UNIVERSITY OF ASIA PACIFIC

DEPARTMENT OF CSE

LAB REPORT

COURSE TITLE: DATABASE SYSTEMS LAB

COURSE CODE: CSE 212

DATE OF SUBMISSION:

SUBMITTED BY:

Tashnin Khan Tanisha (23201112),

Nowrin Akhter Riya (23201117),

Fahmida Tabassum (23201132)

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Section: C1

SUBMITTED TO:

Alif Ruslan

Lecturer

Department of CSE

University of Asia Pacific

ABSTRACT

This report presents the development of the Mental Health Portal, a database system designed to provide students with secure, anonymous, and accessible mental health support. The system organizes information on students, counselors, sessions, evaluations, and institutional programs through a well-structured and normalized relational model. Built using SQL and guided by ER design principles, the database ensures data integrity, reduced redundancy, and efficient retrieval. The implementation demonstrates how a streamlined database can effectively support real-world mental health workflows, confidential communication, and informed decision-making within academic environments.

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PROJECT DESCRIPTION

Mental health challenges among students are increasingly prevalent due to academic pressures, personal struggles, and social expectations. Many students, however, hesitate to seek help because of fear, stigma, or financial constraints. The **Mental Health Portal** addresses this gap by providing a secure, anonymous, and accessible platform where students can receive psychological support without exposing their identity.

OBJECTIVES

➢ Provide an anonymous mental health support system for students.

➢ Connect students with certified counselors for private therapy sessions.

➢ Track student progress, session history, and evaluations to monitor improvements.

➢ Offer discounts or rewards for consistent engagement, funded by NGOs and institutions.

➢ Promote awareness through organized community programs and workshops.

SCOPE & FUNCTIONALITY

The **Mental Health Portal** is a database-driven system offering students confidential, accessible, and affordable psychological support. Each student receives a unique anonymous ID, enabling private access to counselors, therapy sessions, progress tracking, and post-session evaluations. The portal supports structured care, encourages long-term engagement through discounts and rewards, and hosts awareness programs run by institutions and NGOs to promote mental health literacy. A funding module connects universities with external organizations, keeping

services financially accessible. Overall, the platform provides a secure environment for scheduling sessions, monitoring improvement, receiving professional guidance, and participating in wellness initiatives-all while maintaining privacy and institutional support.

TABLES & ENTITIES

1. Counselor

Stores counselor details and availability.

Counsellor	
Counsellor_ID	VARCHAR(10) (PK)
Counsellor_Name	VARCHAR(100)
Qualifications	VARCHAR(100)
Specialisation	VARCHAR(100)
Contact	VARCHAR(20)
Availability	VARCHAR(50)
Email	VARCHAR(50)

➢ **Attributes:**
- Counselor_Id (Primary Key)
- Name
- Qualification
- Specialisation
- Contact
- Email
- Availability

2. Patient

Stores student/patient information and mental health conditions.

Patient (Student)	
Patient_ID	VARCHAR(10) (PK)
Gender	VARCHAR(10)
Institution_ID	VARCHAR(10) (FK)
Age	INT
MentalHealthCondition	VARCHAR(100)

➢ **Attributes:**
- PatientID (Primary Key)
- InstitutionID
- Gender
- Age
- MentalHealthCondition

3. TherapySession

Records therapy session details and progress.

Therapy_Session	
Session_ID	VARCHAR(10) (PK)
Patient_ID	VARCHAR(10) (FK)
Counsellor_ID	VARCHAR(10) (FK)
Session_Date	DATE
Session_Type	VARCHAR(50)
Notes	TEXT
Progress_Status	VARCHAR(50)

➢ **Attributes:**
- SessionID (Primary Key)
- PatientID (Foreign Key)
- CounselorID (Foreign Key)
- SessionDate
- SessionType
- Notes
- ProgressStatus

4. NGO

Stores NGO information and focus areas.

NGO	
NGO_ID	VARCHAR(10) (PK)
NGO_Name	VARCHAR(100)
Focus_Area	VARCHAR(100)
Location	VARCHAR(100)
Contact	VARCHAR(20)

➢ **Attributes:**
- NGO_ID (Primary Key)
- NGO_NAME
- Focus_Area
- Location
- Contact

5. Institution

Stores institution details and funding contributions.

Institution	
Institution_ID	VARCHAR(10) (PK)
Institution_Name	VARCHAR(100)
Location	VARCHAR(100)
Contact	VARCHAR(20)
Funding_Amount	DECIMAL(10,2)

➢ **Attributes:**
- Institution_ID (Primary Key)
- Institution_Name
- Location
- Contact
- Funding_Amount

6. Funding

Tracks funding transactions from NGOs to institutions.

Funding	
Funding_ID	VARCHAR(10) (PK)
Institution_ID	VARCHAR(10) (FK)
NGO_ID	VARCHAR(10) (FK)
Amount	DECIMAL(10,2)
Funding_Date	DATE

➢ **Attributes:**
- Funding_ID (Primary Key)
- Institution_ID (Foreign Key)
- NGO_ID (Foreign Key)
- Amount
- Funding_Date

7. EvaluationForm

Stores feedback and ratings for patients

EvaluationForm	
Evaluation_ID	VARCHAR(10) (PK)
Patient_ID	VARCHAR(10) (FK)
Rating	INT – 1–5 scale
Comments	TEXT

➢ **Attributes:**
- Evaluation_ID (Primary Key)
- Patient_ID (Foreign Key)
- Rating
- Comments

8. Progress

Tracks patient progress and discount eligibility.

Progress	
Progress_ID	VARCHAR(10) (PK)
Patient_ID	VARCHAR(10) (FK)
Progress_Score	DECIMAL(5,2)
Last_Update	DATE
Discount_Eligible	VARCHAR(20)

➢ **Attributes:**
- Progress_ID (Primary Key)
- Patient_ID (Foreign Key)
- Progress_Score
- Last_Update
- Discount_Eligible

9. AwarenessProgram

Stores information about mental health awareness events.

AwarenessProgram	
Event_ID	VARCHAR(10) (PK)
Event_Name	VARCHAR(100)
Event_Location	VARCHAR(100)
Target_Audience	VARCHAR(100)
Counsellor_ID	VARCHAR(10)(FK)
NGO_ID	VARCHAR(10)(FK)

➢ **Attributes:**
- Event_ID (Primary Key)
- Event_Name
- Event_Location
- Target_Audience
- Counselor_ID (Foreign Key)
- NGO_ID (Foreign Key)

RELATION BETWEEN ENTITIES

1. **Student – Session:**

    *   **Relationship:** Session
    *   **Cardinality:** 1 student → many sessions(1:M)
    *   **Description**: A student can attend multiple counseling sessions.

2. **Counselor – Session:**

    *   **Relationship**: Session
    *   **Cardinality:** 1 counselor → many sessions(1:M)
    *   **Description:** A counselor can conduct multiple sessions with different students.

3. **Student – ProgressReport:**

    *   **Relationship:** Records Progress
    *   **Cardinality:** 1 Student → 1 progress reports(1:1)
    *   **Description:** Each session can have progress reports for the student.

4. **Student – Institution:**

    *   **Relationship:** Attends
    *   **Cardinality:** Many students → 1 institution (1:M)
    *   **Description:** Each student is associated with an institution.

5. **Student – Evaluation:**

    *   **Relationship:** Evaluates
    *   **Cardinality:** 1 Student → 1 evaluation (1:1)
    *   **Description:** Each session can be evaluated with rating and feedback.

6. **NGO – AwarenessProgram:**

    *   **Relationship:** Organizes
    *   **Cardinality:** 1 NGO → many programs (1:M)
    *   **Description:** NGOs can organize multiple awareness programs.

7. **Counselor – AwarenessProgram:**

    *   **Relationship:** Organizes

- **Cardinality:**1 counselor→ many programs(1:M)
- **Description:** One counselor can participate in multiple awareness programs.

8. Institution – Funding:

- **Relationship:** Provides Funding
- **Cardinality:** 1 institution → many funding records (1:M)
- **Description:** Institutions provide funding to NGOs for various programs.

9. NGO – Funding:

- **Relationship:** Provides Funding
- **Cardinality:** 1 NGO → many funding records (1:M)
- **Description:** NGOs receive funding from multiple institutions.

10. Counselor – Student:

- **Relationship**: Counsels
- **Cardinality:** Many counselors → many students(M:N)
- **Description:** Counselors provide counseling to multiple students, and a student may have multiple counselors.

ER-DIAGRAM
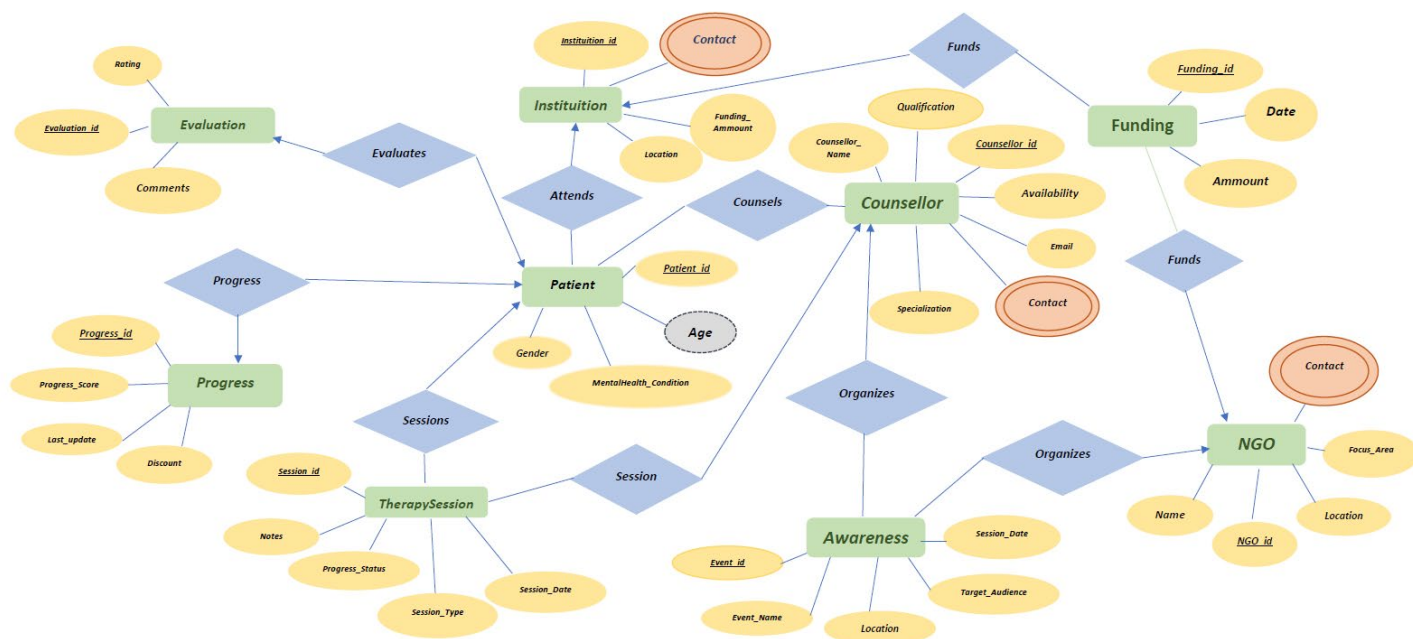
SCHEMA DIAGRAM

The **Mental Health Portal** database schema is designed to manage students, counselors, therapy sessions, progress reports, and evaluations efficiently. It includes tables for Institutions and NGOs, linking them through funding and awareness programs. Relationships such as connect Counsels students with counselors, while Funding links institutions and NGOs to support therapy services. The schema ensures structured, continuous, and confidential mental health care, with modules for tracking progress, session details, and program participation.
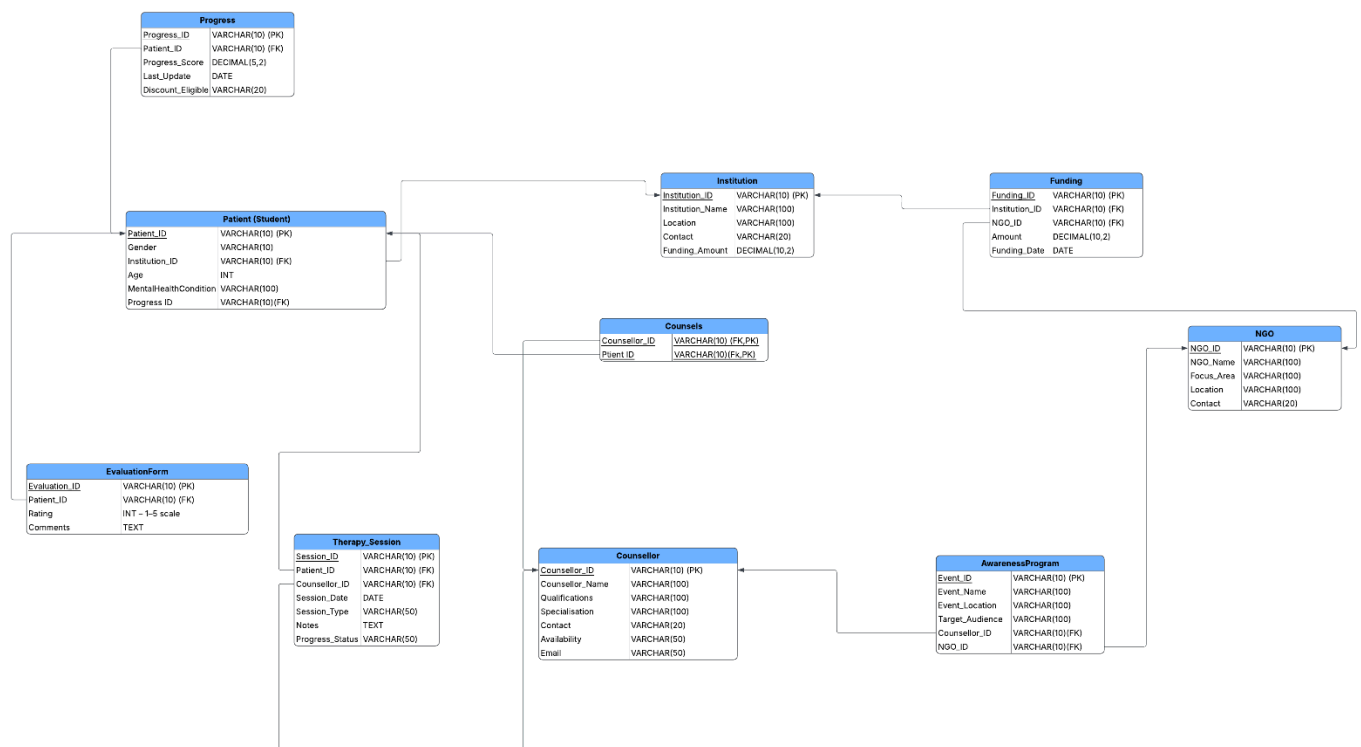
DATA INSERTION

1.Table Counsellor

CREATE TABLE Counselor (

  Counselor_Id VARCHAR(10) PRIMARY KEY,

  Name VARCHAR(100) NOT NULL,

  Qualification VARCHAR(100) NOT NULL,

  Specialisation VARCHAR(100) NOT NULL,

  Contact VARCHAR(20),

  Email VARCHAR(50) NOT NULL,

  Availability VARCHAR(50) NOT NULL

);

INSERT INTO Counselor VALUES

('C1001', 'Dr. Rafi Islam', 'MSc in Clinical Psychology', 'Child Counseling', '01712001122', 'rafi.islam@mentalhealthbd.com', 'Available'),

('C1002', 'Dr. Nusrat Jahan', 'PhD in Psychiatry', 'Family Therapy', '01815002233', 'nusrat.jahan@mindcarebd.org', 'Unavailable'),

('C1003', 'Dr. Shuvo Rahman', 'MPhil in Psychology', 'Addiction Recovery', '01689003344', 'shuvo.rahman@hopebd.net', 'Available'),

('C1004', 'Dr. Tania Akter', 'MS in Counseling Psychology', 'Academic Stress', '01911004455', 'tania.akter@edusupportbd.com', 'Available'),

('C1005', 'Dr. Mahmud Hasan', 'PhD in Clinical Psychology', 'Depression & Anxiety', '01550005566', 'mahmud.hasan@lifelinebd.org', 'Unavailable'),

('C1006', 'Dr. Liza Karim', 'MSc in Clinical Psychology', 'Career Counseling', '01718006677', 'liza.karim@careerpathbd.com', 'Available'),

('C1007', 'Dr. Shahin Alam', 'PhD in Mental Health', 'PTSD & Trauma', '01819007788', 'shahin.alam@healingbd.org', 'Available'),

('C1008', 'Dr. Ruma Sultana', 'MS in Psychology', 'Relationship Issues', '01617008899', 'ruma.sultana@connectbd.net', 'Unavailable'),

('C1009', 'Dr. Imran Hossain', 'MPhil in Counseling', 'Substance Abuse', '01999009900', 'imran.hossain@rehabbangladesh.com', 'Available'),

('C1010', 'Dr. Farhana Ahmed', 'MSc in Clinical Psychology', 'Women's Mental Health', '01714001010', 'farhana.ahmed@mindmattersbd.org', 'Available'),

('C1011', 'Dr. Tanvir Chowdhury', 'PhD in Psychology', 'Anger Management', '01512001111', 'tanvir.chowdhury@calmcenterbd.com', 'Unavailable'),

('C1012', 'Dr. Salma Khatun', 'MS in Educational Psychology', 'Learning Disabilities', '01818001212', 'salma.khatun@learningaidbd.com', 'Available'),

('C1013', 'Dr. Mehedi Hasan', 'PhD in Clinical Psychology', 'Suicidal Prevention', '01616001313', 'mehedi.hasan@lifesaverbd.org', 'Available'),

('C1014', 'Dr. Arifa Akter', 'MSc in Psychology', 'Stress Management', '01913001414', 'arifa.akter@wellbeingbd.net', 'Unavailable'),

('C1015', 'Dr. Nayeem Rahman', 'MS in Counseling Psychology', 'Grief Counseling', '01717001515', 'nayeem.rahman@hopecirclebd.com', 'Available');

2.Table Patient

CREATE TABLE Patient (

  PatientID VARCHAR(10) PRIMARY KEY,

  InstitutionID VARCHAR(10),

  Gender VARCHAR(10),

  Age INT,

  MentalHealthCondition VARCHAR(100)

```sql
);INSERT INTO Patient VALUES

('P2001', 'I1001', 'Female', 21, 'Anxiety'),

('P2002', 'I1002', 'Male', 22, 'Depression'),

('P2003', 'I1003', 'Female', 20, 'Academic Stress'),

('P2004', 'I1001', 'Male', 23, 'Addiction'),

('P2005', 'I1002', 'Female', 19, 'Relationship Issues'),

('P2006', 'I1004', 'Male', 24, 'Career Confusion'),

('P2007', 'I1005', 'Female', 22, 'PTSD'),

('P2008', 'I1006', 'Male', 20, 'Anger Issues'),

('P2009', 'I1001', 'Female', 25, 'Depression'),

('P2010', 'I1003', 'Male', 21, 'Anxiety'),

('P2011', 'I1002', 'Female', 22, 'Learning Disability'),

('P2012', 'I1004', 'Male', 23, 'Substance Abuse'),

('P2013', 'I1005', 'Female', 20, 'Stress'),

('P2014', 'I1003', 'Male', 22, 'Suicidal Thoughts'),

('P2015', 'I1002', 'Female', 19, 'Grief'),

('P2016', 'I1004', 'Male', 21, 'Depression'),

('P2017', 'I1005', 'Female', 23, 'Anxiety'),

('P2018', 'I1006', 'Male', 24, 'PTSD'),

('P2019', 'I1001', 'Female', 22, 'Academic Stress'),

('P2020', 'I1002', 'Male', 20, 'Substance Abuse');

SELECT * FROM Patient;
```

3.Table TherapySession

CREATE TABLE TherapySession (

SessionID VARCHAR(10) PRIMARY KEY,

PatientID VARCHAR(10),

CounselorID VARCHAR(10),

SessionDate DATE,

SessionType VARCHAR(50),

Notes TEXT,

ProgressStatus VARCHAR(50),

FOREIGN KEY (PatientID) REFERENCES Patient(PatientID),

FOREIGN KEY (CounselorID) REFERENCES Counselor(Counselor_Id)

);

INSERT INTO TherapySession VALUES

('S3001', 'P2001', 'C1010', '2025-09-05', 'Individual', 'Initial session focusing on anxiety triggers.', 'Ongoing'),

('S3002', 'P2002', 'C1005', '2025-09-07', 'Individual', 'Discussed coping mechanisms for depression.', 'Improving'),

('S3003', 'P2003', 'C1004', '2025-09-08', 'Group', 'Session on academic stress management.', 'Ongoing'),

('S3004', 'P2004', 'C1003', '2025-09-09', 'Individual', 'Started addiction recovery plan.', 'Ongoing'),

('S3005', 'P2005', 'C1008', '2025-09-10', 'Online', 'Counseling for relationship issues.', 'Completed'),

('S3006', 'P2006', 'C1006', '2025-09-11', 'Individual', 'Career goal assessment session.', 'Improving'),

('S3007', 'P2007', 'C1007', '2025-09-12', 'Individual', 'Trauma healing techniques introduced.', 'Ongoing'),

('S3008', 'P2008', 'C1011', '2025-09-13', 'Group', 'Anger control and breathing exercises.', 'Ongoing'),

('S3009', 'P2009', 'C1005', '2025-09-15', 'Individual', 'Progress review for depression therapy.', 'Completed'),

('S3010', 'P2010', 'C1010', '2025-09-17', 'Online', 'Managing social anxiety discussion.', 'Improving'),

('S3011', 'P2011', 'C1012', '2025-09-18', 'Individual', 'Assessed learning disability improvement.', 'Ongoing'),

('S3012', 'P2012', 'C1009', '2025-09-19', 'Individual', 'Early stage of substance abuse therapy.', 'Ongoing'),

('S3013', 'P2013', 'C1014', '2025-09-20', 'Group', 'Stress management breathing techniques.', 'Improving'),

('S3014', 'P2014', 'C1013', '2025-09-21', 'Individual', 'Suicidal prevention and safety planning.', 'Ongoing'),

('S3015', 'P2015', 'C1015', '2025-09-22', 'Online', 'Grief counseling after loss of parent.', 'Improving'),

('S3016', 'P2016', 'C1005', '2025-09-23', 'Individual', 'Review of depression medication response.', 'Ongoing'),

('S3017', 'P2017', 'C1010', '2025-09-24', 'Group', 'Anxiety support group discussion.', 'Improving'),

('S3018', 'P2018', 'C1007', '2025-09-25', 'Individual', 'Addressing PTSD flashbacks and nightmares.', 'Ongoing'),

('S3019', 'P2019', 'C1004', '2025-09-26', 'Online', 'Time management for reducing academic pressure.', 'Completed'),

('S3020', 'P2020', 'C1009', '2025-09-27', 'Individual', 'Addiction follow-up and family involvement.', 'Ongoing');

SELECT * FROM TherapySession;

4.Table NGO

```
CREATE TABLE NGO (

  NGO_ID VARCHAR(10) PRIMARY KEY,

  NGO_NAME VARCHAR(100),

  Focus_Area VARCHAR(100),

  Location VARCHAR(100),

  Contact VARCHAR(20)

);
```

INSERT INTO NGO VALUES

('NGO001', 'Helping Hands', 'Education', 'Dhaka', '01712345678'),

('NGO002', 'Green Earth', 'Environment', 'Chittagong', '01823456789'),

('NGO003', 'Food For All', 'Hunger Relief', 'Khulna', '01934567890'),

('NGO004', 'Health First', 'Healthcare', 'Rajshahi', '01645678901'),

('NGO005', 'Women Rise', 'Women Empowerment', 'Sylhet', '01556789012'),

('NGO006', 'Child Hope', 'Child Welfare', 'Barisal', '01767890123'),

('NGO007', 'Clean Future', 'Sanitation', 'Rangpur', '01878901234'),

('NGO008', 'Safe Shelter', 'Homeless Support', 'Mymensingh', '01989012345'),

('NGO009', 'TechForGood', 'Digital Education', 'Dhaka', '01690123456'),

('NGO010', 'WaterLife', 'Clean Water Access', 'Comilla', '01501234567'),

('NGO011', 'HopeBridge', 'Disaster Relief', 'Narayanganj', '01712345679'),

('NGO012', 'GreenLight', 'Renewable Energy', 'Gazipur', '01823456780'),

('NGO013', 'SkillUp', 'Vocational Training', 'Jessore', '01934567891'),

('NGO014', 'FeedBangla', 'Food Security', 'Bogura', '01645678902'),

('NGO015', 'CareBangla', 'Elderly Care', 'Pabna', '01556789013'),

('NGO016', 'BrightFuture', 'Youth Development', 'Feni', '01767890124'),

('NGO017', 'SaveNature', 'Wildlife Protection', 'Cox's Bazar', '01878901235'),

('NGO018', 'MindCare', 'Mental Health', 'Tangail', '01989012346'),

('NGO019', 'PeaceWorks', 'Community Building', 'Naogaon', '01690123457'),

('NGO020', 'AidConnect', 'Emergency Aid', 'Kushtia', '01501234568');

5.Table Institution

CREATE TABLE Institution (

  Institution_ID VARCHAR(10) PRIMARY KEY,

  Institution_Name VARCHAR(100),

  Location VARCHAR(100),

  Contact VARCHAR(20),

  Funding_Amount DECIMAL(10,2)

);

INSERT INTO Institution VALUES

('INS001', 'University of Asia Pacific', 'Green Road', '01712334455', 500000.00),

('INS002', 'Independent University, Bangladesh', 'Bosundhora', '01823445566', 350000.00),

('INS003', 'BRAC', 'Badda', '01934556677', 275000.50),

('INS004', 'Daffodil International University', 'Savar', '01645667788', 420000.00),

('INS005', 'American International University-Bangladesh', 'Dhaka', '01556778899', 310000.75),

('INS006', 'Dhaka University', 'Dhaka', '01767889900', 600000.00),

('INS007', 'Rajshahi University', 'Rajshahi', '01878990011', 265000.25),

('INS008', 'Leading University', 'Sylhet', '01989001122', 450000.00),

('INS009', 'Khulna University', 'Khulna', '01690112233', 340000.00),

('INS010', 'Cumilla University', 'Cumilla', '01501223344', 295000.00),

('INS011', 'Jessore University', 'Jessore', '01712334466', 255000.00),

('INS012', 'Jahanggir University', 'Savar', '01823445577', 385000.00),

('INS013', 'Pabna University', 'Pabna', '01934556688', 275500.00),

('INS014', 'Chittagang University', 'Chittagong', '01645667799', 190000.00),

('INS015', 'Jagannath University', 'Dhaka', '01556778800', 330000.00),

('INS016', 'Bangladesh University of Textiles', 'Dhaka', '01767889911', 260000.00),

('INS017', 'Barishal University', 'Barishal', '01878990022', 410000.00),

('INS018', 'Shahjalal University of Science and Technology', 'Sylhet', '0198-001133', 350500.00),

('INS019', 'Bangladesh University of Professionals', 'Dhaka', '01690112244', 285000.00),

('INS020', 'Military Institute of Science and Technology', 'Dhaka', '01501223355', 470000.00);

6.Table Funding

CREATE TABLE Funding (

  Funding_ID VARCHAR(10) PRIMARY KEY,

Institution_ID VARCHAR(10),

NGO_ID VARCHAR(10),

Amount DECIMAL(10,2),

Funding_Date DATE);

INSERT INTO Funding VALUES

('FUND001', 'INS001', 'NGO001', 250000.00, '2023-02-15'),

('FUND002', 'INS002', 'NGO002', 180000.50, '2023-03-10'),

('FUND003', 'INS003', 'NGO003', 220000.00, '2023-05-21'),

('FUND004', 'INS004', 'NGO004', 300000.00, '2023-07-05'),

('FUND005', 'INS005', 'NGO005', 150000.00, '2023-08-30'),

('FUND006', 'INS006', 'NGO006', 275000.75, '2023-09-25'),

('FUND007', 'INS007', 'NGO007', 320000.00, '2023-10-12'),

('FUND008', 'INS008', 'NGO008', 295000.00, '2023-11-18'),

('FUND009', 'INS009', 'NGO009', 310000.50, '2024-01-07'),

('FUND010', 'INS010', 'NGO010', 205000.00, '2024-02-11'),

('FUND011', 'INS011', 'NGO011', 260000.00, '2024-03-14'),

('FUND012', 'INS012', 'NGO012', 340000.00, '2024-05-20'),

('FUND013', 'INS013', 'NGO013', 285000.00, '2024-06-09'),

('FUND014', 'INS014', 'NGO014', 195000.00, '2024-07-27'),

('FUND015', 'INS015', 'NGO015', 375000.00, '2024-09-10'),

('FUND016', 'INS016', 'NGO016', 210000.50, '2024-10-01'),

('FUND017', 'INS017', 'NGO017', 425000.00, '2024-11-22'),

('FUND018', 'INS018', 'NGO018', 190000.00, '2025-01-05'),

('FUND019', 'INS019', 'NGO019', 270000.00, '2025-03-15'),

('FUND020', 'INS020', 'NGO020', 310000.00, '2025-05-09');

7.Table EvaluationFrom

CREATE TABLE EvaluationForm (

  Evaluation_ID VARCHAR (10) PRIMARY KEY,

  Patient_ID VARCHAR (10),

  Rating INT CHECK (Rating BETWEEN 1 AND 5),

  Comments TEXT,

  FOREIGN KEY (Patient_ID) REFERENCES Patient(PatientID)

);

INSERT INTO EvaluationForm VALUES

('EVAL001', 'P2001', 4, 'Patient showing steady improvement.'),

('EVAL002', 'P2002', 3, 'Needs further sessions for confidence building.'),

('EVAL003', 'P2003', 5, 'Significant reduction in stress levels.'),

('EVAL004', 'P2004', 2, 'Requires more therapy for anxiety control.'),

('EVAL005', 'P2005', 4, 'Positive progress noted after mindfulness sessions.'),

('EVAL006', 'P2006', 3, 'Slight improvement in trauma management.'),

('EVAL007', 'P2007', 5, 'Excellent progress; OCD symptoms reduced.'),

('EVAL008', 'P2008', 4, 'Shows motivation towards recovery.'),

('EVAL009', 'P2009', 3, 'Needs better sleep hygiene practices.'),

('EVAL010', 'P2010', 2, 'Patient still facing sleep-related issues.');

8. Table Progress

```sql
CREATE TABLE Progress (
  Progress_ID VARCHAR (10) PRIMARY KEY,
  Patient_ID VARCHAR (10),
  Progress_Score DECIMAL (5,2),
  Last_Update DATE,
  Discount_Eligible VARCHAR (20),
  FOREIGN KEY (Patient_ID) REFERENCES Patient (PatientID)
);


INSERT INTO Progress VALUES
('PROG001', 'P2001', 88.50, '2024-03-15', 'Yes'),
('PROG002', 'P2002', 75.20, '2024-04-10', 'No'),
('PROG003', 'P2003', 92.00, '2024-05-01', 'Yes'),
('PROG004', 'P2004', 64.75, '2024-05-20', 'Partial'),
('PROG005', 'P2005', 80.30, '2024-06-12', 'Yes'),
('PROG006', 'P2006', 70.10, '2024-07-05', 'No'),
('PROG007', 'P2007', 95.60, '2024-07-28', 'Yes'),
('PROG008', 'P2008', 85.45, '2024-08-15', 'Yes'),
('PROG009', 'P2009', 74.00, '2024-09-01', 'Partial'),
('PROG010', 'P2010', 68.25, '2024-09-20', 'No');


SELECT *FROM Progress;
```

9.Table AwarnessProgram

CREATE TABLE AwarenessProgram (

  Event_ID VARCHAR (10) PRIMARY KEY,

  Event_Name VARCHAR (100),

  Event_Location VARCHAR (100),

  Target_Audience VARCHAR (100),

  Counselor_ID VARCHAR (10),

  NGO_ID VARCHAR (10),

  FOREIGN KEY (Counselor_ID) REFERENCES Counselor(Counselor_Id),

  FOREIGN KEY (NGO_ID) REFERENCES NGO(NGO_ID)

);

INSERT INTO AwarenessProgram VALUES

('EVT001', 'Mindfulness for Students', 'Dhaka', 'College Students', 'C1004', 'NGO018'),

('EVT002', 'Coping with Depression', 'Chittagong', 'University Students', 'C1005', 'NGO018'),

('EVT003', 'Mental Health in Workplace', 'Khulna', 'Corporate Employees', 'C1003', 'NGO004'),

('EVT004', 'Stress Relief Camp', 'Rajshahi', 'Teachers', 'C1014', 'NGO018'),

('EVT005', 'Anxiety Awareness', 'Sylhet', 'Young Adults', 'C1001', 'NGO018'),

('EVT006', 'Overcoming PTSD', 'Barisal', 'Trauma Survivors', 'C1007', 'NGO018'),

('EVT007', 'Child Mental Health', 'Rangpur', 'Parents & Teachers', 'C1012', 'NGO006'),

('EVT008', 'Digital Detox Workshop', 'Mymensingh', 'Teenagers', 'C1006', 'NGO009'),

('EVT009', 'Addiction Prevention', 'Gazipur', 'Youth', 'C1009', 'NGO017'),

('EVT010', 'Women Empowerment Talk', 'Comilla', 'Women', 'C1010', 'NGO005'),

('EVT011', 'Anger Management Seminar', 'Narayanganj', 'Working Professionals', 'C1011', 'NGO018'),

('EVT012', 'Suicide Prevention Drive', 'Jessore', 'Community Leaders', 'C1013', 'NGO018'),

('EVT013', 'Healthy Mind, Healthy Life', 'Bogura', 'Public', 'C1002', 'NGO004'),

('EVT014', 'Career Stress Management', 'Pabna', 'Graduates', 'C1006', 'NGO009'),

('EVT015', 'Positive Parenting', 'Feni', 'Parents', 'C1012', 'NGO006'),

('EVT016', 'Mind & Music Festival', 'Cox's Bazar', 'Tourists', 'C1008', 'NGO017'),

('EVT017', 'Work-Life Balance', 'Tangail', 'Office Workers', 'C1009', 'NGO018'),

('EVT018', 'Mental Health Awareness Marathon', 'Naogaon', 'Public', 'C1005', 'NGO019'),

('EVT019', 'Dealing with Grief', 'Kushtia', 'Bereaved Families', 'C1015', 'NGO018'),

('EVT020', 'Community Wellness Fair', 'Dinajpur', 'General Public', 'C1001', 'NGO020');

QUERIES

01.SELECT * FROM Patient

Record from the Patient table with all columns Shows every and details.

```
+-----------+---------------+---------+------+-----------------------+
| PatientID | InstitutionID | Gender  | Age  | MentalHealthCondition |
+-----------+---------------+---------+------+-----------------------+
| P2001     | I1001         | Female  |   21 | Anxiety               |
| P2002     | I1002         | Male    |   22 | Depression            |
| P2003     | I1003         | Female  |   20 | Academic Stress       |
| P2004     | I1001         | Male    |   23 | Addiction             |
| P2005     | I1002         | Female  |   19 | Relationship Issues   |
| P2006     | I1004         | Male    |   24 | Career Confusion      |
| P2007     | I1005         | Female  |   22 | PTSD                  |
| P2008     | I1006         | Male    |   20 | Anger Issues          |
| P2009     | I1001         | Female  |   25 | Depression            |
| P2010     | I1003         | Male    |   21 | Anxiety               |
| P2011     | I1002         | Female  |   22 | Learning Disability   |
| P2012     | I1004         | Male    |   23 | Substance Abuse       |
| P2013     | I1005         | Female  |   20 | Stress                |
| P2014     | I1003         | Male    |   22 | Suicidal Thoughts     |
| P2015     | I1002         | Female  |   19 | Grief                 |
| P2016     | I1004         | Male    |   21 | Depression            |
| P2017     | I1005         | Female  |   23 | Anxiety               |
| P2018     | I1006         | Male    |   24 | PTSD                  |
| P2019     | I1001         | Female  |   22 | Academic Stress       |
| P2020     | I1002         | Male    |   20 | Substance Abuse       |
+-----------+---------------+---------+------+-----------------------+
```

02.SELECT Name, Specialisation , Qualification FROM Counselor;

Lists each counselor's name, area of specialization, and qualifications.

```
+---------------------+------------------------+-------------------------------+
| Name                | Specialisation         | Qualification                 |
+---------------------+------------------------+-------------------------------+
| Dr. Rafi Islam      | Child Counseling       | MSc in Clinical Psychology    |
| Dr. Nusrat Jahan    | Family Therapy         | PhD in Psychiatry             |
| Dr. Shuvo Rahman    | Addiction Recovery     | MPhil in Psychology           |
| Dr. Tania Akter     | Academic Stress        | MS in Counseling Psychology   |
| Dr. Mahmud Hasan    | Depression & Anxiety   | PhD in Clinical Psychology    |
| Dr. Liza Karim      | Career Counseling      | MSc in Clinical Psychology    |
| Dr. Shahin Alam     | PTSD & Trauma          | PhD in Mental Health          |
| Dr. Ruma Sultana    | Relationship Issues    | MS in Psychology              |
| Dr. Imran Hossain   | Substance Abuse        | MPhil in Counseling           |
| Dr. Farhana Ahmed   | Women's Mental Health  | MSc in Clinical Psychology    |
| Dr. Tanvir Chowdhury| Anger Management       | PhD in Psychology             |
| Dr. Salma Khatun    | Learning Disabilities  | MS in Educational Psychology  |
| Dr. Mehedi Hasan    | Suicidal Prevention    | PhD in Clinical Psychology    |
| Dr. Arifa Akter     | Stress Management       | MSc in Psychology             |
| Dr. Nayeem Rahman   | Grief Counseling       | MS in Counseling Psychology   |
+---------------------+------------------------+-------------------------------+
```

03.SELECT SessionID, SessionDate, SessionType, Notes FROM TherapySession WHERE PatientID = 'P2001';

Lists all sessions attended by patient P2001with date, type, and notes...

```
+-----------+-------------+-------------+-----------------------------------------------+
| SessionID | SessionDate | SessionType | Notes                                         |
+-----------+-------------+-------------+-----------------------------------------------+
| S3001     | 2025-09-05  | Individual  | Initial session focusing on anxiety triggers. |
+-----------+-------------+-------------+-----------------------------------------------+
```

04.SELECT Rating, Comments FROM EvaluationForm WHERE Patient_ID = 'P2002';

Shows how patient P2002 was rated and what comments were given in evaluations.

```
+--------+------------------------------------------------+
| Rating | Comments                                       |
+--------+------------------------------------------------+
|      3 | Needs further sessions for confidence building.|
+--------+------------------------------------------------+
```

05.SELECT NGO_NAME, Focus Area, Location FROM NGO;

Displays each NGO's name, what issue they focus on, and where they operate.

```
| NGO_NAME      | Focus_Area          | Location     |
+---------------+---------------------+--------------+
| Helping Hands | Education           | Dhaka        |
| Green Earth   | Environment         | Chittagong   |
| Food For All  | Hunger Relief       | Khulna       |
| Health First  | Healthcare          | Rajshahi     |
| Women Rise    | Women Empowerment   | Sylhet       |
| Child Hope    | Child Welfare       | Barisal      |
| Clean Future  | Sanitation          | Rangpur      |
| Safe Shelter  | Homeless Support    | Mymensingh   |
| TechForGood   | Digital Education   | Dhaka        |
| WaterLife     | Clean Water Access  | Comilla      |
| HopeBridge    | Disaster Relief     | Narayanganj  |
| GreenLight    | Renewable Energy    | Gazipur      |
| SkillUp       | Vocational Training | Jessore      |
| FeedBangla    | Food Security       | Bogura       |
| CareBangla    | Elderly Care        | Pabna        |
| BrightFuture  | Youth Development   | Feni         |
| SaveNature    | Wildlife Protection | Cox's Bazar  |
| MindCare      | Mental Health       | Tangail      |
| PeaceWorks    | Community Building   | Naogaon      |
| AidConnect    | Emergency Aid       | Kushtia      |
+---------------+---------------------+--------------+
```

06.SELECT Patient_ID, AVG(Rating) AS AvgRating FROM EvaluationForm GROUP BY Patient_ID;

Groups evaluations by patient and computes each one's average rating.

```
+------------+-----------+
| Patient_ID | AvgRating |
+------------+-----------+
| P2001      |    4.0000 |
| P2002      |    3.0000 |
| P2003      |    5.0000 |
| P2004      |    2.0000 |
| P2005      |    4.0000 |
| P2006      |    3.0000 |
| P2007      |    5.0000 |
| P2008      |    4.0000 |
| P2009      |    3.0000 |
| P2010      |    2.0000 |
+------------+-----------+
```

07.SELECT p.PatientID, pr.Discount_Eligible FROM Patient p JOIN Progress pr ON p.PatientID = pr.Patient_ID WHERE pr.Discount_Eligible IN ('Yes', 'Partial');

Lists patients who qualify for full or partial therapy fee discounts.

```
+-----------+------------------+
| PatientID | Discount_Eligible |
+-----------+------------------+
| P2001     | Yes              |
| P2003     | Yes              |
| P2004     | Partial          |
| P2005     | Yes              |
| P2007     | Yes              |
| P2008     | Yes              |
| P2009     | Partial          |
+-----------+------------------+
```

08. SELECT * FROM TherapySession WHERE CounselorID = 'C1005' AND SessionDate BETWEEN '2025-09-01' AND '2025-09-30';

Filters all therapy sessions by CounselorID = C1005 and the month of September 2025.

```
+----------+-----------+------------+-------------+-------------+-------------------------------------------+----------------+
| SessionID| PatientID | CounselorID| SessionDate | SessionType | Notes                                     | ProgressStatus |
+----------+-----------+------------+-------------+-------------+-------------------------------------------+----------------+
| S3002    | P2002     | C1005      | 2025-09-07  | Individual  | Discussed coping mechanisms for depression.| Improving     |
| S3009    | P2009     | C1005      | 2025-09-15  | Individual  | Progress review for depression therapy.   | Completed      |
| S3016    | P2016     | C1005      | 2025-09-23  | Individual  | Review of depression medication response. | Ongoing        |
+----------+-----------+------------+-------------+-------------+-------------------------------------------+----------------+
```

09.SELECT i.Institution_Name, SUM(f.Amount) AS TotalFunding FROM Institution I JOIN Funding f ON i.Institution_ID = f.Institution_ID GROUP BY i.Institution_Name;

Adds up all funding amounts grouped by institution name

```
+------------------------------------------------+-------------+
| Institution_Name                               | TotalFunding |
+------------------------------------------------+-------------+
| University of Asia Pacific                     |   250000.00 |
| Independent University, Bangladesh             |   180000.50 |
| BRAC                                           |   220000.00 |
| Daffodil International University              |   300000.00 |
| American International University-Bangladesh   |   150000.00 |
| Dhaka University                               |   275000.75 |
| Rajshahi University                            |   320000.00 |
| Leading University                             |   295000.00 |
| Khulna University                              |   310000.50 |
| Cumilla University                             |   205000.00 |
| Jessore University                             |   260000.00 |
| Jahanggir University                           |   340000.00 |
| Pabna University                               |   285000.00 |
| Chittagang University                          |   195000.00 |
| Jagannath University                           |   375000.00 |
| Bangladesh University of Textiles              |   210000.50 |
| Barishal University                            |   425000.00 |
| Shahjalal University of Science and Technology |   190000.00 |
| Bangladesh University of Professionals         |   270000.00 |
| Military Institute of Science and Technology   |   310000.00 |
+------------------------------------------------+-------------+
```

10.SELECT DISTINCT p.PatientID FROM Patient p JOIN EvaluationForm e ON p.PatientID = e.Patient_ID WHERE p.MentalHealthCondition = 'Depression' AND e.Rating < 5;

Finds patients diagnosed with Depression who received low evaluation scores (<5).

```
+-----------+
| PatientID |
+-----------+
| P2002     |
| P2009     |
+-----------+
```

11.SELECT Name, Contact FROM Counselor WHERE Availability = 'Available';

Displays only those counselors marked as available in thedatabase

```
+-------------------+------------+
| Name              | Contact    |
+-------------------+------------+
| Dr. Rafi Islam    | 01712001122 |
| Dr. Shuvo Rahman  | 01689003344 |
| Dr. Tania Akter   | 01911004455 |
| Dr. Liza Karim    | 01718006677 |
| Dr. Shahin Alam   | 01819007788 |
| Dr. Imran Hossain | 01999009900 |
| Dr. Farhana Ahmed | 01714001010 |
| Dr. Salma Khatun  | 01818001212 |
| Dr. Mehedi Hasan  | 01616001313 |
| Dr. Nayeem Rahman | 01717001515 |
+-------------------+------------+
```

12.SELECT Event_Name, Event_Location FROM AwarenessProgram WHERE Target_Audience LIKE '%Students%';

List all awareness events aimed at students

```
+-------------------------+----------------+
| Event_Name              | Event_Location |
+-------------------------+----------------+
| Mindfulness for Students | Dhaka         |
| Coping with Depression  | Chittagong     |
+-------------------------+----------------+
```

13. SELECT p.PatientID, COALESCE(pr.Progress_Score, AVG(e.Rating)*20) AS ProgressScore FROM Patient p LEFT JOIN Progress pr ON p.PatientID = pr.Patient_ID LEFT JOIN EvaluationForm e ON p.PatientID = e.Patient_ID GROUP BY p.PatientID, pr.Progress_Score;

Displays each patient's progress score either the recorded value or an estimated one using average rating.

```
+-----------+---------------+
| PatientID | ProgressScore |
+-----------+---------------+
| P2001     |       88.5000 |
| P2002     |       75.2000 |
| P2003     |       92.0000 |
| P2004     |       64.7500 |
| P2005     |       80.3000 |
| P2006     |       70.1000 |
| P2007     |       95.6000 |
| P2008     |       85.4500 |
| P2009     |       74.0000 |
| P2010     |       68.2500 |
| P2011     |          NULL |
| P2012     |          NULL |
| P2013     |          NULL |
| P2014     |          NULL |
| P2015     |          NULL |
| P2016     |          NULL |
| P2017     |          NULL |
| P2018     |          NULL |
| P2019     |          NULL |
| P2020     |          NULL |
+-----------+---------------+
```

14.SELECT c.Name, COUNT(*) AS SessionCount FROM Counselor c JOIN TherapySession t ON c.Counselor_Id = t.CounselorID GROUP BY c.NameORDER BY SessionCount DESC LIMIT 1;

Counts each counselor's total sessions and shows the one with the highest count.

```
+------------------+--------------+
| Name             | SessionCount |
+------------------+--------------+
| Dr. Mahmud Hasan |            3 |
+------------------+--------------+
```

15. SELECT p.PatientID, pr.Progress_Score, pr.Discount_Eligible FROM Patient p JOIN Progress pr ON p.PatientID = pr.Patient_ID WHERE pr.Progress_Score > 80;

Finds high- performing patients (score > 80) and displays whether they get a discount.

```
+-----------+----------------+------------------+
| PatientID | Progress_Score | Discount_Eligible |
+-----------+----------------+------------------+
| P2001     |          88.50 | Yes              |
| P2003     |          92.00 | Yes              |
| P2005     |          80.30 | Yes              |
| P2007     |          95.60 | Yes              |
| P2008     |          85.45 | Yes              |
+-----------+----------------+------------------+
```

16. SELECT p.PatientID, COUNT(t.SessionID) AS TotalSessions

FROM Patient p LEFT JOIN TherapySession t ON p.PatientID = t.PatientID GROUP BY p.PatientID;

Counts how many therapy sessions each patient hasjoined.

```
+-----------+---------------+
| PatientID | TotalSessions |
+-----------+---------------+
| P2001     |             1 |
| P2002     |             1 |
| P2003     |             1 |
| P2004     |             1 |
| P2005     |             1 |
| P2006     |             1 |
| P2007     |             1 |
| P2008     |             1 |
| P2009     |             1 |
| P2010     |             1 |
| P2011     |             1 |
| P2012     |             1 |
| P2013     |             1 |
| P2014     |             1 |
| P2015     |             1 |
| P2016     |             1 |
| P2017     |             1 |
| P2018     |             1 |
| P2019     |             1 |
| P2020     |             1 |
+-----------+---------------+
```

17. SELECT i.Institution_Name, SUM(f.Amount) AS TotalFunding

FROM Institution I JOIN Funding f ON i.Institution_ID = f.Institution_ID GROUP BY i.Institution_Name

HAVING SUM(f.Amount) > 300000;

Shows institutions whose total funding exceeds 300,000 units.

```
+------------------------------------------+--------------+
| Institution_Name                         | TotalFunding |
+------------------------------------------+--------------+
| Rajshahi University                      |    320000.00 |
| Khulna University                        |    310000.50 |
| Jahanggir University                     |    340000.00 |
| Jagannath University                     |    375000.00 |
| Barishal University                      |    425000.00 |
| Military Institute of Science and Technology | 310000.00 |
+------------------------------------------+--------------+
```

18. SELECT p.PatientID, MAX(t.SessionDate) AS LastSession

FROM Patient p JOIN TherapySession t ON p.PatientID =t.PatientID GROUP BY p.PatientID HAVING MAX(t.SessionDate) >= DATE_SUB(CURDATE(), INTERVAL 30 DAY);

Displays patients who attended therapy at least once in the past month.

```
+-----------+-------------+
| PatientID | LastSession |
+-----------+-------------+
| P2012     | 2025-09-19  |
| P2013     | 2025-09-20  |
| P2014     | 2025-09-21  |
| P2015     | 2025-09-22  |
| P2016     | 2025-09-23  |
| P2017     | 2025-09-24  |
| P2018     | 2025-09-25  |
| P2019     | 2025-09-26  |
| P2020     | 2025-09-27  |
+-----------+-------------+
```

19. SELECT DISTINCT c.Name FROM Counselor c

JOIN TherapySession t ON c.Counselor_Id = t.CounselorID

JOIN Patient p ON t.PatientID = p.PatientID WHERE p.MentalHealthCondition = 'PTSD';

Finds which counselors have worked with PTSD-diagnosed patients.

```
+----------------+
| Name           |
+----------------+
| Dr. Shahin Alam |
+----------------+
```

20. SELECT c.Name, AVG(e.Rating) AS AvgRating FROM Counselor c JOIN TherapySession t ON c.Counselor_Id = t.CounselorID JOIN EvaluationForm e ON t.SessionID = e.Evaluation_ID GROUP BY c.Name;

The query joins the counselor, TherapySession, and EvaluationFrom tables to calculate the average rating each counselor received. However, science no matching records exist across all three tables, the output is empty.

21.SELECT Patient_ID, Progress_ScoreFROM Progress WHERE Progress_Score > ALL (SELECT Progress_Score FROM Progress WHERE Patient_ID IN (SELECT PatientID FROM Patient WHERE Age < 21));

Finds patients who scored higher than every patient under 21

```
+------------+----------------+
| Patient_ID | Progress_Score |
+------------+----------------+
| P2007      |          95.60 |
+------------+----------------+
```

22. SELECT PatientID, Age FROM Patient WHERE Age < ANY (SELECT LENGTH(Qualification) FROM Counselor);

Compares patient age with string length of counselor qualifications (always outputs).

```
+-----------+------+
| PatientID | Age  |
+-----------+------+
| P2001     |   21 |
| P2002     |   22 |
| P2003     |   20 |
| P2004     |   23 |
| P2005     |   19 |
| P2006     |   24 |
| P2007     |   22 |
| P2008     |   20 |
| P2009     |   25 |
| P2010     |   21 |
| P2011     |   22 |
| P2012     |   23 |
| P2013     |   20 |
| P2014     |   22 |
| P2015     |   19 |
| P2016     |   21 |
| P2017     |   23 |
| P2018     |   24 |
| P2019     |   22 |
| P2020     |   20 |
+-----------+------+
+-----------+------
```

23. SELECT Patient_ID, Progress_Score FROM Progress WHERE Progress_Score > ALL (SELECT Progress_Score FROM Progress WHERE Discount_Eligible = 'No');

Patients whose progress score is greater than all patients who are not eligible for discount

```
+-----------+----------------+
| Patient_ID | Progress_Score |
+-----------+----------------+
| P2001     |          88.50 |
| P2003     |          92.00 |
| P2005     |          80.30 |
| P2007     |          95.60 |
| P2008     |          85.45 |
+-----------+----------------+
```

24. SELECT PatientID FROM TherapySession WHERE CounselorID IN (SELECT CounselorID FROM TherapySession GROUP BY CounselorID HAVING COUNT(*) < (SELECT AVG(SessionCount) FROM (SELECT COUNT(*) AS SessionCount FROM TherapySession GROUP BY CounselorID) AS T));

Lists the patients who were attended by counselors having below-average number of sessions.

```
+-----------+
| PatientID |
+-----------+
| P2004     |
| P2005     |
| P2006     |
| P2008     |
| P2011     |
| P2013     |
| P2014     |
| P2015     |
+-----------+
```

25. SELECT Patient_ID FROM Patient WHERE Patient_ID NOT IN (SELECT DISTINCT Patient_ID FROM EvaluationForm);

Shows Patients who have *never* filled an evaluation form.

```
+-----------+
+-----------+
| PatientID |
+-----------+
| P2011     |
| P2012     |
| P2013     |
| P2014     |
| P2015     |
| P2016     |
| P2017     |
| P2018     |
| P2019     |
| P2020     |
+-----------+
```

CEP MAPPING (K–P–A)

K – Knowledge

CEP Component	Code	Attribute	How We Achieved It
Knowledge (K)	K1	Core engineering fundamentals	Applied database fundamentals such as entity creation, primary/foreign keys, normalization, and relationship identification while designing the complete schema.
Knowledge (K)	K2	Use of mathematics, science & IT	Implemented SQL operations using logical conditions, date functions, aggregations, and statistical calculations (average ratings, session counts).
Knowledge (K)	K3	Theory-based modeling	Developed ER diagrams and normalized tables (1NF-3NF) strictly following DBMS theoretical guidelines.
Knowledge (K)	K4	Specialized engineering knowledge	Used advanced SQL concepts (subqueries, ANY/ALL operators, constraints) to build a robust mental-health support database.
Knowledge (K)	K6	Use of modern engineering practices	Created a fully functional database using SQL DDL & DML, maintaining referential integrity and realistic workflow mapping.
Knowledge (K)	K8	Social, ethical & sustainability awareness	Ensured ethical handling of mental-health data by introducing AnonymousID, controlled access, and sustainable funding mechanisms involving institutions and NGOs.

P – Problem Solving

CEP Component	Code	Attribute	How We Achieved It
Problem Solving (P)	P1	Depth of engineering knowledge required	Designed multiple interconnected entities covering therapy sessions, evaluations, progress tracking, and funding flows.
Problem Solving (P)	P2	Conflicting requirements	Balanced student privacy with counselor availability, institutional reporting needs, and NGO funding constraints.
Problem Solving (P)	P3	Non-routine, abstract problem	Translated real counseling procedures into structured entities like TherapySession,

CEP Component	Code	Attribute	How We Achieved It
			Progress, Evaluation, and AwarenessProgram.
Problem Solving (P)	**P5**	Multiple stakeholders involved	Considered requirements of students, counselors, academic institutions, and NGOs in one unified database.
Problem Solving (P)	**P7**	Large, interconnected problem scope	Built a system with 6+ linked tables representing scheduling, therapy, evaluation, notifications, and funding processes.

A – Activities

CEP Component	Code	Attribute	How We Achieved It
Activities (A)	**A1**	Use of diverse resources	Integrated sessions, personal data, counselor information, progress updates, and NGO funding within a single system.
Activities (A)	**A2**	Coordination of complex interactions	Managed dependencies between Student-Counselor mapping, funding distribution, progress updates, and evaluations.
Activities (A)	**A3**	Innovation & practical application	Implemented anonymous identity tracking, subquery-based insights, and a modular design linking therapy, progress, and funding.
Activities (A)	**A4**	Societal and ethical responsibility	Designed the system to promote student well-being, data confidentiality, and long-term accessibility through institutional and NGO support.

FUTURE IMPROVEMEMT

1. **Web-Based Portal Development**: We aim to build a user-friendly online platform for students and counselors to access the system remotely.
2. **Automated Scheduling & Notifications**: We plan to implement automatic session scheduling and reminders to improve engagement for both students and counselors.
3. **AI-Driven Psychological Trend Analysis**: We envision using AI to analyze therapy data, detect mental health patterns, and provide personalized recommendations.

4. **Real-Time Counselor-Student Chat Support**: We want to enable instant messaging so students can get guidance and support between sessions.
5. **Mobile App Integration**: We intend to develop a mobile application for easy access to sessions, progress tracking, and awareness programs.
6. **Encryption for Sensitive Records** We will ensure student mental health data is secure through end-to-end encryption and strict privacy controls.

REFERENCES

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3. Coronel, C., & Morris, S. (2015). Database Systems: Design, Implementation, & Management. Cengage Learning.

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5. American Psychological Association. (2020). Guidelines for Mental Health Services in Educational Institutions.

CONCLUSION

In this project, we developed a Mental Health Portal database to support students' psychological well-being. The system manages students, counselors, therapy sessions, progress reports, evaluations, institutions, NGOs, and awareness programs efficiently through a well-structured relational schema and normalized tables.

By designing ER diagrams, implementing relationships, and writing complex queries, we ensured secure data handling, accurate progress tracking, and meaningful reporting. The project enhanced our knowledge of database concepts, SQL skills, and practical problem-solving, while also emphasizing ethical management of sensitive information.

Overall, the Mental Health Portal provides a foundation for future improvements such as web and mobile access, automated scheduling, AI-driven analysis, and real-time counselor-student support, ensuring accessible, continuous, and secure mental health care for students.

DRIVE LINK