Part 3: SQL Programming

1. Data Retrieval
   Objective : Write SQL queries to retrieve relevant data based on the problem definition .

   1 .Retrieve all community members:
   SELECT * FROM CommunityMembers;

   2.Retrieve all community leaders:
   SELECT * FROM CommunityLeaders;

   3.Retrieve all local facilities:
   SELECT * FROM LocalFacilities;

   4.Retrieve all engagement records:
   SELECT * FROM EngagementRecords;

   5.Retrieve engagement records for a specific member:
   SELECT * FROM EngagementRecords
   WHERE MemberID = 1;

   6.Retrieve engagement records for a specific leader:
   SELECT * FROM EngagementRecords
   WHERE LeaderID = 1;

2. Data Analysis
   Objective: Write SQL queries to analyse data and generate insights related to SDG 16 Challenges of Transparence, Inclusivity and Accountability .

   1. Count the number of engagement records by type:

      SELECT EngagementType, COUNT(*) AS Count
      FROM EngagementRecords
      GROUP BY EngagementType;

   2. Find the most recent engagement record for each member:

      SELECT MemberID, MAX(Date) AS MostRecentEngagement
      FROM EngagementRecords
      GROUP BY MemberID;

3. Get the total number of records associated with each facility:

   ```
   SELECT FacilityID, COUNT(*) AS TotalRecords
   FROM EngagementRecords
   GROUP BY FacilityID;
   ```

4. Find all community members who have had more than one type of engagement:

   ```
   SELECT MemberID, COUNT(DISTINCT EngagementType) AS
   EngagementTypesCount
   FROM EngagementRecords
   GROUP BY MemberID
   HAVING EngagementTypesCount > 1;
   ```

5. Retrieve all engagement records for a specific type, e.g., 'Meeting':

   ```
   SELECT * FROM EngagementRecords
   WHERE EngagementType = 'Meeting';
   ```