



# Certified Java Full Stack Professional - Capgemini College Connect

## Introduction to Languages in MySQL

In MySQL, languages are:

- Those who allow the database users to read, modify, delete and store data in the database systems.
- Of 4 different types



- Bhakti Menkar  
Batch:2023-10427  
Enrollment No: EBEON0923756263

# Types of Languages

**1**

## **DDL**

Data Definition Languages allow users to create, modify, and destroy the schema of database objects.

**3**

## **DCL**

Data Control Languages allow DBA to manage the rights and permissions on the data in the database.

**2**

## **DML**

Data Manipulation languages allow database users to change the existing data of the table

**4**

## **TCL**

Transaction Control languages maintain the SQL operations within the database. It also saves the changes made by the DML commands.

# DDL (Data Definition Language)

## CREATE Command

This DDL command allows us to create the new table, function, stored procedure, and other database objects.

```
CREATE TABLE Mobile_Details (  
Mobile_Number INT NOT NULL,  
Mobile_Name Varchar(50),  
Manufacturing_Year INT NOT NULL,  
Mobile_Cost INT );
```

## ALTER Command

This DDL command allows us to modify the structure of database objects.

```
ALTER TABLE Mobile_Details ADD Mobile_Color Varchar (50);
```

## DROP Command

This DDL command allows us to remove the table definition and data from the SQL systems.

```
DROP TABLE Mobile_Details;
```

## TRUNCATE Command

This DDL command allows the database users to remove all the existing records from the table.

```
TRUNCATE TABLE Mobile_Details;
```

## RENAME Command

This DDL command allows the users to change the name of the existing table.

```
RENAME Old_Table_Name TO New_Table_Name;  
RENAME Mobile_Details TO Mobile_Records;
```

# DML (Data Manipulation Language)

## SELECT Command

This DML command allows us to access the stored records from the tables. We can also use the condition in the SELECT command for accessing the particular rows.

```
SELECT * FROM Mobile_Records;
```

## INSERT Command

This DML command allows the database users to insert the new record or rows in the tables.

```
INSERT INTO Mobile_Records (Mobile_number, Mobile_Name,  
Manufacturing_Year, Mobile_Cost, Mobile_Color) VALUES (9587  
2, Apple, 2020, 95000, Black);
```

## UPDATE Command

This DML command allows the database users to change the existing record or rows in the tables.

```
UPDATE Mobile_Records SET Manufacturing_Year = 2022 WHERE  
Mobile_Color = 'White';
```

## DELETE Command

This DML command allows the database users to delete a particular record or row from the tables.

```
DELETE FROM Mobile_Records WHERE Manufacturing_Year = 20  
19;
```

# DCL (Data Control Language)

## GRANT Command

This DCL command allows the database administrator to give permissions to the user for retrieving the data.

### Syntax of Grant DCL Command:

**GRANT** Name\_of\_Privilege **ON** Object **TO** User;

### Example of Grant Command:

The following query grants the SELECT privilege on the Mobile\_Records table:

**GRANT SELECT ON** Mobile\_Records **TO** 'OnePlus'@'localhost';

## REVOKE Command

This DCL command allows the database administrator to remove all the permissions applied by the GRANT DCL command.

### Syntax of REVOKE DCL Command:

**REVOKE** Name\_of\_Privilege **ON** Object **FROM** User;

### Example of REVOKE Command:

The following query removes the SELECT privilege from the Mobile\_Records table:

**REVOKE SELECT ON** Mobile\_Records **FROM** 'OnePlus'@'localhost';

# TCL (Transaction Control Language)

## COMMIT Command

This command allows the database users to save the operations in the database.

**Syntax of Commit command:**

**COMMIT;**

**Example of Commit Command:**

The following statements delete the record from the Mobile\_Record table and commit the changes in the database:

**DELETE FROM** Mobile\_Records **WHERE** Mobile\_cost = 20000;  
**COMMIT;**

## Rollback Command

This command allows the database users to restore the transactions to that state which was last committed.

**Syntax of Rollback command:**

**ROLLBACK;**

**Example of Rollback Command:**

The following statements delete the record from the Mobile\_Record table and rollback the changes in the database:

**DELETE FROM** Mobile\_Records **WHERE** Mobile\_cost = 20000;  
**ROLLBACK;**