**TOPSTechnologies** 

# Data Manipulation Language (DML)

Presented for:

**TOPs Technologies** 

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# Introduction to DBMS

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the INSERT, UPDATE, and DELETE commands are used to manipulate data within a database.

### **INSERT:**

• The INSERT statement is used to add new records (rows) into a table.

# example:

INSERT INTO employees (id, name, position) VALUES (1, 'John Doe', 'Software Engineer');

### **UPDATE:**

The UPDATE statement modifies existing records in a table.

# example:

UPDATE employees
SET position = 'Senior Software Engineer'
WHERE id = 1;

### **DELETE:**

The DELETE statement removes records from a table.

example:
DELETE FROM employees
WHERE id = 1;

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The WHERE clause in UPDATE and DELETE operations is extremely important because it helps specify which rows should be modified or removed, preventing unintended changes to the entire table. Without the WHERE clause, the operation would affect all the rows in the table, which could lead to significant data loss or unintended updates.

# Importance in UPDATE:

• Targeted Updates: The WHERE clause ensures that only the rows that meet the specified condition are updated.

example :
 UPDATE employees
SET position = 'Manager'
WHERE id = 2;

## Importance in DELETE:

• Prevent Unintended Deletions: The WHERE clause specifies the exact rows to delete, helping avoid the removal of all records in the table.

example :
DELETE FROM employees
WHERE id = 2;