Lecture 10

DDL (Data Definition Language) commands are used to define and modify database structures such as tables, indexes, and constraints.

1. CREATE – Creates a new database object (e.g., table, view, index).

```
-- Create a database
CREATE DATABASE CompanyDB;

-- Create a table
CREATE TABLE Employees (
    EmployeeID INT PRIMARY KEY,
    FirstName VARCHAR(50),
    LastName VARCHAR(50),
    Age INT,
    Salary DECIMAL(10,2),
    Department VARCHAR(50)
);
```

2. ALTER – Modifies an existing database object (e.g., add/remove columns).

```
-- Add a new column
ALTER TABLE Employees ADD Email VARCHAR(100);

-- Modify a column data type
ALTER TABLE Employees MODIFY Age SMALLINT;

-- Rename a column (works in MySQL)
ALTER TABLE Employees CHANGE COLUMN FirstName EmpFirstName VARCHAR(50);
```

3. DROP – Deletes a database object permanently.

```
-- Drop a column
ALTER TABLE Employees DROP COLUMN Salary;
```

```
-- Drop a table
DROP TABLE Employees;

-- Drop a database
DROP DATABASE CompanyDB;
```

4. TRUNCATE – Removes all records from a table but keeps its structure.

```
TRUNCATE TABLE Employees;
```

5. RENAME – Renames a database object

```
-- Rename a table
RENAME TABLE Employees TO Staff;
```