

Assignment No 11

Title: Create databases and tables, insert small amounts of data, and run simple queries using Impala.

Program:-

- 1) Creating a new database holding a new table.

```
[localhost:21000] > create database experiments;
[localhost:21000] > show databases;
+-----+
| name |
+-----+
| _impala_builtins |
| ctas |
| d1 |
| d2 |
| d3 |
| default |
| experiments |
| explain_plans |
| external_table |
| file_formats |
| tpc |
+-----+
[localhost:21000] > show databases like 'exp*';
+-----+
| name |
+-----+
| experiments |
| explain_plans |
+-----+
```

- 2) Creates a new table, T1.

```
[localhost:21000] > create table t1 (x int);
[localhost:21000] > show tables;
+-----+
| name |
+-----+
| city |
| customer |
| customer_address |
| customer_demographics |
| household_demographics |
| item |
| promotion |
| store |
| store2 |
| store_sales |
| t1 |
| ticket_view |
| time_dim |
| tpc_tables |
+-----+
[localhost:21000] > select current_database();
+-----+
| current_database() |
+-----+
| tpc |
+-----+
[localhost:21000] > alter table t1 rename to experiments.t1;
[localhost:21000] > use experiments;
[localhost:21000] > show tables;
+-----+
| name |
+-----+
| t1 |
+-----+
[localhost:21000] > select current_database();
+-----+
| current_database() |
+-----+
| experiments |
+-----+
```

- 3) LOAD DATA or INSERT ... SELECT statements to operate and performs queries involving sorting, aggregate functions and joins.

```
[localhost:21000] > insert into t1 values (1), (3), (2), (4);
[localhost:21000] > select x from t1 order by x desc;
+----+
| x |
+----+
| 4 |
| 3 |
| 2 |
| 1 |
+----+
[localhost:21000] > select min(x), max(x), sum(x), avg(x) from t1;
+-----+-----+-----+-----+
| min(x) | max(x) | sum(x) | avg(x) |
+-----+-----+-----+-----+
| 1      | 4      | 10     | 2.5    |
+-----+-----+-----+-----+

[localhost:21000] > create table t2 (id int, word string);
[localhost:21000] > insert into t2 values (1, "one"), (3, "three"), (5, 'five');
[localhost:21000] > select word from t1 join t2 on (t1.x = t2.id);
+-----+
| word |
+-----+
| one  |
| three |
+-----+
```