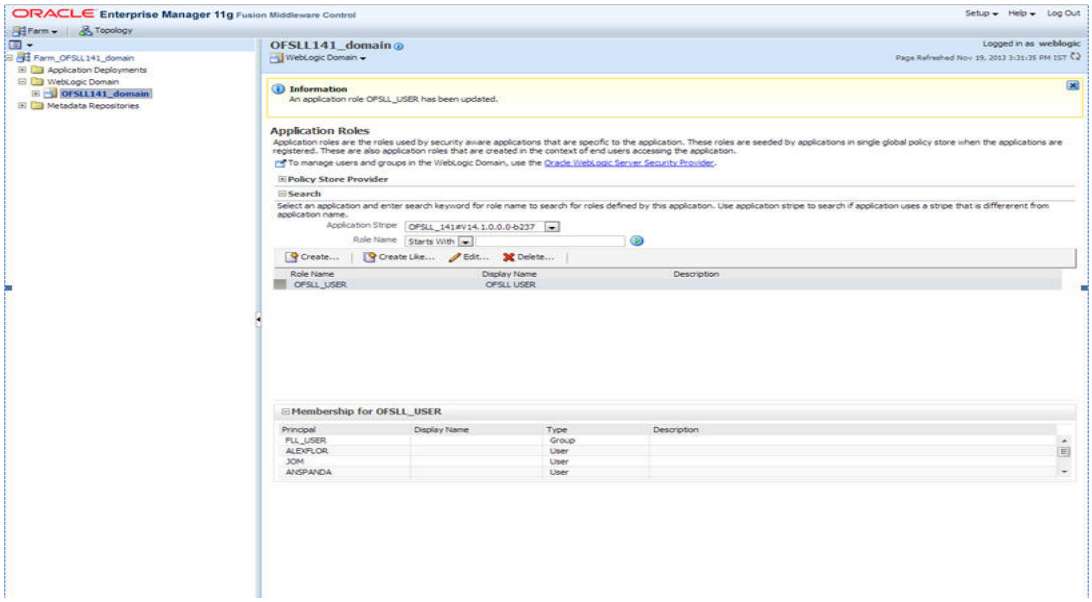


9. Select the Principal "OFSLL_USER" to add and click **OK**. The following window is displayed .



10. The selected Principal is listed under **Members**.

Click OK. The following window is displayed with the confirmation message as “The Application role of "group_name" has been updated”.



9. Configuring Oracle BI Publisher for Application

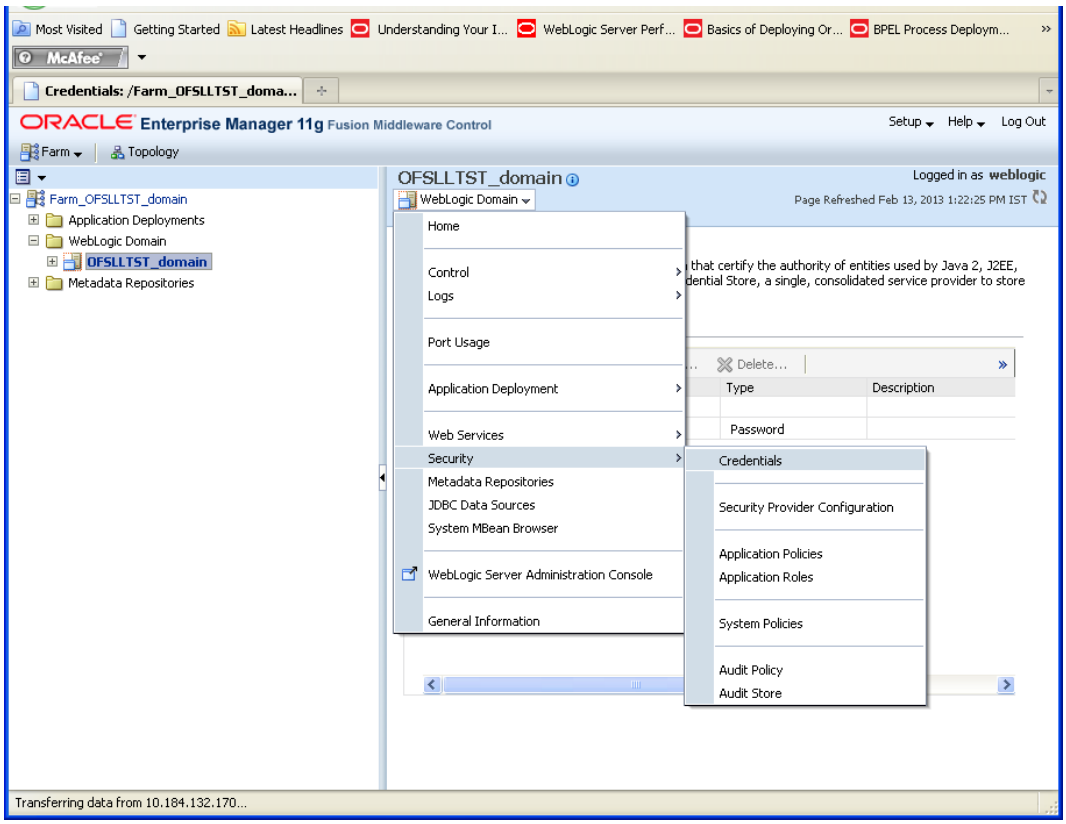
1. Copy the OfsllCommonCSF.jar from /WEB-INF/lib available in the staging area to $DOMAIN_HOME/lib
2. Update the setDomainEnv.sh file ($MW_HOME/user_projects/domains/mydomain/bin directory) by appending the above jar file path –

EXTRA_JAVA_PROPERTIES="……. ${EXTRA_JAVA_PROPERTIES} -Dofsll.csf.path=${DOMAIN_HOME}"

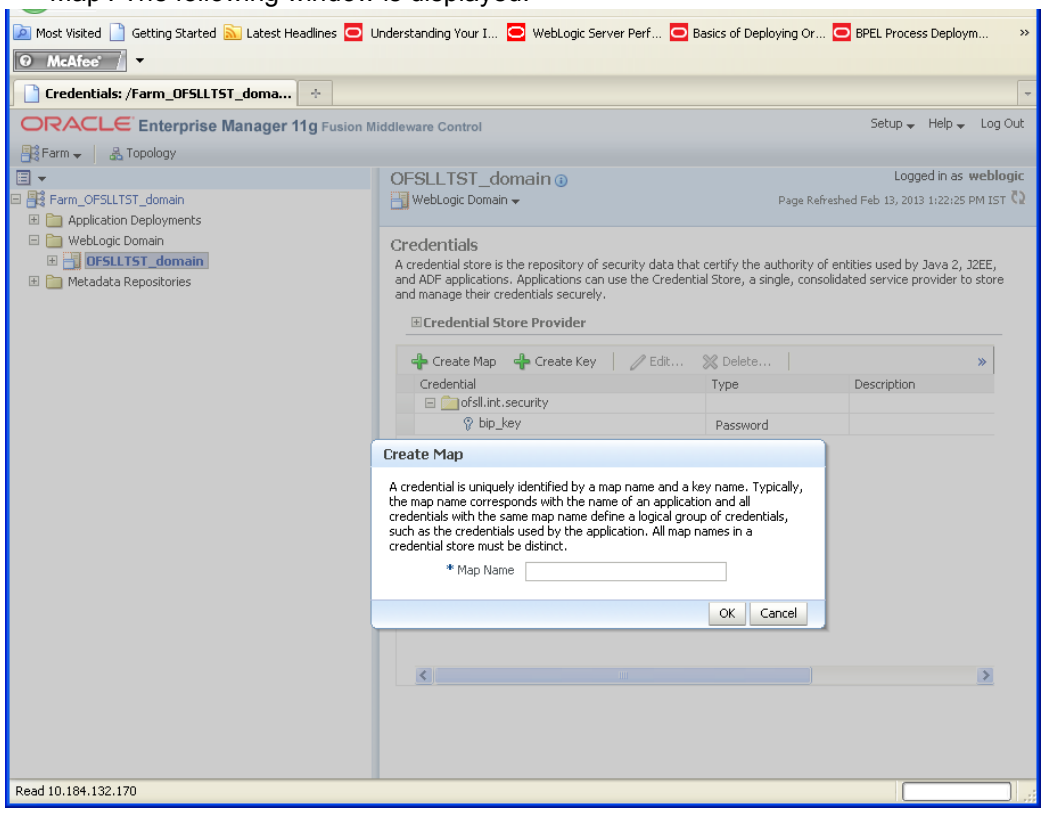
3. Configure Security via EMconsole

Note

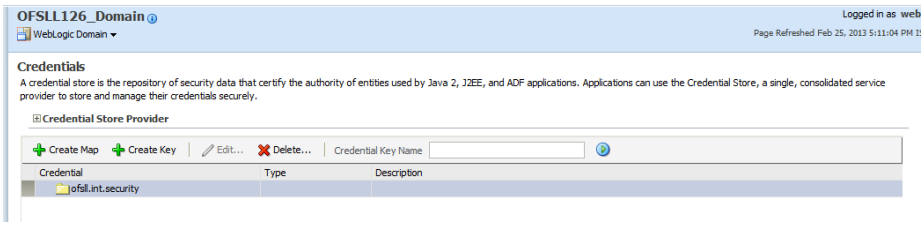
It is assumed that BI Publisher is installed and configured. Refer BI Publisher Guide for further details.



4. Click WebLogic Domain on the right panel. Select Security -> Credentials. Click ‘Create Map’. The following window is displayed.

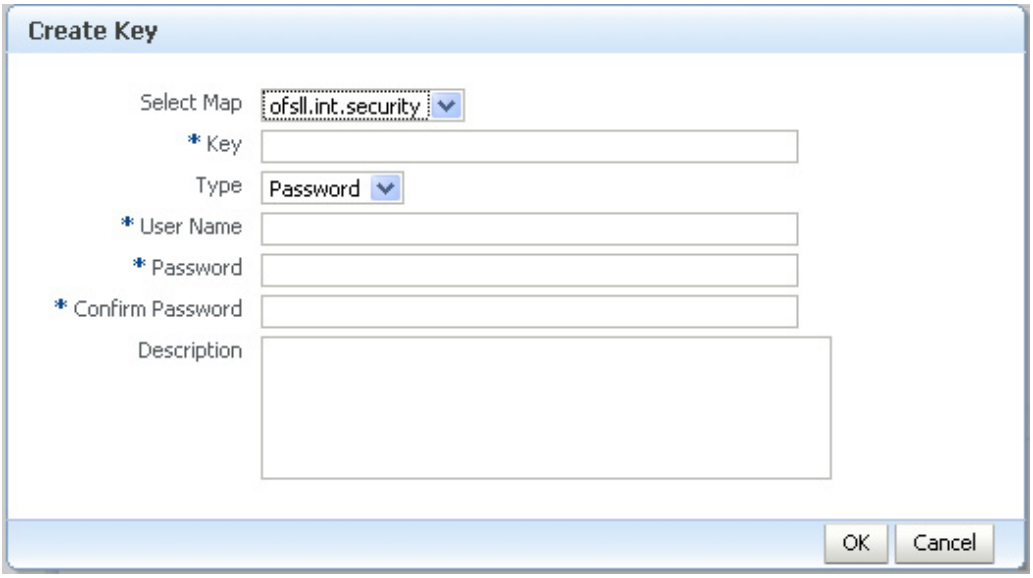


5. Enter the Map Name: ofsll.int.security
6. Click OK. The following window is displayed..

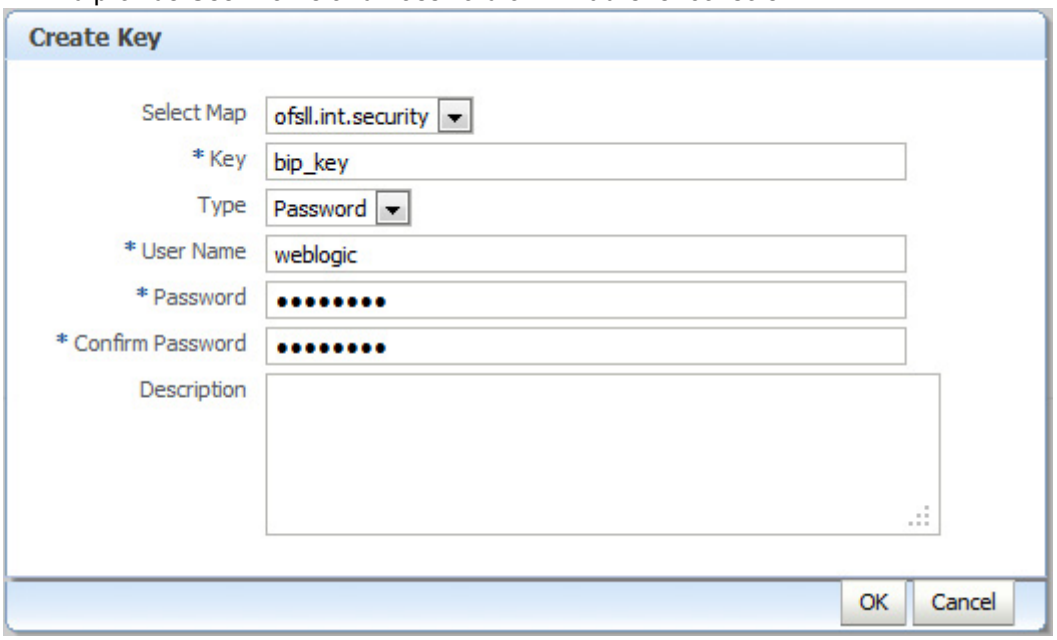


7. Click **Create Key** Button.

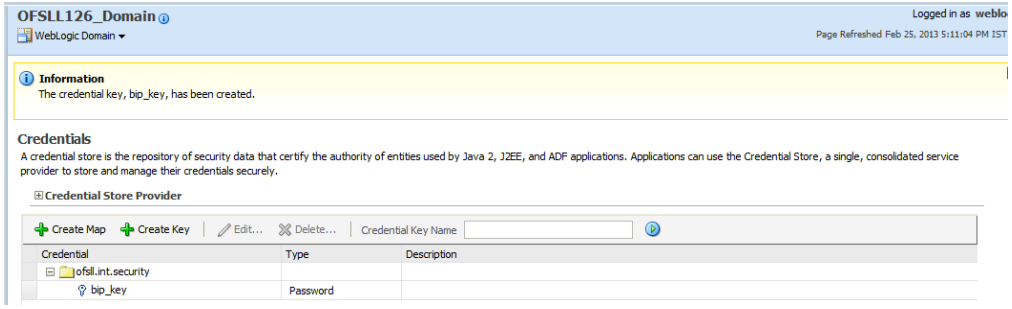
The following window is displayed.



8. Enter the details as per your requirement.
9. And provide User Name and Password of BI Publisher console.

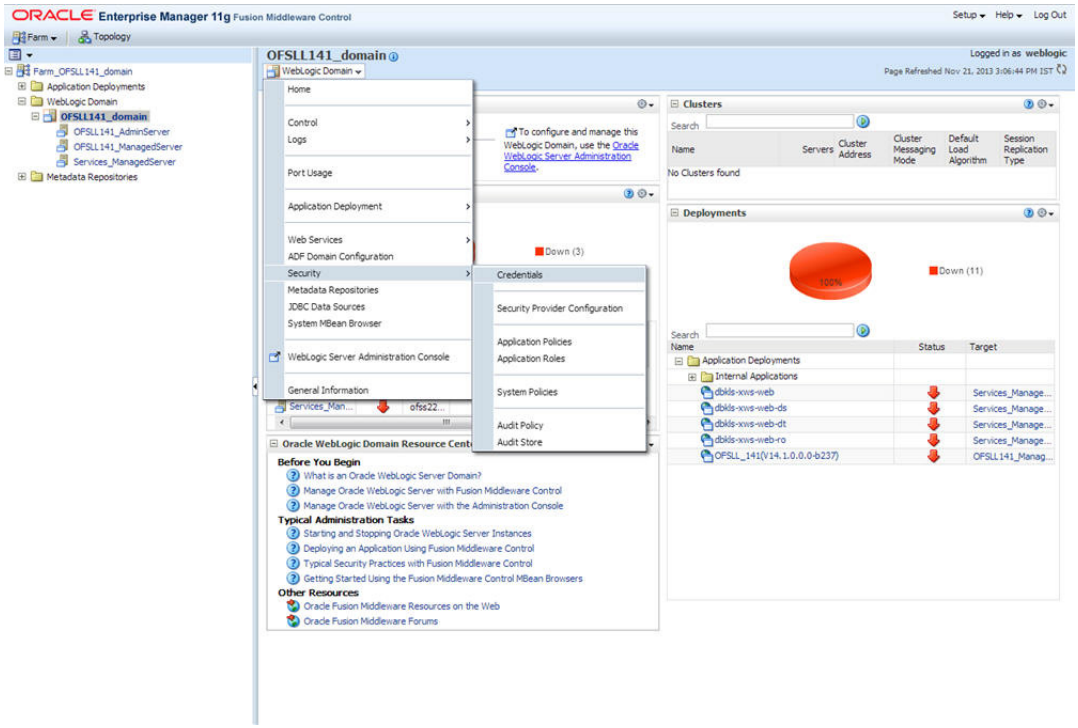


10. Click **OK**. The following window is displayed.

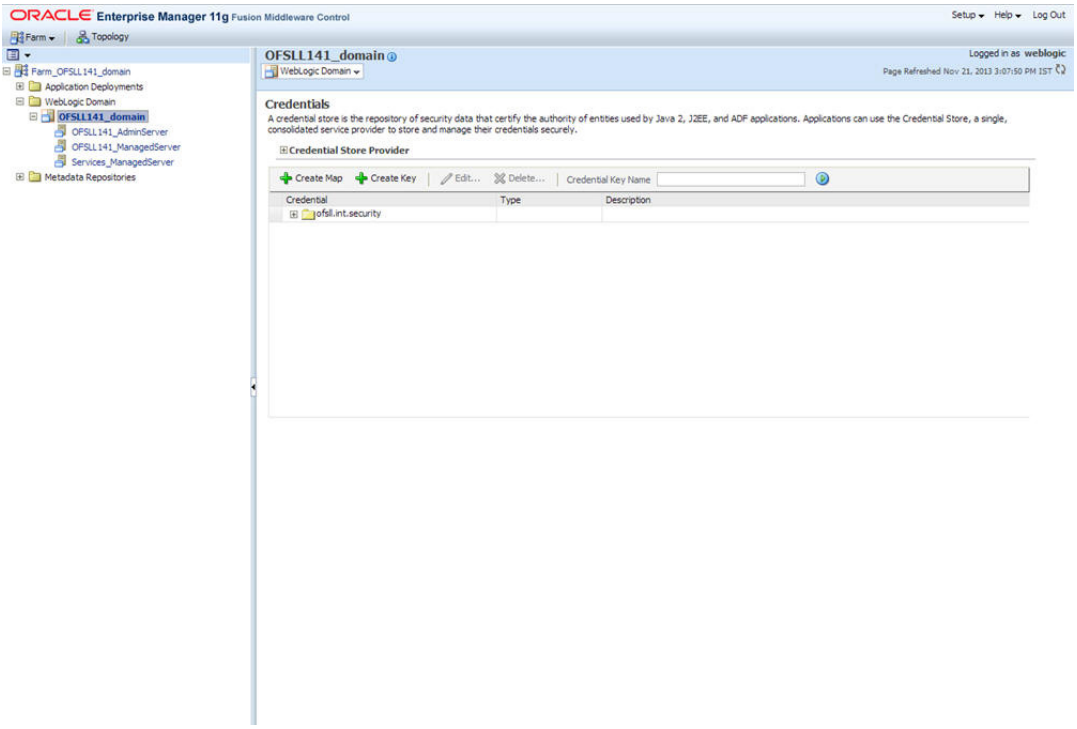


10. Configuring JNDI name for HTTP Listener

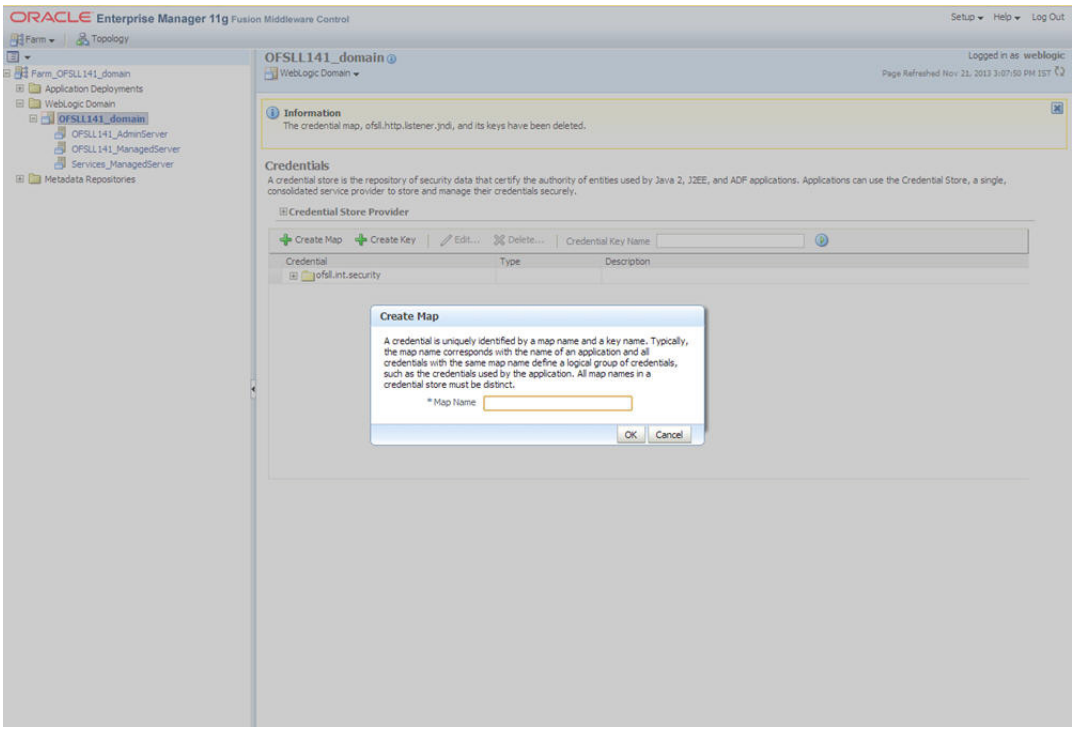
1. Click **WebLogic Domain** on the right panel. Select **Security** → **Credentials.**



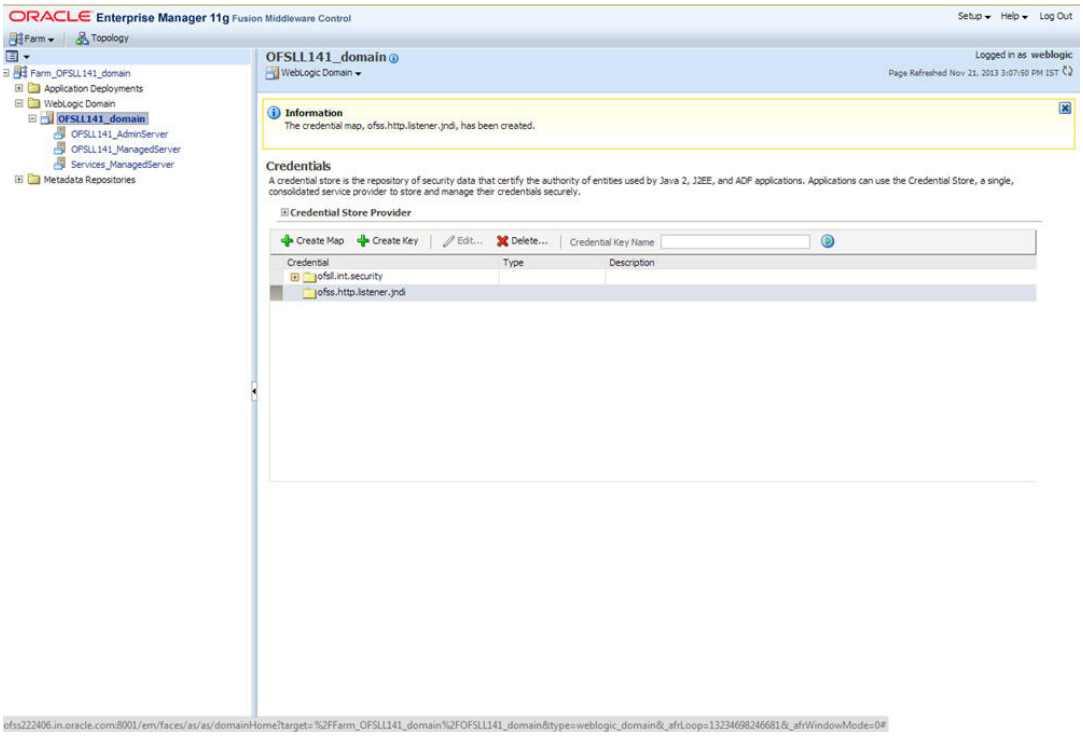
2. On clicking **Credentials** the following window is displayed.



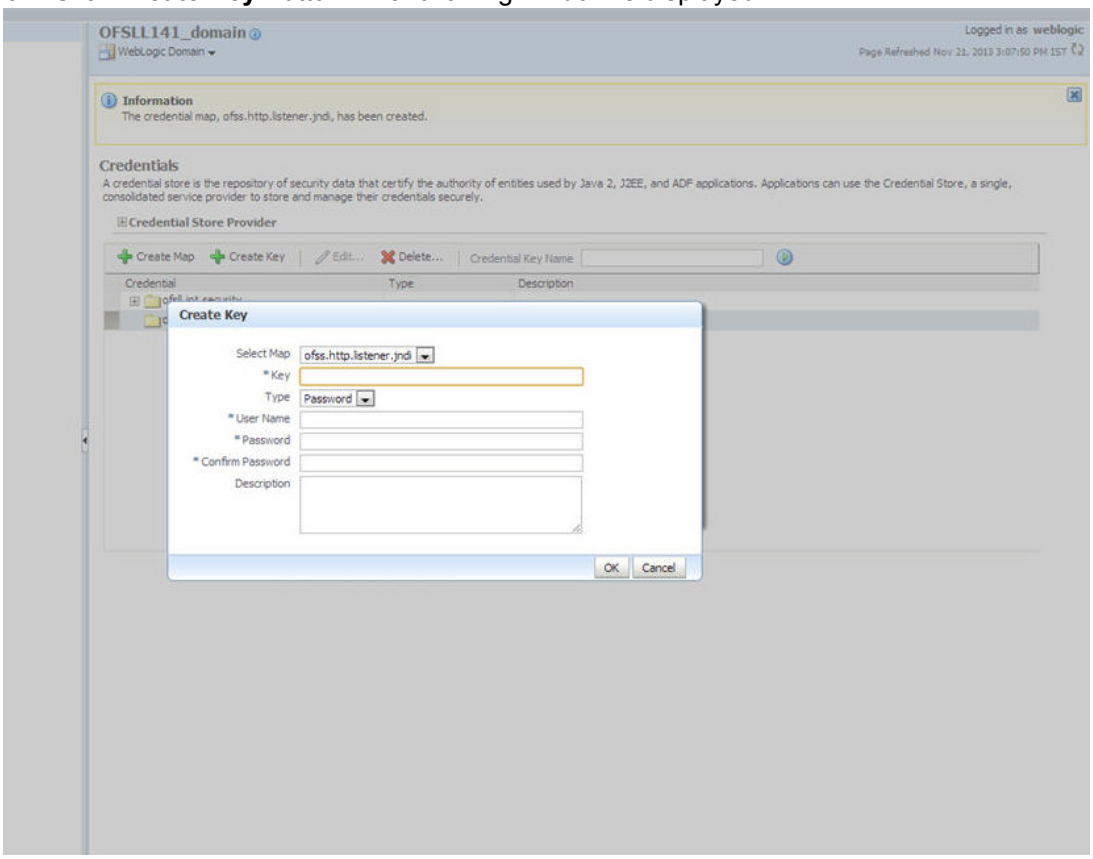
3. Click on **Create Map**. The following window is displayed.



4. Enter Map name as '**ofsll.http.listener.jndi**'.
5. Click **OK**. The following window is displayed.



6. Click **Create Key** Button. The following window is displayed.

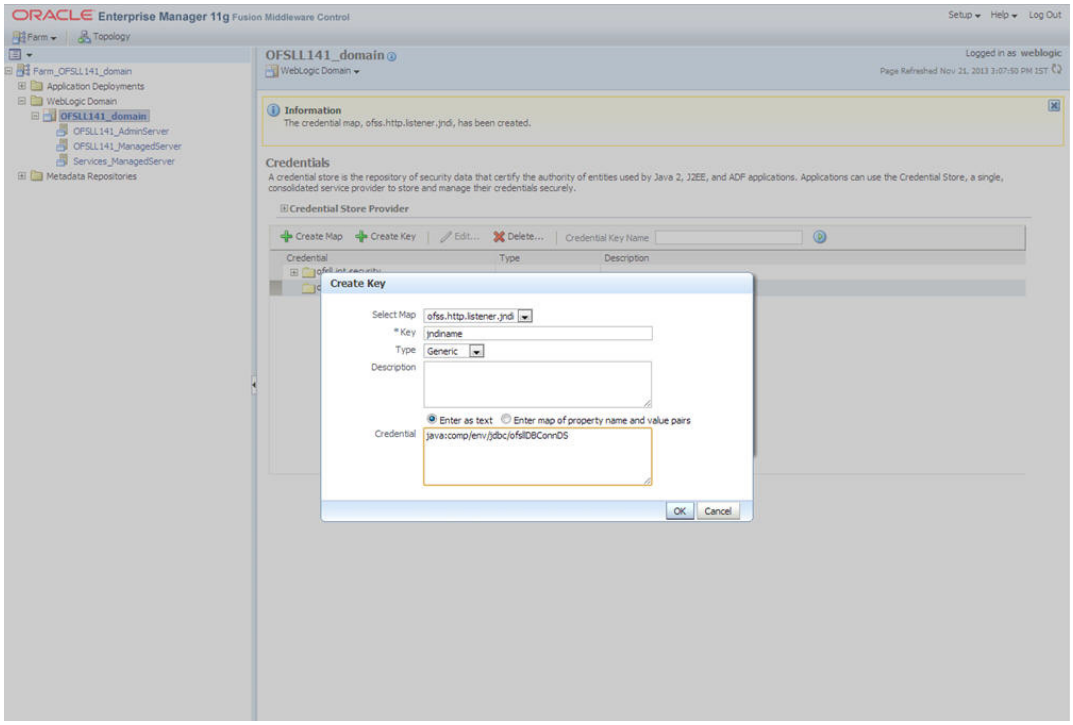


7. Enter the details as per your requirement.

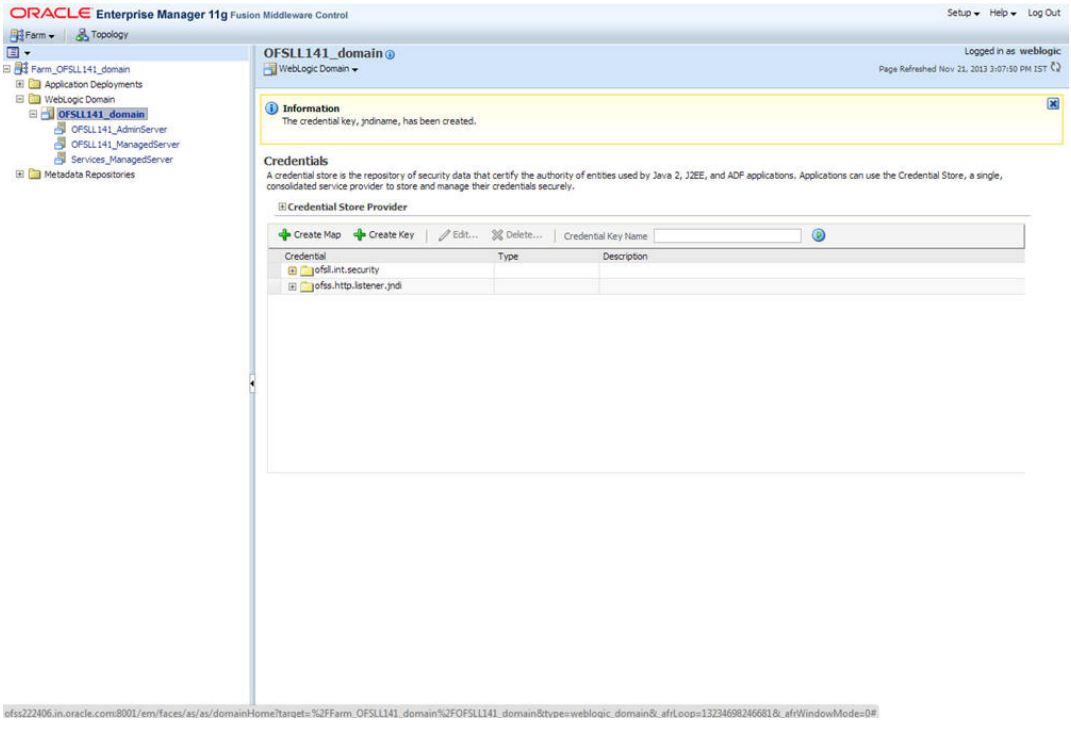
Key: jndiname

Credential: java:comp/env/jdbc/ofsllDBConnDS

Type:Generic



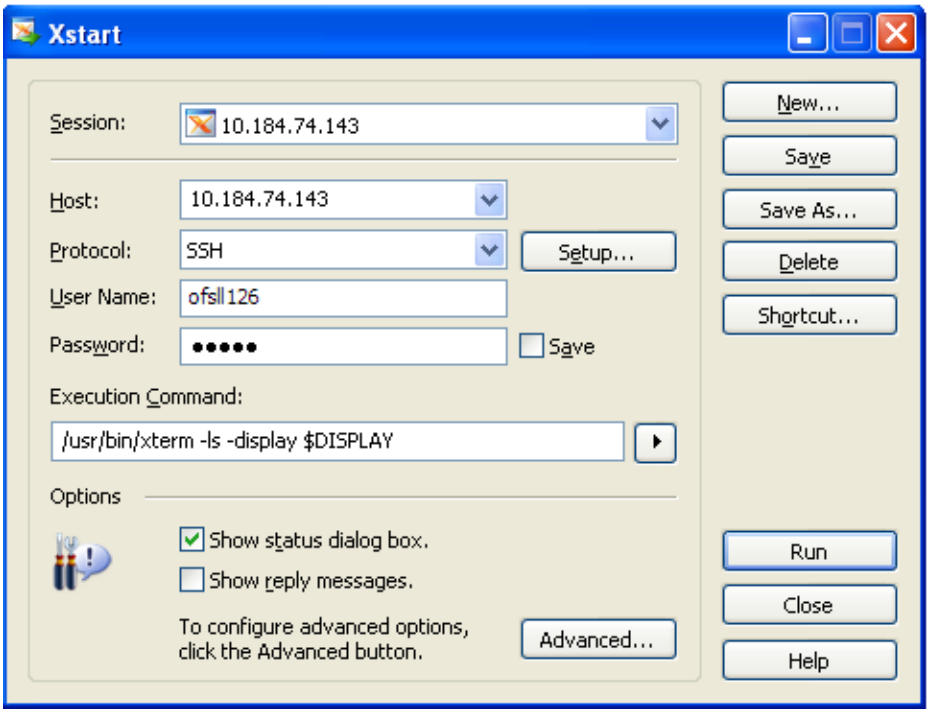
8. Click **OK**. The following window is displayed.



11. Appendix

11.1 XManager Usage

To run any installer on remote non window machine user should have XManager software.



Give the following details

Session name: Give session name.

Host name: Give the UNIX machine address.

Protocol: This value depends on the operating system.

For ExampleE.g.:

Oracle Enterprise Linux: SSH

IBM AIX: TELNET

Solaris: SSH

UNIX: SSH

User Name: Give the UNIX user name.

Password: Give the password.

Execution Command: This value depends on the operating system.

E.g.:

Oracle Enterprise Linux: /usr/bin/xterm -ls -display $DISPLAY

IBM AIX: /usr/dt/bin/dtterm -ls -display $DISPLAY

Solaris: /usr/openwin/bin/xterm -ls -display $DISPLAY

UNIX: /usr/bin/X11/xterm -ls -display $DISPLAY