

Exp. No : 5

## HIVE Installation

1. Download and Extract apache hive 3.1.2

```
arise@fedora:~$ cd ..
arise@fedora:~$ ls
bin.zip  Desktop  Downloads  exp2  exp4  hadoop  hive  Pictures  pig-0.16.0.tar.gz  Templates
C  Documents  exp1  exp3  exp6  hadoop-3.4.0.tar.gz  Music  pig  Public  Videos
arise@fedora:~$ cd hive
arise@fedora:~/hive$ ls
bin  binary-package-licenses  conf  examples  hcatalog  jdbc  lib  LICENSE  NOTICE  RELEASE_NOTES.txt  scripts
arise@fedora:~/hive$
```

2. Update HIVE Configurations in .bashrc

```
export HADOOP_CONF_DIR=$HADOOP_HOME/etc/hadoop
export HADOOP_COMMON_LIB_NATIVE_DIR=$HADOOP_HOME/lib/native
export HADOOP_STREAMING=$HADOOP_HOME/share/hadoop/tools/lib/hadoop-streaming-3.4.0.jar
export HADOOP_LOG_DIR=$HADOOP_HOME/logs
export PDSH_RCMD_TYPE=ssh

#PIG settings
export PIG_HOME=/home/harithaah/pig
export PATH=$PATH:$PIG_HOME/bin
export PIG_CLASSPATH=$PIG_HOME/conf:$HADOOP_INSTALL/etc/hadoop/
export PIG_CONF_DIR=$PIG_HOME/conf
export JAVA_HOME=/usr/lib/jvm/jdk1.8.0_202
export PATH=$PATH:$JAVA_HOME/bin
export PIG_CLASSPATH=$PIG_CONF_DIR:$PATH
#PIG setting ends

export HIVE_HOME=/home/harithaah/hive
export HIVE_CONF_DIR=$HIVE_HOME/conf
export PATH=$PATH:$HIVE_HOME/bin
export HADOOP_USER_CLASSPATH_FIRST=true
export CLASSPATH=$CLASSPATH:$HIVE_CONF_DIR:$HIVE_HOME/lib/*
```

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

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

## 4. Create hive-env.sh

```
harithaah@fedora:~/exp4 — /usr/lib/jvm/jdk1.8.0_202/bin/java -Dproc_jar -Djava.library... x
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=

export HADOOP_HOME=/home/harithaah/hadoop
export HIVE_CONF_DIR=/home/harithaah/hive/conf
```

## 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)

mysql> ALTER USER 'root'@'localhost' IDENTIFIED WITH 'mysql_native_password' BY 'hayag
reevan';
Query OK, 0 rows affected (0.62 sec)

mysql> FLUSH PRIVILEGES;
Query OK, 0 rows affected (0.12 sec)

mysql>
```

## 6. Create and configure hive-site.xml

```
GNU nano 7.2      hive-site.xml

<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.cj.jdbc.Driver</value>
</property>
<property>
<name>javax.jdo.option.ConnectionUserName</name>
<value>root</value>
</property>

<property>
<name>javax.jdo.option.ConnectionPassword</name>
<value>hayagreevan</value>
</property>
<property>
<name>datanucleus.autoCreateSchema</name>
<value>true</value>
</property>
<property>
<name>datanucleus.fixedDatastore</name>
<value>true</value>
</property>
<property>
<name>datanucleus.autoCreateTables</name>
<value>True</value>
</property>
</configuration>

^G Help      ^O Write Out  ^W Where Is   ^K Cut        ^T Execute    ^C Location
^X Exit      ^R Read File  ^\ Replace    ^U Paste      ^J Justify    ^_ Go To Line
```

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

```
arise@fedora:~$ ls -la ~/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-external-client-3.1.2.jar  jsp-1.8.jar
```

## 8. Execute schematool -initSchema -dbType mysql

```
lf4j-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

```
arise@fedora:~$ ~/hive/lib$ hive
which: no hbase in (/home/harithaah/.local/bin:/home/harithaah/bin:/usr/lo
ome/harish/pig/bin:/usr/lib/jvm/jdk1.8.0_202/bin:/home/harish/hive/bin:/ho
8.0_202/bin:/home/harithaah/hive/bin)
Hive Session ID = 96e0b2f2-a9ba-4037-9616-5a99c12eb17a

Logging initialized using configuration in jar:file:/home/harithaah/hive/T
Hive-on-MR is deprecated in Hive 2 and may not be available in the future
ases.
Hive Session ID = adda9396-6722-4b3f-aa65-e22b4a70ea2b
hive> █
```