

A photograph of a young man with short brown hair, wearing a light blue denim shirt over a white t-shirt. He is sitting at a desk, looking down at a silver tablet computer he is holding in his hands. In the background, there's a white wall and a window. On the windowsill, there are some small plants and a blue book or folder. To the right, there's a white shelf with various items on it, including what looks like a keyboard and some papers.

**ORACLE OPEN WORLD**

# Modern Business in the Cloud

HOL10439 High Density Deployments in Oracle WebLogic Server 12c Release 2 with Domain Partition

WebLogic Server Product Management Team

ORACLE

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## **INTRODUCTION:**

Multi-Tenancy in WebLogic Server provides a sharable infrastructure for use by client organizations (tenants). By allowing one domain to support multiple tenants, WLS MT improves density and achieves a more efficient use of resources while eliminating the trade-offs that are traditionally made in a shared environment: Isolation issues.

Multi-tenancy essentially creates the tension between isolation and sharing. Isolation separates both the administration and runtime of different tenants from each other, where resource sharing among tenants improves efficiency and reduces operation costs.

### **Domain Partition:**

WebLogic Server MT provides resource isolation with in domain partitions, an administrative and runtime slice of a WebLogic domain that is dedicated to running application instances and related resources for a tenant. Domain Partition achieve greater density by allowing application instances and related resources to share the domain, WebLogic Server itself, the Java virtual machine, and the operating system while isolating tenant specific application data, configuration, and runtime traffic. Each domain partition has its own runtime copy of the application and resources.

### **Resource Groups:**

WLS MT introduces resource groups, simply as a convenient way to group together Java EE applications and the resources they use into a distinct administrative unit within the domain. The resources and applications are “fully qualified” in that administrator provides all information needed to start or connect to those resources, including credentials for connecting to data source and targeting information for Java EE application. A resource group will either contain these deployable resources directly or refer to a resource group templates which contain the resources. Resource group can be defined at the domain level, or be specific to domain partition.

All the resources in or referenced by a resource group are targeted together (to the same target). Resource group can be started and stopped.

### **Virtual Target:**

Encapsulate where a partition or resource group runs and how to route traffic to them, including addresses, protocol settings, and targeting, Request routing is determined by the host name and optional URI.

May Include:-

- Host name and port
- Optional URI
- Network Access Point or Channel
- Protocol specific configuration
  - T3, IIOP
  - Web Server
  - SSL
- Target Clusters and managed servers

Note: This Hands-on Lab uses pre-build version of WebLogic Server 12.2.1, so few screen shot may defer when you use GA version of Weblogic Server 12.2.1.

# LAB 1: MULTITENANCY CONFIGURATION

## The Hands on Lab Environment

### Operating System Details

Operating System	Oracle Linux 6.4 x86_64
Hostname	localhost, wins-vbox
Root User	root/oracle
Oracle User	oracle/welcome1

Note: For this hand on lab you should only need to use **oracle** user account.

### Installation Directories

JDK 1.7.0_40	/u01/java/jdk1.8.0_60/
Weblogic Server 12.2.1	/u01/wins/wls1221/
Oracle Database 12c	/u01/app/oracle/product/12.1.0/dbhome_1/

### Weblogic Server

In this hands-on lab two WebLogic Server Domains are used.

The **base\_domain** is created with RESTRICTED-JRF template and it contains a dynamic cluster with two managed servers. The **dev\_domain** is created with by-default template and it contains only Admin Server.

### base\_domain Details

ORACLE_HOME	/u01/wins/wls1221
Domain Directory	/u01/wins/wls1221/user_projects/domains/base_domain
Domain Name	base_domain
Admin Console URL	<a href="http://localhost:7001/console">http://localhost:7001/console</a>
FMW Console URL	<a href="http://localhost:7001/em">http://localhost:7001/em</a>
Admin Server Host	localhost
Admin Server Port	7001
Admin Server User	weblogic
Admin Server Password	welcome1

### dev\_domain Details

ORACLE_HOME	/u01/wins/wls1221
Domain Directory	/u01/wins/wls1221/user_projects/domains/dev_domain
Domain Name	dev_domain
Admin Console URL	<a href="http://localhost:9001/console">http://localhost:9001/console</a>
Admin Server Host	localhost
Admin Server Port	9001
Admin Server User	weblogic
Admin Server Password	welcome1

### Workshop Content:

Labs Directory	/u01/content/weblogic-innovation-seminars/WInS_Demos/MT-Workshop/
----------------	---

## Overview

In this lab, we are going to learn the following:

- Configuration of Virtual Target, Domain Partition and Resource Group
- Run multiple instances of medrec application in different domain partition without modifying the application. We try to show **JNDI Isolation** for that we are using the same medrec applications and same JNDI name for the Datasources, connection factory and Distributed queue in both the domain partition.
- Run Day trader application which is build by WebSphere to WebLogic 12.2.1.

## Start the database

We have created three pluggable database, by running the below shell script you will start all three pluggable database.

- i. Open a new terminal.
- ii. cd /u01/content/weblogic-innovation-seminars/WInS\_Demos/MT-Workshop/Lab1/
- iii. ./startDB.sh

```
[oracle@localhost Desktop]$ cd /u01/content/weblogic-innovation-seminars/WInS_Demos/MT-Workshop/Lab1/
[oracle@localhost Lab1]$ ./startDB.sh
Processing Database instance "orcl": log file /u01/app/oracle/product/12.1.0/dbhome_1/startup.log
SQL*Plus: Release 12.1.0.2.0 Production on Thu Sep 17 09:41:22 2015
Copyright (c) 1982, 2014, Oracle. All rights reserved.

Connected to:
Oracle Database 12c Enterprise Edition Release 12.1.0.2.0 - 64bit Production
With the Partitioning, OLAP, Advanced Analytics and Real Application Testing options

SQL>
Pluggable database altered.

SQL>
Pluggable database altered.

SQL> Disconnected from Oracle Database 12c Enterprise Edition Release 12.1.0.2.0 - 64bit Production
With the Partitioning, OLAP, Advanced Analytics and Real Application Testing options
[oracle@localhost Lab1]$ █
```

Note: Wait until you see the bash prompt.

We already created domain for you, which contains the **cluster of size 2**. Here you are just going to start the **Admin Server** and **two managed server**.

## Starting the Domain

We are going to start the node manager of base\_domain. This shell scripts starts the Node Manager.

```
i. ./start-nm.sh  
[oracle@localhost Lab1]$ ./start-nm.sh  
|  
Initializing WebLogic Scripting Tool (WLST) ...  
  
Welcome to WebLogic Server Administration Scripting Shell.  
  
Type help() for help on available commands  
  
Launching NodeManager ...  
Running startNodeManager.sh from the directory /u01/wins/wls1221/user_projects/domains/base_domain  
./bin  
NMProcess: NODEMGR_HOME is already set to /u01/wins/wls1221/user_projects/domains/base_domain/node  
manager
```

Note: Go to next step after 5 seconds so that node manager starts properly.  
We are going to start Admin Server first; once Admin Server started we start the cluster.

ii. ./start-domain.sh

```
[oracle@localhost Lab1]$ ./start-domain.sh  
|  
Initializing WebLogic Scripting Tool (WLST) ...  
  
Welcome to WebLogic Server Administration Scripting Shell  
  
Type help() for help on available commands  
  
Connecting to Node Manager ...  
<Sep 17, 2015 10:08:57 AM PDT> <Info> <Security> <BEA-090905> <Disabling the CryptoJ JCE Provider self-integrity check for better startup performance. To enable this check, specify -Dweblogic.security.allowCryptoJDefaultJCEVerification=true.>  
<Sep 17, 2015 10:08:57 AM PDT> <Info> <Security> <BEA-090906> <Changing the default Random Number Generator in RSA CryptoJ from ECDRBG128 to HMACDRBG. To disable this change, specify -Dweblogic.security.allowCryptoJDefaultPRNG=true.>  
<Sep 17, 2015 10:08:57 AM PDT> <Info> <Security> <BEA-090909> <Using the configured custom SSL HostnameVerifier implementation: weblogic.security.utils.SSLWLSHostnameVerifier$NullHostnameVerifier.>  
Successfully Connected to Node Manager  
Starting server AdminServer ...  
Successfully started server AdminServer ...  
Connecting to t3://localhost:7001 with userid weblogic ...  
Successfully connected to Admin Server "AdminServer" that belongs to domain "base_domain".  
  
Warning: An insecure protocol was used to connect to the server.  
To ensure on-the-wire security, the SSL port or Admin port should be used instead.
```

Starting the following servers in Cluster, app-cluster : app-cluster-1,app-cluster-2

```
.....  
.....  
All servers in the cluster app-cluster are started successfully.  
Disconnected from weblogic server: AdminServer
```

Exiting WebLogic Scripting Tool.

Note: This step may take 4-5 minute as it starts the Admin Server first, then both the managed server.

Below table contains the information about domain partition, on which Virtual Target it is Targeted, Which Resource Group it contains, What Application we are going to deploy in this domain partition, which database the JDBC Datasources uses in this domain partition.

Virtual Target	Partition Name	Resource Group	Application Deployed	Pluggable Database
VT-Medrec-1	dp1	app1RG	Medrec	pdborcl
VT-Medrec-2	dp2	app2RG	Medrec	pdb2
VT-daytrader	dp3	app3RG	Day Trader	pdb3

Note: In creation of Virtual target, we will use partition name as URL Prefix, so that you can differentiate from which domain partition/database you are accessing the application.

## Configuration of Medrec Application in Domain Partition dp1

In the Step 3 we are creating the below configuration for medrec application in domain partition dp1.

Virtual Target: VT-Medrec-1  
 Domain Partition: dp1  
 Resource Group app1RG  
 app1RG:  
 Data source:  
 Name: MedRecGlobalDataSourceXA  
 JNDI Name: jdbc/MedRecGlobalDataSourceXA  
 Mail Session:  
 Name: MedRecMailSession  
 JNDI Name: mail/MedRecMailSession  
 Persistence Store: MedRec-fs  
 JMS Server: MedRecJMSServer  
 JMS Module: MedRecModule  
 MedRecModule:  
 Subdeployment: MedRecJMS  
 Connection Factory:  
 Name: MedRecConnectionFactory  
 JNDI Name: com.oracle.medrec.jms.connectionFactory  
 Distributed Queue:  
 Name: PatientNotificationQueue  
 JNDI Name: com.oracle.medrec.jms.PatientNotificationQueue  
 Applications: medrec.ear  
 physician.ear  
 chat.war

- i. Go to browser and type the URL <http://localhost:7001/em>
- ii. Enter **weblogic/welcome1** as **username/password**, do not check the box for Use Partition then click on **Login**.

Domain: Domain\_base\_domain

\* User Name: weblogic

\* Password:

Use Partition

**Login**

- iii. In Enterprise Manager, Click on **WebLogic Domain -> Environment -> Virtual Targets**.

base\_domain

WebLogic Domain

- Home
- Monitoring
- Diagnostics
- Control
- Logs
- Environment**
- Deployments
- JDBC Data Sources
- Messaging
- Cross Component Wiring
- Web Services
- Other Services
- Administration
- Refresh WebLogic Domain
- Routing Topology
- Security
- System MBean Browser

Admin Server

Name: AdminServer

Host: localhost

Servers

Server Templates

Clusters

Machines

Domain Partitions

OTD Runtimes

Resource Groups

Resource Group Templates

Partition Work Managers

Resource Consumption Managers

Virtual Hosts

**Virtual Targets**

iv. Click on **Create**.

The screenshot shows the Oracle Enterprise Manager Fusion Middleware Control 12c interface. The top navigation bar includes 'WebLogic Domain' and 'weblogic'. The main area is titled 'Virtual Targets' with a sub-path '/Domain\_base\_domain/base\_domain > Virtual Targets'. A toolbar at the top has 'Create' highlighted with a red box. Below is a table with columns: Name, Host Names, Uri Prefix, Target, Explicit Port, Port Offset, Partition Channel, and Used By. A message 'No Virtual Targets found' is displayed.

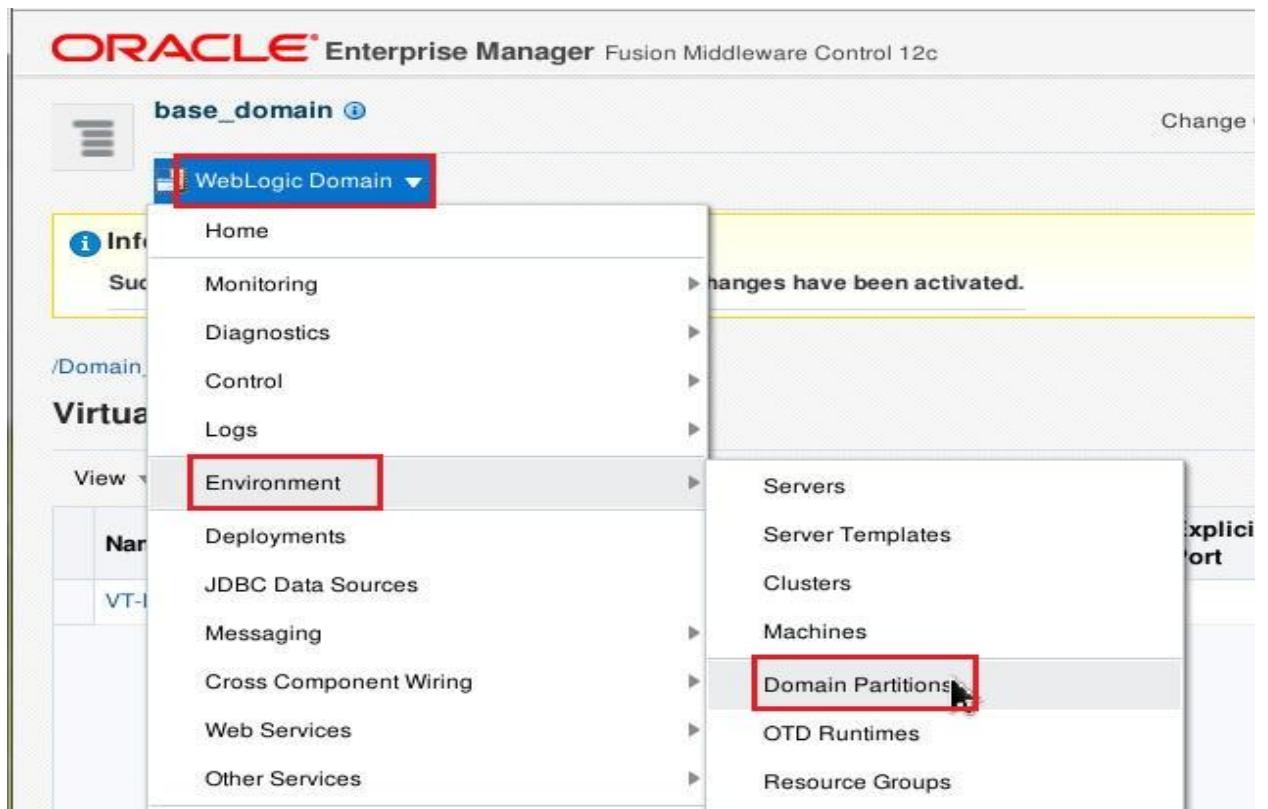
v. Enter **VT-Medrec-1** as Name and **/dp1** as Uri Prefix then click on **Next**.

The screenshot shows the 'Create Virtual Target: General' step. It has tabs for 'General' and 'Targets', with 'General' selected. The form fields are: 'Name' (VT-Medrec-1), 'Uri Prefix' (/dp1), 'Partition Channel' (empty), and 'Port' (radio button selected for 'Explicit'). The 'Next' button is highlighted with a red box.

vi. Select Cluster **app-cluster** as Target then click on **Create**.

The screenshot shows the 'Create Virtual Target: Targets' step. It has tabs for 'General' and 'Targets', with 'Targets' selected. The form field 'Choose a server or cluster to be associated with this virtual target' has 'Cluster' selected and 'app-cluster' entered in the dropdown. The 'Create' button is highlighted with a red box.

vii. Click on **WebLogic Domain -> Environment -> Domain Partitions**.



viii. Click on **Create**.

ix. Enter **dp1** as Name and leave others as default then click on **Next**.

The screenshot shows the "Create Domain Partition: General" step in the Oracle Enterprise Manager interface. The top navigation bar is identical to the previous screenshot. The main content area has a progress bar at the top with four steps: "General" (highlighted in blue), "Available Targets", "Resource Group", and "Summary". The "Create Domain Partition: General" page title is displayed. Below it, a sub-instruction says "Use this page to specify general attributes for this domain partition." There are three input fields: "Name" (containing "dp1", highlighted with a red box), "Security Realm" (set to "None"), and "Primary Identity Domain" (empty). At the bottom, there is a section titled "Load Balancer Configuration" with a note: "If you wish to use a load balancer to front-end this domain partition, choose an Oracle Traffic Director instance from the list of available instances shown below." Two checkboxes are present: "Use OTD for Load Balancing" (unchecked) and "OTD Runtime" (set to "None"). Navigation buttons include "Back", "Step 1 of 4", "Next" (highlighted with a red box), and "Cancel".

- x. Check the left box near **VT-Medrec-1** and also check the box for **Set as Default** then click on **Next**.

**Create Domain Partition: Available Targets**

Select the virtual targets that will be available for this domain partition to use. Note that virtual targets can only be used by one partition; so, only available virtual targets are listed below.

Select	Virtual Target	Set as Default
<input checked="" type="checkbox"/>	VT-Medrec-1	<input checked="" type="checkbox"/>

- xi. Enter **app1RG** as Resource Group name and **None** as Resource Group Template, Move the **VT-Medrec-1** virtual target to **Select targets** then click on **Next**.

**Create Domain Partition: Resource Group**

A resource group needs to be created within a partition before you can deploy applications or resources. The resource group can optionally extend a resource group template specified at the domain level.

* Resource Group Name	app1RG
Resource Group Template	None

Targets for the Resource Group

Available Targets	Selected Targets
VT-Medrec-1	

Targets for the Resource Group

xii. Verify the configuration and click on **Create**.

xiii. Check the box near **dp1** and click on **Control -> Start**. Press refresh icon to get correct status.

**ORACLE® Enterprise Manager Fusion Middleware Control 12c**

base\_domain ①

WebLogic Domain

Change Center | Logged in as weblogic | Sep 17, 2015 10:37:45 AM PDT

**Information**

Successfully created Domain Partition dp1. For additional configuration of the partition (resource overrides, partition work manager/resource consumption manager settings), navigate to the Partition home page and click on the Administration menu item in the Partition menu.

/Domain\_base\_domain/base\_domain > Domain Partitions

► Getting Started with Multi-Tenancy

▲ Hide Pie Chart

Status State

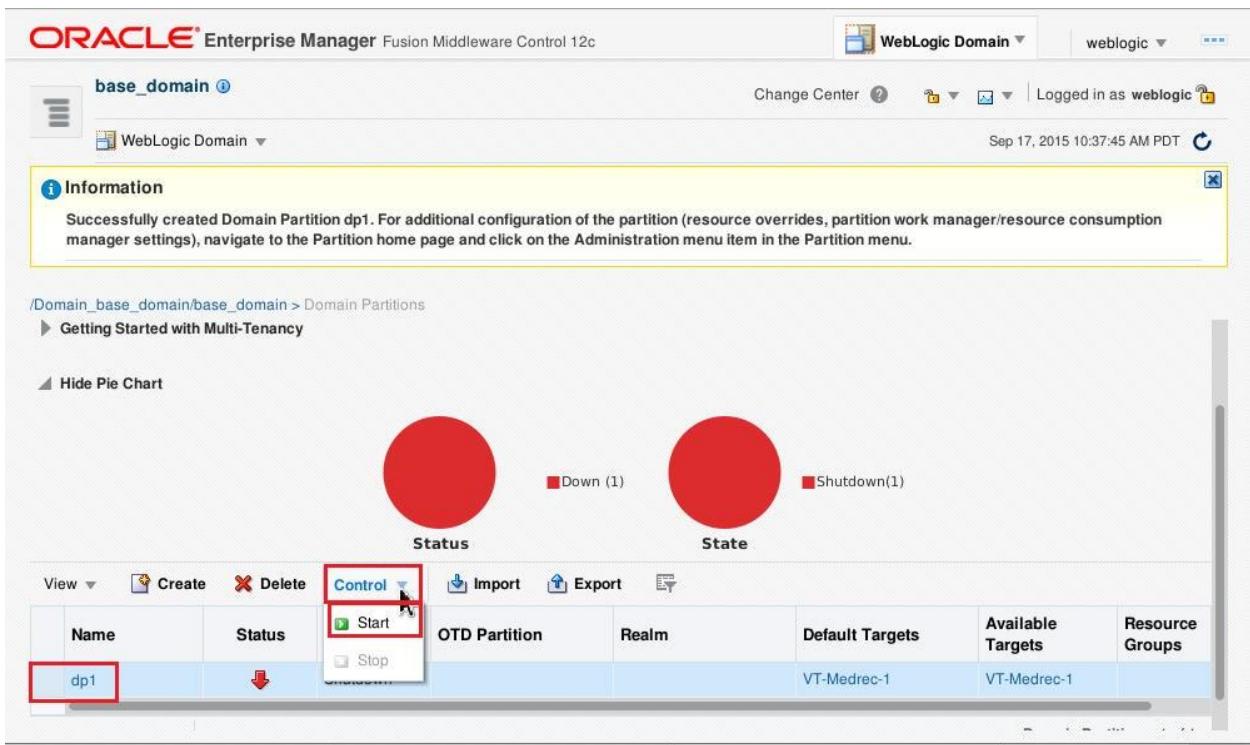
Down (1) Shutdown(1)

View Create Delete Control Import Export

Name Status OTD Partition Realm Default Targets Available Targets Resource Groups

Name	Status	OTD Partition	Realm	Default Targets	Available Targets	Resource Groups
dp1	Down	OTD Partition	Realm	Default Targets	Available Targets	Resource Groups

Start Stop



**ORACLE® Enterprise Manager Fusion Middleware Control 12c**

base\_domain ①

WebLogic Domain

Change Center | Logged in as weblogic | Sep 17, 2015 10:39:49 AM PDT

/Domain\_base\_domain/base\_domain > Domain Partitions

**Domain Partitions**

Domain Partitions are the building blocks of WebLogic Server Multi-Tenancy (MT). Multi-Tenancy permits multiple client organizations to share a domain, improving efficiency and reducing operation costs. Before creating a Domain Partition, you must first create one or more virtual targets. Look at the Getting Started topics for more information.

► Getting Started with Multi-Tenancy

▲ Hide Pie Chart

Status State

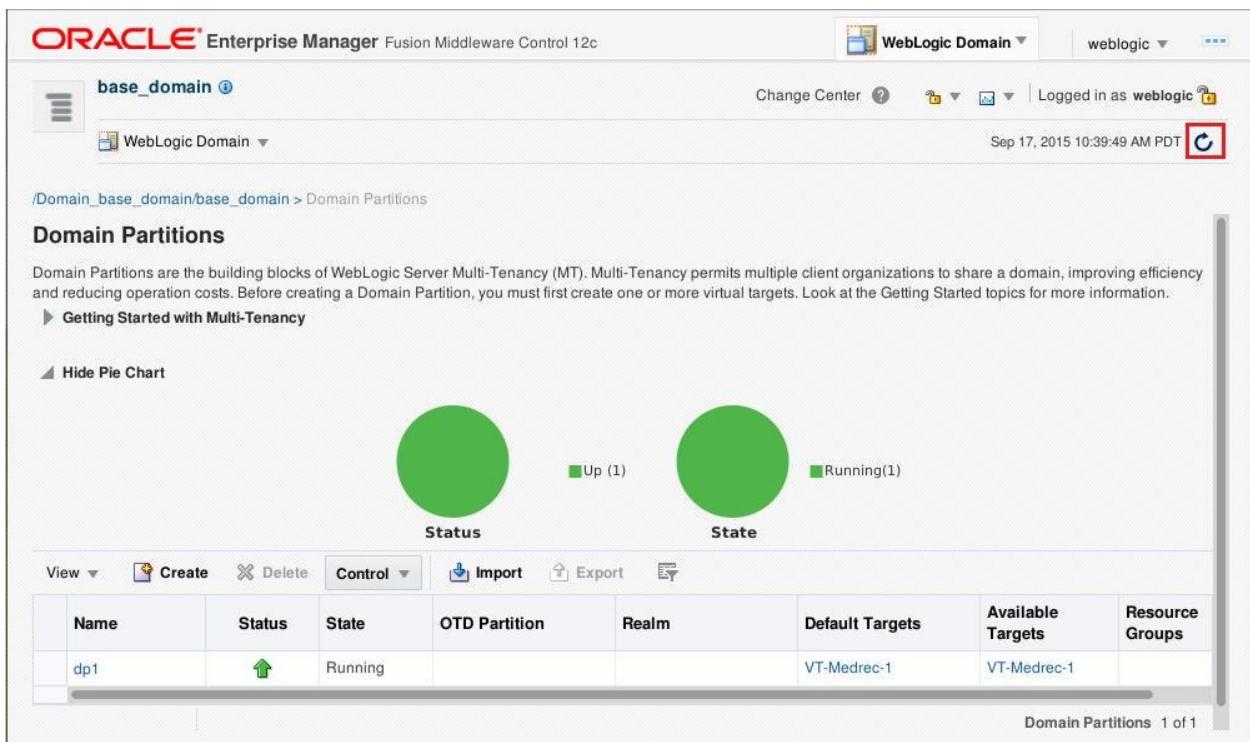
Up (1) Running(1)

View Create Delete Control Import Export

Name Status State OTD Partition Realm Default Targets Available Targets Resource Groups

Name	Status	State	OTD Partition	Realm	Default Targets	Available Targets	Resource Groups
dp1	Up	Running	OTD Partition	Realm	Default Targets	Available Targets	Resource Groups

Domain Partitions 1 of 1



xiv. Click on the Domain Partition **dp1**.

xv. Click on **Domain Partition -> Administration -> Resource Group**.

The screenshot shows the Oracle Enterprise Manager interface for Fusion Middleware Control 12c. The top navigation bar includes 'WebLogic Domain' and 'weblogic'. The main menu on the left has 'dp1' selected. Under 'dp1', the 'Domain Partition' option is highlighted with a red box. A dropdown menu for 'Resource Groups' is open, with its title also highlighted with a red box. Other options in the dropdown include 'General', 'Available Targets', 'Load Balancer Configuration', 'Resource Overrides', 'Resource Sharing', 'Coherence Caches', and 'Notes'. To the right of the menu, there are two sections: 'JDBC and JTA Usage' and 'Resource Usage'. The 'JDBC and JTA Usage' section shows metrics like 'Open JDBC Connections' (0), 'JDBC Connection Creates (per minute)' (0.00), 'Active Transactions' (Unavailable), 'Transaction Commits (per minute)' (Unavailable), and 'Transaction Rollbacks (per minute)' (Unavailable). The 'Resource Usage' section shows 'CPU Usage (%)' (Unavailable) and 'Open Files' (Unavailable).

xvi. Click on Resource Group **app1RG**.

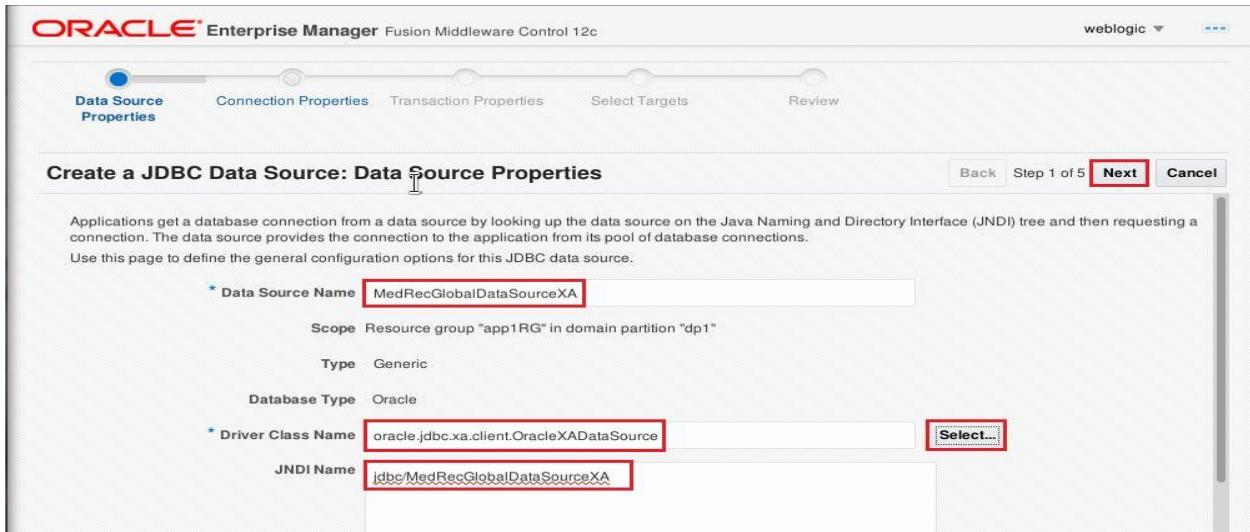
xvii. Creation of Datasource.

a. Select the **Services** tab.

b. Choose JDBC tab, click on **Create -> Generic Data Source**.

The screenshot shows the Oracle Enterprise Manager interface for the 'app1RG' resource group. The top navigation bar includes 'WebLogic Domain' and 'weblogic'. The 'Services' tab is selected and highlighted with a red box. Below it, the 'JDBC' tab is also highlighted with a red box. A sub-menu for 'Create' is open, with 'Generic Data Source' highlighted with a red box. Other tabs in the sub-menu include 'Create Like', 'Delete', and 'Detach'. The main content area displays a table for JDBC system data sources. The table has columns for 'Name', 'JNDI Name', 'Type', and 'Targets'. There are three entries: 'GridLink Data Source', 'Multi Data Source', and a row for 'No system d'. At the bottom of the table, it says 'Columns Hidden 4' and 'JDBC Data Sources 0 of 0'.

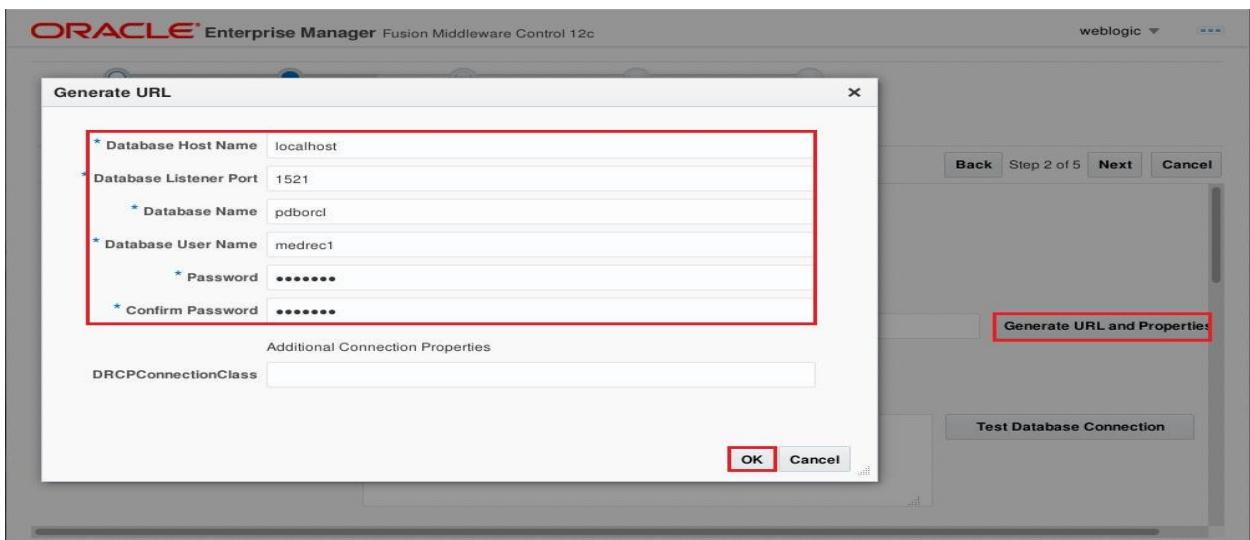
- c. Enter **MedRecGlobalDataSourceXA** as Data Source Name and **jdbc/MedRecGlobalDataSourceXA** as JNDI Name, and then click on Select.
- d. Select **Oracle** as Database Type and “**Oracle’s Driver (Thin XA) for service connections; Versions: Any**” as JDBC Driver then click on OK. Click on **Next**.



- e. Click on **Generate URL and Properties** and Enter the following:

Host Name:	localhost
Listen Port:	1521
Database Name:	pdborcl
User Name:	medrec1
Password:	medrec1
Confirm Password	medrec1

Click OK.

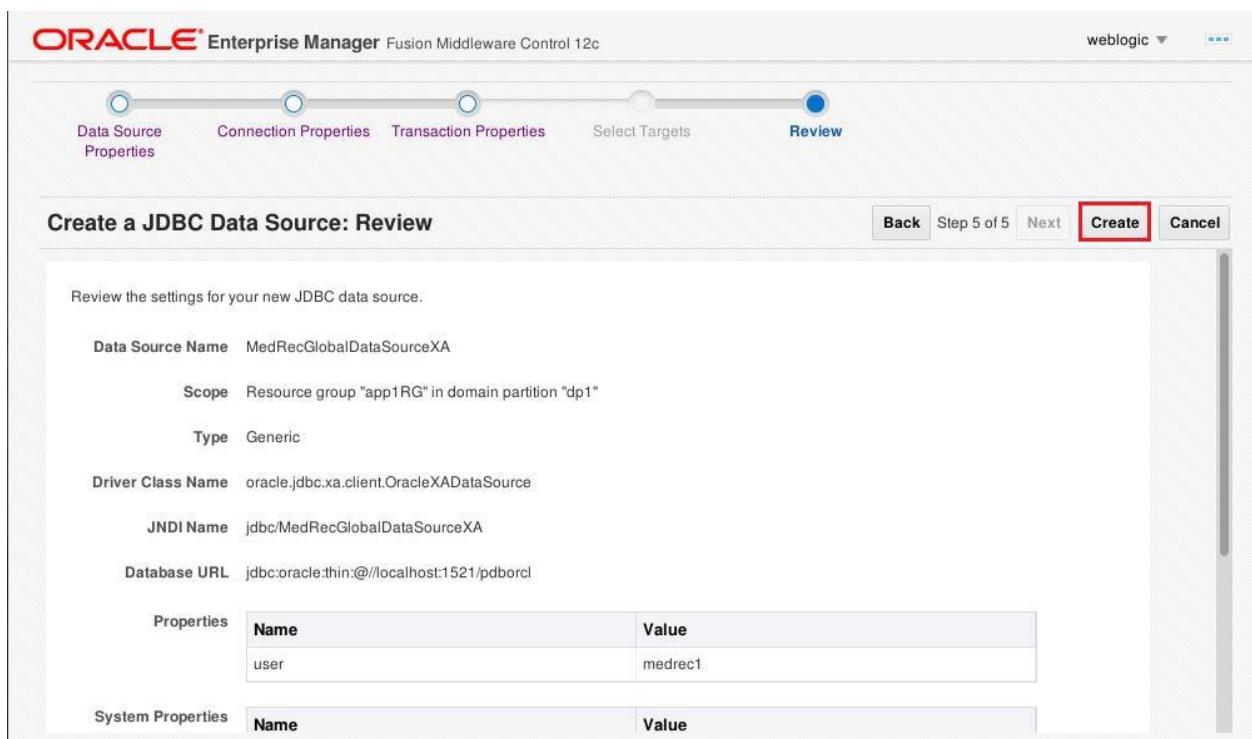


f. Click on **Test Database Connection** to verify the connection. Click **Next**.



g. Leave Default on Transaction Options and click on **Next**.

h. Verify the configuration and click on **Create**.



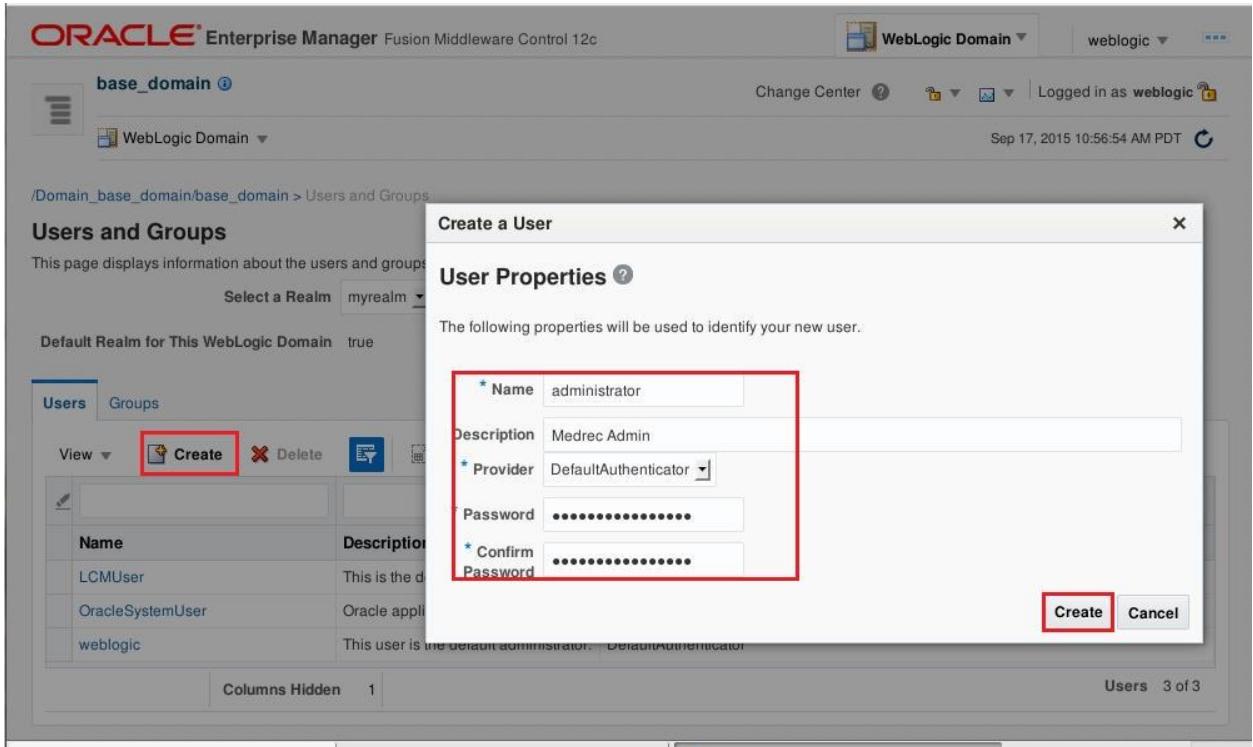
xviii. We are adding a user to default security realm, so that he can access the medrec application as an administrator.

a. Click on **Weblogic Domain -> Security -> Users and Groups**.

The screenshot shows the Oracle Enterprise Manager Fusion Middleware Control 12c interface. The top navigation bar has 'WebLogic Domain' selected. The left sidebar shows various domain partitions, with 'dp1' currently selected. The main content area displays a confirmation message: 'JDBC Data Source "MedRecGlobalDataSourceXA" has been created successfully. All changes have been saved.' Below this, the path is shown as '/Domain\_base\_domain/base\_domain/dp1 > Resource Groups > Resource Group : app1RG'. The main panel title is 'Resource Group : app1RG' with a 'Services' tab selected. Under the 'Services' tab, the 'JDBC' sub-tab is active, showing a table with one row: 'Name' (MedRecGlobalDataSourceXA) and 'JNDI Name' (jdbc/MedRecGlobalDataSourceXA). A context menu is open over this table, with the 'Security Realms' option expanded. The 'Users and Groups' item under 'Security Realms' is highlighted with a red box. Other options in the menu include 'Keystore' and 'System MBean Browser'. The right sidebar contains a vertical list of links: Home, Monitoring, Diagnostics, Control, Logs, Environment, Deployments, JDBC Data Sources, Messaging, Cross Component Wiring, Web Services, Other Services, Administration, Refresh WebLogic Domain, Routing Topology, Security (which is also highlighted with a red box), and WebLogic Server Administration Console.

- b. In **Users** tab, click on **Create**.
- c. Enter the following then click on **Create**.

Name:	administrator
Description:	Medrec Admin
Provider:	Default Authenticator
Password:	administrator123
Confirm Password:	administrator123



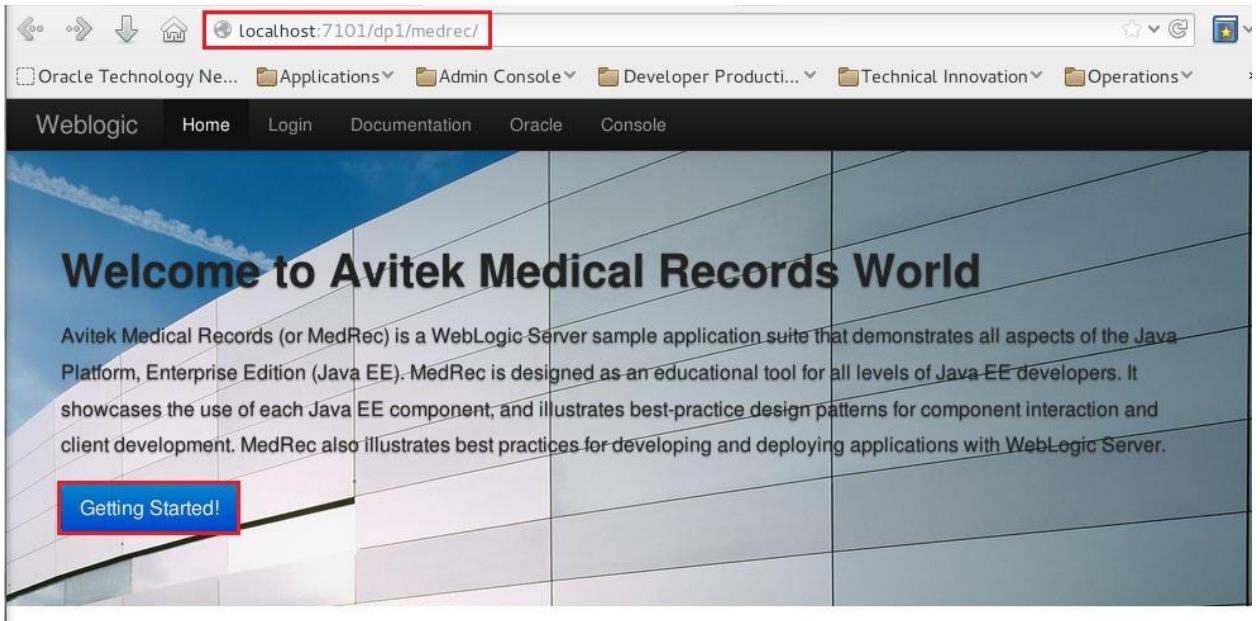
xix. Configuring Other Resources. This MedrecInDP1.sh creates the JMS Server, JMS Module, Distributed Queue and Connection Factory then deploys the medrec.ear, physician.ear and chat.war.

- a. ./MedrecInDP1.sh

```
[oracle@localhost Lab1]$ ./MedrecInDP1.sh
```

## Accessing Medrec Application in Domain Partition dp1

- i. Go to browser and type the URL: <http://localhost:7101/dp1/medrec/>
- ii. Click on Getting Started.



- iii. Under Patient, Click on I'm New Here

A screenshot of a web application interface. The top navigation bar includes links for "Weblogic", "Home", "Login", "Documentation", "Oracle", and "Console". The main content area is divided into two sections. The top section, titled "Administrator", features a photo of a woman in a medical setting and text explaining the administrator's role in managing patient profiles. It includes "Login" and "View Existing Users" buttons. The bottom section, titled "Patient", features a photo of a smiling woman and text explaining the patient's role in looking up visit and prescription history. It includes "Login" and "I'm New Here" buttons. The "I'm New Here" button in the patient section is highlighted with a red rectangular box.

iv. Enter the following or any other data then click on Submit.

Email:	<a href="mailto:weblogic@oracle.com">weblogic@oracle.com</a>
Password:	welcome1
Confirm Password:	welcome1
First Name:	Ankit
Last Name:	Pandey
Gender:	Male
DOB:	Jun 23, 1988
SSN:	123456788

Weblogic Home Login Documentation Oracle Console

### Account

The Patient application allows patients to log in, edit their profile information, or request that their profile be added to the system. Patients can also view prior medical records of visits with their physician.

*Email	<input type="text" value="weblogic@oracle.com"/>
*Password	<input type="password" value="*****"/>
*Confirm Password	<input type="password" value="*****"/>

### Name

*First Name	Middle Name	*Last Name
<input type="text" value="Ankit"/>		<input type="text" value="Pandey"/>

### Personal Info

*Gender	<input type="text" value="Male"/>
*DOB	<input type="text" value="Sep 1, 2015"/>
*SSN	<input type="text" value="325436547"/>

Phone

Weblogic Home Login Documentation Oracle Console

Thank you for registering with us! Your registration will be processed by MedRec Administration.  
Once approved, you will receive an email with instructions on how to log into MedRec to view your medical record.

v. Click on Getting Started again on Medrec Home Page.

vi. Under Administrator, click on Login.

localhost:7101/dp1/medrec/index.xhtml

Oracle Technology Ne... Applications Admin Console Developer Producti... Technical Innovation Operations

Weblogic Home Login Documentation Oracle Console



**Administrator** view and manage users.

The Administrator application allows an administrator to approve or deny new patient profile requests. The Administrator can reset passwords and create physicians.

[Login](#) [View Existing Users](#)

vii. Enter **administrator/administrator123** as username and password.

The screenshot shows a web-based administrator login interface. At the top, the word "Administrator" is displayed in a bold, dark font. Below it, a large, bold, dark font displays the message "Please sign in.". There are two input fields: "Username" containing "administrator" and "Password" containing a series of dots. A blue "Sign In" button is located at the bottom right of the form area. The entire form is enclosed in a light gray border.

viii. Under **Pending Requests**, click on Go.

The screenshot shows the administrator dashboard after a successful login. The top navigation bar includes "administrator", "Administrator Home", and "Logout". A green success message box says "Successful Login." A red-bordered box highlights the "Pending requests." section, which contains a "Go" button. Another red-bordered box highlights the "Statistics" section, which contains a "Go" button. The main content area is currently empty.

ix. Click on the Email Id, and then click on Approve.

x. Click on Logout.

The screenshot shows the administrator dashboard after performing an action. The top navigation bar includes "administrator", "Administrator Home", and "Logout". A green success message box says "Successfully approved or denied the registration request." The "Logout" button in the top navigation bar is highlighted with a red box.

- xi. You can login as [weblogic@oracle.com/welcome1](mailto:weblogic@oracle.com/welcome1) as username/password as Patient.
- xii. You can view your record summary, and you can also have interaction with physician.
- xiii. Click on Logout.

The screenshot shows a web-based patient portal. At the top, there is a navigation bar with a dark background. On the left, the user's name "Ankit Pandey" is displayed in a white box. To the right of the name are three menu items: "Patient Home", "Profile", and "Chat Room". The "Logout" button is located at the far right of the bar, enclosed in a red rectangular box. Below the navigation bar, a green horizontal bar displays the message "Successful Login." with a small close button ("X") on the right side. The main content area is divided into two sections. The left section is titled "View Record Summary" and contains the text: "Look up your medical records, and view your visit and prescription history." Below this text is a blue "Go" button. The right section is titled "Interaction with Physicians" and contains the text: "Click 'Join' to connect to the chat server. You can then select a physician to chat with from the list of online physicians. Choose one to join his or her chat room. If there are no physicians in the list except Eliza, then no physicians are currently online so that no chat room is available. Eliza is a special robot physician. You could chat one-to-one with her directly or you can use the 'Physician App' to have a real physician open the chat room." Below this text is another blue "Go" button.

## Configuration of Medrec Application in Domain Partition dp2

In the Step 4 we are creating the below configuration for medrec application in domain partition dp2. We are using the same medrec applications and same JNDI name for the Datasources, connection factory and Distributed queue but we will connect to different database. So there are two benefits of Multi-tenancy.

- In a domain, you can deploy the same application in two different domain partitions and there will be no JNDI conflict. You do not have to make any changes in application.
- In single domain, you can have same application deployed in two different domain partitions and connected to two databases. So both the application will have different Set of Users.

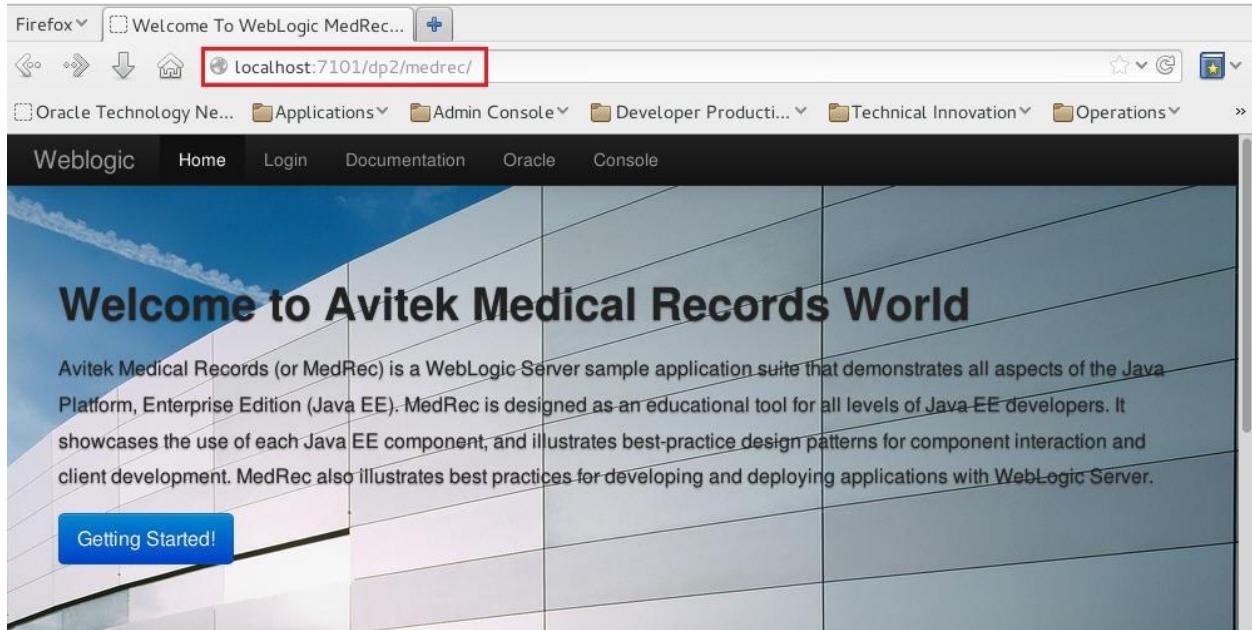
Virtual Target:	VT-Medrec-2
Domain Partition:	dp2
Resource Group	app2RG
app1RG:	
Datasource:	MedRec2GlobalDataSourceXA, jdbc/MedRecGlobalDataSourceXA
Mail Session:	MedRecMailSession, mail/MedRecMailSession
Persistence Store:	MedRec2-fs
JMS Server:	MedRec2JMSServer
JMS Module:	MedRec2Module
MedRecModule:	
Subdeployment:	MedRec2JMS
Connection Factory:	MedRec2ConnectionFactory, com.oracle.medrec.jms.connectionFactory
Distributed Queue:	PatientNotificationQueue com.oracle.medrec.jms.PatientNotificationQueue
Applications:	medrec.ear physician.ear chat.war

This MedrecInDP2.sh creates the Virtual Target, Domain Partition, Resource Group, JDBC Datasource, JMS Server, JMS Module, Distributed Queue and Connection Factory then deploys the medrec.ear, physician.ear and chat.war.

- i. cd /u01/content/weblogic-innovation-seminars/WInS\_Demos/MT-Workshop/Lab1/
- ii. ./MedrecInDP2.sh
- iii. Go back to FMWC <http://localhost:7001/em>
- iv. Verify the creation of following the following resources.
  - a. Click on **WebLogic Domain ->Environment ->Virtual Target**. Here we have **dp2** as **URL Prefix** for the Virtual Target **VT-Medrec-2**.
  - b. Click on **WebLogic Domain ->Environment ->Domain Partition**.
  - c. Click on Domain Partition to **dp2** then click on Resource group **app2RG**.
  - d. You can verify the creation of above System Resources here.

## Accessing Medrec Application in Domain Partition dp2

- i. Go to browser and type the URL: <http://localhost:7101/dp2/medrec/>



### The MedRec User Type

To begin using MedRec, click the **Start Using MedRec** button below.  
From there you can begin by registering as a new patient or you can

### Documentation

Avitek Medical Records (or MedRec) is a comprehensive sample application that demonstrates how to use Oracle WebLogic Server and

- ii. Click on Getting Started!
- iii. Under **Patient**, Click on Login, Try to login with [weblogic@oracle.com/welcome1](mailto:weblogic@oracle.com/welcome1). You will not be able to login. As both medrec application is connected to different database. So in Multitenant WebLogic Server, you can deploy exactly same application with same configuration but with different database and there will be no JNDI conflict in domain.

## Configuration of Day Trader application in Domain Partition dp3

Here we will create the below configuration through WLST to Run Day Trader Application on Domain Partition dp3.

Virtual Target:	VT-daytrader
Domain Partition:	dp3
Resource Group	app3RG
app1RG:	
Datasource:	
Name:	jdbc/datasources/TradeDataSource,
JNDI Name:	<b>jdbc/datasources/TradeDataSource</b>
Name:	jdbc/datasources/NoTxTradeDataSource
JNDI Name:	<b>jdbc/datasources/NoTxTradeDataSource</b>
Persistence Store:	MyFileStore
JMS Server:	MyJMSServer
JMS Module:	MyJMSModule
MyJMSModule:	
Subdeployment:	MySubdeployment
Connection Factory:	
Name:	jms/myQueueConnectionFactory,
JNDI Name:	<b>jms/myQueueConnectionFactory</b>
Name:	jms/myTopicConnectionFactory
JNDI Name:	<b>jms/myTopicConnectionFactory</b>
Distributed Queue:	
Name:	jms/TradeBrokerQueue
JNDI Name:	<b>jms/TradeBrokerQueue</b>
Distributed Topic:	
Name:	jms/TradeStreamerTopic
JNDI Name:	<b>jms/TradeStreamerTopic</b>
Applications:	web-3.0.0.war

This DayTraderInDP3.sh creates the Virtual Target, Domain Partition, Resource Group, JDBC Datasource, JMS Server, JMS Module, Distributed Queue and Connection Factory then deploys the web-3.0.0.war.

- i. cd /u01/content/weblogic-innovation-seminars/WInS\_Demos/MT-Workshop/Lab1/
- ii. ./ DayTraderInDP3.sh
- iii. Go back to FMWC <http://localhost:7001/em>
- iv. Verify the creation of following the following resources.
  - a. Click on **WebLogic Domain ->Environment ->Virtual Target**. Here we have **dp3** as **URL Prefix** for the Virtual Target **VT-daytrader**.
  - b. Click on **WebLogic Domain ->Environment ->Domain Partition**.
  - c. Click on Domain Partition to **dp3** then click on Resource group **app3RG**.
  - d. You can verify the creation of above System Resources here.

## Access Day Trader Application in Domain Partition dp3

- i. Go to browser and type the URL: <http://localhost:7101/dp3/daytrader/>
- ii. Click on **Configuration** tab, click on “Re-populate Day Trader Database”.

Firefox ▾ Welcome To WebLogic Medi... ▾ DayTrader ▾  
localhost:7101/dp3/daytrader/  
Oracle Technology Ne... Applications Admin Console Developer Producti... Technical Innovation Operations  
**DAYTRADER**  
PERFORMANCE BENCHMARKING  
Home Trading & Portfolios Configuration Primitives FAQ  

Benchmark Configuration Tools	Description
Reset DayTrader (to be done before each run)	Reset the DayTrader runtime to a clean starting point by logging off all users, removing new registrations and other general cleanup. For consistent results this URL should be run <b>before each</b> Trade run.
Configure DayTrader run-time parameters	This link provides an interface to set configuration parameters that control DayTrader run-time characteristics such as using EJBs or JDBC. This link also provides utilities such as setting the UID and Password for a remote or protected database when using JDBC.
(Re)-create DayTrader Database Tables and Indexes	This link is used to (a) initially create or (b) drop and re-create the DayTrader tables. A DayTrader database <b>should exist before doing this action</b> . The existing DayTrader tables, if any, are dropped, then new tables and indexes are created. <b>Please stop and re-start the Daytrader application (or your application server) after this action and then use the "Repopulate DayTrader Database" link below to repopulate the new database tables.</b>
(Re)-populate DayTrader Database	This link is used to initially populate or re-populate the DayTrader database with fictitious users (uid:0, uid:1, ...) and stocks (s:0, s:1, ...). First all existing users and stocks are deleted (if any). The database is then populated with a new set of DayTrader users and stocks. This option does not drop and recreate the Daytrader db tables.

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- iii. Choose following Options then click on **Update Config**.

Run Time Mode: Full EJB 3  
JPA Layer: Hibernate  
Order Processing Mode: Synchronous

**NOTE:** Parameters settings will return to default on server restart. To make configuration settings persistent across application server stop/starts, edit the servlet init parameters for each DayTrader servlet. This is described in the [DayTrader FAQ](#).

**Run-Time Mode**  
 Full EJB3  
 Direct (JDBC)  
 Session (EJB3) To Direct

**JPA Layer**  
 OpenJPA  
 Hibernate

**Order-Processing Mode**  
 Synchronous  
 Asynchronous\_2-Phase

Run Time Mode determines server implementation of the TradeServices to use in the DayTrader application Enterprise Java Beans including Session, Entity and Message beans or Direct mode which uses direct database and JMS access. See [DayTrader FAQ](#) for details.

JPA Layer determines what kind of JPA Implementation Daytrader EJB classes use. Typically, Apache Geronimo uses OpenJPA, and RedHat JBoss 5 uses Hibernate.

Order Processing Mode determines the mode for completing stock purchase and sell operations. Synchronous mode completes the order immediately. Asynchronous\_2-Phase performs a 2-phase commit over the EJB Entity/DB and MDB/JMS transactions. See [DayTrader FAQ](#) for details.

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- iv. Once it is done, go to terminal.
- v. ./correctDB.sh
- vi. Click on **Trading & Portfolios** tab, Enter **uid:0/xxx** as **username/password** then click on **Login**.
- vii. Click on **Quotes/Trade**, Click on **buy** to purchase a share.
- viii. Click on **Portfolio**, Verify the Order then click on **Sell**.
- ix. Again click on **Portfolio**, to verify the Sell of share.
- x. Click on **Log off**.

## LAB 2: EXPORT /IMPORT DOMAIN PARTITION

### Overview

In this Lab, We already created a Non-JRF domain dev\_domain and configured it with all required resources for medrec application. You will remove domain partition dp1 from base\_domain. As this domain partition is targeted to Virtual Target VT-Medrec-1 and we are going to import a new domain partition on this Virtual target. So we need to remove this domain partition dp1 for this Lab2.

We are going to learn the following:

- Exporting a domain partition from a Non-JRF domain dev\_domain and importing it to a Restricted JRF domain base\_domain.

**Note:** Both domains must have Virtual Target with same name. For example in our case, base\_domain and dev\_domain has VT-Medrec-1 as Virtual Target. This requirement is only if we use console FWC. Using WLST, you can do customization.

### Stop and remove the domain partition dp1 from base\_domain

- i. In FMW Console, Click on **WebLogic Domain -> Environment -> Domain Partition**.
- ii. Check the box near **dp1** then click on **Control -> Stop -> Force Stop now**. On Confirmation Screen Click on OK. Click on Close.
- iii. Check the box near **dp1** then click on **Delete**. In Delete Domain Partition Screen, click on OK.
- iv. Go to browser and type the URL: <http://localhost:7101/dp1/medrec/>
- v. Confirm that page return “**Error 404—Not Found**”.

The screenshot shows a Firefox browser window. The address bar contains the URL "localhost:7101/dp1/medrec/". The main content area displays the error message "Error 404--Not Found" within a red-bordered box. Below this, there is explanatory text from RFC 2068 about the 404 status code. At the bottom, there is additional descriptive text about the server's behavior regarding unavailable resources.

**Error 404--Not Found**

**From RFC 2068 Hypertext Transfer Protocol -- HTTP/1.1:**

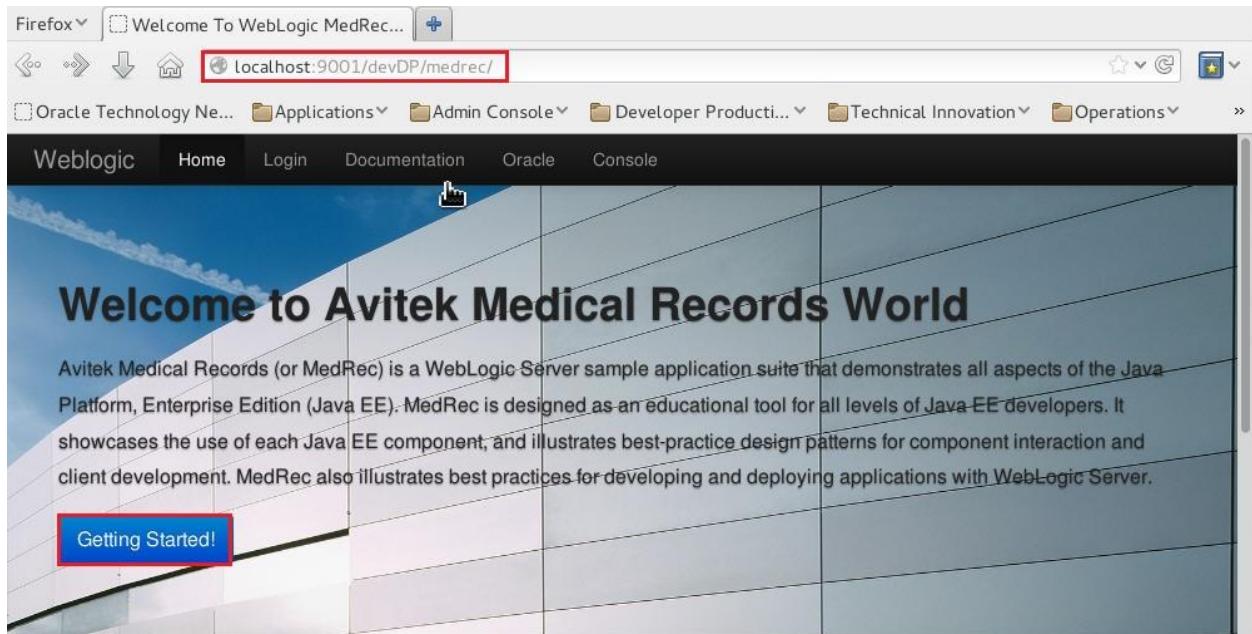
**10.4.5 404 Not Found**

The server has not found anything matching the Request-URI. No indication is given of whether the condition is temporary or permanent.

If the server does not wish to make this information available to the client, the status code 403 (Forbidden) can be used instead. The 410 (Gone) status code SHOULD be used if the server knows, through some internally configurable mechanism, that an old resource is permanently unavailable and has no forwarding address.

## Accessing Medrec Application on Single Server (Admin Server) domain

- i. cd /u01/wins/wls1221/user\_projects/domains/dev\_domain/
- ii. ./startWebLogic.sh
- iii. Verify the creation of following the following resources.
  - e. Click on **WebLogic Domain ->Environment ->Virtual Target**. Here we have **devDP** as **URL Prefix** for the Virtual Target **VT-Medrec-1**.
  - f. Click on **WebLogic Domain ->Environment ->Domain Partition**.
  - g. Click on Domain Partition to **Medrec-Dev** then click on Resource group **app1RG**.
  - h. You can verify the creation of **System Resources** in Resource group.
- iv. Go to browser and access the application on  
<http://localhost:9001/devDP/medrec>
- v. Click on Getting Started.



- vi. Under Patient, Click on Login.
- vii. Enter [fred@golf.com/weblogic](mailto:fred@golf.com/weblogic) as username/password then click on login.
- viii. Verify the Execution of Application then click on Logoff.

The screenshot shows a web browser window with the URL [localhost:9001/devDP/medrec/patient/patientHome.xhtml](http://localhost:9001/devDP/medrec/patient/patientHome.xhtml). The page title is "Patient Home". The top navigation bar includes links for "Patient Home", "Profile", "Chat Room", and "Logout". A red box highlights the "Logout" link. A green banner at the top displays the message "Successful Login." A red box highlights the "Successful Login." message. Below the banner, there are two main sections: "View Record Summary" and "Interaction with Physicians". The "View Record Summary" section contains a brief description and a "Go" button. The "Interaction with Physicians" section contains a detailed description and a "Go" button. At the bottom of the page, there is a footer with links to Oracle Home, Products and Services, Industries, Support, Store, Partners, Communities, and About, along with a copyright notice.

## Exporting the Domain Partition

- i. Go to browser and type the URL: <http://localhost:9001/console>
- ii. Enter weblogic/welcome1 as Username/Password then click on Login.

The screenshot shows a web browser window with the URL [localhost:9001/console/login/LoginForm.jsp](http://localhost:9001/console/login/LoginForm.jsp). The page title is "ORACLE® WebLogic Server Administration Console 12c". The login form is displayed, with fields for "Username" (weblogic) and "Password" (redacted). A red box highlights the "Username" field. The "Welcome" message and the instruction "Log in to work with the WebLogic Server domain" are visible above the form. A red box highlights the "Welcome" message.

- iii. On left Side, Click on Domain Partition, and then check the box near to "Medrec-Dev" then click on Export.

Name	Resource Groups	Default Target(s)	State
Medrec-Dev	app1RG	VT-Medrec-1	RUNNING

- iv. Select the box for "Include Application Bits" and enter `/home/oracle/Desktop` as Path then click on OK.

**Export a Domain Partition**

Domain Partition: Medrec-Dev  
Name:

Do you want to include the installed applications in the exported ZIP file?

Include Application Bits

What is the full path to the key file you want to use to encrypt attributes in the partition archive?

Full path to the Key File:

Where do you want the domain partition archive to be placed ?

Path:

Recently Used Paths: (none)  
Current Location: localhost / home / oracle / Desktop  
coherence\_demos

- v. Verify the creation of **Medrec-Dev.zip** and **Medrec-Dev-attribute.json** in **/home/oracle/Desktop** directory.
- vi. Open a new terminal.  
ls -lra /home/oracle/Desktop

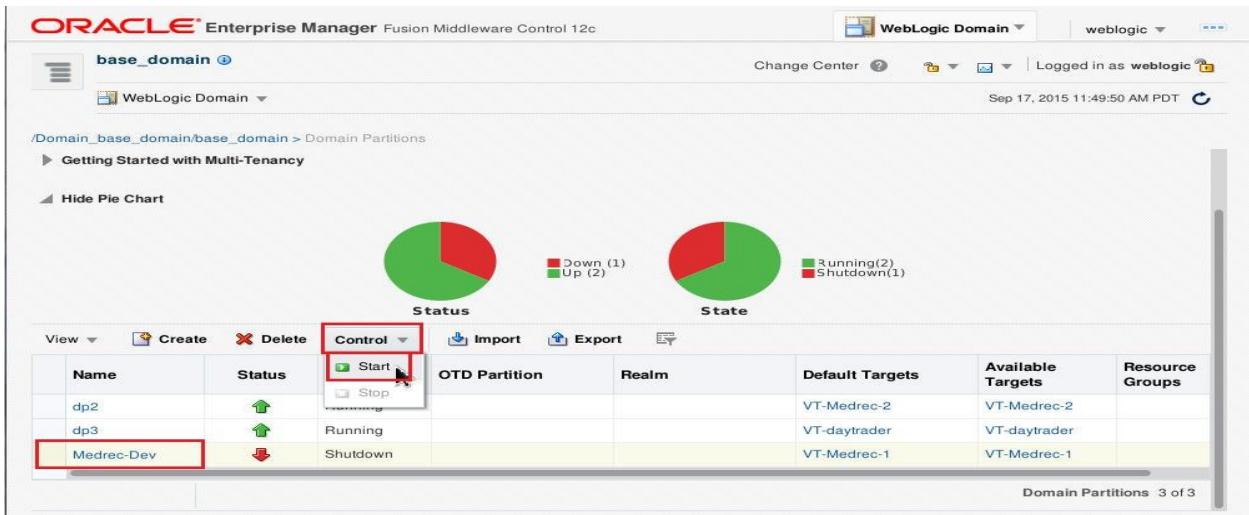
## Importing the Domain Partition

- i. Go back to FWC of base\_domain. Go to browser and type the URL:  
<http://localhost:7001/em>.
- ii. Enter **weblogic/welcome1** as Username/Password and click on **Login**.
- iii. Click on **WebLogic Domain-> Environment ->Domain Partition**.

The screenshot shows the Oracle Enterprise Manager Fusion Middleware Control 12c interface. The left sidebar shows navigation categories: Server, Cluster, Deployment, and Administration. Under 'base\_domain', the 'WebLogic Domain' section is selected. In the main content area, under 'On Server', the 'Domain Partitions' link is highlighted with a red box. To the right, there is a table titled 'Domain Partitions' with columns 'Name', 'Machine', and 'State'. Two rows are listed: 'Cluster' and 'Cluster', both with 'machine' as the machine and 'Running' as the state. A status bar at the bottom right indicates 'Servers 3 of 3'.

- iv. Click on **Import**. Click on **Browse** button, Select the file **Medrec-Dev.zip** from **/home/oracle/Desktop** directory then click on **OK**.
- v. Click on **OK**.
- vi. Initially it will have State “**Unknown**”. Wait for 1 or 2 minute, click on Refresh icon to get the current state.

- vii. Once the status for Medrec-Dev domain partition is **Shutdown**, check the box, near **Medrec-Dev** then click on **Control -> Start**. Click on the Refresh icon to get the current state.



- viii. Go browser and type the URL: <http://localhost:7101/dp1/medrec/>  
ix. Click on “**Getting Started!**” Under Administrator, click on Login.  
x. Enter **administrator/administrator123** as Username/Password then click on Sign in.  
xi. Click on Logout.

Successful Login.

**Pending requests.**

View pending applicant details and approve or deny requests.

**Go**

**Statistics**

Generate reports with financial statistics for patients, physicians, and prescriptions over a specified time period.

**Go**

Note: As we have VT-Medrec-1 as Virtual target in both the domains base\_domain and dev\_domain. In base\_domain, we have added **administrator** user to default security realm. So as this domain partition becomes part of this domain. It also uses the default security realm.

- xii. Stop the Weblogic Server running in dev\_domain, by pressing Ctrl +C in terminal in which Admin Server is running.

## LAB 3: RESOURCE CONSUMPTION MANAGEMENT

### Overview

When applications that are deployed to multiple collocated Domain Partitions, access shared resources (low level resources such as CPU, network, storage) two key problems are likely to be faced:

- Contention and unfairness during allocation: Multiple request for a Shared resources results in contention and interference. Abnormal resource consumption requests may happen due to benign reasons (high traffic-genuine or DDoS), misbehaving, buggy applications or malicious code. These requests could overload the capacity of shared resources, thereby preventing another consumer's access to the resource.
- Variable performance leading to potential Service Level Agreement (SLA) violations: From a cloud operations perspective, performance for different collocated consumers.

It is therefore critical to manage and isolate access to shared resources in the WebLogic application Server by domain partition to ensure fairness in allocation, prevent contention/interferences of access to shared resources and to provide consistent performance for multiple co resident tenants. The Resource Consumption Management (RCM) feature in WebLogic 12.2.1 Multi-tenancy allows WebLogic System administrator to specify resource consumption management policies (allows the specification of constraints, recourse actions and notification) on shared resources such as CPU, Heap, File and Network.

In this lab we are going to learn the following:

- Enabling RCM by adding extra arguments in Server Java Arguments.
- Creating Resource manager on the basis of Heap Size.
- Assign Resource manager to a Domain Partition.
- Running an example to understand the functioning of RCM.

### Enabling RCM by adding extra arguments in Server JAVA\_OPTION Arguments

Resource Consumption Management is integrated with JRR 8u40+ and it uses some Oracle JVM Features. First we will stop the cluster and Add parameter to JAVA\_OPTIONS, then we will start the cluster again.

- i. cd /u01/content/weblogic-innovation-seminars/WInS\_Demos/MT-Workshop/Lab3/
- ii. ./stop-cluster.sh
- iii. vi  
/u01/wins/wls1221/user\_projects/domains/base\_domain/bin/setDomainEnv.sh
- iv. Add the below options **-XX:+UnlockCommercialFeatures -XX:+ResourceManagement -XX:+UseG1GC** in JAVA\_OPTIONS as shown below.

```
JAVA_OPTIONS="-XX:+UnlockCommercialFeatures -XX:+ResourceManagement  
-XX:+UseG1GC ${JAVA_OPTIONS} ${JAVA_PROPERTIES}"  
export JAVA_OPTIONS
```

v. ./start-cluster.sh

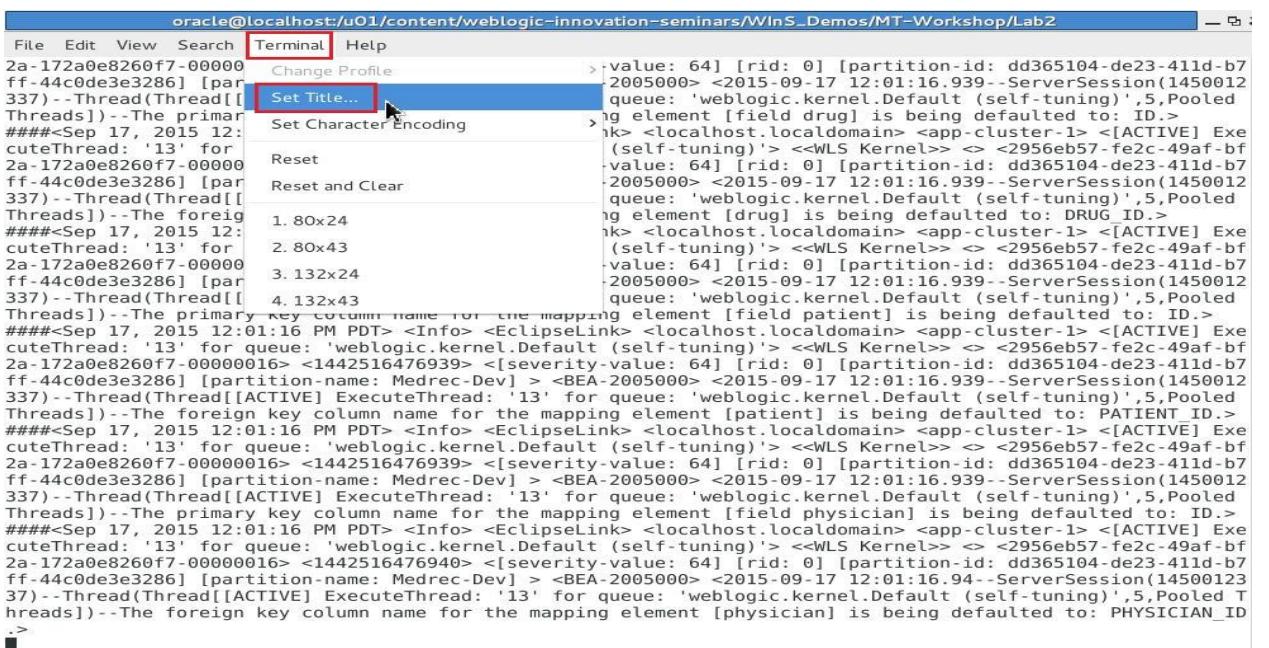
```
[oracle@localhost Lab3]$ vi /u01/wins/wls1221/user_projects/domains/base_domain/bin/setDomainEnv.sh
[oracle@localhost Lab3]$ ./start-Cluster.sh
Initializing WebLogic Scripting Tool (WLST) ...
Welcome to WebLogic Server Administration Scripting Shell
Type help() for help on available commands
Connecting to t3://localhost:7001 with userid weblogic ...
Successfully connected to Admin Server "AdminServer" that belongs to domain "base_domain".
Warning: An insecure protocol was used to connect to the server.
To ensure on-the-wire security, the SSL port or Admin port should be used instead.
Location changed to edit tree.
This is a writable tree with DomainMBean as the root.
To make changes you will need to start an edit session via startEdit().
For more help, use help('edit').

Starting an edit session ...
Started edit session, be sure to save and activate your changes once you are done.

Starting the following servers in Cluster, app-cluster : app-cluster-1,app-cluster-2
.....
All servers in the cluster app-cluster are started successfully.
Activating all your changes, this may take a while ...
The edit lock associated with this edit session is released once the activation is completed.
Activation completed
Disconnected from weblogic server: AdminServer
[oracle@localhost Lab3]$
```

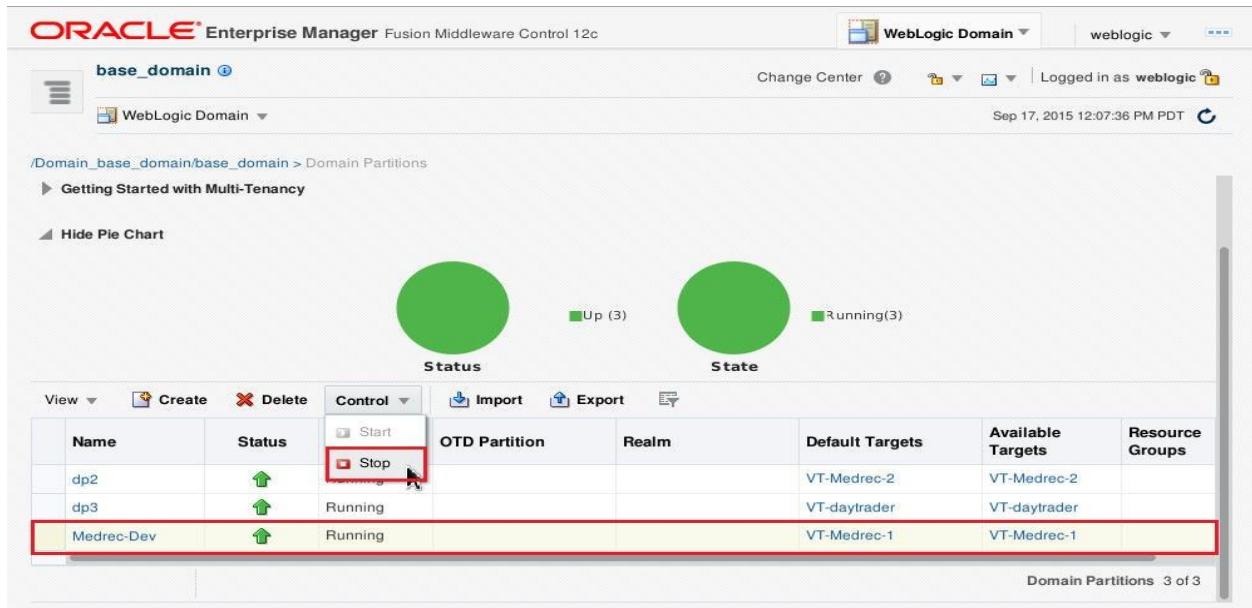
vi. tail -f /u01/wins/wls1221/user\_projects/domains/base\_domain/servers/app-cluster-1/logs/app-cluster-1.log

vii. In this terminal, Click on Terminal -> Set Title and app-cluster-1 then click on OK. We will use these logs to monitor resource consumption manager lab.



## Creating a Resource Manager and Configuring Resource Manager for a domain partition

- i. Go to FMW control <http://localhost:7001/em>.
- ii. Enter **weblogic/welcome1** as **Username/Password** then click on Login.
- iii. Click on **WebLogic Domain ->Environment ->Domain Partition**.
- iv. Check the box near **Medrec-Dev** domain and click on **Control -> Stop**. Click on **OK** on Confirmation window.

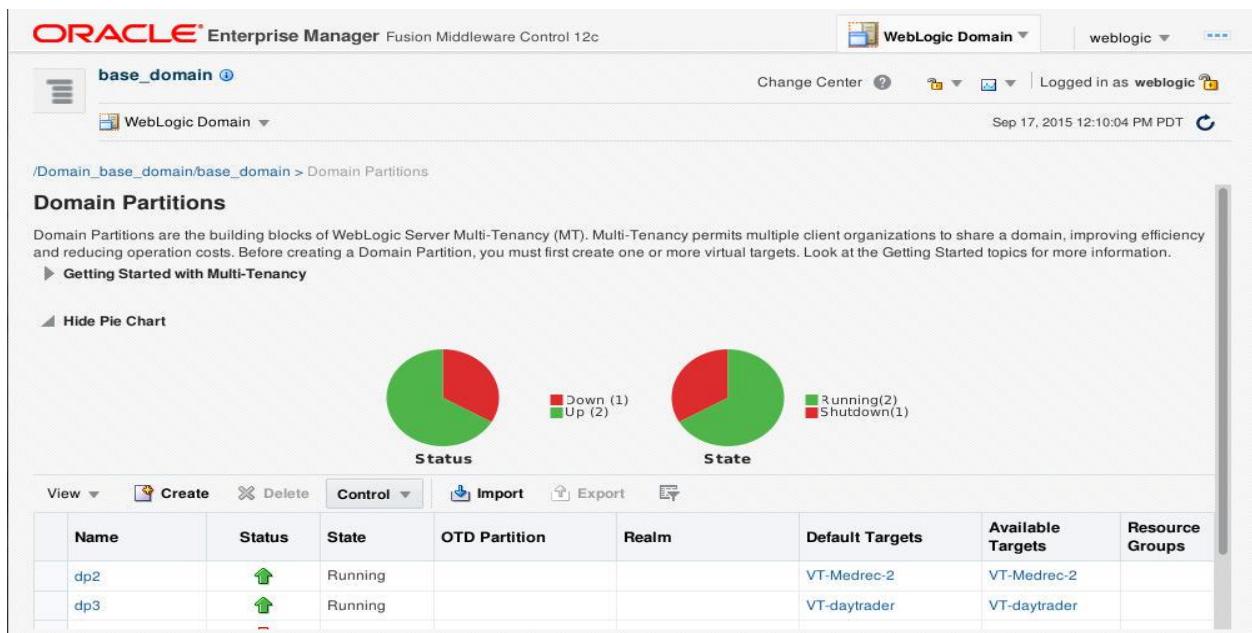


The screenshot shows the Oracle Enterprise Manager Fusion Middleware Control 12c interface. The top navigation bar includes 'WebLogic Domain' and 'logged in as weblogic'. The main content area displays 'Domain Partitions' with two pie charts: 'Status' (Up 3) and 'State' (Running 3). Below the charts is a table listing domain partitions:

Name	Status	OTD Partition	Realm	Default Targets	Available Targets	Resource Groups
dp2	Up			VT-Medrec-2	VT-Medrec-2	
dp3	Up	Running		VT-daytrader	VT-daytrader	
Medrec-Dev	Up	Running		VT-Medrec-1	VT-Medrec-1	

A red box highlights the 'Medrec-Dev' row in the table. Another red box highlights the 'Stop' button in the 'Control' dropdown menu for the selected row.

- v. Verify the partition is in Shutdown State by click on refresh icon to refresh the page.



The screenshot shows the Oracle Enterprise Manager Fusion Middleware Control 12c interface after stopping the 'Medrec-Dev' partition. The top navigation bar includes 'WebLogic Domain' and 'logged in as weblogic'. The main content area displays 'Domain Partitions' with two pie charts: 'Status' (Up 2, Down 1) and 'State' (Running 2, Shutdown 1). Below the charts is a table listing domain partitions:

Name	Status	State	OTD Partition	Realm	Default Targets	Available Targets	Resource Groups
dp2	Up	Running			VT-Medrec-2	VT-Medrec-2	
dp3	Up	Running			VT-daytrader	VT-daytrader	
Medrec-Dev	Down	Shutdown					

vi. Click on **WebLogic Domain->Environment -> Resource Consumption Managers.**

The screenshot shows the Oracle Enterprise Manager interface for a 'base\_domain'. The left sidebar has a 'Domain' section with various options like Home, Monitoring, Diagnostics, Control, Logs, Environment, Deployments, JDBC Data Sources, Messaging, Cross Component Wiring, Web Services, Other Services, Administration, Refresh WebLogic Domain, and Routing Topology. The 'Environment' option is selected and highlighted with a red box. On the right, there's a summary section with a green circle indicating 'Running(2)' and a red circle indicating 'Shutdown(1)'. Below it is a table titled 'Resource Consumption Managers' with columns for Default Targets and Available Targets. The table shows two entries: VT-Medrec-2 and VT-daytrader under both Default Targets and Available Targets. At the bottom of the table, there's a red box highlighting the 'Resource Consumption Managers' link. The top right corner shows the date and time: Sep 17, 2015 12:10:04 PM PDT.

vii. Click on **Add Resource Manager** and enter the following value then click on **OK**.

Resource Manager:	smallHeap
Policy Type:	HeapRetained
Shutdown:	400
Slow:	250
Notify:	200

The screenshot shows the 'Add Resource Manager' dialog box. It has fields for 'Resource Manager' (set to 'smallHeap'), 'Policy Type' (set to 'HeapRetained'), and 'Fair Share' (with a weight input field). Below these are 'Triggers' for 'Shutdown', 'Slow', and 'Notify' with their respective values (400, 250, 200). At the bottom right are 'OK' and 'Cancel' buttons, with 'OK' highlighted with a red box.

viii. Associate the Resource Manager with **Medrec-Dev** domain partition.

- Click on **WebLogic Domain -> Environment->Domain Partition** then click on **Medrec-Dev**.

The screenshot shows the Oracle Enterprise Manager Fusion Middleware Control 12c interface. The top navigation bar includes 'WebLogic Domain' and 'weblogic'. The main content area is titled '/Domain\_base\_domain/base\_domain > Domain Partitions'. It features two pie charts: 'Status' (Up 2, Down 1) and 'State' (Running 2, Shutdown 1). Below the charts is a table with columns: Name, Status, State, OTD Partition, Realm, Default Targets, Available Targets, and Resource Groups. The table data is as follows:

Name	Status	State	OTD Partition	Realm	Default Targets	Available Targets	Resource Groups
dp2	Up	Running			VT-Medrec-2	VT-Medrec-2	
dp3	Up	Running			VT-daytrader	VT-daytrader	
Medrec-Dev	Down	Shutdown			VT-Medrec-1	VT-Medrec-1	

At the bottom right of the table, it says 'Domain Partitions 3 of 3'.

- Click on **Domain Partition ->Administration -> Resource Sharing**.

The screenshot shows the Oracle Enterprise Manager interface for the 'Medrec-Dev' domain partition. The top navigation bar includes 'Change Center', 'Logged in as weblogic', and the date 'Sep 17, 2015 12:17:35 PM PDT'. The main content area is titled '/Domain\_base\_domain/base\_domain/Medrec-Dev > Partition: Medrec-Dev'. It features several tabs: General, Available Targets, Resource Groups, Load Balancer Configuration, Resource Overrides, **Resource Sharing** (highlighted with a red box), Coherence Caches, and Notes. The 'Resource Sharing' tab contains the following text:  
Use this page to specify resource sharing policies for this partition. A Partition Work Manager manages the threads allocated to the partition, manages scheduling work instances to those threads. A Resource Consumption Manager allows you to partition access to shared JDK resources such as CPU, Heap, File and Network, monitor their access and enforce comprehensive policies on the consumption of these resources for this partition.

**Partition Work Manager Configuration**  
Select a Partition Work Manager defined for this domain or specify the following attributes here to prioritize the thread usage of the WLS thread pool amongst partitions. This helps set the relative priority of the partitions.

No Partition Work Manager  
 Use a Partition Work Manager configured for the domain.

Specify the Partition Work Manager settings for this domain partition.

**Resource Manager Configuration**  
Select a resource manager defined for this domain or create a partition specific resource manager and policies. Note that the resource manager policies will only be

- c. Under **Resource Manager Configuration**, and Select “**Use a Resource Manager configured for the domain**” and choose “**smallHeap**” then click on **Save**.

The screenshot shows the Oracle Enterprise Manager interface for a domain named "Medrec-Dev".

**Partition Work Manager Configuration:**

- Select a Partition Work Manager defined for this domain or specify the following attributes here to prioritize the thread usage of the WLS thread pool amongst partitions.
- Options:
  - No Partition Work Manager
  - Use a Partition Work Manager configured for the domain. (This option is selected)
  - Specify the Partition Work Manager settings for this domain partition.

**Resource Manager Configuration:**

- Select a resource manager defined for this domain or create a partition specific resource manager and policies. Note that the resource manager policies will only be effective if the underlying JDK version is 8u40 or later.
- Options:
  - No Resource Manager
  - Use a Resource Manager configured for the domain. smallHeap (This option is selected)
  - Use a partition specific resource manager: (A new resource manager will be created.)

- ix. Click on **Start Up** near Domain partition.

The screenshot shows the Oracle Enterprise Manager interface for a domain named "Medrec-Dev".

**Confirmation:**

- Settings updated successfully. All changes have been activated.

**Domain Partition Actions:**

- Domain Partition (dropdown menu)
- Start Up** (highlighted with a red box)
- Shut Down...

- x. We will deploy a sample application to show the functionality.
  - a. cd /u01/content/weblogic-innovation-seminars/WInS\_Demos/MT-Workshop/Lab3/
  - b. ./DeployHeap.sh

```
[oracle@localhost Lab3]$ ./DeployHeap.sh
Initializing WebLogic Scripting Tool (WLST) ...

Welcome to WebLogic Server Administration Scripting Shell

Type help() for help on available commands

Connecting to t3://localhost:7001 with userid weblogic ...
Successfully connected to Admin Server "AdminServer" that belongs to domain "base_domain".

Warning: An insecure protocol was used to connect to the server.
To ensure on-the-wire security, the SSL port or Admin port should be used instead.

Location changed to edit tree.
This is a writable tree with DomainMBean as the root.
To make changes you will need to start an edit session via startEdit().
For more help, use help('edit').

Starting an edit session ...
Started edit session, be sure to save and activate your changes once you are done.
Deploying application from /u01/content/weblogic-innovation-seminars/WInS_Demos/MT-Workshop/Lab3/heapApp.war
to targets (upload=false) ...
<Sep 17, 2015 12:21:45 PM PDT> <Info> <J2EE Deployment SPI> <BEA-260121> <Initiating deploy operation for application, heapApp [archive: /u01/content/weblogic-innovation-seminars/WInS_Demos/MT-Workshop/Lab3/heapApp.war], to configured targets.>
You have an edit session in progress, hence WLST will not block for your deployment to complete.
Started the Deployment of Application. Please refer to the returned WLSTProgress object or variable LAST to track the status.
Activating all your changes, this may take a while ...
The edit lock associated with this edit session is released once the activation is completed.
Activation completed
Disconnected from weblogic server: AdminServer
<Sep 17, 2015 12:21:52 PM PDT> <Warning> <JNDI> <BEA-050001> <WLContext.close() was called in a different thread than the one in which it was created.>
[oracle@localhost Lab3]$
```

- xi. Go back to browser and type the URL: <http://localhost:7101/dp1/heapApp/>.
- xi. Enter 160 in **Allocate Heap** then click on Submit then observe the logs of app-cluster-1 managed server.
- xi. Enter 50 in **Allocate Heap** then click on Submit then observe the logs of app-cluster-1 managed server.

```
####<Sep 17, 2015 12:23:28 PM PDT> <Notice> <RCM> <localhost.localdomain>
<app-cluster-1> <Thread-52> <weblogic> <> <2956eb57-fe2c-49af-bf2a-172a0e8260f7-00000034> <1442517808893> <[Notifying Quota Reached For Partition: Medrec-Dev] [severity-value: 32] [rid: 0:4] [Previous Usage: 202428128] [partition-id: dd365104-de23-411d-b7ff-44c0de3e3286] [Resource Name: com.oracle.weblogic.rcm.framework.base.HeapRetainedResourceAttributes] [Current Usage: 211825888] [partition-name: Medrec-Dev]> <BEA-2165799>
<RCM Notification Message: Given quota has been reached for the partition and a notify action has been executed.>
```

```

app-cluster-1
File Edit View Search Terminal Help
#####
<Sep 17, 2015 12:22:59 PM PDT> <Info> <ServletContext-/heapApp> <localhost.localdomain> <app-cluster-1> <[ACTIVE] ExecuteThread: '0' for queue: 'weblogic.kernel.Default (self-tuning)'> <> <2956eb57-fe2c-49af-bf2a-172a0e8260f7-00000047> <1442517779668> <[severity-value: 64] [rid: 0] [partition-id: dd365104-de23-411d-b7ff-44c0de3e3286] [partition-name: Medrec-Dev]> <BEA-000000> <JspServlet: param pageCheckSeconds initialized to: 1>
#####
<Sep 17, 2015 12:22:59 PM PDT> <Info> <ServletContext-/heapApp> <localhost.localdomain> <app-cluster-1> <[ACTIVE] ExecuteThread: '0' for queue: 'weblogic.kernel.Default (self-tuning)'> <> <2956eb57-fe2c-49af-bf2a-172a0e8260f7-00000047> <1442517779669> <[severity-value: 64] [rid: 0] [partition-id: dd365104-de23-411d-b7ff-44c0de3e3286] [partition-name: Medrec-Dev]> <BEA-000000> <JspServlet: param encoding initialized to: null>
#####
<Sep 17, 2015 12:22:59 PM PDT> <Info> <ServletContext-/heapApp> <localhost.localdomain> <app-cluster-1> <[ACTIVE] ExecuteThread: '0' for queue: 'weblogic.kernel.Default (self-tuning)'> <> <2956eb57-fe2c-49af-bf2a-172a0e8260f7-00000047> <1442517779683> <[severity-value: 64] [rid: 0] [partition-id: dd365104-de23-411d-b7ff-44c0de3e3286] [partition-name: Medrec-Dev]> <BEA-000000> <JspServlet: param superclass initialized to null>
#####
<Sep 17, 2015 12:22:59 PM PDT> <Info> <ServletContext-/heapApp> <localhost.localdomain> <app-cluster-1> <[ACTIVE] ExecuteThread: '0' for queue: 'weblogic.kernel.Default (self-tuning)'> <> <2956eb57-fe2c-49af-bf2a-172a0e8260f7-00000047> <1442517779689> <[severity-value: 64] [rid: 0] [partition-id: dd365104-de23-411d-b7ff-44c0de3e3286] [partition-name: Medrec-Dev]> <BEA-000000> <JspServlet: param workingDir initialized to: /u01/wins/wls1221/user_projects/domains/base_domain/partitions/Medrec-Dev/system/servers/app-cluster-1/tmp/_WL_user/heapApp/ru7jtk>
#####
<Sep 17, 2015 12:22:59 PM PDT> <Info> <ServletContext-/heapApp> <localhost.localdomain> <app-cluster-1> <[ACTIVE] ExecuteThread: '0' for queue: 'weblogic.kernel.Default (self-tuning)'> <> <2956eb57-fe2c-49af-bf2a-172a0e8260f7-00000047> <1442517779701> <[severity-value: 64] [rid: 0] [partition-id: dd365104-de23-411d-b7ff-44c0de3e3286] [partition-name: Medrec-Dev]> <BEA-000000> <JspServlet: initialization complete>
#####
<Sep 17, 2015 12:23:28 PM PDT> <Notice> <RCM> <localhost.localdomain> <app-cluster-1> <Thread-52> <weblogic> <> <2956eb57-fe2c-49af-bf2a-172a0e8260f7-00000034> <1442517808893> <[Notifying Quota Reached For Partition: Medrec-Dev] [severity-value: 32] [rid: 0:4] [Previous Usage: 202428128] [partition-id: dd365104-de23-411d-b7ff-44c0de3e3286] [Resource Name: com.oracle.weblogic.rcm.framework.base.HeapRetainedResourceAttributes] [Current Usage: 211825888] [partition-name: Medrec-Dev]> <BEA-2165799> <RCM Notification Message: Given quota has been reached for the partition and a notify action has been executed.>
#####
<Sep 17, 2015 12:24:03 PM PDT> <Info> <Health> <localhost.localdomain> <app-cluster-1> <weblogic.GCMonitor> <> <2956eb57-fe2c-49af-bf2a-172a0e8260f7-00000009> <1442517843237> <[severity-value: 64] [rid: 0] [partition-id: 0] [partition-name: DOMAIN]> <BEA-310002> <21% of the total memory in the server is free.>

```

xiv. Enter 50 in **Allocate Heap** then click on Submit then observe the logs of app-cluster-1 managed server.

```

#####
<Sep 17, 2015 12:26:09 PM PDT> <Notice> <RCM>
<localhost.localdomain> <app-cluster-1> <Thread-51> <weblogic> <> <2956eb57-fe2c-49af-bf2a-172a0e8260f7-00000034> <1442517969737> <[Slow Action Quota Reached For Partition: Medrec-Dev] [Current Usage: 284744072] [severity-value: 32] [Previous Usage: 272825472] [Was Required action to Slow the Partition is executed?: true] [ResourceName: com.oracle.weblogic.rcm.framework.base.HeapRetainedResourceAttributes] [partition-id: dd365104-de23-411d-b7ff-44c0de3e3286] [partition-name: Medrec-Dev] [rid: 0:3]> <BEA-2165800> <RCM Slow Message: Given quota has been reached for the partition and a slow action has been executed.>

```

```

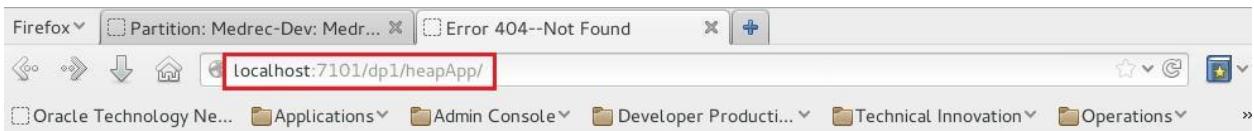
#####
<Sep 17, 2015 12:26:09 PM PDT> <Notice> <RCM> <localhost.localdomain> <app-cluster-1> <Thread-51> <weblogic> <> <2956eb57-fe2c-49af-bf2a-172a0e8260f7-00000034> <1442517969737> <[Slow Action Quota Reached For Partition: Medrec-Dev] [Current Usage: 284744072] [severity-value: 32] [Previous Usage: 272825472] [Was Required action to Slow the Partition is executed?: true] [Resource Name: com.oracle.weblogic.rcm.framework.base.HeapRetainedResourceAttributes] [partition-id: dd365104-de23-411d-b7ff-44c0de3e3286] [partition-name: Medrec-Dev] [rid: 0:3]> <BEA-2165800> <RCM Slow Message: Given quota has been reached for the partition and a slow action has been executed.>

```

xv. Enter 150 in **Allocate Heap** then click on Submit then observe the logs of app-cluster-1 managed server.

```
####<Sep 17, 2015 12:26:09 PM PDT> <Notice> <RCM> <localhost.localdomain> <app-cluster-1> <Thread-51> < weblog ic> <> <2956eb57-fe2c-49af-bf2a-172a0e8260f7-00000034> <1442517969737> <[Slow Action Quota Reached For Partition: Medrec-Dev] [Current Usage: 284744072] [severity-value: 32] [Previous Usage: 272825472] [Was Required action to Slow the Partition is executed?: true] [Resource Name: com.oracle.weblogic.rcm.framework.base.HeapRetainedResourceAttributes] [partition-id: dd365104-de23-411d-b7ff-44c0de3e3286] [partition-name: Medrec-Dev] [rid: 0:3]> <BEA-2165800> <RCM Slow Message: Given quota has been reached for the partition and a slow action has been executed.>
####<Sep 17, 2015 12:28:12 PM PDT> <Notice> <RCM> <localhost.localdomain> <app-cluster-1> <Thread-53> < weblog ic> <> <2956eb57-fe2c-49af-bf2a-172a0e8260f7-00000034> <1442518092544> <[severity-value: 32] [Proposed Usage: 449121936] [rid: 0:5] [partition-id: dd365104-de23-411d-b7ff-44c0de3e3286] [Shutdown Action Quota Reached For Partition: Medrec-Dev] [Resource Name: com.oracle.weblogic.rcm.framework.base.HeapRetainedResourceAttributes] [Current Usage: 449476920] [partition-name: Medrec-Dev]> <BEA-2165801> <RCM Shutdown Message: Given quota has been reached for the partition and a shutdown action has been executed.>
####<Sep 17, 2015 12:28:12 PM PDT> <Notice> <Partition Lifecycle> <localhost.localdomain> <app-cluster-1> <[ACTIVE] ExecuteThread: '13' for queue: 'weblogic.kernel.Default (self-tuning)'> <> <2956eb57-fe2c-49af-bf2a-172a0e8260f7-00000048> <1442518092550> <[severity-value: 32] [rid: 0] [partition-id: dd365104-de23-411d-b7ff-44c0de3e3286] [partition-name: Medrec-Dev]> <BEA-2192303> <The partition lifecycle operation "FORCE_SHUTDOWN" for partition "Medrec-Dev" is initiated.>
####<Sep 17, 2015 12:28:12 PM PDT> <Info> <Deployer> <localhost.localdomain> <app-cluster-1> <[ACTIVE] ExecuteThread: '13' for queue: 'weblogic.kernel.Default (self-tuning)'> <> <2956eb57-fe2c-49af-bf2a-172a0e8260f7-00000048> <1442518092570> <[severity-value: 64] [rid: 0] [partition-id: dd365104-de23-411d-b7ff-44c0de3e3286] [partition-name: Medrec-Dev]> <BEA-149059> <Module medrec/physician of application physician is transitioning from STATE_ACTIVE to STATE_ADMIN on server app-cluster-1.>
####<Sep 17, 2015 12:28:12 PM PDT> <Info> <Deployer> <localhost.localdomain> <app-cluster-1> <[ACTIVE] ExecuteThread: '13' for queue: 'weblogic.kernel.Default (self-tuning)'> <> <2956eb57-fe2c-49af-bf2a-172a0e8260f7-00000048> <1442518092575> <[severity-value: 64] [rid: 0] [partition-id: dd365104-de23-411d-b7ff-44c0de3e3286] [partition-name: Medrec-Dev]> <BEA-149060> <Module medrec/physician of application physician successfully transitioned from STATE_ACTIVE to STATE_ADMIN on server app-cluster-1.>
####<Sep 17, 2015 12:28:12 PM PDT> <Info> <Deployer> <localhost.localdomain> <app-cluster-1> <[ACTIVE] ExecuteThread: '13' for queue: 'weblogic.kernel.Default (self-tuning)'> <> <2956eb57-fe2c-49af-bf2a-172a0e8260f7-00000048> <1442518092575> <[severity-value: 64] [rid: 0] [partition-id: dd365104-de23-411d-b7ff-44c0de3e3286] [partition-name: Medrec-Dev]> <BEA-149059> <Module common.jar of application physician is transitioning from STATE_ACTIVE to STATE_ADMIN on server app-cluster-1.>
```

xvi. Refresh the page, <http://localhost:7101/dp1/heapApp/> which return 404 and confirm shutdown of the domain partition **Medrec-dev** in **app-cluster-1**.



## Error 404--Not Found

**From RFC 2068 Hypertext Transfer Protocol -- HTTP/1.1:**

### 10.4.5 404 Not Found

The server has not found anything matching the Request-URI. No indication is given of whether the condition is temporary or permanent.

If the server does not wish to make this information available to the client, the status code 403 (Forbidden) can be used instead. The 410 (Gone) status code SHOULD be used if the server knows, through some internally configurable mechanism, that an old resource is permanently unavailable and has no forwarding address.

Note: As this domain partition is target to **Virtual target** which is target at **Cluster** which consists of two managed servers. So this domain partition stopped working on managed server 1, but if you access the application on managed server 2, you still will be able to access the application in this domain partition. If similar things happen in managed server 2 and domain partition shutdown on managed server 2 as well, then domain partition will be shutdown.

## LAB4: SECURITY ISOLATION (Optional)

### Overview

When you create a domain, it already contains a default security realm. You can also create a custom security realm and use it in your domain as default security realm. In Weblogic 12.2.1 where we have MT, we can create many domain partitions. When we create the domain partition we also get the option to choose the security realm. If we do not choose it, by default our domain partition uses default security realms.

Here you can create your own Security realm and assign it to a domain partition. So In single domain, you will have two domain partitions which are using different security realms.

In this lab we are going to learn the following:

- Creation of New Security Realm.
- Assigning a new Security realm to Domain Partition.
- Medrec application deployed in two different domain partitions which are using two different security realms in single domain.

### Creating a New Security Realm

- i. Go to browser and type the URL: <http://localhost:7001/console>.
- ii. Enter **weblogic/welcome1** as username/password then click on Login.
- iii. Under Domain Structure, click on **Security Realms**.
- iv. Click on **New**.

The screenshot shows the Oracle WebLogic Server Administration Console interface. The top navigation bar includes links for Oracle Technology Network, Applications, Admin Console, Developer Productivity, Technical Innovation, Operations, and Help. The main title is "ORACLE WebLogic Server Administration Console 12c". The left sidebar has a "Change Center" section with a message about pending changes and buttons for "Activate Changes" and "Undo All Changes". Below it is a "Domain Structure" tree with nodes for base\_domain, Domain Partitions, Environment, Deployments, Services, and Security Realms. The "Security Realms" node is highlighted with a red box. The central content area is titled "Summary of Security Realms". It contains a brief description of what a security realm is and a note that only one can be set as the default. Below this is a table titled "Realms (Filtered - More Columns Exist)". The table has columns for "Name" and "Default Realm". A single row is shown with the name "myrealm" and the default realm value "true". There are "New" and "Delete" buttons at the top of the table, and "Showing 1 to 1 of 1 Previous | Next" links at the bottom.

Name	Default Realm
myrealm	true

- v. Enter **mynewrealm** as Name; check the box for “**Create default providers within new realm**” and “**Ignore Deploy Credential Mapping**” then click on **OK**.

**Create a New Realm**

**OK** | **Cancel**

**Realm Properties**

The following properties will be used to identify your new realm.

\* Indicates required fields

What would you like to name your new realm?

\* Name: **mynewrealm**

Valid security realms must include a number of providers, each of which is responsible for some aspect of the overall security framework. You can use either the WebLogic Server supplied providers or your own custom providers.

**Create default providers within this new realm**

To avoid overwriting new credential mapping information with old information in a weblogic-ra.xml deployment descriptor file, check the Ignore Deploy Credential Mapping setting below.

**Ignore Deploy Credential Mapping**

**OK** | **Cancel**

- vi. Click on **mynewrealm**.  
 vii. Click on **Users and Groups -> Users** tab.  
 viii. Click on **New**.

**Settings for mynewrealm**

**Configuration** | **Users and Groups** | Roles and Policies | Credential Mappings | Providers | Migration

**Users** | **Groups**

This page displays information about each user that has been configured in this security realm.

**Customize this table**

**Users (Filtered - More Columns Exist)**

<b>New</b>	<b>Delete</b>	Showing 0 to 0 of 0 Previous   Next		
	<b>Name</b>	<b>Description</b>	<b>Provider</b>	
There are no items to display				

**New** | **Delete** | Showing 0 to 0 of 0 Previous | Next

ix. Enter the following then click on OK.

Name:	administrator
Description:	Domain Partition 2 users
Provider:	Default Authenticator
Password:	welcome1
Confirm Password:	welcome1

**Create a New User**

**User Properties**

The following properties will be used to identify your new User.  
\* Indicates required fields

What would you like to name your new User?

\* Name: **administrator**

How would you like to describe the new User?

Description: **Domain Partition 2 users**

Please choose a provider for the user.

Provider: **DefaultAuthenticator**

The password is associated with the login name for the new User.

\* Password: **\*\*\*\*\***

\* Confirm Password: **\*\*\*\*\***

**OK** | **Cancel**

x. Click on Activate changes.

### Assign the mynewrealm security realm to domain partition Medrec-Dev.

- i. Click on **Domain Partitions**, then on **Control** tab.
- ii. Check the box near Medrec-Dev and click on **Shutdown ->Force Shutdown Now**.

**ORACLE WebLogic Server Administration Console 12c**

**Change Center**

**View changes and restarts**

Pending changes exist. They must be activated to take effect. You may activate them now. Otherwise, they will be automatically activated when you next modify, add or delete items in this domain.

**Activate Changes**

**Undo All Changes**

**Domain Structure**

- base\_domain
  - + Domain Partitions
  - + Environment
  - Deployments
  - + Services
  - + Security Realms
  - + Interoperability
  - Diagnostics
    - Log Files
    - Diagnostic Modules
    - Built-in Diagnostic Modules
    - Diagnostic Images
    - Request Performance
    - Archives

**Welcome, weblogic | Connected to: base\_domain**

**Home >Summary of Security Realms >mynewrealm >Users and Groups >Summary of Domain Partitions**

**Summary of Domain Partitions**

**Configuration** | **Control**

This page lists the state of the domain partitions in this WebLogic Server domain.

**Customize this table**

**Domain Partitions**

<b>Name</b>	<b>Default</b>	<b>When work completes</b>	<b>State</b>	<b>Status of Last Action</b>
dp2	VT-Medrec-2	Force Shutdown Now	RUNNING	TASK COMPLETED
dp3	VT-daytrader		RUNNING	TASK COMPLETED
<b>Medrec-Dev</b>	VT-Medrec-1		RUNNING	TASK COMPLETED

- iii. Once domain partition shutdown, click on Medrec-Dev.
- iv. In Configuration-> General tab, Under Use Realm, select **mynewrealm** then click on **Save**.

**Settings for Medrec-Dev**

Configuration Resource Groups Deployments Services Resource Overrides Coherence Caches Work Manager

Concurrent Templates Monitoring Notes

General Available Targets File Systems JTA Concurrency Partition Work Manager Resource Management

**Save**

Use this page to view or change the configuration of a domain partition. Only the targets that have been selected on the Targets page will be available and shown on this page.

**Select Default Targets:**

**Available:** [Empty list]

**Chosen:** VT-Medrec-1

Select default targets for this domain partition. These targets will be applied for any resource group that does not specify a target. [More Info...](#)

**Use Realm:** **mynewrealm**

Select a realm to use for this domain partition. [More Info...](#)

- v. Click on **Domain Partitions**, then on **Control** tab.
- vi. Select the box near **Medrec-Dev** and click on **Start**.

**ORACLE WebLogic Server Administration Console 12c**

Change Center

**View changes and restarts**

Pending changes exist. They must be activated to take effect. You may activate them now. Otherwise, they will be automatically activated when you next modify, add or delete items in this domain.

Activate Changes

Undo All Changes

Domain Structure

- base\_domain
  - + Domain Partitions
  - + Environment
  - Deployments
  - Services
  - Security Realms
  - + Interoperability
  - Diagnostics
    - Log Files
    - Diagnostic Modules
    - Built-in Diagnostic Modules
    - Diagnostic Images
    - Request Performance
    - Archives

How do I... ▾

Summary of Domain Partitions

Configuration **Control**

This page lists the state of the domain partitions in this WebLogic Server domain.

**Customize this table**

**Domain Partitions**

<b>Start</b>	Name	Default Target(s)	State	Status of Last Action
<input type="checkbox"/>	dp2	VT-Medrec-2	RUNNING	TASK COMPLETED
<input type="checkbox"/>	dp3	VT-daytrader	RUNNING	TASK COMPLETED
<input checked="" type="checkbox"/>	Medrec-Dev	VT-Medrec-1	SHUTDOWN	TASK COMPLETED

Showing 1 to 3 of 3 Previous | Next

## Verified that we have two security realms in different domain partition in single domain

- i. Go to browser and type the URL:  
<http://localhost:7101/dp1/medrec/index.xhtml>
- ii. Under **Administrator**, click on Login.
- iii. Login with old security realm credential that is **administrator/administrator123**.
- iv. You must get “Incorrect username or password!”.
- v. Login with new security realm credential that is **administrator/welcome1**.
- vi. Click on Logout.
- vii. Go to browser and type the URL:  
<http://localhost:7101/dp2/medrec/index.xhtml>
- viii. Under Administrator, click on Login.
- ix. Login with new security realm credential that is **administrator/welcome1**.
- x. You must get “Incorrect username or password!”.
- xi. Login with old security realm credential that is **administrator/administratior123**.
- xii. Click on Logout.

## Clean UP

1. Cleaning Up Environment.
  - i. cd /u01/content/weblogic-innovation-seminars/WInS\_Demos/MT-Workshop/CleanUp
  - ii. ./stopDP.sh
  - iii. ./stop-nm.sh
  - iv. Delete the domain directory for base\_domain.
  - v. Unzip the domain directory for base\_domain.