Installing Hive

Step 1: Installing Hive

The following steps are required for installing Hive on your system. Let us assume the Hive archive is downloaded onto the /Downloads directory.

Extracting and verifying Hive Archive

The following command is used to verify the download and extract the hive archive:

```
$ tar zxvf apache-hive-0.14.0-bin.tar.gz
$ ls
```

On successful download, you get to see the following response:

```
apache-hive-0.14.0-bin apache-hive-0.14.0-bin.tar.gz
```

Copying files to /usr/local/hive directory

We need to copy the files from the super user "su -". The following commands are used to copy the files from the extracted directory to the /usr/local/hive" directory.

```
$ su -
passwd:

# cd /home/user/Download
# mv apache-hive-0.14.0-bin /usr/local/hive
# exit
```

Setting up environment for Hive

You can set up the Hive environment by appending the following lines to **~/.bashrc** file:

```
export HIVE_HOME=/usr/local/hive
export PATH=$PATH:$HIVE_HOME/bin
```

The following command is used to execute ~/.bashrc file.

```
$ source ~/.bashrc
```

Step 2 Installing Mysql

Installation of mysql-server

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Checking the mysql-server and its process

Using sudo apt-get install mysql-server command, we can download mysql server

Install MySQL as shown in the screenshot

Installing MySQL Java Connector. This is for java dependencies and connection purpose

sudo apt-get install libmysql-java

Creating soft link for connector in Hive lib directory**.** This is for soft link between Java and MySql.

ln -s /usr/share/java/mysql-connector-java.jar $HIVE_HOME/lib/mysql-connector-java.jar

Configuring MySql storage in Hive

- Type **MySql –u root –p** followed by password
- Here –u represents root username , p denotes password
- After entering the above command, the user has to enter valid password and then click enter
- Then it will enter into MySql shell mode

Creating username and password for MySql, granting privileges.

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

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

mysql> flush privileges;

Configuring Hive

To configure Hive with Hadoop, you need to edit the **hive-env.sh** file, which is placed in the **$HIVE_HOME/conf** directory. The following commands redirect to Hive **config** folder and copy the template file:

$ cd $HIVE_HOME/conf
$ cp hive-env.sh.template hive-env.sh

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Edit the **hive-env.sh** file by appending the following line:

export HADOOP_HOME=/usr/local/hadoop

Step 3:configure hive.xml present in conf directory of Hive folder

<property>
<name>javax.jdo.option.ConnectionURL</name>
<value>jdbc:mysql://localhost/metastore?createDatabaseIfNotExist=true</value>
</property>

<property>
<name>javax.jdo.option.ConnectionDriverName</name>
<value>com.mysql.jdbc.Driver</value>
</property>

<property>
<name>javax.jdo.option.ConnectionUserName</name>
<value><<username>></value>
</property>

<property>
<name>javax.jdo.option.ConnectionPassword</name>
<value><<password>></value>
</property>

<property>
<name>hive.metastore.local</name>
<value>true</value>
</property>
</configuration>

Step 4: Configuring Metastore of Hive using Mysql

Download mysql-connector-java-3.1.14.tar.gz,extract it and then copy the mysql-connector-java-3.1.14.bin.jar to the lib directory in HIVE_HOME

Add the following properties to the core-site.xml in HADOOP_HOME/etc/hadoop

<property>

```
        <name>hadoop.proxyuser.username.groups</name>
        <value>*</value>
    </property>

    <property>
        <name>hadoop.proxyuser.username.hosts</name>
        <value>*</value>
    </property>
```

Now initialize the hive metastore as mysql by the following command

```
schematool -initSchema -dbType mysql
```

If it is successful then you are good to go!

Step 5: Verifying Hive Installation

Before running Hive, you need to create the **/tmp** folder and a separate Hive folder in HDFS. Here, we use the **/user/hive/warehouse** folder. You need to set write permission for these newly created folders as shown below:

```
chmod g+w
```

Now set them in HDFS before verifying Hive. Use the following commands:

```
$ $HADOOP_HOME/bin/hadoop fs -mkdir /tmp
$ $HADOOP_HOME/bin/hadoop fs -mkdir /user/hive/warehouse
$ $HADOOP_HOME/bin/hadoop fs -chmod g+w /tmp
$ $HADOOP_HOME/bin/hadoop fs -chmod g+w /user/hive/warehouse
```

The following commands are used to verify Hive installation:

```
$ cd $HIVE_HOME
$ bin/hive
```

On successful installation of Hive, you get to see the following response:

```
Logging initialized using configuration in jar:file:/home/hadoop/hive-0.9.0/lib/hive-common-0.9.0.jar!/hive-log4j.properties
Hive history file=/tmp/hadoop/hive_job_log_hadoop_201312121621_1494929084.txt
```

…….
hive>

The following sample command is executed to display all the tables:

```
hive> show tables;
OK
Time taken: 2.798 seconds
hive>
```