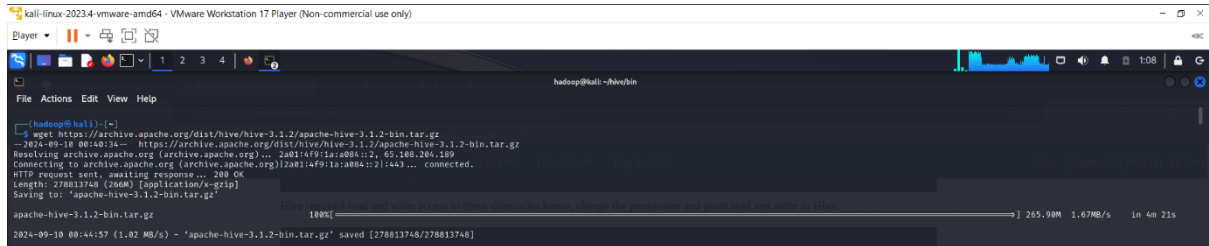


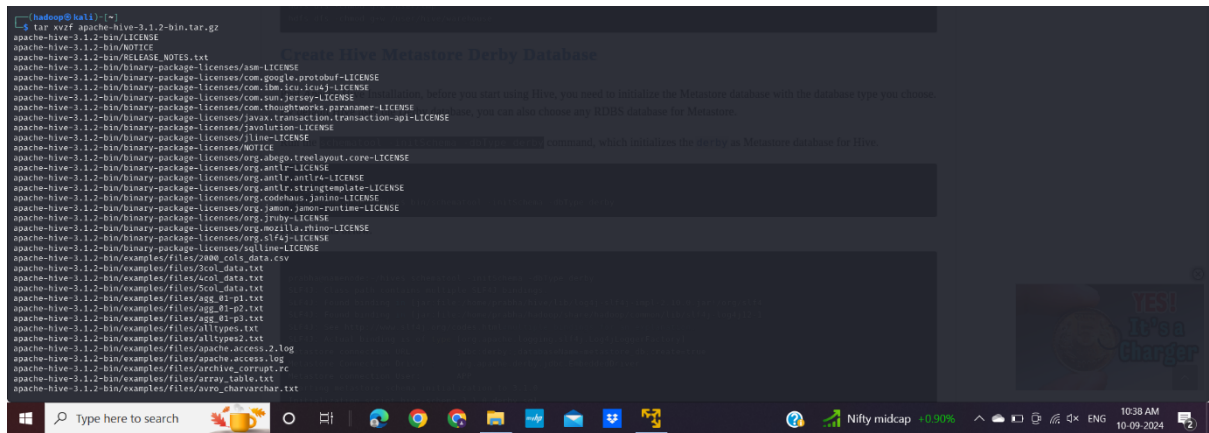
**EXP NO: 5**

## INSTALLATION OF HIVE

```
$wget https://archive.apache.org/dist/hive/hive-3.1.2/apache-hive-3.1.2-bin.tar.gz
```



## Star xvzf apache-hive-3.1.2-bin.tar.gz

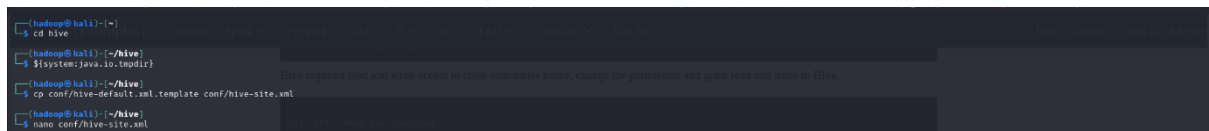
**\$mv apache-hive-3.1.2-bin hive**

**\$nano ~/.bashrc**

```
$source ~/.bashrc
```

## \$cd hive

```
$cp conf/hive-default.xml.template conf/hive-site.xml
```



**\$nano conf/hive-site.xml**

## \$start-all.sh

```

(hadoop@kali)~$ 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 [kali]
Picked up _JAVA_OPTIONS: -Dawt.useSystemAAFontSettings=on -Dswing.aatext=true
2024-09-11 04:59:16,429 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platform... using builtin-java classes where applicable
Starting resourcemanager
Starting nodemanagers

```

## \$ jps

```

(hadoop@kali)~$ jps
Picked up _JAVA_OPTIONS: -Dawt.useSystemAAFontSettings=on -Dswing.aatext=true
14436 NodeManager
16772 Jps
13830 SecondaryNameNode
14311 ResourceManager
13597 DataNode
13471 NameNode

```

## \$hdfs dfs -mkdir /user

## \$hdfs dfs -mkdir /user/hive

## \$hdfs dfs -mkdir /user/hive/warehouse

## \$hdfs dfs -mkdir /user/tmp

## \$hdfs dfs -chmod g+w /user/tmp

## \$hdfs dfs -chmod g+w /user/hive/warehouse

```

(hadoop@kali)~/hadoop/bin$ ./hdfs dfs -ls /user/
Picked up _JAVA_OPTIONS: -Dawt.useSystemAAFontSettings=on -Dswing.aatext=true
2024-09-10 01:04:28,163 WARN util.NativeCodeLoader: Unable to load native-hadoop library for your platform...
Found 2 items
drwxr-xr-x - hadoop supergroup 0 2024-09-09 23:31 /user/hive and write access to these directories help
drwxrwxr-x - hadoop supergroup 0 2024-09-09 23:31 /user/tmp

```

## \$cd \$HIVE\_HOME/bin

## \$schematool -initSchema -dbType derby

```

kali-linux-2023.4-vmware-amd64 - VMware Workstation 17 Player (Non-commercial use only)
Player
(hadoop@kali)~/hive/bin$ ./schematool -initSchema -dbType derby
Picked up _JAVA_OPTIONS: -Dawt.useSystemAAFontSettings=on -Dswing.aatext=true
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-reloadable-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:
Starting metastore schema initialization to 3.1.0
Initialization script hive-schema-3.1.0.derby.sql

```

```

(hadoop@kali) ~/hive/bin
$ hive --version
Picked up _JAVA_OPTIONS: -Daut.useSystemAFontSettings-on -Dswing.aatext=true
Picked up _JAVA_OPTIONS: -Daut.useSystemAFontSettings-on -Dswing.aatext=true
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-reloadj-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 3.12.2
Out [git://HM1934/Users/gates/tmp/hive-branch-3.1/hive -r 8198d2be7b7165effa62bd21b/d6eef81fbde4af
Compiled by gates on Thu Aug 22 15:51:18 PDT 2019
From source with checksum 0492c08f784b108c349fa6fb1d8d9847
(hadoop@kali) ~/hive/bin
$ hive
Picked up _JAVA_OPTIONS: -Daut.useSystemAFontSettings-on -Dswing.aatext=true
Picked up _JAVA_OPTIONS: -Daut.useSystemAFontSettings-on -Dswing.aatext=true
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-reloadj-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 = e9fde15-4db7-4906-07c6-1ed76d0bcb34
Logging initialized using configuration in jar:file:/home/hadoop/hive/lib/hive-common-3.12.2.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. spark, tez) or using Hive 1.X releases.
Hive Session ID = 022a09dd-df6d-4c93-b2db-b0719db222a5
hive> show databases;
OK
default
Time taken: 3.928 seconds, Fetched: 1 row(s)
hive>

```

## \$hive

### >show databases;

```

(hadoop@kali) ~/hive/bin
$ hive
Picked up _JAVA_OPTIONS: -Daut.useSystemAFontSettings-on -Dswing.aatext=true
Picked up _JAVA_OPTIONS: -Daut.useSystemAFontSettings-on -Dswing.aatext=true
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-reloadj-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 = e9fde15-4db7-4906-07c6-1ed76d0bcb34
Logging initialized using configuration in jar:file:/home/hadoop/hive/lib/hive-common-3.12.2.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. spark, tez) or using Hive 1.X releases.
Hive Session ID = 022a09dd-df6d-4c93-b2db-b0719db222a5
hive> show databases;
OK
default
Time taken: 3.928 seconds, Fetched: 1 row(s)
hive>

```

### > CREATE DATABASE financials;

```

hive> CREATE DATABASE financials;
OK
Time taken: 0.591 seconds

```

### > use financials;

```

hive> use financials;
OK
Time taken: 0.229 seconds

```

### > CREATE TABLE finance\_table( id INT, name STRING );

```

hive> CREATE TABLE finance_table( id INT, name STRING );
OK
Time taken: 2.536 seconds

```

### > INSERT INTO finance\_table VALUES (1, 'Alice'), (2, 'Bob'), (3, 'Charlie');

```

hive> INSERT INTO finance_table VALUES (1, 'Alice'), (2, 'Bob'), (3, 'Charlie');
Query ID = hadoop_20240910011318_759e97f4-dbcc-4020-a345-37b6aac0dbbf
Total jobs = 3
  set mapreduce.job.reduces=<number>
  Launching Job 1 out of 3
Number of reduce tasks determined at compile time: 1
In order to change the average load for a reducer (in bytes):
  set hive.exec.reducers.bytes.per.reducer=<number>
In order to limit the maximum number of reducers:
  set hive.exec.reducers.max=<number>
In order to set a constant number of reducers:
  set mapreduce.job.reduces=<number>
Starting Job = job_1725938931910_0001, Tracking URL = http://kali:8088/proxy/application_1725938931910_0001/
Kill Command = /home/hadoop/hadoop/bin/mapred job -kill job_1725938931910_0001
Hadoop job information for Stage-1: number of mappers: 1; number of reducers: 1
2024-09-10 01:14:33,477 Stage-1 map = 0%, reduce = 0%
2024-09-10 01:15:17,392 Stage-1 map = 100%, reduce = 0%, Cumulative CPU 20.45 sec
2024-09-10 01:15:43,645 Stage-1 map = 100%, reduce = 100%, Cumulative CPU 33.61 sec
MapReduce Total cumulative CPU time: 33 seconds 610 msec
Ended Job = job_1725938931910_0001
Stage-4 is selected by condition resolver.
Stage-3 is filtered out by condition resolver.
Stage-5 is filtered out by condition resolver.
Moving data to directory hdfs://localhost:9000/user/hive/warehouse/financials.db/finance_table/.hive-staging_hive_2024-09-10-01-13-18_205_31425232155846852-1/-ext-10000
Loading data to table financials.finance_table
MapReduce Jobs Launched:
Stage-Stage1: Map: 1 Reduce: 1 Cumulative CPU: 33.61 sec HDFS Read: 15668 HDFS Write: 291 SUCCESS
Total MapReduce CPU Time Spent: 33 seconds 610 msec
OK
Time taken: 151.732 seconds

```

> **CREATE VIEW myview AS SELECT name, id FROM finance\_table;**

```

hive> CREATE VIEW myview AS SELECT name, id FROM finance_table;
OK
Time taken: 0.82 seconds

```

> **SELECT \* FROM myview;**

```

hive> SELECT * FROM myview;
OK
Alice      1
Bob        2
Charlie    3
Time taken: 0.716 seconds, Fetched: 3 row(s)
hive> █

```

> **DESCRIBE finance\_table;**

```

hive> DESCRIBE finance_table;
OK
id          int
name        string
Time taken: 0.348 seconds, Fetched: 2 row(s)

```

> **ALTER TABLE finance\_table ADD COLUMNS (age INT);**

>**quit;**

```

hive> ALTER TABLE finance_table ADD COLUMNS (age INT);
OK
Time taken: 0.457 seconds
hive> quit;

```