

-----SQL ASSIGNMENT

3-----

-- Sample Dataset

```
CREATE TABLE Customer (  
  CustomerID INT PRIMARY KEY,  
  FirstName VARCHAR(50),  
  LastName VARCHAR(50),  
  Email VARCHAR(100),  
  RegistrationDate DATE  
);  
INSERT INTO Customer (CustomerID, FirstName, LastName, Email,  
  RegistrationDate)  
VALUES  
(1, 'John', 'Doe', 'john.doe@example.com', '2023-01-15'),  
(2, 'Jane', 'Smith', 'jane.smith@example.com', '2022-11-30'),  
(3, 'Michael', 'Johnson', 'michael.johnson@example.com', '2022-12-  
05'),  
(4, 'Emily', 'Brown', 'emily.brown@example.com', '2023-02-20'),  
(5, 'David', 'Williams', 'david.williams@example.com', '2023-01-10');
```

--1. Aggregate Functions (SUM, MAX, MIN)

--SUM (Email Length)

```
SELECT SUM(LEN(Email)) AS TotalEmailLength  
FROM Customer;
```

--MIN Example: Determine the earliest registration date among customers

```
SELECT MIN(RegistrationDate) AS EarliestRegistrationDate  
FROM Customer;
```

--2. Data Conversion

-- Convert RegistrationDate to VARCHAR for Display:

```
SELECT CustomerID, FirstName, LastName, Email, CONVERT(VARCHAR(10),  
  RegistrationDate, 120) AS RegistrationDate  
FROM Customer;
```

-- 3. Deriving new column

-- Calculate Age from Registration Date

```
SELECT  
  CustomerID,  
  FirstName,  
  LastName,  
  Email,  
  RegistrationDate,  
  DATEDIFF(YEAR, RegistrationDate, '2024-06-18') AS CustomerAge  
FROM Customer;
```

--4. Conditional Split

--Example: Split Email into Username and Domain

--username is before the '@' symbol and the domain is after it.

```
SELECT
    CustomerID,
    FirstName,
    LastName,
    Email,
    SUBSTRING(Email, 1, CHARINDEX('@', Email) - 1) AS Username,
    SUBSTRING(Email, CHARINDEX('@', Email) + 1, LEN(Email)) AS Domain
FROM Customer;
```