**Exercise: Executing HIVEQL in Beeline and HUE**

# Accessing Beeline and Executing Basic Hive Database Statements

In the following exercise, you will access Hive from the Beeline command-line interface, execute some database statements, and create a Hive table in the Hive metastore. Then, using the HUE Hive Editor interface, you will upload data from the Windows client into HDFS for the table.

* + Launch the mRemoteNG Linux shell for the student login.
  + Type **Beeline** to launch the Beeline shell.
  + Type **!connect jdbc:Hive2://localhost:10000** to connect to the Hive client on server2.demo.sas.com, running on port 10000. Log on as **student.**
  + Type **?** to get a list of Beeline Help topics.
  + Type **!tables** to get a full list of Hive table metadata information.
  + Type **show databases;** to see list of existing Hive databases.
  + Type **create database test;** to create the Hive database, **test**. Verify that the database was created.
  + Type **drop databases test;** to delete the Hive database, **test**, and verify that it was removed.
  + Create the **dihps** Hive database and verify it was created.
  + Type **use dihps;** to change from the default Hive database to the **dihps** Hive.
  + Type or cut and paste the following HiveQL code to create a Hive table definition in the **dihps**

database:

**CREATE EXTERNAL TABLE IF NOT EXISTS dihps.population\_census (county string COMMENT "County", population int)**

**ROW FORMAT DELIMITED FIELDS TERMINATED BY '\t'**

**LOCATION '/user/student/DIHPS/population\_census';**

* + Verify that the **population\_census** table metadata was created.
  + Type **!quit** to exit Beeline.

**Question:** How many rows of data does **population\_census** contain? Why?

# Answer:

Using the Hue web interface, upload data into the **population\_census** table previously created in Beeline.

* + Start Mozilla Firefox.
  + Open the Hue bookmark or type **http://192.168.56.101:8888** in the address line.
  + Log on as a **student** user.
  + Open the **Hive Editor**.
  + Open the **dihps** database and view the **population\_census** Hive table, columns, and so on.
  + Select the **eye** icon ( ) to view the Hive Metastore Manager.
  + Open the View File Location. Notice that no HDFS files are associated with the

**population\_census** table.

* + Select **Upload** in the upper right corner of the Hue interface.
  + Select **Files** in the Upload menu and upload **D:/Workshop/DIHPS/data/census\_2010.csv**
  + Using the File Browser, verify that the contents of census\_2010.csv were uploaded.
  + Navigate back to the Hive Query Editor and preview a data sample of **population\_census** Hive table.

**Question:** To which HDFS directory was **census\_2010.csv** uploaded?

# Answer: