Vidyavardhini's College of Engineering and Technology

Department of Artificial Intelligence & Data Science

AY: 2024-25

Class:	**SE**	**Semester:**	**IV**
Course Code:	**CSL402**	**Course Name:**	**Database Management System Lab**

Name of Student:	**Shruti Gauchandra**
Roll No. :	**16**
Experiment No.:	**4**
Title of the Experiment:	**Apply DML commands for the specified system**
Date of Performance:	**23/01/25**
Date of Submission:	**30/01/25**

Evaluation

Performance Indicator	Max. Marks	Marks Obtained
Performance	5	
Understanding	5	
Journal work and timely submission	10	
Total	20	

Performance Indicator	Exceed Expectations (EE)	Meet Expectations (ME)	Below Expectations (BE)
Performance	4-5	2-3	1
Understanding	4-5	2-3	1
Journal work and timely submission	8-10	5-8	1-4

Checked by

Name of Faculty : Ms. Neha Raut

Signature :

Date:

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;

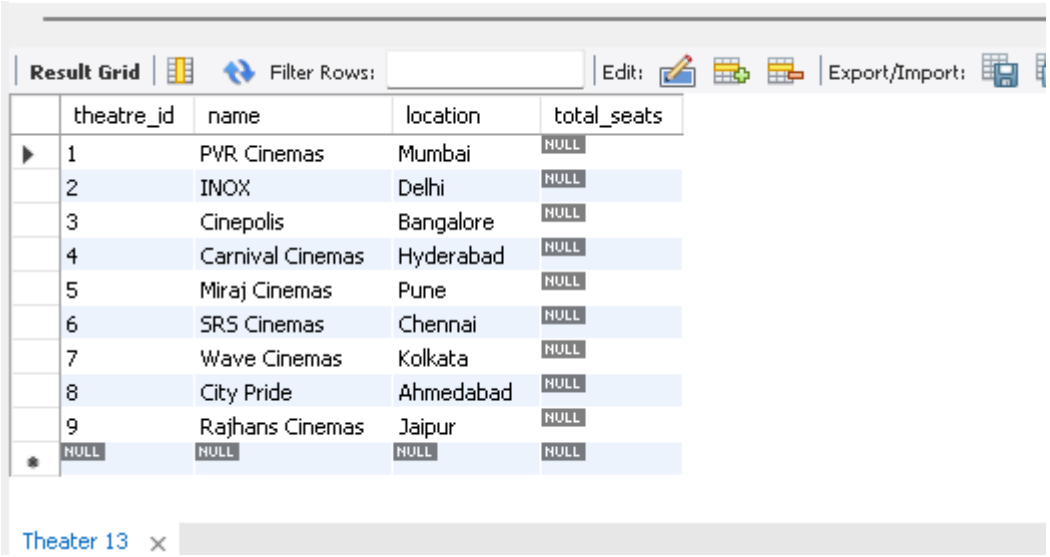
Implementation

INSERT :

Code:

```
INSERT INTO Theater (theatre_id, name, location)
VALUES
(1, 'PVR Cinemas', 'Mumbai'),
(2, 'INOX', 'Delhi'),
(3, 'Cinepolis', 'Bangalore'),
(4, 'Carnival Cinemas', 'Hyderabad'),
(5, 'Miraj Cinemas', 'Pune'),
(6, 'SRS Cinemas', 'Chennai'),
(7, 'Wave Cinemas', 'Kolkata'),
(8, 'City Pride', 'Ahmedabad'),
(9, 'Rajhans Cinemas', 'Jaipur');
select * from Theater;
```

Output:



theatre_id	name	location	total_seats
1	PVR Cinemas	Mumbai	NULL
2	INOX	Delhi	NULL
3	Cinepolis	Bangalore	NULL
4	Carnival Cinemas	Hyderabad	NULL
5	Miraj Cinemas	Pune	NULL
6	SRS Cinemas	Chennai	NULL
7	Wave Cinemas	Kolkata	NULL
8	City Pride	Ahmedabad	NULL
9	Rajhans Cinemas	Jaipur	NULL
NULL	NULL	NULL	NULL

UPDATE :

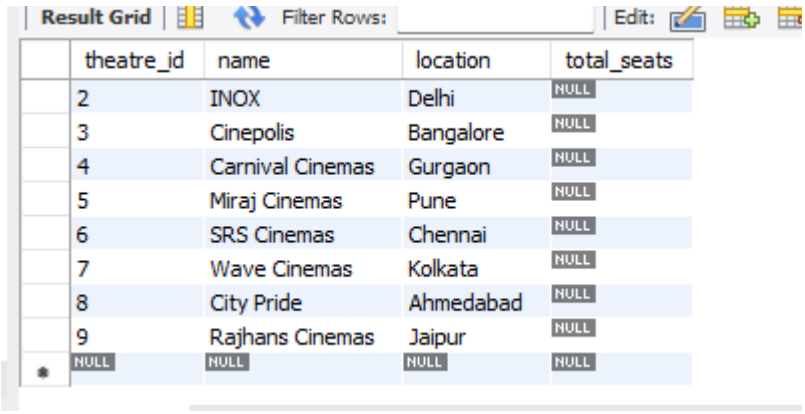
Code:

```
UPDATE Theater
SET location = 'Gurgaon'
```

WHERE theatre_id = 4;

SELECT * FROM Theater;

Output:



Result Grid | Filter Rows: | Edit:

theatre_id	name	location	total_seats
2	INOX	Delhi	NULL
3	Cinepolis	Bangalore	NULL
4	Carnival Cinemas	Gurgaon	NULL
5	Miraj Cinemas	Pune	NULL
6	SRS Cinemas	Chennai	NULL
7	Wave Cinemas	Kolkata	NULL
8	City Pride	Ahmedabad	NULL
9	Rajhans Cinemas	Jaipur	NULL
NULL	NULL	NULL	NULL

DELETE :

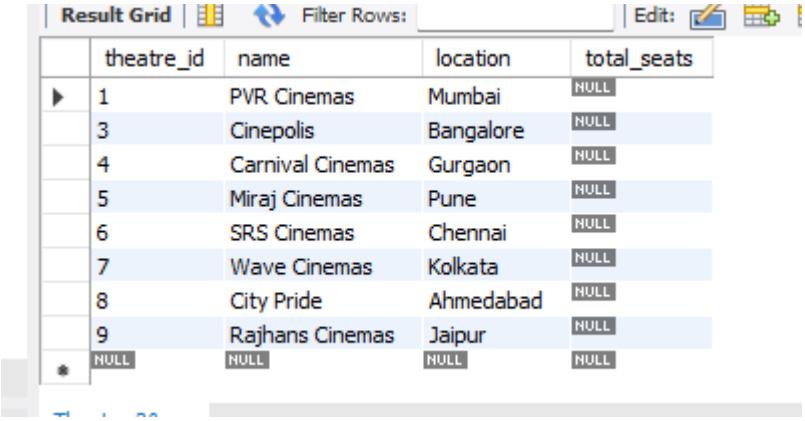
Code:

DELETE FROM Theater

WHERE theater_id = '2';

SELECT * FROM Theater;

Output:



Result Grid | Filter Rows: | Edit:

theatre_id	name	location	total_seats
1	PVR Cinemas	Mumbai	NULL
3	Cinepolis	Bangalore	NULL
4	Carnival Cinemas	Gurgaon	NULL
5	Miraj Cinemas	Pune	NULL
6	SRS Cinemas	Chennai	NULL
7	Wave Cinemas	Kolkata	NULL
8	City Pride	Ahmedabad	NULL
9	Rajhans Cinemas	Jaipur	NULL
NULL	NULL	NULL	NULL

Conclusion:

In this experiment, we used DML commands like INSERT, UPDATE, DELETE, and SELECT to manage and retrieve data from the database. This helped us understand how to perform real-world data operations within a relational database system.

1. Explain DML commands with syntax.

   Ans. **Data Manipulation Language (DML) is a subset of SQL used to manage and manipulate data within relational database tables. DML commands allow users to retrieve, insert, update, and delete data.**

   The primary DML commands are SELECT, INSERT, UPDATE, and DELETE.

   1. **INSERT Command**
   - **Purpose: Adds new records (rows) to a table.**
   - **Syntax:**

   INSERT INTO table_name (column1, column2, ..., columnN)
   VALUES (value1, value2, ..., valueN);

2. **UPDATE Command**
   - **Purpose: Modifies existing records in a table.**
   - **Syntax:**

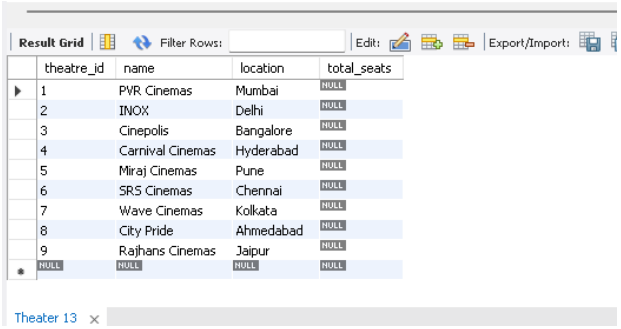
   UPDATE table_name
   SET column1 = value1, column2 = value2, ..., columnN = valueN
   WHERE condition;

3. **DELETE Command**
   - **Purpose: Removes records from a table based on a condition.**
   - **Syntax:**

   DELETE FROM table_name
   WHERE condition;

   2. Show results of operations performed.

   Ans.



theatre_id	name	location	total_seats
1	PVR Cinemas	Mumbai	NULL
2	INOX	Delhi	NULL
3	Cinepolis	Bangalore	NULL
4	Carnival Cinemas	Hyderabad	NULL
5	Miraj Cinemas	Pune	NULL
6	SRS Cinemas	Chennai	NULL
7	Wave Cinemas	Kolkata	NULL
8	City Pride	Ahmedabad	NULL
9	Rajhans Cinemas	Jaipur	NULL
NULL	NULL	NULL	NULL

Result Grid | Filter Rows: | Edit:

theatre_id	name	location	total_seats
2	INOX	Delhi	NULL
3	Cinepolis	Bangalore	NULL
4	Carnival Cinemas	Gurgaon	NULL
5	Miraj Cinemas	Pune	NULL
6	SRS Cinemas	Chennai	NULL
7	Wave Cinemas	Kolkata	NULL
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Result Grid | Filter Rows: | Edit:

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NULL	NULL	NULL	NULL