

Exp. No : 5

HIVE Installation

1. Download and Extract apache hive 3.1.2

```
hadoop@krn:~$ wget https://archive.apache.org/dist/hive/hive-3.1.2/apache-hive-3.1.2-bin.tar.gz
--2024-09-14 18:01:33-- https://archive.apache.org/dist/hive/hive-3.1.2/apache-hive-3.1.2-bin.tar.gz
Resolving archive.apache.org (archive.apache.org)... 65.108.204.189, 2a01:4f9:1a:a084::2
Connecting to archive.apache.org (archive.apache.org)[65.108.204.189]:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 278813748 (266M) [application/x-gzip]
Saving to: 'apache-hive-3.1.2-bin.tar.gz'

apache-hive-3.1.2-bin.tar.gz          100%[=====] 265.90M  12.1M/s   in 25s

2024-09-14 18:01:59 (10.4 MB/s) - 'apache-hive-3.1.2-bin.tar.gz' saved [278813748/278813748]

hadoop@krn:~$
```

```
Activities Terminal Sep 14 '80 hadoop@tiran:-
```

```
[r] try --help or 'tar -usage' for more information.  
[root@hive ~]# tar xvf apache-hive-3.12-bin.tar.gz  
apache-hive-3.12-bin/LICENSE  
apache-hive-3.12-bin/NOTICE  
apache-hive-3.12-bin/BUILD_NOTES.txt  
apache-hive-3.12-bin/binary-package/licenses/am-LICENSE  
apache-hive-3.12-bin/binary-package/licenses/com.google.protobuf-LICENSE  
apache-hive-3.12-bin/binary-package/licenses/com.ibm.icu.icu-j_LICENSE  
apache-hive-3.12-bin/binary-package/licenses/con.sun.jersey.LICENSE  
apache-hive-3.12-bin/binary-package/licenses/com.thoughtworks.paramater-LICENSE  
apache-hive-3.12-bin/binary-package/licenses/javax.transaction.transaction-api-LICENSE  
apache-hive-3.12-bin/binary-package/licenses/javolution-LICENSE  
apache-hive-3.12-bin/binary-package/licenses/jline-LICENSE  
apache-hive-3.12-bin/binary-package/licenses/notice-LICENSE  
apache-hive-3.12-bin/binary-package/licenses/org.allegro.treelayout-core-LICENSE  
apache-hive-3.12-bin/binary-package/licenses/org.apache.antlr.LICENSE  
apache-hive-3.12-bin/binary-package/licenses/org.apache.antlr4.LICENSE  
apache-hive-3.12-bin/binary-package/licenses/org.apache.stringtemplate.LICENSE  
apache-hive-3.12-bin/binary-package/licenses/org.codehaus.mojo.LICENSE  
apache-hive-3.12-bin/binary-package/licenses/org.flyby.LICENSE  
apache-hive-3.12-bin/binary-package/licenses.org.mozilla.rhino.LICENSE  
apache-hive-3.12-bin/binary-package/licenses/org.slf4j.LICENSE  
apache-hive-3.12-bin/binary-package/licenses/pullview.LICENSE  
apache-hive-3.12-bin/examples/files/2000_col_data.csv  
apache-hive-3.12-bin/examples/files/3col_data.txt  
apache-hive-3.12-bin/examples/files/Acol_data.txt  
apache-hive-3.12-bin/examples/files/Sol_data.txt  
apache-hive-3.12-bin/examples/files/Ragg_ql_pt.txt  
apache-hive-3.12-bin/examples/files/App_gd_pt.txt  
apache-hive-3.12-bin/examples/files/App_gp_pt.txt  
apache-hive-3.12-bin/examples/files/alltypes.txt  
apache-hive-3.12-bin/examples/files/alltypes2.txt  
apache-hive-3.12-bin/examples/files/apache.access.2.log  
apache-hive-3.12-bin/examples/files/apache_access_log  
apache-hive-3.12-bin/examples/files/archive_corrupt.rc  
apache-hive-3.12-bin/examples/files/array_table.txt  
apache-hive-3.12-bin/examples/files/avro_character_tst  
apache-hive-3.12-bin/examples/files/avro_delta  
apache-hive-3.12-bin/examples/files/avro_historical_timestamp_legacy.avro  
apache-hive-3.12-bin/examples/files/avro_historical_timestamp_new_avro  
apache-hive-3.12-bin/examples/files/avro_timestamp.txt  
apache-hive-3.12-bin/examples/files/avro_unlinkedtest.parquet  
apache-hive-3.12-bin/examples/files/AvrosinglelevelndropINList.parquet  
apache-hive-3.12-bin/examples/files/binary.txt  
apache-hive-3.12-bin/examples/files/bool.txt  
apache-hive-3.12-bin/examples/files/bool_literal.txt  
apache-hive-3.12-bin/examples/files/cbo_l1.txt  
apache-hive-3.12-bin/examples/files/cbo_l2.txt  
apache-hive-3.12-bin/examples/files/cbo_l3.txt  
apache-hive-3.12-bin/examples/files/cbo_l4.txt  
apache-hive-3.12-bin/examples/files/cbo_s1.txt  
apache-hive-3.12-bin/examples/files/cbo_s6.txt  
apache-hive-3.12-bin/examples/files/char_utf.txt  
apache-hive-3.12-bin/examples/files/complex.seq
```

```
Activities | Terminal | Sep 14, 2023 | Screenshots captured | You can paste the image from the clipboard. |
apache-hive-3.1.2-bin/tlb/jetty-schemas-3.1.jar
apache-hive-3.1.2-bin/tlb/ncj-4.4.2.jar
apache-hive-3.1.2-bin/tlb/apache-jsc1-9.3.20-20170311.jar
apache-hive-3.1.2-bin/tlb/tagslts-standard-spec-1.2.5.jar
apache-hive-3.1.2-bin/tlb/tagslts-standard-impl-1.2.5.jar
apache-hive-3.1.2-bin/tlb/hive-jdbc-3.1.2.jar
apache-hive-3.1.2-bin/tlb/hive-beeline-3.1.2.jar
apache-hive-3.1.2-bin/tlb/hive-supercsv-2.2.0.jar
apache-hive-3.1.2-bin/tlb/hive-cui-3.1.2.jar
apache-hive-3.1.2-bin/tlb/hive-contrib-3.1.2.jar
apache-hive-3.1.2-bin/tlb/hive-base-handler-3.1.2.jar
apache-hive-3.1.2-bin/tlb/hbase-hadoop2-compat-0.0-alpha4-tests.jar
apache-hive-3.1.2-bin/tlb/hive-druid-handler-3.1.2.jar
apache-hive-3.1.2-bin/tlb/jackson-dataformat-onml-2.9.5.jar
apache-hive-3.1.2-bin/tlb/druid-hdfs-storage-0.12.0.jar
apache-hive-3.1.2-bin/tlb/mysql-metadata-storage-0.12.0.jar
apache-hive-3.1.2-bin/tlb/postgresql-metadata-storage-0.12.0.jar
apache-hive-3.1.2-bin/tlb/postgresql-9.4.1208.jar
apache-hive-3.1.2-bin/tlb/hive-jdbc-handler-3.1.2.jar
apache-hive-3.1.2-bin/tlb/hive-accumulo-handler-3.1.2.jar
apache-hive-3.1.2-bin/tlb/accumulo-core-1.7.3.jar
apache-hive-3.1.2-bin/tlb/jcommander-1.31.jar
apache-hive-3.1.2-bin/tlb/accumulo-fate-1.7.3.jar
apache-hive-3.1.2-bin/tlb/accumulo-start-1.7.3.jar
apache-hive-3.1.2-bin/tlb/commons-vfs2-2.1.jar
apache-hive-3.1.2-bin/tlb/commons-math-2.1.jar
apache-hive-3.1.2-bin/tlb/accumulo-frace-1.7.3.jar
apache-hive-3.1.2-bin/tlb/hive-llap-external-3.1.2.jar
apache-hive-3.1.2-bin/tlb/hive-hqlsql-3.1.2.jar
apache-hive-3.1.2-bin/tlb/antlr4-runtime-4.5.3.jar
apache-hive-3.1.2-bin/tlb/arg-abeego-treeLayout-1.0-1.jar
apache-hive-3.1.2-bin/tlb/hive-streaming-3.1.2.jar
apache-hive-3.1.2-bin/tlb/hive-kryo-registry-3.1.2.jar
apache-hive-3.1.2-bin/tlb/jdbc/hive-jdbc-3.1.2-standalone.jar
apache-hive-3.1.2-bin/tlb/hive-hcatalog-core-3.1.2.jar
apache-hive-3.1.2-bin/tlb/hive-hcatalog-server-extensions-3.1.2.jar
apache-hive-3.1.2-bin/tlb/hcatalog/share/hcatalog/hive-hcatalog-streaming-3.1.2.jar
apache-hive-3.1.2-bin/tlb/hcatalog/share/hcatalog/hive-hcatalog-core-3.1.2.jar
apache-hive-3.1.2-bin/tlb/hcatalog/share/hcatalog/hive-hcatalog-pig-adapter-3.1.2.jar
apache-hive-3.1.2-bin/tlb/hcatalog/share/hcatalog/hive-hcatalog-server-extensions-3.1.2.jar
apache-hive-3.1.2-bin/tlb/hcatalog/share/webcat/svr/tlb/jersey-jon-1.19.jar
apache-hive-3.1.2-bin/tlb/hcatalog/share/webcat/svr/tlb/javax-impl-2.2.3-1.jar
apache-hive-3.1.2-bin/tlb/hcatalog/share/webcat/svr/tlb/jackson-jaxrs-1.9.2.jar
apache-hive-3.1.2-bin/tlb/hcatalog/share/webcat/svr/tlb/jackson-nc-1.9.2.jar
apache-hive-3.1.2-bin/tlb/hcatalog/share/webcat/svr/tlb/jersey-core-1.19.jar
apache-hive-3.1.2-bin/tlb/hcatalog/share/webcat/svr/tlb/rx11-opt-1.1.1.jar
apache-hive-3.1.2-bin/tlb/hcatalog/share/webcat/svr/tlb/jersey-servlet-1.19.jar
apache-hive-3.1.2-bin/tlb/hcatalog/share/webcat/svr/tlb/hive-webcat-3.1.2.jar
apache-hive-3.1.2-bin/tlb/hcatalog/share/webcat/svr/tlb/weld-resources-dotlet-1.4.jar
apache-hive-3.1.2-bin/tlb/hcatalog/share/webcat/svr/tlb/xerces-impl-2.9.1.jar
apache-hive-3.1.2-bin/tlb/hcatalog/share/webcat/svr/tlb/xml-apis-1.3.04.jar
apache-hive-3.1.2-bin/tlb/hcatalog/share/webcat/svr/tlb/commons-exec-1.1.jar
apache-hive-3.1.2-bin/tlb/hcatalog/share/webcat/svr/tlb/jul-to-slf4j-1.7.10.jar
apache-hive-3.1.2-bin/tlb/hcatalog/share/webcat/java-client/hive-webcat-java-client-3.1.2.jar
```

2. Update HIVE Configurations in .bashrc

```

{
export JAVA_HOME=/usr/lib/jvm/java-8-openjdk-amd64
export HADOOP_HOME=/home/hadoop/hadoop
export HADOOP_INSTALL=$HADOOP_HOME
export HADOOP_MAPRED_HOME=$HADOOP_HOME
export HADOOP_COMMON_HOME=$HADOOP_HOME
export HADOOP_HDFS_HOME=$HADOOP_HOME
export HADOOP_YARN_HOME=$HADOOP_HOME
export HADOOP_COMMON_LIB_NATIVE_DIR=$HADOOP_HOME/lib/native
export PATH=$PATH:$HADOOP_HOME/sbin:$HADOOP_HOME/bin
export HADOOP_OPTS="-Djava.library.path=$HADOOP_HOME/lib/native"
export HADOOP_STREAMING=/home/hadoop/hadoop/share/hadoop/tools/lib/hadoop-streaming-3.3.6.jar
# PIG settings
export PIG_HOME=/home/hadoop/pig
export PATH=$PATH:$PIG_HOME/bin
export PIG_CLASSPATH=$PIG_HOME/conf:$HADOOP_INSTALL/etc/hadoop/
export PIG_CONF_DIR=$PIG_HOME/conf
export JAVA_HOME=/usr/lib/jvm/java-8-openjdk-amd64
export PIG_CLASSPATH=$PIG_CONF_DIR:$PATH
# PIG settings end
export HIVE_HOME=/home/hadoop/apache-hive-3.1.2-bin
export PATH=$PATH:$HIVE_HOME/bin
export HADOOP_USER_CLASSPATH_FIRST=true
}

Have modified buffer?
Y Yes
N No      [AC] Cancel

```

3. Change directory to apache-hive-3.1.2-bin/conf

```

hadoop@kiran:~$ mv apache-hive-3.1.2-bin hive
hadoop@kiran:~$ cd hive
hadoop@kiran:~/hive$ cp conf/hive-default.xml.template conf/hive-site.xml
hadoop@kiran:~/hive$ nano conf/hive-site.xml
hadoop@kiran:~/hive$ hdfs dfs -mkdir /user
mkdir: Call From kiran/127.0.1.1 to localhost:9000 failed on connection exception:

```

4. start-all.sh

```

hadoop@kiran:~/hive$ start-all.sh
WARNING: Attempting to start all Apache Hadoop daemons as hadoop in 10 seconds.
WARNING: This is not a recommended production deployment configuration.
WARNING: Use CTRL-C to abort.
Starting namenodes on [localhost]
Starting datanodes
Starting secondary namenodes [kiran]
Starting resourcemanager
Starting nodemanagers

```

5. \$HIVE_HOME/bin

```

hadoop@kiran:~/hive$ cd $HIVE_HOME/bin
hadoop@kiran:~/hive/bin$ schematool -initSchema -dbType derby
SLF4J: Class path contains multiple SLF4J bindings.
SLF4J: Found binding in [jar:file:/home/hadoop/hive/lib/log4j-slf4j-impl-2.10.0.jar!/org/slf4j/impl/StaticLoggerBinder.class]
SLF4J: Found binding in [jar:file:/home/hadoop/hadoop/share/hadoop/common/lib/slf4j-reload4j-1.7.36.jar!/org/slf4j/impl/StaticLoggerBinder.class]
SLF4J: See http://www.slf4j.org/codes.html#multiple_bindings for an explanation.
SLF4J: Actual binding is of type [org.apache.logging.slf4j.Log4jLoggerFactory]
Metastore connection URL: jdbc:derby:databaseName=metastore_db;create=true
Metastore Connection Driver : org.apache.derby.jdbc.EmbeddedDriver
Metastore connection User: APP
Starting metastore schema initialization to 3.1.0
Initialization script hive-schema-3.1.0.derby.sql

```

6. \$hive

```
Initialization script completed
schemaTool completed
hadoop@kiran:~/hive/bin$ hive
SLF4J: Class path contains multiple SLF4J bindings.
SLF4J: Found binding in [jar:file:/home/hadoop/hive/lib/log4j-slf4j-impl-2.10.0.jar!/org/slf4j/impl/StaticLoggerBinder.class]
SLF4J: Found binding in [jar:file:/home/hadoop/hadoop/share/hadoop/common/lib/slf4j-reload4j-1.7.36.jar!/org/slf4j/impl/StaticLoggerBinder.class]
SLF4J: See http://www.slf4j.org/codes.html#multiple_bindings for an explanation.
SLF4J: Actual binding is of type [org.apache.logging.slf4j.Log4jLoggerFactory]
Hive Session ID = ce154077-c39d-4a08-8a55-6c3c3d10e629

Logging initialized using configuration in jar:file:/home/hadoop/hive/lib/hive-common-3.1.2.jar!/hive-log4j2.properties Async: true
Hive Session ID = 412391fe-6340-46c5-865a-ba1d0662748d
Hive-on-MR is deprecated in Hive 2 and may not be available in the future versions. Consider using a different execution engine (i.e. spark, tez) or using Hive 1.X releases.
hive>
```

7. SQL commands

```
hive> CREATE VIEW myview AS SELECT name, id FROM finance_table;
OK
Time taken: 0.498 seconds
hive> SELECT * FROM myview;
OK
Alice      1
Bob        2
Charlie    3
Time taken: 0.495 seconds, Fetched: 3 row(s)
hive>
```

```
hive> DESCRIBE finance_table;
OK
id              int
name            string
Time taken: 0.169 seconds, Fetched: 2 row(s)
hive> ALTER TABLE finance_table ADD COLUMNS (age INT);
OK
Time taken: 0.338 seconds
hive>
```

```
Time taken: 0.1530 seconds
hive> quit
> quit;
NoViableAltException(240[[])
    at org.apache.hadoop.hive.ql.parse.HiveParser.statement(HiveParser.java:1387)
    at org.apache.hadoop.hive.ql.parse.ParseDriver.parse(ParseDriver.java:220)
    at org.apache.hadoop.hive.ql.parse.ParseUtils.parse(ParseUtils.java:74)
    at org.apache.hadoop.hive.ql.parse.ParseUtils.parse(ParseUtils.java:67)
    at org.apache.hadoop.hive.ql.Driver.compile(Driver.java:616)
    at org.apache.hadoop.hive.ql.Driver.compileInternal(Driver.java:1826)
    at org.apache.hadoop.hive.ql.Driver.compileAndRespond(Driver.java:1773)
    at org.apache.hadoop.hive.ql.Driver.compileAndRespond(Driver.java:1768)
    at org.apache.hadoop.hive.ql.rexec.ReExecDriver.compileAndRespond(ReExecDriver.java:126)
    at org.apache.hadoop.hive.ql.rexec.ReExecDriver.run(ReExecDriver.java:214)
    at org.apache.hadoop.hive.cli.CliDriver.processLocalCmd(CliDriver.java:239)
    at org.apache.hadoop.hive.cli.CliDriver.processCmd(CliDriver.java:188)
    at org.apache.hadoop.hive.cli.CliDriver.processLine(CliDriver.java:402)
    at org.apache.hadoop.hive.cli.CliDriver.executeDriver(CliDriver.java:821)
    at org.apache.hadoop.hive.cli.CliDriver.run(CliDriver.java:759)
    at org.apache.hadoop.hive.cli.CliDriver.main(CliDriver.java:683)
    at sun.reflect.NativeMethodAccessorImpl.invoke0(Native Method)
    at sun.reflect.NativeMethodAccessorImpl.invoke(NativeMethodAccessorImpl.java:62)
    at sun.reflect.DelegatingMethodAccessorImpl.invoke(DelegatingMethodAccessorImpl.java:43)
    at java.lang.reflect.Method.invoke(Method.java:498)
    at org.apache.hadoop.util.RunJar.run(RunJar.java:328)
    at org.apache.hadoop.util.RunJar.main(RunJar.java:241)
FAILED: ParseException line 1:0 cannot recognize input near 'quit' 'quit' '<EOF>'
hive> quit;
```