**EXP 5** 210701249

# Create tables in Hive and write queries to access the data in the table Aim:

To create tables in Hive and write queries to access the data in the table.

#### **Procedure:**

**Step 1:** Download the Hive from it's official website. Once the file get downloaded in your */downloads* folder extract this file with below command

tar -xvf apache-hive-2.1.1-bin.tar.gz

**Step 2:** Once you have downloaded the Hive now Install the latest version of MySQL java connector.

Then create a link between jar file and hive lib folder and copy jar to the lib folder.

sudo ln -s /usr/share/java/mysql-connector-java.jar \$HIVE\_HOME/lib/mysql-connector-java.jar

**Step 3:** Now start the Hadoop with the below command:

start-dfs.sh

start-yarn.sh

**Step 4:** Once your Hadoop gets started we will create Directories for the hive. Implement below commands in your terminal to make directories.

hdfs dfs -mkdir -p /user/hive/warehouse

hdfs dfs -mkdir -p /tmp/hive

**Step 5:** Now we will change permission for all this directory with below command.

hdfs dfs -chmod 777 /tmp/

hdfs dfs -chmod 777 /user/hive/warehouse

hdfs dfs -chmod 777 /tmp/hive

**Step 6:** Now we will install MySQL with below command.

sudo apt-get install mysql-server

**Step 7:** Create the Metastore Database after entering your MySQL terminal, implement all the below commands to do so (use **root** as password for SQL).

mysql> sudo mysql -u root -p

mysql> CREATE DATABASE metastore\_db;

mysql> USE metastore\_db;

Change the username according to you and path also if it is different.

mysql> SOURCE /home/{user-name}/Documents/apache-hive-2.1.1-bin/scripts/metastore/upgrade/mysql/hive-schema-0.14.0.mysql.sql;

**Step 8:** Now make hive user and hive password with below command on *mysql* terminal.

mysql> CREATE USER 'hiveusr'@'%' IDENTIFIED BY 'hivepassword';

mysql> GRANT all on \*.\* to 'hiveusr'@localhost identified by 'hivepassword';

mysql> flush privileges;

Then type exit to quit the MySQL terminal.

mysql> exit

**Step 9:** Now go to *apache-hive-2.1.1-bin* then go to *conf* folder and rename hive-default.xml.template to *hive-site.xml* and hive-env.sh.template to *hive-env.sh* 

**Step 10:** Now we start configuration for hive so go to *hive-site.xml* and change the following property.(use clrl+f to search property in a file)

A: ConnectionURL

<name>javax.jdo.option.ConnectionURL</name>

<value>jdbc:mysql://localhost/metastore db?createDatabaseIfNotExist=true/value>

#### B: ConnectionUserName

<name>javax.jdo.option.ConnectionUserName</name>

<value>hiveusr</value>

// Change username in value if you change it above.

#### C: ConnectionPassword

<name>javax.jdo.option.ConnectionPassword</name>

<value>hivepassword</value>

// change password in value if you change it above.

#### D: ConnectionDriverName

<name>javax.jdo.option.ConnectionDriverName</name>

<value>com.mysql.jdbc.Driver</value>

<description>MySQL JDBC driver class</description>

#### **Step 11:** Now open *hive-env.sh* and append your hadoop path inside it.

export HADOOP HOME=/home/dikshant/Documents/hadoop

```
52
53 # Folder containing extra ibraries required for hive compilation/execution can be controlled by:
54 # export HIVE_AUX_JARS_PATH=
55
56
57 export HADOOP_HOME=/home/dikshant/Documents/hadoop
```

**Step 12:** Also replace the below values in hive-site.xml (search property with ctrl+f and enter the name inside search box)

A: Replace this properties

With this property

### B: Replace this property

### With these properties

**Step 13:** Now the most important part is to set path for Hive in our *.bashrc* file, so open *.bashrc* with below command.

sudo gedit ~/.bashrc

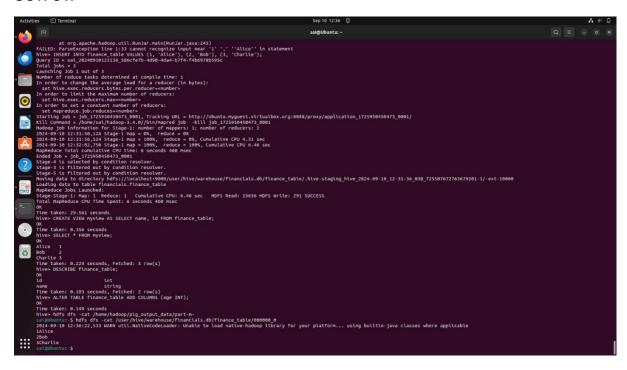
Copy the Hive path shown in the below image and update it according to your hive path (if different).

```
#Hive Path
export HIVE_HOME=/home/dikshant/Documents/apache-hive-2.1.1-bin
export PATH=$PATH:$HIVE_HOME/bin
```

source ~/.bashrc

```
Step 14: Now run this below command to initialize schema for MySQL database.
       schematool -initSchema -dbType mysql
       Step 15: that's it now run hive shell by typing hive in terminal.
       hive
       Step 16:
        CreateaDatabase
        CreateanewdatabaseinHive:
        hive>CREATEDATABASEfinancials;
       Step 17:
        Switchtothenewlycreateddatabase:
        hive>usefinancials;
Step 18:
        Createasimpletablein your database:
        hive>CREATETABLEfinance table(idINT,nameSTRING);
Step 19:
        Youcan insertsampledata intothetable:
        hive>INSERTINTOfinance_tableVALUES(1,'Alice'),(2,'Bob'),(3,'Charlie');
       Step 20:
        UseSQL-likequeries toretrievedatafromyour table:
        hive>CREATEVIEWmyviewASSELECT name,idFROMfinance_table;
       Step 21:
        To see the data in the view, you would
        need to query the
        viewhive>SELECT*FROMmyview;
       Step 22:
        ToexittheHiveCLI,s
        implytype:hive>q
        uit;
```

## **OUTPUT:**



# **Result:**

Thusto create tables in Hive and write queries to access the data in the table is executed successfully.