**BYTEWISE**

**WEEK 2(BEGINNER MONTH)**

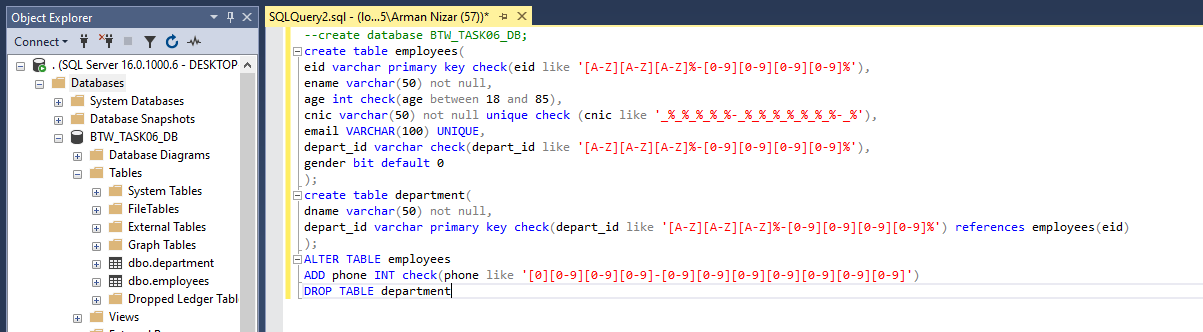
**TASK 5**

**Write a few lines about Data Types In SQL with examples**

| **Data Types Category** | **Data Types** | **Example** | **Description** |
| --- | --- | --- | --- |
| **Numerics** | * Bit * Tinyint * smallInt * Int * Bigint * Decimal * Numerics * Smallmoney * money | **Integer data type**  CREATE TABLE customers (  id INT PRIMARY KEY,  age INT  );  **Decimal data type**  CREATE TABLE orders (  order\_id INT PRIMARY KEY,  order\_total DECIMAL(10,2)  ); | **Numeric:** Numeric data types are used to store numbers. Examples include INTEGER, BIGINT, SMALLINT, and TINYINT. These data types can be signed or unsigned and have different ranges of values. |
| **Floating point** | * Float * real | **Floating Point Data Type:**  **Float data type**  CREATE TABLE products (  product\_id INT PRIMARY KEY,  price FLOAT  );  **Real data type**  CREATE TABLE inventory (  item\_id INT PRIMARY KEY,  quantity REAL  ); | **Floating point:** Floating point data types are used to store decimal numbers. Examples include FLOAT and REAL. These data types have precision and scale values that determine the number of digits that can be stored before and after the decimal point. |
| **Date & Time (Temporal)** | * Date * Time * Smalldatetime * Datetime * datetime2 | **Temporal Data Type:**  **Date data type**  CREATE TABLE users (  user\_id INT PRIMARY KEY,  birthdate DATE  );  **Time data type**  CREATE TABLE tasks (  task\_id INT PRIMARY KEY,  task\_start\_time TIME  );  **Datetime data type**  CREATE TABLE appointments (  appointment\_id INT PRIMARY KEY,  appointment\_datetime DATETIME  ); | **Temporal:** Temporal data types are used to store date and time values. Examples include DATE, TIME, DATETIME, and TIMESTAMP. These data types can be used to store information about when a record was created, updated, or deleted. |
| **Character strings** | * Char * Nchar * Varchar * Nvarchar * nvarchar(max) | **Character Data Type:**  **Char data type**  CREATE TABLE employees (  employee\_id INT PRIMARY KEY,  first\_name CHAR(50),  last\_name CHAR(50)  );  **Varchar data type**  CREATE TABLE customers (  customer\_id INT PRIMARY KEY,  customer\_name VARCHAR(100)  ); | **Character:** Character data types are used to store text or character data. Examples include CHAR, VARCHAR, and TEXT. These data types can store a variable or fixed amount of characters and have different limits on the maximum number of characters that can be stored. |
| **Binary strings** | * Binary * Varbinary * varbinary(max) * image | **Binary Data Type:**  **Binary data type**  CREATE TABLE images (  image\_id INT PRIMARY KEY,  image\_data VARBINARY(MAX)  ); | **Binary**: Binary data types are used to store binary data, such as images or binary files. Examples include BINARY, VARBINARY, and IMAGE. These data types can store binary data of different lengths. |
| **Other Datatype** | * Cursor * Timestamp * Xml * uniqueIdentifier * Spatial types * sql\_variant | **XML Data Type:**  **XML data type**  CREATE TABLE products (  product\_id INT PRIMARY KEY,  product\_data XML  ); | **XML:** XML data types are used to store XML data. Examples include XML and NTEXT. These data types can store XML data of different lengths. |

**Reference =** [**sql datatypes**](https://sqlwithmanoj.com/2015/09/20/sql-basics-data-types-in-sql-server-video/)

**TASK 6**

****