

CREATE TABLE Shortcuts

Following are two tips for creating databases and tables.

Using IF NOT EXISTS

If you try to create a database or table using a name for one that already exists, Hive or Impala will throw an error. To avoid this, you can add the keywords IF NOT EXISTS to your CREATE DATABASE or CREATE TABLE statement. The syntax is as follows:

```
CREATE DATABASE IF NOT EXISTS database_name;
```

```
CREATE TABLE IF NOT EXISTS table_name;
```

When you use IF NOT EXISTS, then Hive or Impala will *not* throw an error if that name is already in use. They will instead do nothing.

This is particularly helpful if you're using a script to create a database or table. If the script is run multiple times, using IF NOT EXISTS will let the script create the database or table on the first run, and it will also complete without error on subsequent runs.

You can also use IF NOT EXISTS together with the EXTERNAL keyword, and together with the other optional CREATE TABLE clauses described in this week of the course.

Cloning a Table with LIKE

If you need a new table defined with exactly the same structure as an existing table, then Hive and Impala make it very easy to create the new table. This is called *cloning* a table, and it's done using the LIKE clause. The new table will have the same column definitions and other properties as the existing table, but no data. The syntax is

```
CREATE TABLE new_table_name LIKE existing_table_name;
```

The example shown below creates a new empty table named jobs_archived with the same structure and properties as the existing table named jobs.

```
CREATE TABLE jobs_archived LIKE jobs;
```

It is possible to specify a few of the table properties for the new table by including the appropriate clauses in the CREATE TABLE ... LIKE statement. Of the clauses covered in this course, currently only the LOCATION and STORED AS clauses can be used. If you need to change other properties, use ALTER TABLE after creating the table to set those properties.

Try It!

Try how things work if you create a database using IF NOT EXISTS. You'll create a database named dig; do not drop this one, you'll use it in later lessons in this course.

1. First, create a database named dig by executing the command:

```
CREATE DATABASE IF NOT EXISTS dig;
```

Verify that you now have a database named dig.

2. Now try creating the database again using CREATE DATABASE dig; (without the IF NOT EXISTS phrase). What happens?

3. Now try the original command again, and notice how the response is different:

```
CREATE DATABASE IF NOT EXISTS dig;
```

Now try cloning.

4. Clone one of the tables in the default database using the LIKE clause—any of the tables will do, just be sure to use a slightly different name for the new table. (For example, you might clone the customers table in the default database and name it customers_clone.)
5. Verify that the structure (column names with their data types) is the same as the table you cloned. Also verify that the new table has no data in it, and the original table still has its data.
6. Drop the cloned table.