Modifying and Removing Views

As with tables, you can modify and remove views—but there are distinct differences in what you can do, and in the results.

Modifying Views

You can alter a table in several different ways: rename the table, move it to a different database, change column names or types, change column order (Hive only), add or remove columns (including replacing *all* columns at once), or change table properties such as whether the table is managed or unmanaged. The ways you can modify a view are quite different. In each case you use ALTER VIEW, with different additional clauses. Hive and Impala support different clauses, so please note which engine supports which modifications.

Here are two examples:

Associate with a different query (Hive or Impala): Using either Hive or Impala, you can keep the view name but change the underlying query. To do this, use this syntax:

    ALTER VIEW *viewname* AS SELECT …;

Supply the new query in the SELECT statement after the AS keyword.

Rename or move to a different database (Impala only): In Impala, you can rename the view or move it to a different database using this syntax:

    ALTER VIEW *db.name* RENAME TO *newdb.newname*

To keep the view in the same database, repeat the same database name, or if the active database is the database which has the view, you can omit the database name entirely. To keep the same view name when changing the database, repeat the same view name.

Dropping Views

You can drop a view in Hive or Impala simply by using DROP VIEW *dbname.viewname*; The *dbname.* is optional if the view is in the active database.

Dropping views makes no changes to any data in the file system. Any tables used for the underlying query will still have their data.

Try It!

Try modifying and then dropping the craft_information view you created in the previous reading, "Creating and Querying Views." If you didn't do the activities with that reading, go back and use the instructions to create the view before preceding.

1. First try renaming the view using Impala. Be sure your active database is the one with the view, then use ALTER VIEW craft_information RENAME TO *viewname.* You can rename it whatever you like. Run a SHOW TABLES; command to see verify that the name has changed.
2. Change the underlying query, using either Impala or Hive (your choice). Make it something simple, such as ALTER VIEW *viewname* AS SELECT DISTINCT carrier FROM flights; Use DESCRIBE *viewname*; to verify that the underlying query has changed.
3. Finally drop the view. Check that the table you specified in the SELECT statement in the view definition in previous step still has its data!