IBM Training

IBM

Exercise 1

Setting up the lab environment

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Purpose:
You will set up your lab environment by starting the VMWare image, launching the Ambari console, and starting the required services. You will also learn about the file system and directory structures.

Estimated time:	**30 minutes**
User/Password:	**biadmin/biadmin**
	root/dalvm3
Services Password:	**ibm2blue**

Task 1. Configure your image.

As copies are made of the VMWare image, additional network devices get defined and the IP address changes. Configuration changes are required to get the Ambari console to work.

Note: Occasionally, when you suspend and resume the VM image, the network may assign a different IP address than the one you had configured. In these instances, the Ambari console and the services will not run. You will need to update /etc/hosts file with the newly assigned IP address to continue working with the image. No restart of the VM image is necessary, just give it a couple of minutes, at most. In some cases, you may need to restart the Ambari server, using *ambari-server restart* from the command line.

1. To open a new terminal, right-click the desktop, and then click **Open in Terminal**.

2. Type `ifconfig` to check for the current assigned IP address.

3. Take note of the IP address next to **inet**.
   You need to edit the /etc/hosts file to map the hostname to the IP address.

4. To switch to the root user, type `su -`.

5. When prompted for a password, type **dalvm3**.

6. To open the /etc/hosts file, type `gedit /etc/hosts.`

7. Ensure that the contents of the file are similar to the following:

```
10.0.0.118 ibmclass.localdomain ibmclass
127.0.0.1 localhost.localdomain localhost
```

8. Update the IP address on the first line from step 3.

9. Save and exit the file, and then close the terminal.

Task 2. Start the BigInsights components.

You will start all the services via the Ambari console to ensure that everything is ready for the exercise. You may stop what you don't need later, but for now, you will start everything.

1. Launch **Firefox**, and then if necessary, navigate to the **Ambari** login page, **http://ibmclass.localdomain:8080**.

2. Log in to the **Ambari** console as **admin/admin**.

On the left side of the browser are the statuses of all the services. If any are currently yellow, wait a couple of minutes for them to become red before proceeding.

3. Once all the statuses are red, at the bottom of the left side, click **Actions** and then click **Start All** to start the services.

This will take several minutes to complete.

4. When the services have started successfully, click **OK**.

Task 3. Begin to explore Ambari.

This section will provide some basic Ambari administration and cluster management. The IBM Open Data Platform (IOP) with Apache Hadoop section of this course will cover Ambari administration in more detail.

1. Launch **Firefox**, and then if necessary, navigate to the **Ambari** login page, **http://ibmclass.localdomain:8080**.

2. Log in to the **Ambari** console as **admin/admin**.

Once logged in, you will notice the statuses of the services on the left side. If everything is green, then all services are running.

You can select any of the services to go to the details page for that service.

3. Click the **HDFS** service.

   On the HDFS service page, you will see a Summary of the node(s) status as well as any Alerts or Health Checks.

   Alongside the Summary tab is the Configs tab. You can specify specific configurations from there. You will not do anything there in this exercise.

   At the far right of the screen, there is the Service Action dropdown. Here is where you can start, stop, restart, or any perform other actions specific to the selected service.

4. At the top right, beside the **Services** link, click the **Hosts** link.

   You can access the specific nodes of your cluster here.

5. Click **ibmclass.localdomain**.

   This will take you to the host summary page. From here, you can perform specific Host Actions, located on the right side of the page. Actions include starting, stopping, or restarting all of the components on the host.

   One final overview is the Background Operations. This is located next to the cluster name at the top. Currently, you should see 0 ops.

6. Click **0 ops**, to see current and past operations.

   0 ops (zero ops) means that there are no operations currently running in the background.

7. Click **OK**, and then close Firefox.

Results:
You have set up your lab environment by starting the VMWare image, launching the Ambari console, and starting the required services. You also learned about the file system and directory structures.