

Homework: Week 1

In the assignments for this week, we will:

- Create SSH Keys
- Create a Trial Account
- Provision a Database Instance
- Provision a Java Cloud Service Instance
- Stop a Java Cloud Service Instance
- Stop a Database Instance

Assignment 1-1: Create SSH Keys

In this assignment, we will use the **ssh-keygen** utility to generate a set of SSH keys, used later when provisioning an Oracle Java Cloud Service instance, as well as accessing that instance using **ssh** and similar tools.

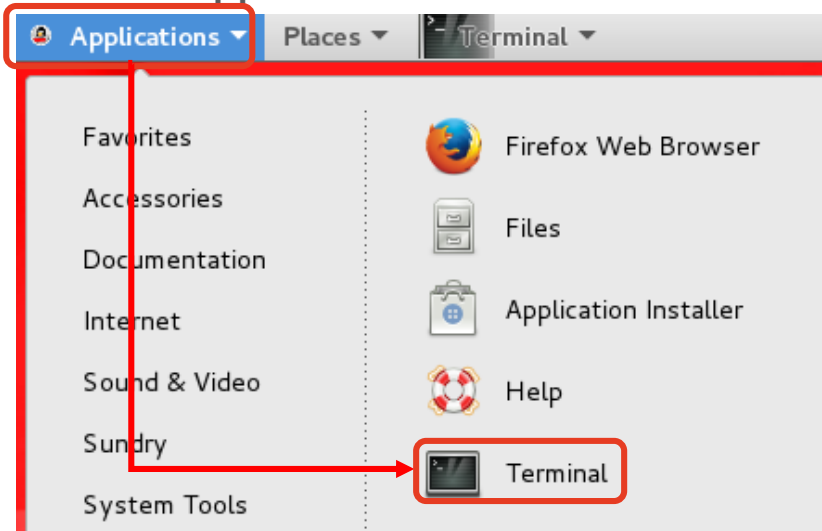
Note: This assignment was developed using Linux and Linux utilities. Students using Windows are directed to the putty based utilities which can be downloaded here www.putty.org.

Note that this assignment was developed using Oracle Linux. Apple OSX users and Cygwin users can follow very similar steps.

Generate SSH Keys

To generate a set of SSH keys follow the provided steps.

1. Open a command prompt:
2. From the **Applications** menu select **Terminal**.



3. Validate that **ssh-keygen** is in the path using the **which** command:

```
$ which ssh-keygen  
/usr/bin/ssh-keygen  
$
```

4. Using a command similar to that shown generate a set of keys:
\$ **ssh-keygen -C "myJCSKey"**

For information about SSH Keygen parameters enter:

```
$ ssh-keygen -?
```


Assignment 1-2: Obtain a Trial Account

You can use a trial account to create both Oracle Database Cloud service and Java Cloud service instances.

To create an Oracle Cloud Trial Account

1. Direct your browser to **<http://cloud.oracle.com>**.
2. In the upper right-hand corner of the page, click **Sign Up**.
3. In the Account Details section, enter your user details such as Name, Email Address, Password and Country.
4. In the Verification Code section, enter an appropriate mobile number and click **Request Code**.
5. A code will be sent to your mobile device, enter it into the Verification Code field and click **Verify**.
6. In the Credit Card Details section, enter a payment method. Note that you may be charged a small fee (typically \$1US) as a test, which will be refunded.
7. In the Terms & Conditions section, accept the terms and click **Complete**. Account setup can take 15 or more minutes. An email will be delivered to the provided email account when your new account is configured.
8. Congratulations, your free trial account is being created. Once complete a set of credentials will be sent to your email that can be used to log into the Oracle Cloud.

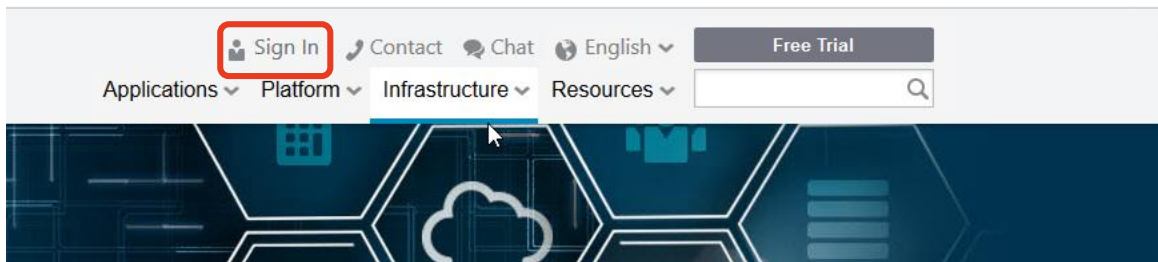
Assignment 1-3: Provisioning a database instance

Oracle Java Cloud Service requires a backing database. During this homework assignment you will create a database instance sufficient for use with Java Cloud Service.

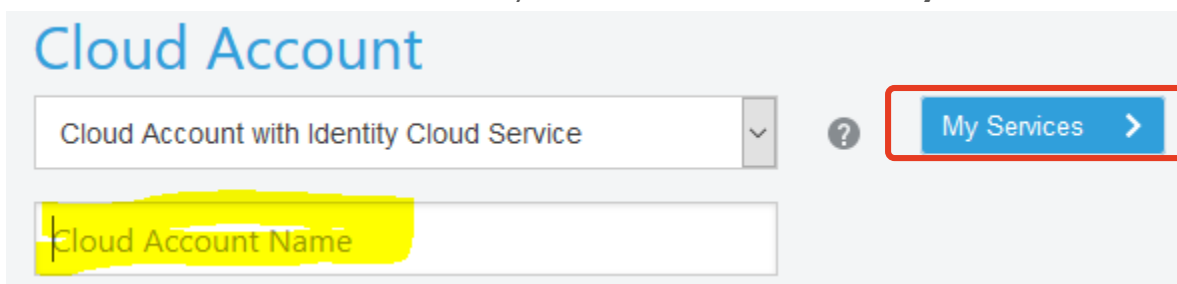
Connect to your Cloud Instance

After creating a trial account, or having a normal Oracle Cloud account, you can then provision an Oracle Database instance.

1. Enter the URL <https://cloud.oracle.com>
2. In the upper right click **Sign In**



3. Select **Cloud Account with Identity Cloud Service** and enter the Cloud Account Name from your email and click **My Services**



4. Enter your username and password from the email you received and click **Sign In**.

Note the first time you sign in will be required to change your password.







User Name

Password

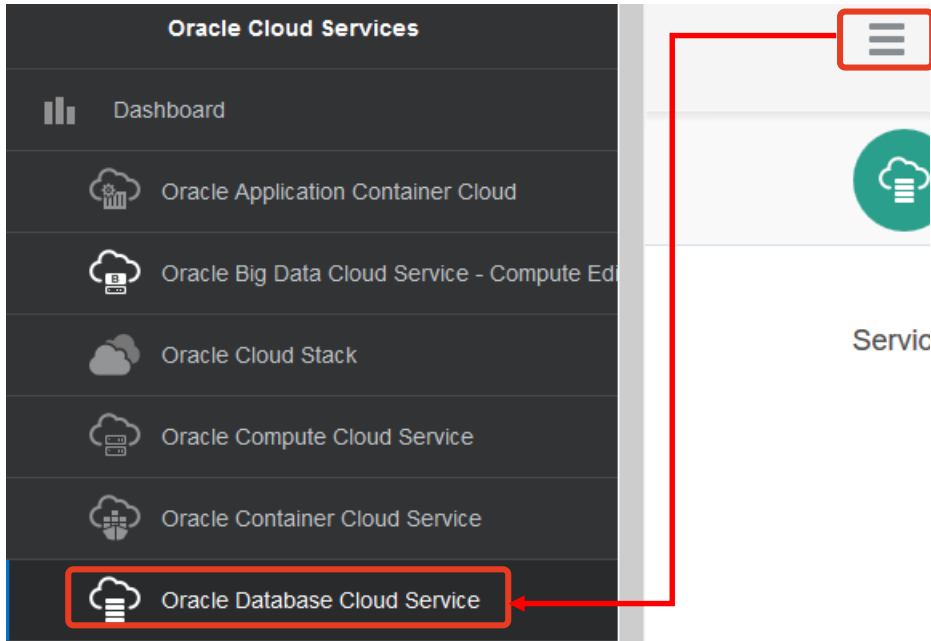
Sign In [Can't sign in?](#)

5. The dashboard will display. To ensure that both Database and Java Cloud Service are displayed, click **Customize Dashboard** and then **Show** for both Database and Java.

 **Database**  Automatic **Show** Hide
Subscription ID: 1586994

 **Java**  Automatic **Show** Hide
Subscription ID: 1586994

- Expand the upper-left menu by clicking it, then select **Oracle Database Cloud Service**.



Note: The first time you access the Java Cloud Service console, a welcome page will be displayed.

- In the Database Cloud Service Console, click **Create Service**.



- For the *Service Name* enter **DB**.
- For *Region*, leave the default **No Preference**.
- For *Software Release* select **Oracle Database 12c Release 1**.
- For *Software Edition*, select **Enterprise Edition**.
- For *Database Type*, select **Single Instance**.
- Click **Next**.

14. In the Service Details step, enter the following, then click **Next**.

Field Name	Value
<i>DB Name(SID)</i>	ORCL
<i>PDB Name</i>	Default (PDB1)
<i>Administration Password</i>	Welcome_1
<i>Confirm Password</i>	Welcome_1 (will be required in a provision java cloud service lab)
<i>Usable Database Storage</i>	25
<i>Total Data File Storage</i>	Default(88.5)
<i>Compute Shape</i>	Default (OC3)
<i>SSH Public Key</i>	Click Edit and upload your public key from the prior lab
<i>Backup Destination</i>	Both Cloud Storage and Local Storage
<i>Cloud Storage Container</i>	Storage-<identity domain >/dbcsbackup
<i>Cloud Storage Username</i>	Your cloud username
<i>Cloud Storage Password</i>	Your cloud user password
<i>Create Cloud Storage Container</i>	Checked
<i>Total Estimated Monthly Storage</i>	Default

15. Review the database Configuration page and click **Create**.

16. The database create will be submitted, and after 10-15 minutes will complete and display on the Services summary page.

As of Nov 16, 2017 6:15:5 PM UTC

Summary	1	1	7.5 GB	Storage	Public IPs
Services		OCPU	Memory		

Services

Search by service name

Create Service

	Status: Creating service ...	Submitted On: Nov 16, 2017 6:15:45 PM UTC	OCPU: 1
	Version: 12.1.0.2		Memory: 7.5 GB
	Edition: Enterprise Edition		Storage:

▶ Service Create and Delete History

Note: Click **Service Create and Delete History** to examine details of errors or past attempts to create or delete a database. Click **Refresh** in the top right to update the list as create or other operations execute.

Note that database creation can take some time based on system load. Note that a notification will be sent to the email address associated with the account, then the database creation has completed.

Congratulations, you have successfully created an Oracle Database Cloud Service instance.

Assignment 1-4: Provisioning a Java Cloud Service Instance

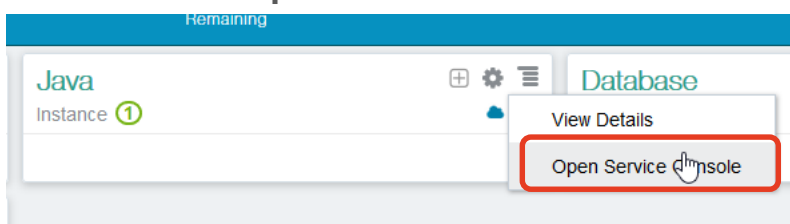
During this homework assignment, you will create a Java Cloud Service instance sufficient for use with the remainder of the lab exercises.

Note: Demonstrations include the creation of a load balancer and Coherence. This exercise does not include creating a Coherence data tier as it is not required for the remainder of this online course.

Connect to your Cloud Instance

After creating an Oracle Database instance, you can provision a Java Cloud Service instance.

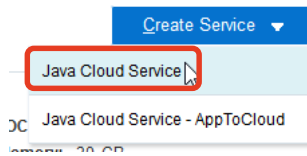
17. Enter the URL <https://cloud.oracle.com>
18. Continue as described in the prior practice.
19. From the *Dashboard*, find the Java tile and from the drop down menu select **Open Service Console**.



Note: if the Java dashboard tile is not visible, click **Customize Dashboard**, and click **Show** next to the **Java** service.

Note: The first time you access the Java Cloud Service console, a welcome page will be displayed.

20. From the Java Services Console, click **Create Service > Java Cloud Service**.



21. For *Service Name*, enter **JCS**.

22. For the remaining fields on the Service page, confirm:

<i>Notification Email</i>	Your email address
<i>Registration</i>	Default (no preference)
<i>Service Level</i>	Oracle Java Cloud Service
<i>Software Release</i>	Oracle WebLogic Server 12c, 12.2.1.2.
<i>Software Edition</i>	Enterprise Edition with Coherence

Click **Next**.

23. In the *Service Details* section, click **Advanced**.

24. In the *WebLogic Configuration*, section enter:

<i>Compute Shape</i>	OC3
<i>SSH Key</i>	Click edit and upload the public key created in practice 1.2
<i>Cluster Size</i>	2
<i>Domain Partitions</i>	1
<i>Enable Access to Administration Consoles</i>	Checked
<i>Deploy Sample Application</i>	Checked.

25. In the *WebLogic Access*, section enter:

<i>Local Administrator Username</i>	weblogic
<i>Password</i>	Password of your choice For example:Welcome_1
<i>Confirm password</i>	Repeat

26. In the *Database Configuration*, section:

<i>Name</i>	Select previously created DB
<i>PDB Name</i>	<use default>
<i>Administrator Username</i>	sys
<i>Password</i>	Enter an appropriate password

27. In the *Load Balancer*, section:

<i>Provision Load Balancer</i>	Yes
<i>Compute Shape</i>	OC3
<i>Add another Active OTD Node</i>	Un checked
<i>Load Balancer Policy</i>	Least Connection Count

28. In the *Backup and Recovery*, section:

<i>Backup Destination</i>	Both Cloud Storage and Local Storage
<i>Cloud Storage Container</i>	Storage-<your identify domain>/jcsbackup
<i>Username</i>	Your username
<i>Password</i>	Your password
<i>Create Cloud Storage Container</i>	Checked

Then click **Next**.

29. On the Confirmation page, confirm all values. Use the **Previous** button to return to a prior screen to correct any errors.

Click **Create** when complete.

30. A Java Cloud Service create request will be created and submitted. After approximately 15 minutes or more, the new instance should be created and started.

31. Examine the Service instances page to see the status of the new instance. Use **Refresh** (top right) to refresh the list. Use **Service Create and Delete History** to see details of current and past create and delete operations.

As of Nov 16, 2017 8:55:09 PM UTC

Summary	1	3	22.5 _{GB}	203 _{GB}	3
Services	OCPUs	Memory	Storage	Public IPs	

Services

Search by service name

JCS	Status: Creating service ...	Nodes: 3	OCPUs: 3
	Version: 12.2.1.2.170818	Submitted On: Nov 16, 2017 8:28:02 PM UTC	Memory: 22.5 GB
	Edition: Enterprise Edition		Storage: 203 GB

Service Create and Delete History

Congratulations, you have successfully created an Oracle Java Cloud Service instance.

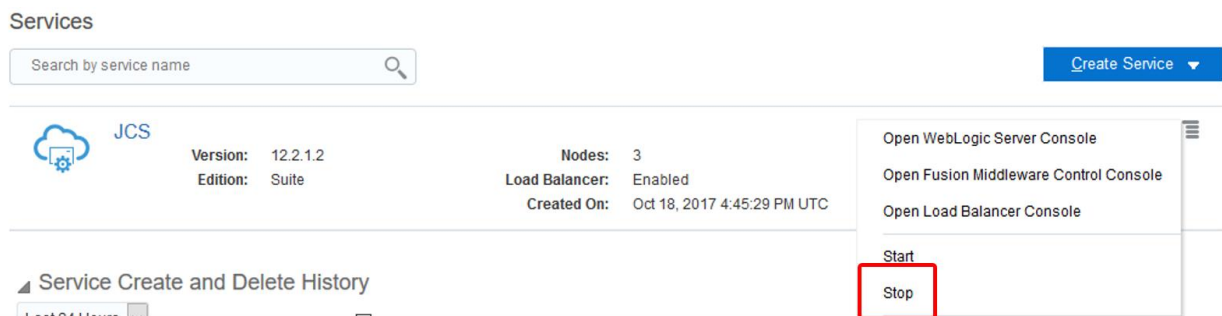
Note that an email will be sent to the address specified when instance creation completes.


Assignment 1-5: Shutdown Java Cloud Service and Database Instances

Note: This exercise is optional. However, shutting down your Java Cloud Service and Database instances will conserve trial credits. During this homework assignment, you shutdown both your Java Cloud Service and Database instances.

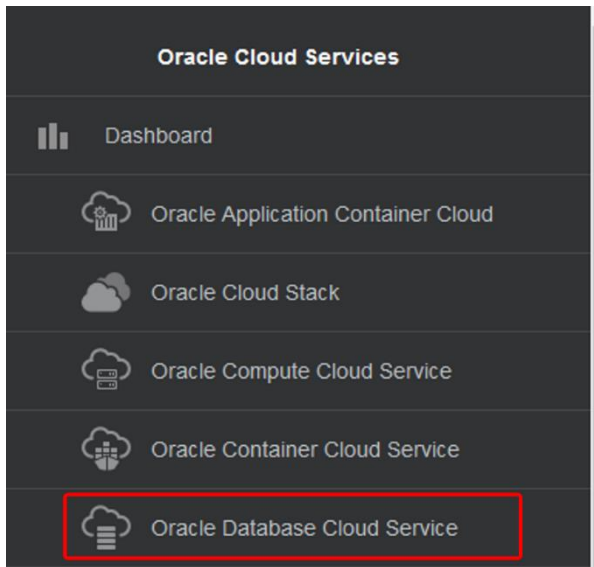
Connect to your Cloud Instance

1. Enter the URL <https://cloud.oracle.com>
2. Continue as described in the prior practice.
3. From the *Dashboard*, find the **Java** tile and from the drop-down menu select **Open Service Console**.
4. In the Java Cloud Service console, select the menu for the newly created **JCS** instance and select **Stop**.

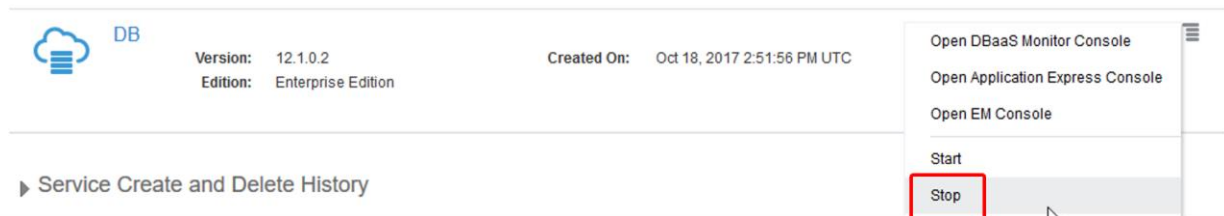


5. In the Stop instance dialog, click **Ok**.
Wait for the instance to show stopped before continuing.
6. Click the Dashboard menu ()

7. Select **Oracle Database Cloud Service**.



8. Select the newly created database instance, and from its instance menu, select **Stop**.



Congratulations, you have stopped both your Java Cloud Service and Database instances.