### What is Apache Hive?

Apache Hive is a warehouse infrastructure designed on top of Hadoop for providing information summarization, query, and ad-hoc analysis. Hence, in order to get your Hive running successfully, Java and Hadoop ought to be pre-installed and should be functioning well on your Linux OS.

Before installing the Hive, we require dedicated Hadoop installation, up and running with all the Hadoop daemons.

## Apache Hive Installation on Ubuntu

Now in order to get Apache Hive installation successfully on your Ubuntu system, please follow the below steps and execute them on your Linux OS.

Here are the steps to be followed for installing Hive 3.1.2 on Ubuntu.

### 1. Download Hive

**Step 1:** First, download the Hive 3.1.2 from this [**link**.](https://downloads.apache.org/hive/hive-3.1.2/apache-hive-3.1.2-bin.tar.gz)

**Step 2:** Locate the apache-hive-3.1.2-bin.tar.gz file in your system.

**Step 3:** Extract this tar file using the below command:

***tar -xzf apache-hive-3.1.2-bin.tar.gz***

### 2. Configuring Hive files

**Step 4:** Now, we have to place the Hive PATH in .bashrc file. For this, open **.bashrc** file in the nano editor and add the following in the .bashrc file.

***export HIVE\_HOME= “home/ibstraining/apache-hive-3.1.2-bin”***

***export PATH=$PATH:$HIVE\_HOME/bin***

**Note:** Here enter the correct name & version of your hive and correct path of your Hive File “home/ibstraining/apache-hive-3.1.2-bin” this is the path of my Hive File and “apache-hive-3.1.2-bin” is the name of my hive file.

So please enter the correct path and name of your Hive file. After adding save this file.

Press **CTRL+O** and enter to save changes. Then press **CTRL+D** to exit the editor.

**Step 5:** Open the **core-site.xml** file in the nano editor. The file is located in **home/hadoop-3.1.2/etc/hadoop/** (Hadoop Configuration Directory).

Add the following configuration property in the core-site.xml file.

<configuration>

<property>

<name>hadoop.proxyuser.ibstraining.groups</name>

<value>\*</value>

</property>

<property>

<name>hadoop.proxyuser.ibstraining.hosts</name>

<value>\*</value>

</property>

<property>

<name>hadoop.proxyuser.server.hosts</name>

<value>\*</value>

</property>

<property>

<name>hadoop.proxyuser.server.groups</name>

<value>\*</value>

</property>

</configuration>

Press **CTRL+O** and enter to save changes. Then press **CTRL+D** to exit the editor.

**Step 6:** Make a directory ‘tmp’ in HDFS using the below command:

***hadoop fs -mkdir /tmp***

**Step 6:** Use the below commands to create a directory ‘warehouse’ inside ‘hive’ directory, which resides in ‘user’ directory. The warehouse is the location to store data or tables related to Hive.

***hadoop fs -mkdir /user***

***hadoop fs -mkdir /user/hive***

***hadoop fs -mkdir /user/hive/warehouse***

**Step 7:** Give the write permission to the members of the ‘tmp’ file group using command:

***hadoop fs -chmod g+w /tmp***

**Step 8:** Now give write permission to the warehouse directory using the command:

***hadoop fs -chmod g+w /user/hive/warehouse***

### 3. Initialize Derby database

**Step 9:** Hive by default uses **Derby database**. Use the below command to initialize the Derby database.

***bin/schematool -dbType derby -initSchema***

### 4. Launching Hive

**Step 10:** Now start the HiveServer2 using the below command:

***bin/hiveserver2***

[For this first move to the ~/apache-hive-3.1.2-bin/]

**Step 11:** On the **different tab**, type the below command to launch the beeline command shell.

***bin/beeline -n ibstraining -u jdbc:hive2://localhost:10000***

Now, you can type SQL queries in the Beeline command shell to interact with the Hive system.

### 5. Verifying Hive Installation

**For example**, in the below image, use **show databases** query to list out the database in the Hive warehouse.

We have successfully installed Apache Hive 3.1.2 on Hadoop 3.1.2 on Ubuntu.

## Conclusion

Hence, in this Hive installation tutorial, we discussed the process to install Hive on Ubuntu.