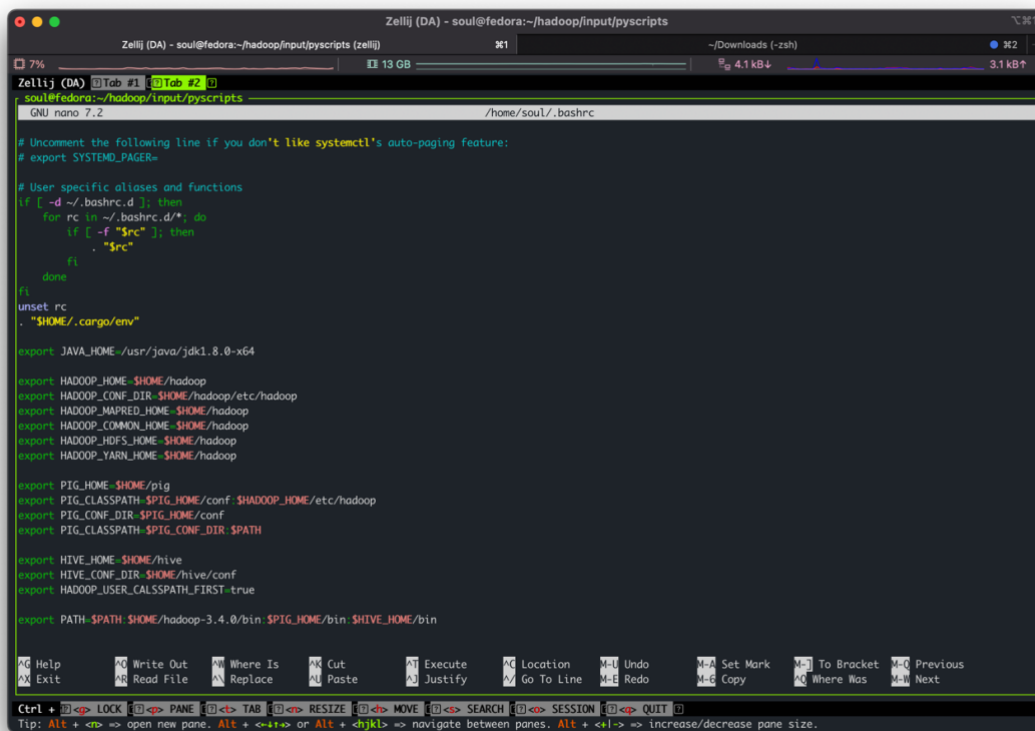


EXP NO: 5

## Installation Of Hive

Environment Setting for Hive :



```
Zellij (DA) - soul@fedora:~/hadoop/input/pyscripts
GNU nano 7.2 /home/soul/.bashrc

# Uncomment the following line if you don't like systemctl's auto-paging feature:
# export SYSTEMD_PAGER=

# User specific aliases and functions
if [ -d ~/.bashrc.d ]; then
  for rc in ~/.bashrc.d/*; do
    if [ -f "$rc" ]; then
      . "$rc"
    fi
  done
fi
unset rc
. "$HOME/.cargo/env"

export JAVA_HOME=/usr/java/jdk1.8.0-x64

export HADOOP_HOME=$HOME/hadoop
export HADOOP_CONF_DIR=$HOME/hadoop/etc/hadoop
export HADOOP_MAPRED_HOME=$HOME/hadoop
export HADOOP_COMMON_HOME=$HOME/hadoop
export HADOOP_HDFS_HOME=$HOME/hadoop
export HADOOP_YARN_HOME=$HOME/hadoop

export PIG_HOME=$HOME/pig
export PIG_CLASSPATH=$PIG_HOME/conf:$HADOOP_HOME/etc/hadoop
export PIG_CONF_DIR=$PIG_HOME/conf
export PIG_CLASSPATH=$PIG_CONF_DIR:$PATH

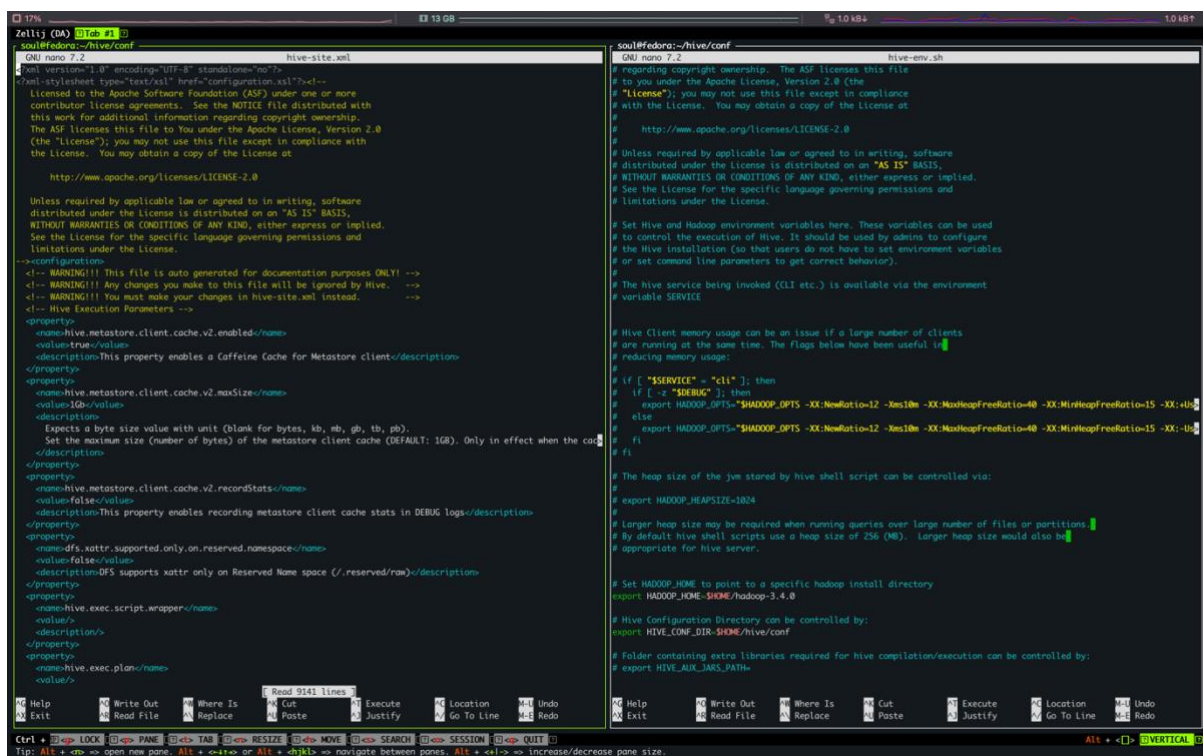
export HIVE_HOME=$HOME/hive
export HIVE_CONF_DIR=$HOME/hive/conf
export HADOOP_USER_CLASSPATH_FIRST=true

export PATH=$PATH:$HOME/hadoop-3.4.0/bin:$PIG_HOME/bin:$HIVE_HOME/bin

Help Write Out Where Is Cut Execute Location Undo Set Mark To Bracket Previous
Exit Read File Replace Paste Justify Go To Line Redo Copy Where Was Next

Ctrl + LOCK PANE TAB RESIZE MOVE SEARCH SESSION QUIT
Tip: Alt + <=> => open new pane. Alt + <+> or Alt + <-> => navigate between panes. Alt + <+> => increase/decrease pane size.
```

Configure Hive (hive-env.sh, hive-site.xml) :



```
Zellij (DA) - soul@fedora:~/hive/conf
GNU nano 7.2 hive-site.xml

<?xml version="1.0" encoding="UTF-8" standalone="no"?>
<?xml-stylesheet type="text/xsl" href="configuration.xsl"?>
<!--
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contributor license agreements.  See the NOTICE file distributed with
this work for additional information regarding copyright ownership.
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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.
-->
<!--configuration-->
<!-- WARNING!!! This file is auto generated for documentation purposes ONLY -->
<!-- WARNING!!! Any changes you make to this file will be ignored by Hive. -->
<!-- WARNING!!! You must make your changes in hive-site.xml instead. -->
<!-- Hive Execution Parameters -->
<property>
  <name>hive.metastore.client.cache.v2.enabled</name>
  <value>true</value>
  <description>This property enables a Caffeine Cache for Metastore client</description>
</property>
<property>
  <name>hive.metastore.client.cache.v2.maxSize</name>
  <value>1GB</value>
  <description>
    Expects a byte size value with unit (blank for bytes, kb, mb, gb, tb, pb).
    Set the maximum size (number of bytes) of the metastore client cache (DEFAULT: 1GB). Only in effect when the ca
  </description>
</property>
<property>
  <name>hive.metastore.client.cache.v2.reconStats</name>
  <value>false</value>
  <description>This property enables recording metastore client cache stats in DEBUG logs</description>
</property>
<property>
  <name>dfs.supported.only.on.reserved.namespace</name>
  <value>false</value>
  <description>DFS supports xattr only on Reserved Name space (/reserved/row)</description>
</property>
<property>
  <name>hive.exec.script.wrapper</name>
  <value></value>
  <description></description>
</property>
<property>
  <name>hive.exec.plan</name>
  <value></value>
</property>

Zellij (DA) - soul@fedora:~/hive/conf
GNU nano 7.2 hive-env.sh

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# distributed under the license is distributed on an "AS IS" BASIS,
# WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied.
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# 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="$HADOOP_OPTS -XX:NewRatio=12 -Xmx10m -XX:MaxHeapFreeRatio=40 -XX:MinHeapFreeRatio=15 -XX:+HeapDumpOnOutOfMemoryError"
#   else
#     export HADOOP_OPTS="$HADOOP_OPTS -XX:NewRatio=12 -Xmx10m -XX:MaxHeapFreeRatio=40 -XX:MinHeapFreeRatio=15 -XX:+HeapDumpOnOutOfMemoryError"
#   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 or partitions.
# By default hive shell scripts use a heap size of 256 (MB). Larger heap size would also be
# appropriate for Hive server.

# Set HADOOP_HOME to point to a specific hadoop install directory
export HADOOP_HOME=$HOME/hadoop-3.4.0

# Hive Configuration Directory can be controlled by:
export HIVE_CONF_DIR=$HOME/hive/conf

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

Help Write Out Where Is Cut Execute Location Undo Set Mark To Bracket Previous
Exit Read File Replace Paste Justify Go To Line Redo Copy Where Was Next

Ctrl + LOCK PANE TAB RESIZE MOVE SEARCH SESSION QUIT
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```

## Connecting Hive to SQL Database with JDBC :

!connect jdbc:mysql://localhost:3306/<database> <username> <password>

```
Beeline version 4.0.0 by Apache Hive
beeline> show databases;
No current connection
beeline> !connect jdbc:mysql://localhost:3306/hive root admin
Connecting to jdbc:mysql://localhost:3306/hive
Connected to: MySQL (version 8.0.39)
Driver: MySQL Connector/J (version mysql-connector-java-8.0.15 (Revision: 79a4336f140499bd22dd07f02b708e163844e3d5))
Transaction isolation: TRANSACTION_REPEATABLE_READ
0: jdbc:mysql://localhost:3306/hive> show databases;
Error: You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for the right syntax to use near 'databases' at line 1 (state=42000,code=1064)
0: jdbc:mysql://localhost:3306/hive> show databases;
+-----+
| Database |
+-----+
| hive     |
| information_schema |
| metastore |
| mysql    |
| performance_schema |
| sys      |
+-----+
6 rows selected (0.043 seconds)
0: jdbc:mysql://localhost:3306/hive> create database financials;
1 row affected (2.151 seconds)
0: jdbc:mysql://localhost:3306/hive> use financials
. . . . .> ;
No rows affected (0.004 seconds)
0: jdbc:mysql://localhost:3306/hive> CREATE TABLE finance_table( id INT, name STRING );
Error: You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for the right syntax to use near 'STRING )' at line 1 (state=42000,code=1064)
0: jdbc:mysql://localhost:3306/hive> CREATE TABLE finance_table(id integer, name varchar(25));
No rows affected (0.592 seconds)

0: jdbc:mysql://localhost:3306/hive> CREATE TABLE finance_table(id integer, name varchar(25));
No rows affected (0.592 seconds)
0: jdbc:mysql://localhost:3306/hive> INSERT INTO finance_tableVALUES (1, 'Alice'), (2, 'Bob'), (3, 'Charlie');
Error: You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for the right syntax to use near '1, 'Alice'), (2, 'Bob'), (3, 'Charlie')' at line 1 (state=42000,code=1064)
0: jdbc:mysql://localhost:3306/hive> INSERT INTO finance_tableVALUES (1, 'Alice');
Error: You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for the right syntax to use near '1, 'Alice')' at line 1 (state=42000,code=1064)
0: jdbc:mysql://localhost:3306/hive> INSERT INTO finance_table VALUES (1, 'Alice'), (2, 'Bob'), (3, 'Charlie');
3 rows affected (0.547 seconds)
0: jdbc:mysql://localhost:3306/hive> CREATE VIEW myview AS SELECT name, id FROM finance_table;
No rows affected (0.272 seconds)
0: jdbc:mysql://localhost:3306/hive> SELECT*FROM myview;
+-----+
| name | id |
+-----+
| Alice | 1 |
| Bob   | 2 |
| Charlie | 3 |
+-----+
3 rows selected (0.012 seconds)
0: jdbc:mysql://localhost:3306/hive> DESCRIBE finance_table;
+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+
| id    | int  | YES  |     | NULL    |       |
| name  | varchar(25) | YES  |     | NULL    |       |
+-----+
2 rows selected (0.021 seconds)
```

## Result :

Thus Hive is successfully installed and connected with SQL database.