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| **Experiment No.** | **3** |

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| **AIM:** | **DML Commands Database Manipulation** |
| **PROBLEM STATEMENT:** | Execute DML queries on existing database tables. Execute at least 5-6 different types of queries. |
| **THEORY:** | **Data Manipulation Language (DML):**  DML is an abbreviation of Data Manipulation Language. The DML commands in Structured Query Language change the data present in the SQL database. We can easily access, store, modify, update and delete the existing records from the database using the DML command **DML commands in SQL:**  **• SELECT:**  SELECT is the most important data manipulation command in Structured Query Language. The SELECT command shows the records of the specified table. It also shows a particular record of a particular column by using the WHERE clause.  **Syntax:** SELECT column1, column2, …., columnN FROM table\_name;  **To select all columns in table:** SELECT \* FROM table\_name;  **• INSERT:**  INSERT is another important data manipulation command in Structured Query Language, allowing users to insert data in database tables.  **Syntax:**  INSERT INTO TABLE\_NAME ( column1 , .... columnN )  VALUES (value\_1, value\_2, value\_3, .... value\_N );  **• UPDATE:**  UPDATE is another important data manipulation command in Structured Query Language, which allows users to update or modify the existing data in database tables.  **Syntax:**  UPDATE Table\_name SET [column1= value1, ….., columnN = valueN] WHERE CONDITION;  Here, **'UPDATE', 'SET',** & **'WHERE'** are the SQL keywords, and  'Table\_name' is the name of the table whose values you want to update.  **• DELETE:**  DELETE is a DML command which allows SQL users to remove single or multiple existing records from the database tables. This command of Data Manipulation Language does not delete the stored data permanently from the database. We use the WHERE clause with the DELETE command to select specific rows from the table.  **Syntax:** DELETE FROM Table\_Name WHERE condition; |
| **QUERIES:** | **Before Manipulation:**  **Doctor Table:**  **Patient Table:**  **1. ALTER Query:**  **Delete address column from doctor:**  ALTER TABLE doctor DROP Address;  **Add address column & set address to ‘Andheri’ for id<=5:**  ALTER TABLE doctor ADD Address VARCHAR(50);  UPDATE doctor SET Address = 'Andheri' WHERE D\_id<=5;  **2. SELECT Query:**  **View d\_id,dname & Salary data for doctors whose salary is >400000 and sort it in descending order:**  SELECT D\_id, Dname,Salary FROM doctor WHERE Salary>400000 ORDER BY Salary DESC;  **View details of patients whose names start with ‘r’, order in descending order of their age:**  SELECT P\_id,Pname,Age,Address FROM patient WHERE Pname like 'r%' ORDER BY Age DESC;  **Find all patients whose addresses begin with ‘b’ or end with ‘z’ and view their name, address & phone no.s:**  SELECT Pname,Address,Ph\_no FROM patient WHERE Address like 'b%' OR Address like '%z' |
| **RESULT:**  **After Manipulation:**  **Doctor table:**  **Patient table:** | |
| **CONCLUSION:** | In this experiment, we learned how to query the data inserted into the table and use the ‘WHERE’ clause in combination with different conditions to view specific queries of data. |