Homework: Week 3

In the assignments for this week, we will:

- Access the WebLogic Server and FMW Consoles
- Deploy and manage Java EE applications using the WebLogic Server Console
- Deploy and manage Java EE applications using the FMW Control

Assignment 3-1: Access the WebLogic Server and FMW Control Consoles

In this assignment, we deploy an application using the WebLogic Server Console and the Fusion Middleware Control.

If you completed the last exercise in the homework for week two then both your Java Cloud Service and Java Database instances should be stopped. If you did NOT stop these instances then you can skip the following start instructions.

Connect to your Cloud Instance

1. Enter the URL https://cloud.oracle.com.

2. Continue as described in the prior practice.

Restart your Database Instance

1. In the Dashboard, select the *Database* tile and click **Open Server Console.**

2. Select the row associated with the database instance, using its menu choose **Start**. Click **Ok** from the confirm dialog.

Restart your Java Cloud Service Instance

3. Return to the Dashboard, select the *Java* tile and click **Open Server Console.**

4. Select the menu associated with your instance and click **Start** and then **Ok.**

If required navigate to Java Cloud Service Instance console

If you have completed the prior section then the Java Cloud Service instance specific console should already be selected making the next step unnecessary.

1. In the Dashboard, select menu associated with the *Java* tile and select **Open Service Console**.
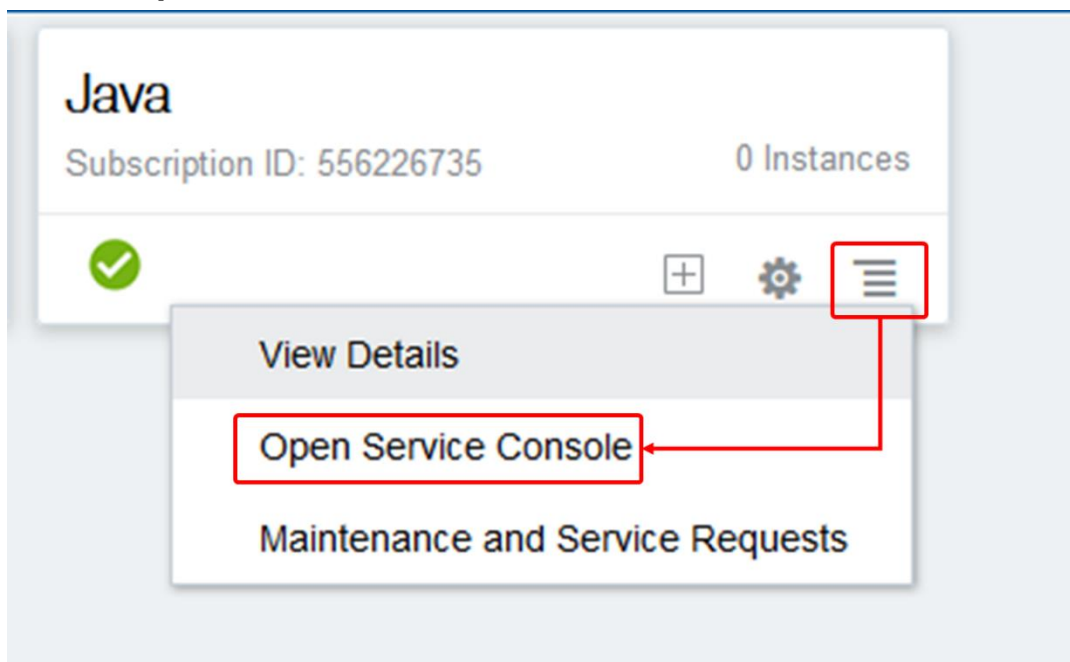
Assignment 3-2: Deploying a Java EE Application using the WebLogic Server Console

During this homework assignment you will deploy and test a Java EE application using the WebLogic Server Console.

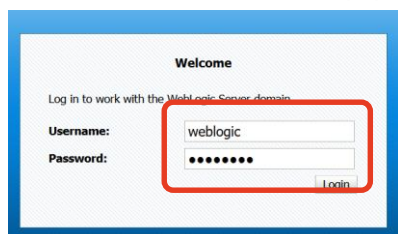**Deploy the Benefits application**

1. Click the menu to the right of your Java Cloud Service instance, and then **Open WebLogic Server Console**.
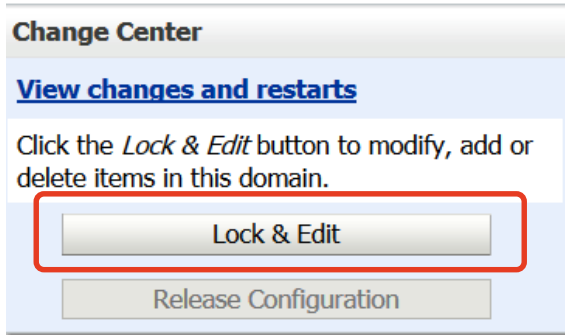

Note: The first time you open the WebLogic Server console you may see a 'Your connection is not secure dialog'. If so select **Advanced** and then **Add Exception** and then **Confirm Exception**.

The WebLogic Server Console will open in a new browser tab.

2. Login using the credentials provided when the Java Cloud Service instance was initially provisioned.
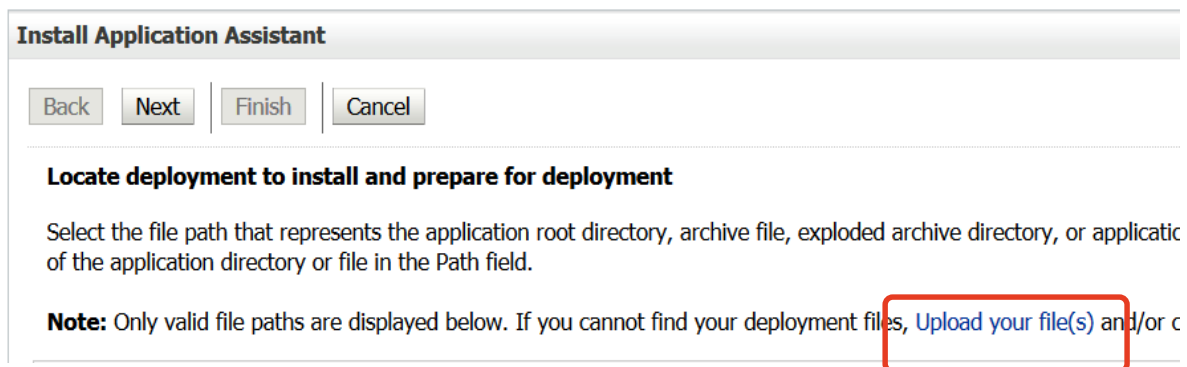
3. In *Change Center*, click **Lock & Edit.**

Change Center

View changes and restarts

Click the *Lock & Edit* button to modify, add or delete items in this domain.

Lock & Edit
Release Configuration

4. In the *Domain Structure* pane, click **Deployments**.

Domain Structure

JCS_domain
- Domain Partitions
- Environment
- **Deployments**
- Services
- Security Realms
- Interoperability
- Diagnostics

5. In the right pane, click **Install**.

6. In the *Install Application Assistant*, click **Upload your file(s).**

Install Application Assistant

Back	Next	Finish	Cancel

Locate deployment to install and prepare for deployment

Select the file path that represents the application root directory, archive file, exploded archive directory, or applicatio of the application directory or file in the Path field.

Note: Only valid file paths are displayed below. If you cannot find your deployment files, Upload your file(s) and/or c

-**4**-

Use the Browse button to navigate to the location where you stored the **benefits.war** file. If you have not yet downloaded the **benefits.war** file used by this homework you can do so now using the link
(http://www.oracle.com/webfolder/technetwork/tutorials/mooc/JavaCloudService/week3/benefits.war)

Deployment Archive: Browse...   No file selected.

Upload a deployment plan (this step is optional)

7. Click **Next**.

8. Click **Next** again.

9. Ensure that the Scope is **Global,** and click **Next**

10. Target the web application to the application tier by selecting the check box next to the web tier cluster.
Note that depending on whether you configured Coherence or not you may have only one WebLogic cluster.
Your cluster will be named **<JCS Instance Name>_cluster.**

Servers

☐ JCS_doma_adminserver

Clusters

☑ JCS_cluster
  ◉ All servers in the cluster
  ○ Part of the cluster
    ☐ JCS_doma_server_1

11. Click **Next**.

12. No additional changes are required, click **Finish**.

13. In *Change Center*, click **Activate Changes**.

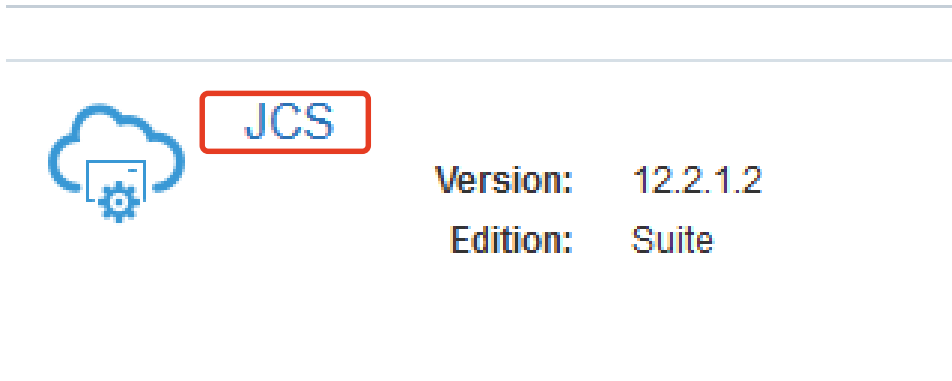**14.** In the right hand pane, select the **Control** tab.

15. Select the **benefits** application, and then **Start > Servicing all requests**.
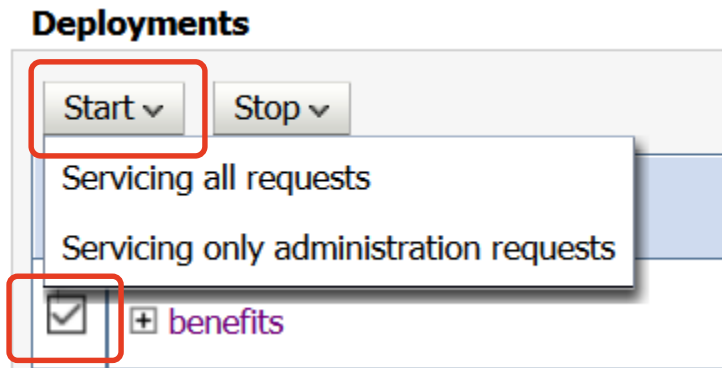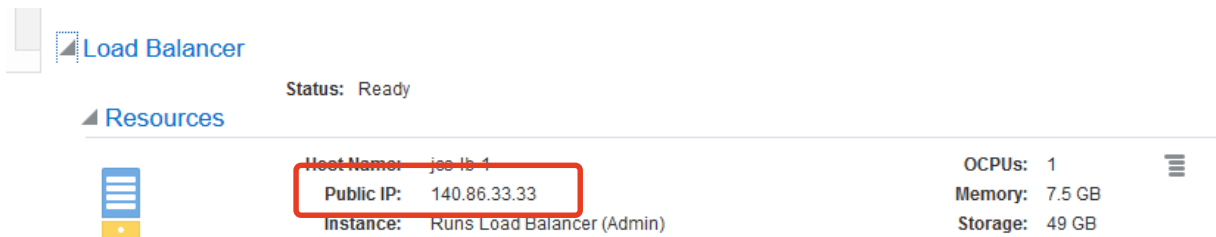

16. In the confirm dialog, click **Yes**.

Obtain the Load Balancer IP address and test the application

17. Return to the *Java Cloud Service* tab.

18. Open the Java Cloud Services console for your instance by clicking its name

19. In the right pane, expand the **Oracle Load Balancer** section.

20. In the Resources section, note the IP address of the load balancer.

Load Balancer

Status: Ready

Resources

		OCPUs:	1
Host Name:	jcs-lb-1		
Public IP:	140.86.33.33	Memory:	7.5 GB
Instance:	Runs Load Balancer (Admin)	Storage:	49 GB

21. Open a new browser tab and enter the complete URL to the benefits application which is of the form **https://*IP.Address.Of.Load.Balancer*/benefits**.

Note: If you browser displays a 'Your connection is not secure' dialog, choose **Advanced**, and then **Add Exception,** and then **Confirm Security Exception**.

Congratulations, you have successfully deployed and tested a Java EE application using the WebLogic Server console.

22. Logout and close the WebLogic Server tab.

Assignment 3-3: Deploying a Java EE Application using the FMW Control
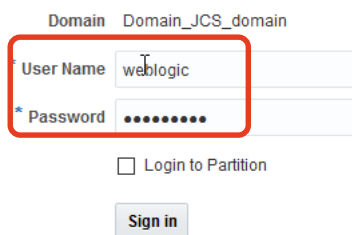
During this homework assignment you will deploy and test a Java EE application using the Fusion Middleware Control

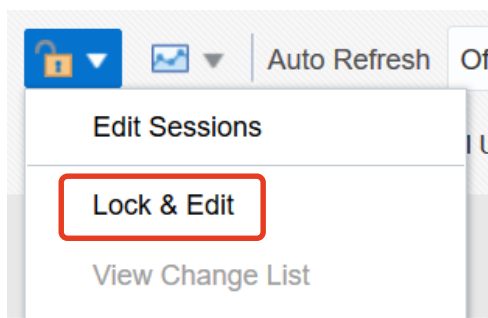**From the Java Cloud Service Console**

1. From the Java Cloud Service instance menu, select **Open Fusion Middleware Control Console**.
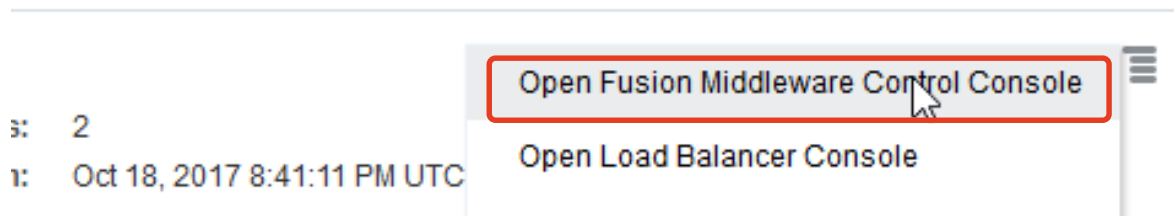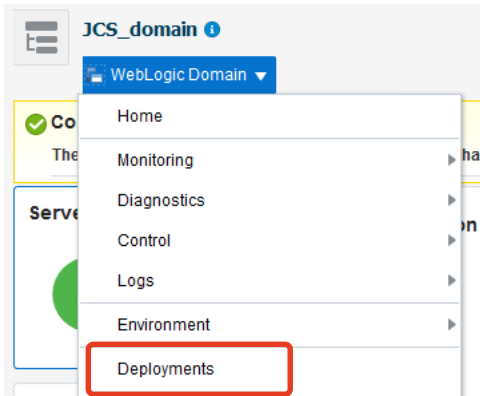

2. Login to the *Fusion Middleware Control* using the credentials provided when the Java Cloud Service instance was provisioned.

3. Under the lock icon, chose **Lock & Edit**.

4. Under the WebLogic Domain menu, select **Deployments**.

Optionally undeploy the Benefits application.

If the prior homework was completed, then the Benefits application is still deployed, follow this section to undeploy the application.

5. Select the **Benefits** application row (it will be highlighted blue when selected). Then select from the Control menu select **Stop > Force Stop Now**.
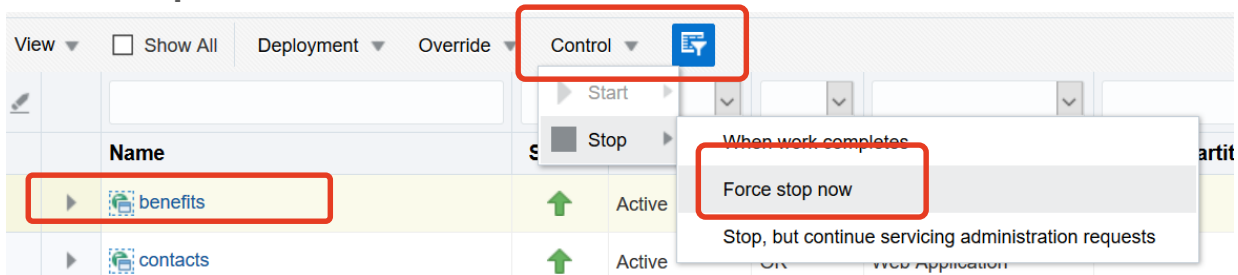

6. Confirm the stop operation.

7. Select **Deployment > Undeploy**.

8. Verify that the benefits application is being undeployed, and then undeploy by clicking **Undeploy**.

9. From the lock menu click **Activate Changes**.

10. Select **WebLogic Domain > Deployments**.
    Note that the benefits application is now undeployed.

11. From the lock menu click **Release Configuration**.

Deploy the Benefits application.

12. From the lock menu, click **Lock & Edit**.

13. From the deployments menu, click **Deploy**.

14. From the *Deploy Java EE Application:Select Archive* step click **Browse** button to navigate to the location where you stored the **benefits.war** file. If you have not yet downloaded the benefits.war file used by this homework you can do so now using the [link](http://www.oracle.com/webfolder/technetwork/tutorials/mooc/JavaCloudService/week3/benefits.war) (http://www.oracle.com/webfolder/technetwork/tutorials/mooc/JavaCloudService/week3/benefits.war).
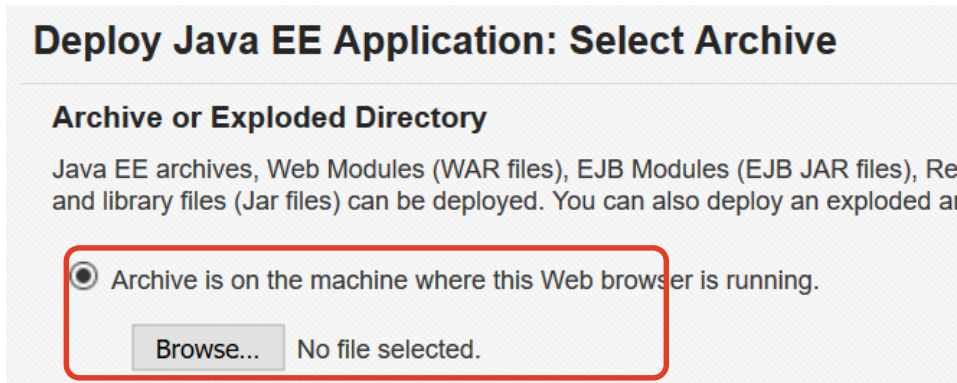

15. Navigate to the directory where you stored the **benefits.war** file. For this example **c:\deployments\benefits.war**. Select the file and click **Open**.

16. Click **Next**.

17. In the *Select Target* step: target the web application to the application tier by selecting the check box next to the web tier cluster.
Note that depending on whether you configured Coherence or not you may have only one WebLogic cluster.
Your cluster will be named **<JCS Instance Name>_cluster.** .
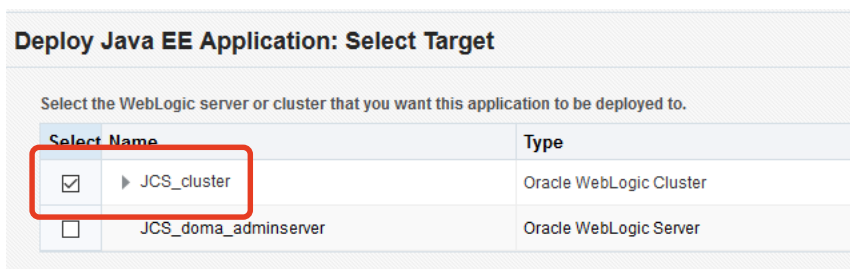
18. Click **Next**.

19. In the *Application Attributes* step, click **Next**.

20. Click **Deploy**.

21. When the deployment completes, click **Close**.

22. From the lock menu, click **Activate Changes**.

23. Select the benefits application row and then **Control > Start > Start Servicing all requests**.

24. Click **Start** to confirm.

Obtain the Load Balancer IP address and test the application

23. Return to the Java Cloud Service tab.

24. Open the Java Cloud Services console for your instance by clicking its name.
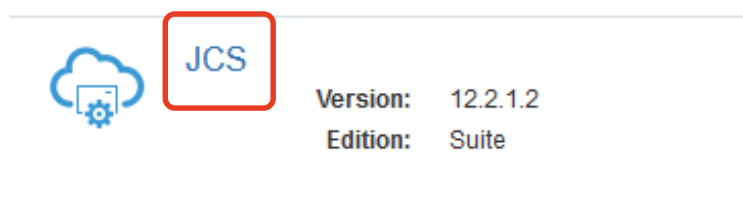
25. In the right pane, expand the *Load Balancer* section.

26. In the *Resources* sub-section note the IP address of the load balancer.

27. Open a new browser tab, and enter the complete URL to the benefits application which is of the form **https://IP.Address.Of.Load.Balancer/benefits**.

Congratulations, you have successfully deployed and tested a Java EE application using the Fusion Middleware Control.