LAB 06 Temporary Tables

OBJECTIVE(S)

- Learn about creating temporary tables.

TEMPORARY TABLES

MySQL allows us to create temporary tables, a special type of table that allows us to store a temporary result set that can be reused several times in a session. Temporary tables are useful when it is impossible or expensive to query data that requires a single SELECT statement with multiple JOIN clauses. Temporary tables function like ordinary tables except that they are valid for one session only and are automatically removed when the session ends or the connection is terminated

Temporary tables can have the same name as an existing table in the database. In such a case, the existing (permanent) table becomes inaccessible. Although this approach is allowed, it is not recommended because it may lead to confusion or potential data loss.

To create a temporary table, we use the following syntax:

- **CREATE TEMPORARY TABLE tb_name**
  SELECT col_name(s), AGG_FUNC_NAME(col_name) FROM tb_name
  [ADDITIONAL CLAUSES];

The temporary table can now be used as a normal table and any type of query can be applied to it. To delete a temporary table, we use the following command:

- **DROP TEMPORARY TABLE tb_name;**

CLONING TABLES

SQL also allows us to clone tables or copy data between tables. This is particularly useful in cases such as backing up data or replicating data for testing. We use the CREATE TABLE statement to utilize this cloning/copying feature.

The following statement allows us to create an empty table based on the definition of another table including any column attributes or constraints defined in the original table:

- **CREATE TABLE tb_name LIKE db_name.tb_name;**

To create a table using data from another table, we can use the following command:

- **CREATE TABLE tb_name AS**
  SELECT col_name(s) FROM db_name.tb_name
  [ADDITIONAL CLAUSES];

LAB ASSIGNMENT

1. Create a temporary table EmployeeInfo having three columns: Employee's full name, Job title, and Department. Show the structure of the table.
2. Clone the Employees table. Compare the structure of the cloned table to the original table. Display all the data of the cloned table.
3. Drop the hiring date column from the cloned table and compare its structure with the original table.