

EXP: 5 Create tables in Hive and write queries to access the data in the table

AIM:

To create tables in Hive and write queries to access the data in the table.

PROCEDURE:

Hive Download and installation:

1. Hive Installation setup:

- Download and install Apache Derby version 10.14.2.0:

https://db.apache.org/derby/derby_downloads.html#For+Java+8+and+Higher

For Java 8 and Higher (releases which support lambda expressions)

- [10.14.2.0](#) (May 3, 2018 / SVN 1828579)

-Download and install Apache Hive version 3.1.3:

<https://downloads.apache.org/hive/hive-3.1.3/>



2. Add environment variables:

Environment variables > System variables > Add the below paths

System variables	
Variable	Value
DERBY_HOME	C:\db-derby-10.14.2.0-bin
DriverData	C:\Windows\System32\Drivers\DriverData
HADOOP_HOME	C:\Hadoop
HIVE_BIN	%HIVE_HOME%\bin
HIVE_HOME	C:\apache-hive-3.1.3-bin
HIVE_LIB	%HIVE_HOME%\lib

C:\Java\jdk-1.8\bin
 C:\Hadoop\bin
 C:\Hadoop\sbin
 C:\Python39\
 %PIG_HOME%\bin
 %DERBY_HOME%\bin
 %HIVE_BIN%

-> (Inside Path)

3. Copy Derby libraries

Go to the Derby libraries directory (db-derby-10.14.2.0\lib) and copy all *.jar files. Then, paste them within the Hive libraries directory.

4. Configuring hive-site.xml and Hive's Bin folder:

Refer following link to download the file. Also download the guava file. Put hive-site.xml file to hive's conf location and replace hive's current guava file with this one in lib location. Also download the bin folder from link and replace the existing hive's bin folder.

<https://1drv.ms/f/s!ArSg3Xpur4Grmw0SDqW0g44T7HYU?e=wDsoBn>

5. Starting Hadoop Services

Open PowerShell as administrator and go to Hadoop sbin directory and start hadoop services using the following commands:

```
start-dfs.cmd
```

```
start-yarn.cmd
```

```
PS C:\Windows\system32> cd C:\Hadoop\sbin
PS C:\Hadoop\sbin> start-dfs.cmd
PS C:\Hadoop\sbin> start-yarn.cmd
starting yarn daemons
PS C:\Hadoop\sbin> jps
8080 NameNode
11572 NodeManager
11484 Jps
3596 DataNode
7180 ResourceManager
```

6. Derby Network Server:

Open another PowerShell window and run the following command to open Derby:

```
StartNetworkServer -h 0.0.0.0
```

```
PS C:\Windows\system32> StartNetworkServer -h 0.0.0.0
Sat Aug 31 20:11:02 IST 2024 : Security manager installed using the Basic server security policy.
Sat Aug 31 20:11:07 IST 2024 : Apache Derby Network Server - 10.14.2.0 - (1828579) started and ready to accept connections on port 1527
```

Go to first PowerShell window and check whether NetworkServerControl is running.

```
PS C:\Hadoop\sbin> jps
12480 NetworkServerControl
8080 NameNode
11572 NodeManager
12180 Jps
3596 DataNode
7180 ResourceManager
```

7. Starting Apache Hive:

Go to Apache Hive's bin location with cd command and run the following command:

```
hive --service schematool -dbType derby --initSchema
```

```
PS C:\Hadoop\sbin> cd C:\apache-hive-3.1.3-bin\bin
PS C:\apache-hive-3.1.3-bin\bin> hive --service schematool -dbType derby -initSchema
SLF4J: Class path contains multiple SLF4J bindings.
SLF4J: Found binding in [jar:file:/C:/Hadoop/share/hadoop/common/lib/slf4j-reload4j-1.7.36.jar!/org/slf4j/impl/StaticLoggerBinder.class]
SLF4J: Found binding in [jar:file:/C:/apache-hive-3.1.3-bin/lib/log4j-slf4j-impl-2.17.1.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.slf4j.impl.Reload4jLoggerFactory]
2024-08-31 20:12:45,641 INFO conf.HiveConf: Found configuration file null
2024-08-31 20:12:46,492 INFO tools.HiveSchemaHelper: Metastore connection URL: jdbc:derby::databaseName=metastore_db;create=true
Metastore connection URL: jdbc:derby::databaseName=metastore_db;create=true
2024-08-31 20:12:46,494 INFO tools.HiveSchemaHelper: Metastore Connection Driver : org.apache.derby.jdbc.EmbeddedDriver
Metastore Connection Driver : org.apache.derby.jdbc.EmbeddedDriver
2024-08-31 20:12:46,495 INFO tools.HiveSchemaHelper: Metastore connection User: APP
Metastore connection User: APP
Starting metastore schema initialization to 3.1.0
Initialization script hive-schema-3.1.0.derby.sql
```

```
Initialization script completed
schemaTool completed
```

8. Open Hive shell by typing:

```
PS C:\apache-hive-3.1.3-bin\bin> hive
SLF4J: Class path contains multiple SLF4J bindings.
SLF4J: Found binding in [jar:file:/C:/Hadoop/share/hadoop/common/lib/slf4j-reload4j-1.7.36.jar!/org/slf4j/impl/StaticLoggerBinder.class]
SLF4J: Found binding in [jar:file:/C:/apache-hive-3.1.3-bin/lib/log4j-slf4j-impl-2.17.1.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.slf4j.impl.Reload4jLoggerFactory]
2024-09-17 18:29:29,068 INFO conf.HiveConf: Found configuration file null
2024-09-17 18:29:30,435 WARN common.LogUtils: hive-site.xml not found on CLASSPATH
Hive Session ID = 1e1a422c-38ae-4914-b9c2-1d842a940a4b
2024-09-17 18:29:30,485 INFO SessionState: Hive Session ID = 1e1a422c-38ae-4914-b9c2-1d842a940a4b

Logging initialized using configuration in jar:file:/C:/apache-hive-3.1.3-bin/lib/hive-common-3.1.3.jar!/hive-log4j2.properties Async: true
2024-09-17 18:29:30,569 INFO SessionState:
Logging initialized using configuration in jar:file:/C:/apache-hive-3.1.3-bin/lib/hive-common-3.1.3.jar!/hive-log4j2.properties Async: true
2024-09-17 18:29:31,697 INFO session.SessionState: Created HDFS directory: /tmp/hive/Navneeth/1e1a422c-38ae-4914-b9c2-1d842a940a4b
2024-09-17 18:29:31,704 INFO session.SessionState: Created local directory: C:/Users/Navneeth/AppData/Local/Temp/Navneeth/1e1a422c-38ae-4914-b9c2-1d842a940a4b
2024-09-17 18:29:31,708 INFO session.SessionState: Created HDFS directory: /tmp/hive/Navneeth/1e1a422c-38ae-4914-b9c2-1d842a940a4b/_tmp_space.db
2024-09-17 18:29:31,727 INFO conf.HiveConf: Using the default value passed in for log id: 1e1a422c-38ae-4914-b9c2-1d842a940a4b
2024-09-17 18:29:31,727 INFO session.SessionState: Updating thread name to 1e1a422c-38ae-4914-b9c2-1d842a940a4b main
2024-09-17 18:29:32,088 INFO metastore.HiveMetaStore: 0: Opening raw store with implementation class:org.apache.hadoop.hive.metastore.ObjectStore
2024-09-17 18:29:33,022 WARN metastore.ObjectStore: datanucleus.autoStartMechanismMode is set to unsupported value null . Setting it to value: ignored
2024-09-17 18:29:33,028 INFO metastore.ObjectStore: ObjectStore, initialize called
2024-09-17 18:29:33,031 INFO conf.MetastoreConf: Unable to find config file hive-site.xml
2024-09-17 18:29:33,033 INFO conf.MetastoreConf: Found configuration file null
2024-09-17 18:29:33,034 INFO conf.MetastoreConf: Unable to find config file hivemetastore-site.xml
2024-09-17 18:29:33,034 INFO conf.MetastoreConf: Found configuration file null
2024-09-17 18:29:33,035 INFO conf.MetastoreConf: Unable to find config file metastore-site.xml
2024-09-17 18:29:33,035 INFO conf.MetastoreConf: Found configuration file null
2024-09-17 18:29:33,262 INFO DataNucleus.Persistence: Property datanucleus.cache.level2 unknown - will be ignored
2024-09-17 18:29:33,765 INFO hikari.HikariDataSource: HikariPool-1 - Starting...
2024-09-17 18:29:33,771 WARN util.DriverDataSource: Registered driver with driverClassName=org.apache.derby.jdbc.EmbeddedDriver was not found, trying direct instant
2024-09-17 18:29:38,644 INFO pool.PoolBase: HikariPool-1 - Driver does not support get/set network timeout for connections. (Feature not implemented: No details.)
2024-09-17 18:29:38,649 INFO hikari.HikariDataSource: HikariPool-1 - Start completed.
2024-09-17 18:29:38,737 INFO hikari.HikariDataSource: HikariPool-2 - Starting...
2024-09-17 18:29:38,737 WARN util.DriverDataSource: Registered driver with driverClassName=org.apache.derby.jdbc.EmbeddedDriver was not found, trying direct instant
2024-09-17 18:29:38,741 INFO pool.PoolBase: HikariPool-2 - Driver does not support get/set network timeout for connections. (Feature not implemented: No details.)
2024-09-17 18:29:38,742 INFO hikari.HikariDataSource: HikariPool-2 - Start completed.
```

```
hive
```

Create a Database:

Start by creating a database. Open the Hive CLI and follow the steps below:

1. Use the **CREATE DATABASE** statement to create a new database:

```
CREATE DATABASE financials;
```

```
hive> CREATE DATABASE finances;
2024-09-17 18:32:33,243 INFO conf.HiveConf: Using the default value passed in for log id: 1e1a422c-38ae-4914-b9c2-1d842a940a4b
2024-09-17 18:32:33,244 INFO session.SessionState: Updating thread name to 1e1a422c-38ae-4914-b9c2-1d842a940a4b main
2024-09-17 18:32:33,246 INFO ql.Driver: Compiling command(queryId=Navneeth_20240917183233_e8084155-274f-4f4d-adec-df70b8167fbf): CREATE DATABASE finances
2024-09-17 18:32:33,263 INFO ql.Driver: Concurrency mode is disabled, not creating a lock manager
2024-09-17 18:32:33,273 INFO ql.Driver: Semantic Analysis Completed (retrial = false)
```

2. Verify the database is present:

SHOW DATABASES;

```
hive> SHOW DATABASES;
2024-09-17 18:32:38,164 INFO conf.HiveConf: Using the default value passed in for log id: 1e1a422c-38ae-4914-b9c2-1d842a940a4b
2024-09-17 18:32:38,167 INFO session.SessionState: Updating thread name to 1e1a422c-38ae-4914-b9c2-1d842a940a4b main
2024-09-17 18:32:38,170 INFO ql.Driver: Compiling command(queryId=Navneeth_20240917183238_e8084155-274f-4f4d-adec-df70b8167fbf): SHOW DATABASES
2024-09-17 18:32:38,190 INFO ql.Driver: Concurrency mode is disabled, not creating a lock manager
2024-09-17 18:32:38,192 INFO ql.Driver: Semantic Analysis Completed (retrial = false)
2024-09-17 18:32:38,194 INFO ql.Driver: Returning Hive schema: Schema(fieldSchemas:null, properties:null)
2024-09-17 18:32:38,195 INFO exec.ListSinkOperator: Initializing operator LIST_SINK_OPERATOR
2024-09-17 18:32:38,198 INFO ql.Driver: Completed compiling command(queryId=Navneeth_20240917183238_e8084155-274f-4f4d-adec-df70b8167fbf)
2024-09-17 18:32:38,198 INFO reexec.ReExecDriver: Execution #1 of query
2024-09-17 18:32:38,199 INFO ql.Driver: Concurrency mode is disabled, not creating a lock manager
2024-09-17 18:32:38,199 INFO ql.Driver: Executing command(queryId=Navneeth_20240917183238_e8084155-274f-4f4d-adec-df70b8167fbf)
2024-09-17 18:32:38,199 INFO ql.Driver: Starting task [Stage-0:DDL] in serial mode
2024-09-17 18:32:38,200 INFO metastore.HiveMetaStore: 0: get_databases: @hive#
2024-09-17 18:32:38,200 INFO HiveMetaStore.audit: ugi=Navneeth ip=unknown-ip-address cmd=get_databases: @hive#
2024-09-17 18:32:38,206 INFO exec.DDLTask: results : 2
2024-09-17 18:32:38,213 INFO ql.Driver: Completed executing command(queryId=Navneeth_20240917183238_e8084155-274f-4f4d-adec-df70b8167fbf)
OK
2024-09-17 18:32:38,213 INFO ql.Driver: OK
2024-09-17 18:32:38,214 INFO ql.Driver: Concurrency mode is disabled, not creating a lock manager
2024-09-17 18:32:38,217 INFO mapred.FileInputFormat: Total input files to process: 1
2024-09-17 18:32:38,225 INFO exec.ListSinkOperator: RECORDS_OUT_INTERMEDIATE:0, default
finances
```

3. Switch to the new database:

Switch to the newly created database:

USE finances;

```
hive> use finances;
2024-09-17 18:32:49,199 INFO conf.HiveConf: Using the default value passed in for log id: 1e1a422c-38ae-4914-b9c2-1d842a940a4b
2024-09-17 18:32:49,199 INFO session.SessionState: Updating thread name to 1e1a422c-38ae-4914-b9c2-1d842a940a4b main
2024-09-17 18:32:49,200 INFO ql.Driver: Compiling command(queryId=Navneeth_20240917183249_7df68b7f-8b33-414f-a54b-b7bc7aeef88d): use finances
2024-09-17 18:32:49,214 INFO ql.Driver: Concurrency mode is disabled, not creating a lock manager
2024-09-17 18:32:49,215 INFO metastore.HiveMetaStore: 0: get_database: @hive#finances
2024-09-17 18:32:49,215 INFO HiveMetaStore.audit: ugi=Navneeth ip=unknown-ip-address cmd=get_database: @hive#finances
2024-09-17 18:32:49,230 INFO ql.Driver: Semantic Analysis Completed (retrial = false)
2024-09-17 18:32:49,231 INFO ql.Driver: Returning Hive schema: Schema(fieldSchemas:null, properties:null)
```

Create a Table in Hive:

Create a simple table in your database:

CREATE TABLE students (id INT, name STRING);

```
hive> CREATE TABLE students(id INT, name STRING);
2024-09-17 18:49:12,956 INFO conf.HiveConf: Using the default value passed in for log id: 1e1a422c-38ae-4914-b9c2-1d842a940a4b
2024-09-17 18:49:12,964 INFO session.SessionState: Updating thread name to 1e1a422c-38ae-4914-b9c2-1d842a940a4b main
2024-09-17 18:49:13,005 INFO ql.Driver: Compiling command(queryId=Navneeth_20240917184912_4ea8da1b-eccl-49b7-a639-b0c3582e28db): CREATE TABLE students(id INT, name STRING)
2024-09-17 18:49:13,290 INFO ql.Driver: Concurrency mode is disabled, not creating a lock manager
2024-09-17 18:49:13,303 INFO parse.CalcitePlanner: Starting Semantic Analysis
2024-09-17 18:49:13,364 INFO parse.CalcitePlanner: Creating table finances.students position=13
```

Insert values into the table:

You can insert sample data into the table:

INSERT INTO students VALUES (1, 'Alice'), (2,'Bob'), (3, 'Charlie');

```

hive> INSERT INTO students VALUES(1, "Olmo"),(2,"Yamal"),(3,"Pedri"),(4,"Gavi");
2024-09-17 18:51:11,241 INFO conf.HiveConf: Using the default value passed in for log id: 1e1a422c-38ae-4914-b9c2-1d842a940a4b
2024-09-17 18:51:11,245 INFO session.SessionState: Updating thread name to 1e1a422c-38ae-4914-b9c2-1d842a940a4b main
2024-09-17 18:51:11,261 INFO ql.Driver: Compiling command(queryId=Navneeth_20240917185111_fa50a078-e0ac-474c-8c84-1d441a468478): INSERT INTO students VALUES(1, "Olmo"),(2,"Yamal"),(3,"Pedri"),(4,"Gavi")
2024-09-17 18:51:11,297 INFO ql.Driver: Concurrency mode is disabled, not creating a lock manager
2024-09-17 18:51:11,297 INFO parse.CalcitePlanner: Starting Semantic Analysis
2024-09-17 18:51:11,326 INFO metastore.HiveMetaStore: 0: get_table : tbl-hive.finance.students
2024-09-17 18:51:11,326 INFO HiveMetaStore.audit: ugi=Navneeth ip=unknown-ip-addr cmd=get_table : tbl-hive.finance.students
2024-09-17 18:51:11,667 INFO parse.CalcitePlanner: Completed phase 1 of Semantic Analysis
2024-09-17 18:51:11,668 INFO parse.CalcitePlanner: Get metadata for source tables
2024-09-17 18:51:11,668 INFO parse.CalcitePlanner: Get metadata for subqueries
2024-09-17 18:51:11,668 INFO parse.CalcitePlanner: Get metadata for destination tables
2024-09-17 18:51:11,671 INFO metastore.HiveMetaStore: 0: get_table : tbl-hive.finance.students
2024-09-17 18:51:11,672 INFO HiveMetaStore.audit: ugi=Navneeth ip=unknown-ip-addr cmd=get_table : tbl-hive.finance.students
2024-09-17 18:51:11,686 INFO parse.CalcitePlanner: Completed getting Metadata in Semantic Analysis
2024-09-17 18:51:13,490 INFO ql.Context: New scratch dir is hdfs://localhost:9000/tmp/hive/Navneeth/1e1a422c-38ae-4914-b9c2-1d842a940a4b/hive_2024-09-17_18-51-11_290_6955849816851774693-1
2024-09-17 18:51:13,338 INFO metastore.HiveMetaStore: 0: get_not_null_constraints : tbl-hive.dummy_database.dummy_table
2024-09-17 18:51:13,338 INFO HiveMetaStore.audit: ugi=Navneeth ip=unknown-ip-addr cmd=get_not_null_constraints : tbl-hive.dummy_database.dummy_table
2024-09-17 18:51:13,372 INFO metastore.HiveMetaStore: 0: get_primary_keys : tbl-hive.dummy_database.dummy_table
2024-09-17 18:51:13,373 INFO HiveMetaStore.audit: ugi=Navneeth ip=unknown-ip-addr cmd=get_primary_keys : tbl-hive.dummy_database.dummy_table
2024-09-17 18:51:13,392 INFO metastore.HiveMetaStore: 0: get_primary_keys : tbl-hive.dummy_database.dummy_table
2024-09-17 18:51:13,392 INFO HiveMetaStore.audit: ugi=Navneeth ip=unknown-ip-addr cmd=get_primary_keys : tbl-hive.dummy_database.dummy_table
2024-09-17 18:51:13,394 INFO metastore.HiveMetaStore: 0: get_unique_constraints : tbl-hive.dummy_database.dummy_table
2024-09-17 18:51:13,394 INFO HiveMetaStore.audit: ugi=Navneeth ip=unknown-ip-addr cmd=get_unique_constraints : tbl-hive.dummy_database.dummy_table
2024-09-17 18:51:13,410 INFO metastore.HiveMetaStore: 0: get_foreign_keys : parenttbl=null parenttbl=null foreigntbl=dummy_database.foreigntbl=dummy_table
2024-09-17 18:51:13,410 INFO HiveMetaStore.audit: ugi=Navneeth ip=unknown-ip-addr cmd=get_foreign_keys : parenttbl=null parenttbl=null foreigntbl=dummy_database.foreigntbl=dummy_table
2024-09-17 18:51:13,411 INFO HiveMetaStore.audit: ugi=Navneeth ip=unknown-ip-addr cmd=get_foreign_keys : parenttbl=null parenttbl=null foreigntbl=dummy_database.foreigntbl=dummy_table
2024-09-17 18:51:13,454 INFO metastore.HiveMetaStore: 0: get_databases : @hive#finance

```

Query your data:

Use SQL-like queries to retrieve data from your table:

```
CREATE VIEW myview AS SELECT name, id FROM students;
```

```

hive> CREATE VIEW myview AS SELECT name, id FROM students;
2024-09-17 18:55:44,653 INFO conf.HiveConf: Using the default value passed in for log id: 1e1a422c-38ae-4914-b9c2-1d842a940a4b
2024-09-17 18:55:44,653 INFO session.SessionState: Updating thread name to 1e1a422c-38ae-4914-b9c2-1d842a940a4b main
2024-09-17 18:55:44,653 INFO ql.Driver: Compiling command(queryId=Navneeth_20240917185544_b1486945-455b-9923-7d7806a4c647): CREATE VIEW myview AS SELECT name, id FROM students
2024-09-17 18:55:44,666 INFO ql.Driver: Concurrency mode is disabled, not creating a lock manager
2024-09-17 18:55:44,666 INFO parse.CalcitePlanner: Starting Semantic Analysis
2024-09-17 18:55:44,666 INFO parse.CalcitePlanner: Creating view finance.myview position=12
2024-09-17 18:55:44,666 INFO metastore.HiveMetaStore: 0: get_database : @hive#finance
2024-09-17 18:55:44,666 INFO HiveMetaStore.audit: ugi=Navneeth ip=unknown-ip-addr cmd=get_database : @hive#finance
2024-09-17 18:55:44,679 INFO parse.CalcitePlanner: Completed phase 1 of Semantic Analysis
2024-09-17 18:55:44,679 INFO parse.CalcitePlanner: Get metadata for source tables
2024-09-17 18:55:44,688 INFO metastore.HiveMetaStore: 0: get_table : tbl-hive.finance.students
2024-09-17 18:55:44,688 INFO HiveMetaStore.audit: ugi=Navneeth ip=unknown-ip-addr cmd=get_table : tbl-hive.finance.students
2024-09-17 18:55:44,691 INFO parse.CalcitePlanner: Get metadata for subqueries
2024-09-17 18:55:44,691 INFO parse.CalcitePlanner: Get metadata for destination tables

```

List Hive Tables and Data:

To show all tables in a selected database, use the following statement:

```
SHOW TABLES;
```

```

hive> SHOW TABLES;
2024-09-17 18:56:11,303 INFO conf.HiveConf: Using the default value passed in for log id: 1e1a422c-38ae-4914-b9c2-1d842a940a4b
2024-09-17 18:56:11,303 INFO session.SessionState: Updating thread name to 1e1a422c-38ae-4914-b9c2-1d842a940a4b main
2024-09-17 18:56:11,306 INFO ql.Driver: Compiling command(queryId=Navneeth_20240917185611_5d4a0ac3-cb6d-4df4-8ad6-6d6ef6ae6dfd): SHOW TABLES
2024-09-17 18:56:11,321 INFO ql.Driver: Concurrency mode is disabled, not creating a lock manager
2024-09-17 18:56:11,323 INFO metastore.HiveMetaStore: 0: get_database : @hive#finance
2024-09-17 18:56:11,323 INFO HiveMetaStore.audit: ugi=Navneeth ip=unknown-ip-addr cmd=get_database : @hive#finance
2024-09-17 18:56:11,324 INFO ql.Driver: Semantic Analysis Completed (retrial = false)
2024-09-17 18:56:11,325 INFO ql.Driver: Returning Hive schema: Schema(fieldSchemas:[FieldSchema(name:tab_name, type:string, comment:from deserializer)], proto:null)
2024-09-17 18:56:11,325 INFO exec.ListSinkOperator: Initializing operator LIST_SINK[0]
2024-09-17 18:56:11,326 INFO ql.Driver: Completed compiling command(queryId=Navneeth_20240917185611_5d4a0ac3-cb6d-4df4-8ad6-6d6ef6ae6dfd); Time taken: 0.02
2024-09-17 18:56:11,326 INFO rexec.ReExecDriver: Execution #1 of query
2024-09-17 18:56:11,326 INFO ql.Driver: Concurrency mode is disabled, not creating a lock manager
2024-09-17 18:56:11,326 INFO ql.Driver: Executing command(queryId=Navneeth_20240917185611_5d4a0ac3-cb6d-4df4-8ad6-6d6ef6ae6dfd): SHOW TABLES
2024-09-17 18:56:11,327 INFO ql.Driver: Starting task [Stage-0:DOL] in serial mode
2024-09-17 18:56:11,328 INFO metastore.HiveMetaStore: 0: get_database : @hive#finance
2024-09-17 18:56:11,328 INFO HiveMetaStore.audit: ugi=Navneeth ip=unknown-ip-addr cmd=get_database : @hive#finance
2024-09-17 18:56:11,329 INFO metastore.HiveMetaStore: 0: get_tables : db=@hive#finance pat="*"
2024-09-17 18:56:11,329 INFO HiveMetaStore.audit: ugi=Navneeth ip=unknown-ip-addr cmd=get_tables : db=@hive#finance pat="*"
2024-09-17 18:56:11,334 INFO ql.Driver: Completed executing command(queryId=Navneeth_20240917185611_5d4a0ac3-cb6d-4df4-8ad6-6d6ef6ae6dfd); Time taken: 0.008
OK
2024-09-17 18:56:11,335 INFO ql.Driver: OK
2024-09-17 18:56:11,335 INFO ql.Driver: Concurrency mode is disabled, not creating a lock manager
2024-09-17 18:56:11,338 INFO mapred.FileInputFormat: Total input files to process : 1
2024-09-17 18:56:11,346 INFO exec.ListSinkOperator: RECORDS_OUT_INTERMEDIATE:0, RECORDS_OUT_OPERATOR_LIST_SINK_0:2,
myview
students
Time taken: 0.03 seconds, Fetched: 2 row(s)
2024-09-17 18:56:11,351 INFO ql.Driver: Time taken: 0.03 seconds, Fetched: 2 row(s)
2024-09-17 18:56:11,351 INFO conf.HiveConf: Using the default value passed in for log id: 1e1a422c-38ae-4914-b9c2-1d842a940a4b
2024-09-17 18:56:11,352 INFO session.SessionState: Resetting thread name to main

```

To show table column names and data types, run:

```
DESCRIBE students;
```

```

2024-09-17 18:57:17,687 INFO ql.Driver: Completed executing command(queryId=Navneeth_20240917185717_3e33c7fb-4d34-46b1-87e3-c68676105040); Time
OK
2024-09-17 18:57:17,687 INFO ql.Driver: OK
2024-09-17 18:57:17,687 INFO ql.Driver: Concurrency mode is disabled, not creating a lock manager
2024-09-17 18:57:17,690 INFO mapred.FileInputFormat: Total input files to process : 1
2024-09-17 18:57:17,711 INFO exec.ListSinkOperator: RECORDS_OUT_INTERMEDIATE:0, RECORDS_OUT_OPERATOR_LIST_SINK_0:2,
id
int
name
string
Time taken: 0.059 seconds, Fetched: 2 row(s)

```


To display table data, use a **SELECT** statement. For example, to select everything in a table, run:

```
SELECT*FROM myview;
```

```
2024-09-17 18:57:39,651 INFO ql.Driver: Completed executing command(queryId=Navneeth_20240917185739_bb699981-178b-4494-a4f9-ded3454e49a
OK
2024-09-17 18:57:39,652 INFO ql.Driver: OK
2024-09-17 18:57:39,652 INFO ql.Driver: Concurency mode is disabled, not creating a lock manager
2024-09-17 18:57:39,657 INFO mapred.FileInputFormat: Total input files to process : 1
2024-09-17 18:57:39,680 INFO exec.TableScanOperator: RECORDS_OUT_INTERMEDIATE:0, RECORDS_OUT_OPERATOR_TS_0:4,
2024-09-17 18:57:39,680 INFO exec.SelectOperator: RECORDS_OUT_INTERMEDIATE:0, RECORDS_OUT_OPERATOR_SEL_1:4,
2024-09-17 18:57:39,685 INFO exec.ListSinkOperator: RECORDS_OUT_INTERMEDIATE:0, RECORDS_OUT_OPERATOR_LIST_SINK_3:4,
Olmo      1
Yamal     2
Pedri     3
Gavi      4
```

Alter a Table:

You can alter the table structure by adding a new column:

```
ALTER TABLE students ADD COLUMNS (age INT);
```

```
hive> ALTER TABLE students ADD COLUMNS (age INT);
2024-09-17 18:59:34,801 INFO conf.HiveConf: Using the default value passed in for log id: 1e1a422c-38ae-4914-b9c2-1d842a940a4b
2024-09-17 18:59:34,801 INFO session.SessionState: Updating thread name to 1e1a422c-38ae-4914-b9c2-1d842a940a4b main
2024-09-17 18:59:34,802 INFO ql.Driver: Compiling command(queryId=Navneeth_20240917185934_79f59a37-d6f6-46ab-b9b7-bda479a583cb): ALTER TABLE students ADD COLUMNS (age INT)
2024-09-17 18:59:34,815 INFO ql.Driver: Concurency mode is disabled, not creating a lock manager
2024-09-17 18:59:34,829 INFO metastore.HiveMetaStore: 0: get table : tbl=hive.finances.students
2024-09-17 18:59:34,829 INFO HiveMetaStore.audit: ugi=Navneeth ip=unknown-ip-addr cmd=get_table : tbl=hive.finances.students
2024-09-17 18:59:34,839 INFO ql.Driver: Semantic Analysis Completed (retrial = false)
2024-09-17 18:59:34,839 INFO ql.Driver: Returning Hive schema: Schema(fieldSchemas:null, properties:null)
2024-09-17 18:59:34,840 INFO ql.Driver: Completed compiling command(queryId=Navneeth_20240917185934_79f59a37-d6f6-46ab-b9b7-bda479a583cb); Time taken: 0.038 seconds
2024-09-17 18:59:34,840 INFO rexec.ReExecDriver: Execution #1 of query
2024-09-17 18:59:34,840 INFO ql.Driver: Concurency mode is disabled, not creating a lock manager
2024-09-17 18:59:34,840 INFO ql.Driver: Executing command(queryId=Navneeth_20240917185934_79f59a37-d6f6-46ab-b9b7-bda479a583cb): ALTER TABLE students ADD COLUMNS (age INT)
2024-09-17 18:59:34,841 INFO ql.Driver: Starting task [Stage:0:DDL] in serial mode
2024-09-17 18:59:34,841 INFO metastore.HiveMetaStore: 0: get table : tbl=hive.finances.students
2024-09-17 18:59:34,841 INFO HiveMetaStore.audit: ugi=Navneeth ip=unknown-ip-addr cmd=get_table : tbl=hive.finances.students
2024-09-17 18:59:34,855 INFO metastore.HiveMetaStore: 0: alter_table: hive.finances.students newtbl=students
2024-09-17 18:59:34,855 INFO HiveMetaStore.audit: ugi=Navneeth ip=unknown-ip-addr cmd=alter_table: hive.finances.students newtbl=students
2024-09-17 18:59:34,875 INFO ql.Driver: Completed executing command(queryId=Navneeth_20240917185934_79f59a37-d6f6-46ab-b9b7-bda479a583cb); Time taken: 0.035 seconds
OK
2024-09-17 18:59:34,878 INFO ql.Driver: OK
2024-09-17 18:59:34,879 INFO ql.Driver: Concurency mode is disabled, not creating a lock manager
Time taken: 0.077 seconds
```

Quit Hive:

To exit the Hive CLI, simply type:

```
quit;
```

```
hive> quit
>
2024-09-17 18:59:52,830 INFO conf.HiveConf: Using the default value passed in for log id: 1e1a422c-38ae-4914-b9c2-1d842a940a4b
2024-09-17 18:59:52,831 INFO session.SessionState: Updating thread name to 1e1a422c-38ae-4914-b9c2-1d842a940a4b main
2024-09-17 18:59:52,889 INFO session.SessionState: Deleted directory: /tmp/hive/Navneeth/1e1a422c-38ae-4914-b9c2-1d842a940a4b on fs with scheme hdfs
2024-09-17 18:59:52,891 INFO session.SessionState: Deleted directory: C:/Users/Navneeth/AppData/Local/Temp/Navneeth/1e1a422c-38ae-4914-b9c2-1d842a940a4b on fs with scheme file
2024-09-17 18:59:52,906 INFO metastore.HiveMetaStore: 0: Cleaning up thread local RawStore...
2024-09-17 18:59:52,906 INFO HiveMetaStore.audit: ugi=Navneeth ip=unknown-ip-addr cmd=Cleaning up thread local RawStore...
2024-09-17 18:59:52,906 INFO metastore.HiveMetaStore: 0: Done cleaning up thread local RawStore
2024-09-17 18:59:52,906 INFO HiveMetaStore.audit: ugi=Navneeth ip=unknown-ip-addr cmd=Done cleaning up thread local RawStore
PS C:\apache-hive-3.1.3-bin>
```

RESULT:

Thus, to create tables in Hive and write queries to access the data in the table was completed successfully.