

[Mohamed Al-Saeed Al-Abasy]

## Structure Query Language(SQL)

Structured Query Language is a standard Database language which is used to create, maintain and retrieve the relational database which consist of.

### 1. Data definition language (DDL)

A data definition language (DDL) is a computer language used to create and modify the structure of database objects in a database. These database objects include views, schemas, tables, indexes, etc..

- **Create**

This command builds a new table .

**CREATE TABLE [table name] ([column definitions]) [table parameters];**

**For example:**

**CREATE TABLE Employee (Employee Id INTEGER PRIMARY KEY, First name CHAR (50) NULL, Last name CHAR (75) NOT NULL);**

- **Alter**

An alter command modifies an existing database table

**ALTER object type object name parameters;**

**For example:**

**ALTER TABLE Employee ADD PRIMARY KEY (employee\_pk);**

- **Drop**

A drop command is used to delete objects such as a table, index or view. A

DROP statement cannot be rolled back, so once an object is destroyed, there's no way to recover it.

**DROP object type object name;**

**For example:**

**DROP TABLE Employee;**

- **Truncate**

Similar to DROP, the TRUNCATE statement is used to quickly remove all records from a table. However, unlike DROP that completely destroys a table, TRUNCATE preserves its full structure to be reused later.

**TRUNCATE TABLE table\_name;**

For example:

**TRUNCATE TABLE Employee;**

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## 2. Data manipulation language (DML) :

A data definition language (DDL) is a computer language used to create and modify the structure of database objects in a database. These database objects include views, schemas, tables, indexes, etc.

- **SELECT**

This command is used to retrieve rows from a table.

**SELECT [column name(s)] from [table name] where [conditions].**

SELECT is the most widely used DML command in SQL.

- **UPDATE**

This command modifies data of one or more records

**UPDATE [table name] SET [column name = value] where [condition].**

- **INSERT**

This command adds one or more records to a database table.

**INSERT INTO [table name] [column(s)] VALUES [value(s)].**

- **DELETE**

This command removes one or more records from a table according to specified conditions.

**DELETE FROM [table name] where [condition].**

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## 3. Data control language (DCL) :

A data definition language (DDL) is a computer language used to create and modify the structure of database objects in a database. These database objects include views, schemas, tables, indexes, etc.

- **GRANT**

This command gives users access privileges to the database.

**GRANT <privilege list> ON <relation name or view name> TO <user/role list>;**

- **REVOKE**

This command withdraws the user's access privileges given by using the GRANT command.

**REVOKE <privilege list> ON <relation name or view name> FROM <user name>;**