

DML Commands in SQL

- **DML** stands for **Data Manipulation Language**, which is a type of SQL (Structured Query Language) used to retrieve, insert, update, and delete data in a database.
- Some basic DML commands covered in SQL are –

1. Retrieving data with SELECT:

The SELECT statement is used to retrieve data from one or more tables in a database. The basic syntax is as follows:

```
SELECT column1, column2, ...  
FROM table_name;
```

For example, to retrieve all columns from a table called "employees", you would use the following SQL statement:

```
SELECT * FROM employees;
```

2. Inserting data with INSERT:

The INSERT statement is used to add new rows to a table in a database. The basic syntax is as follows:

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

For example, to add a new employee to the "employees" table, you would use the following SQL statement:

```
INSERT INTO employees (first_name, last_name, email, phone)  
VALUES ('John', 'Doe', 'johndoe@example.com', '555-555-1212');
```

3. Updating data with UPDATE:

The UPDATE statement is used to modify existing data in a table in a database. The basic syntax is as follows:

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

For example, to update the phone number of an employee with the last name "Doe" in the "employees" table, you would use the following SQL statement:

```
UPDATE employees  
SET phone = '555-555-1213'  
WHERE last_name = 'Doe';
```

4. Deleting data with DELETE:

The DELETE statement is used to remove one or more rows from a table in a database. The basic syntax is as follows:

```
DELETE FROM table_name  
WHERE condition;
```

For example, to delete all employees with the last name "Doe" from the "employees" table, you would use the following SQL statement:

```
DELETE FROM employees  
WHERE last_name = 'Doe';
```

5. Removing all rows data with TRUNCATE:

The TRUNCATE statement is used to remove all rows from a table, but it keeps the structure and metadata intact. The basic syntax is as follows:

```
TRUNCATE table table_name;
```

For example, to remove all the data from the "Employees" table while keeping its structure intact, we can use the TRUNCATE command:

```
TRUNCATE table employees;
```

After executing this command, all rows in the "Employees" table will be deleted. The table structure will remain, allowing you to insert new data into it later.