**MICROSOFT SQL SERVER (MS SQL)**

**Create Database:**

SYNTAX:CREATE DATABASE database\_name

EXAMPLE: CREATE DATABASE DemoDb

**Use Database:**

SYNTAX: USE database\_name

EXAMPLE: USE DemoDb

**View Description of a Current used Database:**

SYNTAX: SP\_HELP

EXAMPLE: SP\_HELP

**Create Table:**

SYNTAX: CREATE TABLE table\_name ( column1 datatype, column2 datatype, …)

EXAMPLE: CREATE TABLE DemoDb ( SlNo int, name varchar(50), marks int, fees money )

**View Description of a Table:**

SYNTAX: SP\_HELP table\_name

EXAMPLE: SP\_HELP DemoDb

DESCRIPTION: Here we can see Columns of table, Datatypes, Default values, etc..

**Create Table from another table:**

SYNTAX: SELECT column1, column2, … INTO new\_table\_name FROM existing\_table\_name

EXAMPLE: SELECT \* INTO DemoDb\_new FROM Demodb

DESCRIPTION: This Command Should create new table with existing table columns and values.

**INSERT INTO:**

SYNTAX: INSERT INTO

**CONSTRAINTS:**

SYNTAX: CREATE TABLE table\_name ( column1 datatype constraint, column2 datatype

constraint, …)

EXAMPLE: CREATE TABLE DemoDb ( SlNo int NOTNULL, name varchar(50) NOT NULL DEFAULT ‘student’, marks int CHECK(marks<=100), fees money CHECK(money>=1000))

DESCRIPTION: SQL constraints are rules that define and enforce the allowed values and relationships between the columns of a database table. They ensure data integrity, consistency, and prevent invalid or inconsistent data from being inserted, updated, or deleted

TYPES:

* NOT NULL - Ensures that a column cannot have a NULL value
* UNIQUE - Ensures that all values in a column are different
* PRIMARY KEY - A combination of a NOT NULL and UNIQUE. Uniquely identifies each row in a table
* FOREIGN KEY - Prevents actions that would destroy links between tables
* CHECK - Ensures that the values in a column satisfies a specific condition
* DEFAULT - Sets a default value for a column if no value is specified
* CREATE INDEX - Used to create and retrieve data from the database very quickly

**DATA TYPES:**

Exact numerics:

* bit: A single bit that can be 0, 1, or NULL.
* tinyint: An 8-bit integer that can store values from 0 to 255.
* smallint: A 16-bit integer that can store values from -32,768 to 32,767.
* int: A 32-bit integer that can store values from -2,147,483,648 to 2,147,483,647.
* bigint: A 64-bit integer that can store values from -9,223,372,036,854,775,808 to 9,223,372,036,854,775,807.

Float

Varchar(10)

Money

Datetime