

Exp. No : 5

HIVE Installation

1. Download and Extract apache hive 3.1.2

```
hadoop@vikram: ~/hive
hadoop@vikram:~/hive$ ls
bin                conf                hcatalog            lib                NOTICE            scripts
binary-package-licenses  examples            jdbc                LICENSE            RELEASE_NOTES.txt
hadoop@vikram:~/hive$
```

2. Update HIVE Configurations in .bashrc

```
GNU nano 7.2 .bashrc
# this, if it's already enabled in /etc/bash.bashrc and /etc/profile
# sources /etc/bash.bashrc).
if ! shopt -oq posix; then
  if [ -f /usr/share/bash-completion/bash_completion ]; then
    . /usr/share/bash-completion/bash_completion
  elif [ -f /etc/bash_completion ]; then
    . /etc/bash_completion
  fi
fi
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=$HADOOP_HOME/share/hadoop/tools/lib/hadoop-streaming-3.3.6.jar
export HADOOP_LOG_DIR=$HADOOP_HOME/logs
export PDSH_RCMD_TYPE=ssh

#PIG settings
export PIG_HOME=/home/hadoop/pig
export PATH=$PATH:$PIG_HOME/bin
export PIG_CLASSPATH=$PIG_HOME/conf:$HADOOP_INSTALL/etc/hadoop/
export PIG_CONF_DIR=$PIG_HOME/conf
export PIG_CLASSPATH=$PIG_CONF_DIR:$PATH
#PIG setting ends

export HIVE_HOME="/home/hadoop/hive"
export HIVE_CONF_DIR=$HIVE_HOME/conf
export PATH=$PATH:$HIVE_HOME/bin
export HADOOP_USER_CLASSPATH_FIRST=true
```

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

```

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

```

4. Create hive-env.sh

```

hadoop@vikram: ~/hive/conf
GNU nano 7.2                                hive-env.sh
# Licensed to the Apache Software Foundation (ASF) under one
# or more contributor license agreements.  See the NOTICE file
# distributed with this work for additional information
# regarding copyright ownership.  The ASF licenses this file
# to you under the Apache License, Version 2.0 (the
# "License"); you may not use this file except in compliance
# with the License.  You may obtain a copy of the License at
#
#     http://www.apache.org/licenses/LICENSE-2.0
#
# Unless required by applicable law or agreed to in writing, software
# distributed under the License is distributed on an "AS IS" BASIS,
# WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied.
# See the License for the specific language governing permissions and
# limitations under the License.
#
# Set Hive and Hadoop environment variables here. These variables can be used
# to control the execution of Hive. It should be used by admins to configure
# the Hive installation (so that users do not have to set environment variables
# or set command line parameters to get correct behavior).
#
# The hive service being invoked (CLI etc.) is available via the environment
# variable SERVICE
#
# Hive Client memory usage can be an issue if a large number of clients
# are running at the same time. The flags below have been useful in
# reducing memory usage:
#
# if [ "$SERVICE" = "cli" ]; then
#   if [ -z "$DEBUG" ]; then
#     export HADOOP_OPTS="$HADOOP_OPTS -XX:NewRatio=12 -Xms10m -XX:MaxHeapFreeRatio=40 -XX:Mi>
#   else
#     export HADOOP_OPTS="$HADOOP_OPTS -XX:NewRatio=12 -Xms10m -XX:MaxHeapFreeRatio=40 -XX:Mi>
#   fi
# fi
#
# The heap size of the jvm started by hive shell script can be controlled via:
[ Read 57 lines ]
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```

5. Install and Change mysql root password

```
hadoop@vikram: ~/hive/conf
hadoop@vikram:~/hive/conf$ mysql -u root -p
Enter password:
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 8
Server version: 8.0.39-0ubuntu0.24.04.2 (Ubuntu)

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owners.

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

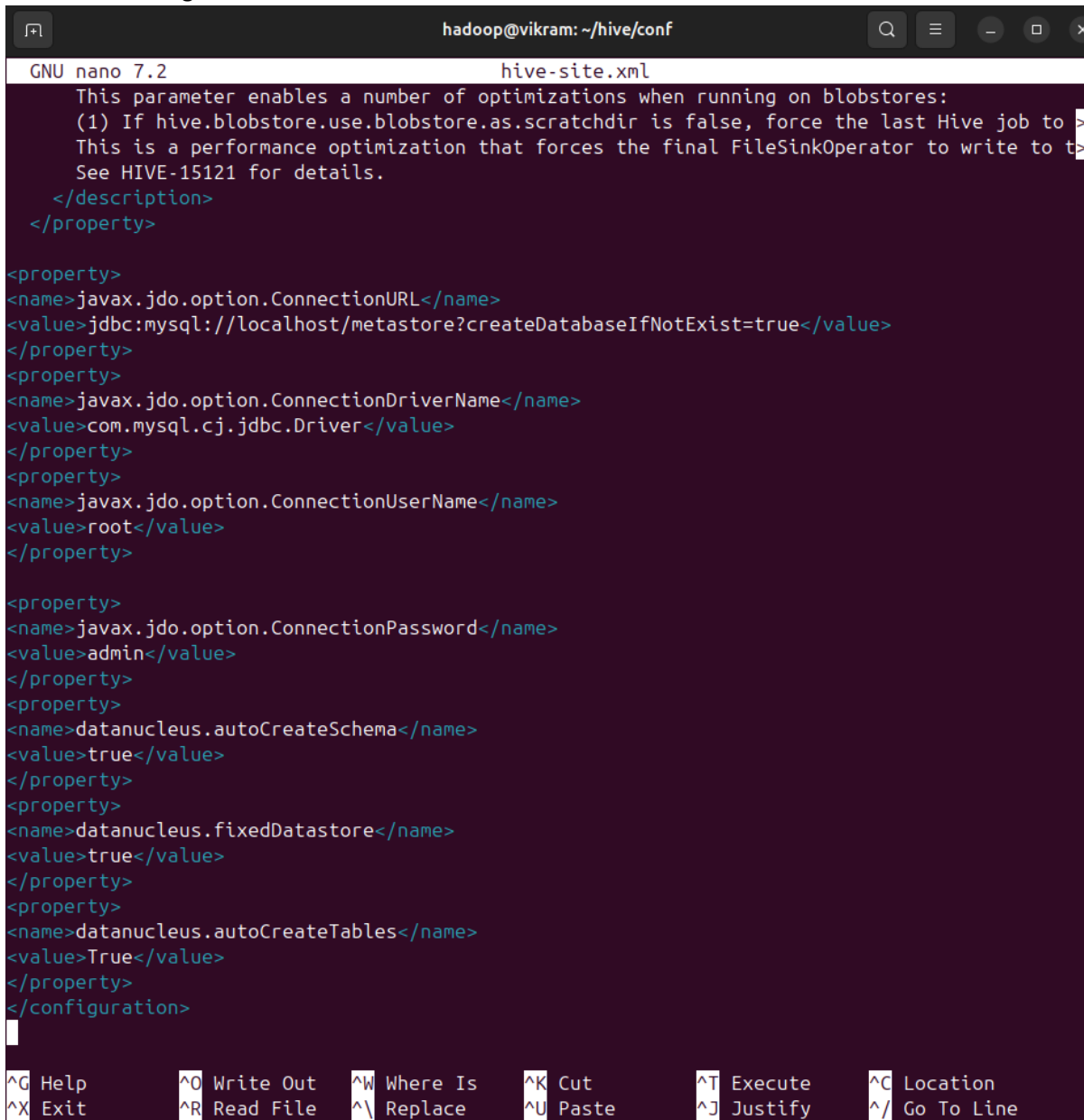
mysql> SELECT user, host, plugin FROM mysql.user WHERE user = 'root';
+-----+-----+-----+
| user | host      | plugin                |
+-----+-----+-----+
| root | localhost | mysql_native_password |
+-----+-----+-----+
1 row in set (0.00 sec)

mysql> ALTER USER 'root'@'localhost' IDENTIFIED WITH 'mysql_native_password' By 'vikram';
Query OK, 0 rows affected (0.01 sec)

mysql> FLUSH PRIVILEGES;
Query OK, 0 rows affected (0.01 sec)

mysql> 
```

6. Create and configure hive-site.xml



```

hadoop@vikram: ~/hive/conf
GNU nano 7.2                                hive-site.xml
    This parameter enables a number of optimizations when running on blobstores:
    (1) If hive.blobstore.use.blobstore.as.scratchdir is false, force the last Hive job to >
    This is a performance optimization that forces the final FileSinkOperator to write to t>
    See HIVE-15121 for details.
    </description>
  </property>

<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>admin</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>

```

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