

Exp. No : 5

HIVE Installation

1. Download and Extract apache hive 3.1.2

```

... 18 more
harini@fedora:~$ ls
apache-hive-3.1.2-bin.tar.gz      Pictures
dataAnalytics_Lab_Manual-Exercise 1 to 5.pdf'  pig
desktop                             pig-0.16.0.tar.gz
documents                          pig_1728671054366.log
downloads                          pig_17287188666666.log
exp2                               pig_1728724086202.log
exp3                               pig_1728726526507.log
exp4                               Public
hadoop                             sample.txt
hadoop-3.3.6.tar.gz              Templates
hive                              Videos
music
harini@fedora:~$ cd hive
harini@fedora:~/hive$

```

2. Update HIVE Configurations in .bashrc

```

[1]
unset rc
export JAVA_HOME=/usr/lib/jvm/java-11-openjdk
export PATH=$PATH:/usr/lib/jvm/java-11-openjdk/bin
export HADOOP_HOME=~/.hadoop
export PATH=$PATH:$HADOOP_HOME/bin
export PATH=$PATH:$HADOOP_HOME/sbin
export HADOOP_MAPRED_HOME=$HADOOP_HOME
export YARN_HOME=$HADOOP_HOME
export HADOOP_CONF_DIR=$HADOOP_HOME/etc/hadoop
export HADOOP_COMMON_LIB_NATIVE_DIR=$HADOOP_HOME/lib/native
export HADOOP_OPTS="-Djava.library.path=$HADOOP_HOME/lib/native"
export HADOOP_STREAMING=$HADOOP_HOME/share/hadoop/tools/lib/hadoop-streaming-3.3.6.jar
export HADOOP_LOG_DIR=$HADOOP_HOME/logs
export PDSH_RCMD_TYPE=ssh

#PIG SETTINGS
export PIG_HOME=/home/harini/pig
export PATH=$PATH:$PIG_HOME/bin
export PIG_CLASSPATH=$PIG_HOME/conf:$HADOOP_INSTALL/etc/hadoop/
export PIG_CONF_DIR=$PIG_HOME/conf
export JAVA_HOME=/usr/lib/jvm/java-11-openjdk
export PIG_CLASSPATH=$PIG_CONF_DIR:$PATH
#PIG setting ends

```

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

```

keerthi@fedora:~/hive$ cd conf
keerthi@fedora:~/hive/conf$ ls
beeline-log4j2.properties.template  hive-exec-log4j2.properties.template  llap-cli-log4j2.properties.template
hive-default.xml.template            hive-log4j2.properties.template        llap-daemon-log4j2.properties.template
hive-env.sh                          hive-site.xml                           parquet-logging.properties
hive-env.sh.template                 ivysettings.xml

```

4. Create hive-env.sh

```

GNU nano 7.2                                     hi
# if [ -z "$DEBUG" ]; then
#     export HADOOP_OPTS="$HADOOP_OPTS -XX:NewRatio=12 -Xms10m -XX:MaxHeapFreeRati
# else
#     export HADOOP_OPTS="$HADOOP_OPTS -XX:NewRatio=12 -Xms10m -XX:MaxHeapFreeRati
# fi
# fi

# The heap size of the jvm started by hive shell script can be controlled via:
#
# export HADOOP_HEAPSIZE=1024
#
# Larger heap size may be required when running queries over large number of files
# By default hive shell scripts use a heap size of 256 (MB).  Larger heap size wou
# appropriate for hive server.

# Set HADOOP_HOME to point to a specific hadoop install directory
# HADOOP_HOME=${bin}/../../hadoop

# Hive Configuration Directory can be controlled by:
# export HIVE_CONF_DIR=

# Folder containing extra libraries required for hive compilation/execution can be
# export HIVE_AUX_JARS_PATH=

```

5. Install and Change mysql root password

```

Enter password:
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 8
Server version: 8.0.39 Source distribution

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owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql> SELECT user, host, plugin FROM mysql.user WHERE user = 'root';
+-----+-----+-----+
| user | host      | plugin                |
+-----+-----+-----+
| root | localhost | mysql_native_password |
+-----+-----+-----+
1 row in set (0.00 sec)

```

6. Create and configure hive-site.xml

```

</description>
</property>
<property>
  <name>hive.repl.partitions.dump.parallelism</name>
  <value>100</value>
  <description>Number of threads that will be used to dump partition data information during repl dump.</description>
</property>
<property>
  <name>hive.repl.dumpdir.clean.freq</name>
  <value>0s</value>
  <description>
    Expects a time value with unit (d/day, h/hour, m/min, s/sec, ms/msec, us/usec, ns/nsec), which is sec if not specified.
    Frequency at which timer task runs to purge expired dump dirs.
  </description>
</property>
<property>
  <name>hive.repl.dumpdir.ttl</name>
  <value>7d</value>
  <description>
    Expects a time value with unit (d/day, h/hour, m/min, s/sec, ms/msec, us/usec, ns/nsec), which is day if not specified.
    TTL of dump dirs before cleanup.
  </description>
</property>
<property>
  <name>hive.repl.dump.metadata.only</name>

```

7. Download and Move mysql java connector to apache-hive-3.1.2-bin/lib

```

keerthi@fedora:~/hive/conf$ cd
keerthi@fedora:~$ cd hive
keerthi@fedora:~/hive$ cd lib
keerthi@fedora:~/hive/lib$ ls
accumulo-core-1.7.3.jar      hbase-server-2.0.0-alpha4.jar      jersey-media-jaxb-2.25.1.jar
accumulo-fate-1.7.3.jar      hbase-shaded-miscellaneous-1.0.1.jar  jersey-server-2.25.1.jar
accumulo-start-1.7.3.jar     hbase-shaded-netty-1.0.1.jar        jettison-1.1.jar
accumulo-trace-1.7.3.jar     hbase-shaded-protobuf-1.0.1.jar     jetty-annotations-9.3.20.v20170531.jar
aircompressor-0.10.jar      HikariCP-2.6.1.jar                 jetty-client-9.3.20.v20170531.jar
ant-1.9.1.jar               hive-accumulo-handler-3.1.2.jar       jetty-http-9.3.20.v20170531.jar
ant-launcher-1.9.1.jar       hive-beeline-3.1.2.jar               jetty-io-9.3.20.v20170531.jar
antlr4-runtime-4.5.jar       hive-classification-3.1.2.jar         jetty-jaas-9.3.20.v20170531.jar
antlr-runtime-3.5.2.jar      hive-cli-3.1.2.jar                   jetty-jndi-9.3.20.v20170531.jar
aopalliance-repackaged-2.5.0-b32.jar  hive-common-3.1.2.jar                 jetty-plus-9.3.20.v20170531.jar
apache-curator-2.12.0.pom    hive-contrib-3.1.2.jar                jetty-rewrite-9.3.20.v20170531.jar
apache-jsp-9.3.20.v20170531.jar  hive-druid-handler-3.1.2.jar          jetty-runner-9.3.20.v20170531.jar
apache-jstl-9.3.20.v20170531.jar  hive-exec-3.1.2.jar                  jetty-schemas-3.1.jar
arrow-format-0.8.0.jar       hive-hbase-handler-3.1.2.jar          jetty-security-9.3.20.v20170531.jar
arrow-memory-0.8.0.jar       hive-hcatalog-core-3.1.2.jar           jetty-server-9.3.20.v20170531.jar
arrow-vector-0.8.0.jar       hive-hcatalog-server-extensions-3.1.2.jar  jetty-servlet-9.3.20.v20170531.jar
asm-5.0.1.jar                hive-hplsql-3.1.2.jar                 jetty-util-9.3.20.v20170531.jar
asm-commons-5.0.1.jar        hive-jdbc-3.1.2.jar                   jetty-webapp-9.3.20.v20170531.jar
asm-tree-5.0.1.jar           hive-jdbc-handler-3.1.2.jar            jetty-xml-9.3.20.v20170531.jar
audience-annotations-0.5.0.jar  hive-kryo-registrator-3.1.2.jar        jline-2.12.jar
avatica-1.11.0.jar           hive-llap-client-3.1.2.jar             joda-time-2.9.9.jar
avro-1.7.7.jar               hive-llap-common-3.1.2.jar             joni-2.1.11.jar
bonecp-0.8.0.RELEASE.jar      hive-llap-common-3.1.2-tests.jar       jpam-1.1.jar
calcite-core-1.15.0.jar       hive-llap-ctl-client-3.1.2.jar         jsp-api-1.0.jar

```

8. Execute schematool -initSchema -dbType mysql

```

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:mysql://localhost/metastore?createDatabaseIfNo
tExist=true
Metastore Connection Driver :   com.mysql.cj.jdbc.Driver
Metastore connection User:     root
Starting metastore schema initialization to 3.1.0
Initialization script hive-schema-3.1.0.mysql.sql

```

9. Start hive

```

keerthi@fedora:~/hive/lib$ hive
which: no hbase in (/home/keerthi/.local/bin:/home/keerthi/bin:/usr/local/bin:/usr/local/sbin:/usr/bin:/usr/sbin:/usr/lib/jvm/java-8-open
jdk/bin:/home/keerthi/hadoop/bin:/home/keerthi/hadoop/sbin:/home/keerthi/pig/bin:/home/keerthi/hive/bin:/usr/lib/jvm/java-8-openjdk/bin:/
home/keerthi/hadoop/bin:/home/keerthi/hadoop/sbin:/home/keerthi/pig/bin:/home/keerthi/hive/bin)
SLF4J: Class path contains multiple SLF4J bindings.
SLF4J: Found binding in [jar:file:/home/keerthi/hive/lib/log4j-slf4j-impl-2.10.0.jar!/org/slf4j/impl/StaticLoggerBinder.class]
SLF4J: Found binding in [jar:file:/home/keerthi/hadoop/share/hadoop/common/lib/slf4j-reload4j-1.7.36.jar!/org/slf4j/impl/StaticLoggerBind
er.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 = ad4ea647-2583-4543-9dd9-9b1264c68925

Logging initialized using configuration in jar:file:/home/keerthi/hive/lib/hive-common-3.1.2.jar!/hive-log4j2.properties Async: true
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. spa
rk, tez) or using Hive 1.X releases.
Hive Session ID = 2943ba5b-4d25-4a33-8009-4bd5e56c6a9d
hive>

```