

Demonstration 1

Get started with the lab environment.

At the end of this demonstration, you should be able to:

- Start up the BigSheets service
- Access BigSheets via BigInsights Home
- Locate the lab files that you will be using in the lab

Demonstration 1: Getting started with the lab environment

Demonstration 1: Getting started with the lab environment

Purpose:

You will start up the BigSheets service, access BigSheets via BigInsights home page and locate and upload lab files you will be using in the demonstration.

User/Password: **biadmin/biadmin**

Root/dalvm3

Service Password: **ibm2blue**

Task 1. Configure your image.

Important: 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**.
Next, you need to edit the `/etc/hosts` file to map the hostname to the IP address.
4. To switch to 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 with the IP address of the first line from step 3.
9. Save and exit the file, and then close the terminal.

This material is meant for IBM Academic Initiative use only. NOT FOR RESALE

Task 2. Start the BigInsights components.

If all of the components have been started already, you may skip this task. Otherwise, follow the steps in this task to start up all of the components.

You will start up all the services via the Ambari console to ensure that everything is ready for the lab. 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 it is currently yellow, wait for several minutes for it to become red before you start them up.
3. Once all the statuses are red, at the bottom of the left side, click **Actions** and then click **Start All** to start up the services.
4. In the **Confirmation** dialog, click **OK**.
This will take a while to complete to complete.
5. When the services have started successfully, click **OK**.

Task 3. Loading data into BigSheets.

BigSheets allows you to analyze the data residing on the HDFS. You can create master workbooks, apply various sheets types to refine and filter the data, and then create charts to visualize the data. To prepare for the next section of the lab, you will load in several sets of data into the HDFS.

1. To open a new terminal, right-click the desktop, and then click **Open in Terminal**.
2. To switch to the root user, type `su -`, and then type the password `da1vm3`.
3. Create the **biadmin** folder on the **hdfs** under **/user**:
`su - hdfs -c "hdfs dfs -mkdir -p /user/biadmin/"`
4. Change the ownership of the folder to **biadmin**:
`su - hdfs -c "hdfs dfs -chown -R biadmin /user/biadmin"`
5. To log out of the root user, type **exit**.
6. Do a listing of the **/user** directory to see that the **biadmin** directory has been created.

```
hdfs dfs -ls /user
```

On your local system, in the `/home/biadmin` folder, is a `labfiles` directory. In this directory are some of the data files that you will be using throughout this exercise.

This material is meant for IBM Academic Initiative use only. NOT FOR RESALE

7. Navigate to **/home/biadmin/labfiles/bigsheets** to see the files.

8. Upload these files to **/user/biadmin/** on the HDFS

```
hdfs dfs -put
/home/biadmin/labfiles/bigsheets/employee_state.csv
/user/biadmin
hdfs dfs -put /home/biadmin/labfiles/bigsheets/product.csv
/user/biadmin
hdfs dfs -put /home/biadmin/labfiles/bigsheets/sales.csv
/user/biadmin
hdfs dfs -put /home/biadmin/labfiles/bigsheets/
blogs-data.txt /user/biadmin
hdfs dfs -put /home/biadmin/labfiles/bigsheets/news-
data.txt /user/biadmin
hdfs dfs -put
/home/biadmin/labfiles/bigsheets/last_of_the_mohicans.txt
/user/biadmin
hdfs dfs -put
/home/biadmin/labfiles/bigsheets/RDBMS_data.csv
/user/biadmin
```

You will work with these files in subsequent lab exercises. You just made sure everything was uploaded to the HDFS for use later.

9. Back in **Firefox**, and then if necessary, navigate to the **Ambari** login page, **<http://ibmclass.localdomain:8080>**.

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

11. Ensure that the **BigInsights - BigSheets** component is started.

The BigInsights Home requires the LDAP server to be started.

12. Click the **Knox** component.

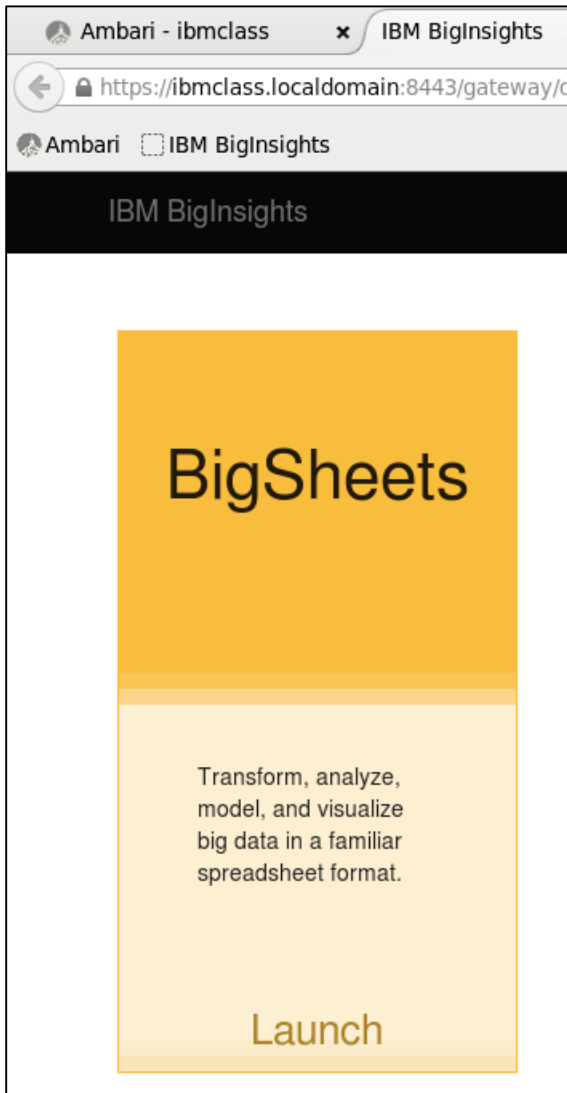
13. Under the **Service Actions** dropdown on the upper right, select **Start Demo LDAP**, and then click **OK** to close the confirmation window.

14. In Firefox, open a new tab, and navigate to the **Web UI (BigInsights Home)** page with the following URL.

<https://ibmclass.localdomain:8443/gateway/default/BigInsightsWeb/index.html>

If promoted for a login, use **guest / guest-password**. It should be saved in the Firefox browser so you can click ok to continue with the login.

The results appear as follows:



15. Click **BigSheets**, to launch BigSheets.
16. You will continue with this in the next lab exercise.

Task 4. Troubleshooting (Optional).

1. On the BigInsights Home, if BigSheets shows as unavailable, restart the BigSheets service via Ambar.

Results:

You started up the BigSheets service, accessed BigSheets via BigInsights home page and located and uploaded lab files.