**Summary of SQL**

**DDL**

Data Definition Language helps you to define the database structure or schema.

Five types of DDL commands are:

CREATE

CREATE statements is used to define the database structure schema:

Syntax:

CREATE TABLE TABLE\_NAME (COLUMN\_NAME DATATYPES[,....]);

For example:

Create database university;

Create table students;

Create view for\_students;

DROP

Drops commands remove tables and databases from RDBMS.

Syntax

DROP TABLE ;

For example:

Drop object\_type object\_name;

Drop database university;

Drop table student;

ALTER

Alters command allows you to alter the structure of the database.

Syntax:

To add a new column in the table

ALTER TABLE table\_name ADD column\_name COLUMN-definition;

To modify an existing column in the table:

ALTER TABLE MODIFY(COLUMN DEFINITION....);

For example:

Alter table bca add subject varchar;

TRUNCATE:

This command used to delete all the rows from the table and free the space containing the table.

Syntax:

TRUNCATE TABLE table\_name;

Example:

TRUNCATE table students;

**Data Manipulation Language**

Data Manipulation Language (DML) allows you to modify the database instance by inserting, modifying, and deleting its data. It is responsible for performing all types of data modification in a database.

There are three basic constructs which allow database program and user to enter data and information are:

Here are some important DML commands:

INSERT

UPDATE

DELETE

INSERT:

This is a statement is a SQL query. This command is used to insert data into the row of a table.

Syntax:

INSERT INTO TABLE\_NAME (col1, col2, col3,.... col N) VALUES (value1, value2, value3, .... valueN);

Or

INSERT INTO TABLE\_NAME VALUES (value1, value2, value3, .... valueN);

For example:

INSERT INTO students (RollNo, FIrstName, LastName) VALUES ('60', 'Tom', Erichsen');

UPDATE:

This command is used to update or modify the value of a column in the table.

Syntax:

UPDATE table\_name SET [column\_name1= value1,...column\_nameN = valueN] [WHERE CONDITION]

For example:

UPDATE students

SET FirstName = 'Jhon', LastName= 'Wick' WHERE StudID = 3;

DELETE:

This command is used to remove one or more rows from a table.

Syntax:

DELETE FROM table\_name [WHERE condition];

For example:

DELETE FROM students WHERE FirstName = 'John';

**DCL**

DCL (Data Control Language) includes commands like GRANT and REVOKE, which are useful to give "rights & permissions." Other permission controls parameters of the database system.

Examples of DCL commands:

Commands that come under DCL:

Grant

Revoke

Grant:

This command is use to give user access privileges to a database.

Syntax:

GRANT SELECT, UPDATE ON MY\_TABLE TO SOME\_USER, ANOTHER\_USER;

For example:

GRANT SELECT ON Users TO 'scott’;

Revoke:

It is useful to back permissions from the user.

Syntax:

REVOKE privilege\_nameON object\_nameFROM {user\_name |PUBLIC |role\_name}

For example:

REVOKE SELECT, UPDATE ON student FROM BCA, MCA;

**TCL**

Transaction control language or TCL commands deal with the transaction within the database.

Commit

This command is used to save all the transactions to the database.

Syntax:

Commit;

For example:

DELETE FROM Students WHERE RollNo =25;

COMMIT;

Rollback

Rollback command allows you to undo transactions that have not already been saved to the database.

Syntax:

ROLLBACK;

Example:

DELETE FROM Students WHERE RollNo =25;

SAVEPOINT

This command helps you to sets a savepoint within a transaction.

Syntax:

SAVEPOINT SAVEPOINT\_NAME;

Example:

SAVEPOINT RollNo;