Experiment No.4
Apply DML commands for the specified system
Date of Performance: Date of Submission:

Experiment No.4

Aim :- Write insert query to insert rows for each table created of your database management system. Use update and delete commands to manipulate the inserted values in the table.

Objective :- To learn commands of Data Manipulation Language(DML) to insert, update or delete the values in the database system.

Theory:

Data Manipulation Language (DML) is a subset of SQL (Structured Query Language) used for managing data within relational database management systems (RDBMS). DML commands are used to perform operations such as inserting, updating, and deleting data from database tables.

1. Inserting Data

The INSERT statement is used to add new rows of data into a table. It specifies the table to insert data into and provides values or expressions for each column in the new row. If a column list is not specified, values must be provided for all columns in the table in the order they were defined.

Syntax:-

INSERT INTO table_name (column1, column2, column3) VALUES (value1, value2,

value3); 2. Updating Data

The UPDATE statement is used to modify existing data within a table. It allows you to change the values of one or more columns in one or more rows based on specified conditions. If no condition is specified, all rows in the table will be updated.

Syntax:

UPDATE table_name SET column1 = value1, column2 = value2 WHERE

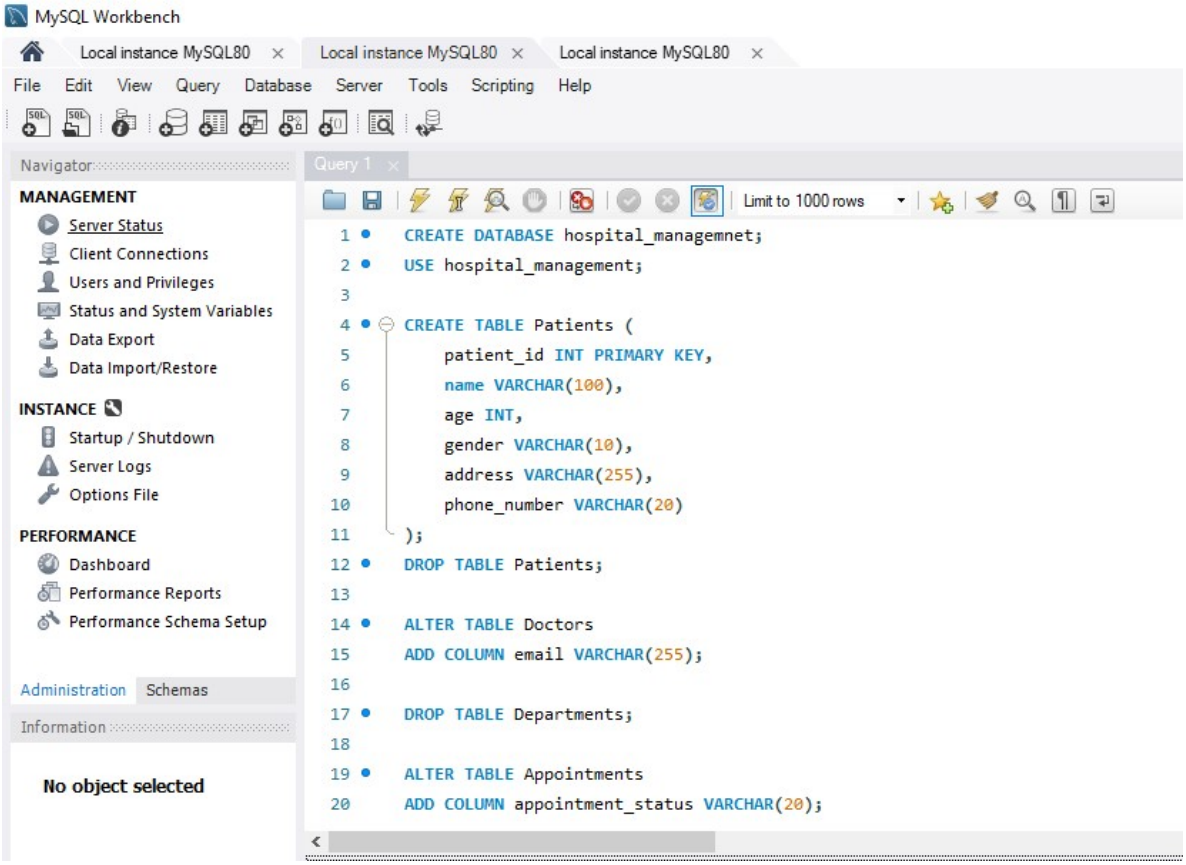
condition; 3. Deleting Data

The DELETE statement is used to remove one or more rows from a table based on specified conditions. If no condition is specified, all rows in the table will be deleted.

Syntax:

DELETE FROM table_name WHERE condition;

Implementation:



Conclusion:

1. Explain the role of database constraints in enforcing data integrity during DML operations.
   Ans: Database constraints play a crucial role in enforcing data integrity during DML
   (Data Manipulation Language) operations by imposing rules and conditions on
   the data stored in the database tables. These constraints ensure that the data conforms to certain standards and requirements, preventing the insertion, modification, or deletion of data that could compromise its integrity.
   Constraints such as primary key, foreign key, unique, and check constraints help
   maintain consistency, accuracy, and reliability in the database by preventing invalid or inconsistent data from being introduced or manipulated.

2. How do you update multiple columns in a table using a single UPDATE statement?
   Ans: To update multiple columns in a table using a single UPDATE statement, you specify thecolumn names and their corresponding new values separated by commas within the SETclause of the UPDATE statement.
   For example:
   UPDATE table_name
   SET column1 = value1, column2 = value2, column3 = value3
   WHERE condition;
   This statement updates the values of column1, column2, and column3 in the specified table with the provided values, subject to the specified condition