

Apache Hive DDL Operations



Apache Hive DDL stands for (Data Definition Language) which is used to define or change the structure of Databases, Tables, indexes, and so on. The most commonly used DDL are CREATE, DROP, ALTER, SHOW, and so on.

The following is the list of DDL statements that are supported in Apache Hive.

1. CREATE
2. DROP
3. TRUNCATE
4. ALTER
5. SHOW
6. DESCRIBE
7. USE

Commands	Commands Use With
CREATE	DATABASE/SCHEMA, TABLE, VIEW, FUNCTION, INDEX
DROP	DATABASE/SCHEMA, TABLE, VIEW, INDEX
TRUNCATE	TABLE
ALTER	DATABASE/SCHEMA, TABLE, VIEW
SHOW	DATABASES/SCHEMAS, TABLES, TBLPROPERTIES, VIEWS, PARTITIONS, FUNCTIONS, INDEX[ES], COLUMNS, CREATE TABLE
DESCRIBE	DATABASE/SCHEMA, TABLE_NAME, VIEW_NAME, MATERIALIZED_VIEW_NAME
USE	DATABASE

DDL Commands on Databases

1. Create Database

The Create Database command is useful in creating a database in Apache Hive. We can use the DATABASE as well as SCHEMA.

Create Database Syntax:

```
CREATE (DATABASE|SCHEMA) (IF NOT EXISTS| database_name
[COMMENT database_comment]
[LOCATION hdfs_path]
[MANAGEDLOCATION hdfs_path]
[WITH DBPROPERTIES (property_name=property_value, ...)]);
```

Create Database Statement:

```
create database if not exists cloudduggudb
comment "Cloudduggu Database"
location '/hive/warehouse/' with
DBPROPERTIES ('createdby'='Cloudduggu', 'createdfor'='Cloudduggu');
```

Command Output:

```
cloudduggu@ubuntu: ~/hive
File Edit View Search Terminal Help
hive> create database if not exists cloudduggudb comment "Cloudduggu Database" l
ocation '/hive/warehouse/' with DBPROPERTIES ('createdby'='Cloudduggu', 'createdf
or'='Cloudduggu');
OK
Time taken: 0.276 seconds
hive>
```

2. Drop Database

The Drop Database command is used to drop a database in Hive. The default mode is RESTRICT and the user will not be able to drop a database unless the database is non-empty. If we want to delete a database then we will have to change the mode to CASCADE.

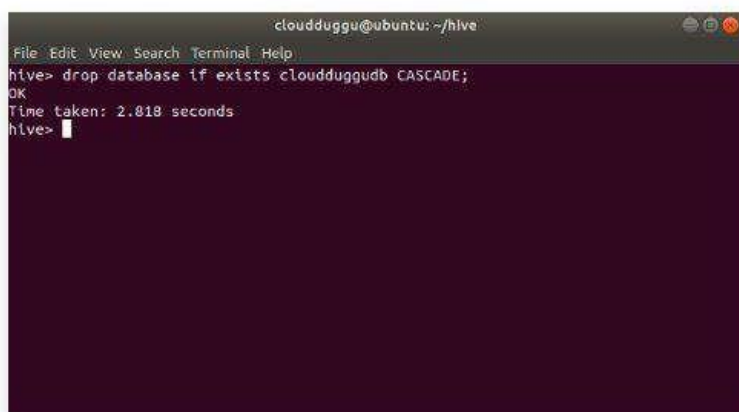
Drop Database Syntax:

```
DROP (DATABASE|SCHEMA) [IF EXISTS] database_name [RESTRICT|CASCADE];
```

Drop Database Statement:

```
drop database if exists cloudduggudb CASCADE;
```

Command Output:



```
cloudduggu@ubuntu: ~/hive
File Edit View Search Terminal Help
hive> drop database if exists cloudduggudb CASCADE;
OK
Time taken: 2.818 seconds
hive>
```

3. Alter Database

The Alter Database command is useful in altering the structure of the database.

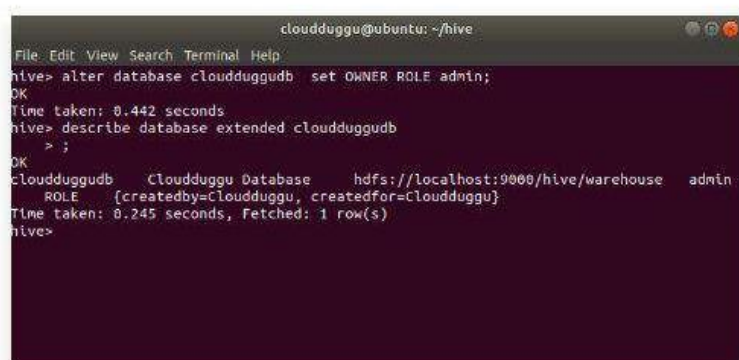
Alter Database Syntax:

```
ALTER (DATABASE|SCHEMA) database_name SET OWNER [USER|ROLE] user_or_role;
```

Alter Database Statement:

```
alter database cloudduggudb set OWNER ROLE admin;
```

Command Output:



```
cloudduggu@ubuntu: ~/hive
File Edit View Search Terminal Help
hive> alter database cloudduggudb set OWNER ROLE admin;
OK
Time taken: 0.442 seconds
hive> describe database extended cloudduggudb
> ;
OK
cloudduggudb      Cloudduggu Database      hdfs://localhost:9000/hive/warehouse  admin
ROLE      {createdby=Cloudduggu, createdfor=Cloudduggu}
Time taken: 0.245 seconds, Fetched: 1 row(s)
hive>
```

4. Use Database

The USE Database command is used in those case where we want to set a database and wants to operate on that particular database objects.

Use Database Syntax:

```
USE database_name;
```

Use Database Statement:

```
USE cloudduggudb;
```

Command Output:



```
cloudduggu@ubuntu: ~/hive
File Edit View Search Terminal Help
hive> use cloudduggudb;
OK
Time taken: 0.129 seconds
hive>
```

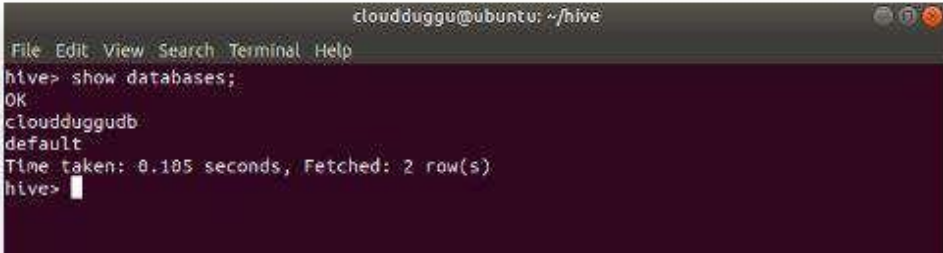
5. Show Database

The Show Database command is used to present the list of databases.

Show Database Syntax:

```
show databases;
```

Command Output:



```
cloudduggu@ubuntu: ~/hive
File Edit View Search Terminal Help
hive> show databases;
OK
cloudduggudb
default
Time taken: 0.105 seconds, Fetched: 2 row(s)
hive> █
```