

# SQL SCRIPTS

## 1. Database Creation

First, create a database to store all your tables.

```
CREATE DATABASE MentalHealthDB;  
USE MentalHealthDB;
```

## 2. Creating Tables

### 2.1. Teenagers Table

This table stores demographic information about teenagers.

```
CREATE TABLE Teenagers (  
  ID INT AUTO_INCREMENT PRIMARY KEY,  
  Age INT NOT NULL,  
  Gender VARCHAR(10) NOT NULL,  
  Region VARCHAR(50) NOT NULL,  
  Socioeconomic_Status VARCHAR(10) NOT NULL  
);
```

#### Explanation:

- ID: Unique identifier for each teenager (Primary Key).
- Age: Age of the teenager.
- Gender: Gender of the teenager.
- Region: The region where the teenager lives.
- Socioeconomic\_Status: Socioeconomic status (e.g., Low, Medium, High).

### 2.2. Mental\_Health\_Services Table

This table records the availability and type of mental health services in various regions.

```
CREATE TABLE Mental_Health_Services (  
  Service_ID INT AUTO_INCREMENT PRIMARY KEY,  
  Service_Type VARCHAR(50) NOT NULL,  
  Region VARCHAR(50) NOT NULL,  
  Availability VARCHAR(10) NOT NULL  
);
```

### Explanation:

- Service\_ID: Unique identifier for each mental health service (Primary Key).
- Service\_Type: Type of service provided (e.g., Counseling, Psychiatry).
- Region: The region where the service is provided.
- Availability: Indicates whether the service is available (Yes/No).

### 2.3. Suicide\_Rates Table

This table contains data on suicide rates in different regions and links to the Teenagers table.

```
CREATE TABLE Suicide_Rates (  
    Rate_ID INT AUTO_INCREMENT PRIMARY KEY,  
    Year INT NOT NULL,  
    Region VARCHAR(50) NOT NULL,  
    Suicide_Rate_Per_100k FLOAT NOT NULL,  
    Teenager_ID INT,  
    FOREIGN KEY (Teenager_ID) REFERENCES Teenagers(ID)  
);
```

### Explanation:

- Rate\_ID: Unique identifier for each suicide rate record (Primary Key).
- Year: The year the suicide rate was recorded.
- Region: The region where the suicide rate is recorded.
- Suicide\_Rate\_Per\_100k: Suicide rate per 100,000 people.
- Teenager\_ID: Foreign Key linking to the Teenagers table.

### 2.4. Regions Table

This table provides information about different regions.

```
CREATE TABLE Regions (  
    Region_ID INT AUTO_INCREMENT PRIMARY KEY,  
    Region_Name VARCHAR(50) NOT NULL,  
    Population INT NOT NULL,  
    Urban_Rural VARCHAR(10) NOT NULL  
);
```

### Explanation:

- Region\_ID: Unique identifier for each region (Primary Key).
- Region\_Name: Name of the region (e.g., North, South, East, West).
- Population: Population of the region.

- Urban\_Rural: Indicates whether the region is Urban or Rural.

### 3. Populating Tables with Sample Data

#### 3.1. Insert Sample Data into Teenagers Table

```
INSERT INTO Teenagers (Age, Gender, Region, Socioeconomic_Status)
VALUES
(16, 'Female', 'North', 'Low'),
(17, 'Male', 'South', 'Medium'),
(15, 'Female', 'East', 'High'),
(18, 'Male', 'West', 'Low'),
(16, 'Female', 'North', 'Medium');
```

#### 3.2. Insert Sample Data into Mental\_Health\_Services Table

```
INSERT INTO Mental_Health_Services (Service_Type, Region, Availability)
VALUES
('Counseling', 'North', 'Yes'),
('Psychiatry', 'South', 'Yes'),
('None', 'East', 'No'),
('Counseling', 'West', 'Yes'),
('Psychiatry', 'North', 'Yes');
```

#### 3.3. Insert Sample Data into Suicide\_Rates Table

```
INSERT INTO Suicide_Rates (Year, Region, Suicide_Rate_Per_100k,
Teenager_ID)
VALUES
(2022, 'North', 12.5, 1),
(2022, 'South', 10.2, 2),
(2022, 'East', 15.8, 3),
(2022, 'West', 11.3, 4),
(2022, 'North', 13.7, 5);
```

#### 3.4. Insert Sample Data into Regions Table

```
INSERT INTO Regions (Region_Name, Population, Urban_Rural)
VALUES
('North', 500000, 'Urban'),
('South', 300000, 'Rural'),
('East', 400000, 'Urban'),
('West', 350000, 'Rural');
```

## 4. SQL Queries for Data Retrieval and Analysis

### 4.1. Retrieve All Teenagers Data

```
SELECT * FROM Teenagers;
```

**Explanation:** This query retrieves all data from the Teenagers table.

### 4.2. Retrieve Suicide Rates by Region

```
SELECT Region, AVG(Suicide_Rate_Per_100k) AS Avg_Suicide_Rate  
FROM Suicide_Rates  
GROUP BY Region;
```

**Explanation:** This query calculates the average suicide rate per 100,000 people for each region.

### 4.3. Analyze the Relationship Between Service Availability and Suicide Rates

```
SELECT M.Region, M.Service_Type, S.Suicide_Rate_Per_100k  
FROM Mental_Health_Services M  
JOIN Suicide_Rates S ON M.Region = S.Region  
WHERE M.Availability = 'Yes';
```

**Explanation:** This query retrieves the suicide rates for regions where mental health services are available.

### 4.4. Count of Teenagers by Socioeconomic Status

```
SELECT Socioeconomic_Status, COUNT(ID) AS Teenager_Count  
FROM Teenagers  
GROUP BY Socioeconomic_Status;
```

**Explanation:** This query counts the number of teenagers based on their socioeconomic status.

### 4.5. Retrieve Regions with the Highest Suicide Rates

```
SELECT Region, MAX(Suicide_Rate_Per_100k) AS Max_Suicide_Rate  
FROM Suicide_Rates  
GROUP BY Region  
ORDER BY Max_Suicide_Rate DESC;
```

**Explanation:** This query retrieves regions with the highest recorded suicide rates.

#### 4.6. Compare Urban vs. Rural Suicide Rates

```
SELECT      R.Urban_Rural,      AVG(S.Suicide_Rate_Per_100k)      AS
Avg_Suicide_Rate
FROM Regions R
JOIN Suicide_Rates S ON R.Region_Name = S.Region
GROUP BY R.Urban_Rural;
```

**Explanation:** This query compares average suicide rates between urban and rural regions.

### 5. Data Export for Excel Analysis

You can export the results of any of these queries into a CSV file for use in Excel:

```
SELECT * FROM Suicide_Rates INTO OUTFILE '/tmp/suicide_rates.csv'
FIELDS TERMINATED BY ',' ENCLOSED BY '"'
LINES TERMINATED BY '\n';
```

**Explanation:** This query exports data from the Suicide\_Rates table into a CSV file that can be imported into Excel.