Create TABLE(s) and Temp Table(s)

What is Table ?

- **Tables** are database objects that contain all the data in a database. .

- In **tables**, data is logically organized in a row-and-column format.

- Each row represents a unique record.

- Each column represents a field in the record.

- With up to 1024 columns in each table.

CREATE TABLE Statement

CREATE TABLE [database_name.][schema_name.]table_name

    (pk_column data_type PRIMARY KEY,

    column_1 data_type NOT NULL,

    column_2 data_type,

    ...,

    table_constraints);

- Specify the name of the database in which the table is created.

- Specify the schema to which the new table belongs.

- Specify the name of the new table.

- Each table should have a primary key which consists of one or more columns. Typically, you list the primary key columns first and then other columns.

- If the primary key contains only one column, you can use the PRIMARY KEY keywords after the column name. If the primary key consists of two or more columns, you need to specify the PRIMARY KEY constraint as a table constraint.

- Each column has an associated data type specified after its name in the statement.

- A column may have one or more column constraints such as NOT NULL and UNIQUE.

- A table may have some constraints specified in the table constraints section such as FOREIGN KEY, PRIMARY KEY, UNIQUE and CHECK.

CREATE table example

- *CREATE TABLE sales.visits (*

visit_id INT PRIMARY KEY IDENTITY (1, 1),

first_name VARCHAR (50) NOT NULL,

last_name VARCHAR (50) NOT NULL,

visited_at DATETIME, phone VARCHAR(20),

store_id INT NOT NULL,

FOREIGN KEY (store_id) REFERENCES sales.stores (store_id));

What is Temporary (temp) Table

- A **temporary table in SQL** Server, as the name suggests, is a database **table** that exists temporarily on the database server.

- A temporary table stores a subset of data from a normal table for a certain period of time.

- Temporary tables are particularly useful when you have a large number of records in a table and you repeatedly need to interact with a small subset of those records.

- In such cases instead of filtering the data again and again to fetch the subset, you can filter the data once and store it in a temporary table.

- Temporary tables are stored inside "tempdb" which is a system database.

Create Temporary (temp) Table

- The name of a temporary table must start with a hash (#).

- Method 1.select BusinessEntityID,firstname,lastname

    into #TempPersonTable

    from [Person].[Person] where title = 'mr. '

- Method 2. Create table #TempPersonTable (

    BusinessEntityID int, Firstname nvarchar(50), lastname nvarchar(50))

    INSERT INTO #TempPersonTable

    SELECT BusinessEntityID,FirstName,LastName

    from [Person].[Person]

     where title = 'mr.'