Installation and Setup Guide
Oracle FLEXCUBE Investor Servicing
Release 14.5.3.0.0
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ORACLE
FINANCIAL SERVICES

Table of Contents

1. Preface

This document provides the steps to install extensible Open Development tool and initial administration activities.

1.1 Audience

This document is intended for FLEXCUBE IS Application developers who are required to the following:

- Install and setup Open Development Tool development environment

1.2 Related documents

For more information, see following documents.

- Development Overview Guide.docx
- Getting Started.docx
- Reference.docx

1.3 Conventions

The following text conventions are used in this document:

Convention Meaning

boldface	Boldface type indicates graphical user interface elements (for example, menus and menu items, buttons, tabs, dialog controls), including options that you select.
italic	italic type indicates book titles, emphasis, or placeholder variables forwhich you supply particular values.
monospace	Monospace type indicates language and syntax elements, directory and File name, URLs, text that appears on the screen, or text that you enter.
	Indicates important information

2. Introduction

This document is a guide for installation of Open Development Tool Version 11.1. Detailed steps have been mentioned for generation of WAR file from the Open Development Tool Source and deployment of Open Development Tool application to Apache Tomcat and OC4J server.

2.1 How to Use This Guide

The information in this guide includes:

3. Pre-requisites

3.1 JDK

3.1.1 License Information

JDK is distributed by Sun Microsystems, Inc under Java Development Kit Binary Code License Agreement.

3.1.2 Instructions

Installer requires JDK 1.6 update 16 version to be downloaded in the system and the same should be set as environmental variable (explained later in this document).

3.2 Apache Ant 1.7.1

3.2.1 License Information

Apache License version 2.0. This is available for reference at http://www.apache.org/licenses/LICENSE-2.0

3.2.2 Download Instructions

Apache Ant 1.7.1 is available in the archives at http://www.apache.org/dist/ant/binaries/
The file to be downloaded is **apache-ant-1.7.1-bin.zip**.

3.2.3 Post Download Instructions

Extract the apache-ant-1.7.1-bin.zip distribution to a directory. And provide this path for setting the environmental variable which is explained later in this document.

3.3 ActiveX settings:

Tools -> Internet Options -> Security -> Local intranet -> Custom Level -> ActiveX controls and Plug-ins -> Initialize and script ActiveX controls not marked as safe -> Select Enable.

3.4 Msxml:

Msxml 4.0 to be available on client machine.

3.5 Oracle Client (Database Installation)

In order to carry out Database Installation, Installer requires **Oracle 11g Client** or later version to be installed in the system.

3.6 Swing Layout

3.6.1 License Information

Lesser General Public License (LGPL 2.1)

3.6.2 Download Instructions

Swing Layout is available in the archives at https://swing-layout.dev.java.net/ . In the website under '**project tools**' section, select '**Documents and files**' section. The file to be downloaded is **swing-layout-1.0.jar**.

3.6.3 Post Download Instructions

Extract the Swing-layout-1.0 distribution to a directory. Copy the following file

swing-layout-1.0.jar

Into the directory **{INSTALLER_DIR}\lib**

3.7 Log4J 1.2.15

3.7.1 License Information

Apache License 2.0. This is available for reference at
http://www.apache.org/licenses/LICENSE-2.0

3.7.2 Download Instructions

Log4j 1.2.15 is available in the archives at
http://archive.apache.org/dist/logging/log4j/1.2.15/ .The file to be downloaded is **apache-log4j-1.2.15.zip**.

3.7.3 Post Download Instructions

Extract the Log4j 1.2.15 distribution to a directory. Copy the following file

log4j-1.2.15.jar

Into the directory **{INSTALLER_DIR}\lib**

3.8 Oracle 11g Database Driver (11.1.0.7) (Database Installation)

3.8.1 License Information

Oracle Corporation

3.8.2 Download Instructions:

ojdbc6.jar is available in the archives at

http://www.oracle.com/technology/software/tech/java/sqlj_jdbc/htdocs/jdbc_11106 0.html

The file to be downloaded is **ojdbc6.jar**.

Post Download Instructions:

Extract the ojdbc6.jar distribution to a directory. Copy the following file

ojdbc6.jar

Into the directory **{INSTALLER_DIR}\lib**

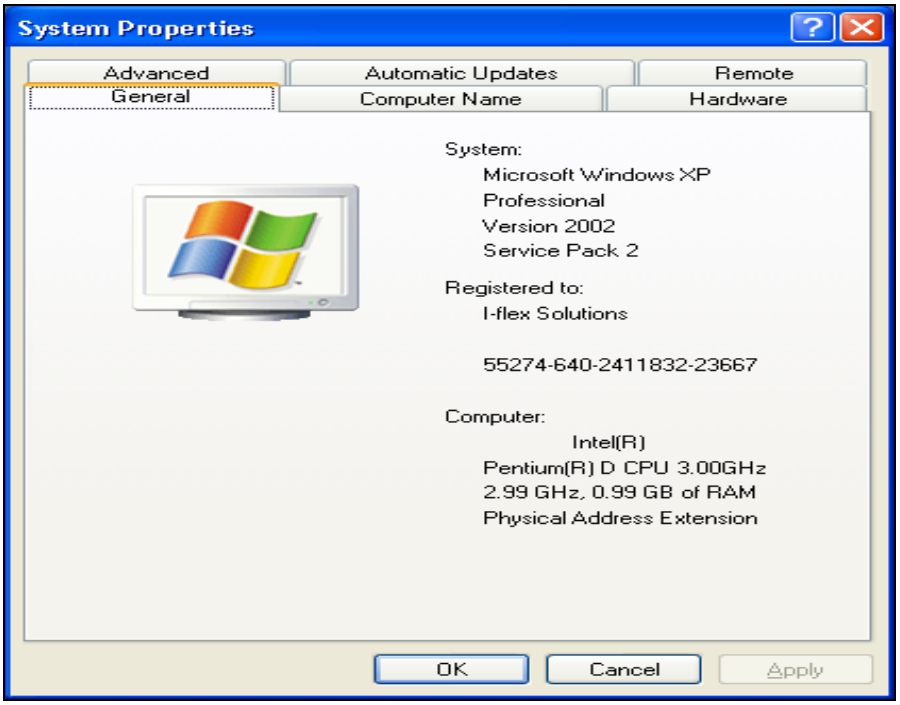
3.9 Setup for installer Open Development Applications

3.9.1 Step1

Navigate to Control Panel

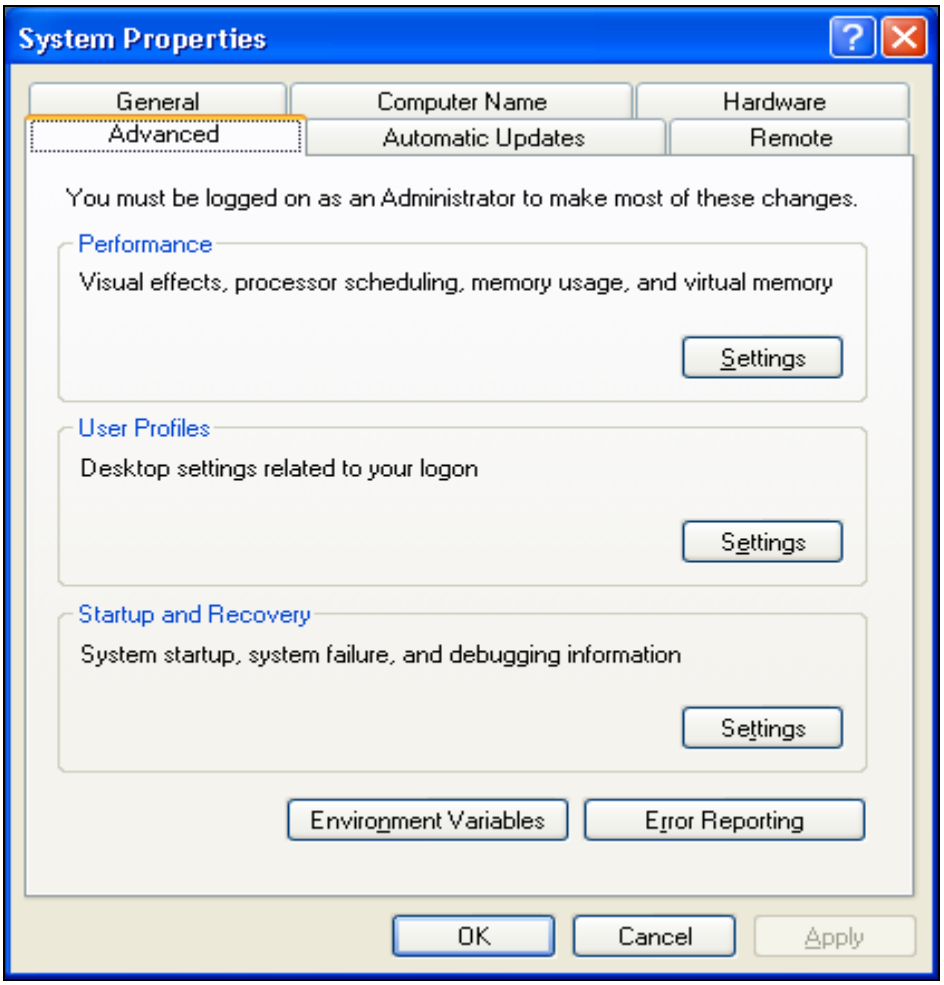
3.9.2 Step2

Double Click System icon to launch System Properties screen as shown below.



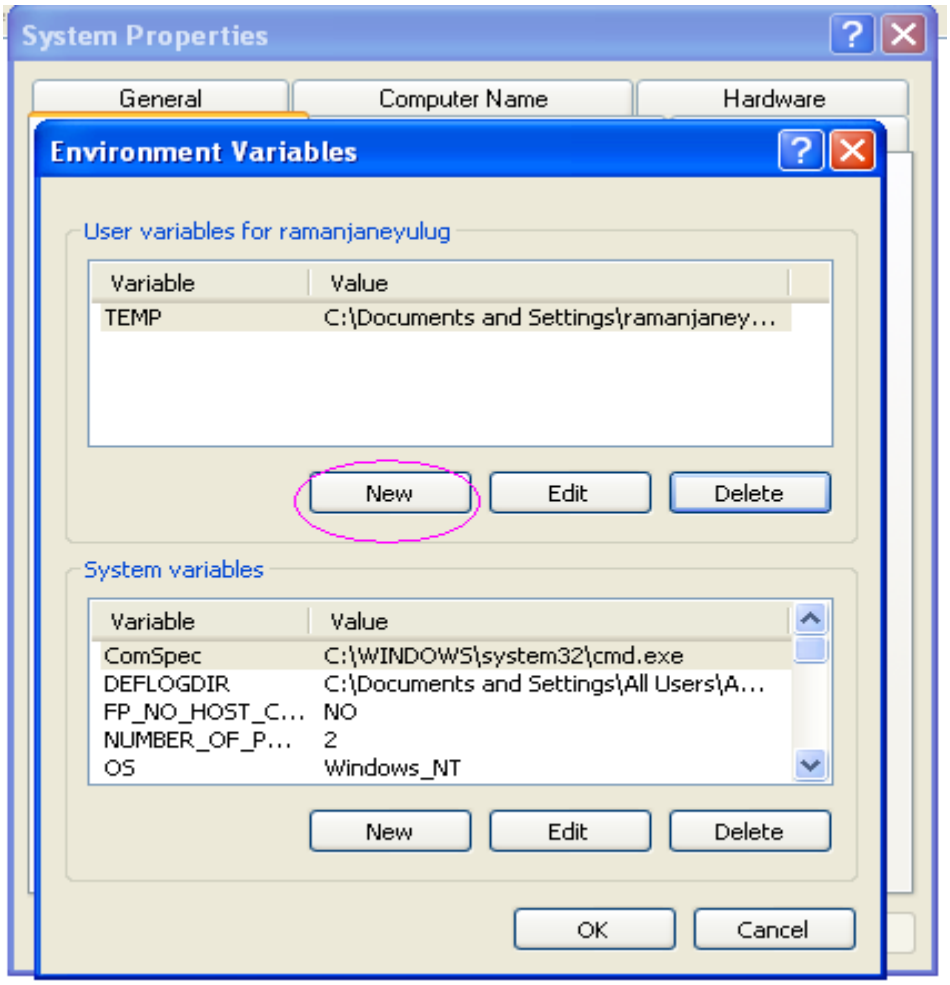
3.9.3 Step 3

Click Advanced Tab button and then click Environment Variables as shown below.



3.9.4 Step 4

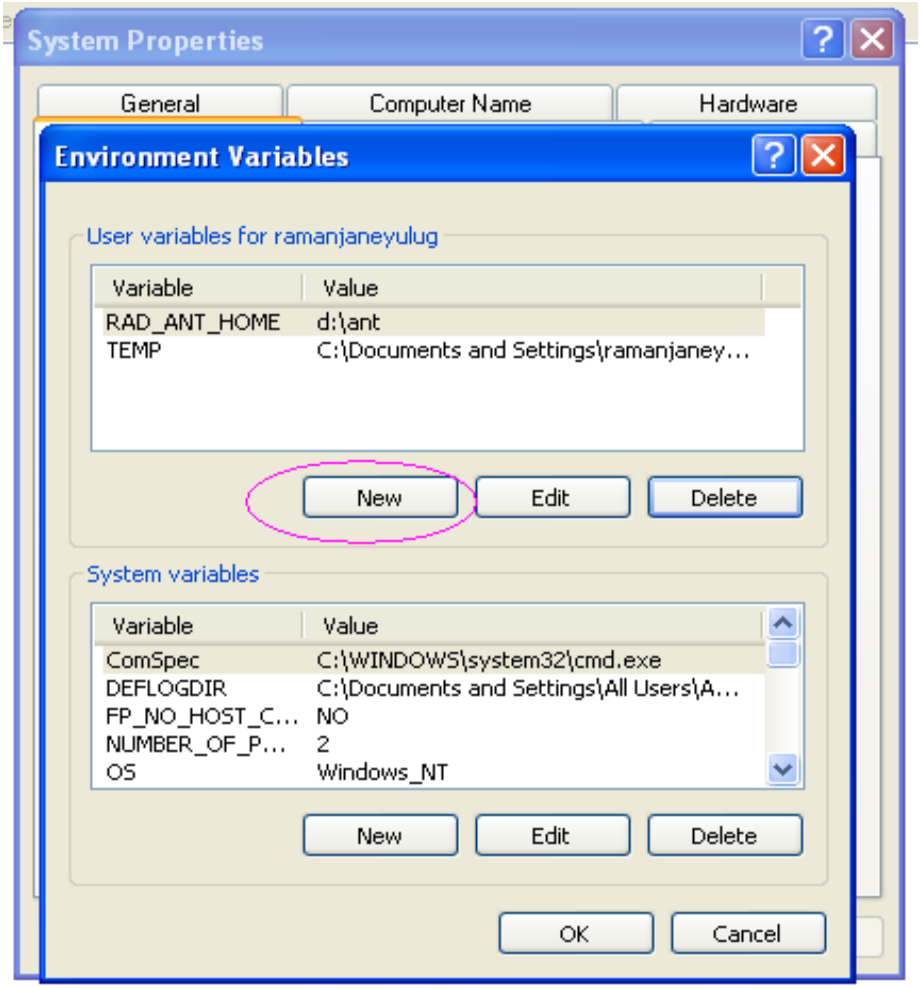
In User variables click New and in Variable name type **RAD_ANT_HOME**. In the value field give the path of Apache Ant root directory as shown below.

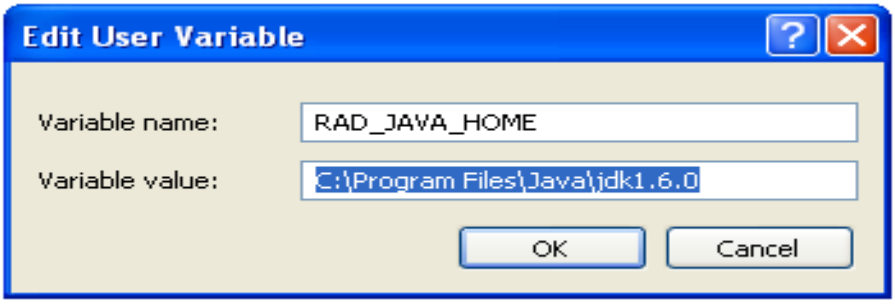


The Ant provider supported by Installer is Apache and the version should be 1.7.1.

3.9.5 Step 5

Repeat **Step 4 and Step 5** to set **RAD_JAVA_HOME** environment variable to jdk directory as shown below.





Ensure that the Variable value for Variable name RAD_JAVA_HOME eliminates space

4. Open Development Tool 11.1 Installation

Open Development Tool 11.1 installation includes below mentioned activities

- Deployment of Front-end Units or WAR File to Apache Tomcat or OC4J Server
- Loading of Back-end units(PLSQL Packages) to an existing FCUBS schema in Oracle Database
- RADTool.properties file configuration

The next section explains these two activities in detail

4.1 WAR File generation

To generate WAR file follow the below mentioned steps

4.1.1 Step 1

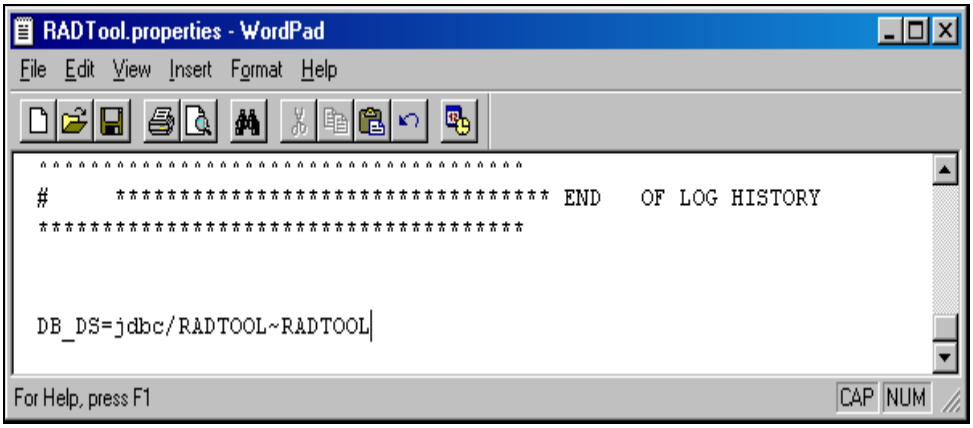
Copy all the contents from \\IFLBLW-BPD-12\Vercon_IP-BPD-01\SOFT\FLEXCUBE_Kernel\FC_IS_V.UM_11.1.0.0.0.0.0\TOOLS\RAD\SOURCE\

To RADTool_11.1

4.1.2 Step 2

RADTool. Properties file configuration

Open RADTool.properties file from **RADTool_11.1** folder. Refer the screen shot shown below and enter appropriate values



4.1.3 Step 3

Open Web.xml add the JNDI reference for backend Database.

Ex: **<resource-ref>**

<res-auth>Container</res-auth>

```
    <res-ref-name>jdbc/RADTOOL</res-ref-name>

    <res-type>javax.sql.DataSource</res-type>

  </resource-ref>
```

4.1.4 Step 4

Please Use the Installer To Prepare Warfile.

Installer sources will be available in the following location.

\\IFLBLW-BPD-12\Vercon_IP-BPD-01\SOFT\FLEXCUBE_Kernel\FC_IS_V.UM_11.1.0.0.0.0.0\TOOLS\RAD\INSTALLER\SOURCE

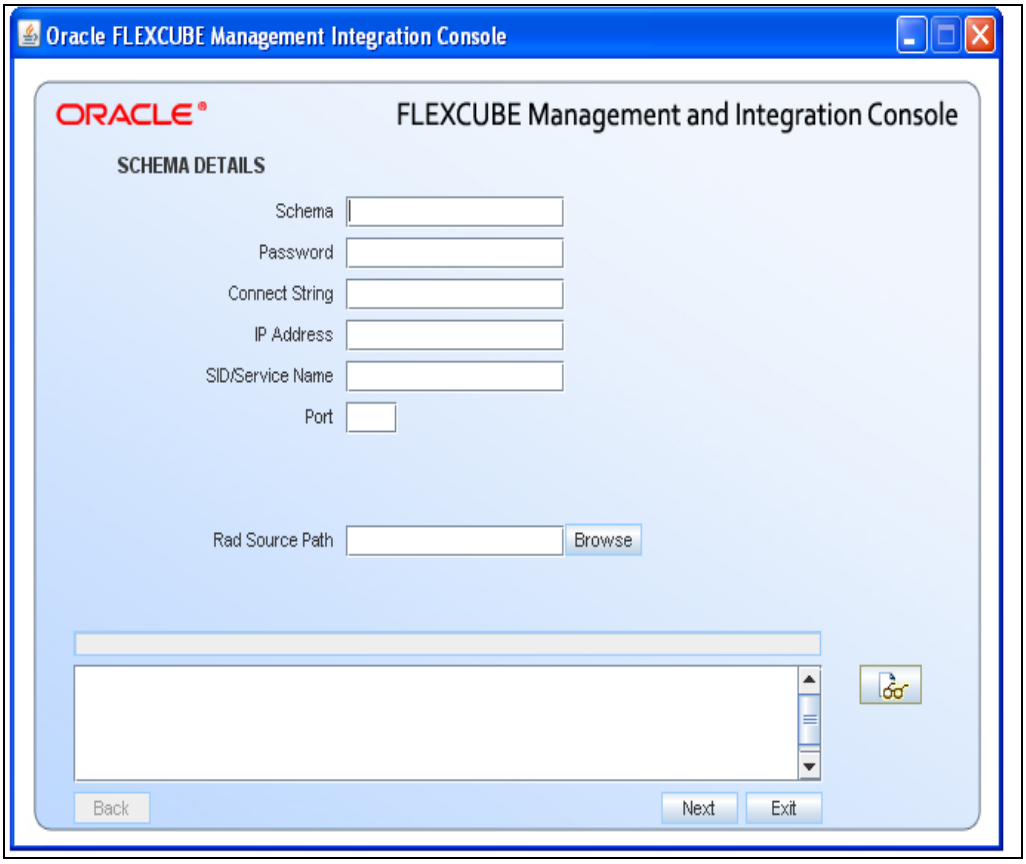
5. How to Run Installer

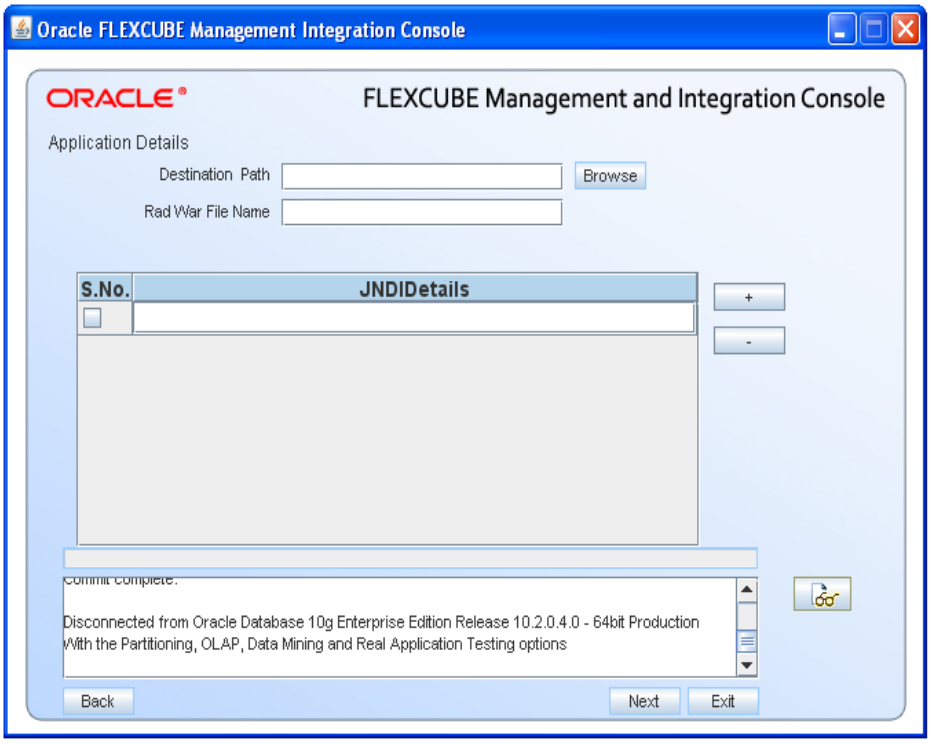
After copying the installer sources and library folder to your local system, make sure you uncheck the read only check box in source properties and apply the same to all the sub folders.

The screen shot below shows how the source folder in your local system should look like.

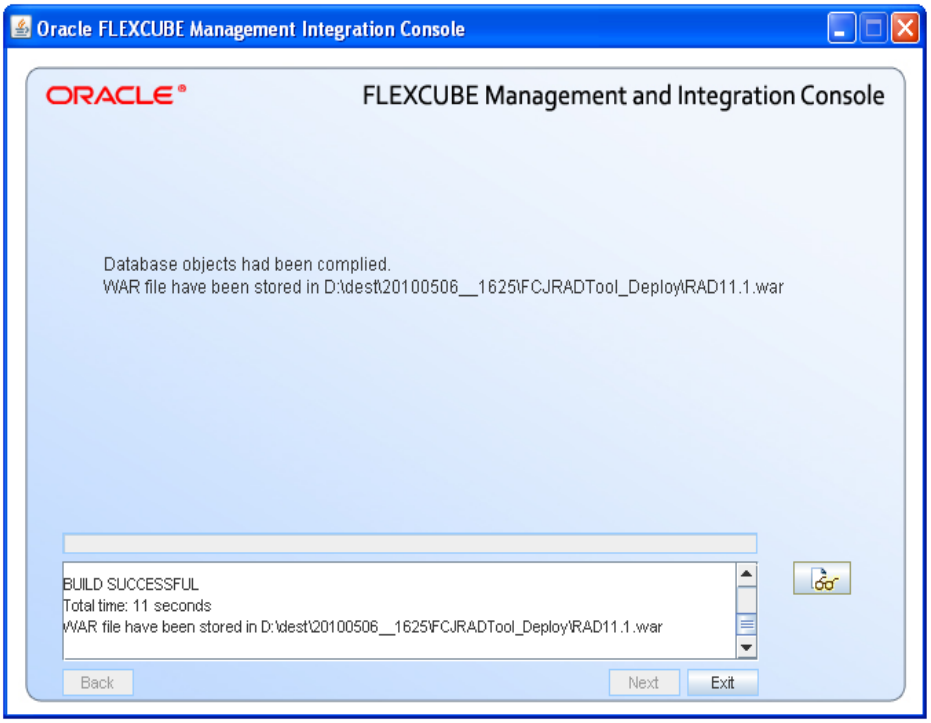
To run the installer, double click the batch file (RADInstaller11.1.bat) present in the installer source.

This displays the screen as follows.





If you want create the war component, please enter the Destination path and War file Name otherwise it will compile only db object display the screen as follows



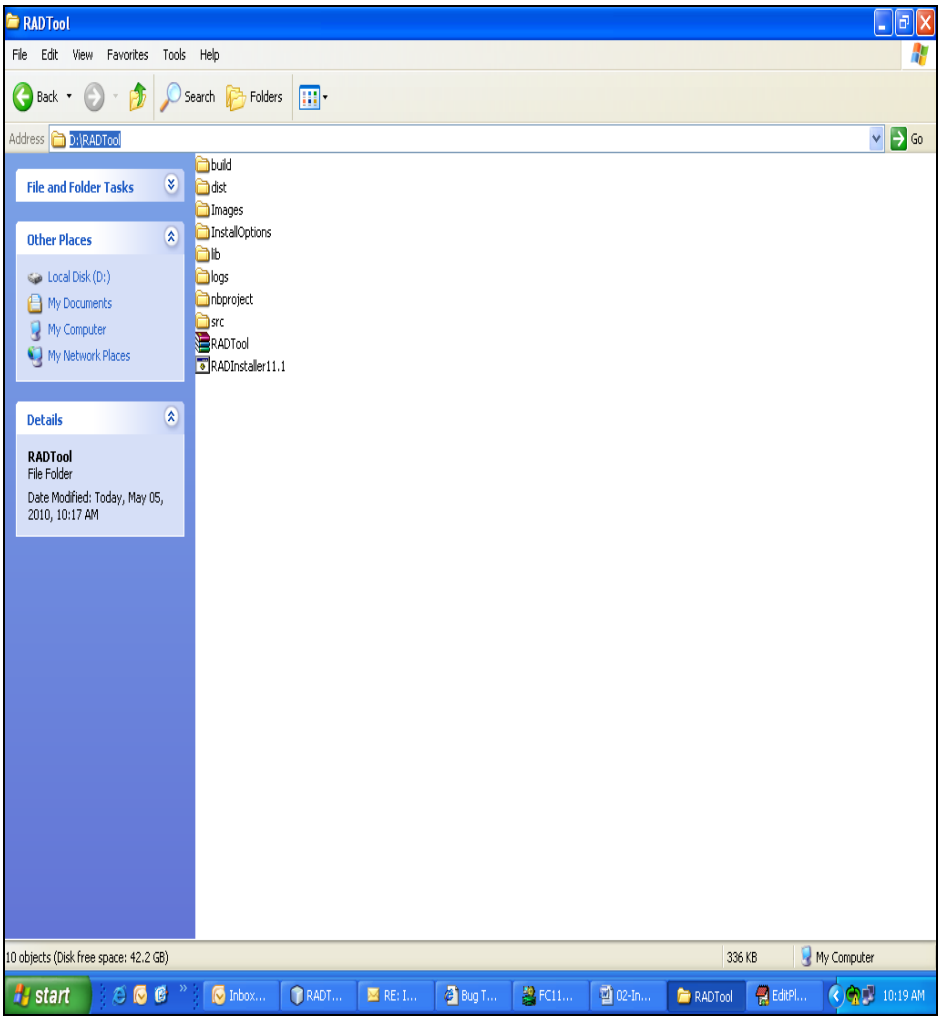
After generation of war file you can deploy war file in Application Server /Web server from destination path.

6. Troubleshooting

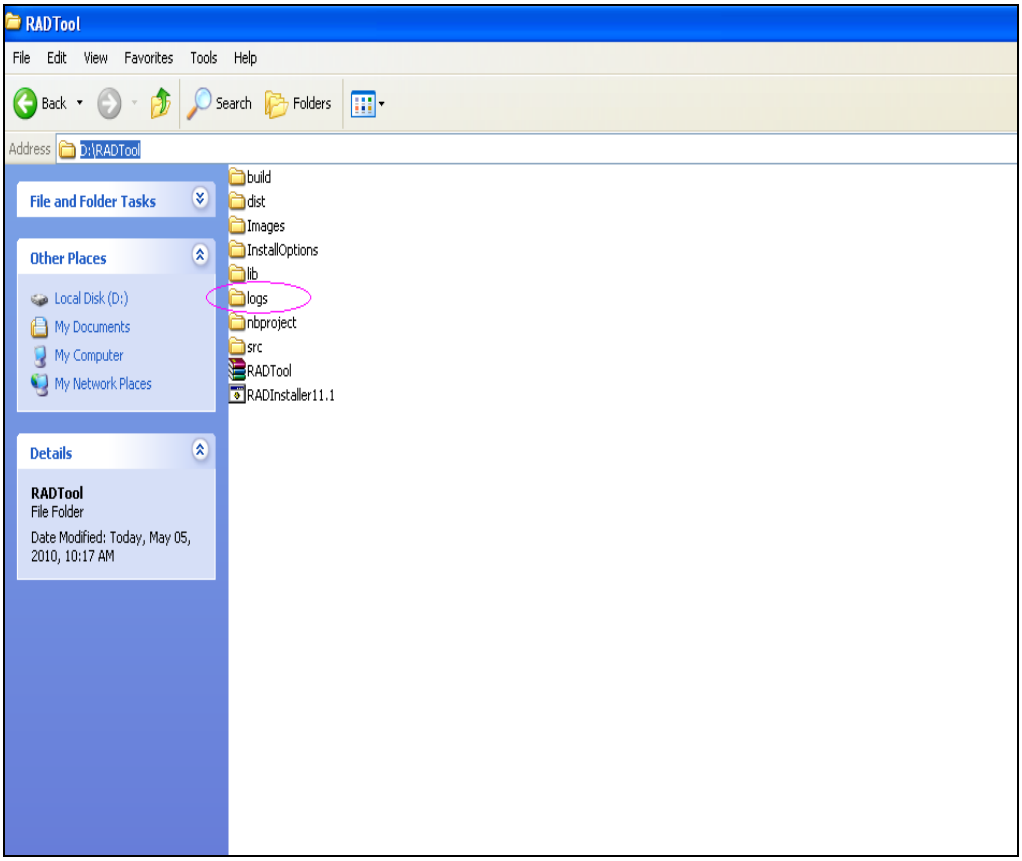
6.1 Checking Logs

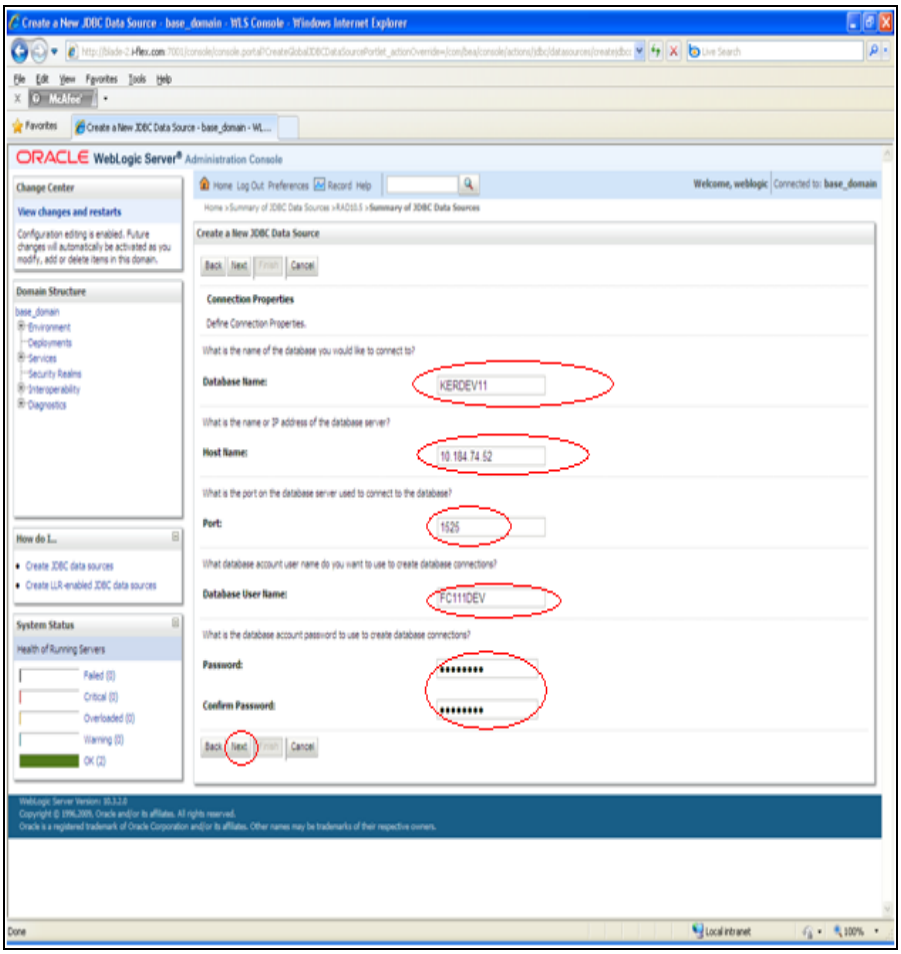
In case an error occurs while doing a particular Open Development activity and the user wants to know the exception, he can look at the log file which contains detailed information about executed and the type of error thrown if any.

To check the log file open the logs folder in the installer source of your local system.



Please Enter the Open Development Schem detail where you are going to connect the Open Development schema and select the Open Development source which you are copied from vercon area and press next button .display the screen as follows





FCJRADTool.war file is generated at specified “destPath” i.e. in this case at RADTool_11.1

This completes WAR file generation and Database installation .

7. Deployment of WAR file to Application Server

7.1 Apache Tomcat 5.5 Server

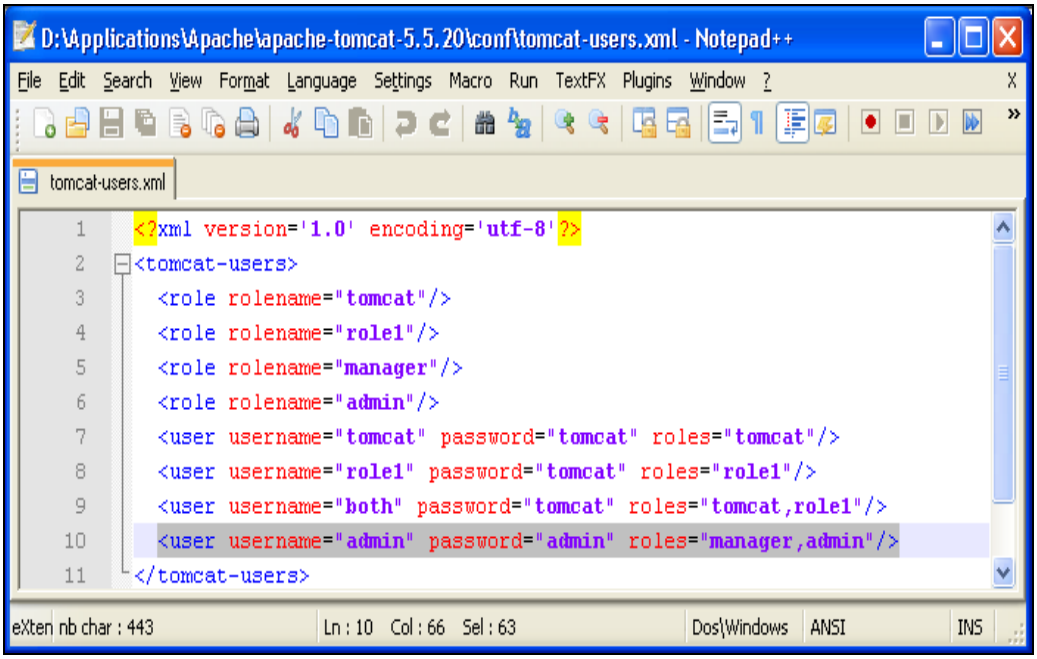
To deploy **FCJRADTool.war** to Apache Tomcat 5.5 Server follow the below mentioned steps

7.1.1 Step 1

Open tomcat-users.xml from <apache-tomcat-5.5.20_home>\conf folder.

Add <user username="admin" password="admin" roles="manager,admin"/>

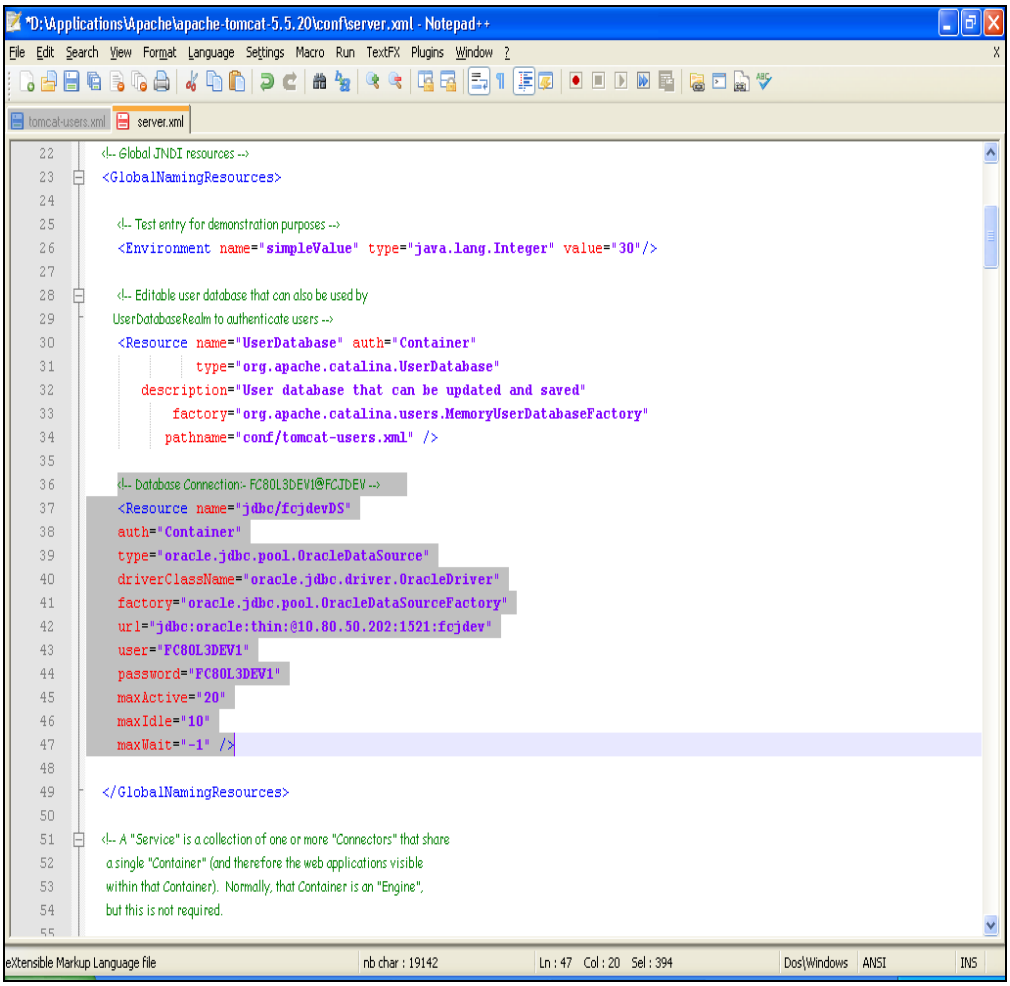
As shown in highlighted section of the below screenshot.



7.1.2 Step 2

Open Server.xml from <apache-tomcat-5.5.20_home>\conf folder.

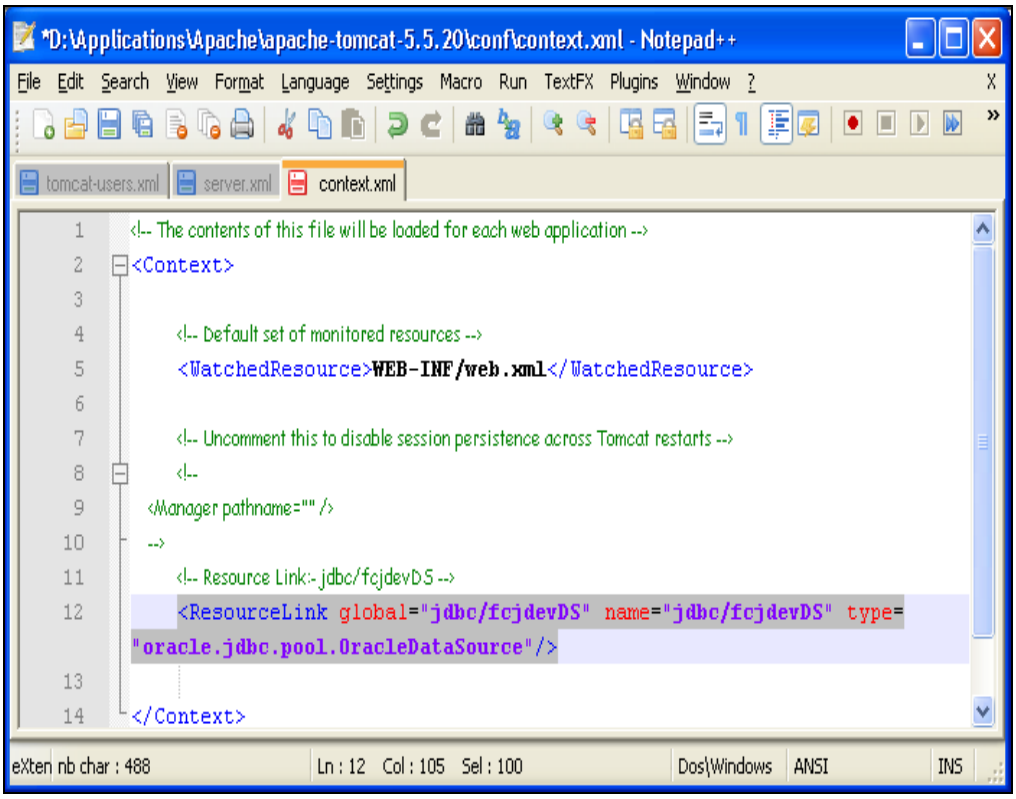
Refer the highlighted section of screenshot below and add corresponding Datasource between <GlobalNamingResources></GlobalNamingResources> tags.



7.1.3 Step 3

Open context.xml from <apache-tomcat-5.5.20_home>\conf folder.

Refer the highlighted section of screenshot below and add corresponding Resource Link



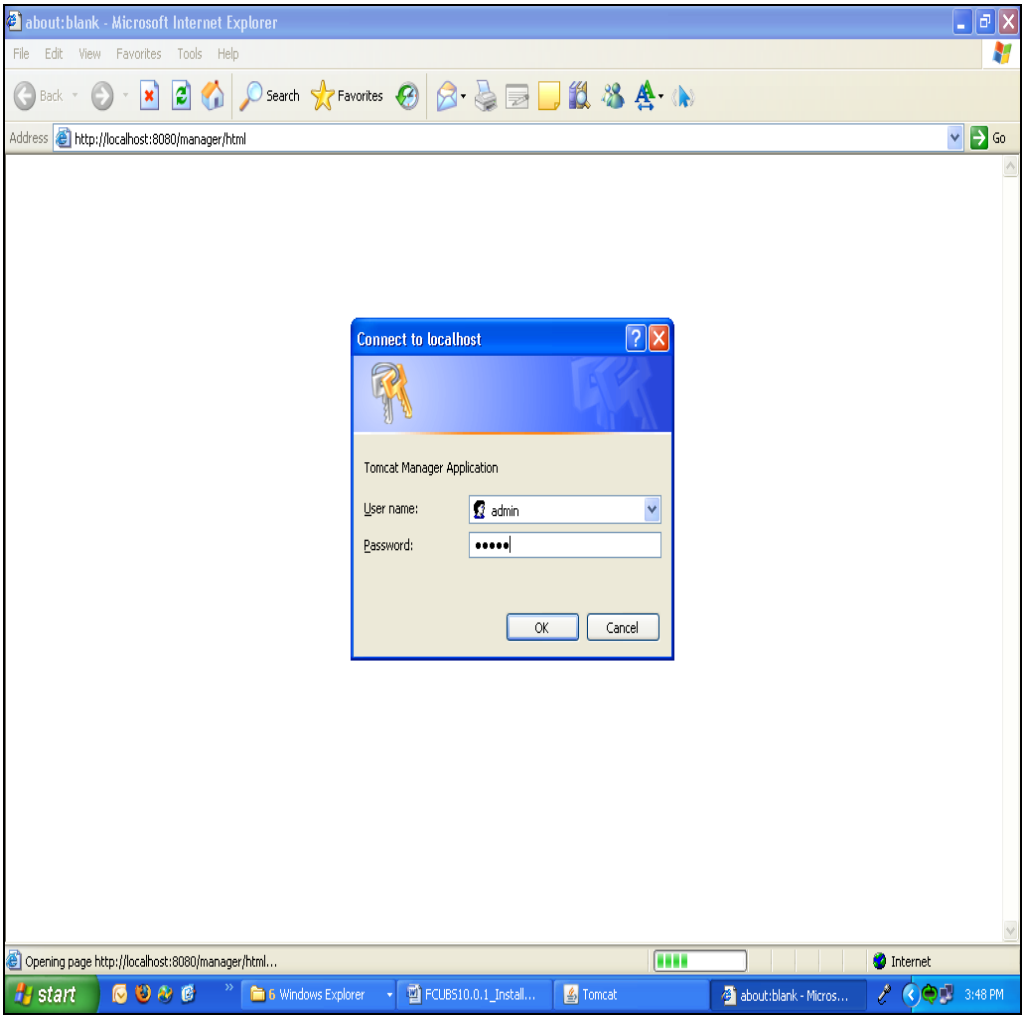
7.1.4 Step 4

Start Apache Tomcat 5.5 Server by double-clicking **startup.bat** from **<apache-tomcat-5.5.20_home>\bin** folder

7.1.5 Step 5

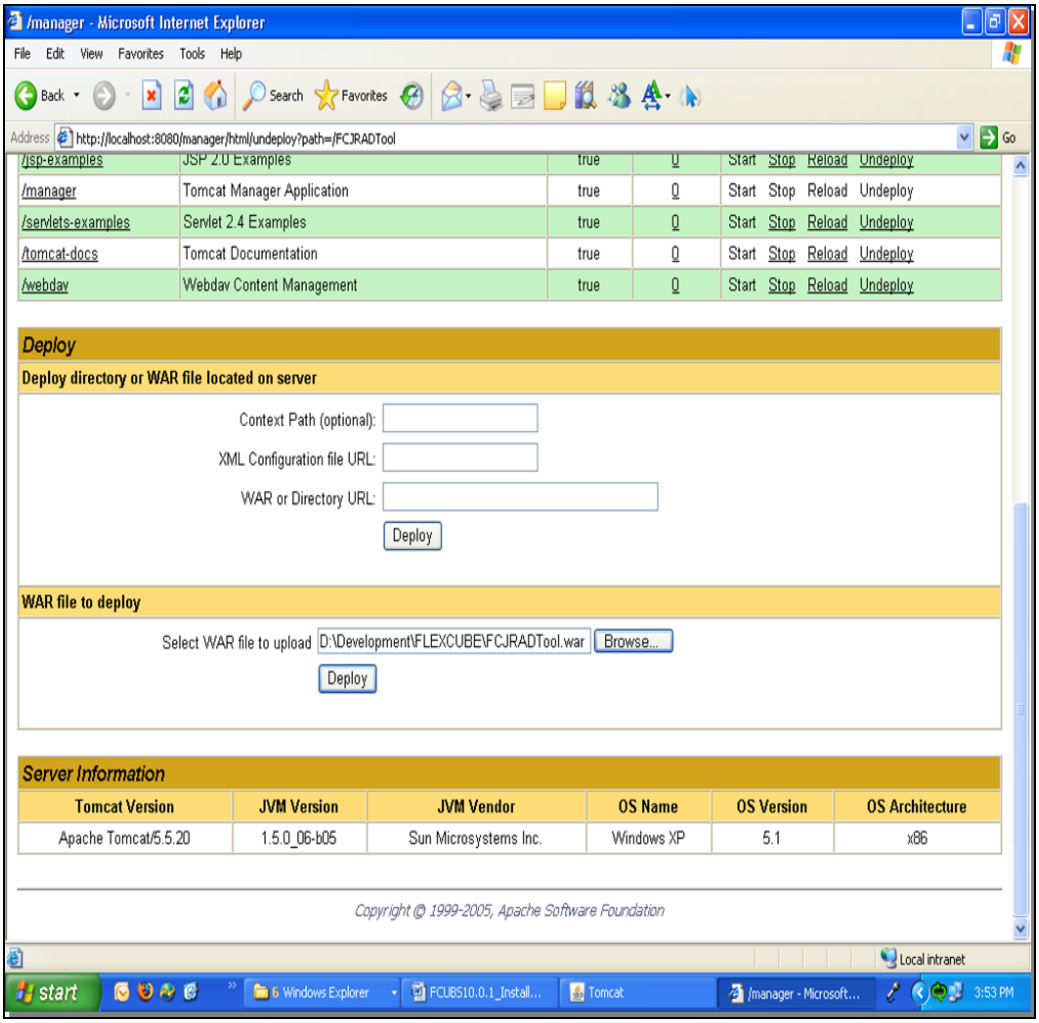
Launch Internet Explorer with URL Error! Hyperlink reference not valid.

Refer the screenshot below and enter **User Id** as **admin** and **password** as **admin**



7.1.6 Step 6

Upload the generated **FCJRADTool.war** file from RADTool_11.1 folder as shown Below in the screen shot and then click **Deploy.**



This completes Deployment of FCJRADTool.war file to Apache Tomcat 5.5 Server.

RADTool 11.1 Application can be launched with the URL.

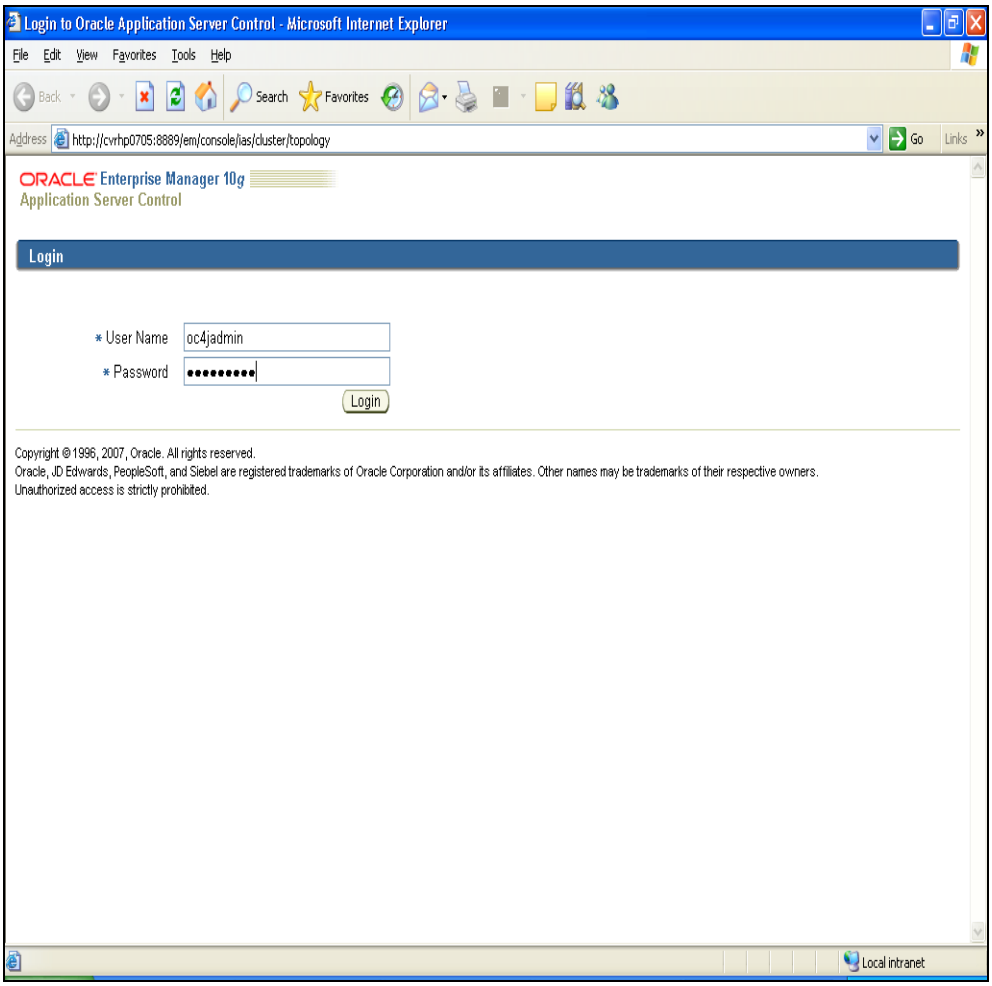
7.2 OC4J Application server

To deploy **FCJRADTool.war** to OC4J 10.1.3.X Application Server follow the below mentioned steps

Steps 1-15 explain creation of Connection Pool and Data Source. Skip these steps if Connection pool and data source already exists in the OC4J Application server.

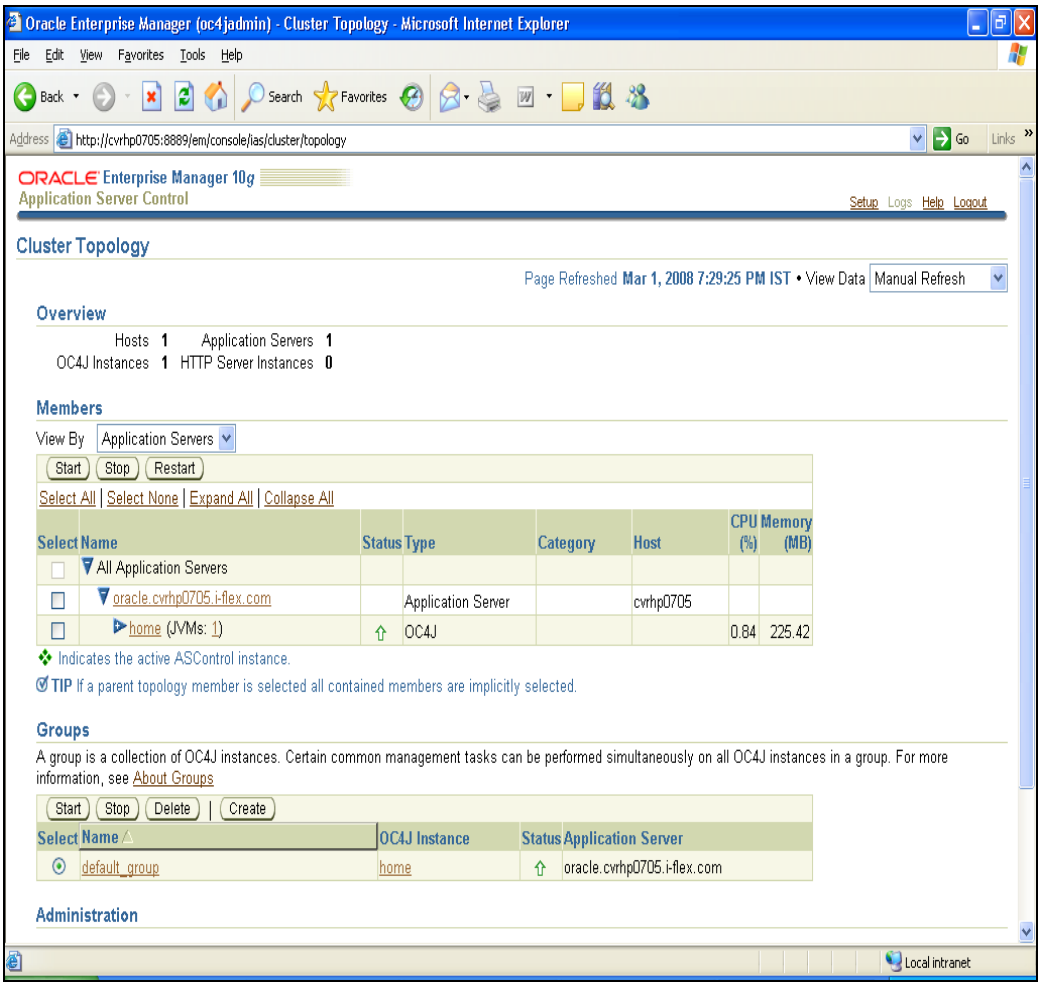
7.2.1 Step 1

Login to Oracle 10g Application server's Administration console as shown below



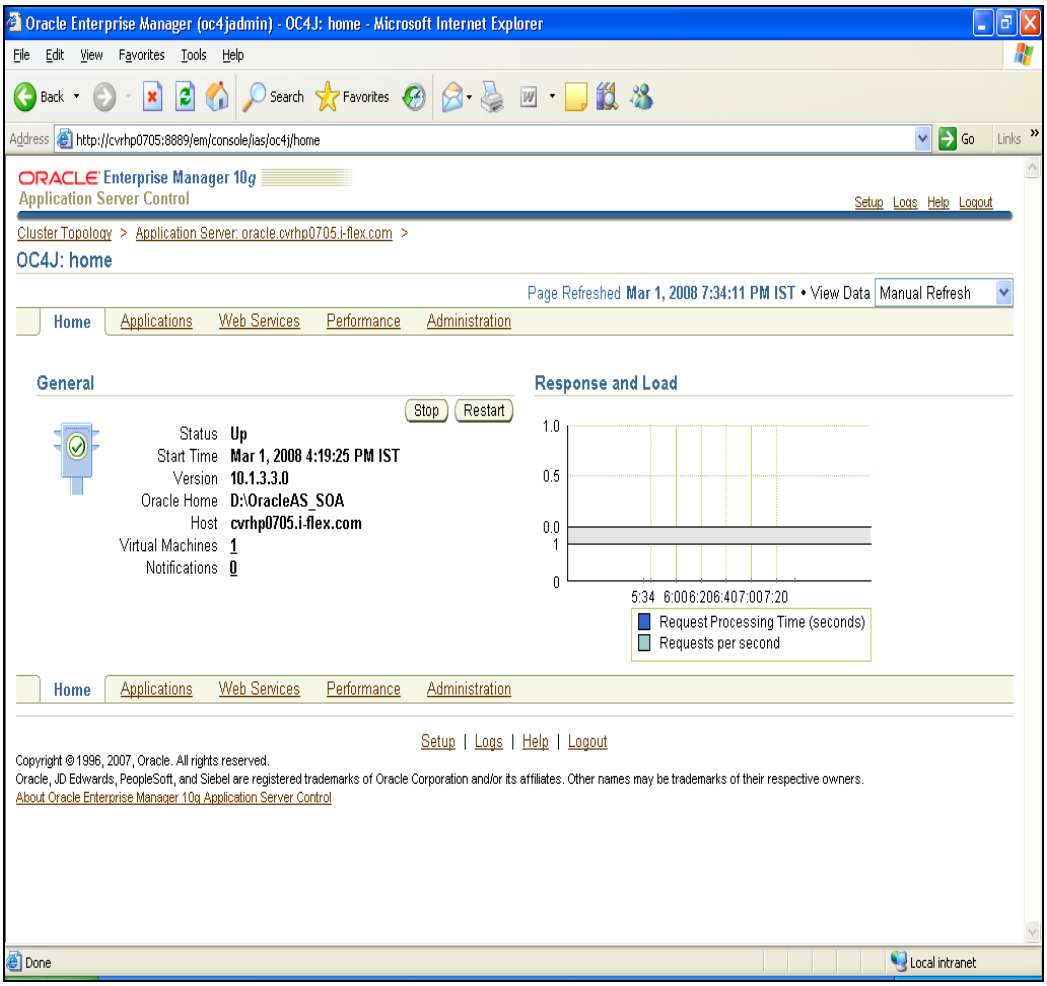
7.2.2 Step 2

Click **Home** as shown below



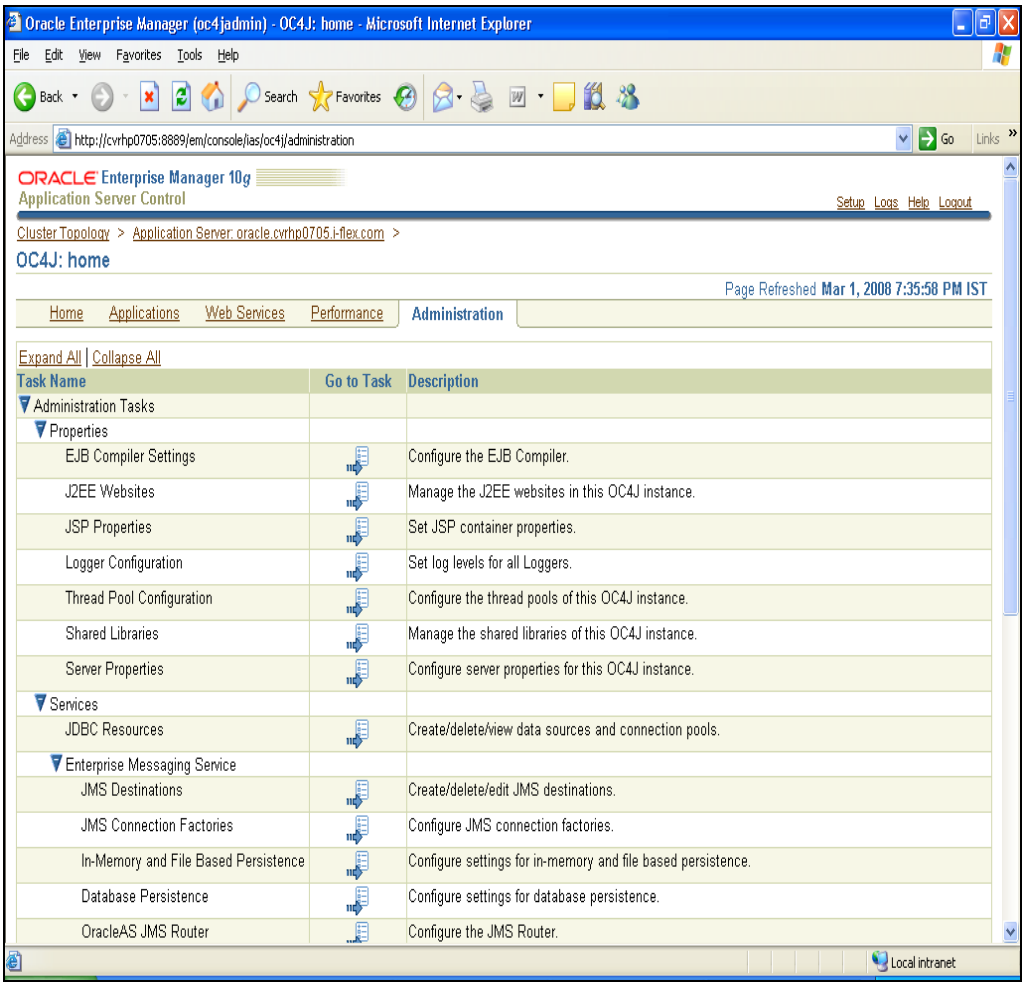
7.2.3 Step 3

Click Administration tab as shown below



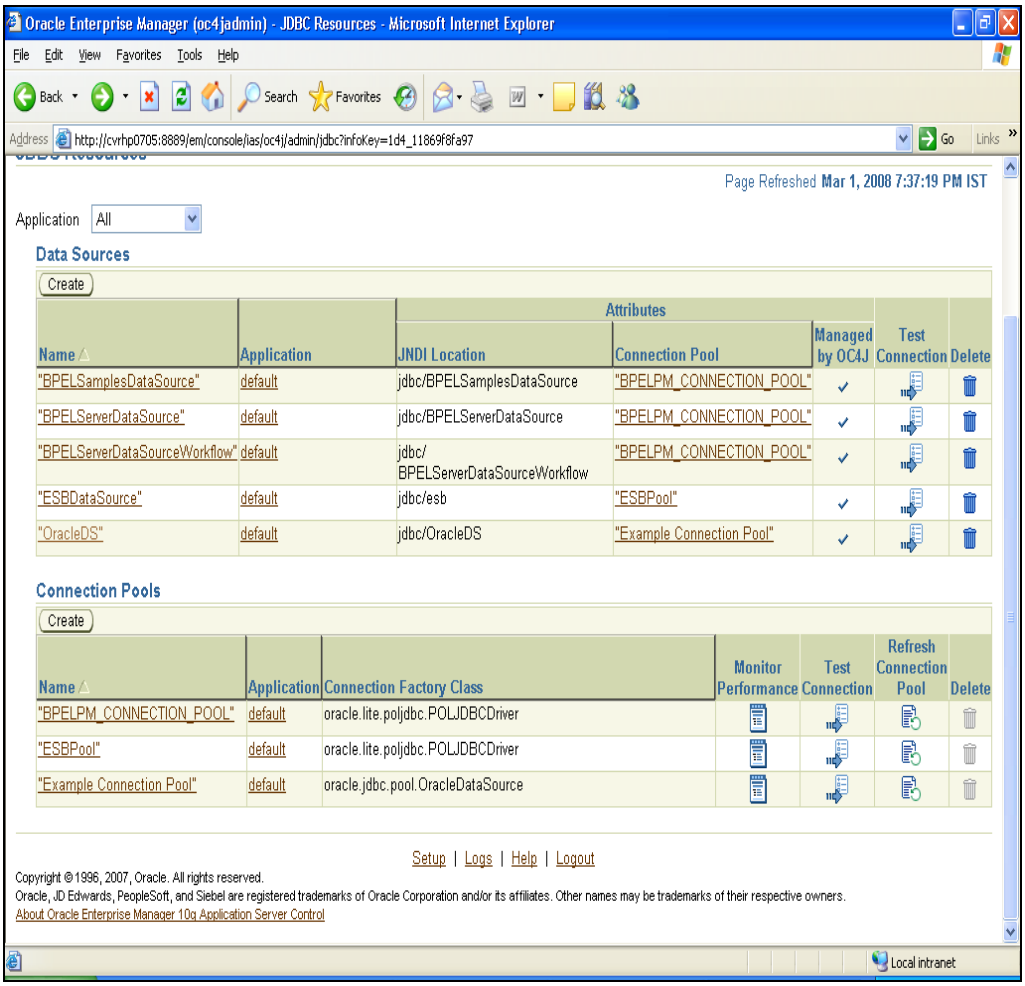
7.2.4 Step 4

Click JDBC Resources as shown below



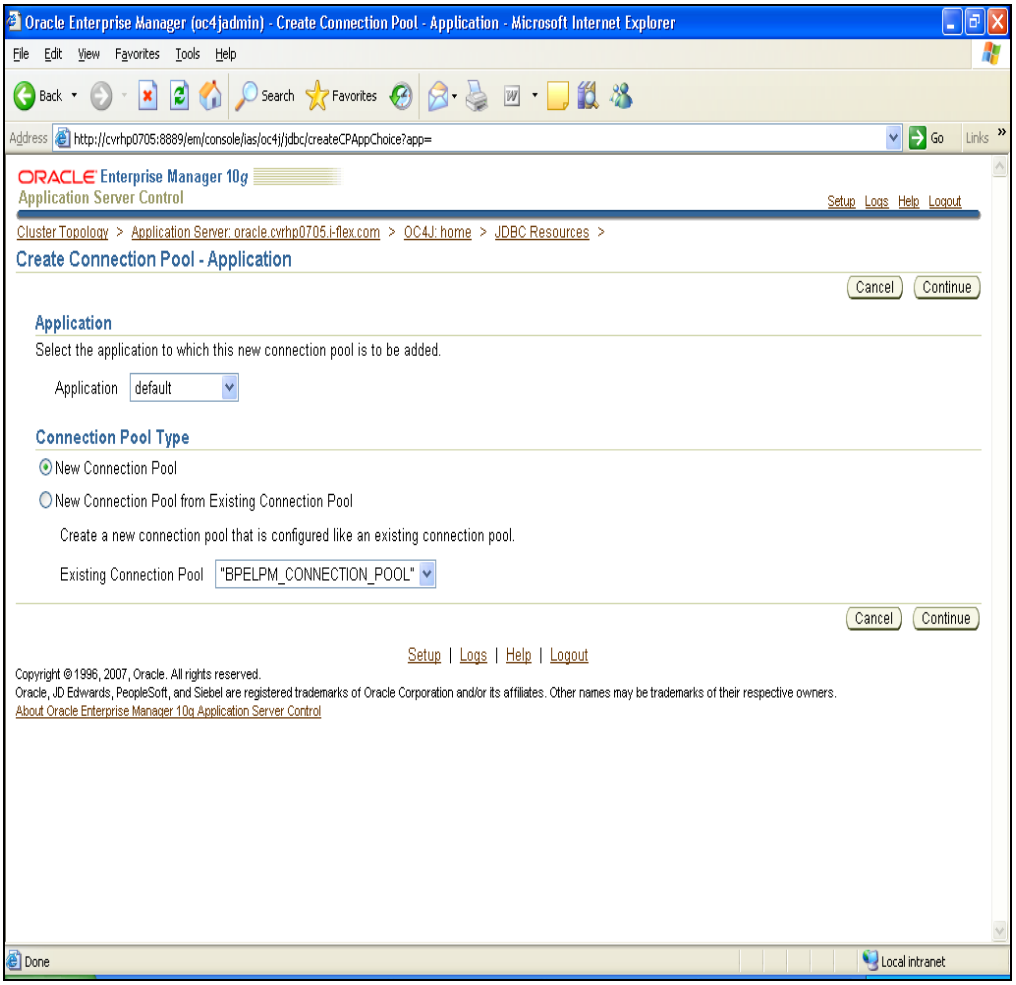
7.2.5 Step 5

Click Create Connection Pool as shown below



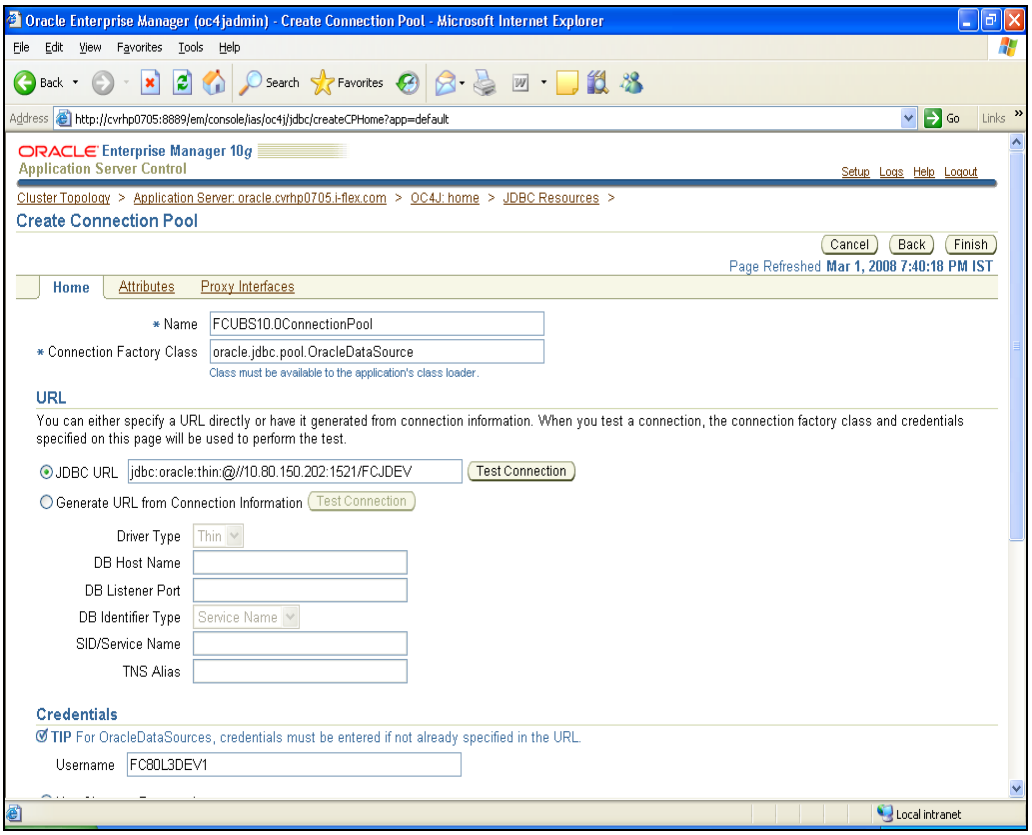
7.2.6 Step 6

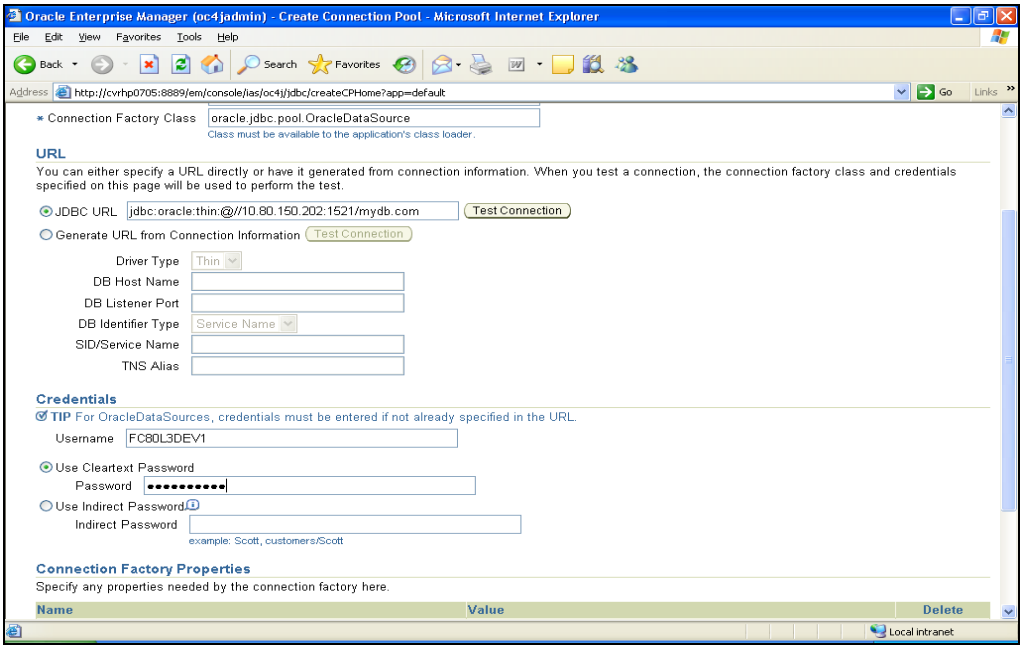
Click **Continue** as shown below



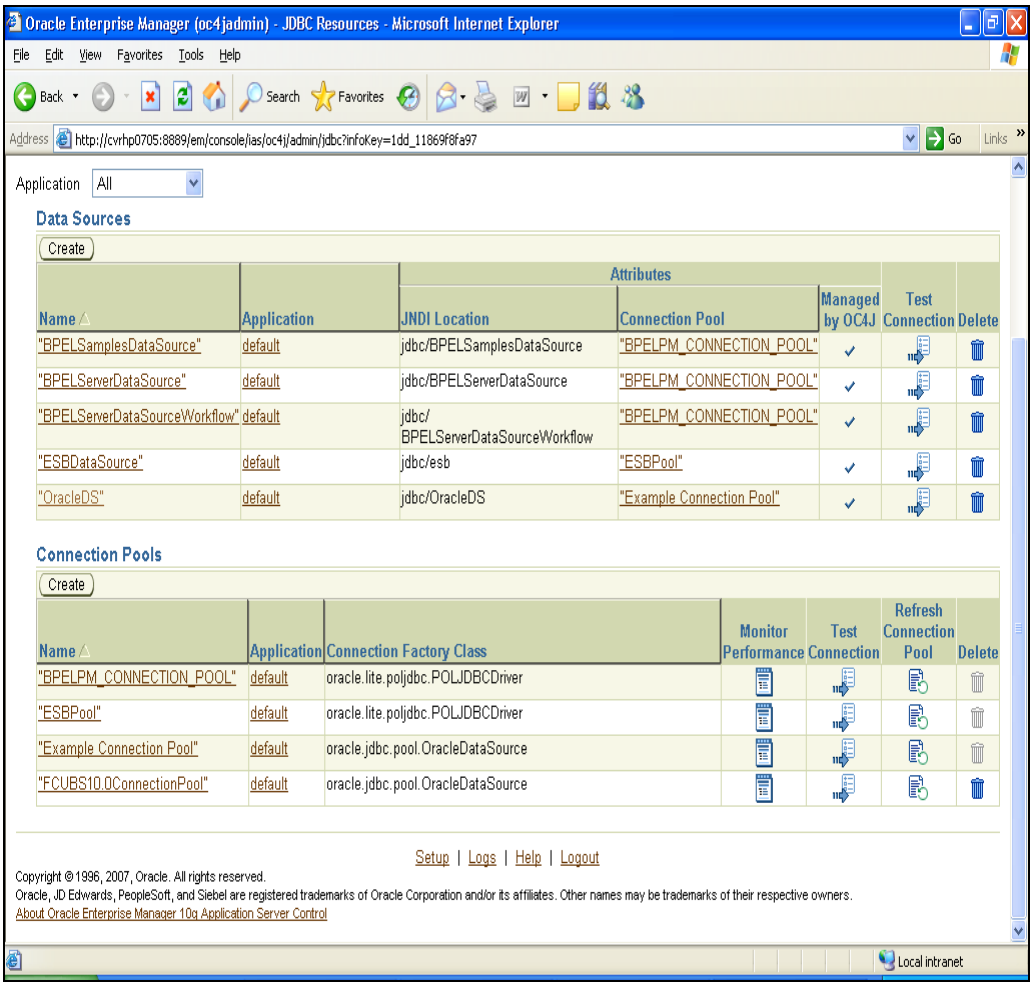
7.2.7 Step 7

Refer the screen shots shown below. Provide equivalent information and click Finish



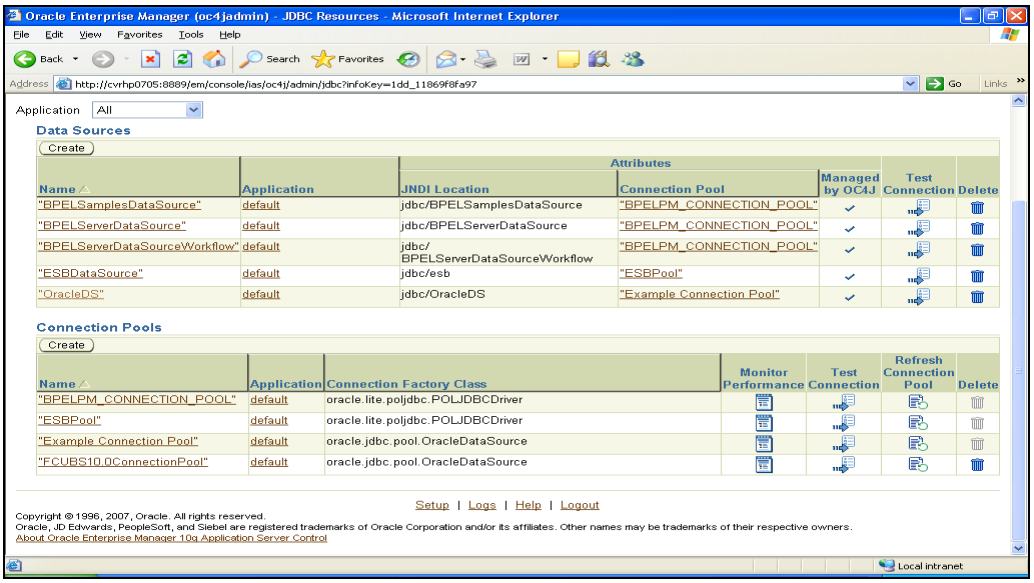


This creates the connection pool as shown below



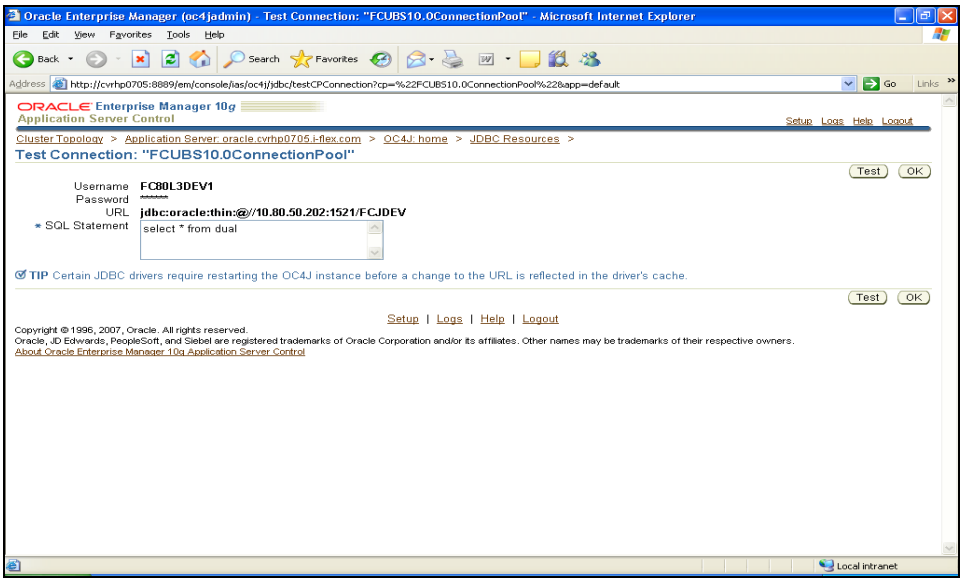
7.2.8 Step 8

Click **Test Connection** as shown below



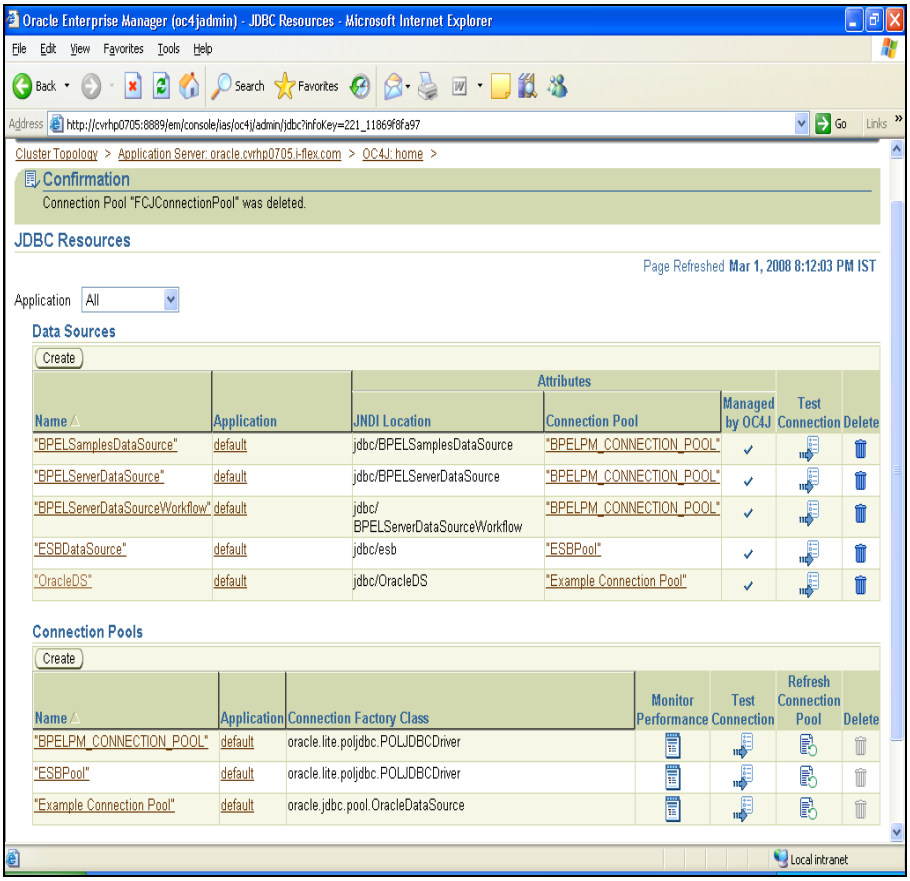
7.2.9 Step 9

Click **Test as** shown below



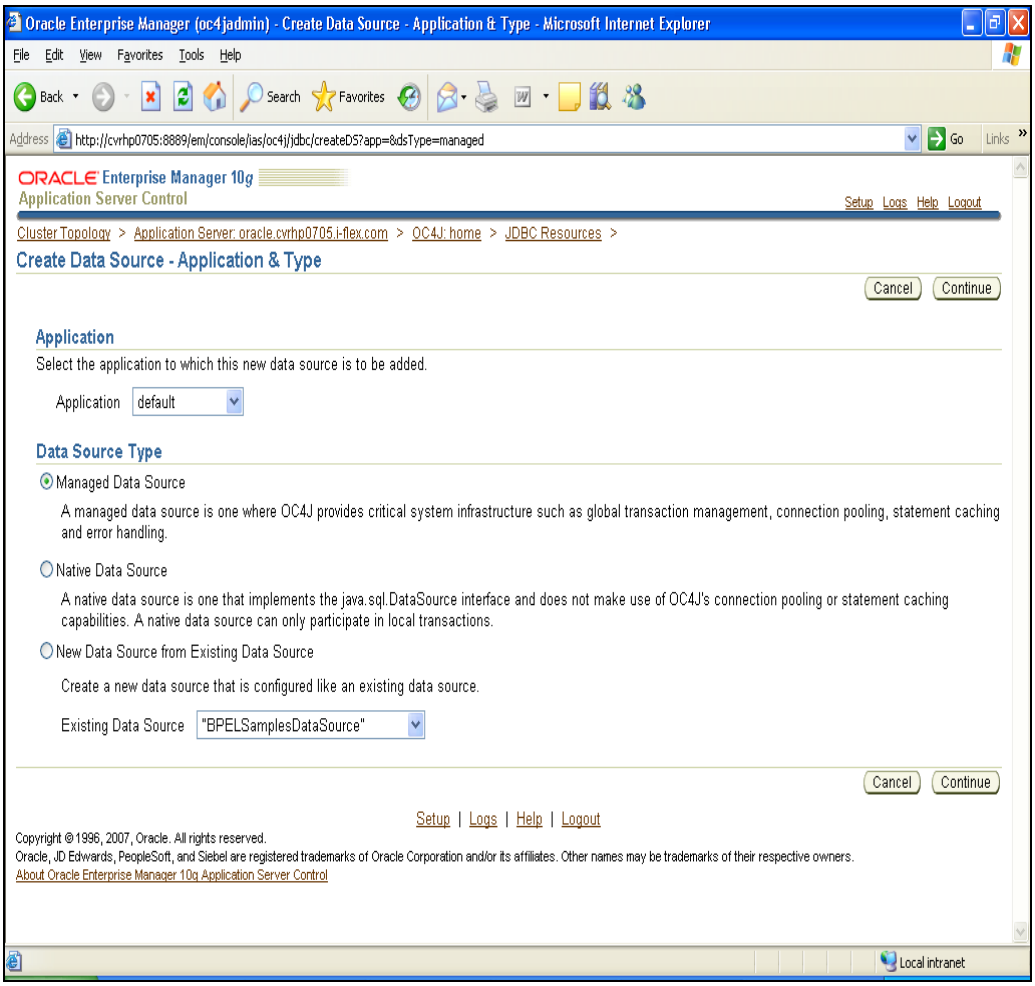
7.2.10 Step 10

Click **Create Data Sources** as shown below



7.2.11 Step 11

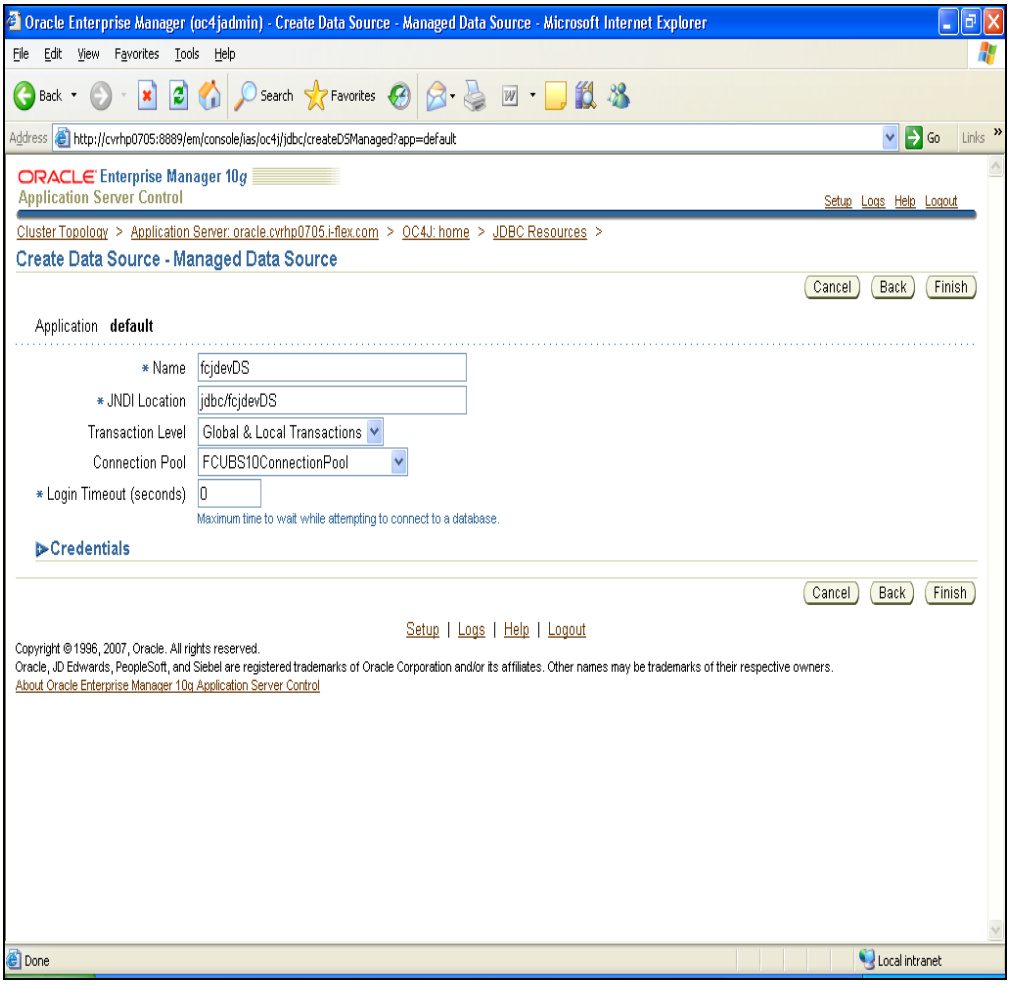
Click **Continue** as shown below



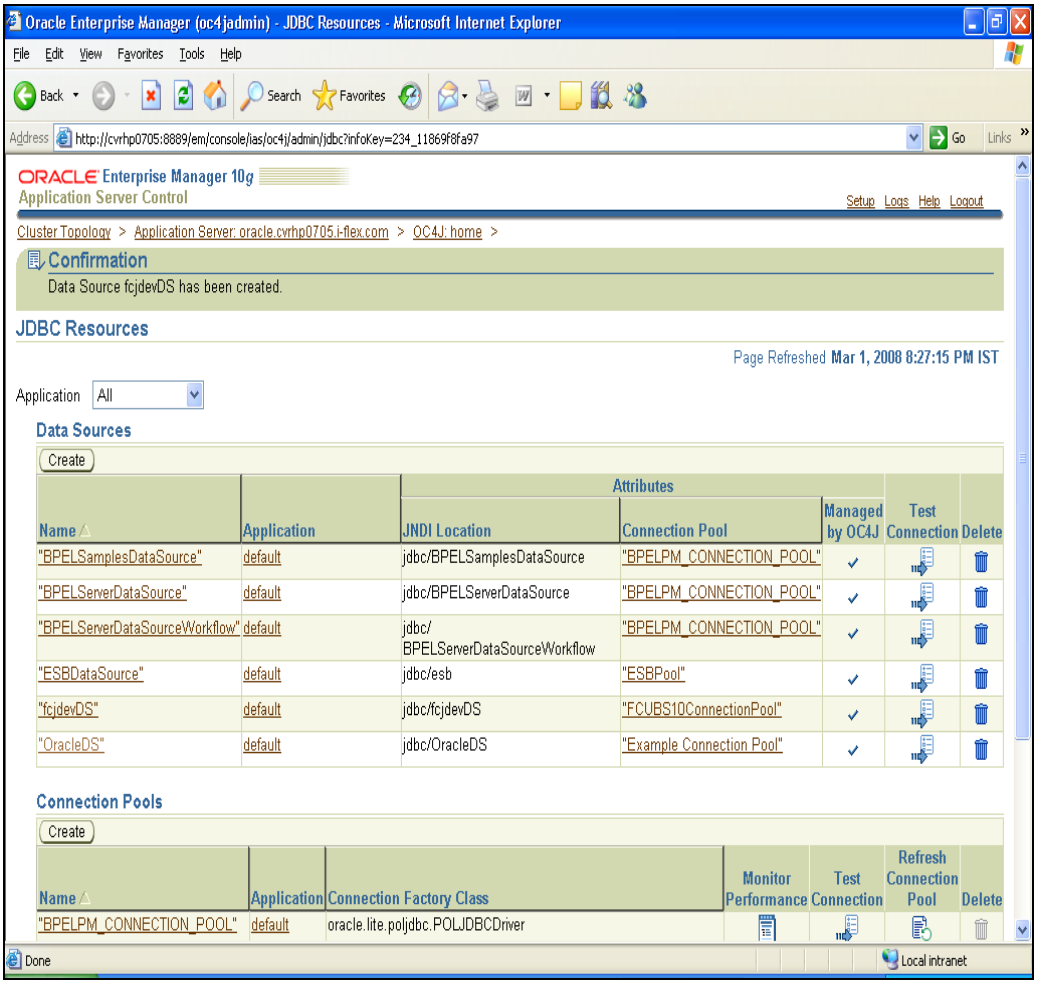
7.2.12 Step 12

Refer the **screen shot** below. Provide **equivalent information** as shown below and click Finish.

Select the **Connection Pool** that was created from the combo box

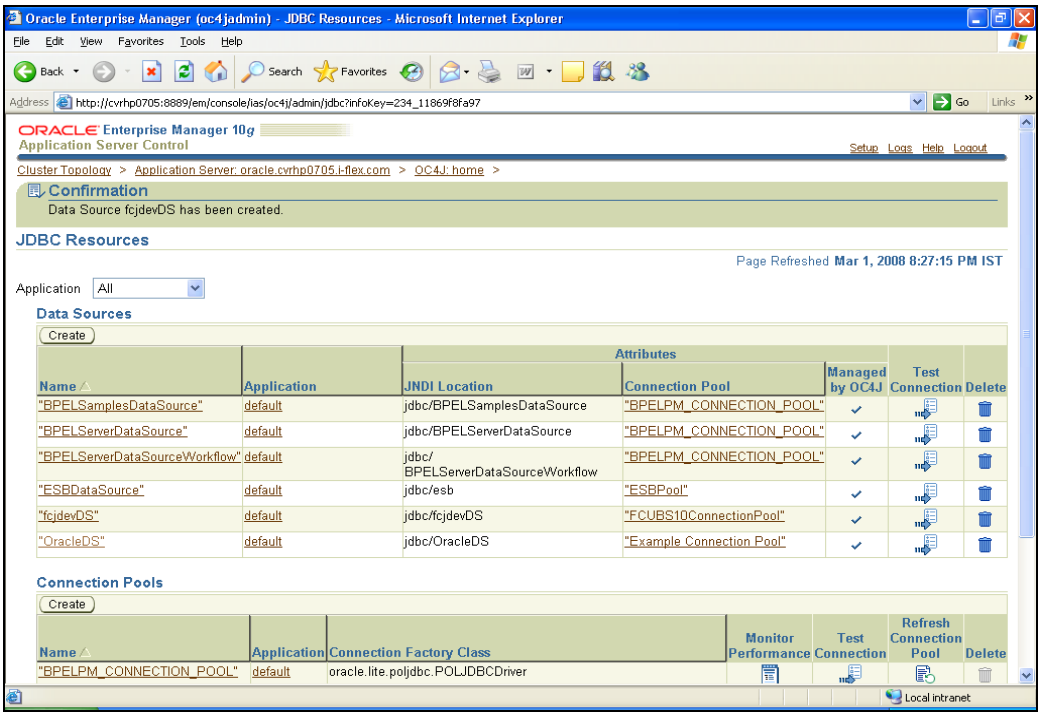


This creates Data Source as shown below.



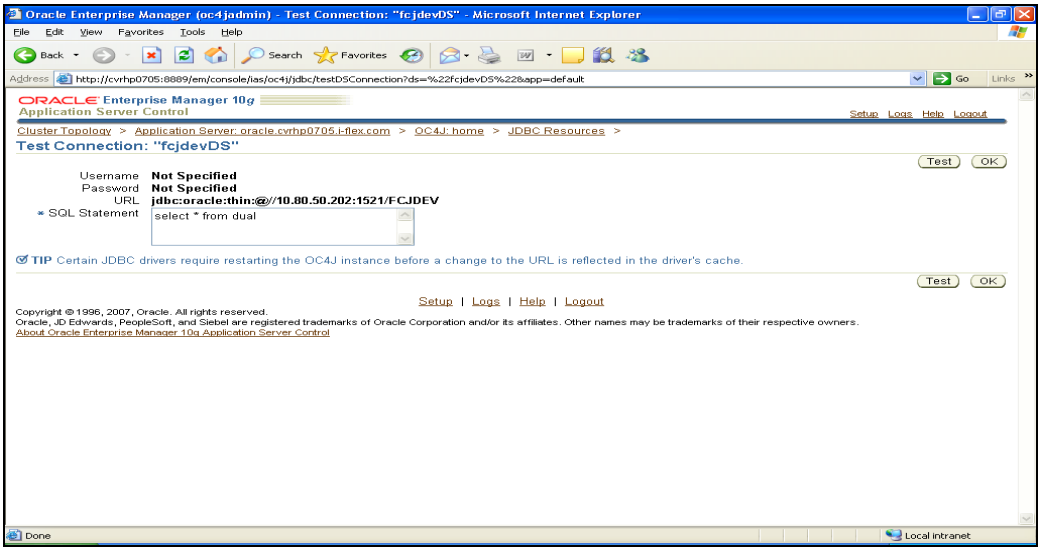
7.2.13 Step 13

Click Test Connection as shown below



7.2.14 Step 14

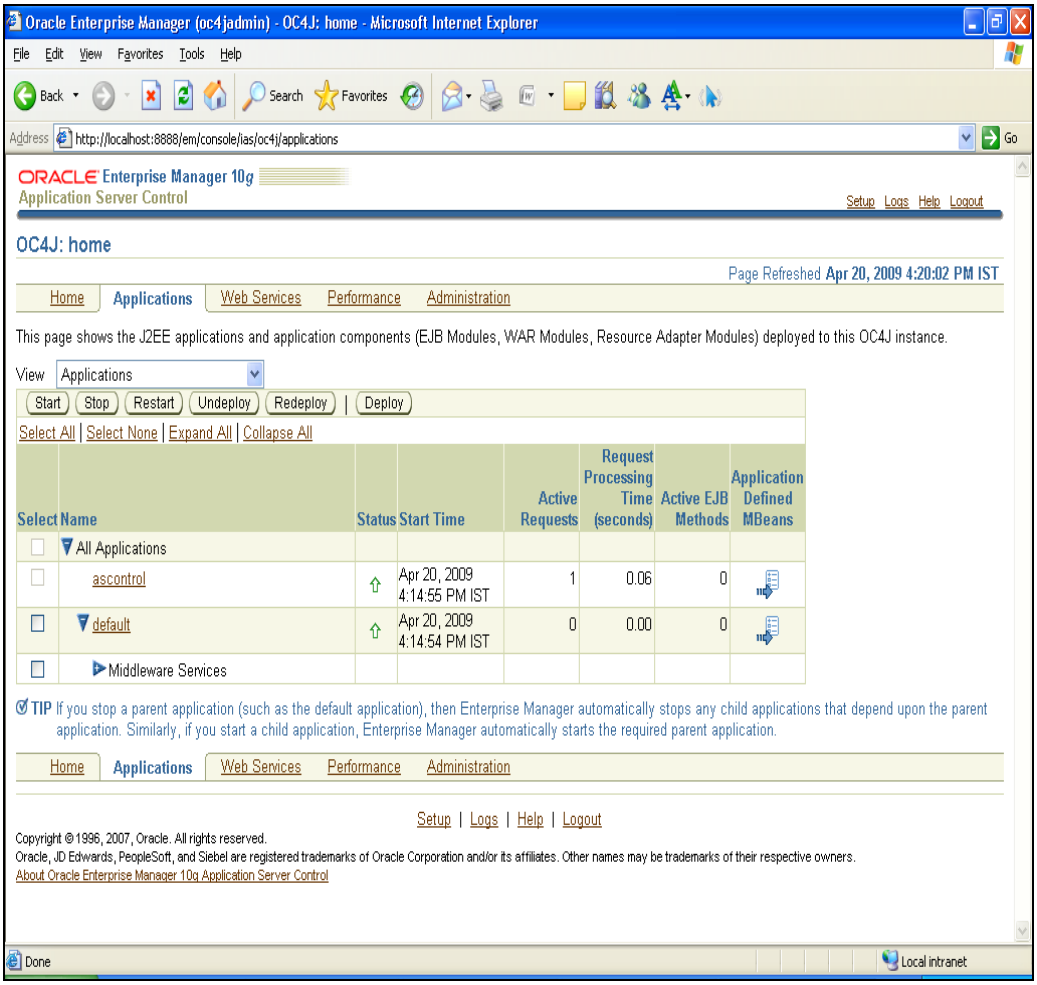
Click **Test** as shown below



This completes Data source creation

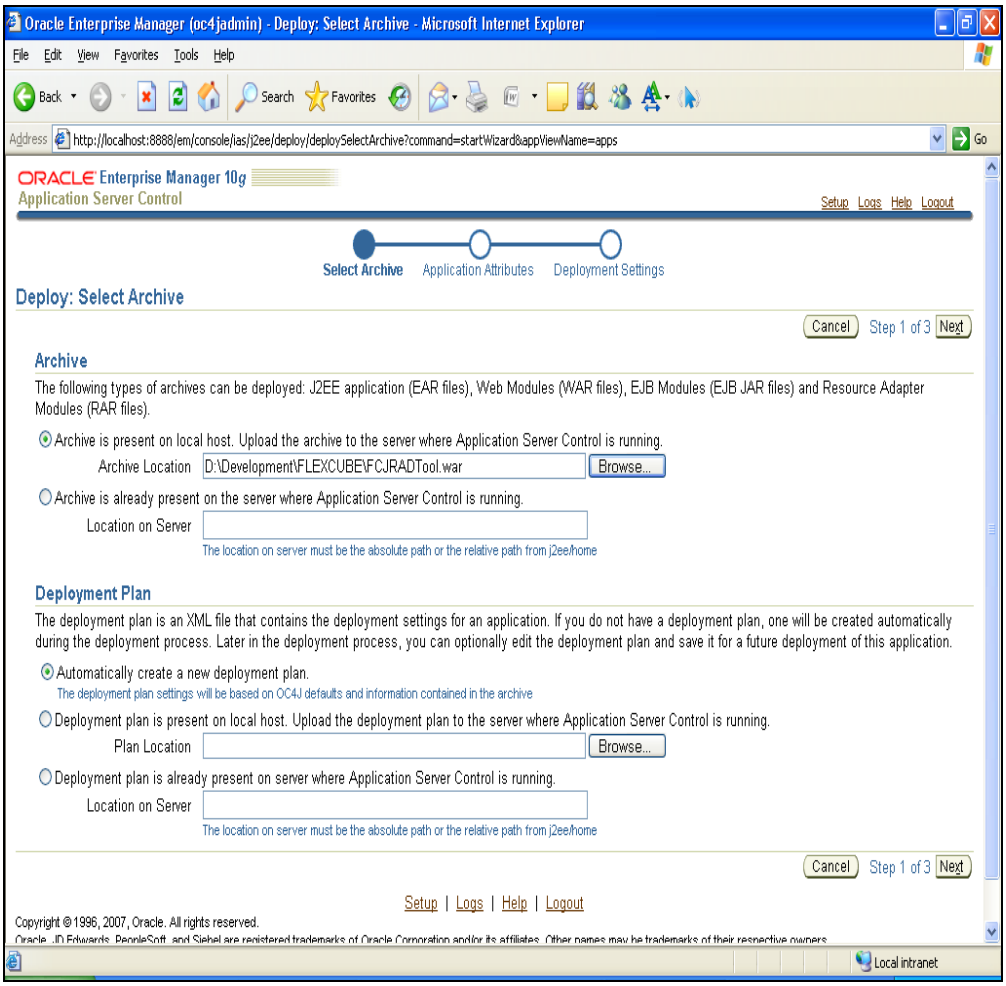
7.2.15 Step 15

Click **Applications Tab** to navigate to the screen shown and then click **Deploy**



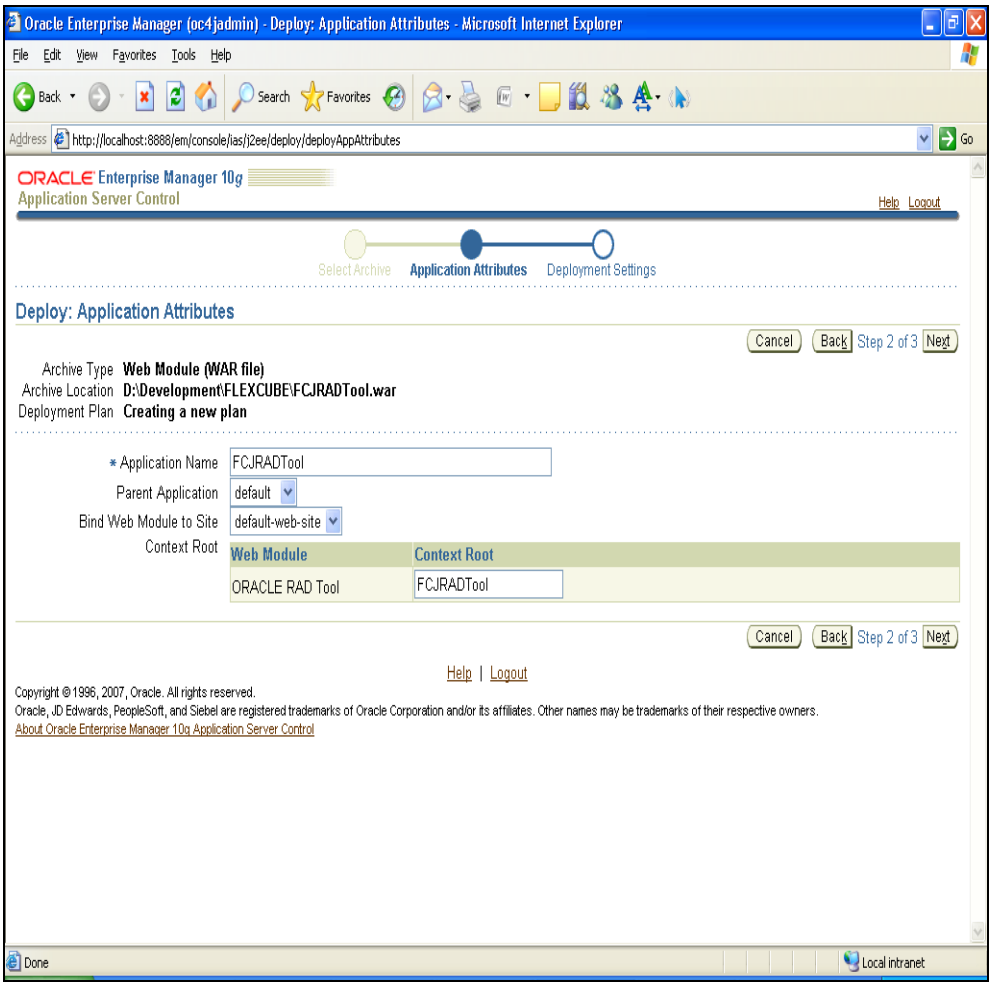
7.2.16 Step 16

Upload **FCJRADTool.war** file as shown below and click Next



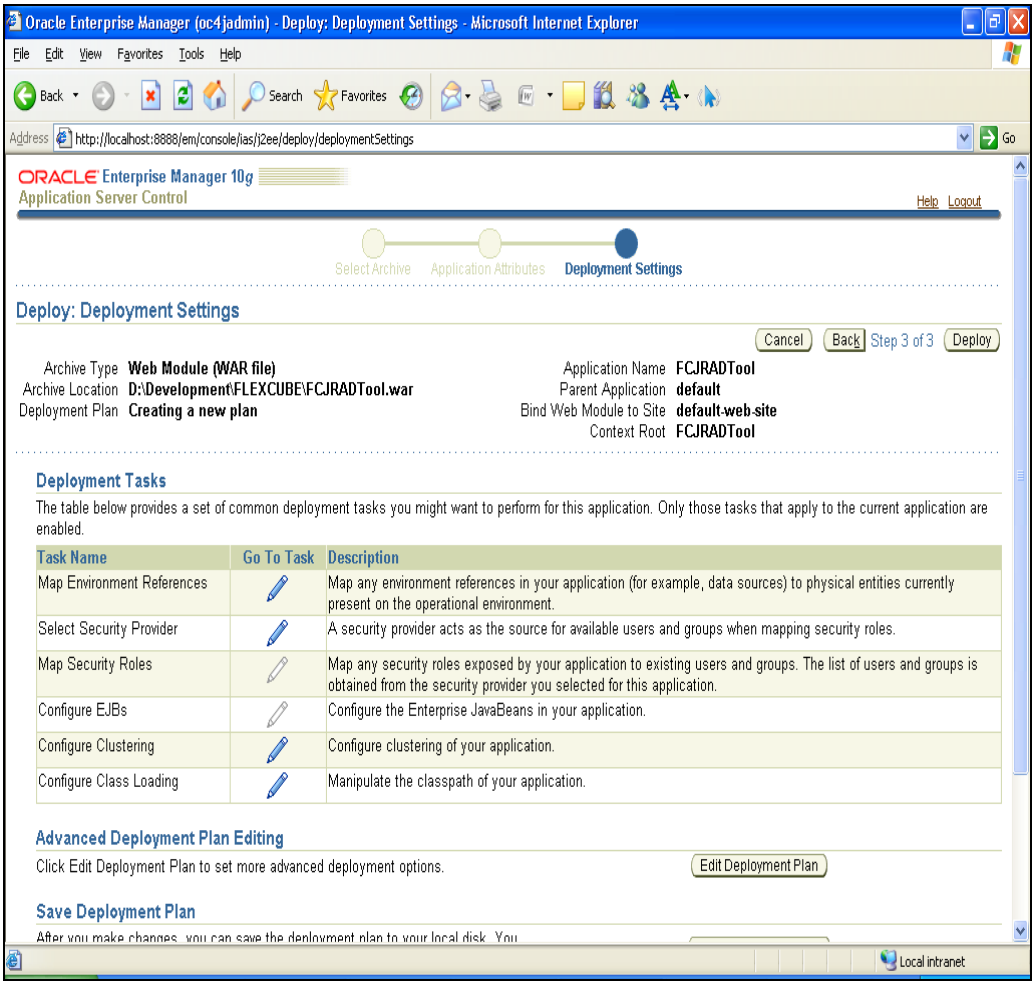
7.2.17 Step 17

Refer the screen shot below and click Next



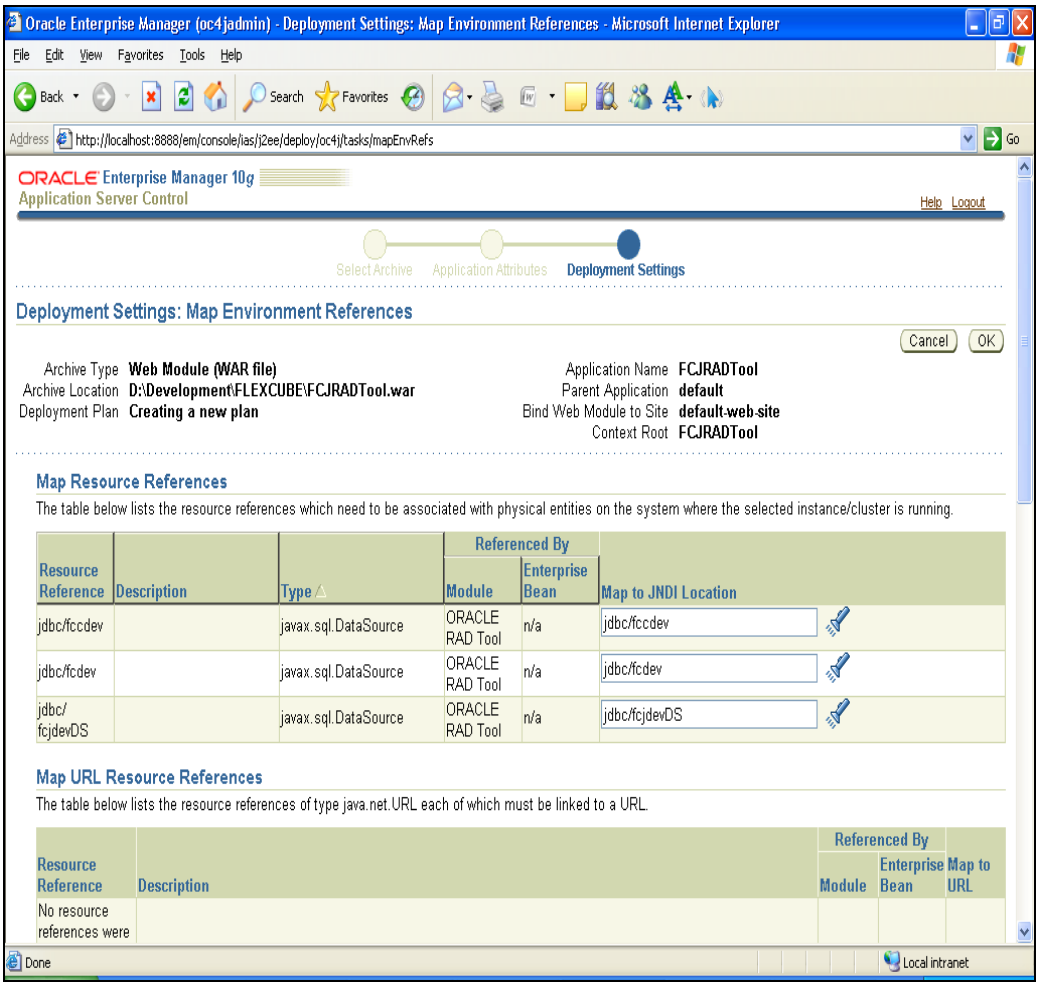
7.2.18 Step 18

Click **Go To Task for Map Environment Reference** as shown below



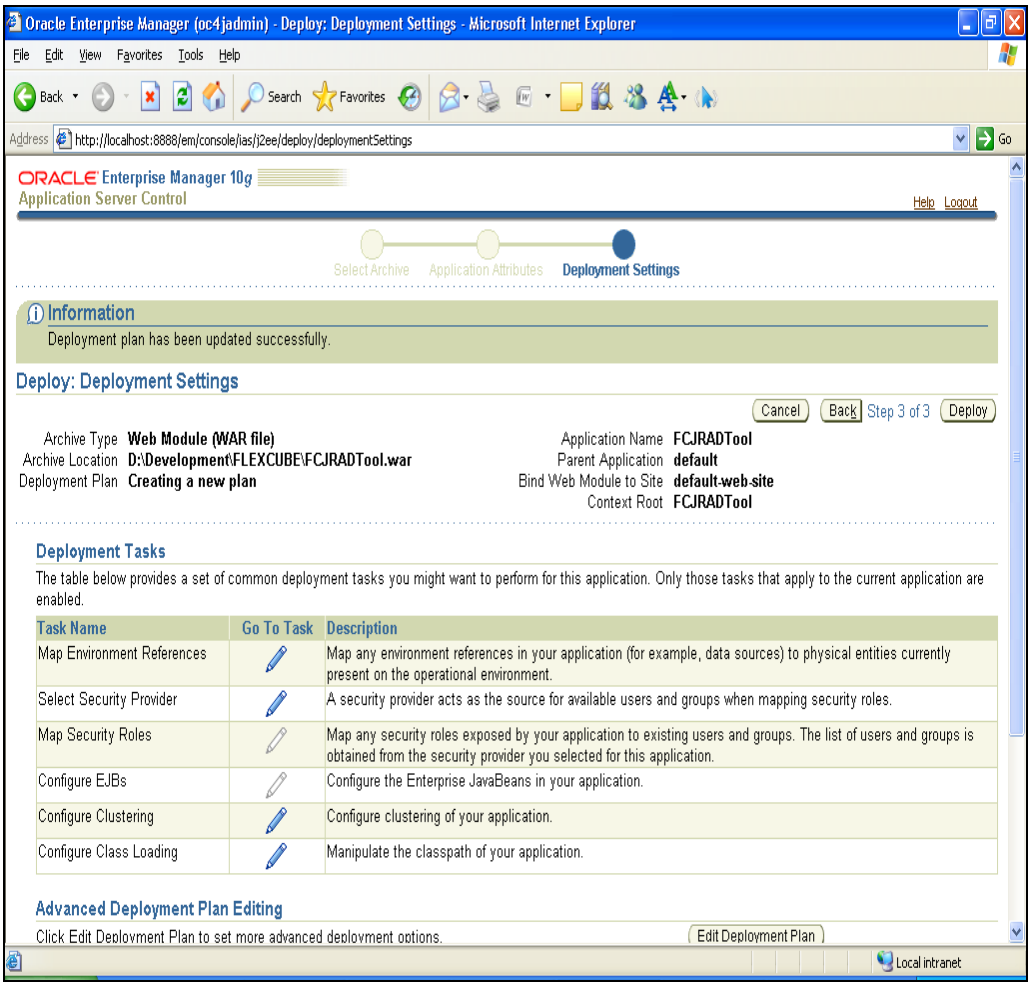
7.2.19 Step 19

Refer the screen shot below and enter corresponding details and then click OK.



7.2.20 Step 20

Click Deploy



This completes Deployment of FCJRADTool.war file to OC4J 10.1.3.x Application server.

7.3 WebLogic Application server

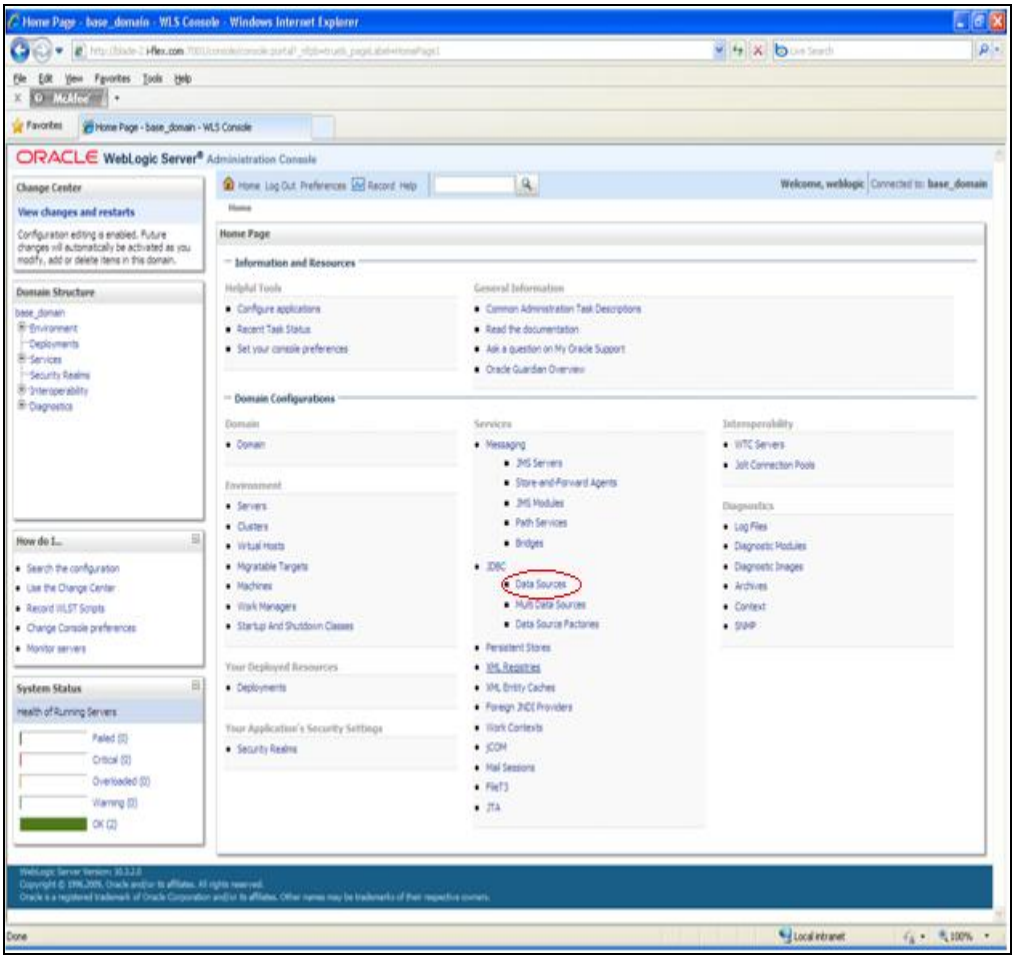
To deploy **FCJRADTool.war** to WebLogic Application Server follow the below mentioned steps

Steps 1-18 explain creation of Connection Pool and Data source. Skip these steps if Connection pool and data source already exists in the WebLogic Application server.

Login to the Weblogic Server with <USername> and <Password>

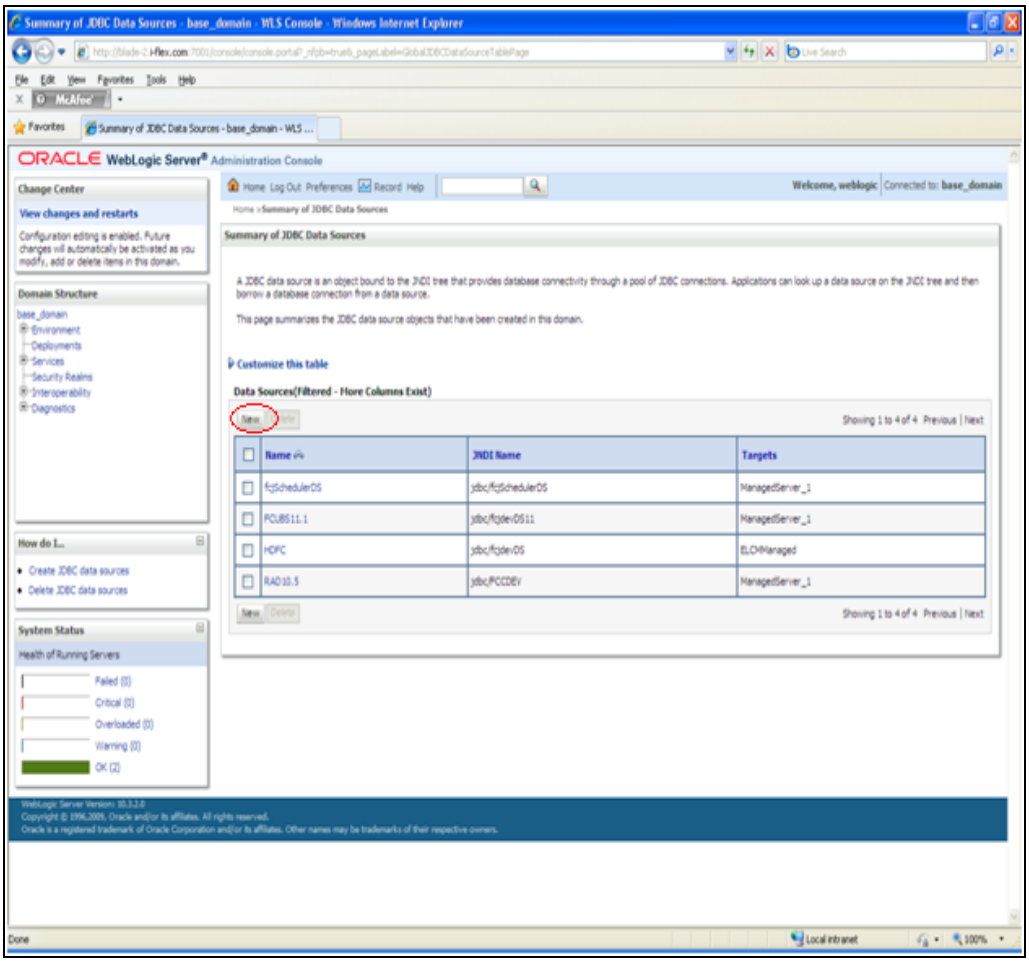
7.3.1 Step 1

Under Domain Configurations→Services→JDBC, Click on Data Sources



7.3.2 Step 2

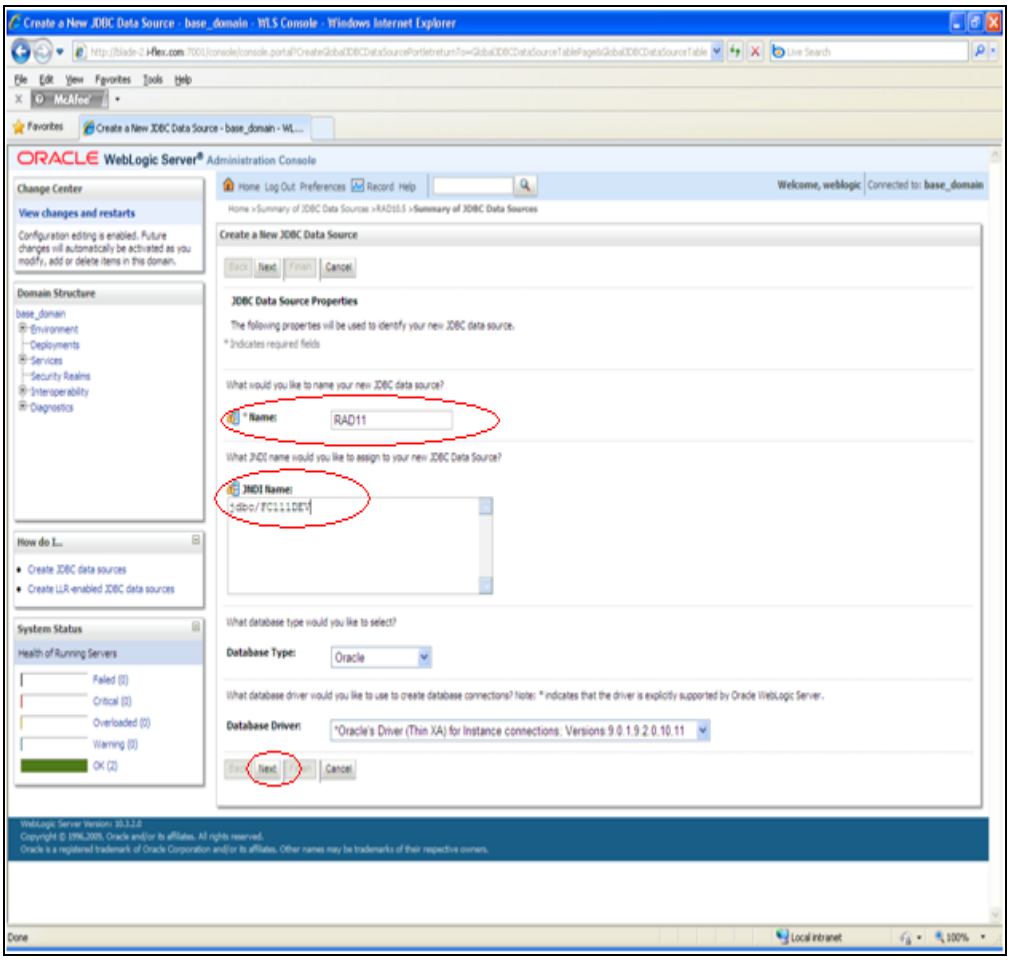
JDBC Data Sources shows a list of available Data Sources. To create a new DS, Click on New



7.3.3 Step 3

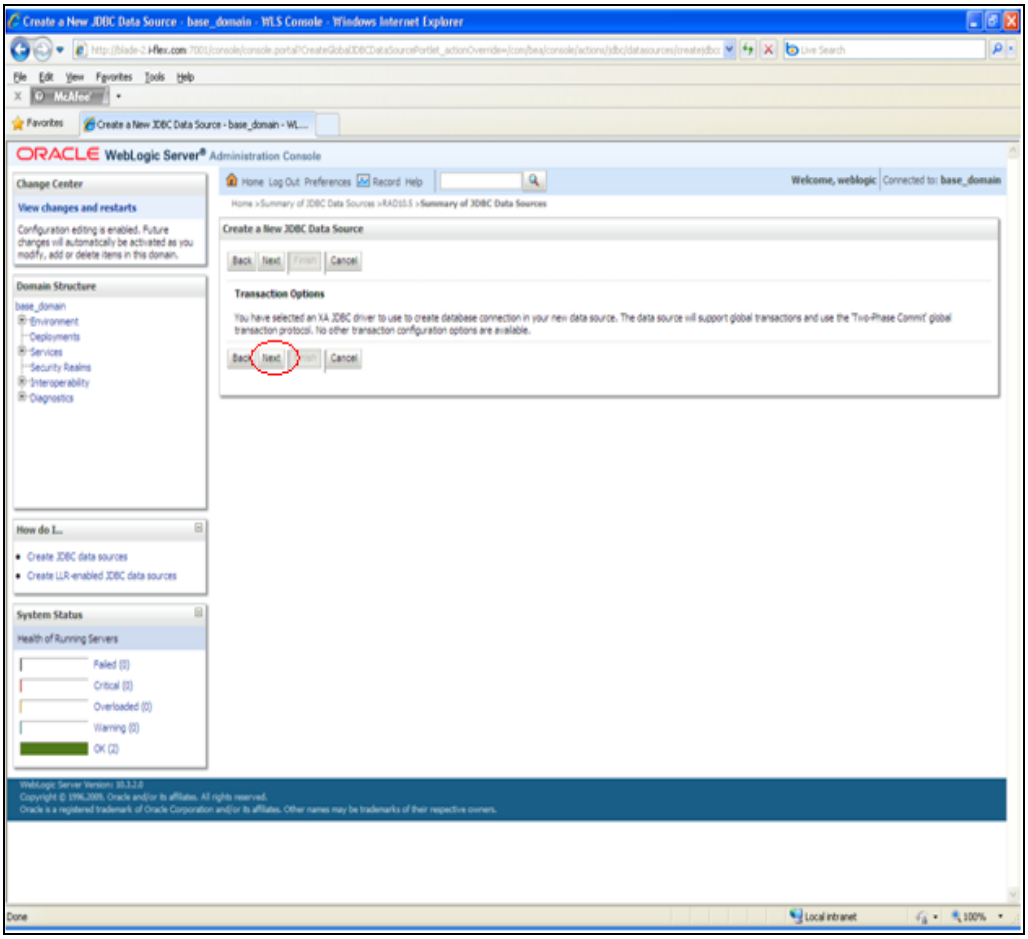
- Give a suitable name for the Data Source. The JNDI Name(Case Sensitive) should match the name as given in Open Development web.xml. Click Next.
- JNDI Name Should be like jdbc/<Schema-Name>

STOP Schema Name is same added while adding environment details.



7.3.4 Step 4

Click Next

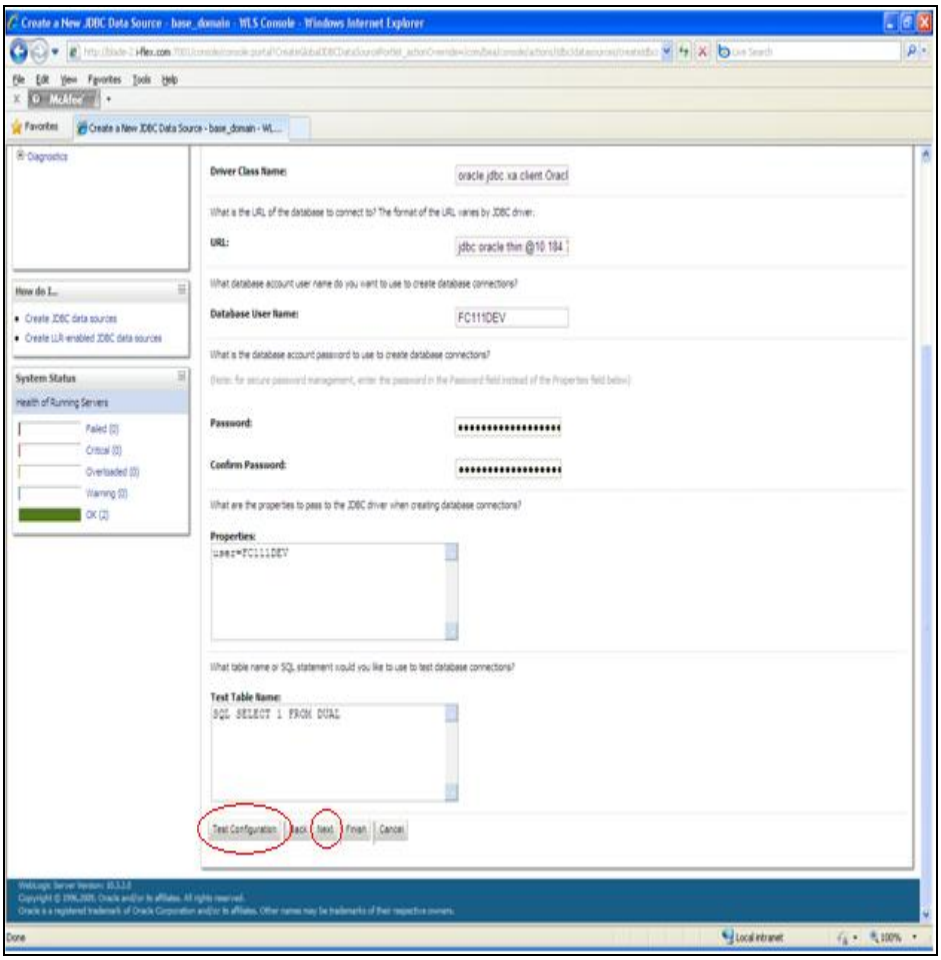


7.3.5 Step 5

Fill in the Marked Fields in Connection Properties. Click Next

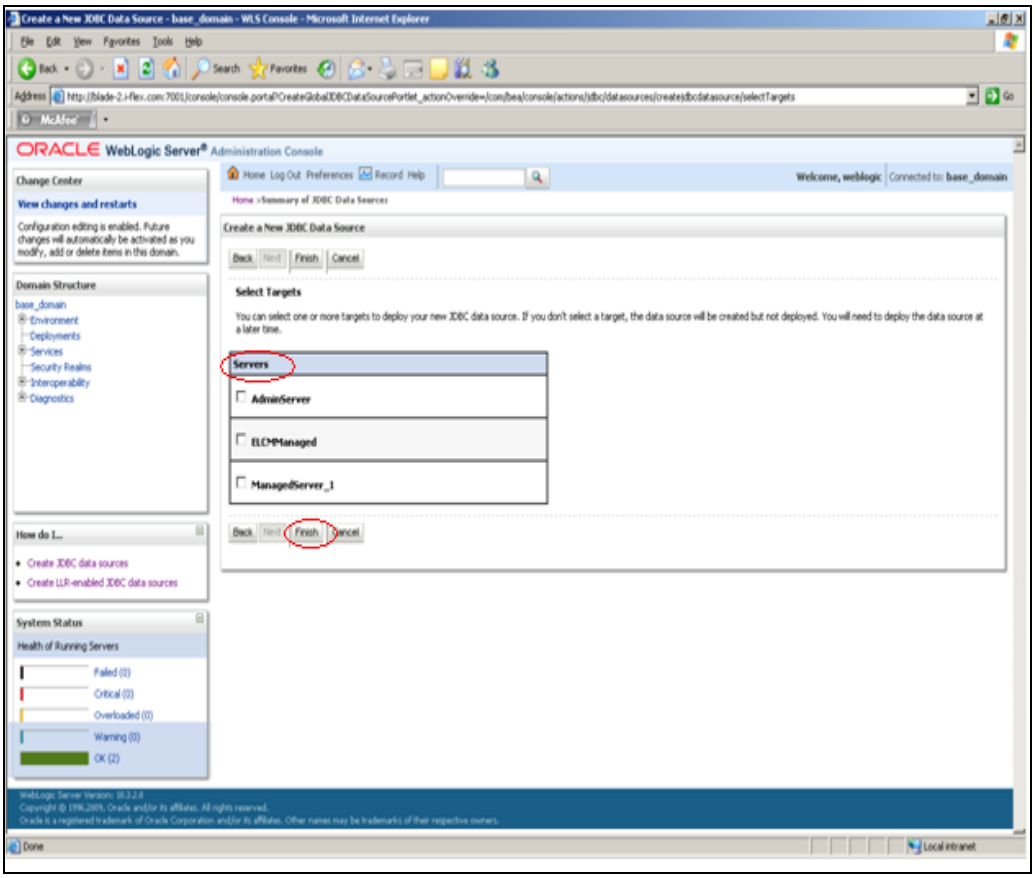
7.3.6 Step 6

Click on Test Configuration to test if connection is being made to the data source. Click next.



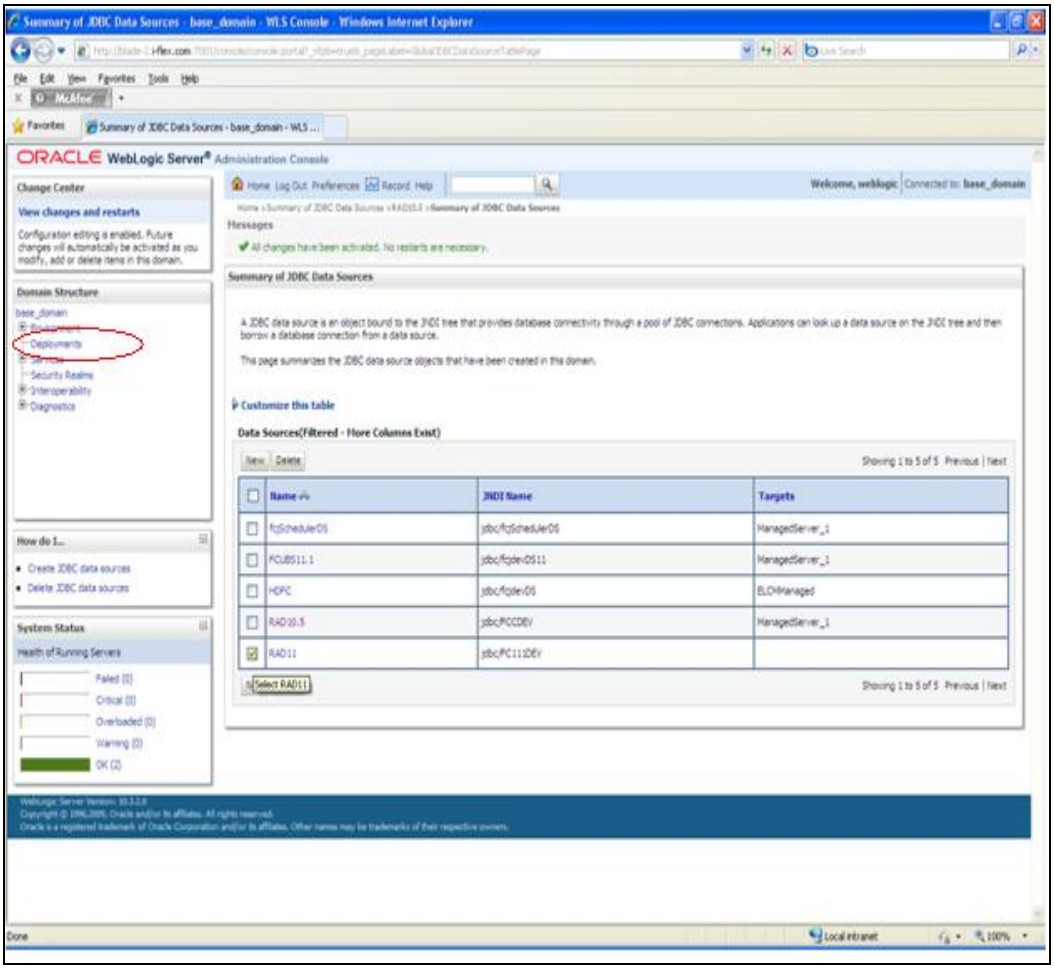
7.3.7 Step 7

Choose a Target where you wish to deploy the new Data source and Click Finish.



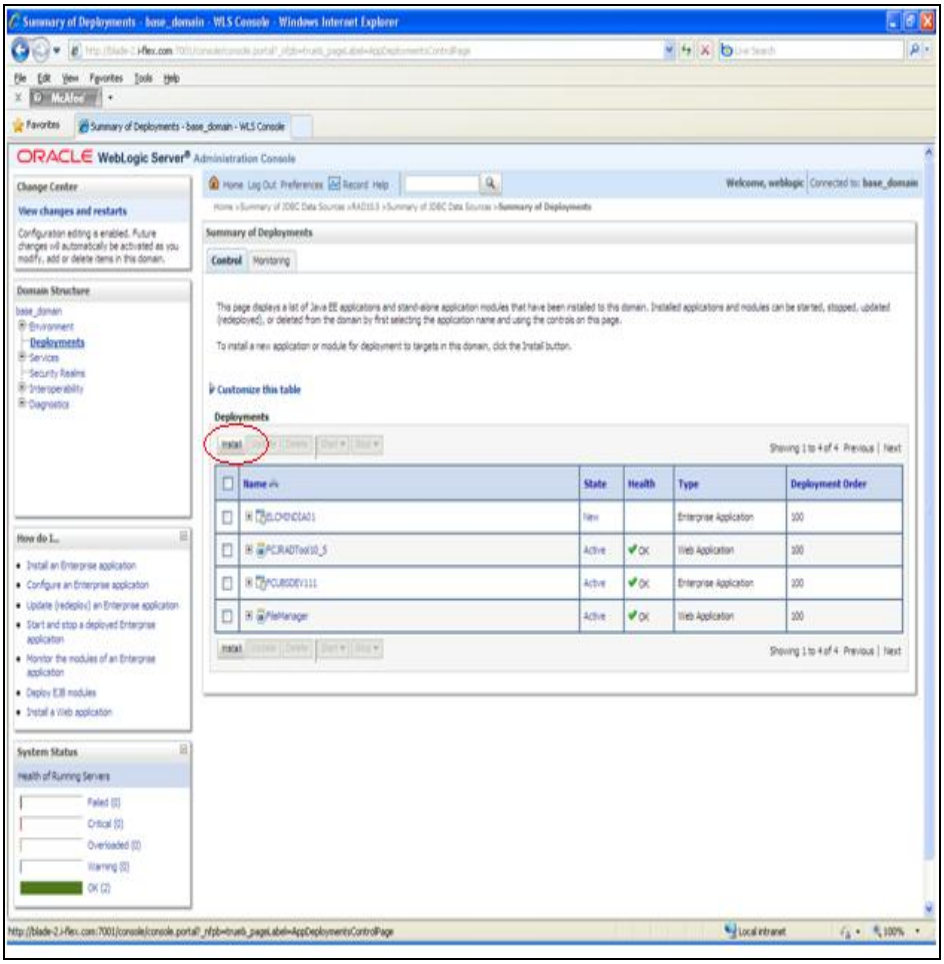
7.3.8 Step 8

This completes the creation of Datasources. Now to deploy the War file click on Deployments under Domain Structure.



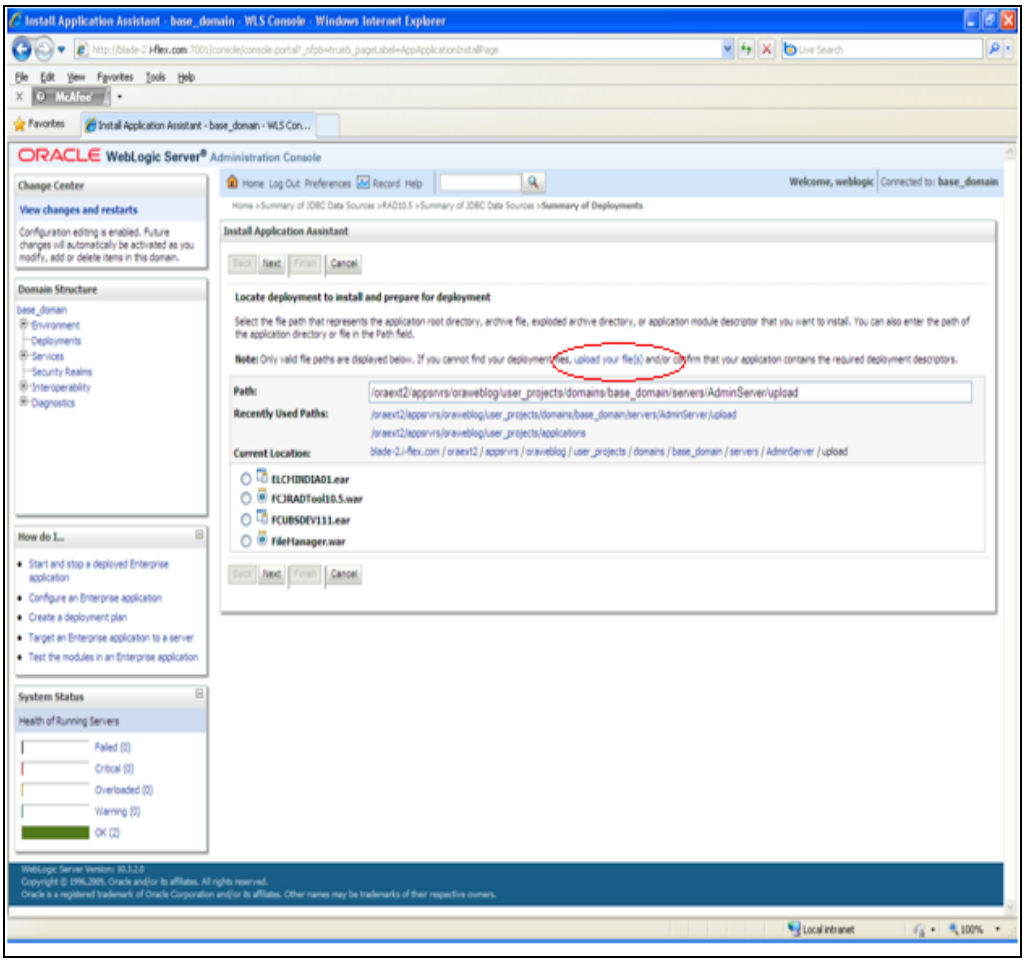
7.3.9 Step 9

To install a new application or module for deployment click the Install button.



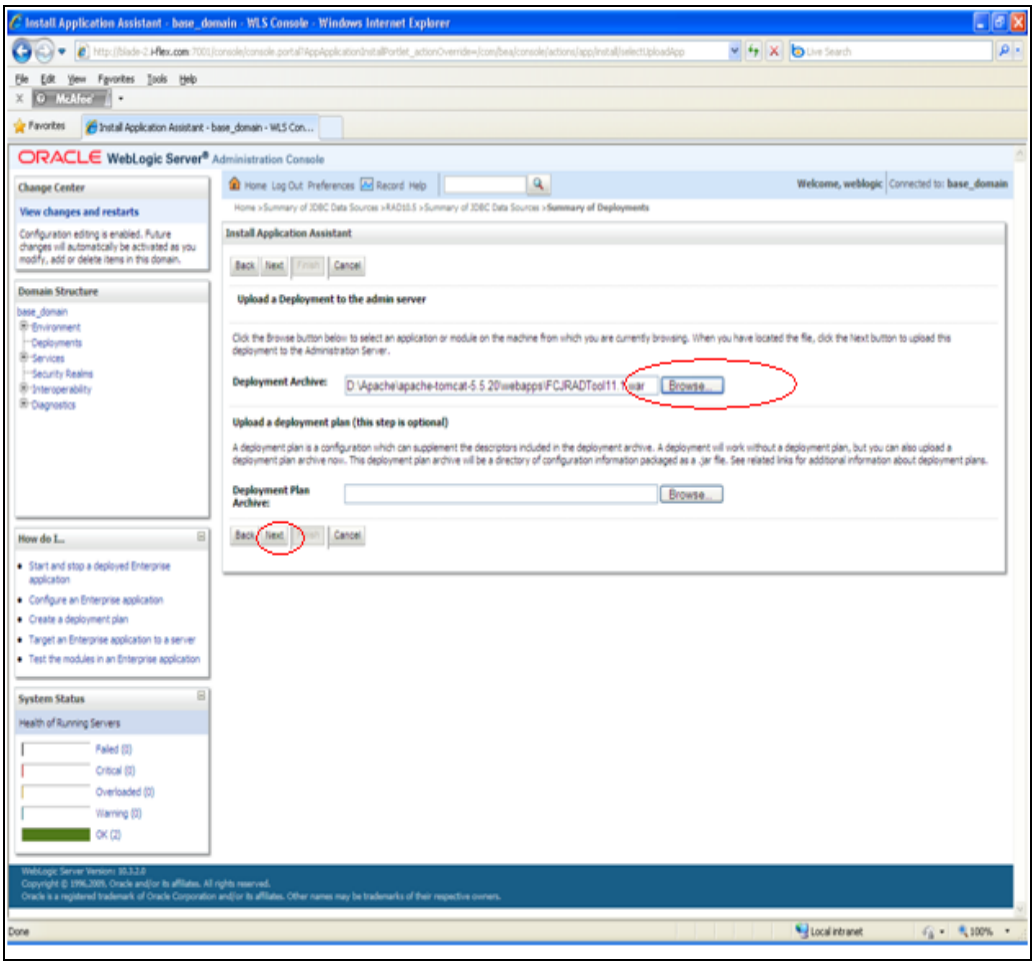
7.3.10 Step 10

The Open Development war file first needs to be uploaded to weblogic local machine. Click on upload your file(s) hyperlink.



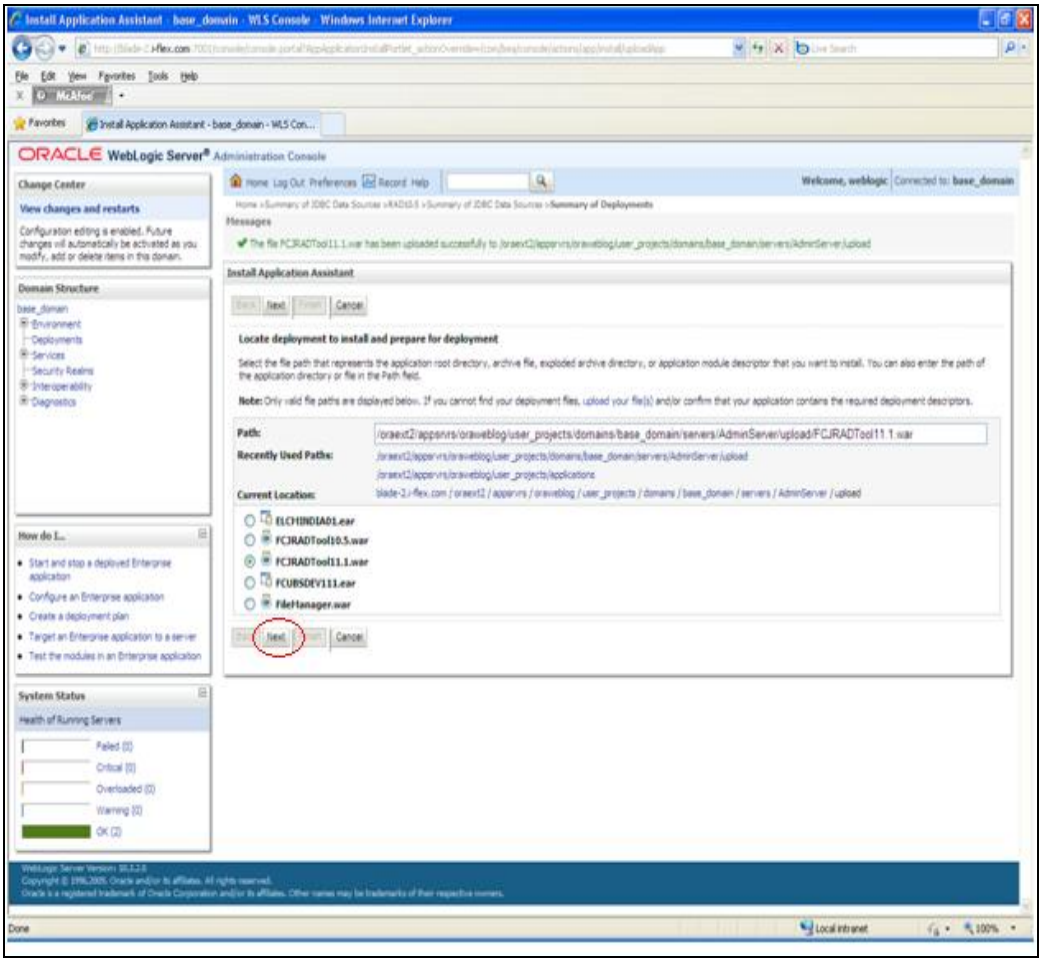
7.3.11 Step 11

Choose the deployment archive by click on Browse Button. Skip the optional step of uploading a deployment plan. Click Next.



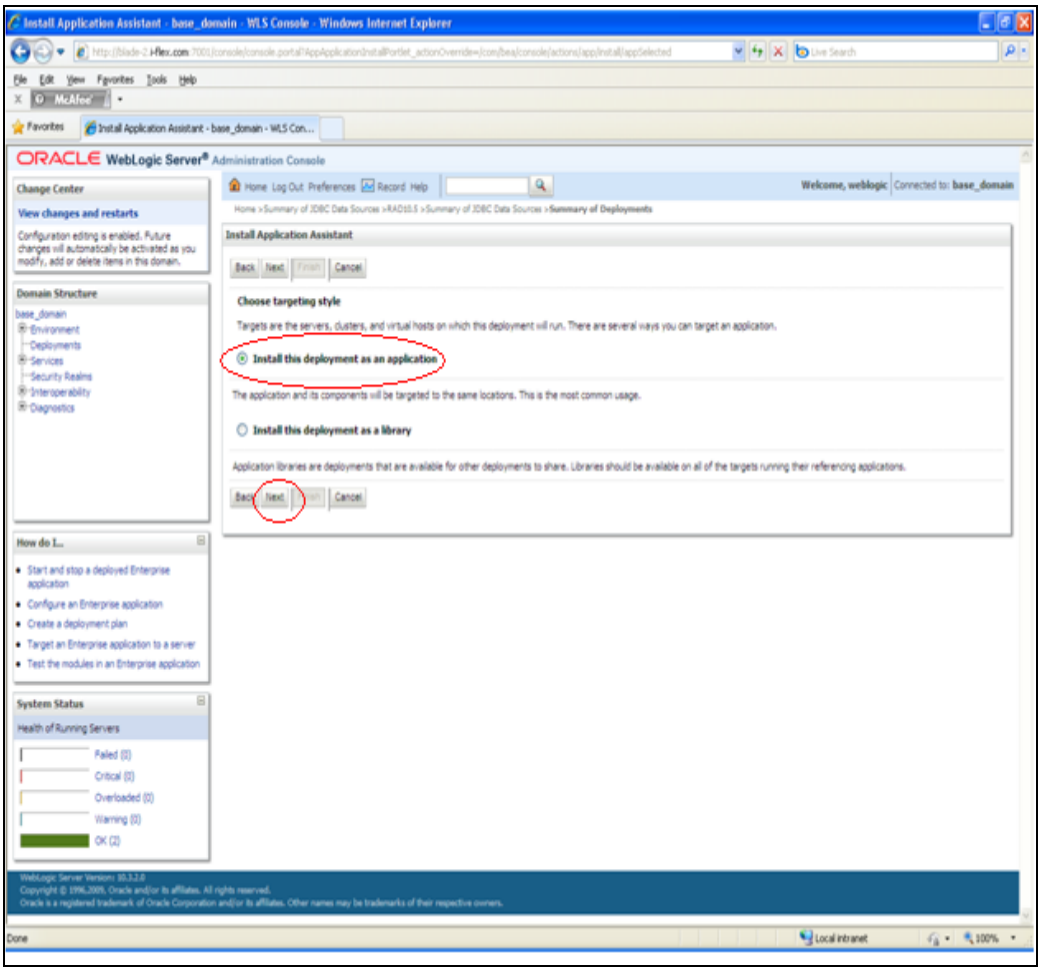
7.3.12 Step 12

Click Next



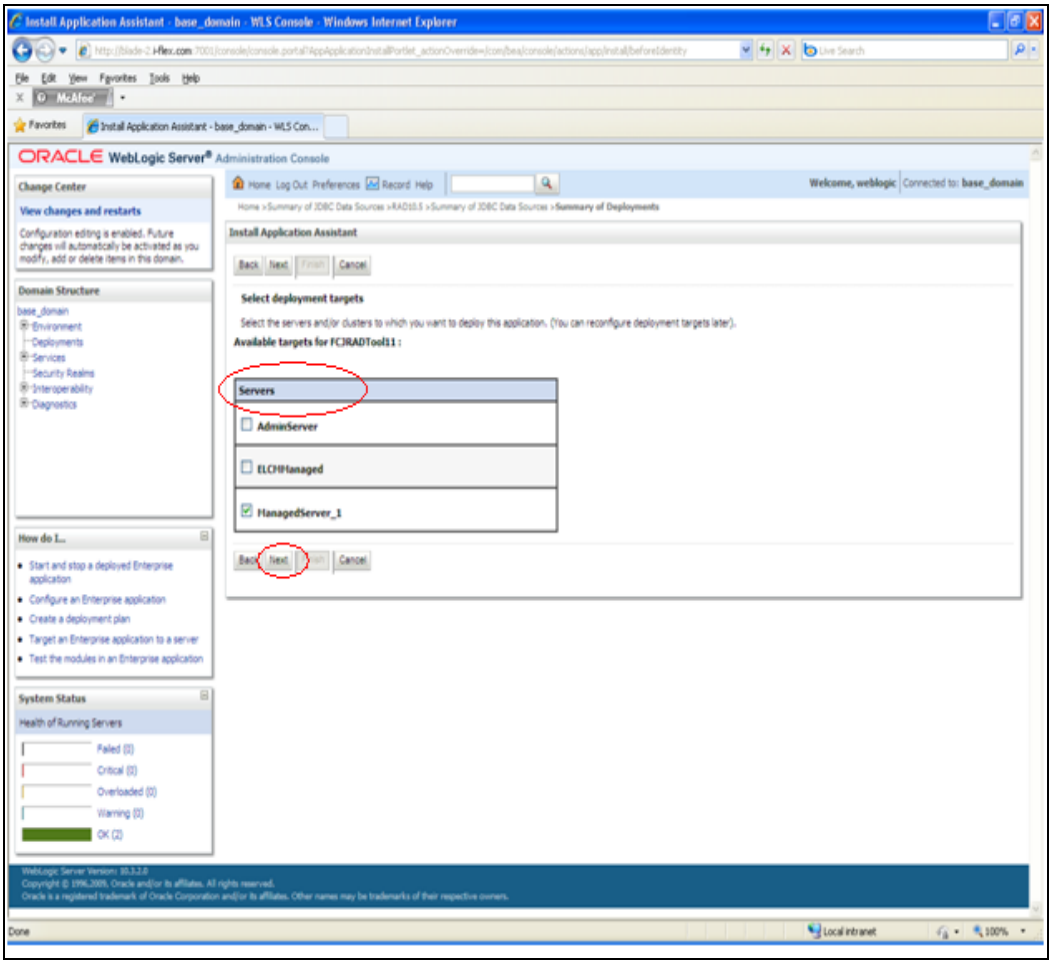
7.3.13 Step 13

Choose the option Install the deployment as an application and Click on Next.



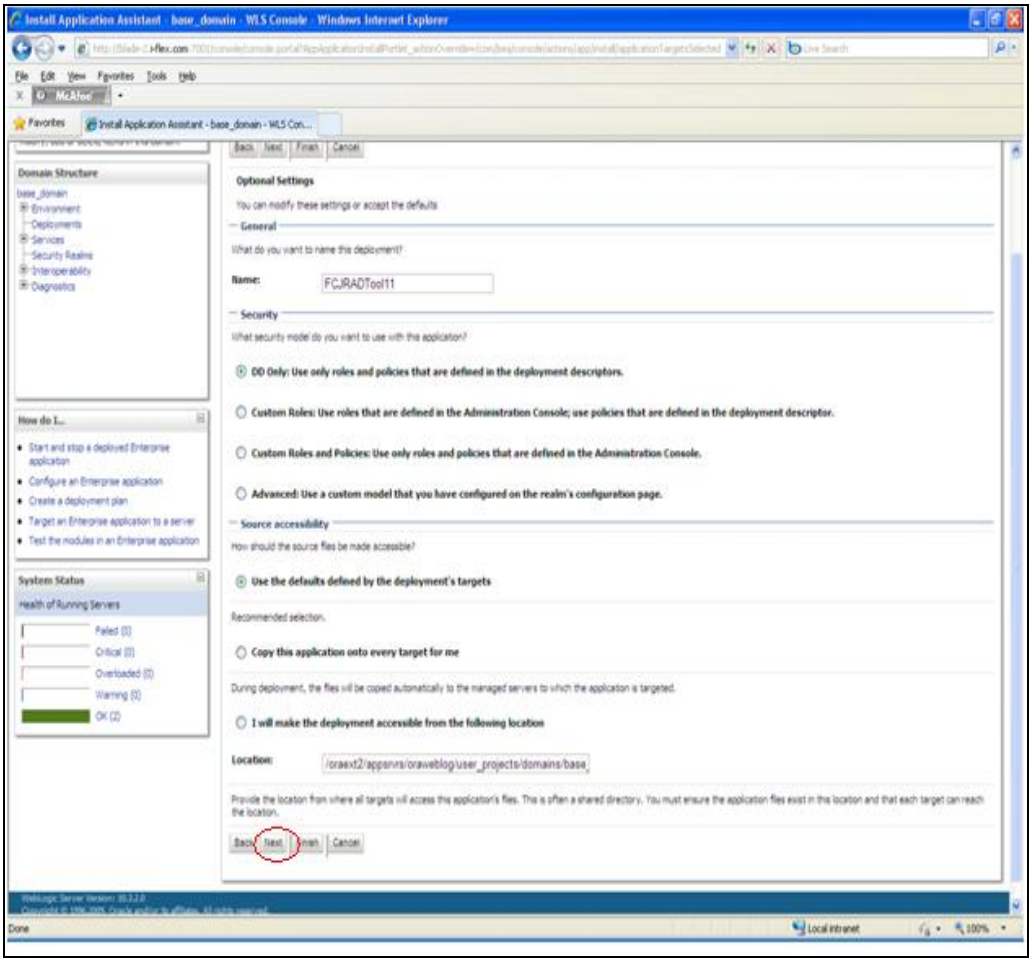
7.3.14 Step 14

Choose the target server where the deployment will be located and Click on Next.



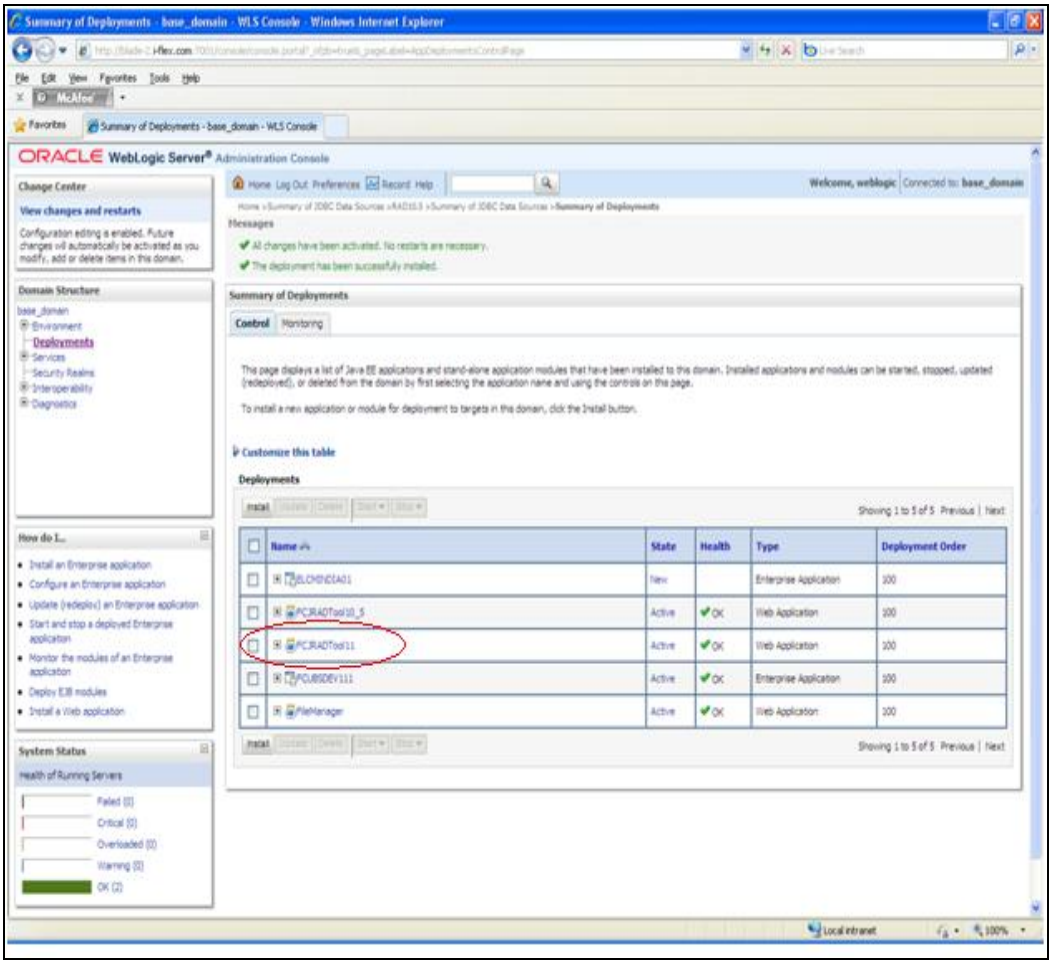
7.3.15 Step 15

Click Next.



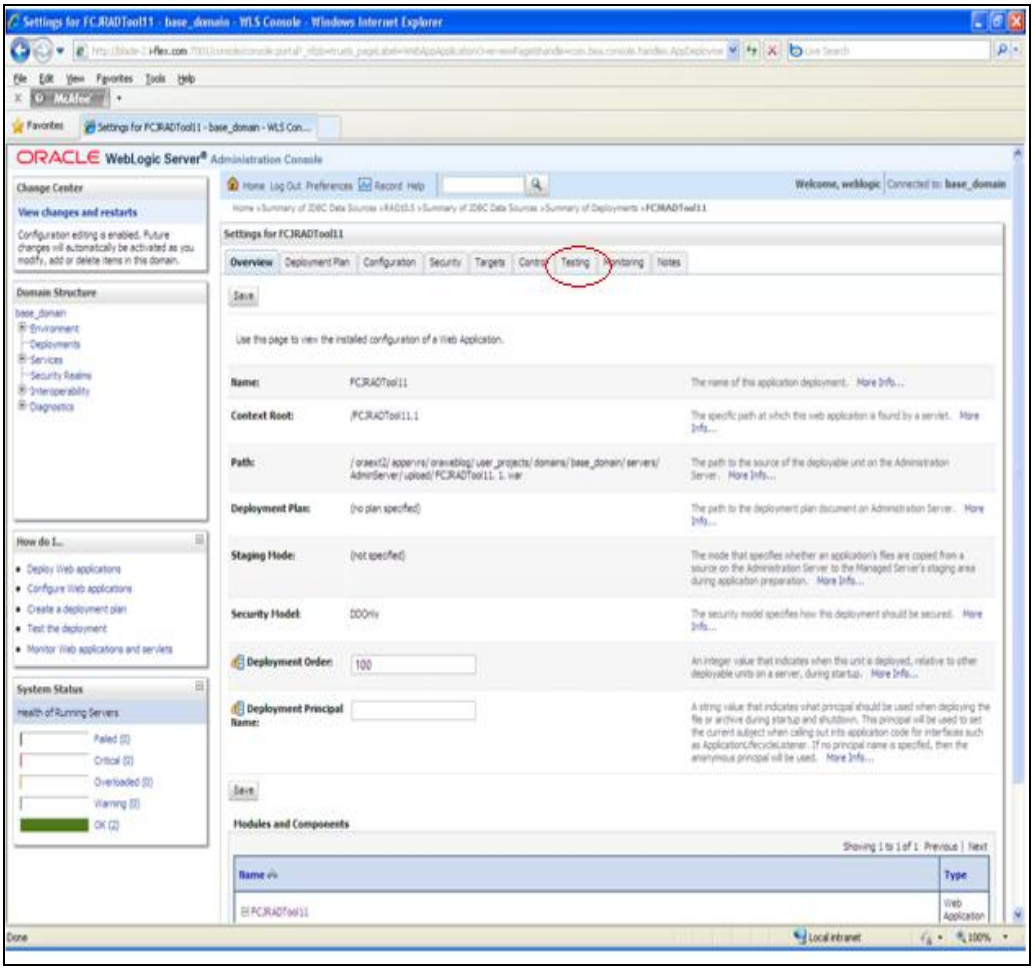
7.3.16 Step 16

This completes the deployment of War File. The Open Development Deployment will now be seen under the list of Deployments. Click on the Hyperlink marked in Red.



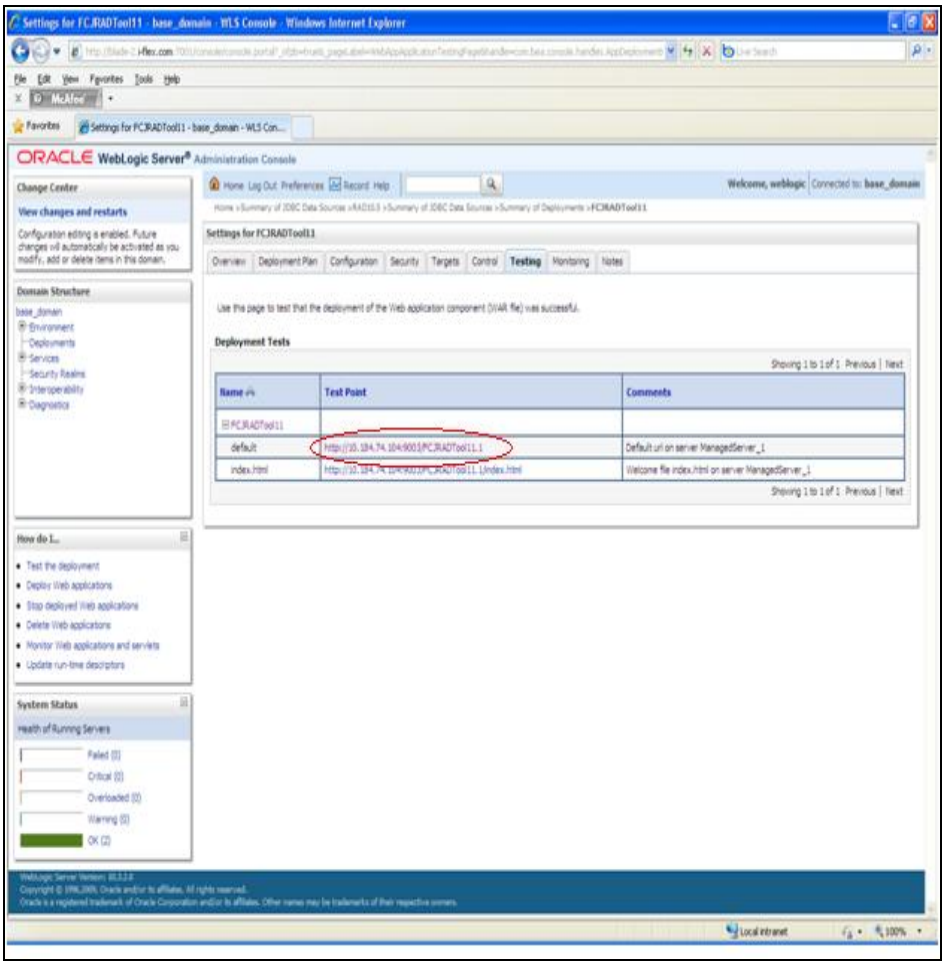
7.3.17 Step 17

Go to the Testing Tab.



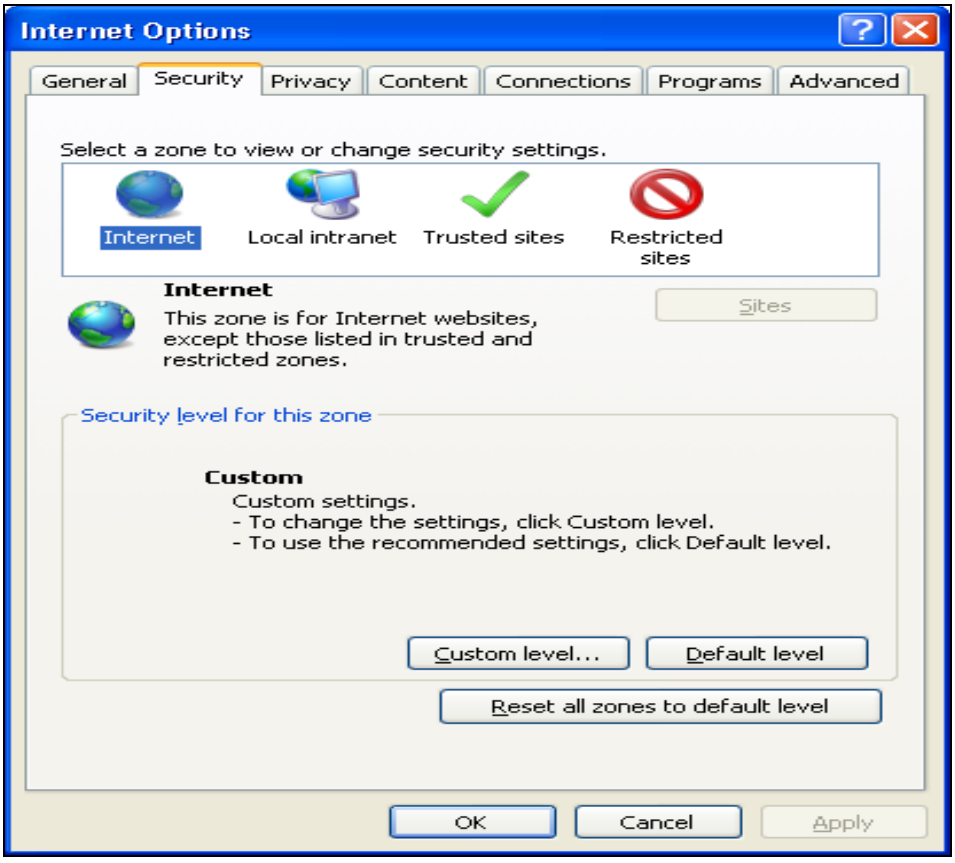
7.3.18 Step 18

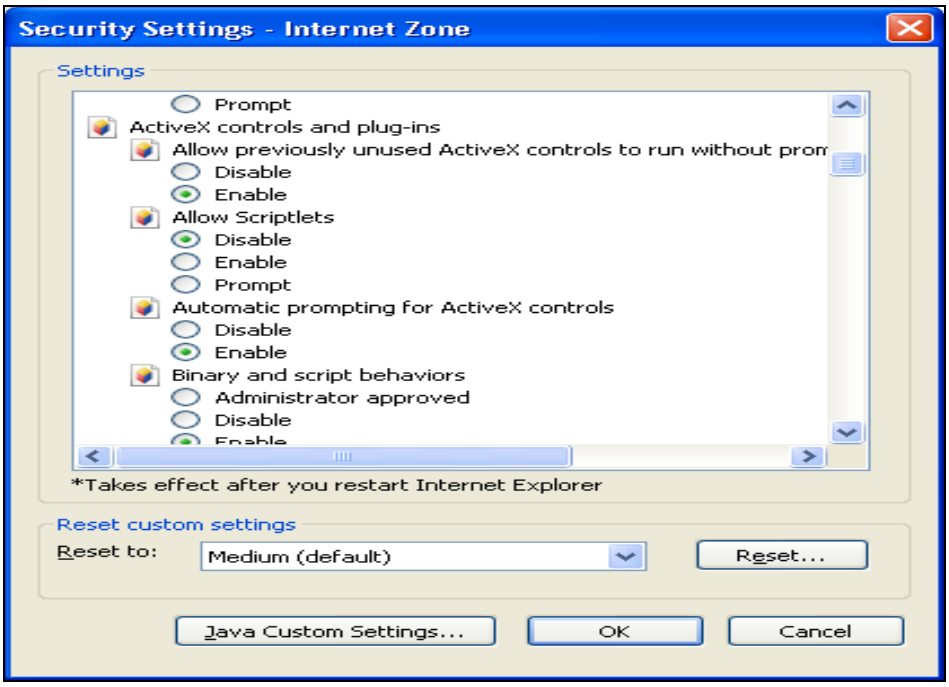
The Deployment of Open Development on Weblogic Server has been finished and you may launch the application by the link mentioned below.



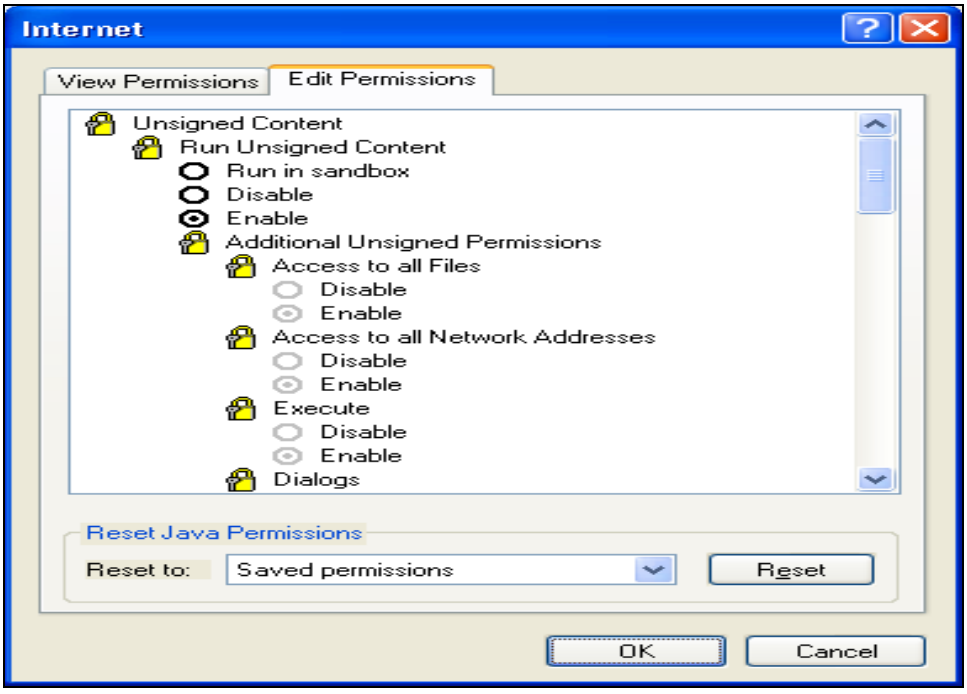
8. IE Settings

- Open Internet Explorer click on Tools → Internet Options → Security (Tab) → Internet → Custom Level

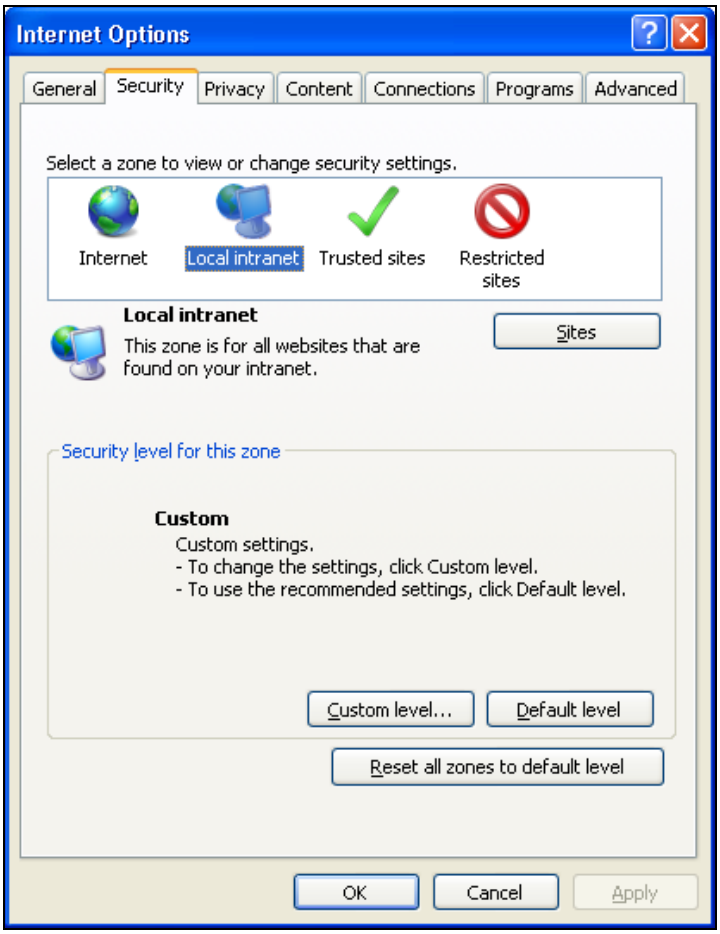




- Enable all the Options, select custom for Java Permissions
- Click on Java Custom Settings



- Select Edit Permissions Tab.
- Select Enable Option for Run Unsigned Content and Run Signed Content.
- Same Settings For Local Intranet



Click on Custom Level select Enable for all Options, for Java Permissions it should be custom.

9. Administration

9.1 User Roles

Open Development Tool has the below User Roles for controlling the access rights:

- System Administrator
- Release Administrator
- Developer

Users will be allowed to perform various tasks based on the “Role” assigned to the user. Users can have different Roles for different Releases. However, System Administrator Role is not at a Release Level and is only for Open Development Tool Administration.

9.1.1 System Administrator

This Role is only meant for the Open Development Team and Users with this Role will have full control over the system. Users with this Roe only would be able to create New Releases in Open Development Tool.

Login Open Development tool with RADTOOL as user Name and RADTOOL as Password

9.1.2 Release Administrator

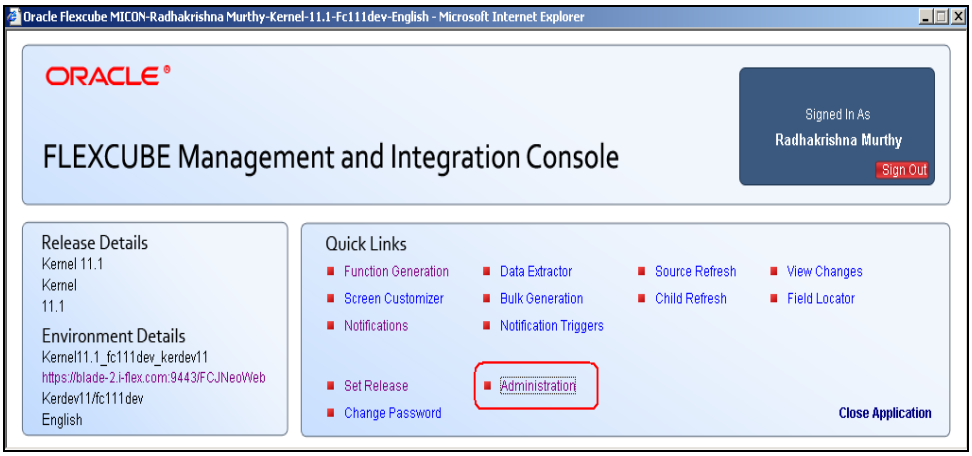
This Role is meant for Project Leaders and Team leaders and allows them to Release administration. Users with this role would be allowed to perform the below tasks

- Creation of Environment(s) for the Release
- Creation of users
- Provide access to the Release for required Users

9.1.3 Developer

This Role is for Developers and Users with role would be able to access the Function development related features of the Open Development tool.

User will also be able to Switch Between releases and Environments Using the “Set Release” Option.



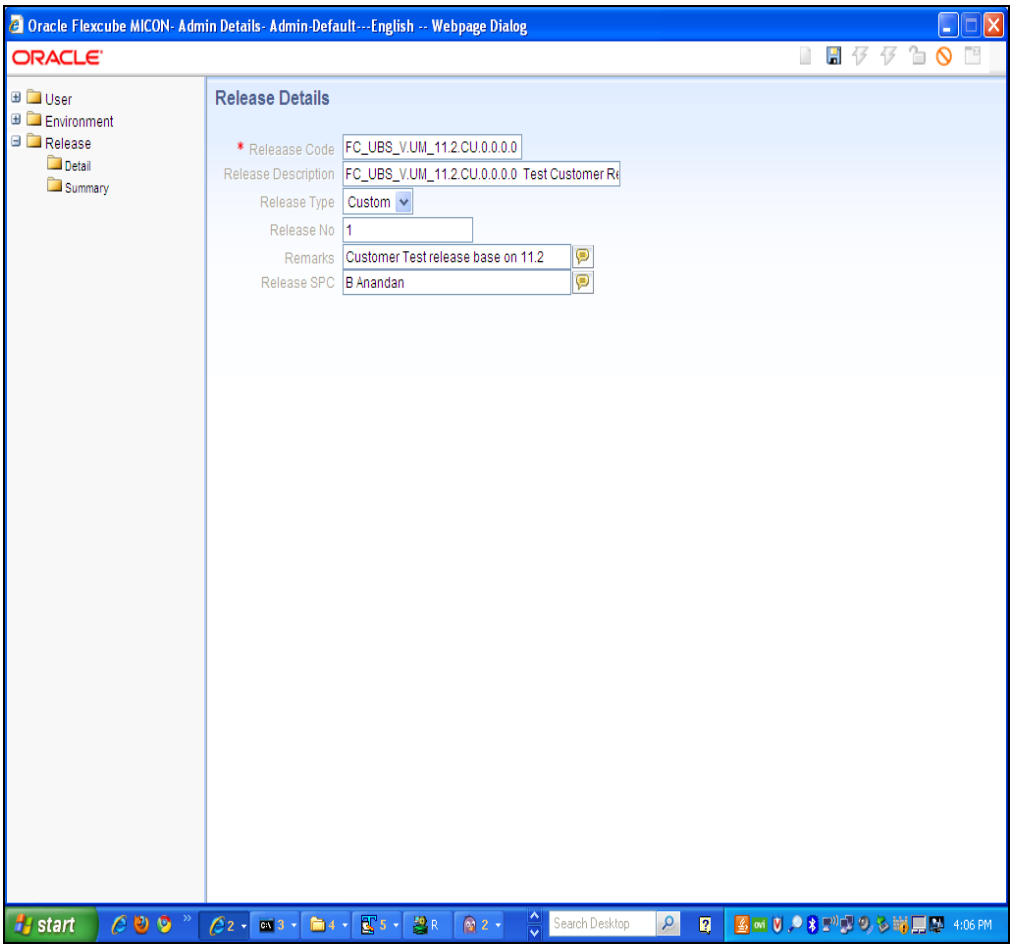
9.2 Release Definition

Every Release needs to be maintained in Open Development Tool. Below details need to be maintained in Open Development Tool before starting any New Release

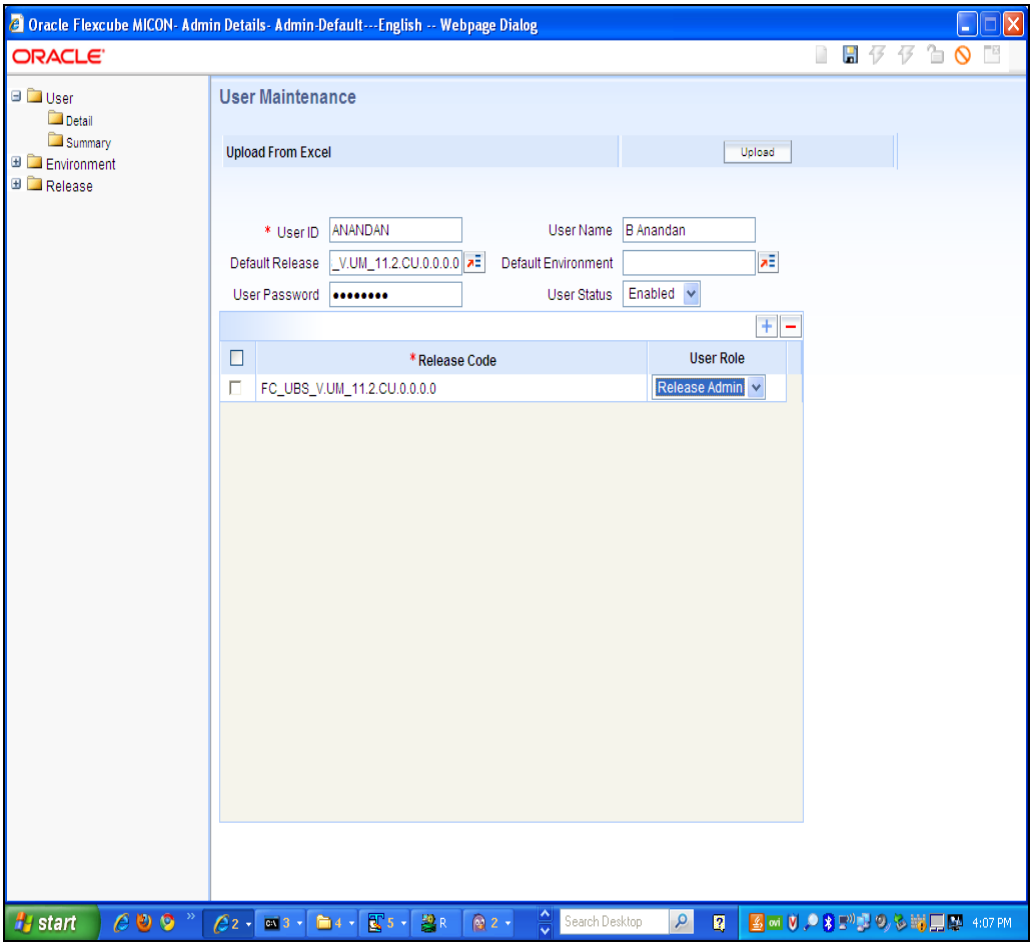
- Release Code : A unique Code which would identify the release E.g. FCUBSKERNEL11.1
- Release Description : Brief Description of the Release
- Release Type : Kernel/Cluster/Custom

STOP Create the Release with Custom type for extensibility environment

- Release Number: Release Number e.g. .11.1
- A release can have multiple environments for various activities like Development, Unit Testing, and Support etc.
- Release Creation can only be done by Open Development Team and a request with the above details needs to be sent to the Open Development Team in the beginning of every Release. Open Development team would create a release and grants “Release Administrator” Role to the Requester. Release administrator then can provide access to this Particular release for the developers.
- Release administrator will be able to create Environment(s) for this Release. Release administrator can also create New Users if required and can provide them the access to this Release.



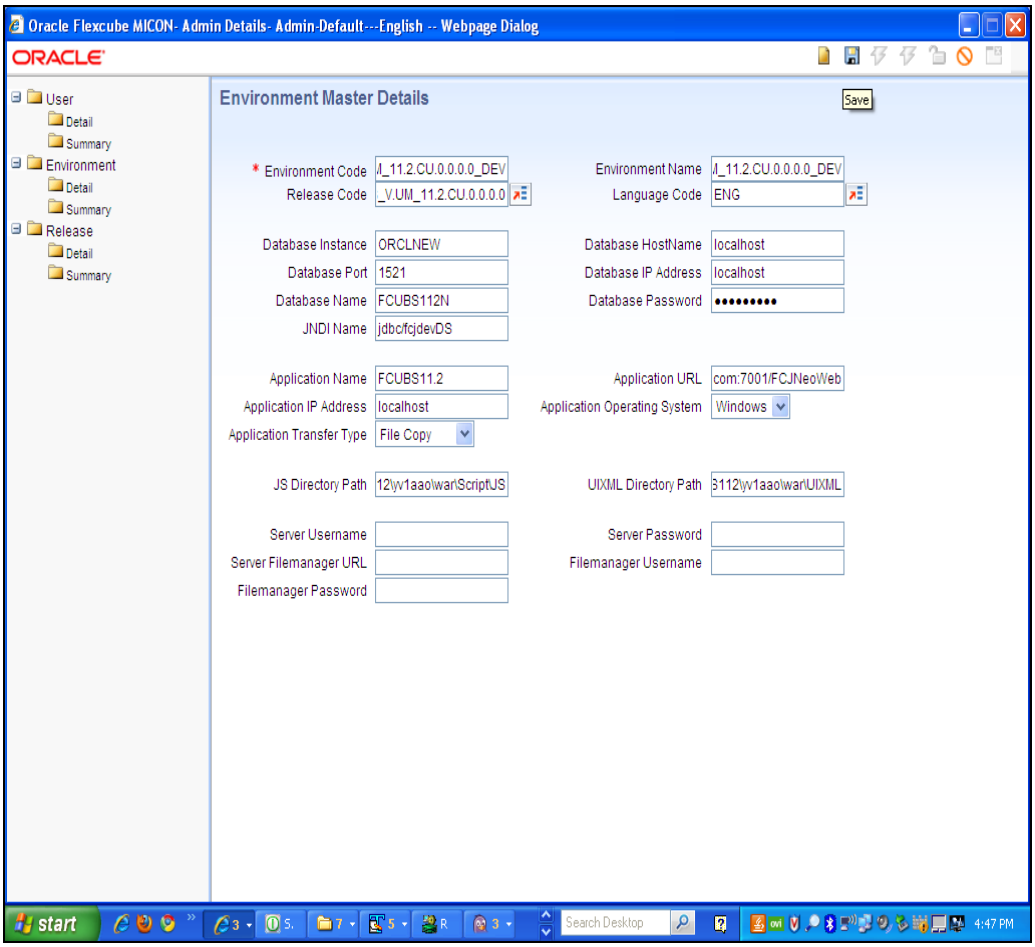
Create the User and assign Release Admin role for a release that created



9.3 Environment Creation

Open Development Tool requires at least one environment for each release and the below environment details need to be maintained in Open Development Tool for each environment

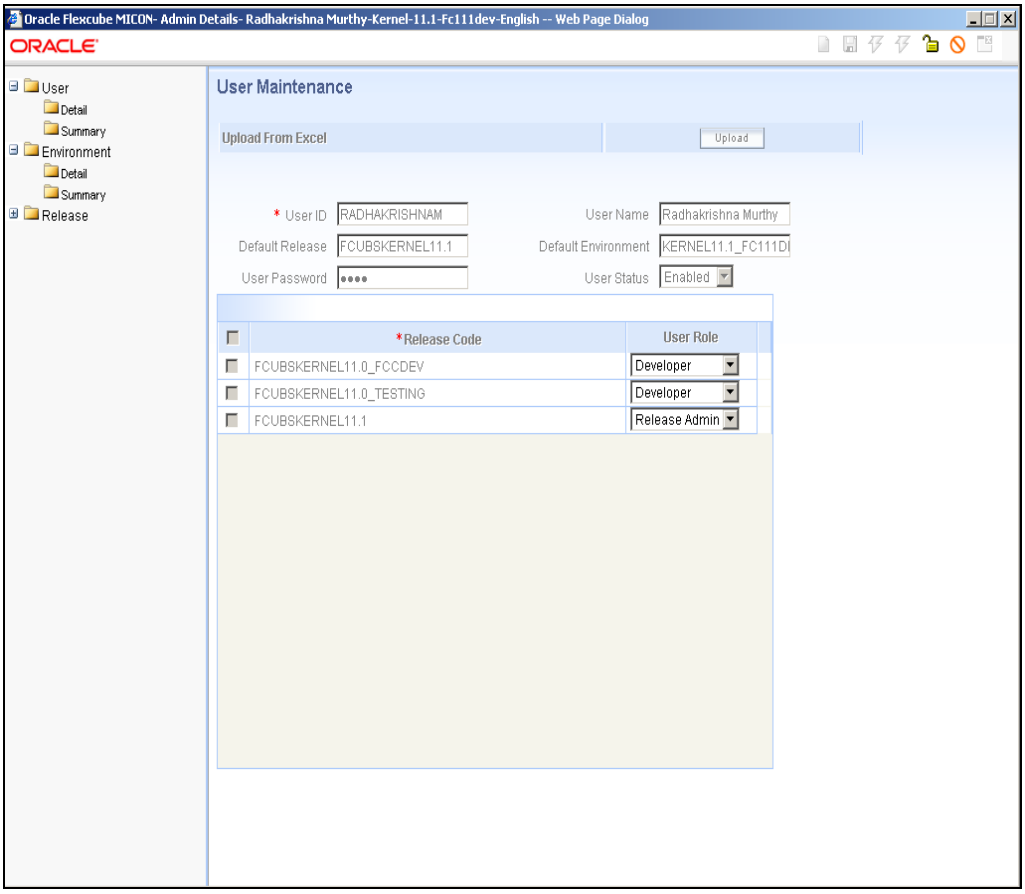
- Data Base Details
  - Instance Name
  - Port Number
  - Schema Name
  - Password
- Application Server Details
  - Target FLEXCUBE IS Application URL
  - Target FLEXCUBE IS JS Path
  - Target FLEXCUBE IS UIXML Path
- Server Password and user id in case the App server is on Unix



9.3.1 User Definition

New users can be created by System Administrators and Release administrators.

- User Id
- Password
- Default Release
- Default Environment
- User Releases
  - Releases for which the user needs access should be given here
  - One user can have access to multiple Release with one of those Release as the default release
  - User Role for each of these Releases.

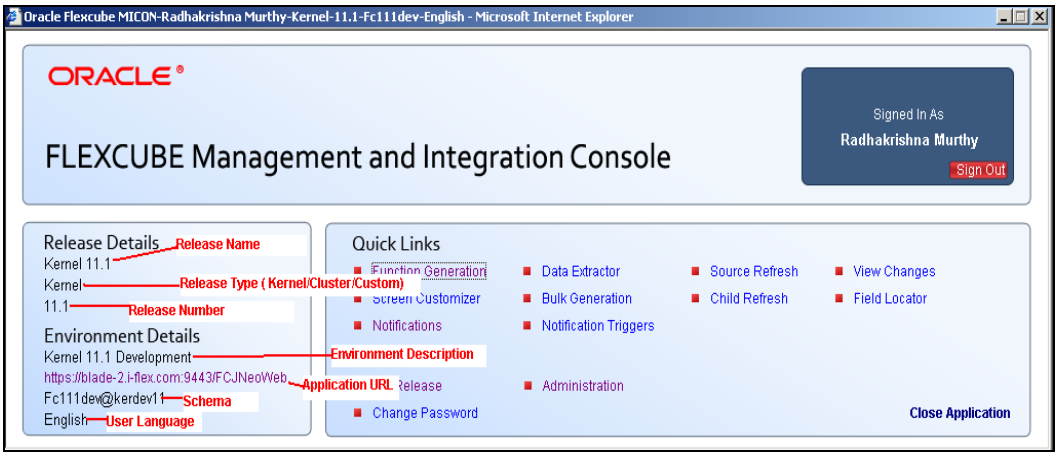


10. Developer Check List

As Open Development tool identifies the Release parameters and accordingly generates the output, it is important to ensure the correct release before using the Tool.

Open Development Tool also reads several tables from FLEXCUBE schema, Developers should ensure the correctness of the environment they are currently connected to.

The Landing page of Open Development Tool has both Release details and environment details as shown below



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