

PRACTICAL = 2

#. Installation of HDP Sandbox and import in the VM box to visualize what's going on in the Hadoop.

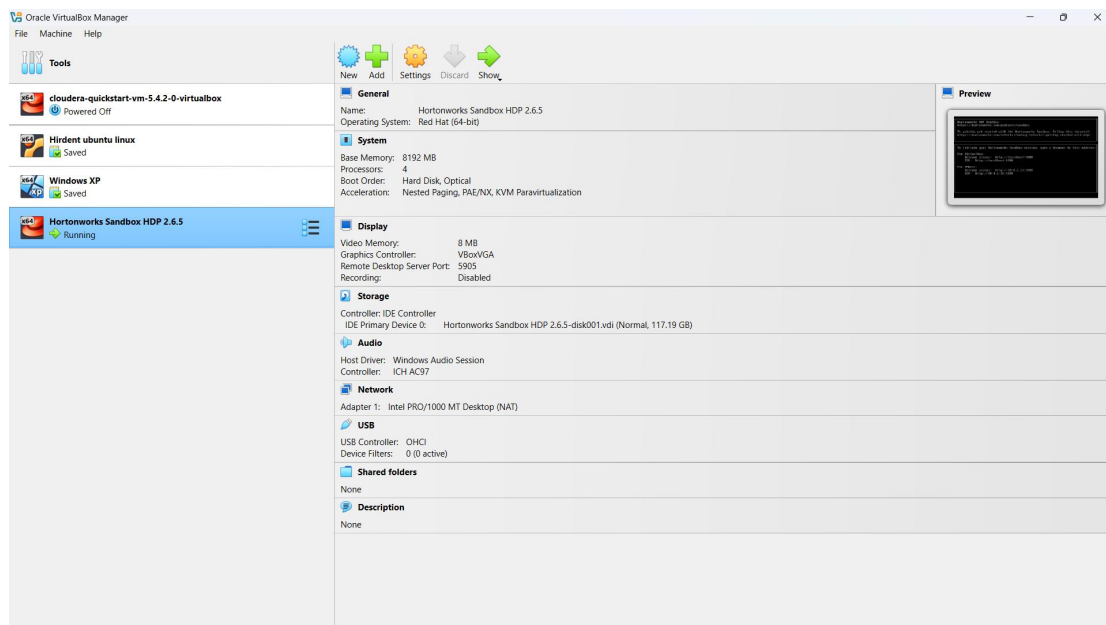
Step 1: Download the VM box from the browser :

Link :<https://www.virtualbox.org/wiki/Downloads>

Step 2:Download the HDP Sandbox file:

Link:<https://www.cloudera.com>

Step 3:Import the file in the VM box.



Step 4:Run the HDP Sandbox in the VM box.

```
Hortonworks HDP Sandbox  
https://hortonworks.com/products/sandbox
```

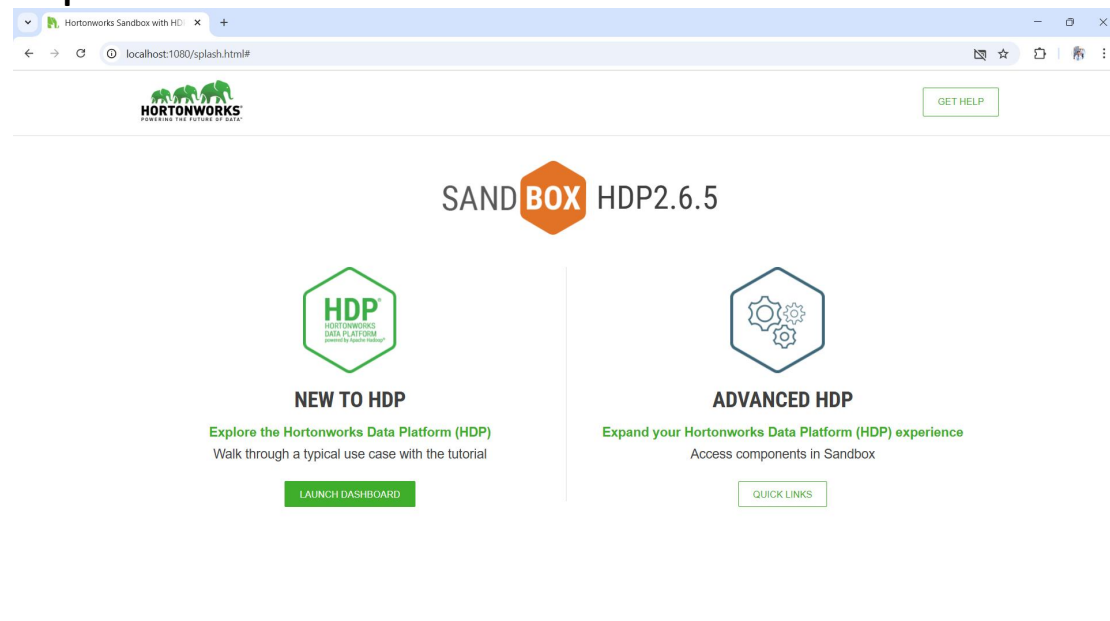
```
To quickly get started with the Hortonworks Sandbox, follow this tutorial:  
https://hortonworks.com/tutorial/hadoop-tutorial-getting-started-with-hdp/
```

To initiate your Hortonworks Sandbox session, open a browser to this address:

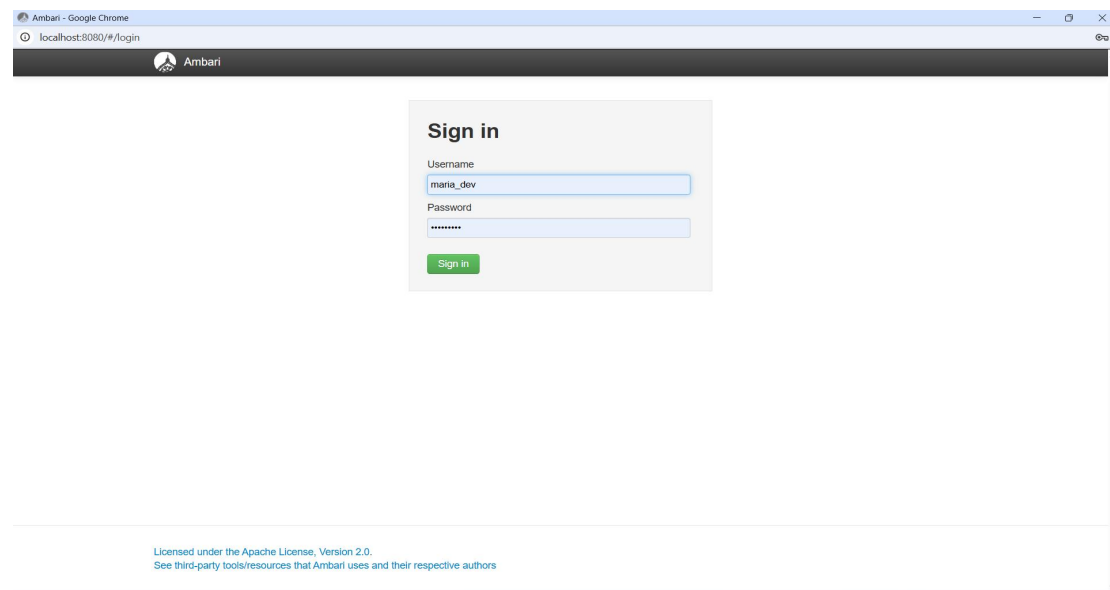
For VirtualBox:
Welcome screen: `http://localhost:1080`
SSH: `http://localhost:4200`

For VMWare:
Welcome screen: `http://10.0.2.15:1080`
SSH: `http://10.0.2.15:4200`

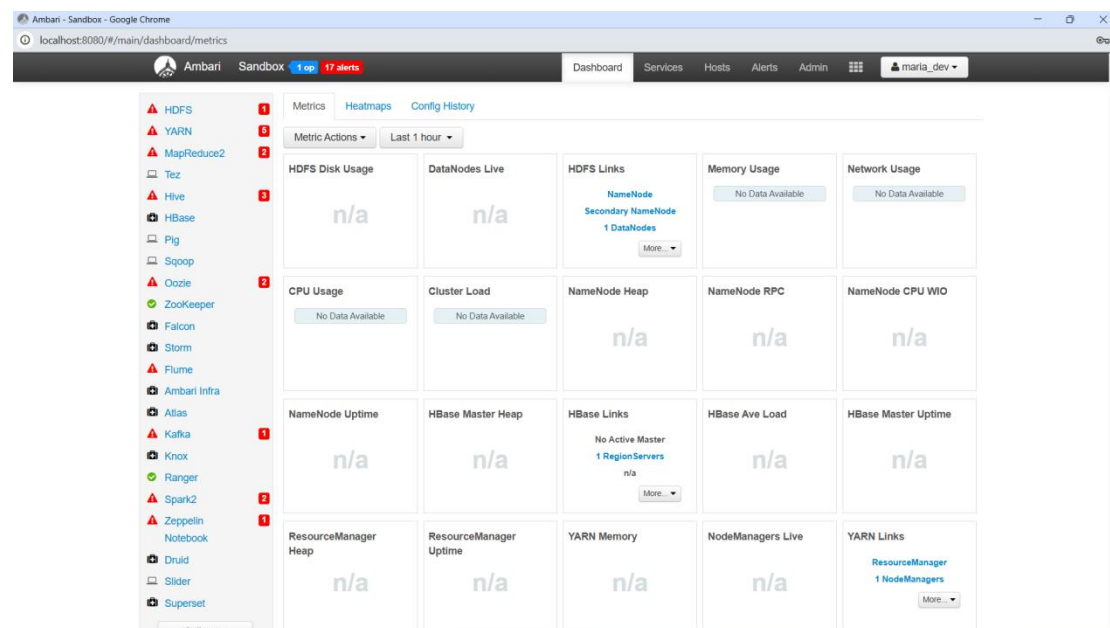
Step 5:Run the link in the browser.



Step 6: Login in the Ambari Sandbox.



A screenshot of the Ambari web interface in Google Chrome. The browser address bar shows 'localhost:8080/#/login'. The page has a dark header with the Ambari logo and name. The main content area is a light gray box titled 'Sign in'. It contains a 'Username' field with the text 'maria_dev', a 'Password' field with masked characters, and a green 'Sign in' button. Below the sign-in box, there is a small text block: 'Licensed under the Apache License, Version 2.0. See third-party tools/resources that Ambari uses and their respective authors'.



A screenshot of the Ambari Dashboard in Google Chrome. The browser address bar shows 'localhost:8080/#/main/dashboard/metrics'. The page has a dark header with the Ambari logo, 'Sandbox' label, and a notification bar showing '1 op' and '17 alerts'. The main navigation bar includes 'Dashboard', 'Services', 'Hosts', 'Alerts', 'Admin', and a user profile dropdown for 'maria_dev'. The left sidebar lists various services with status icons: HDFS, YARN, MapReduce2, Tez, Hive, HBase, Pig, Sqoop, Oozie, ZooKeeper, Falcon, Storm, Flume, Ambari Infra, Atlas, Kafka, Knox, Ranger, Spark2, Zeppelin, Notebook, Druid, Slider, and Superset. The main content area displays a grid of metrics for the 'Last 1 hour' period. The metrics are organized into several rows and columns, with some showing 'n/a' and others showing specific values or links. The metrics include: HDFS Disk Usage, DataNodes Live, HDFS Links (NameNode, Secondary NameNode, 1 DataNodes), Memory Usage, Network Usage, CPU Usage, Cluster Load, NameNode Heap, NameNode RPC, NameNode CPU WIO, NameNode Uptime, HBase Master Heap, HBase Links (No Active Master, 1 RegionServers, n/a), HBase Ave Load, HBase Master Uptime, ResourceManager Heap, ResourceManager Uptime, YARN Memory, NodeManagers Live, and YARN Links (ResourceManager, 1 NodeManagers).

Step 7:Download any two Datasets file.

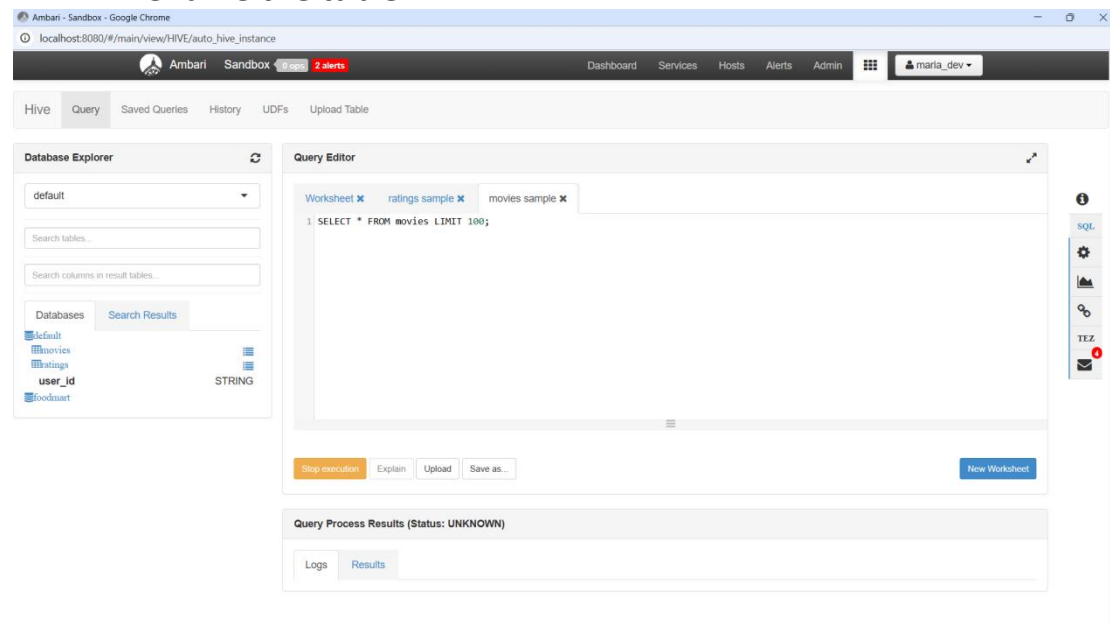
Step 8:Upload the files in the Ambari Sandbox.We will import the data from the local file there to import data open the hive view

After hive view click on the upload table option

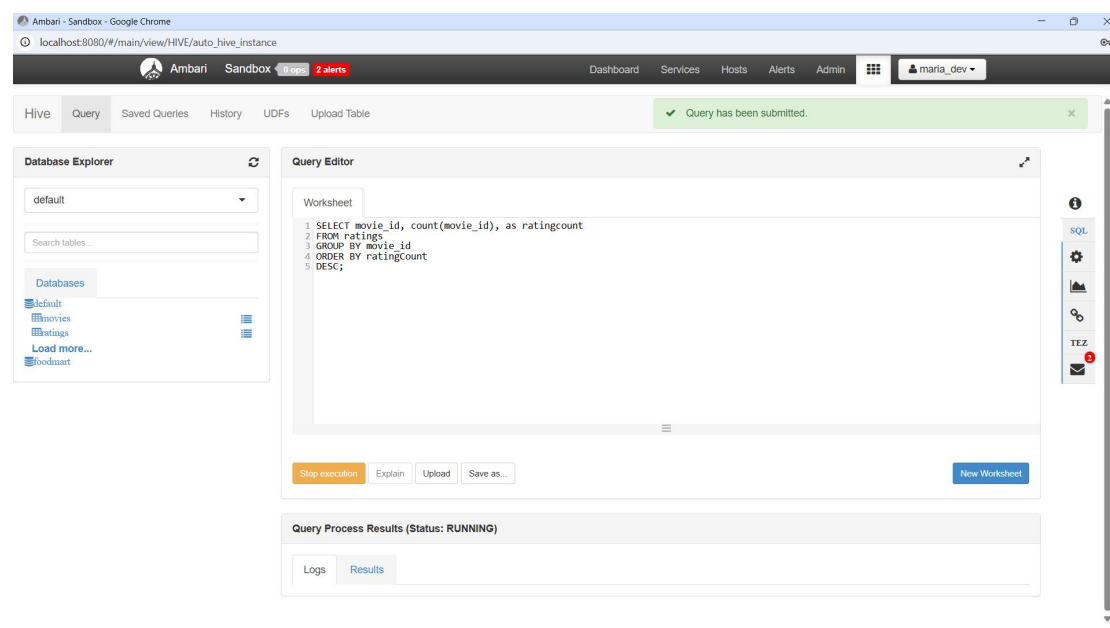
Select the csv file type & set the file delimiter type to the 9 (i.e horixontal tab)

Choose the file from your local system)(i.e u.data file)

Rename the table



Step 8:.)Write the SQL Query to perform operations.



Ambari - Sandbox - Google Chrome

localhost:8080/#/main/view/HIVE/auto_hive_instance

Query Process Results (Status: SUCCEEDED)

Save results...

Logs

Results

Filter columns...

previous

next

| movies.movie_id | movies.movie_name | movies.column3 | movies.column4 | movies.column5 |
|-----------------|--|----------------|----------------|---|
| 1 | Toy Story (1995) | 01-Jan-1995 | "" | http://us.imdb.com/M/title-exact?Toy%20Story%20(1995) |
| 2 | GoldenEye (1995) | 01-Jan-1995 | "" | http://us.imdb.com/M/title-exact?GoldenEye%20(1995) |
| 3 | Four Rooms (1995) | 01-Jan-1995 | "" | http://us.imdb.com/M/title-exact?Four%20Rooms%20(1995) |
| 4 | Get Shorty (1995) | 01-Jan-1995 | "" | http://us.imdb.com/M/title-exact?Get%20Shorty%20(1995) |
| 5 | Copycat (1995) | 01-Jan-1995 | "" | http://us.imdb.com/M/title-exact?Copycat%20(1995) |
| 6 | Shanghai Triad (Yao a yao dao walpo qiao) (1995) | 01-Jan-1995 | "" | http://us.imdb.com/T/tite?Yao+a+yao+yao+dao+walpo+qiao+(1995) |
| 7 | Twelve Monkeys (1995) | 01-Jan-1995 | "" | http://us.imdb.com/M/title-exact?Twelve%20Monkeys%20(1995) |
| 8 | Babe (1995) | 01-Jan-1995 | "" | http://us.imdb.com/M/title-exact?Babe%20(1995) |
| 9 | Dead Man Walking (1995) | 01-Jan-1995 | "" | http://us.imdb.com/M/title-exact?Dead%20Man%20Walking%20(1995) |
| 10 | Richard III (1995) | 22-Jan-1996 | "" | http://us.imdb.com/M/title-exact?Richard%20III%20(1995) |
| 11 | Seven (Se7en) (1995) | 01-Jan-1995 | "" | http://us.imdb.com/M/title-exact?Se7en%20(1995) |
| 12 | Usual Suspects, The (1995) | 14-Aug-1995 | "" | http://us.imdb.com/M/title-exact?Usual%20Suspects,%20The%20(1995) |
| 13 | Mighty Aphrodite (1995) | 30-Oct-1995 | "" | http://us.imdb.com/M/title-exact?Mighty%20Aphrodite%20(1995) |

Query Process Results

Logs

Results

Filter columns...

| movies.movie_id | | m |
|-----------------|--|-------------|
| 1 | | To |
| 2 | | G |
| 3 | | F |
| 4 | | G |
| 5 | | C |
| 6 | | S a q |
| 7 | | T (1 |
| 8 | | B |
| 9 | | D (1 |
| 10 | | R |
| 11 | | S (1 |
| 12 | | U (1 |