COMPLETE PROJECT PDF

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Mental Health Database Capstone Project

DTSC 691: Applied Data Science

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10/13/2024

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Problem Domain

The problem domain that is taken into consideration is "**Mental Health Data Management**". In the healthcare industry, electronic health records have been increasingly implemented in clinics across the United States, major challenges include missing or erroneous data and ensuring accuracy of treatment outcomes (Kim et. al, 2024). **Mental health services** too, often struggle with managing large volumes of data, which includes patient care, therapist schedules, billing, and treatment outcomes.

The **Mindful Health Clinic**, specializing in outpatient therapy via telehealth for anxiety and mood disorders, is no exception. They cater towards patients from all over the United States via telehealth. The clinic has noticed inefficient patient record management including basic patient information, tracking treatments, and therapist schedules, among other vital documentation.

Recently opened in September 2023, the clinic is working on retrieving data from their first year of business to assess performance, patient demographics, and treatment outcome analysis. However, their current system is disjointed and inefficient when it comes to managing a diverse patient load.

Pitch to the Clinic:

Problem: The Mindful Health Clinic faces a common challenge faced by many growing healthcare clinics, which is ensuring personalized and high-quality patient care and treatment. The clinic's current system is disorganized with their data and is disjointed, and this is causing immense difficulty in record vital patient encounter information.

Solution: This project proposes developing an integrated relational database that is help manage patient and clinic data more efficiently and effectively. Also, this project will also provide comprehensive data analysis of the clinic's performance since its opening to provide valuable business insights designed to improve patient care, treatment outcomes, and make important business decisions moving forward.

Database Design and Assumptions

This database with consist of **10 interconnected tables** that represent key entities such as patients, therapists, therapist schedules, therapy sessions, medications, mental health screening, claims, insurance, and billing information. This database design will aim to address the Mindful Health Clinic's concerns about managing patient records, as well as therapist schedules, billing, claims, medications and treatments more accurately and efficiently.

Table Design

Here is a detailed explanation of each table, its purpose, and its relationships with other tables.

1. Patient

- **Purpose**: This table stores the demographic information for each patient.
- **Attributes**:
    - patient_id (Primary Key): Uniquely identify with each patient.
    - first_name, last_name: The patient's name.
    - dob: The patient's date of birth.
    - gender, phone_number, medical_history_notes, address (street, city, state, zipcode): Contact information and personal medical details.
- **Relationship**: One patient can have multiple therapy sessions, claims, bills, and medications. They can only have one active insurance policy.

2. Therapist

- **Purpose**: This table stores information about the therapists employed at the clinic.
- **Attributes**:
    - therapist_id (Primary Key): Uniquely identify with each therapist.
    - first_name, last_name: Therapist's name.
    - specialization, qualification: Details about the therapist's expertise.
- **Relationship**: A therapist can see multiple patients, have multiple therapy sessions and prescribe medications.

3. TherapistSchedule

- **Purpose**: This table displays the schedule of each therapist.
- **Attributes**:
    - schedule_id (Primary Key): Uniquely identifies each schedule entry.
    - therapist_id (Foreign Key): Links to the Therapist table.
    - dayoftheweek, start_time, end_time: Details about the therapist's availability.
- **Relationship**: Each therapist can have multiple scheduled time slots for appointments during the week.

4. Therapy

- **Purpose**: This table records therapy sessions for patients.
- **Attributes**:
    - therapy_id (Primary Key): Uniquely identifies each therapy session.
    - patient_id (Foreign Key): Links to the Patient table.
    - appointment_date, duration_minutes: Date and duration (in minutes) of the therapy session.
    - therapy_notes, followup_required: Information about the session and follow-up requirements.
- **Relationship**: A patient can undergo multiple therapy sessions, each of which is associated with a therapist and can generate a bill.

5. Medication

- **Purpose**: This table records medications prescribed to patients by therapists.
- **Attributes**:
    - medication_id (Primary Key): Uniquely identifying each medication.
    - patient_id (Foreign Key): Links to the Patient table.
    - therapist_id (Foreign Key): Links to the Therapist table.

    - medication_name, dosage, start_date, end_date: Medication details.

- **Relationship**: Therapists can prescribe multiple medications to patients.

6. MentalHealthScreening

- **Purpose**: This table records mental health screening assessments for patients.
- **Attributes**:
    - screening_id (Primary Key): Uniquely identifies each screening.
    - patient_id (Foreign Key): Links to the Patient table.
    - form_no, assessment_date, assessment_type, score, notes: Details of the mental health assessment include type of form (PHQ-9 or GAD-7), date of assessment, type of assessment (Initial or Follow-Up), score of the assessment, and notes details severity of disorder.
- **Relationship**: A patient can undergo zero to multiple screenings.

7. Insurance

- **Purpose**: This table stores information about a patient's insurance policy.
- **Attributes**:
    - insurance_id (Primary Key): Uniquely identifies each insurance policy.
    - patient_id (Foreign Key): Links to the Patient table.
    - provider_name, policy_number, plan_name, is_active: Insurance details, including whether the plan is currently active.
- **Relationship**: Each patient can have zero to one insurance policy, and the Insurance table links to the Claim table.

8. Claim

- **Purpose**: This table records claims filed by patients for insurance coverage.
- **Attributes**:
    - claim_id (Primary Key): Uniquely identifies each claim.
    - patient_id (Foreign Key): Links to the Patient table.
    - insurance_id (Foreign Key): Links to the Insurance table.

  - claim_date, claim_amount, is_claim_approved, claim_amount_approved: Details about the claim, including whether or not is was approved and how much.

- **Relationship**: Claims are related to both patients and their insurance policies, and payments can be processed through claims.

9. Bill

- **Purpose**: This table stores billing information related to patient therapy sessions.
- **Attributes**:
  - bill_id (Primary Key): Uniquely identifies each bill.
  - patient_id (Foreign Key): Links to the Patient table.
  - therapist_id (Foreign Key): Links to the Therapist table.
  - therapy_id (Foreign Key): Links to the Therapy table.
  - amount_due, amount_paid, billing_status, notes: Financial details about the therapy session, including whether the status of the bill is paid, partially paid, or unpaid.
- **Relationship**: Each therapy session generates a bill, which is related to patient, therapist, and therapy.

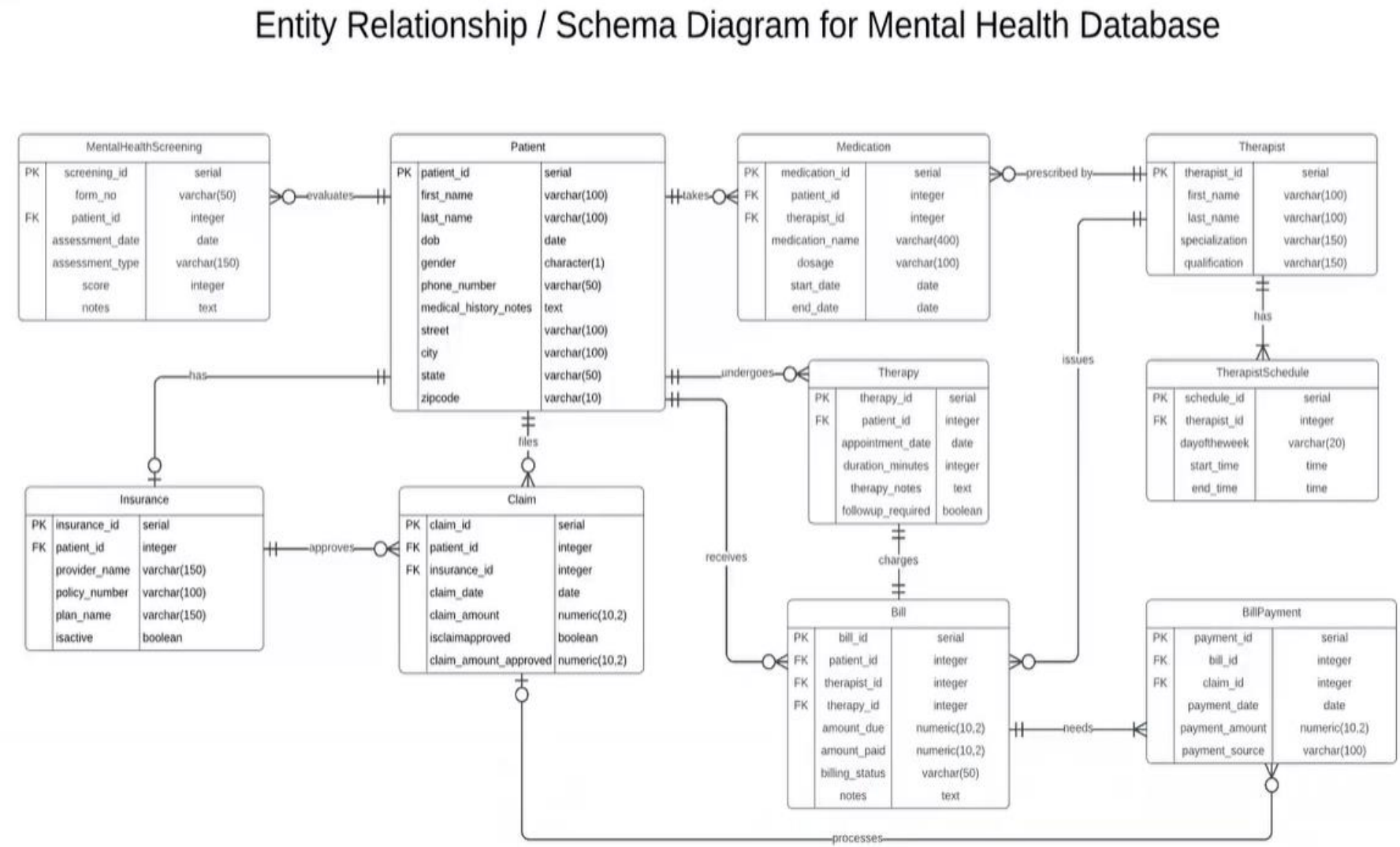
10. BillPayment

- **Purpose**: This table keeps track of payments made toward bills, including insurance claims.
- **Attributes**:
  - payment_id (Primary Key): Uniquely identifies each payment.
  - bill_id (Foreign Key): Links to the Bill table.
  - claim_id (Foreign Key): Links to the Claim table.
  - payment_date, payment_amount, payment_source: Details of the payment transaction, including whether the patient paid their bill through self-pay or via insurance.
- **Relationship**: Each payment is associated with both a bill and a claim.

Assumptions

1. **Patient Data**: Each patient can have multiple therapy sessions, medications, and screenings. A patient may have up to only one active insurance policy but many claims.
2. **Therapist**: Each therapist can treat multiple patients and prescribe multiple medications. A therapist's schedule can be managed through the TherapistSchedule table. Every therapist only has one specialization and only their highest qualification is recorded.
3. **Insurance & Claims**: Patients can have zero to one active insurance policy, and multiple claims can be filed under the same policy. Claims are linked to specific bills and may be partially or fully approved.
4. **Billing**: Each therapy session generates a bill, and payments can be processed through insurance claims or other sources such as personal payments.

Relational Database Schema



Database Implementation

This database is implemented using PostgreSQL with the following DDL statements:

```
CREATE TABLE Patient (
    patient_id SERIAL PRIMARY KEY,
    first_name VARCHAR(100) NOT NULL,
    last_name VARCHAR(100) NOT NULL,
    dob DATE NOT NULL,
    gender CHAR(1) CHECK (gender IN ('M', 'F', 'O')),
    phone_number VARCHAR(50),
    medical_history_notes TEXT,
    street VARCHAR(100),
    city VARCHAR(100),
    state VARCHAR(50),
    zipcode VARCHAR(10)
);


CREATE TABLE Therapist (
    therapist_id SERIAL PRIMARY KEY,
    first_name VARCHAR(100) NOT NULL,
    last_name VARCHAR(100) NOT NULL,
    specialization VARCHAR(150),
    qualification VARCHAR(150)
);
```

```
CREATE TABLE TherapistSchedule (
    schedule_id SERIAL PRIMARY KEY,
    therapist_id INT REFERENCES Therapist(therapist_id),
    dayoftheweek VARCHAR(20) NOT NULL,
    start_time TIME NOT NULL,
    end_time TIME NOT NULL
);

CREATE TABLE Therapy (
    therapy_id SERIAL PRIMARY KEY,
    patient_id INT REFERENCES Patient(patient_id),
    appointment_date DATE NOT NULL,
    duration_minutes INT NOT NULL,
    therapy_notes TEXT,
    followup_required BOOLEAN DEFAULT FALSE
);
CREATE TABLE Medication (
    medication_id SERIAL PRIMARY KEY,
    patient_id INT REFERENCES Patient(patient_id),
    therapist_id INT REFERENCES Therapist(therapist_id),
    medication_name VARCHAR(400) NOT NULL,
    dosage VARCHAR(100),
    start_date DATE NOT NULL,
    end_date DATE
);
```

```
CREATE TABLE MentalHealthScreening (
    screening_id SERIAL PRIMARY KEY,
    form_no VARCHAR(50) NOT NULL CHECK (form_no IN ('PHQ-9', 'GAD-7')),
    patient_id INT REFERENCES Patient(patient_id),
    assessment_date DATE NOT NULL,
    assessment_type VARCHAR(150),
    score INT,
    notes TEXT
);

CREATE TABLE Insurance (
    insurance_id SERIAL PRIMARY KEY,
    patient_id INT REFERENCES Patient(patient_id),
    provider_name VARCHAR(150) NOT NULL,
    policy_number VARCHAR(100) NOT NULL,
    plan_name VARCHAR(150),
    is_active BOOLEAN DEFAULT TRUE
);

CREATE TABLE Claim (
    claim_id SERIAL PRIMARY KEY,
    patient_id INT REFERENCES Patient(patient_id),
    insurance_id INT REFERENCES Insurance(insurance_id),
    claim_date DATE NOT NULL,
```

```
    claim_amount NUMERIC(10, 2) NOT NULL,
    is_claim_approved BOOLEAN DEFAULT FALSE,
    claim_amount_approved NUMERIC(10, 2)
);

CREATE TABLE Bill (
    bill_id SERIAL PRIMARY KEY,
    patient_id INT REFERENCES Patient(patient_id),
    therapist_id INT REFERENCES Therapist(therapist_id),
    therapy_id INT REFERENCES Therapy(therapy_id),
    amount_due NUMERIC(10, 2) NOT NULL,
    amount_paid NUMERIC(10, 2),
    billing_status VARCHAR(50) NOT NULL CHECK (billing_status IN ('PAID', 'UNPAID', 'PARTIALLY PAID')),
    notes TEXT
);

CREATE TABLE BillPayment (
    payment_id SERIAL PRIMARY KEY,
    bill_id INT REFERENCES Bill(bill_id),
    claim_id INT REFERENCES Claim(claim_id),
    payment_date DATE NOT NULL,
    payment_amount NUMERIC(10, 2) NOT NULL,
    payment_source VARCHAR(100)
);
```

Data Insertion

To populate the database, data was generated using an online tool, *Mockaroo* to simulate realistic clinic data. For example:

- 50 patients with varying demographics and diagnoses.
- 20 therapists with different specialties.
- 200 sessions across different patients and therapists.
- Insurance claim data with varying approvals as well as billing data with some sessions unpaid to create diversity.

Based on this generated data, I created INSERT statements, which were then imported into the database. All INSERT statements for all tables were provided upon submission of this project. Note: For the purposes of this mock clinic, a year's worth of data, from September 2023 to October 2024 is reflected.

Data Manipulation (With Simulated Data)

Data Manipulation with Simulated Data in Patient Table

```
INSERT INTO Patient (first_name, last_name, dob, gender, phone_number, medical_history_notes, street, city, state, zipcode)
  VALUES ('Lucy', 'Smith', '1992-05-16', 'F', '623-995-8547',
      'Depression', '63 Hatcher Road', 'Springfield', 'Illinois', '42875');

INSERT INTO Patient (first_name, last_name, dob, gender, phone_number, medical_history_notes, street, city, state, zipcode)
  VALUES ('Tom', 'Smith', '1990-02-11', 'M', '871-665-1247',
      'PTSD', '75 Green Ave', 'Dallas', 'Texas', '95867');

DELETE FROM Patient WHERE last_name LIKE 'Smi__';

UPDATE Patient SET medical_history_notes = 'PTSD' WHERE patient_id IN (6, 47);

UPDATE Patient SET medical_history_notes = 'General Anxiety' WHERE patient_id IN (48, 49, 50);

UPDATE Patient SET phone_number = '536-986-7422' WHERE first_name = 'Kipper' and last_name = 'Eldin';
```

These data manipulation tasks demonstrate the ability to insert new patients into the database and make sure that a new patient id is created for each new patient added. The LIKE function was used in the Delete statement to simulate deleting patients with the same last name. For example, if a family were to leave the practice, this statement can delete both patients simultaneously. However, this must be used with caution to avoid deleting any existing patients that might have the same last name. Also, for the purpose of this project as mentioned in the Project Proposal, we are working with 50 patients, hence why I deleted the two new patients. Patients that did not have a diagnosis in their medical history notes were also updated with diagnoses to simulate varying and realistic data. I also updated a patient's contact info, i.e. phone number as it is often required in real life with real patients.

Data Manipulation with Simulated Data in Therapist Table

```
INSERT INTO Therapist (therapist_id, first_name, last_name, specialization, qualification) VALUES (21, 'Mary', 'Dobbs', 'Trauma Focused', 'PsyD');

INSERT INTO Therapist (therapist_id, first_name, last_name, specialization, qualification) VALUES (22, 'Mary', 'Adams', 'Family Systems', 'MD');

UPDATE Therapist SET qualification = 'PsyD' WHERE therapist_id IN (2, 3, 15);

UPDATE Therapist SET qualification = 'MD' WHERE therapist_id IN (16, 18, 20);

DELETE FROM Therapist WHERE first_name = 'Mary';

UPDATE Therapist SET specialization = 'Family Systems' WHERE therapist_id = 4;
```

These data manipulation tasks demonstrated the ability to add new therapists into the database and ensuring that a new therapist id is created each time. Therapists were updated with their highest qualification as well. To simulate more accurate data, only MDs and PsyDs are authorized to prescribe medication, therefore I changed their qualifications from LPC to either MD or PsyD. I deleted the new patients to test out the function using 'first_name', also to keep just 20 therapists for the purposes of this project. I also updated a specialization for one therapist to simulate more variety in the data.

Data Manipulation with Simulated Data in TherapistSchedule Table

INSERT INTO TherapistSchedule (schedule_id, therapist_id, DayOfTheWeek, Start_Time, End_Time) VALUES (51, 14, 'Tuesday', '10:30:00', '12:30:00');

INSERT INTO TherapistSchedule (schedule_id, therapist_id, DayOfTheWeek, Start_Time, End_Time) VALUES (52, 15, 'Thursday', '08:15:00', '09:15:00');

UPDATE TherapistSchedule SET start_time = '08:00:00', end_time = '08:30:00' WHERE schedule_id = 48;

UPDATE TherapistSchedule SET end_time = '15:30:00' WHERE schedule_id = 11;

UPDATE TherapistSchedule SET dayoftheweek = 'Thursday' WHERE schedule_id = 43;

UPDATE TherapistSchedule SET dayoftheweek = 'Tuesday' WHERE schedule_id = 45;

DELETE FROM TherapistSchedule WHERE schedule_id = 44;

Two new therapist schedules were inserted to simulate how therapists can have multiple therapy session availability in a day and/or week. Schedules that had conflicting times and/or days were also updated to simulate more realistic data and one schedule was deleted that simulate when a therapist changes their availability.

Data Manipulation with Simulated Data in Therapy Table

INSERT INTO Therapy (therapy_id, patient_id, appointment_date, duration_minutes, therapy_notes, followup_required) VALUES (201, 50, '2024-05-15', 60, 'Continue Medications', TRUE);

INSERT INTO Therapy (therapy_id, patient_id, appointment_date, duration_minutes, therapy_notes, followup_required) VALUES (202, 25, '2024-08-16', 30, 'Continue CBT', TRUE);

UPDATE Therapy SET followup_required = TRUE WHERE therapy_notes LIKE 'Continue%';

UPDATE Therapy SET followup_required = FALSE WHERE therapy_notes NOT LIKE 'Continue%';

DELETE FROM Therapy WHERE therapy_id = 194;

DELETE FROM Therapy WHERE therapy_id = 196;

Two new therapy sessions were inserted into the table to simulate how patients realistically can have multiple sessions. The followup_required column was updated to where therapy notes that

mentioned continuing some sort of medication or therapy required follow up and therapy notes that did not, did not require follow up to simulate more realistic data. Two therapy sessions that did not contain any therapy notes were deleted to simulate patients that lost to follow up and to keep the number of therapy sessions at 200 for the purposes of this project.

Data Manipulation with Simulated Data in Medication Table

INSERT INTO Medication (medication_id, patient_id, therapist_id, medication_name, dosage, start_date, end_date) VALUES (201, 4, 2, 'Valium', '30 mg', '2024-02-20', '2023-09-30');

INSERT INTO Medication (medication_id, patient_id, therapist_id, medication_name, dosage, start_date, end_date) VALUES (202, 5, 1, 'Lexapro', ' 25 mg', '2024-03-15', '2023-10-15');

UPDATE Medication SET medication_name = 'Lamictal' WHERE medication_id = 113;

UPDATE Medication SET medication_name = 'Fluoxetine' WHERE medication_id IN (69, 86, 5);

DELETE FROM Medication WHERE LOWER(medication_name) = 'acetaminophen, dextromethorphan hydrobromide, phenylephrine hydrochloride';

Two new medication records were inserted to simulate how patients can be prescribed multiple medications by different therapists. Some medication names were updated to simulate more realistic and common medications prescribed when treating depression, i.e. Fluoxetine. One medication record was deleted as the name was too long and an uncommon treatment for mental health disorders.

Data Manipulation with Simulated Data in MentalHealthScreening Table

INSERT INTO MentalHealthScreening VALUES (51, 'GAD-7', 1, '2024-01-10', 'Initial Assessment', 6, 'Mild anxiety');

```
INSERT INTO MentalHealthScreening VALUES (52, 'PHQ-9', 2, '2024-01-11', 'Follow-up', 12, 'Moderate depression');

UPDATE MentalHealthScreening SET score = '3' WHERE screening_id = 4;

UPDATE MentalHealthScreening SET notes = 'Minimal Anxiety' WHERE screening_id = 4;

UPDATE MentalHealthScreening SET assessment_date = TO_DATE('01/25/2024', 'mm/dd/yyyy') WHERE screening_id = 52;

DELETE FROM MentalHealthScreening WHERE screening_id = 5;
```

Two new mental health screening records were inserted to simulate data in which some patients may fill out more than one screening form. To simulate a change in PHQ-9 score, a follow-up visit was updated with the new score and appropriate notes. One date of assessment was updated to simulate follow up after a couple weeks which is typically a realistic follow up time frame and one record was deleted to simulate how some patients may not fill out any forms.

Data Manipulation with Simulated Data in Insurance Table

```
INSERT INTO Insurance (insurance_id, patient_id, provider_name, policy_number, plan_name, is_active) VALUES (51, 1, 'Blue Cross Blue Shield', '15487695423', 'PPO', TRUE);

INSERT INTO Insurance (insurance_id, patient_id, provider_name, policy_number, plan_name, is_active) VALUES (52, 2, 'Humana Gold Plus', '854769584123', 'HDHP', TRUE);

UPDATE Insurance SET provider_name = 'UnitedHealthcare' WHERE insurance_id = 45;

UPDATE Insurance SET policy_number = '85746921458' WHERE insurance_id = 6;

DELETE FROM Insurance WHERE insurance_id IN (1, 2);
```

Two new insurance records were inserted to simulate how patients may have a change in insurance provider and/or plan which would generate a new insurance id. Then those patients' prior records were deleted as patients cannot have more than one insurance plan. I also updated a couple records by provider name and policy number to generate more varied data.

Data Manipulation with Simulated Data in Claim Table

```
DELETE FROM Claim WHERE claim_id = 15;

DELETE FROM Claim WHERE claim_id = 25;

INSERT INTO Claim (claim_id, patient_id, insurance_id, claim_date, claim_amount, is_claim_approved, claim_amount_approved) VALUES (51, 1, 51, '2023-10-01', 1584.31, FALSE, 587.16);

INSERT INTO Claim (claim_id, patient_id, insurance_id, claim_date, claim_amount, is_claim_approved, claim_amount_approved) VALUES (52, 2, 4, '2023-08-04', 1247.31, FALSE, 688.24);

UPDATE Claim SET claim_amount_approved = '2553.77' WHERE claim_id = 49;

UPDATE Claim SET is_claim_approved = true WHERE claim_id = 49;

UPDATE Claim SET is_claim_approved = true WHERE claim_id = 32;
```

Two records were deleted that were dependent on prior records from the insurance tables. I inserted a claim record for the new insurance record that was inserted above in the insurance table to simulate how each claim is linked to one insurance. I also inserted another claim for insurance id 4 to simulate that one insurance can have more than one claim. I updated a claim id 49 because the full claim was approved and therefore needed to be marked true for 'is claim approved'. I also updated the 'is claim approved' column to ‘true’ for claim id 32, where the full claim amount was approved.

Data Manipulation with Simulated Data in Bill Table

```
INSERT INTO Bill (bill_id, patient_id, therapist_id, therapy_id, amount_due, amount_paid, billing_status, notes) VALUES (51, 3, 1, 1, 200.35, 150.63, 'PARTIALLY PAID', NULL);

INSERT INTO Bill (bill_id, patient_id, therapist_id, therapy_id, amount_due, amount_paid, billing_status, notes) VALUES (52, 6, 2, 2, 100.58, 100.58, 'PAID', NULL);
```

```
UPDATE Bill SET amount_paid = '2000.94', billing_status = 'PARTIALLY PAID' WHERE bill_id = 9;

UPDATE Bill SET notes = 'Contact patient regarding payment' WHERE amount_paid < amount_due;

DELETE FROM Bill WHERE bill_id = 6;
```

Two new bill records were inserted into the table to simulate how each bill is connected to one patient, but one patient can have multiple bills. A record with a previously unpaid bill was updated to a ‘partially paid’ bill to simulate how billing status can change and must be updated. I also updated all notes to say 'contact patient regarding payment' on any bills that are not fully paid yet to alert the clinic on which patients need to be contacted promptly. I deleted a bill record that was unpaid to simulate how some patients may be dropped from the clinic if bills are not paid or if a patient cannot be reached.

Data Manipulation with Simulated Data in BillPayment Table

```
INSERT INTO BillPayment (payment_id, bill_id, claim_id, payment_date, payment_amount, payment_source) VALUES (51, 20, 10, '2024-07-03', 1005.85, 'Insurance');

INSERT INTO BillPayment (payment_id, bill_id, claim_id, payment_date, payment_amount, payment_source) VALUES (52, 22, 14, '2024-08-02', 1200.15, 'Self-Pay');

UPDATE BillPayment SET payment_amount = '750.50' WHERE payment_id = 2;

UPDATE BillPayment SET payment_source = 'Insurance' WHERE bill_id = 9 AND claim_id = 4;

DELETE FROM BillPayment WHERE payment_id = 9;

DELETE FROM BillPayment WHERE payment_id = 1;
```

I inserted two new bill payments to simulate how a bill payment is always linked to a bill and each bill can have one or more bill payments. I updated a bill payment amount to simulate when patients make payments as well as updated payment source to simulate variation in how a bill is paid. I deleted two bill payment records that were dependent on previous tables and not needed anymore.

Query Examples

1. **Display the count of therapists based on their specialization.**

```
SELECT specialization, COUNT(*)

FROM Therapist

GROUP BY specialization

ORDER BY specialization;
```

Purpose: To show how many therapists there are in each specialization.

Business Value: This helps the clinic understand whether they need to hire more therapists specialized in specific area or if they have too many therapists of one specialty.

Information Retrieved: This query counts the number of therapists for each specialization. In this database, the highest count of therapists is specialized in CBT and the lowest count in Trauma Focused.

Practical Use: The clinic can use this information to better understand, and address patient needs based on the availability and demand of each specialization. They can plan to hire more CBT therapists for example if the demand is high.

2. Display the names of therapists along with their start time and end time for the therapists who are available on Tuesdays and specialize in CBT.

```
SELECT t.first_name, t.last_name, ts.start_time, ts.end_time

FROM Therapist t

INNER JOIN TherapistSchedule ts ON t.therapist_id  = ts.therapist_id

WHERE dayoftheweek = 'Tuesday' AND specialization = 'CBT';
```

Purpose: Lists the therapists available on Tuesdays who specialize in CBT.

Business Value: This is useful for scheduling purposes and ensures that patients are matched with the right therapists based on availability.

Information Retrieved: This query lists the names of therapists who specialize in CBT and available for appointments on Tuesdays, alone with their start and end times. In this database, 6

therapists are shown to fit these requirements, with Roman Cadore having the most times available on Tuesdays.

Practical Use: This information is important for appointment scheduling. The clinic can easily identify available therapists given a specific day and specialization, allowing more efficient scheduling.

3. Display the medications with start date in the last 30 days. Include medication id, patient name, therapist name, dosage, and start date.

```
SELECT

Medication.medication_id,

Patient.first_name, Patient.last_name,

Therapist.first_name, Therapist.last_name,

Medication.medication_name,

Medication.dosage,

Medication.start_date

FROM Medication

NATURAL JOIN Patient

JOIN Therapist ON Medication.therapist_id = Therapist.therapist_id

WHERE Medication.start_date >= CURRENT_DATE - 30;
```

Purpose: To track medications that were prescribed in the last 30 days.

Business Value: This helps monitor recent prescriptions and ensure follow-ups.

Information Retrieved: This query displays the list of medication that were prescribed in the last 30 days with their details as well as the patient they were prescribed to and the therapist that prescribed them. This query generated 9 medication records that were recently prescribed, with therapist Bealle Duffitt prescribing the most.

Practical Use: This is useful for monitoring recent prescriptions, ensuring that patients are following their medication treatment. The clinic may also want to look at therapists who are

prescribing the most medications recently and follow up with them as well as their patients accordingly.

4. Display the count of scores surveyed for various levels of depression if the count is more than two. Order the results by notes in descending order.

```
SELECT

form_no, COUNT(score), notes

FROM MentalHealthScreening

WHERE notes like '%depression%'

GROUP BY notes, form_no

HAVING COUNT(score) > 2

ORDER BY notes DESC;
```

Purpose: Identifies the PHQ-9 screenings with more than two occurrences.

Business Value: This helpful in analyzing patterns in mental health assessments.

Information Retrieved: This query counts the number of times a score has been recorded for PHQ-9 forms related to depression where the count is more than two. This query showed 14 counts of ‘Moderately severe depression’ and 8 counts of ‘Moderate depression’.

Practical Use: This helps identify the frequency of varying levels of depression and allows the clinic to analyze how often patients are presenting with these levels of depression symptoms, further informing therapists on treatment strategies or resource allocation.

5. Display the names of patients who have an active insurance policy.

```
SELECT first_name, last_name

FROM Patient

WHERE patient_id IN (SELECT distinct patient_id FROM Insurance WHERE isactive = TRUE);
```

Purpose: Lists patients with active insurance.

Business Value: This is useful for billing to ensure that insurance claims are processed efficiently.

Information Retrieved: This query lists the first and last names of patients who currently have an active insurance policy. It currently shows 34 patients with an active insurance.

Practical Use: This can help the billing department ensure that patients' insurance policies are currently active before filing claims to help reduce the amount of unpaid bills or denied claims due to an inactive insurance.

6. Display patients who need a follow-up therapy session, using correlated subqueries.

```
SELECT first_name, last_name
FROM Patient p
WHERE EXISTS(
        SELECT therapy_id
        FROM Therapy t
        WHERE t.patient_id = p.patient_id AND t.followup_required = TRUE
);
```

Purpose: Lists patients that require a follow-up therapy session.

Business Value: This helps therapists ensure that all required follow-ups are scheduled.

Information Retrieved: This query retrieves the names of patients who need a follow-up session based on their therapy records. Currently, there are 39 patients requiring a follow-up.

Practical Use: This is crucial for patient care management, as it helps ensure that patients who require additional follow-up therapy sessions are not missed. The clinic can use this information to send reminders for patients and therapists, reducing the chances of patients failing to follow-up, hence them falling through the cracks. The therapists who last saw these patients can be sent reminders to follow-up with the patient in a timely manner.

7. Display the average mental health screening score for each form.

```
SELECT form_no, AVG (score) AS Average_Score

FROM MentalHealthScreening GROUP BY form_no;
```

Purpose: Displays the average score for each type of mental health screening.

Business Value: This provides valuable insights into patient mental health trends based on the different screening forms.

Information Retrieved: This query displays the average mental health screening score for each type of form, such as PHQ-9 and GAD-7. The average PHQ-9 score is 16.12 (moderately severe depression) and the average score for GAD-7 is 6.42 (mild anxiety).

Practical Use: This helps in understanding the general severity of conditions among patients by form type. The clinic can use this data to determine how patients are responding to different screening tools and modify treatment plans accordingly.

8. Display first and last names of both patients and therapists associated with medications using Union Operator.

```
SELECT first_name, last_name

FROM Patient p

JOIN Medication m ON p.patient_id = m.patient_id

UNION

SELECT t.first_name, t.last_name

FROM Therapist t

JOIN Medication m ON t.therapist_id = m.therapist_id;
```

Purpose: Combines and displays both patients and therapists involved in medication prescriptions.

Business Value: This allows the clinic to see a combined view of all parties involved in the medication process.

Information Retrieved: This query combines the names of both patients and therapists involved in medication records, with a combined total of 68 entries.

Practical Use: The clinic can use this query to provide a comprehensive list of all individuals (patients and therapists) associated with medications. This can be useful for understanding the

distribution of medications across both patients and prescribing therapists, helping to ensure that medical records remain consistent.

9. Display all patients with their medication, if available.

```
SELECT p.first_name, p.last_name, m.medication_name

FROM Patient p

LEFT JOIN Medication m

ON p.patient_id = m.patient_id;
```

Purpose: Displays all patients and their medications, as well as patients with no medications.

Business Value: This helps identify patients who may need further follow-up for medication management.

Information Retrieved: This query lists all patients and their associated medications, even if some patients do not have any medications. Currently, there are 203 medication records, with two records without medications.

Practical Use: This query helps the clinic track patients who may not be receiving medication and allows the clinic to follow up with those patients. It also gives a full picture of both medicated and non-medicated patients in the system, especially which patients have multiple medications to regulate their intake properly and ensure no adverse medication cross-reactions.

10. Display the patient_id of patients that were not prescribed any medication treatment.

```
SELECT patient_id

FROM therapy

EXCEPT

SELECT patient_id

FROM Medication;
```

Purpose: Lists of patients who have undergone therapy but have not been prescribed any medication.

Business Value: Identifies patients who may or may not require medication evaluation.

Information Retrieved: This query lists patient IDs of patients who have undergone therapy but have not been prescribed any medication. Currently there are two patients (patient_id = 35 and 50) in the database that have not been prescribed medication.

Practical Use: This query can help the clinic identify patients who may benefit from medication but have not yet received any. The clinic can also evaluate therapy-only treatments vs therapy with medication treatments and whether there is a significant difference in treatment outcomes.

11. Display the therapy_id along with the duration of therapy in minutes cast to interval data type.

```
SELECT therapy_id, duration_minutes AS "duration in minutes",

CAST (CONCAT(duration_minutes, ' minutes') AS INTERVAL) AS "duration in interval"

FROM Therapy;
```

Purpose: Converts the therapy session duration from minutes into an interval format.

Business Value: This is useful for any analysis or reports that need session durations in time interval format.

Information Retrieved: This query converts the duration of therapy sessions (in minutes) into interval data type, showing it in a time format for all 200 therapy sessions.

Practical Use: The clinic can use this data as it is helpful for reports or scheduling that requires therapy duration to be expressed as an interval rather than in just minutes, potentially making it easier to track how long sessions are.

12. Display the bill id, bill amount, total bill amount, and average bill amount partitioned by billing status. Order the records in descending order by the amount due. Use window functions.

```
SELECT bill_id AS "Bill ID", amount_due AS "Bill Amount", SUM(amount_due) OVER W AS "Total
Bill Amount",

ROUND (AVG(amount_due) OVER W, 2) AS "Average Bill Amount", billing_status AS "Billing
Status"

FROM Bill
```

```
Window W AS (PARTITION BY billing_status ORDER BY amount_due DESC);
```

Purpose: Shows each bill's details along with the total and average amounts for bills within the same billing status category.

Business Value: This helps the clinic perform financial analysis of bill payments by status.

Information Retrieved: Displays each bill's details along with the total and average bill amount, partitioned by billing status (e.g., PAID, UNPAID). Currently there are 25 paid records, 15 partially paid records, and 11 unpaid records.

Practical Use: This information can help the clinic's billing department better understand billing trends based on the billing status and provides insight into how much money is owed or collected based on the category of billing.

13. Display the severity of the condition based on the scores received in the forms PHQ-9 and GAD-7.

```
SELECT screening_id, form_no, score,
CASE
        WHEN score >= 0 AND score <=4 THEN 'Minimal'
        WHEN score >= 5 AND score <=9 THEN 'Mild'
        WHEN score >=10 AND score <=14 THEN 'Moderate'
        WHEN score >=15 THEN 'Severe'
ELSE
        'None'
END AS "Severity"
```

```
FROM MentalHealthScreening
ORDER BY form_no, "Severity";
```

Purpose: Categorizes patient screening scores into levels of severity.

Business Value: This is useful for clinicians to quickly assess the severity of a patient's mental health condition based on their screening results, rather than having to looking up screening interpretations for each form (i.e. PHQ-9 or GAD-7) every time.

Information Retrieved: This query categorizes mental health screening scores into severity levels (e.g., Minimal, Mild, Moderate, Severe) based on specific score conditions. According to the data, most patients fall under the 'Mild' severity for anxiety according to GAD-7 and under the 'Severe' category for depression according to the 'PHQ-9'.

Practical Use: This helps clinicians quickly assess the severity of patients' mental health issues based on screening scores and promptly identifies which patients absolutely must be prioritized for urgent care and follow-up and possible referral to in-patient care.

14. Display patient count with groupings based on year, month, and day using ROLLUP.

```
SELECT
    EXTRACT(YEAR FROM appointment_date) "Year",
    EXTRACT(MONTH FROM appointment_date) "Month",
    EXTRACT(DAY FROM appointment_date) "Day",
    COUNT(patient_id) "Number of Patients"
FROM Therapy
GROUP BY ROLLUP(
    EXTRACT(YEAR FROM appointment_date),
    EXTRACT(MONTH FROM appointment_date),
    EXTRACT(DAY FROM appointment_date)
```

```
)
ORDER BY "Year", "Month", "Day";
```

Purpose: Shows the count of patient encounters based on different time groupings (year, month, day) using the ROLLUP function.

Business Value: This is useful for tracking patient trends and analyzing appointment patterns.

Information Retrieved: Displays the number of patient encounters grouped by year, month, and day using the ROLLUP function, which also provides subtotals. According to the data, 50 patient encounters were recorded in 2023 (starting in September 2023) and 150 encounters recorded in 2024 thus far. In 2024 so far, the month with the highest number of encounters is September with 22 encounters.

Practical Use: This allows the clinic to analyze trends in therapy sessions over time, making it easier to spot any busy periods and optimize the scheduling process.

15. Display patient count with groupings based on year, month, and day using CUBE.

```
SELECT
        EXTRACT(YEAR FROM appointment_date) "Year",
        EXTRACT(MONTH FROM appointment_date) "Month",
        EXTRACT(DAY FROM appointment_date) "Day",
        COUNT(patient_id) "Number of Patients"
FROM Therapy
GROUP BY CUBE(
        EXTRACT(YEAR FROM appointment_date),
        EXTRACT(MONTH FROM appointment_date),
        EXTRACT(DAY FROM appointment_date)
```

```
)
ORDER BY "Year", "Month", "Day";
```

Purpose: This provides patient encounter count based on various time combinations using the CUBE function.

Business Value: This could enable more detailed analysis of patient activity across multiple time dimensions.

Information Retrieved: This query displays the number of patients grouped by year, month, and day using the CUBE function, which provides all possible combinations of the groups.

Practical Use: The clinic can use this data for detailed analysis of patient data across multiple time dimensions which is useful for identifying any seasonal trends with peak periods in patient visits.

Database Integration

Python Integration

Data analysis and visualization was performed using Python (Jupyter Notebook). The code for these analysis tasks is submitted in a (.ipynb) file as part of the project submission.

Data Analysis

Descriptive Statistics for Therapy Session Durations

There were 200 therapy sessions recorded.

The average duration of a therapy session was 73.50 minutes. Hence, the typical length of therapy seems to be a little over an hour. This is an important piece of information that can be a useful metric to determine the length of time a patient typically prefers to spend in a session and benefit the most from and thus be used to plan future appointments.

The standard deviation was 32.36 minutes which suggests that the duration of therapy sessions does vary quite a bit. This variability could suggest different therapy styles and/or patient needs when it comes to individualized care.

The minimum time was 30 minutes, the shortest therapy session recorded. The 25th percentile was 60 minutes, indicating that 25% of therapy sessions lasted 60 minutes or less. The median (50th percentile) value was 60 minutes suggesting that half of the therapy sessions were 60 minutes or shorter, while the other half were longer. The 75th percentile was 90 minutes, meaning that 75% of the sessions lasted 90 minutes or less. The longest therapy session recorded was 120 minutes.

The median and percentile distribution suggest that many sessions are clustered around 60 to 90 minutes.

The rationale behind these tasks was that knowing the average and minimum/maximum session lengths can help the clinic manage its schedule and resources more effectively. Understanding the patient needs in this way can help in planning for follow up appointments and tracking patient progress more efficiently. Understanding therapy session durations can also aid the clinic in determining varying scheduling strategies for different therapists or therapy types.

Descriptive Statistics of Age of Patient

There is a total of 50 patients in the database with an average age of 35 years with a standard deviation of about 13 years spread out from the mean. The youngest patient is 18 years old while the oldest patient is 61 years old. The average patient age suggest that the clinic is currently serving a relatively young to middle-aged population. This is important to know in terms of methods of advertising for the clinic. When it comes to a younger population, perhaps more social media related advertising and email reminders would better suit that age demographic. The median (32.5) and mean (35.26) are relatively close together suggesting a relatively symmetrical age distribution, though there is a range of both younger and older patients.

Counts of Each Gender of Patient

In this dataset of 50 patients, there are 32 females (64%) and 18 males (36%). More than half of total patients are female, which could have a variety of implications. More female patients seek mental health services compared to males. They are either more likely than males to seek help or the patient population area just has a higher proportion of females compared to males.

While fewer in number compared to females, they still make up a fair portion of the patient dataset. This information may prompt the clinic to evaluate and address the unique mental health needs of male patients more effectively such as through targeted outreach to men to reduce stigma around mental health for men.

Analysis of Correlation Between Therapy Duration and Claim Amount

The correlation study using pd.merge generated a correlation of approximately -0.0096 which is very close to zero, suggesting no meaningful relationship between therapy duration and claim amount. This lack of relationship suggests that the amount of time a patient spends in therapy sessions does not significantly affect the amount claimed by the clinic or approved by insurance. It is important for a clinic to consider all possible factors that may affect the claim amounts, such as type of treatment, medication prescribed, or the patient's insurance plan.

Statistical Analysis on Percentage of Claims Approved Versus Not Approved

Analysis of approved vs not approved claims resulted in:

Percentage of Claims Approved: 60.00%

Percentage of Claims Not Approved: 40.00%

It is crucial that a clinic is aware of how many claims are being approved by insurance and how many are not. Currently, the more than half of the claims have been approved which is a positive attribute, however, other factors as to why some claims are not being approved should be investigated to better improved insurance approval rate for the clinic's patients. One crucial piece of information to look at is which insurance providers have the highest approval rates.

Calculating the Approval Rates by Insurance Provider

After merging the Claim and Insurance tables, the approval rates by provider sorted by highest to lowest as shown below:

provider_name approval rate

Aetna Silver Choice 100.000000

Anthem Blue Cross 100.000000

Cigna Preferred 100.000000

Humana Gold Plus 100.000000

Medicare Advantage 100.000000

Molina Medicaid 83.333333

Molina Healthcare 80.000000

Aetna Health Plan 75.000000

WellCare Classic 50.000000

Oscar Health Plan 40.000000

UnitedHealthcare 40.000000

Blue Cross Blue Shield 33.333333

Cigna Connect 0.000000

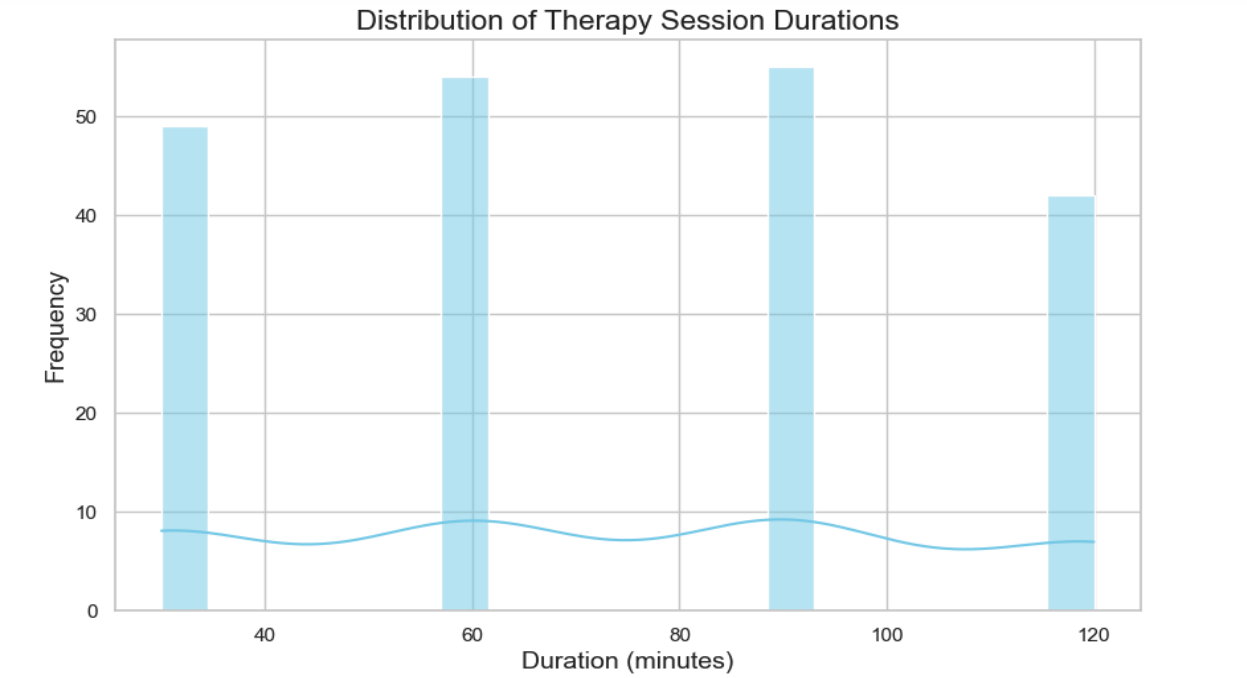
Kaiser Permanente 0.000000

These results tell the clinic that the top 5 insurance provders with the highest approval rates (100%) are Aetna Silver Choice, Anthem Blue Cross, Cigna Preferred, Humana Gold Plus, and Medicare Advantage. This is valuable information for the clinic because it can prompt them to advise patients on choosing providers that work better for the clinic's services rather than the ones that have lower approval rates (i.e. Cigna Connect, Blue Cross Blue Shield).

Data Visualization

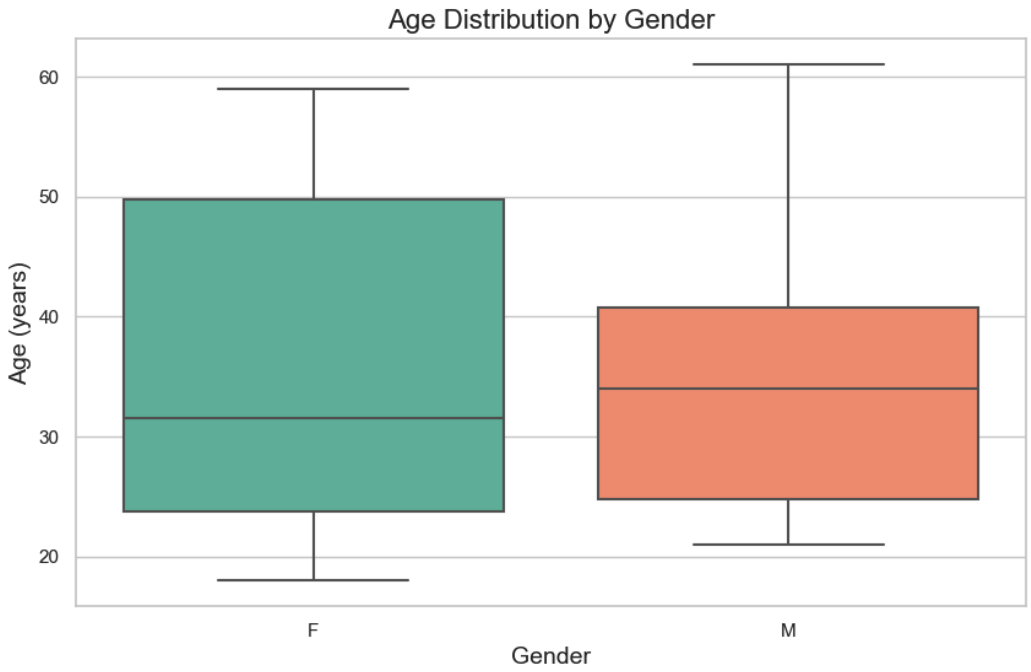
Visualizations were created using libraries within Python such as Matplotlib and seaborn.

Histogram of Distribution of Therapy Session Durations



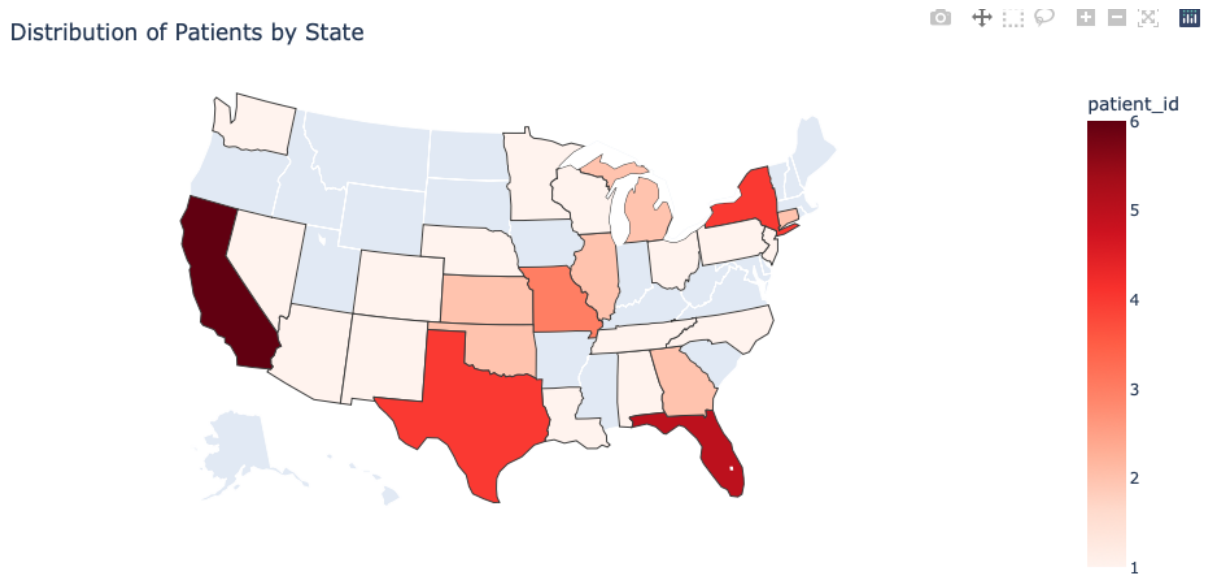
According to the histogram, the most common session duration appears to be between 60 and 90 minutes as indicated by the highest bar peaks (both are above 50 in frequency). There is a smooth distribution as the KDE line plot shows minimal frequencies between 60 and 90, suggesting that those intermediate times are less frequently scheduled. There are no glaring outliers which shows that the clinic follows a regular and structured schedule for therapy appointments, a sign of an organized and efficient clinic.

Box Plot of Age Distribution by Gender



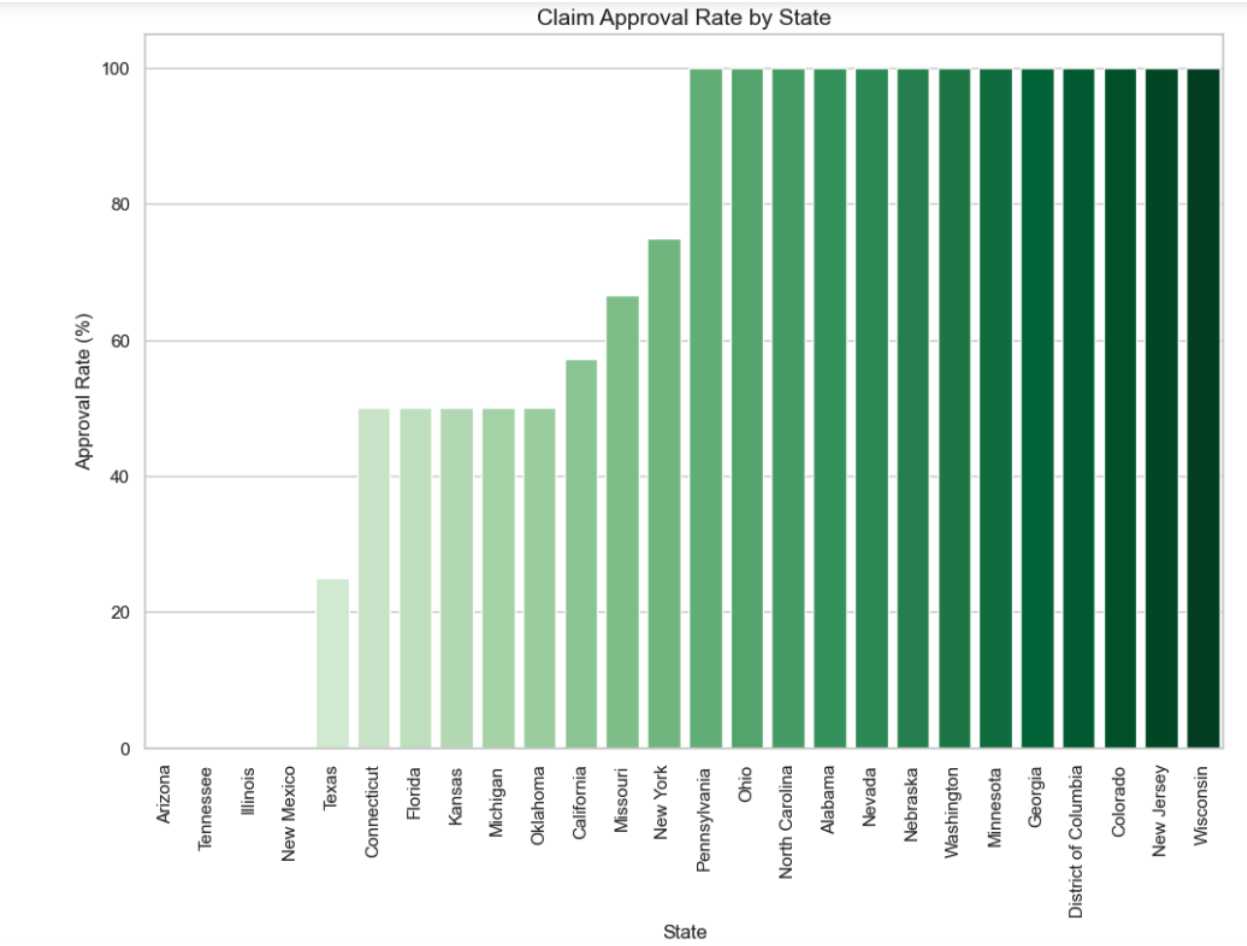
According to this box plot, the median age for female is around 32 while the median age for males is around 35. Though males have a higher median, females have a wider IQR on at around 25 to 50, while the male plot shows around 27 to 41. There appears to be no outliers. There seems to be primarily older middle-aged women and younger males. This is useful information that can prompt the clinic to think about incorporating more age-specific therapies. Younger females (20s and 30s) could have therapies focused on career stress and relationship challenges for example while older middle-aged women (40s and 50s) might need to target issues like parenting and menopause-related mental health. Younger males (mid 20s to mid 30s) could have therapies that focus on work stress and anxiety about family responsibilities. This information could also inform therapists on what type of training or specialization they need to be equipped with to better treat specific patient populations.

Heat-like Map on the United States Map Displaying the Distribution of Patients By State



In the (.ipynb) file, the map is interactive – the user can hover over each state to see state name and patient count. The darker shades of red indicate that more patients are from those states and the lighter shades of red indicate fewer patients that are from those states. The darkest colored state is California with a count of 6 patients from there, followed by Florida and Texas. Midwest and Northeast states like Illinois have a moderate distribution (around 2 to 4 patients). Some Northern and Western States like North Dakota and Wyoming have little to no representation. Highest concentration of patients is from Southern states and West Coast (i.e. California). This may indicate to the clinic where to allocate resources (i.e. more telehealth services) to handle patient load more effectively and where to target more services. States with lower representation could either represent lack of demand or an opportunity for the clinic to expand its reach in those underserved areas with more outreach campaigns. In states where patient concentration is higher, from a business perspective, the clinic could discuss forming partnerships with the local mental healthcare providers in those states to better serve those populations. Also note: based on the count analysis by state, only 25 out of 50 states were even represented, indicating need for greater outreach to the other half of the country.

Claim Approval Rate By State



As seen in the bar chart, approval rate ranges from as low as 20% to as high as 100% across different states, with New Mexico, Illinois, Tennessee, and Arizona have a 0% claim rate. It is interesting that Illinois and Texas are among with the lowest approval rate but was of moderate to high in terms of patient count. Several states such as Wisconsin, New Jersey, Colorado, and Georgia have 100% approval rates, despite being some of the lowest represented in patient count. There is a noticeable pattern where certain regions of the country such as New Mexico and Texas in the South/Southwest have lower approval rates while other states in the Midwest and Northeast (i.e. Wisconsin, DC), have much higher rates. This could reflect differences in state policies and strict vs lenient insurance regulations and the types of claims being processed in those regions.

Conclusion

As mentioned in the Project Proposal, if time permits, I will also develop an external application as a user-friendly way to interact with the mental health database. Due to time constraints, I was unfortunately not able to complete this task, and therefore was only able to complete option 1: Python Integration Data Analysis and Visualization. I had never created a user interface before, and I was not aware of the time commitment it held. I believed it was a better option to complete that task later, outside of time constraints to create a robust resume for future job applications.

For the future development, I would like to develop the app using a tool like Flask, complete with all 10 tables with a user-friendly and centralized patient portal home page, where users are able to navigate between all tables from a drop-down menu. Also, to protect user and patient privacy, it would be wise to create a login option that is password protected.

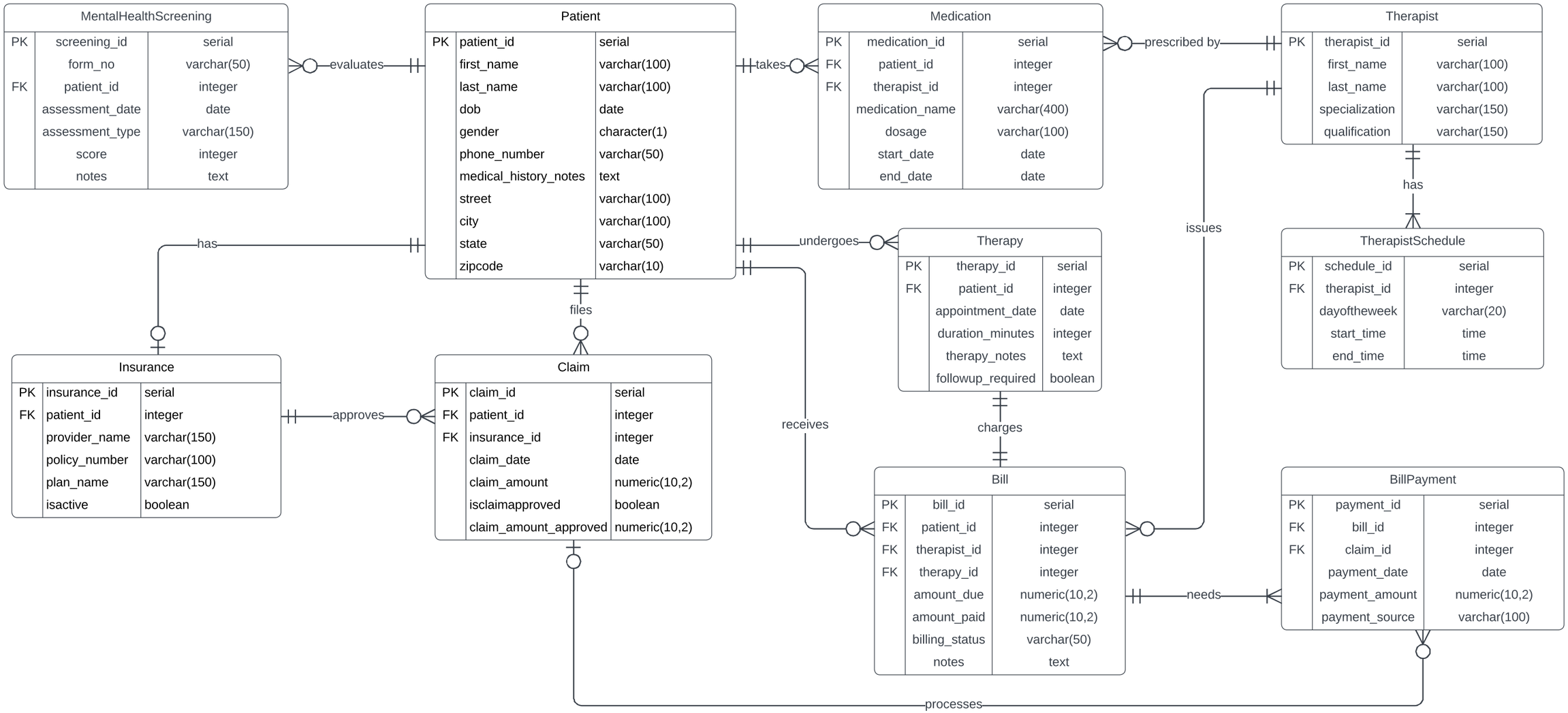
This project was extensive and greatly honed my skills in various data design, manipulation, integration, and analysis techniques as it pertains to a healthcare database. There are a lot of real-world applications to consider, one of the biggest being the goal to improve the operational efficiency of mental health clinics. Future considerations should focus on protecting and enhancing data security and patient privacy. Medical records are extremely sensitive data, so it is imperative that clinics like the fictional Mindful Health Clinic maintain HIPAA compliance but improve their user experience by integrating more advanced analytics to enhance patient care and management.

In this project, a limitation was using mock data. Mock generated data does not hold as much significant world applications but analyzing it still gave me a lot of topics to discuss and think about and how they would look when integrated with real data. In real-world applications, ensuring that the data is accurate is critical and regular audits of patient data must be implemented to maintain data quality of all patient records.

References

Kim, M. K., Rouphael, C., McMichael, J., Welch, N., & Dasarathy, S. (2024). Challenges in and opportunities for electronic health record-based data analysis and Interpretation. Gut and Liver, 18(2), 201–208. https://doi.org/10.5009/gnl230272

Entity Relationship / Schema Diagram for Mental Health Database



CREATE table statements

```sql
-- drop tables if they already exist
DROP TABLE BillPayment;
DROP TABLE Bill;
DROP TABLE Claim;
DROP TABLE Insurance;
DROP TABLE MentalHealthScreening;
DROP TABLE Medication;
DROP TABLE Therapy;
DROP TABLE TherapistSchedule;
DROP TABLE Therapist;
DROP TABLE Patient;

-- create necessary tables
CREATE TABLE Patient (
    patient_id SERIAL PRIMARY KEY,
    first_name VARCHAR(100) NOT NULL,
    last_name VARCHAR(100) NOT NULL,
    dob DATE NOT NULL,
    gender CHAR(1) CHECK (gender IN ('M', 'F', 'O')),
    phone_number VARCHAR(50),
    medical_history_notes TEXT,
    street VARCHAR(100),
    city VARCHAR(100),
    state VARCHAR(50),
    zipcode VARCHAR(10)
);

CREATE TABLE Therapist (
    therapist_id SERIAL PRIMARY KEY,
    first_name VARCHAR(100) NOT NULL,
    last_name VARCHAR(100) NOT NULL,
    specialization VARCHAR(150),
    qualification VARCHAR(150)
);

CREATE TABLE TherapistSchedule (
    schedule_id SERIAL PRIMARY KEY,
    therapist_id INT REFERENCES Therapist(therapist_id),
    dayoftheweek VARCHAR(20) NOT NULL,
    start_time TIME NOT NULL,
    end_time TIME NOT NULL
);

CREATE TABLE Therapy (
    therapy_id SERIAL PRIMARY KEY,
    patient_id INT REFERENCES Patient(patient_id),
    appointment_date DATE NOT NULL,
```

```
    duration_minutes INT NOT NULL,
    therapy_notes TEXT,
    followup_required BOOLEAN DEFAULT FALSE
);

CREATE TABLE Medication (
    medication_id SERIAL PRIMARY KEY,
    patient_id INT REFERENCES Patient(patient_id),
    therapist_id INT REFERENCES Therapist(therapist_id),
    medication_name VARCHAR(400) NOT NULL,
    dosage VARCHAR(100),
    start_date DATE NOT NULL,
    end_date DATE
);

CREATE TABLE MentalHealthScreening (
    screening_id SERIAL PRIMARY KEY,
    form_no VARCHAR(50) NOT NULL CHECK (form_no IN ('PHQ-9', 'GAD-7')),
    patient_id INT REFERENCES Patient(patient_id),
    assessment_date DATE NOT NULL,
    assessment_type VARCHAR(150),
    score INT,
    notes TEXT
);

CREATE TABLE Insurance (
    insurance_id SERIAL PRIMARY KEY,
    patient_id INT REFERENCES Patient(patient_id),
    provider_name VARCHAR(150) NOT NULL,
    policy_number VARCHAR(100) NOT NULL,
    plan_name VARCHAR(150),
    is_active BOOLEAN DEFAULT TRUE
);

CREATE TABLE Claim (
    claim_id SERIAL PRIMARY KEY,
    patient_id INT REFERENCES Patient(patient_id),
    insurance_id INT REFERENCES Insurance(insurance_id),
    claim_date DATE NOT NULL,
    claim_amount NUMERIC(10, 2) NOT NULL,
    is_claim_approved BOOLEAN DEFAULT FALSE,
    claim_amount_approved NUMERIC(10, 2)
);

CREATE TABLE Bill (
    bill_id SERIAL PRIMARY KEY,
    patient_id INT REFERENCES Patient(patient_id),
    therapist_id INT REFERENCES Therapist(therapist_id),
    therapy_id INT REFERENCES Therapy(therapy_id),
    amount_due NUMERIC(10, 2) NOT NULL,
    amount_paid NUMERIC(10, 2),
    billing_status VARCHAR(50) NOT NULL CHECK (billing_status IN ('PAID',
'UNPAID', 'PARTIALLY PAID')),
    notes TEXT
```

```
);

CREATE TABLE BillPayment (
    payment_id SERIAL PRIMARY KEY,
    bill_id INT REFERENCES Bill(bill_id),
    claim_id INT REFERENCES Claim(claim_id),
    payment_date DATE NOT NULL,
    payment_amount NUMERIC(10, 2) NOT NULL,
    payment_source VARCHAR(100)
);
```

INSERT statements

Patient INSERT statements:

```
INSERT INTO Patient (first_name, last_name, dob, gender, phone_number,
medical_history_notes, street, city, state, zipcode)
    VALUES ('Shelby', 'Rottger', '2000-07-31', 'F', '865-649-1475',
            'Depression', '50 Ridgeway Avenue', 'Knoxville', 'Tennessee',
'37939');
INSERT INTO Patient (first_name, last_name, dob, gender, phone_number,
medical_history_notes, street, city, state, zipcode)
    VALUES ('Erie', 'Hazeldene', '1968-11-22', 'M', '408-444-3555',
            'General Anxiety', '2 Carberry Place', 'San Jose',
'California', '95123');
INSERT INTO Patient (first_name, last_name, dob, gender, phone_number,
medical_history_notes, street, city, state, zipcode)
    VALUES ('Rolf', 'Cudmore', '1997-08-15', 'M', '612-441-2503',
            'PTSD', '2548 Talisman Crossing', 'Minneapolis', 'Minnesota',
'55423');
INSERT INTO Patient (first_name, last_name, dob, gender, phone_number,
medical_history_notes, street, city, state, zipcode)
    VALUES ('Bailey', 'Huscroft', '1978-02-22', 'M', '407-653-3947',
            'OCD', '3060 South Point', 'Kissimmee', 'Florida', '34745');
INSERT INTO Patient (first_name, last_name, dob, gender, phone_number,
medical_history_notes, street, city, state, zipcode)
    VALUES ('Channa', 'Yeude', '1970-12-20', 'F', '212-997-8204',
            'Social Anxiety Disorder', '62 Raven Alley', 'New York City',
'New York', '10249');
INSERT INTO Patient (first_name, last_name, dob, gender, phone_number,
medical_history_notes, street, city, state, zipcode)
    VALUES ('Eduard', 'MacTerrelly', '2002-12-19', 'M', '917-854-0461',
            'Depression', '392 Mallory Way', 'New York City', 'New York',
'10039');
INSERT INTO Patient (first_name, last_name, dob, gender, phone_number,
medical_history_notes, street, city, state, zipcode)
    VALUES ('Garvey', 'Steaning', '1992-01-03', 'F', '321-186-9871',
            'Depression', '9632 Sherman Crossing', 'Melbourne', 'Florida',
'32941');
INSERT INTO Patient (first_name, last_name, dob, gender, phone_number,
medical_history_notes, street, city, state, zipcode)
    VALUES ('Eunice', 'Cartman', '1975-01-19', 'F', '609-893-6117',
            'Depression', '19 Kenwood Point', 'Trenton', 'New Jersey',
'8608');
INSERT INTO Patient (first_name, last_name, dob, gender, phone_number,
medical_history_notes, street, city, state, zipcode)
    VALUES ('Christel', 'Keelan', '1967-01-18', 'F', '626-518-3494',
            'General Anxiety', '3506 Rockefeller Way', 'Pasadena',
'California', '91103');
INSERT INTO Patient (first_name, last_name, dob, gender, phone_number,
medical_history_notes, street, city, state, zipcode)
```

```
    VALUES ('Tonnie', 'Quig', '1983-06-17', 'M', '914-737-4092',
            'Depression', '26 Spaight Point', 'Staten Island', 'New York',
'10310');
INSERT INTO Patient (first_name, last_name, dob, gender, phone_number,
medical_history_notes, street, city, state, zipcode)
    VALUES ('Eugen', 'Seamarke', '1990-07-30', 'M', '704-965-8288',
            'PTSD', '964 Montana Circle', 'Charlotte', 'North Carolina',
'28205');
INSERT INTO Patient (first_name, last_name, dob, gender, phone_number,
medical_history_notes, street, city, state, zipcode)
    VALUES ('Meade', 'Du Fray', '1993-10-07', 'F', '702-992-5458',
            'Depression', '32196 Monica Way', 'Las Vegas', 'Nevada',
'89150');
INSERT INTO Patient (first_name, last_name, dob, gender, phone_number,
medical_history_notes, street, city, state, zipcode)
    VALUES ('Josias', 'Cavil', '1985-01-30', 'M', '979-511-9943',
            'Depression', '11238 Wayridge Road', 'Bryan', 'Texas',
'77806');
INSERT INTO Patient (first_name, last_name, dob, gender, phone_number,
medical_history_notes, street, city, state, zipcode)
    VALUES ('Ellynn', 'Arrow', '1995-12-08', 'F', '516-841-5623',
            'Depression', '079 Brickson Park Pass', 'Great Neck', 'New
York', '11024');
INSERT INTO Patient (first_name, last_name, dob, gender, phone_number,
medical_history_notes, street, city, state, zipcode)
    VALUES ('Harv', 'Sandham', '2001-01-24', 'M', '225-220-5485',
            'PTSD', '97487 Upham Parkway', 'Baton Rouge', 'Louisiana',
'70805');
INSERT INTO Patient (first_name, last_name, dob, gender, phone_number,
medical_history_notes, street, city, state, zipcode)
    VALUES ('Albertine', 'Halfacre', '1985-11-15', 'F', '916-306-8786',
            'PTSD', '82 Hoepker Park', 'Sacramento', 'California',
'94237');
INSERT INTO Patient (first_name, last_name, dob, gender, phone_number,
medical_history_notes, street, city, state, zipcode)
    VALUES ('Donelle', 'Leeds', '1979-08-03', 'F', '602-482-8077',
            'Depression', '29201 Carey Junction', 'Phoenix', 'Arizona',
'85053');
INSERT INTO Patient (first_name, last_name, dob, gender, phone_number,
medical_history_notes, street, city, state, zipcode)
    VALUES ('Delaney', 'Tredwell', '2002-06-25', 'M', '248-937-9506',
            'Depression', '70 Maywood Parkway', 'Farmington', 'Michigan',
'48335');
INSERT INTO Patient (first_name, last_name, dob, gender, phone_number,
medical_history_notes, street, city, state, zipcode)
    VALUES ('Reggis', 'Gilyatt', '2005-07-16', 'F', '321-362-4165',
            'General Anxiety', '7635 Clyde Gallagher Road', 'Melbourne',
'Florida', '32919');
INSERT INTO Patient (first_name, last_name, dob, gender, phone_number,
medical_history_notes, street, city, state, zipcode)
    VALUES ('Jenna', 'Gunney', '1998-07-14', 'F', '816-636-3869',
            'Depression', '6014 Onsgard Pass', 'Kansas City', 'Missouri',
'64142');
INSERT INTO Patient (first_name, last_name, dob, gender, phone_number,
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medical_history_notes, street, city, state, zipcode)
    VALUES ('Haydon', 'Popelay', '1991-10-02', 'M', '361-126-5041',
            'General Anxiety', '74970 Mayfield Trail', 'Corpus Christi',
'Texas', '78470');
INSERT INTO Patient (first_name, last_name, dob, gender, phone_number,
medical_history_notes, street, city, state, zipcode)
    VALUES ('Christyna', 'Kepling', '2003-04-19', 'F', '913-670-9586',
            'General Anxiety', '2 Redwing Junction', 'Shawnee Mission',
'Kansas', '66276');
INSERT INTO Patient (first_name, last_name, dob, gender, phone_number,
medical_history_notes, street, city, state, zipcode)
    VALUES ('Ranee', 'Posten', '1997-06-24', 'F', '773-492-4004',
            'Depression', '2 Huxley Street', 'Chicago', 'Illinois',
'60636');
INSERT INTO Patient (first_name, last_name, dob, gender, phone_number,
medical_history_notes, street, city, state, zipcode)
    VALUES ('Bernetta', 'Skyme', '1972-08-08', 'F', '816-125-5786',
            'Depression', '61977 Bashford Terrace', 'Kansas City',
'Missouri', '64130');
INSERT INTO Patient (first_name, last_name, dob, gender, phone_number,
medical_history_notes, street, city, state, zipcode)
    VALUES ('Paxon', 'Huyghe', '1984-03-10', 'M', '239-930-4603',
            'Depression', '74 Erie Road', 'Fort Myers', 'Florida',
'33994');
INSERT INTO Patient (first_name, last_name, dob, gender, phone_number,
medical_history_notes, street, city, state, zipcode)
    VALUES ('Gussie', 'Matzeitis', '1987-02-22', 'F', '202-418-3467',
            'General Anxiety', '750 Sunbrook Point', 'Washington',
'District of Columbia', '20414');
INSERT INTO Patient (first_name, last_name, dob, gender, phone_number,
medical_history_notes, street, city, state, zipcode)
    VALUES ('Nelli', 'Stihl', '1990-12-19', 'F', '206-349-3659',
            'General Anxiety', '7410 Westerfield Hill', 'Seattle',
'Washington', '98166');
INSERT INTO Patient (first_name, last_name, dob, gender, phone_number,
medical_history_notes, street, city, state, zipcode)
    VALUES ('Lorettalorna', 'Radoux', '2001-11-09', 'F', '816-916-9953',
            'Depression', '05 Fair Oaks Point', 'Kansas City', 'Missouri',
'64160');
INSERT INTO Patient (first_name, last_name, dob, gender, phone_number,
medical_history_notes, street, city, state, zipcode)
    VALUES ('Smith', 'Ricardet', '2000-02-14', 'M', '678-707-5205',
            'Depression', '9 Pine View Way', 'Alpharetta', 'Georgia',
'30022');
INSERT INTO Patient (first_name, last_name, dob, gender, phone_number,
medical_history_notes, street, city, state, zipcode)
    VALUES ('Finley', 'Dainton', '2005-12-22', 'F', '913-659-6346',
            'General Anxiety', '6 Leroy Street', 'Shawnee Mission',
'Kansas', '66215');
INSERT INTO Patient (first_name, last_name, dob, gender, phone_number,
medical_history_notes, street, city, state, zipcode)
    VALUES ('Elladine', 'Trimmill', '1968-09-20', 'F', '714-630-3661',
            'Depression', '0679 Barby Circle', 'Irvine', 'California',
'92612');
```

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INSERT INTO Patient (first_name, last_name, dob, gender, phone_number,
medical_history_notes, street, city, state, zipcode)
    VALUES ('Sadella', 'Mewes', '1966-05-25', 'F', '203-829-4505',
            'Depression', '1021 Westridge Court', 'Waterbury',
'Connecticut', '6721');
INSERT INTO Patient (first_name, last_name, dob, gender, phone_number,
medical_history_notes, street, city, state, zipcode)
    VALUES ('Malina', 'Cullum', '1970-10-07', 'F', '402-631-6149',
            'General Anxiety', '976 Kim Hill', 'Omaha', 'Nebraska',
'68197');
INSERT INTO Patient (first_name, last_name, dob, gender, phone_number,
medical_history_notes, street, city, state, zipcode)
    VALUES ('Hernando', 'Santori', '1977-10-26', 'M', '334-783-4671',
            'General Anxiety', '60 Loftsgordon Lane', 'Montgomery',
'Alabama', '36104');
INSERT INTO Patient (first_name, last_name, dob, gender, phone_number,
medical_history_notes, street, city, state, zipcode)
    VALUES ('Ealasaid', 'Crumpe', '1986-12-27', 'F', '561-288-6809',
            'Panic Disorder', '53952 Truax Crossing', 'Boca Raton',
'Florida', '33499');
INSERT INTO Patient (first_name, last_name, dob, gender, phone_number,
medical_history_notes, street, city, state, zipcode)
    VALUES ('Prescott', 'Alliberton', '1963-02-19', 'M', '719-136-7983',
            'Depression', '533 Laurel Parkway', 'Pueblo', 'Colorado',
'81015');
INSERT INTO Patient (first_name, last_name, dob, gender, phone_number,
medical_history_notes, street, city, state, zipcode)
    VALUES ('Eugen', 'Seeman', '1988-09-29', 'M', '330-428-0144',
            'Depression', '05642 Stone Corner Street', 'Youngstown',
'Ohio', '44505');
INSERT INTO Patient (first_name, last_name, dob, gender, phone_number,
medical_history_notes, street, city, state, zipcode)
    VALUES ('Alvan', 'Spacy', '1994-07-25', 'M', '203-253-5491',
            'Panic Disorder', '56 Kings Court', 'New Haven',
'Connecticut', '6538');
INSERT INTO Patient (first_name, last_name, dob, gender, phone_number,
medical_history_notes, street, city, state, zipcode)
    VALUES ('Cissy', 'Noblet', '1995-06-26', 'F', '678-333-1960',
            'OCD', '7902 1st Lane', 'Atlanta', 'Georgia', '30328');
INSERT INTO Patient (first_name, last_name, dob, gender, phone_number,
medical_history_notes, street, city, state, zipcode)
    VALUES ('Jodie', 'Mossdale', '2001-07-05', 'F', '920-737-1554',
            'Depression', '110 American Lane', 'Green Bay', 'Wisconsin',
'54305');
INSERT INTO Patient (first_name, last_name, dob, gender, phone_number,
medical_history_notes, street, city, state, zipcode)
    VALUES ('Kipper', 'Eldin', '2002-01-14', 'M', '505-848-4781',
            'Depression', '52 Clyde Gallagher Circle', 'Albuquerque', 'New
Mexico', '87110');
INSERT INTO Patient (first_name, last_name, dob, gender, phone_number,
medical_history_notes, street, city, state, zipcode)
    VALUES ('Shirlee', 'Heigold', '1999-06-24', 'F', '714-752-5989',
            'OCD', '48737 Springview Hill', 'Newport Beach', 'California',
'92662');
```

```
INSERT INTO Patient (first_name, last_name, dob, gender, phone_number,
medical_history_notes, street, city, state, zipcode)
    VALUES ('Marne', 'Adamov', '1992-03-15', 'F', '313-548-5603',
            'Depression', '7 Beilfuss Circle', 'Detroit', 'Michigan',
'48217');
INSERT INTO Patient (first_name, last_name, dob, gender, phone_number,
medical_history_notes, street, city, state, zipcode)
    VALUES ('Kiah', 'Jacmar', '1965-07-04', 'F', '626-845-5272',
            'Depression', '60 Logan Center', 'Pasadena', 'California',
'91131');
INSERT INTO Patient (first_name, last_name, dob, gender, phone_number,
medical_history_notes, street, city, state, zipcode)
    VALUES ('Tiffy', 'Sahlstrom', '2002-03-05', 'F', '847-254-9561',
            'Depression', '4 Melby Parkway', 'Chicago', 'Illinois',
'60646');
INSERT INTO Patient (first_name, last_name, dob, gender, phone_number,
medical_history_notes, street, city, state, zipcode)
    VALUES ('Jojo', 'Pillifant', '2002-09-04', 'F', '979-897-0432',
            'OCD', '05785 Jenna Hill', 'College Station', 'Texas',
'77844');
INSERT INTO Patient (first_name, last_name, dob, gender, phone_number,
medical_history_notes, street, city, state, zipcode)
    VALUES ('Audry', 'Klemke', '2005-07-19', 'F', '412-317-6013',
            NULL, '910 Orin Park', 'Mc Keesport', 'Pennsylvania',
'15134');
INSERT INTO Patient (first_name, last_name, dob, gender, phone_number,
medical_history_notes, street, city, state, zipcode)
    VALUES ('Richart', 'Kennard', '1998-04-03', 'F', '918-261-8433',
            NULL, '304 Harbort Trail', 'Tulsa', 'Oklahoma', '74193');
INSERT INTO Patient (first_name, last_name, dob, gender, phone_number,
medical_history_notes, street, city, state, zipcode)
    VALUES ('Viviene', 'Noto', '1969-04-29', 'F', '405-881-3888',
            NULL, '79975 Prentice Place', 'Oklahoma City', 'Oklahoma',
'73179');
INSERT INTO Patient (first_name, last_name, dob, gender, phone_number,
medical_history_notes, street, city, state, zipcode)
    VALUES ('Sinclare', 'Avarne', '1989-11-19', 'M', '972-660-8586',
            NULL, '82625 Mallard Park', 'Dallas', 'Texas', '75287');
```

Therapist INSERT statements:

```
INSERT INTO Therapist (therapist_id, first_name, last_name,
specialization, qualification) VALUES (1, 'Bealle', 'Duffitt', 'CBT',
'PsyD');
INSERT INTO Therapist (therapist_id, first_name, last_name,
specialization, qualification) VALUES (2, 'Nonie', 'Stoney', 'DBT',
'LPC');
INSERT INTO Therapist (therapist_id, first_name, last_name,
specialization, qualification) VALUES (3, 'Jodee', 'Essam', 'Family
Systems', 'LPC');
```

```
INSERT INTO Therapist (therapist_id, first_name, last_name,
specialization, qualification) VALUES (4, 'Sonny', 'Ciobutaro', 'CBT',
'PsyD');
INSERT INTO Therapist (therapist_id, first_name, last_name,
specialization, qualification) VALUES (5, 'Veronike', 'Cumberland', 'CBT',
'MD');
INSERT INTO Therapist (therapist_id, first_name, last_name,
specialization, qualification) VALUES (6, 'Taber', 'Killeen', 'Trauma
Focused', 'MD');
INSERT INTO Therapist (therapist_id, first_name, last_name,
specialization, qualification) VALUES (7, 'Catie', 'Turley', 'DBT',
'PsyD');
INSERT INTO Therapist (therapist_id, first_name, last_name,
specialization, qualification) VALUES (8, 'Roman', 'Cadore', 'CBT', 'MD');
INSERT INTO Therapist (therapist_id, first_name, last_name,
specialization, qualification) VALUES (9, 'Lianne', 'Stennet', 'Family
Systems', 'MD');
INSERT INTO Therapist (therapist_id, first_name, last_name,
specialization, qualification) VALUES (10, 'Ernesto', 'Blakeman', 'DBT',
'MD');
INSERT INTO Therapist (therapist_id, first_name, last_name,
specialization, qualification) VALUES (11, 'Allene', 'Brilleman', 'DBT',
'PsyD');
INSERT INTO Therapist (therapist_id, first_name, last_name,
specialization, qualification) VALUES (12, 'Anneliese', 'Measor', 'DBT',
'MD');
INSERT INTO Therapist (therapist_id, first_name, last_name,
specialization, qualification) VALUES (13, 'Guss', 'Culleton', 'CBT',
'MD');
INSERT INTO Therapist (therapist_id, first_name, last_name,
specialization, qualification) VALUES (14, 'Ariela', 'Stokoe', 'Trauma
Focused', 'PsyD');
INSERT INTO Therapist (therapist_id, first_name, last_name,
specialization, qualification) VALUES (15, 'Collen', 'Weedenburg', 'Trauma
Focused', 'LPC');
INSERT INTO Therapist (therapist_id, first_name, last_name,
specialization, qualification) VALUES (16, 'Simone', 'Battams', 'Family
Systems', 'LPC');
INSERT INTO Therapist (therapist_id, first_name, last_name,
specialization, qualification) VALUES (17, 'Katusha', 'Charge', 'CBT',
'PsyD');
INSERT INTO Therapist (therapist_id, first_name, last_name,
specialization, qualification) VALUES (18, 'Darlleen', 'Morrallee', 'CBT',
'LPC');
INSERT INTO Therapist (therapist_id, first_name, last_name,
specialization, qualification) VALUES (19, 'Federica', 'De Clairmont',
'CBT', 'MD');
INSERT INTO Therapist (therapist_id, first_name, last_name,
specialization, qualification) VALUES (20, 'Murray', 'Bernaciak', 'Family
Systems', 'LPC');
```

Therapist Schedule INSERT statements:

```
INSERT INTO TherapistSchedule (schedule_id, therapist_id, DayOfTheWeek,
Start_Time, End_Time) VALUES (1, 1, 'Monday', '08:30:00', '10:30:00');
INSERT INTO TherapistSchedule (schedule_id, therapist_id, DayOfTheWeek,
Start_Time, End_Time) VALUES (2, 2, 'Tuesday', '10:30:00', '12:30:00');
INSERT INTO TherapistSchedule (schedule_id, therapist_id, DayOfTheWeek,
Start_Time, End_Time) VALUES (3, 3, 'Wednesday', '10:00:00', '11:00:00');
INSERT INTO TherapistSchedule (schedule_id, therapist_id, DayOfTheWeek,
Start_Time, End_Time) VALUES (4, 4, 'Thursday', '09:15:00', '11:15:00');
INSERT INTO TherapistSchedule (schedule_id, therapist_id, DayOfTheWeek,
Start_Time, End_Time) VALUES (5, 5, 'Friday', '15:30:00', '16:30:00');
INSERT INTO TherapistSchedule (schedule_id, therapist_id, DayOfTheWeek,
Start_Time, End_Time) VALUES (6, 6, 'Tuesday', '11:00:00', '11:30:43');
INSERT INTO TherapistSchedule (schedule_id, therapist_id, DayOfTheWeek,
Start_Time, End_Time) VALUES (7, 7, 'Thursday', '09:30:00', '11:30:00');
INSERT INTO TherapistSchedule (schedule_id, therapist_id, DayOfTheWeek,
Start_Time, End_Time) VALUES (8, 8, 'Monday', '16:30:00', '17:30:00');
INSERT INTO TherapistSchedule (schedule_id, therapist_id, DayOfTheWeek,
Start_Time, End_Time) VALUES (9, 9, 'Tuesday', '14:00:00', '15:30:00');
INSERT INTO TherapistSchedule (schedule_id, therapist_id, DayOfTheWeek,
Start_Time, End_Time) VALUES (10, 10, 'Wednesday', '13:00:00',
'14:30:00');
INSERT INTO TherapistSchedule (schedule_id, therapist_id, DayOfTheWeek,
Start_Time, End_Time) VALUES (11, 11, 'Thursday', '14:30:00', '11:00:00');
INSERT INTO TherapistSchedule (schedule_id, therapist_id, DayOfTheWeek,
Start_Time, End_Time) VALUES (12, 12, 'Friday', '16:15:00', '17:15:00');
INSERT INTO TherapistSchedule (schedule_id, therapist_id, DayOfTheWeek,
Start_Time, End_Time) VALUES (13, 13, 'Tuesday', '08:30:00', '10:30:00');
INSERT INTO TherapistSchedule (schedule_id, therapist_id, DayOfTheWeek,
Start_Time, End_Time) VALUES (14, 14, 'Thursday', '11:15:00', '12:15:00');
INSERT INTO TherapistSchedule (schedule_id, therapist_id, DayOfTheWeek,
Start_Time, End_Time) VALUES (15, 15, 'Friday', '13:15:00', '14:45:00');
INSERT INTO TherapistSchedule (schedule_id, therapist_id, DayOfTheWeek,
Start_Time, End_Time) VALUES (16, 16, 'Monday', '16:30:00', '17:00:00');
INSERT INTO TherapistSchedule (schedule_id, therapist_id, DayOfTheWeek,
Start_Time, End_Time) VALUES (17, 17, 'Tuesday', '16:00:00', '17:30:00');
INSERT INTO TherapistSchedule (schedule_id, therapist_id, DayOfTheWeek,
Start_Time, End_Time) VALUES (18, 18, 'Wednesday', '14:15:00',
'15:15:00');
INSERT INTO TherapistSchedule (schedule_id, therapist_id, DayOfTheWeek,
Start_Time, End_Time) VALUES (19, 19, 'Thursday', '14:45:00', '15:45:00');
INSERT INTO TherapistSchedule (schedule_id, therapist_id, DayOfTheWeek,
Start_Time, End_Time) VALUES (20, 20, 'Friday', '13:30:00', '14:00:00');
INSERT INTO TherapistSchedule (schedule_id, therapist_id, DayOfTheWeek,
Start_Time, End_Time) VALUES (21, 1, 'Wednesday', '10:45:00', '11:15:00');
INSERT INTO TherapistSchedule (schedule_id, therapist_id, DayOfTheWeek,
Start_Time, End_Time) VALUES (22, 2, 'Thursday', '14:30:00', '15:30:00');
INSERT INTO TherapistSchedule (schedule_id, therapist_id, DayOfTheWeek,
Start_Time, End_Time) VALUES (23, 3, 'Monday', '08:00:00', '10:00:00');
INSERT INTO TherapistSchedule (schedule_id, therapist_id, DayOfTheWeek,
Start_Time, End_Time) VALUES (24, 4, 'Tuesday', '10:30:00', '11:30:00');
```

```
INSERT INTO TherapistSchedule (schedule_id, therapist_id, DayOfTheWeek,
Start_Time, End_Time) VALUES (25, 5, 'Wednesday', '15:00:00', '16:30:00');
INSERT INTO TherapistSchedule (schedule_id, therapist_id, DayOfTheWeek,
Start_Time, End_Time) VALUES (26, 6, 'Thursday', '13:30:00', '14:30:00');
INSERT INTO TherapistSchedule (schedule_id, therapist_id, DayOfTheWeek,
Start_Time, End_Time) VALUES (27, 7, 'Friday', '13:30:00', '14:00:00');
INSERT INTO TherapistSchedule (schedule_id, therapist_id, DayOfTheWeek,
Start_Time, End_Time) VALUES (28, 8, 'Tuesday', '11:15:00', '12:15:00');
INSERT INTO TherapistSchedule (schedule_id, therapist_id, DayOfTheWeek,
Start_Time, End_Time) VALUES (29, 9, 'Thursday', '16:00:00', '16:30:00');
INSERT INTO TherapistSchedule (schedule_id, therapist_id, DayOfTheWeek,
Start_Time, End_Time) VALUES (30, 10, 'Monday', '11:30:00', '12:30:00');
INSERT INTO TherapistSchedule (schedule_id, therapist_id, DayOfTheWeek,
Start_Time, End_Time) VALUES (31, 11, 'Tuesday', '08:15:00', '09:15:00');
INSERT INTO TherapistSchedule (schedule_id, therapist_id, DayOfTheWeek,
Start_Time, End_Time) VALUES (32, 12, 'Wednesday', '16:30:00',
'17:00:00');
INSERT INTO TherapistSchedule (schedule_id, therapist_id, DayOfTheWeek,
Start_Time, End_Time) VALUES (33, 13, 'Thursday', '10:00:00', '12:00:00');
INSERT INTO TherapistSchedule (schedule_id, therapist_id, DayOfTheWeek,
Start_Time, End_Time) VALUES (34, 14, 'Friday', '14:30:00', '15:00:00');
INSERT INTO TherapistSchedule (schedule_id, therapist_id, DayOfTheWeek,
Start_Time, End_Time) VALUES (35, 15, 'Monday', '15:30:00', '16:30:00');
INSERT INTO TherapistSchedule (schedule_id, therapist_id, DayOfTheWeek,
Start_Time, End_Time) VALUES (36, 16, 'Tuesday', '08:30:00', '09:30:00');
INSERT INTO TherapistSchedule (schedule_id, therapist_id, DayOfTheWeek,
Start_Time, End_Time) VALUES (37, 17, 'Wednesday', '16:30:00',
'17:00:00');
INSERT INTO TherapistSchedule (schedule_id, therapist_id, DayOfTheWeek,
Start_Time, End_Time) VALUES (38, 18, 'Thursday', '11:00:00', '12:00:00');
INSERT INTO TherapistSchedule (schedule_id, therapist_id, DayOfTheWeek,
Start_Time, End_Time) VALUES (39, 19, 'Friday', '12:30:00', '14:30:00');
INSERT INTO TherapistSchedule (schedule_id, therapist_id, DayOfTheWeek,
Start_Time, End_Time) VALUES (40, 20, 'Monday', '10:15:00', '11:15:00');
INSERT INTO TherapistSchedule (schedule_id, therapist_id, DayOfTheWeek,
Start_Time, End_Time) VALUES (41, 1, 'Tuesday', '08:15:00', '10:15:00');
INSERT INTO TherapistSchedule (schedule_id, therapist_id, DayOfTheWeek,
Start_Time, End_Time) VALUES (42, 2, 'Thursday', '11:30:00', '12:30:00');
INSERT INTO TherapistSchedule (schedule_id, therapist_id, DayOfTheWeek,
Start_Time, End_Time) VALUES (43, 3, 'Monday', '08:15:00', '09:45:00');
INSERT INTO TherapistSchedule (schedule_id, therapist_id, DayOfTheWeek,
Start_Time, End_Time) VALUES (44, 4, 'Tuesday', '09:30:00', '10:30:00');
INSERT INTO TherapistSchedule (schedule_id, therapist_id, DayOfTheWeek,
Start_Time, End_Time) VALUES (45, 5, 'Wednesday', '15:30:36', '16:00:00');
INSERT INTO TherapistSchedule (schedule_id, therapist_id, DayOfTheWeek,
Start_Time, End_Time) VALUES (46, 6, 'Thursday', '15:00:00', '15:30:00');
INSERT INTO TherapistSchedule (schedule_id, therapist_id, DayOfTheWeek,
Start_Time, End_Time) VALUES (47, 7, 'Friday', '10:00:00', '10:30:00');
INSERT INTO TherapistSchedule (schedule_id, therapist_id, DayOfTheWeek,
Start_Time, End_Time) VALUES (48, 8, 'Tuesday', '21:24:07', '04:10:35');
INSERT INTO TherapistSchedule (schedule_id, therapist_id, DayOfTheWeek,
Start_Time, End_Time) VALUES (49, 9, 'Thursday', '14:00:00', '15:00:00');
INSERT INTO TherapistSchedule (schedule_id, therapist_id, DayOfTheWeek,
```

```
Start_Time, End_Time) VALUES (50, 10, 'Monday', '08:30:00', '09:30:00');
```

Therapy INSERT statements:

```
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (1, 50, '2024-
04-21', 30, 'Continue CBT', FALSE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (2, 25, '2023-
10-26', 120, 'Continue Medications', FALSE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (3, 17, '2024-
07-28', 60, 'Mindfulness Exercises', FALSE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (4, 28, '2023-
10-03', 90, 'Breathing Exercises for stress relief', FALSE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (5, 37, '2023-
11-21', 30, 'Continue CBT', FALSE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (6, 50, '2024-
09-01', 60, 'Mindfulness Exercises', FALSE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (7, 30, '2024-
09-23', 120, 'Continue Medications', TRUE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (8, 5, '2024-
06-15', 120, 'Continue Medications', FALSE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (9, 47, '2024-
07-24', 90, 'Breathing Exercises for stress relief', TRUE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (10, 21, '2024-
08-04', 60, 'Mindfulness Exercises', TRUE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (11, 19, '2024-
02-27', 60, 'Mindfulness Exercises', TRUE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (12, 43, '2024-
04-07', 90, 'Breathing Exercises for stress relief', TRUE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (13, 26, '2024-
07-13', 60, 'Mindfulness Exercises', TRUE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (14, 4, '2024-
01-12', 120, 'None', TRUE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (15, 35, '2023-
10-19', 30, 'None', FALSE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
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duration_minutes, therapy_notes, followup_required) VALUES (16, 2, '2024-
04-25', 90, 'Breathing Exercises for stress relief', FALSE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (17, 11, '2024-
07-04', 30, 'Continue CBT', TRUE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (18, 24, '2023-
10-06', 60, 'Mindfulness Exercises', TRUE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (19, 24, '2024-
04-29', 90, 'None', FALSE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (20, 18, '2024-
03-28', 90, 'Breathing Exercises for stress relief', TRUE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (21, 24, '2023-
10-02', 60, 'Mindfulness Exercises', TRUE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (22, 34, '2023-
10-06', 120, 'Continue Medications', FALSE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (23, 13, '2023-
10-05', 120, 'None', TRUE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (24, 16, '2024-
06-05', 30, 'Continue CBT', FALSE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (25, 37, '2024-
05-27', 60, 'Mindfulness Exercises', TRUE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (26, 31, '2024-
03-17', 120, 'None', FALSE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (27, 38, '2024-
08-24', 120, 'Continue Medications', FALSE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (28, 42, '2024-
03-12', 30, 'Continue CBT', FALSE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (29, 22, '2023-
11-03', 90, 'Breathing Exercises for stress relief', FALSE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (30, 38, '2024-
07-12', 60, 'Mindfulness Exercises', TRUE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (31, 14, '2024-
06-22', 60, 'Mindfulness Exercises', TRUE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (32, 13, '2024-
04-26', 90, 'Breathing Exercises for stress relief', FALSE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (33, 39, '2024-
04-17', 120, 'Continue Medications', TRUE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
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duration_minutes, therapy_notes, followup_required) VALUES (34, 26, '2023-
12-20', 30, 'None', TRUE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (35, 23, '2024-
10-07', 90, 'Breathing Exercises for stress relief', TRUE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (36, 4, '2023-
11-08', 90, 'Breathing Exercises for stress relief', FALSE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (37, 29, '2024-
07-17', 120, 'Continue Medications', TRUE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (38, 10, '2024-
09-02', 60, 'Mindfulness Exercises', FALSE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (39, 31, '2024-
09-20', 60, 'Mindfulness Exercises', TRUE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (40, 13, '2024-
05-05', 120, 'Continue Medications', FALSE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (41, 3, '2024-
08-25', 90, 'None', TRUE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (42, 39, '2024-
08-09', 120, 'Continue Medications', FALSE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (43, 50, '2024-
05-30', 120, 'Continue Medications', TRUE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (44, 13, '2024-
07-24', 60, 'None', TRUE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (45, 34, '2024-
07-14', 60, 'Mindfulness Exercises', FALSE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (46, 23, '2024-
03-03', 60, 'Mindfulness Exercises', FALSE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (47, 5, '2024-
04-26', 90, 'Breathing Exercises for stress relief', TRUE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (48, 37, '2024-
09-10', 90, 'Breathing Exercises for stress relief', TRUE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (49, 39, '2024-
07-23', 30, 'None', FALSE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (50, 23, '2024-
03-12', 60, 'Mindfulness Exercises', TRUE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (51, 25, '2024-
05-19', 60, 'None', TRUE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
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duration_minutes, therapy_notes, followup_required) VALUES (52, 31, '2024-
03-26', 120, 'None', TRUE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (53, 2, '2024-
09-17', 30, 'Continue CBT', FALSE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (54, 30, '2024-
07-21', 30, 'Continue CBT', FALSE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (55, 11, '2023-
11-22', 30, 'None', FALSE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (56, 44, '2024-
06-05', 90, 'Breathing Exercises for stress relief', FALSE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (57, 35, '2024-
04-06', 30, 'Continue CBT', TRUE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (58, 41, '2024-
04-18', 90, 'Breathing Exercises for stress relief', TRUE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (59, 9, '2024-
06-28', 90, 'Breathing Exercises for stress relief', TRUE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (60, 5, '2024-
05-12', 90, 'None', FALSE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (61, 15, '2024-
04-18', 30, 'None', TRUE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (62, 7, '2024-
06-05', 90, 'None', FALSE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (63, 22, '2024-
04-25', 60, 'Mindfulness Exercises', FALSE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (64, 7, '2024-
03-12', 60, 'Mindfulness Exercises', FALSE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (65, 7, '2024-
09-08', 60, 'Mindfulness Exercises', FALSE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (66, 48, '2023-
10-28', 30, 'Continue CBT', TRUE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (67, 39, '2024-
07-28', 120, 'Continue Medications', TRUE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (68, 1, '2024-
06-12', 60, 'None', FALSE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (69, 12, '2023-
10-25', 90, 'Breathing Exercises for stress relief', FALSE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
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duration_minutes, therapy_notes, followup_required) VALUES (70, 42, '2024-
04-25', 30, 'None', FALSE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (71, 12, '2024-
08-03', 90, 'Breathing Exercises for stress relief', TRUE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (72, 3, '2024-
09-19', 120, 'Continue Medications', TRUE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (73, 39, '2023-
11-18', 120, 'Continue Medications', FALSE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (74, 3, '2023-
12-18', 30, 'Continue CBT', FALSE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (75, 3, '2023-
11-27', 60, 'Mindfulness Exercises', TRUE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (76, 40, '2024-
02-04', 120, 'Continue Medications', TRUE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (77, 37, '2024-
02-03', 30, 'Continue CBT', FALSE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (78, 30, '2023-
10-07', 120, 'None', TRUE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (79, 23, '2023-
12-24', 90, 'Breathing Exercises for stress relief', TRUE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (80, 7, '2024-
05-17', 90, 'Breathing Exercises for stress relief', FALSE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (81, 19, '2023-
11-23', 30, 'Continue CBT', FALSE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (82, 23, '2024-
06-05', 90, 'Breathing Exercises for stress relief', TRUE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (83, 44, '2024-
05-12', 120, 'Continue Medications', FALSE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (84, 19, '2023-
11-15', 60, 'Mindfulness Exercises', TRUE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (85, 27, '2023-
10-07', 90, 'None', FALSE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (86, 5, '2023-
11-29', 90, 'None', TRUE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (87, 45, '2024-
07-28', 90, 'Breathing Exercises for stress relief', FALSE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
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duration_minutes, therapy_notes, followup_required) VALUES (88, 38, '2024-
06-14', 90, 'Breathing Exercises for stress relief', FALSE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (89, 46, '2024-
03-18', 60, 'Mindfulness Exercises', FALSE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (90, 41, '2024-
06-02', 60, 'Mindfulness Exercises', FALSE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (91, 38, '2023-
11-28', 120, 'None', FALSE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (92, 39, '2024-
09-21', 60, 'Mindfulness Exercises', TRUE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (93, 24, '2024-
06-04', 30, 'Continue CBT', FALSE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (94, 15, '2024-
09-06', 90, 'Breathing Exercises for stress relief', TRUE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (95, 13, '2023-
12-22', 120, 'Continue Medications', FALSE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (96, 1, '2023-
10-22', 30, 'Continue CBT', FALSE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (97, 27, '2024-
04-13', 60, 'Mindfulness Exercises', TRUE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (98, 4, '2024-
02-06', 60, 'Mindfulness Exercises', FALSE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (99, 26, '2024-
08-27', 90, 'Breathing Exercises for stress relief', FALSE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (100, 22,
'2023-09-30', 90, 'Breathing Exercises for stress relief', TRUE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (101, 32,
'2024-08-22', 90, 'Breathing Exercises for stress relief', FALSE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (102, 27,
'2023-12-12', 30, 'Continue CBT', TRUE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (103, 5, '2024-
09-22', 90, 'Breathing Exercises for stress relief', FALSE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (104, 16,
'2024-05-27', 60, 'Mindfulness Exercises', TRUE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (105, 43,
'2024-09-20', 90, 'Breathing Exercises for stress relief', TRUE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
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duration_minutes, therapy_notes, followup_required) VALUES (106, 2, '2024-
02-19', 60, 'Mindfulness Exercises', FALSE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (107, 18,
'2024-02-05', 90, 'Breathing Exercises for stress relief', FALSE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (108, 40,
'2024-05-03', 120, 'Continue Medications', FALSE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (109, 2, '2024-
08-06', 120, 'Continue Medications', FALSE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (110, 13,
'2024-05-13', 60, 'None', FALSE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (111, 10,
'2024-04-15', 30, 'Continue CBT', FALSE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (112, 44,
'2024-05-25', 30, 'Continue CBT', FALSE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (113, 17,
'2024-07-25', 30, 'Continue CBT', TRUE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (114, 37,
'2024-03-08', 60, 'Mindfulness Exercises', FALSE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (115, 3, '2024-
05-13', 120, 'Continue Medications', TRUE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (116, 5, '2024-
06-18', 120, 'None', TRUE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (117, 14,
'2024-07-10', 60, 'Mindfulness Exercises', FALSE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (118, 3, '2024-
09-18', 90, 'None', FALSE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (119, 32,
'2024-05-30', 60, 'None', TRUE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (120, 49,
'2023-11-15', 60, 'Mindfulness Exercises', TRUE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (121, 1, '2024-
08-27', 30, 'Continue CBT', FALSE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (122, 46,
'2024-07-05', 30, 'Continue CBT', TRUE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (123, 38,
'2024-04-11', 90, 'Breathing Exercises for stress relief', TRUE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
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duration_minutes, therapy_notes, followup_required) VALUES (124, 4, '2024-
07-11', 30, 'Continue CBT', TRUE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (125, 7, '2023-
12-26', 120, 'Continue Medications', FALSE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (126, 17,
'2024-09-23', 90, 'Breathing Exercises for stress relief', FALSE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (127, 7, '2024-
07-20', 90, 'Breathing Exercises for stress relief', FALSE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (128, 30,
'2024-02-15', 60, 'Mindfulness Exercises', TRUE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (129, 43,
'2024-06-18', 90, 'None', TRUE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (130, 17,
'2024-09-01', 30, 'Continue CBT', FALSE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (131, 44,
'2023-12-28', 30, 'Continue CBT', FALSE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (132, 15,
'2023-10-11', 30, 'Continue CBT', TRUE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (133, 38,
'2024-03-10', 120, 'Continue Medications', TRUE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (134, 19,
'2024-03-29', 30, 'Continue CBT', TRUE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (135, 33,
'2023-10-09', 90, 'Breathing Exercises for stress relief', FALSE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (136, 34,
'2024-02-11', 30, 'Continue CBT', TRUE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (137, 38,
'2024-06-24', 60, 'Mindfulness Exercises', FALSE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (138, 30,
'2024-06-02', 60, 'None', TRUE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (139, 26,
'2024-01-20', 120, 'None', FALSE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (140, 33,
'2024-03-28', 30, 'Continue CBT', TRUE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (141, 45,
'2024-06-16', 30, 'Continue CBT', TRUE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
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duration_minutes, therapy_notes, followup_required) VALUES (142, 37,
'2024-08-12', 60, 'Mindfulness Exercises', FALSE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (143, 6, '2024-
05-21', 120, 'Continue Medications', TRUE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (144, 29,
'2024-09-15', 60, 'Mindfulness Exercises', FALSE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (145, 37,
'2023-12-05', 90, 'Breathing Exercises for stress relief', TRUE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (146, 19,
'2024-09-20', 30, 'Continue CBT', FALSE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (147, 14,
'2024-07-29', 30, 'Continue CBT', FALSE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (148, 30,
'2023-11-20', 120, 'Continue Medications', TRUE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (149, 41,
'2024-06-13', 90, 'Breathing Exercises for stress relief', FALSE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (150, 23,
'2024-01-13', 120, 'Continue Medications', TRUE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (151, 4, '2024-
01-24', 30, 'Continue CBT', FALSE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (152, 42,
'2024-01-14', 30, 'Continue CBT', FALSE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (153, 9, '2024-
07-22', 60, 'Mindfulness Exercises', TRUE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (154, 30,
'2024-05-19', 60, 'Mindfulness Exercises', TRUE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (155, 11,
'2024-08-27', 60, 'Mindfulness Exercises', TRUE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (156, 31,
'2024-05-26', 60, 'Mindfulness Exercises', FALSE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (157, 18,
'2024-02-08', 30, 'Continue CBT', FALSE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (158, 28,
'2024-09-18', 30, 'Continue CBT', FALSE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (159, 22,
'2024-02-18', 120, 'Continue Medications', FALSE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
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duration_minutes, therapy_notes, followup_required) VALUES (160, 21,
'2023-12-19', 90, 'Breathing Exercises for stress relief', TRUE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (161, 32,
'2023-12-28', 90, 'Breathing Exercises for stress relief', TRUE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (162, 23,
'2023-11-19', 90, 'Breathing Exercises for stress relief', TRUE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (163, 22,
'2024-02-15', 120, 'Continue Medications', FALSE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (164, 9, '2024-
04-24', 90, 'Breathing Exercises for stress relief', TRUE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (165, 16,
'2024-03-08', 90, 'Breathing Exercises for stress relief', TRUE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (166, 31,
'2024-01-22', 60, 'None', TRUE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (167, 50,
'2023-11-19', 60, 'Mindfulness Exercises', TRUE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (168, 7, '2024-
03-05', 60, 'Mindfulness Exercises', TRUE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (169, 4, '2024-
01-12', 120, 'Continue Medications', FALSE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (170, 38,
'2024-09-27', 30, 'Continue CBT', TRUE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (171, 40,
'2024-01-18', 90, 'Breathing Exercises for stress relief', FALSE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (172, 8, '2024-
07-01', 60, 'None', TRUE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (173, 47,
'2024-09-04', 30, 'Continue CBT', TRUE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (174, 12,
'2023-10-14', 90, 'Breathing Exercises for stress relief', TRUE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (175, 50,
'2023-10-20', 120, 'Continue Medications', TRUE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (176, 7, '2024-
05-02', 30, 'Continue CBT', TRUE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (177, 4, '2024-
04-25', 90, 'Breathing Exercises for stress relief', TRUE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
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duration_minutes, therapy_notes, followup_required) VALUES (178, 35,
'2023-10-27', 90, 'Breathing Exercises for stress relief', TRUE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (179, 24,
'2024-08-03', 120, 'Continue Medications', FALSE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (180, 44,
'2023-11-23', 60, 'Mindfulness Exercises', FALSE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (181, 22,
'2024-09-01', 120, 'None', FALSE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (182, 37,
'2024-04-20', 30, 'Continue CBT', TRUE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (183, 17,
'2024-04-27', 30, 'Continue CBT', TRUE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (184, 6, '2023-
12-14', 120, 'Continue Medications', FALSE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (185, 9, '2023-
11-04', 60, 'Mindfulness Exercises', TRUE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (186, 24,
'2024-02-23', 30, 'Continue CBT', TRUE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (187, 1, '2024-
07-10', 120, 'Continue Medications', TRUE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (188, 50,
'2023-10-03', 90, 'Breathing Exercises for stress relief', FALSE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (189, 8, '2023-
10-13', 60, 'None', FALSE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (190, 20,
'2024-08-19', 30, 'Continue CBT', FALSE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (191, 20,
'2023-12-26', 90, 'None', FALSE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (192, 27,
'2024-04-14', 120, 'None', TRUE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (193, 13,
'2023-10-17', 120, 'Continue Medications', TRUE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (194, 21,
'2024-06-28', 90, 'None', TRUE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (195, 28,
'2024-06-21', 60, 'Mindfulness Exercises', TRUE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
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duration_minutes, therapy_notes, followup_required) VALUES (196, 4, '2023-
11-02', 120, 'None', TRUE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (197, 15,
'2024-05-13', 30, 'Continue CBT', TRUE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (198, 45,
'2024-09-15', 90, 'Breathing Exercises for stress relief', TRUE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (199, 25,
'2023-10-14', 60, 'Mindfulness Exercises', TRUE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (200, 3, '2024-
01-07', 90, 'Breathing Exercises for stress relief', TRUE);
```

Medication INSERT statements:

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INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (1, 6, 1, '
Imipramine', ' 83 mg', '2024-03-27', '2023-12-31');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (2, 5, 1, '
Valproate', ' 42 mg', '2024-09-24', '2023-10-26');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (3, 16, 6,
'digoxin', ' 84 mg', '2024-07-17', '2024-04-03');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (4, 12, 5, '
Eskalith', ' 34 mg', '2024-01-16', '2024-09-04');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (5, 10, 3,
'benazepril hydrochloride and hydrochlorothiazide', ' 54 mg', '2024-05-
14', '2024-03-22');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (6, 6, 16, '
Fluoxetine', ' 50 mg', '2024-07-10', '2024-04-11');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (7, 36, 18,
'Aluminum Chlorohydrate', ' 46 mg', '2023-11-20', '2024-04-08');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (8, 17, 6, ' Sodium
oxybate', ' 56 mg', '2024-02-20', '2024-07-16');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (9, 29, 15, '
Uprima', ' 68 mg', '2024-07-26', '2024-06-14');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (10, 20, 11, '
Duloxetine', ' 79 mg', '2024-03-23', '2024-01-15');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (11, 22, 7,
'Nicotine Polacrilex', ' 20 mg', '2023-11-23', '2024-03-18');
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INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (12, 8, 10,
'Titanium Dioxide', ' 14 mg', '2023-12-16', '2023-11-26');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (13, 24, 9,
'hydromorphone hydrochloride', ' 33 mg', '2024-07-22', '2024-05-05');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (14, 42, 6, 'Bismuth
Subsalicylate', ' 74 mg', '2024-05-23', '2024-01-20');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (15, 37, 17, '
Risperidone', ' 34 mg', '2024-05-04', '2024-06-07');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (16, 2, 3, '
Valium', ' 61 mg', '2024-03-28', '2024-06-13');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (17, 48, 9, '
Nortriptyline', ' 85 mg', '2024-08-22', '2024-03-21');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (18, 18, 5, '
Valproate', ' 42 mg', '2023-11-13', '2023-10-07');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (19, 46, 20, '
Adasuve', ' 44 mg', '2023-12-27', '2024-01-10');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (20, 13, 17, '
Eskalith', ' 34 mg', '2024-05-07', '2024-07-25');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (21, 13, 18, '
Aripiprazole', ' 69 mg', '2024-04-09', '2023-10-06');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (22, 48, 10,
'Dimethicone', ' 49 mg', '2023-10-16', '2024-01-03');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (23, 7, 2, '
Gabitril', ' 78 mg', '2024-06-22', '2023-11-14');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (24, 28, 11,
'Docusate Sodium', ' 25 mg', '2024-04-01', '2024-02-17');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (25, 29, 8, '
Olanzapine', ' 73 mg', '2024-05-04', '2023-12-29');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (26, 25, 20,
'Sorbitol', ' 60 mg', '2023-11-28', '2023-11-22');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (27, 23, 9, '
Quetiapine extended release', ' 12 mg', '2024-03-24', '2023-11-08');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (28, 14, 12, '
Haldol Decanoate', ' 69 mg', '2024-07-15', '2024-07-21');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (29, 44, 12, '
Desyrel', ' 85 mg', '2024-07-25', '2024-07-31');
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INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (30, 30, 16, '
Effexor', ' 96 mg', '2024-08-26', '2024-09-27');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (31, 11, 15, '
Risperidone', ' 34 mg', '2023-12-17', '2024-04-11');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (32, 45, 20, '
Geodon', ' 38 mg', '2024-05-22', '2024-04-02');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (33, 34, 2, '
Doxepin', ' 66 mg', '2024-04-16', '2024-05-20');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (34, 7, 17, '
Carbamazepine', ' 95 mg', '2024-01-19', '2024-02-29');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (35, 32, 17, '
Haloperidol', ' 53 mg', '2023-10-27', '2023-12-03');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (36, 45, 6,
'Fluphenazine Hydrochloride', ' 95 mg', '2024-09-05', '2024-03-29');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (37, 5, 2, '
Risperidone', ' 34 mg', '2024-08-25', '2024-08-06');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (38, 30, 18,
'TOLNAFTATE', ' 90 mg', '2024-06-04', '2024-08-30');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (39, 40, 9, '
Nefazodone', ' 57 mg', '2024-07-12', '2024-09-30');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (40, 13, 20, '
Ginkgo biloba', ' 34 mg', '2024-03-17', '2024-03-26');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (41, 42, 10,
'Nicotine Polacrilex', ' 20 mg', '2024-07-09', '2023-12-16');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (42, 34, 17,
'hydromorphone hydrochloride', ' 33 mg', '2024-02-29', '2023-10-17');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (43, 37, 10,
'Aluminum Chlorohydrate', ' 46 mg', '2024-01-07', '2024-02-16');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (44, 47, 12, '
Phenelzine', ' 93 mg', '2024-04-26', '2023-11-30');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (45, 31, 12, '
Desyrel', ' 85 mg', '2024-03-03', '2023-10-17');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (46, 16, 3, '
Isosorbide', ' 48 mg', '2024-04-19', '2023-12-05');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (47, 45, 3,
'SELEGILINE HYDROCHLORIDE', ' 87 mg', '2023-12-27', '2024-03-02');
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INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (48, 39, 19,
'hydromorphone hydrochloride', ' 33 mg', '2023-10-20', '2024-06-19');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (49, 13, 14, '
Lexapro', ' 72 mg', '2024-06-27', '2024-04-22');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (50, 26, 16,
'Hydrocodone Bitartrate and Ibuprofen', ' 68 mg', '2024-06-13', '2023-12-
16');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (51, 21, 18, '
Risperidone microspheres', ' 10 mg', '2024-08-26', '2023-10-28');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (52, 28, 5, '
Mirapex', ' 27 mg', '2024-09-01', '2024-01-24');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (53, 31, 10, '
Dexedrine', ' 25 mg', '2024-09-13', '2024-01-23');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (54, 49, 14, '
Seroquel', ' 82 mg', '2023-11-27', '2024-07-23');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (55, 22, 13, '
Ziprasidone injection', ' 77 mg', '2024-02-17', '2024-03-05');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (56, 45, 4, '
Zaleplon.', ' 58 mg', '2023-11-01', '2024-06-16');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (57, 16, 10, '
Fluphenazine', ' 48 mg', '2024-09-09', '2023-10-18');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (58, 13, 8, '
Mirapex', ' 27 mg', '2024-04-09', '2023-11-19');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (59, 2, 12, '
Haldol', ' 57 mg', '2024-06-13', '2024-04-19');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (60, 23, 8, 'PHOMA
HERBARUM', ' 12 mg', '2024-06-15', '2024-01-19');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (61, 4, 16, '
Valbenazine', ' 20 mg', '2024-07-06', '2023-10-06');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (62, 32, 17, '
Accupril', ' 33 mg', '2023-12-10', '2024-04-27');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (63, 47, 4,
'Acetaminophen, Dextromethorphan Hydrobromide, Phenylephrine
Hydrochloride', ' 22 mg', '2024-07-08', '2024-05-01');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (64, 25, 18, '
Abilify Maintena', ' 100 mg', '2024-03-12', '2024-06-05');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
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medication_name, dosage, start_date, end_date) VALUES (65, 44, 9, '
Sertraline', ' 25 mg', '2024-07-19', '2024-09-21');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (66, 30, 6, '
Celexa', ' 77 mg', '2024-09-14', '2024-03-04');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (67, 15, 19, '
Clomipramine', ' 19 mg', '2024-01-24', '2023-11-12');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (68, 25, 8, '
Ziprasidone injection', ' 77 mg', '2024-06-25', '2024-06-07');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (69, 10, 5,
'Agrimonia eupatoria, flos, Belladonna, Ceratostigma willmottianum, flos,
Cinchona officinalis, Conium maculatum, Curare, Juglans regia, flos,
Lachesis mutus, Lilium tigrinum, Palladium metallicum, Pinus sylvestris,
flos, Rheum, Salvia officinalis, Verbascum thapsus', ' 94 mg', '2024-04-
22', '2024-05-14');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (70, 37, 1, '
Lyrica', ' 56 mg', '2024-08-31', '2024-01-26');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (71, 18, 20, '
Adasuve', ' 44 mg', '2024-09-18', '2024-06-20');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (72, 45, 7, '
Hydrocodone', ' 44 mg', '2024-08-13', '2024-09-03');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (73, 11, 13, '
Ziprasidone', ' 54 mg', '2023-11-06', '2023-10-15');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (74, 29, 19,
'Cefadroxil', ' 43 mg', '2024-01-19', '2024-06-13');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (75, 29, 16, '
Vortioxetine', ' 53 mg', '2024-03-22', '2024-01-06');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (76, 18, 2, '
Olanzapine/asenapine', ' 47 mg', '2023-10-30', '2024-05-22');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (77, 11, 3, '
Glucophage', ' 72 mg', '2024-04-11', '2024-08-19');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (78, 30, 4, '
Olanzapine/fluoxetine', ' 30 mg', '2024-04-06', '2023-10-20');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (79, 46, 19, '
Imipramine', ' 83 mg', '2024-09-04', '2024-02-18');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (80, 37, 7, '
Fluphenazine', ' 48 mg', '2024-05-16', '2024-03-28');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (81, 20, 17,
'Docusate Sodium', ' 25 mg', '2024-02-29', '2023-11-09');
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INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (82, 21, 18,
'Menthol', ' 53 mg', '2024-07-23', '2024-05-12');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (83, 5, 20,
'Sorbitol', ' 60 mg', '2024-04-25', '2024-04-13');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (84, 29, 3,
'Menthol', ' 53 mg', '2024-03-31', '2024-06-20');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (85, 1, 13,
'tocilizumab', ' 84 mg', '2024-01-17', '2023-10-31');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (86, 25, 16,
'Diphenhydramine Hydrochloride and Phenylephrine Hydrochloride', ' 40 mg',
'2024-03-20', '2024-04-06');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (87, 49, 16, '
Welling', ' 63 mg', '2024-05-22', '2024-03-01');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (88, 8, 10, '
Desvenlafaxine', ' 98 mg', '2024-01-09', '2024-09-11');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (89, 39, 8, '
Trazodone', ' 52 mg', '2023-11-03', '2023-12-04');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (90, 26, 15, '
Atomoxetine', ' 23 mg', '2024-06-14', '2023-10-26');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (91, 17, 2,
'doxycycline', ' 52 mg', '2024-07-04', '2023-12-15');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (92, 43, 16,
'Aluminum Chlorohydrate', ' 46 mg', '2024-01-08', '2024-08-19');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (93, 21, 11, '
Doxylamine', ' 54 mg', '2024-09-24', '2023-11-05');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (94, 34, 3, '
Quetiapine fumarate', ' 34 mg', '2024-07-02', '2024-05-08');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (95, 11, 7, '
Buspirone', ' 24 mg', '2024-08-21', '2024-05-30');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (96, 19, 1, '
Trazodone hydrochloride', ' 33 mg', '2024-01-03', '2024-01-14');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (97, 17, 1, 'Ethyl
Alcohol', ' 14 mg', '2024-08-24', '2024-07-31');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (98, 49, 13, '
Celexa', ' 77 mg', '2024-07-29', '2023-10-10');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (99, 31, 19, '
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Amitriptyline', ' 83 mg', '2023-10-26', '2024-09-04');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (100, 24, 3, '
Trazodone', ' 52 mg', '2024-02-04', '2024-07-02');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (101, 12, 16, '
Desvenlafaxine', ' 98 mg', '2024-02-06', '2023-10-20');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (102, 20, 5, '
Naltrexone', ' 70 mg', '2023-10-05', '2024-07-12');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (103, 7, 12,
'SELEGILINE HYDROCHLORIDE', ' 87 mg', '2024-01-07', '2024-03-03');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (104, 22, 4, '
Olanzapine/fluoxetine', ' 30 mg', '2024-02-27', '2024-05-12');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (105, 15, 16, '
Raloxifene', ' 48 mg', '2024-04-20', '2024-01-03');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (106, 32, 1, '
Pimozide', ' 93 mg', '2023-10-13', '2024-04-06');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (107, 9, 12,
'Bisacodyl', ' 35 mg', '2024-08-22', '2023-12-27');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (108, 25, 14,
'oxitriptan, acetylcholinesterase human, choline chloride, dopamine,
glutamic acid, glycine, histidine, levodopa, malvin, melanin synthetic
(tyrosine, peroxide), nitric oxide, norepinephrine, octopamine, water,
phenylalanine, serotonin, taurine, tryptophan, tyrosine', ' 66 mg', '2023-
11-05', '2024-03-03');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (109, 10, 14, '
Ketamine', ' 50 mg', '2024-06-29', '2024-01-28');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (110, 27, 1, '
Hydroxyzine', ' 69 mg', '2024-09-07', '2024-01-05');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (111, 40, 1, '
Granisetron', ' 16 mg', '2024-09-26', '2024-08-21');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (112, 20, 17,
'doxycycline', ' 52 mg', '2023-10-29', '2024-04-17');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (113, 6, 4, 'Soybean
Oil', ' 67 mg', '2024-07-27', '2024-03-11');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (114, 34, 12,
'Echinacea Argentum', ' 58 mg', '2023-12-26', '2024-06-17');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (115, 44, 12, '
Gabitril', ' 78 mg', '2023-11-16', '2024-05-03');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
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medication_name, dosage, start_date, end_date) VALUES (116, 43, 8,
'Docusate Sodium', ' 25 mg', '2023-12-04', '2024-04-13');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (117, 10, 5, '
Clonazepam', ' 66 mg', '2024-04-28', '2024-02-19');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (118, 18, 16,
'Lithium Carbonate', ' 41 mg', '2024-06-22', '2023-11-28');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (119, 27, 15, '
Seroquel', ' 82 mg', '2024-07-01', '2024-09-14');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (120, 12, 4, '
Olanzapine/asenapine', ' 47 mg', '2024-07-25', '2024-03-18');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (121, 39, 15, '
Fluoxetine', ' 50 mg', '2024-07-01', '2023-11-09');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (122, 25, 19,
'Aluminum Chlorohydrate', ' 46 mg', '2024-04-29', '2024-08-18');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (123, 21, 19,
'Octinoxate, Octisalate, and Oxybenzone', ' 72 mg', '2024-06-22', '2023-
10-30');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (124, 43, 2, 'Ear
Drops', ' 26 mg', '2024-06-19', '2024-02-20');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (125, 5, 18, '
Eskalith', ' 34 mg', '2023-10-26', '2024-01-20');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (126, 31, 20, '
Flupentixol', ' 88 mg', '2023-10-21', '2023-10-10');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (127, 45, 11, '
Olanzapine/asenapine', ' 47 mg', '2024-04-26', '2023-10-08');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (128, 1, 14, '
Glucophage', ' 72 mg', '2024-07-30', '2024-05-05');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (129, 13, 6, '
Lamictal', ' 83 mg', '2024-03-29', '2023-11-14');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (130, 8, 8, '
Abilify MyCite', ' 26 mg', '2024-09-08', '2023-11-08');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (131, 26, 9, '
Zyprexa', ' 40 mg', '2024-06-20', '2024-02-03');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (132, 46, 18,
'Aluminum Chlorohydrate', ' 46 mg', '2023-11-26', '2024-08-11');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (133, 5, 18,
'Titanium Dioxide', ' 14 mg', '2024-05-27', '2023-11-26');
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INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (134, 42, 8, '
Atomoxetine', ' 23 mg', '2024-08-12', '2024-05-29');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (135, 3, 17, '
Raloxifene', ' 48 mg', '2024-07-19', '2024-04-06');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (136, 47, 7, '
Lyrica', ' 56 mg', '2024-05-15', '2024-09-14');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (137, 11, 3, '
Focalin', ' 22 mg', '2024-05-17', '2024-06-26');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (138, 38, 18, '
Ritalin', ' 63 mg', '2024-03-06', '2024-04-08');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (139, 38, 1, '
Risperidone microspheres', ' 10 mg', '2024-09-23', '2023-11-05');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (140, 47, 1, '
Lamotrigine', ' 22 mg', '2023-10-01', '2024-05-19');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (141, 7, 14, '
Paxil', ' 66 mg', '2024-01-23', '2024-07-11');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (142, 10, 8, '
Trazodone hydrochloride', ' 33 mg', '2024-06-17', '2023-10-26');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (143, 15, 2, '
Gabapentin', ' 89 mg', '2024-01-01', '2024-02-06');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (144, 38, 14, '
Lisdexamfetamine', ' 100 mg', '2023-11-27', '2024-07-11');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (145, 16, 9, '
Vilazodone', ' 27 mg', '2024-06-09', '2024-08-08');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (146, 26, 13, '
Dextroamphetamine', ' 72 mg', '2024-03-04', '2023-11-23');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (147, 17, 12,
'hydromorphone hydrochloride', ' 33 mg', '2023-12-23', '2024-05-20');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (148, 44, 17, '
Trazodone hydrochloride', ' 33 mg', '2023-12-25', '2024-02-13');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (149, 24, 8, '
Olanzapine/asenapine', ' 47 mg', '2024-06-15', '2023-11-16');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (150, 26, 8, '
Vilazodone hydrochloride', ' 77 mg', '2024-01-31', '2024-01-07');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (151, 27, 5, '
Trihexyphenidyl', ' 61 mg', '2024-08-17', '2023-11-24');
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INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (152, 46, 17, '
Ethosuximide', ' 90 mg', '2024-09-18', '2023-10-28');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (153, 8, 18, '
Nefazodone', ' 57 mg', '2024-05-31', '2023-10-02');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (154, 14, 8, 'Garrys
Oak', ' 75 mg', '2024-02-03', '2024-07-30');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (155, 5, 4, '
Geodon', ' 38 mg', '2023-10-01', '2023-11-04');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (156, 4, 16,
'hydromorphone hydrochloride', ' 33 mg', '2023-11-07', '2024-02-16');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (157, 23, 4, '
Buspirone', ' 24 mg', '2024-08-17', '2024-05-11');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (158, 17, 13, '
Stimulants', ' 90 mg', '2024-08-09', '2024-06-12');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (159, 5, 8, '
Cymbalta', ' 40 mg', '2024-08-21', '2024-08-23');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (160, 38, 3, 'Agnus
castus, Arnica montana, Caulophyllum thalictroides, Cinchona officinalis,
Damiana, Lactuca virosa, L-arginine,', ' 24 mg', '2023-11-03', '2024-05-
01');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (161, 15, 13, '
Prozac', ' 71 mg', '2024-02-25', '2024-09-05');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (162, 19, 6, '
Effexor', ' 96 mg', '2024-08-23', '2024-03-16');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (163, 16, 20, 'Agnus
castus, Arnica montana, Caulophyllum thalictroides, Cinchona officinalis,
Damiana, Lactuca virosa, L-arginine,', ' 24 mg', '2024-01-04', '2024-07-
11');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (164, 42, 20, '
Xanax', ' 62 mg', '2023-10-21', '2024-07-20');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (165, 31, 6, '
Sulpiride', ' 34 mg', '2024-02-11', '2024-05-06');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (166, 43, 19, '
Glucophage', ' 72 mg', '2024-08-17', '2024-08-17');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (167, 12, 10, '
Tranylcypromine', ' 98 mg', '2023-11-14', '2023-10-28');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (168, 34, 7, '
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Valium', ' 61 mg', '2024-02-15', '2023-10-21');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (169, 27, 1, '
Clomipramine', ' 19 mg', '2024-08-22', '2024-09-18');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (170, 3, 16,
'Nitrofurantion Macrocrystals', ' 14 mg', '2024-05-27', '2024-09-13');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (171, 9, 16,
'Ascorbicum acidum, Cysteinum, Manganum gluconate, Alpha-ketoglutaricum
acidum, Fumaricum acidum, Germainum sesquioxide, Iodium, Magnesium
metallicum, Natrum oxalaceticum, Pulsatilla, Thyroidinum (suis), Vanadium
metallicum,', ' 67 mg', '2023-11-20', '2023-11-30');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (172, 38, 16,
'Salicylic Acid', ' 18 mg', '2024-04-26', '2024-04-10');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (173, 37, 9, '
Ativan', ' 40 mg', '2024-07-07', '2024-07-16');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (174, 29, 13, '
Raloxifene', ' 48 mg', '2023-11-09', '2023-10-11');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (175, 44, 4,
'SELEGILINE HYDROCHLORIDE', ' 87 mg', '2023-11-10', '2024-08-25');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (176, 9, 11,
'Amlodipine Besylate and Benazepril Hydrochloride', ' 62 mg', '2023-11-
26', '2023-10-10');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (177, 15, 4, '
Olanzapine/asenapine', ' 47 mg', '2023-12-24', '2024-05-30');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (178, 2, 9,
'Docusate Sodium', ' 25 mg', '2024-08-05', '2023-12-08');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (179, 8, 10, '
Zaleplon.', ' 58 mg', '2024-06-21', '2024-08-16');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (180, 33, 18, '
Zaleplon.', ' 58 mg', '2023-10-11', '2023-11-13');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (181, 9, 13, '
Fluphenazine', ' 48 mg', '2023-10-04', '2024-04-03');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (182, 42, 5, '
Buspirone', ' 24 mg', '2024-03-28', '2024-01-03');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (183, 43, 5, '
Strattera', ' 93 mg', '2024-08-10', '2024-09-03');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (184, 5, 8, '
Lurasidone', ' 65 mg', '2024-01-08', '2024-02-27');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
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medication_name, dosage, start_date, end_date) VALUES (185, 49, 15, '
Venlafaxine tablets', ' 35 mg', '2023-12-09', '2024-01-20');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (186, 6, 16, 'PHOMA
HERBARUM', ' 12 mg', '2023-12-28', '2024-01-30');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (187, 17, 16, '
Elavil', ' 77 mg', '2023-11-25', '2023-12-01');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (188, 41, 13, '
Gabitril', ' 78 mg', '2024-06-23', '2024-02-12');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (189, 41, 13, '
Lamotrigine', ' 22 mg', '2024-02-19', '2023-11-22');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (190, 7, 1, '
Gabitril', ' 78 mg', '2023-12-23', '2024-01-17');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (191, 39, 6,
'Soybean Oil', ' 67 mg', '2023-12-28', '2024-01-06');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (192, 29, 7,
'TOLNAFTATE', ' 90 mg', '2024-04-20', '2024-07-18');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (193, 36, 18, '
Seroquel', ' 82 mg', '2024-04-28', '2024-05-26');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (194, 47, 8,
'Theophylline Anhydrous', ' 17 mg', '2023-11-11', '2023-11-26');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (195, 38, 6, '
Desyrel', ' 85 mg', '2023-10-23', '2024-09-26');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (196, 44, 20, '
Depakote', ' 92 mg', '2024-09-25', '2024-04-03');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (197, 5, 20, '
Lisdexamfetamine', ' 100 mg', '2024-06-21', '2024-03-12');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (198, 25, 17, '
Atomoxetine', ' 23 mg', '2024-08-14', '2024-08-12');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (199, 37, 16, '
Lorazepam', ' 96 mg', '2024-05-30', '2024-09-20');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (200, 12, 5, '
Adderall', ' 82 mg', '2024-03-26', '2024-01-07');
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Mental Health Screening INSERT statements:

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INSERT INTO MentalHealthScreening (screening_id, form_no, patient_id,
assessment_date, assessment_type, score, notes)
VALUES (1, 'PHQ-9', 1, '2024-01-10', 'Initial Assessment', 15, 'Moderately
severe depression');
INSERT INTO MentalHealthScreening (screening_id, form_no, patient_id,
assessment_date, assessment_type, score, notes)
VALUES (2, 'GAD-7', 2, '2024-01-11', 'Follow-up', 10, 'Moderate anxiety');
INSERT INTO MentalHealthScreening (screening_id, form_no, patient_id,
assessment_date, assessment_type, score, notes)
VALUES (3, 'PHQ-9', 3, '2024-01-12', 'Initial Assessment', 20, 'Severe
depression');
INSERT INTO MentalHealthScreening (screening_id, form_no, patient_id,
assessment_date, assessment_type, score, notes)
VALUES (4, 'GAD-7', 4, '2024-01-13', 'Follow-up', 8, 'Mild anxiety');
INSERT INTO MentalHealthScreening (screening_id, form_no, patient_id,
assessment_date, assessment_type, score, notes)
VALUES (5, 'PHQ-9', 5, '2024-01-14', 'Initial Assessment', 12, 'Moderate
depression');
INSERT INTO MentalHealthScreening (screening_id, form_no, patient_id,
assessment_date, assessment_type, score, notes)
VALUES (6, 'GAD-7', 6, '2024-01-15', 'Follow-up', 9, 'Mild anxiety');
INSERT INTO MentalHealthScreening (screening_id, form_no, patient_id,
assessment_date, assessment_type, score, notes)
VALUES (7, 'PHQ-9', 7, '2024-01-16', 'Initial Assessment', 13, 'Moderate
depression');
INSERT INTO MentalHealthScreening (screening_id, form_no, patient_id,
assessment_date, assessment_type, score, notes)
VALUES (8, 'GAD-7', 8, '2024-01-17', 'Follow-up', 6, 'Mild anxiety');
INSERT INTO MentalHealthScreening (screening_id, form_no, patient_id,
assessment_date, assessment_type, score, notes)
VALUES (9, 'PHQ-9', 9, '2024-01-18', 'Initial Assessment', 14, 'Moderate
depression');
INSERT INTO MentalHealthScreening (screening_id, form_no, patient_id,
assessment_date, assessment_type, score, notes)
VALUES (10, 'GAD-7', 10, '2024-01-19', 'Follow-up', 7, 'Mild anxiety');
INSERT INTO MentalHealthScreening (screening_id, form_no, patient_id,
assessment_date, assessment_type, score, notes)
VALUES (11, 'PHQ-9', 11, '2024-01-20', 'Initial Assessment', 16,
'Moderately severe depression');
INSERT INTO MentalHealthScreening (screening_id, form_no, patient_id,
assessment_date, assessment_type, score, notes)
VALUES (12, 'GAD-7', 12, '2024-01-21', 'Follow-up', 5, 'Mild anxiety');
INSERT INTO MentalHealthScreening (screening_id, form_no, patient_id,
assessment_date, assessment_type, score, notes)
VALUES (13, 'PHQ-9', 13, '2024-01-22', 'Initial Assessment', 18,
'Moderately severe depression');
INSERT INTO MentalHealthScreening (screening_id, form_no, patient_id,
assessment_date, assessment_type, score, notes)
VALUES (14, 'GAD-7', 14, '2024-01-23', 'Follow-up', 4, 'Minimal anxiety');
INSERT INTO MentalHealthScreening (screening_id, form_no, patient_id,
assessment_date, assessment_type, score, notes)
VALUES (15, 'PHQ-9', 15, '2024-01-24', 'Initial Assessment', 17,
'Moderately severe depression');
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INSERT INTO MentalHealthScreening (screening_id, form_no, patient_id,
assessment_date, assessment_type, score, notes)
VALUES (16, 'GAD-7', 16, '2024-01-25', 'Follow-up', 3, 'Minimal anxiety');
INSERT INTO MentalHealthScreening (screening_id, form_no, patient_id,
assessment_date, assessment_type, score, notes)
VALUES (17, 'PHQ-9', 17, '2024-01-26', 'Initial Assessment', 19,
'Moderately severe depression');
INSERT INTO MentalHealthScreening (screening_id, form_no, patient_id,
assessment_date, assessment_type, score, notes)
VALUES (18, 'GAD-7', 18, '2024-01-27', 'Follow-up', 2, 'Minimal anxiety');
INSERT INTO MentalHealthScreening (screening_id, form_no, patient_id,
assessment_date, assessment_type, score, notes)
VALUES (19, 'PHQ-9', 19, '2024-01-28', 'Initial Assessment', 15,
'Moderately severe depression');
INSERT INTO MentalHealthScreening (screening_id, form_no, patient_id,
assessment_date, assessment_type, score, notes)
VALUES (20, 'GAD-7', 20, '2024-01-29', 'Follow-up', 8, 'Mild anxiety');
INSERT INTO MentalHealthScreening (screening_id, form_no, patient_id,
assessment_date, assessment_type, score, notes)
VALUES (21, 'PHQ-9', 21, '2024-01-30', 'Initial Assessment', 14, 'Moderate
depression');
INSERT INTO MentalHealthScreening (screening_id, form_no, patient_id,
assessment_date, assessment_type, score, notes)
VALUES (22, 'GAD-7', 22, '2024-02-01', 'Follow-up', 7, 'Mild anxiety');
INSERT INTO MentalHealthScreening (screening_id, form_no, patient_id,
assessment_date, assessment_type, score, notes)
VALUES (23, 'PHQ-9', 23, '2024-02-02', 'Initial Assessment', 20, 'Severe
depression');
INSERT INTO MentalHealthScreening (screening_id, form_no, patient_id,
assessment_date, assessment_type, score, notes)
VALUES (24, 'GAD-7', 24, '2024-02-03', 'Follow-up', 10, 'Moderate
anxiety');
INSERT INTO MentalHealthScreening (screening_id, form_no, patient_id,
assessment_date, assessment_type, score, notes)
VALUES (25, 'PHQ-9', 25, '2024-02-04', 'Initial Assessment', 13, 'Moderate
depression');
INSERT INTO MentalHealthScreening (screening_id, form_no, patient_id,
assessment_date, assessment_type, score, notes)
VALUES (26, 'GAD-7', 26, '2024-02-05', 'Follow-up', 9, 'Mild anxiety');
INSERT INTO MentalHealthScreening (screening_id, form_no, patient_id,
assessment_date, assessment_type, score, notes)
VALUES (27, 'PHQ-9', 27, '2024-02-06', 'Initial Assessment', 15,
'Moderately severe depression');
INSERT INTO MentalHealthScreening (screening_id, form_no, patient_id,
assessment_date, assessment_type, score, notes)
VALUES (28, 'GAD-7', 28, '2024-02-07', 'Follow-up', 8, 'Mild anxiety');
INSERT INTO MentalHealthScreening (screening_id, form_no, patient_id,
assessment_date, assessment_type, score, notes)
VALUES (29, 'PHQ-9', 29, '2024-02-08', 'Initial Assessment', 19,
'Moderately severe depression');
INSERT INTO MentalHealthScreening (screening_id, form_no, patient_id,
assessment_date, assessment_type, score, notes)
VALUES (30, 'GAD-7', 30, '2024-02-09', 'Follow-up', 5, 'Mild anxiety');
INSERT INTO MentalHealthScreening (screening_id, form_no, patient_id,
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assessment_date, assessment_type, score, notes)
VALUES (31, 'PHQ-9', 31, '2024-02-10', 'Initial Assessment', 16,
'Moderately severe depression');
INSERT INTO MentalHealthScreening (screening_id, form_no, patient_id,
assessment_date, assessment_type, score, notes)
VALUES (32, 'GAD-7', 32, '2024-02-11', 'Follow-up', 7, 'Mild anxiety');
INSERT INTO MentalHealthScreening (screening_id, form_no, patient_id,
assessment_date, assessment_type, score, notes)
VALUES (33, 'PHQ-9', 33, '2024-02-12', 'Initial Assessment', 17,
'Moderately severe depression');
INSERT INTO MentalHealthScreening (screening_id, form_no, patient_id,
assessment_date, assessment_type, score, notes)
VALUES (34, 'GAD-7', 34, '2024-02-13', 'Follow-up', 3, 'Minimal anxiety');
INSERT INTO MentalHealthScreening (screening_id, form_no, patient_id,
assessment_date, assessment_type, score, notes)
VALUES (35, 'PHQ-9', 35, '2024-02-14', 'Initial Assessment', 14, 'Moderate
depression');
INSERT INTO MentalHealthScreening (screening_id, form_no, patient_id,
assessment_date, assessment_type, score, notes)
VALUES (36, 'GAD-7', 36, '2024-02-15', 'Follow-up', 6, 'Mild anxiety');
INSERT INTO MentalHealthScreening (screening_id, form_no, patient_id,
assessment_date, assessment_type, score, notes)
VALUES (37, 'PHQ-9', 37, '2024-02-16', 'Initial Assessment', 19,
'Moderately severe depression');
INSERT INTO MentalHealthScreening (screening_id, form_no, patient_id,
assessment_date, assessment_type, score, notes)
VALUES (38, 'GAD-7', 38, '2024-02-17', 'Follow-up', 4, 'Minimal anxiety');
INSERT INTO MentalHealthScreening (screening_id, form_no, patient_id,
assessment_date, assessment_type, score, notes)
VALUES (39, 'PHQ-9', 39, '2024-02-18', 'Initial Assessment', 13, 'Moderate
depression');
INSERT INTO MentalHealthScreening (screening_id, form_no, patient_id,
assessment_date, assessment_type, score, notes)
VALUES (40, 'GAD-7', 40, '2024-02-19', 'Follow-up', 9, 'Mild anxiety');
INSERT INTO MentalHealthScreening (screening_id, form_no, patient_id,
assessment_date, assessment_type, score, notes)
VALUES (41, 'PHQ-9', 41, '2024-02-20', 'Initial Assessment', 18,
'Moderately severe depression');
INSERT INTO MentalHealthScreening (screening_id, form_no, patient_id,
assessment_date, assessment_type, score, notes)
VALUES (42, 'GAD-7', 42, '2024-02-21', 'Follow-up', 10, 'Moderate
anxiety');
INSERT INTO MentalHealthScreening (screening_id, form_no, patient_id,
assessment_date, assessment_type, score, notes)
VALUES (43, 'PHQ-9', 43, '2024-02-22', 'Initial Assessment', 16, 'Moderate
to Severe depression');
INSERT INTO MentalHealthScreening (screening_id, form_no, patient_id,
assessment_date, assessment_type, score, notes)
VALUES (44, 'GAD-7', 44, '2024-02-23', 'Follow-up', 8, 'Mild anxiety');
INSERT INTO MentalHealthScreening (screening_id, form_no, patient_id,
assessment_date, assessment_type, score, notes)
VALUES (45, 'PHQ-9', 45, '2024-02-24', 'Initial Assessment', 14, 'Moderate
depression');
INSERT INTO MentalHealthScreening (screening_id, form_no, patient_id,
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assessment_date, assessment_type, score, notes)
VALUES (46, 'GAD-7', 46, '2024-02-25', 'Follow-up', 7, 'Mild anxiety');
INSERT INTO MentalHealthScreening (screening_id, form_no, patient_id,
assessment_date, assessment_type, score, notes)
VALUES (47, 'PHQ-9', 47, '2024-02-26', 'Initial Assessment', 19,
'Moderately severe depression');
INSERT INTO MentalHealthScreening (screening_id, form_no, patient_id,
assessment_date, assessment_type, score, notes)
VALUES (48, 'GAD-7', 48, '2024-02-27', 'Follow-up', 6, 'Mild anxiety');
INSERT INTO MentalHealthScreening (screening_id, form_no, patient_id,
assessment_date, assessment_type, score, notes)
VALUES (49, 'PHQ-9', 49, '2024-02-28', 'Initial Assessment', 17,
'Moderately severe depression');
INSERT INTO MentalHealthScreening (screening_id, form_no, patient_id,
assessment_date, assessment_type, score, notes)
VALUES (50, 'GAD-7', 50, '2024-02-29', 'Follow-up', 5, 'Mild anxiety');
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Insurance INSERT statements:

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INSERT INTO Insurance (insurance_id, patient_id, provider_name,
policy_number, plan_name, is_active) VALUES (1, 1, 'Humana Gold Plus',
'50890956279', 'HDHP', TRUE);
INSERT INTO Insurance (insurance_id, patient_id, provider_name,
policy_number, plan_name, is_active) VALUES (2, 2, 'Humana Gold Plus',
'96065061202', 'HMO', TRUE);
INSERT INTO Insurance (insurance_id, patient_id, provider_name,
policy_number, plan_name, is_active) VALUES (3, 3, 'Aetna Health Plan',
'21242485908', 'PPO', TRUE);
INSERT INTO Insurance (insurance_id, patient_id, provider_name,
policy_number, plan_name, is_active) VALUES (4, 4, 'UnitedHealthcare',
'59399491738', 'HMO', TRUE);
INSERT INTO Insurance (insurance_id, patient_id, provider_name,
policy_number, plan_name, is_active) VALUES (5, 5, 'Anthem Blue Cross',
'22883959995', 'POS', TRUE);
INSERT INTO Insurance (insurance_id, patient_id, provider_name,
policy_number, plan_name, is_active) VALUES (6, 6, 'Humana Gold Plus',
'10750449696', 'HMO', TRUE);
INSERT INTO Insurance (insurance_id, patient_id, provider_name,
policy_number, plan_name, is_active) VALUES (7, 7, 'Anthem Blue Cross',
'10821479657', 'HMO', TRUE);
INSERT INTO Insurance (insurance_id, patient_id, provider_name,
policy_number, plan_name, is_active) VALUES (8, 8, 'Aetna Bronze Plan',
'41852425248', 'POS', TRUE);
INSERT INTO Insurance (insurance_id, patient_id, provider_name,
policy_number, plan_name, is_active) VALUES (9, 9, 'Blue Cross Blue
Shield', '59261729150', 'HMO', TRUE);
INSERT INTO Insurance (insurance_id, patient_id, provider_name,
policy_number, plan_name, is_active) VALUES (10, 10, 'Cigna Connect',
'40071785254', 'HDHP', TRUE);
INSERT INTO Insurance (insurance_id, patient_id, provider_name,
policy_number, plan_name, is_active) VALUES (11, 11, 'Kaiser Permanente',
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'33119647388', 'HMO', FALSE);
INSERT INTO Insurance (insurance_id, patient_id, provider_name,
policy_number, plan_name, is_active) VALUES (12, 12, 'Molina Healthcare',
'66654406734', 'HMO', FALSE);
INSERT INTO Insurance (insurance_id, patient_id, provider_name,
policy_number, plan_name, is_active) VALUES (13, 13, 'Aetna Health Plan',
'69516042799', 'HMO', FALSE);
INSERT INTO Insurance (insurance_id, patient_id, provider_name,
policy_number, plan_name, is_active) VALUES (14, 14, 'Aetna Health Plan',
'51299508308', 'PPO', TRUE);
INSERT INTO Insurance (insurance_id, patient_id, provider_name,
policy_number, plan_name, is_active) VALUES (15, 15, 'Humana Gold Plus',
'72141417421', 'HMO', TRUE);
INSERT INTO Insurance (insurance_id, patient_id, provider_name,
policy_number, plan_name, is_active) VALUES (16, 16, 'Kaiser Permanente',
'72124664440', 'HMO', FALSE);
INSERT INTO Insurance (insurance_id, patient_id, provider_name,
policy_number, plan_name, is_active) VALUES (17, 17, 'Molina Medicaid',
'69711621846', 'POS', TRUE);
INSERT INTO Insurance (insurance_id, patient_id, provider_name,
policy_number, plan_name, is_active) VALUES (18, 18, 'Ambetter Essential
Care', '70410908628', 'POS', FALSE);
INSERT INTO Insurance (insurance_id, patient_id, provider_name,
policy_number, plan_name, is_active) VALUES (19, 19, 'Molina Medicaid',
'62873301483', 'HDHP', TRUE);
INSERT INTO Insurance (insurance_id, patient_id, provider_name,
policy_number, plan_name, is_active) VALUES (20, 20, 'Blue Cross Blue
Shield', '12814975319', 'HMO', TRUE);
INSERT INTO Insurance (insurance_id, patient_id, provider_name,
policy_number, plan_name, is_active) VALUES (21, 21, 'Ambetter Essential
Care', '69591667595', 'HDHP', TRUE);
INSERT INTO Insurance (insurance_id, patient_id, provider_name,
policy_number, plan_name, is_active) VALUES (22, 22, 'Medicare Advantage',
'17764127462', 'HMO', TRUE);
INSERT INTO Insurance (insurance_id, patient_id, provider_name,
policy_number, plan_name, is_active) VALUES (23, 23, 'Humana Gold Plus',
'91157351233', 'POS', FALSE);
INSERT INTO Insurance (insurance_id, patient_id, provider_name,
policy_number, plan_name, is_active) VALUES (24, 24, 'Aetna Health Plan',
'18565840001', 'PPO', FALSE);
INSERT INTO Insurance (insurance_id, patient_id, provider_name,
policy_number, plan_name, is_active) VALUES (25, 25, 'Cigna Connect',
'95085299369', 'HDHP', FALSE);
INSERT INTO Insurance (insurance_id, patient_id, provider_name,
policy_number, plan_name, is_active) VALUES (26, 26, 'Oscar Health Plan',
'62770822291', 'HDHP', FALSE);
INSERT INTO Insurance (insurance_id, patient_id, provider_name,
policy_number, plan_name, is_active) VALUES (27, 27, 'Aetna Silver
Choice', '96564609737', 'EPO', TRUE);
INSERT INTO Insurance (insurance_id, patient_id, provider_name,
policy_number, plan_name, is_active) VALUES (28, 28, 'Kaiser Permanente',
'83709317790', 'HDHP', FALSE);
INSERT INTO Insurance (insurance_id, patient_id, provider_name,
policy_number, plan_name, is_active) VALUES (29, 29, 'Humana Gold Plus',
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'78172517511', 'HDHP', TRUE);
INSERT INTO Insurance (insurance_id, patient_id, provider_name,
policy_number, plan_name, is_active) VALUES (30, 30, 'Molina Medicaid',
'67240983699', 'HDHP', TRUE);
INSERT INTO Insurance (insurance_id, patient_id, provider_name,
policy_number, plan_name, is_active) VALUES (31, 31, 'Cigna Connect',
'66236064913', 'HMO', TRUE);
INSERT INTO Insurance (insurance_id, patient_id, provider_name,
policy_number, plan_name, is_active) VALUES (32, 32, 'Kaiser Permanente',
'65833591653', 'POS', TRUE);
INSERT INTO Insurance (insurance_id, patient_id, provider_name,
policy_number, plan_name, is_active) VALUES (33, 33, 'Molina Healthcare',
'55290019114', 'HMO', TRUE);
INSERT INTO Insurance (insurance_id, patient_id, provider_name,
policy_number, plan_name, is_active) VALUES (34, 34, 'Cigna Preferred',
'64136387328', 'POS', FALSE);
INSERT INTO Insurance (insurance_id, patient_id, provider_name,
policy_number, plan_name, is_active) VALUES (35, 35, 'WellCare Classic',
'54322802888', 'PPO', TRUE);
INSERT INTO Insurance (insurance_id, patient_id, provider_name,
policy_number, plan_name, is_active) VALUES (36, 36, 'Humana Gold Plus',
'24550715976', 'HMO', FALSE);
INSERT INTO Insurance (insurance_id, patient_id, provider_name,
policy_number, plan_name, is_active) VALUES (37, 37, 'Molina Healthcare',
'16624182512', 'PPO', TRUE);
INSERT INTO Insurance (insurance_id, patient_id, provider_name,
policy_number, plan_name, is_active) VALUES (38, 38, 'Kaiser Permanente',
'77986359166', 'PPO', TRUE);
INSERT INTO Insurance (insurance_id, patient_id, provider_name,
policy_number, plan_name, is_active) VALUES (39, 39, 'UnitedHealthcare',
'14558745464', 'HMO', FALSE);
INSERT INTO Insurance (insurance_id, patient_id, provider_name,
policy_number, plan_name, is_active) VALUES (40, 40, 'UnitedHealthcare',
'52163043983', 'HMO', TRUE);
INSERT INTO Insurance (insurance_id, patient_id, provider_name,
policy_number, plan_name, is_active) VALUES (41, 41, 'Oscar Health Plan',
'32446815550', 'EPO', TRUE);
INSERT INTO Insurance (insurance_id, patient_id, provider_name,
policy_number, plan_name, is_active) VALUES (42, 42, 'Aetna Health Plan',
'23792522213', 'PPO', TRUE);
INSERT INTO Insurance (insurance_id, patient_id, provider_name,
policy_number, plan_name, is_active) VALUES (43, 43, 'Anthem Blue Cross',
'28017030503', 'POS', TRUE);
INSERT INTO Insurance (insurance_id, patient_id, provider_name,
policy_number, plan_name, is_active) VALUES (44, 44, 'Humana Gold Plus',
'23320812171', 'HDHP', TRUE);
INSERT INTO Insurance (insurance_id, patient_id, provider_name,
policy_number, plan_name, is_active) VALUES (45, 45, 'Oscar Health Plan',
'56927045083', 'EPO', TRUE);
INSERT INTO Insurance (insurance_id, patient_id, provider_name,
policy_number, plan_name, is_active) VALUES (46, 46, 'WellCare Classic',
'43118280995', 'POS', FALSE);
INSERT INTO Insurance (insurance_id, patient_id, provider_name,
policy_number, plan_name, is_active) VALUES (47, 47, 'Molina Medicaid',
```

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'73081818582', 'POS', FALSE);
INSERT INTO Insurance (insurance_id, patient_id, provider_name,
policy_number, plan_name, is_active) VALUES (48, 48, 'Aetna Silver
Choice', '17157602052', 'EPO', FALSE);
INSERT INTO Insurance (insurance_id, patient_id, provider_name,
policy_number, plan_name, is_active) VALUES (49, 49, 'UnitedHealthcare',
'36461674948', 'HDHP', TRUE);
INSERT INTO Insurance (insurance_id, patient_id, provider_name,
policy_number, plan_name, is_active) VALUES (50, 50, 'WellCare Classic',
'74501283812', 'POS', TRUE);
```

Claim INSERT statements:

```
INSERT INTO Claim (claim_id, patient_id, insurance_id, claim_date,
claim_amount, is_claim_approved, claim_amount_approved) VALUES (1, 1, 16,
'2023-11-04', 1039.31, FALSE, 143.36);
INSERT INTO Claim (claim_id, patient_id, insurance_id, claim_date,
claim_amount, is_claim_approved, claim_amount_approved) VALUES (2, 2, 37,
'2024-08-29', 2450.29, FALSE, 1101.74);
INSERT INTO Claim (claim_id, patient_id, insurance_id, claim_date,
claim_amount, is_claim_approved, claim_amount_approved) VALUES (3, 3, 27,
'2024-06-12', 868.00, TRUE, 678.97);
INSERT INTO Claim (claim_id, patient_id, insurance_id, claim_date,
claim_amount, is_claim_approved, claim_amount_approved) VALUES (4, 4, 13,
'2024-04-05', 2703.8, TRUE, 1897.11);
INSERT INTO Claim (claim_id, patient_id, insurance_id, claim_date,
claim_amount, is_claim_approved, claim_amount_approved) VALUES (5, 5, 35,
'2024-01-27', 1062.92, TRUE, 859.22);
INSERT INTO Claim (claim_id, patient_id, insurance_id, claim_date,
claim_amount, is_claim_approved, claim_amount_approved) VALUES (6, 6, 46,
'2024-09-25', 2506.36, TRUE, 1933.45);
INSERT INTO Claim (claim_id, patient_id, insurance_id, claim_date,
claim_amount, is_claim_approved, claim_amount_approved) VALUES (7, 7, 49,
'2024-07-01', 1632.64, FALSE, 167.2);
INSERT INTO Claim (claim_id, patient_id, insurance_id, claim_date,
claim_amount, is_claim_approved, claim_amount_approved) VALUES (8, 8, 35,
'2023-11-20', 2533.48, TRUE, 1235.21);
INSERT INTO Claim (claim_id, patient_id, insurance_id, claim_date,
claim_amount, is_claim_approved, claim_amount_approved) VALUES (9, 9, 41,
'2023-10-19', 1156.65, TRUE, 105.74);
INSERT INTO Claim (claim_id, patient_id, insurance_id, claim_date,
claim_amount, is_claim_approved, claim_amount_approved) VALUES (10, 10, 4,
'2024-03-21', 68.87, FALSE, 50.24);
INSERT INTO Claim (claim_id, patient_id, insurance_id, claim_date,
claim_amount, is_claim_approved, claim_amount_approved) VALUES (11, 11,
22, '2024-02-12', 1650.88, TRUE, 817.01);
INSERT INTO Claim (claim_id, patient_id, insurance_id, claim_date,
claim_amount, is_claim_approved, claim_amount_approved) VALUES (12, 12,
47, '2023-11-30', 1389.67, TRUE, 699.63);
INSERT INTO Claim (claim_id, patient_id, insurance_id, claim_date,
claim_amount, is_claim_approved, claim_amount_approved) VALUES (13, 13,
```

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26, '2024-02-11', 2047.31, FALSE, 1979.72);
INSERT INTO Claim (claim_id, patient_id, insurance_id, claim_date,
claim_amount, is_claim_approved, claim_amount_approved) VALUES (14, 14,
48, '2024-06-08', 2872.43, TRUE, 1938.05);
INSERT INTO Claim (claim_id, patient_id, insurance_id, claim_date,
claim_amount, is_claim_approved, claim_amount_approved) VALUES (15, 15, 1,
'2024-04-24', 379.97, TRUE, 197.17);
INSERT INTO Claim (claim_id, patient_id, insurance_id, claim_date,
claim_amount, is_claim_approved, claim_amount_approved) VALUES (16, 16,
33, '2024-09-05', 904.11, TRUE, 604.06);
INSERT INTO Claim (claim_id, patient_id, insurance_id, claim_date,
claim_amount, is_claim_approved, claim_amount_approved) VALUES (17, 17,
11, '2023-12-08', 1302.17, FALSE, 1256.97);
INSERT INTO Claim (claim_id, patient_id, insurance_id, claim_date,
claim_amount, is_claim_approved, claim_amount_approved) VALUES (18, 18,
50, '2024-09-23', 565.26, FALSE, 341.21);
INSERT INTO Claim (claim_id, patient_id, insurance_id, claim_date,
claim_amount, is_claim_approved, claim_amount_approved) VALUES (19, 19,
22, '2023-11-17', 2393.7, TRUE, 1617.68);
INSERT INTO Claim (claim_id, patient_id, insurance_id, claim_date,
claim_amount, is_claim_approved, claim_amount_approved) VALUES (20, 20,
31, '2023-10-11', 1107.95, FALSE, 112.94);
INSERT INTO Claim (claim_id, patient_id, insurance_id, claim_date,
claim_amount, is_claim_approved, claim_amount_approved) VALUES (21, 21,
30, '2024-05-25', 1044.08, FALSE, 1000.23);
INSERT INTO Claim (claim_id, patient_id, insurance_id, claim_date,
claim_amount, is_claim_approved, claim_amount_approved) VALUES (22, 22,
44, '2024-02-01', 2630.92, TRUE, 220.06);
INSERT INTO Claim (claim_id, patient_id, insurance_id, claim_date,
claim_amount, is_claim_approved, claim_amount_approved) VALUES (23, 23,
41, '2024-04-23', 581.88, FALSE, 581.88);
INSERT INTO Claim (claim_id, patient_id, insurance_id, claim_date,
claim_amount, is_claim_approved, claim_amount_approved) VALUES (24, 24,
23, '2024-05-23', 1634.71, TRUE, 859.19);
INSERT INTO Claim (claim_id, patient_id, insurance_id, claim_date,
claim_amount, is_claim_approved, claim_amount_approved) VALUES (25, 25, 2,
'2023-12-26', 1418.58, TRUE, 713.6);
INSERT INTO Claim (claim_id, patient_id, insurance_id, claim_date,
claim_amount, is_claim_approved, claim_amount_approved) VALUES (26, 26,
47, '2023-12-05', 560.1, TRUE, 560.1);
INSERT INTO Claim (claim_id, patient_id, insurance_id, claim_date,
claim_amount, is_claim_approved, claim_amount_approved) VALUES (27, 27,
12, '2024-01-30', 972.85, TRUE, 128.31);
INSERT INTO Claim (claim_id, patient_id, insurance_id, claim_date,
claim_amount, is_claim_approved, claim_amount_approved) VALUES (28, 28, 3,
'2024-09-10', 608.53, TRUE, 608.53);
INSERT INTO Claim (claim_id, patient_id, insurance_id, claim_date,
claim_amount, is_claim_approved, claim_amount_approved) VALUES (29, 29,
26, '2023-10-13', 2300.25, TRUE, 1751.1);
INSERT INTO Claim (claim_id, patient_id, insurance_id, claim_date,
claim_amount, is_claim_approved, claim_amount_approved) VALUES (30, 30,
46, '2024-04-21', 2949.67, FALSE, 1724.78);
INSERT INTO Claim (claim_id, patient_id, insurance_id, claim_date,
claim_amount, is_claim_approved, claim_amount_approved) VALUES (31, 31,
```

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16, '2024-08-22', 459.37, FALSE, 459.37);
INSERT INTO Claim (claim_id, patient_id, insurance_id, claim_date,
claim_amount, is_claim_approved, claim_amount_approved) VALUES (32, 32,
49, '2024-04-11', 311.64, FALSE, 311.64);
INSERT INTO Claim (claim_id, patient_id, insurance_id, claim_date,
claim_amount, is_claim_approved, claim_amount_approved) VALUES (33, 33,
24, '2023-12-13', 585.44, TRUE, 585.44);
INSERT INTO Claim (claim_id, patient_id, insurance_id, claim_date,
claim_amount, is_claim_approved, claim_amount_approved) VALUES (34, 34,
48, '2023-12-08', 2554.44, TRUE, 878.38);
INSERT INTO Claim (claim_id, patient_id, insurance_id, claim_date,
claim_amount, is_claim_approved, claim_amount_approved) VALUES (35, 35,
41, '2024-03-20', 1535.05, FALSE, 1496.14);
INSERT INTO Claim (claim_id, patient_id, insurance_id, claim_date,
claim_amount, is_claim_approved, claim_amount_approved) VALUES (36, 36,
45, '2024-01-20', 182.92, TRUE, 182.95);
INSERT INTO Claim (claim_id, patient_id, insurance_id, claim_date,
claim_amount, is_claim_approved, claim_amount_approved) VALUES (37, 37,
47, '2023-10-16', 188.54, TRUE, 188.54);
INSERT INTO Claim (claim_id, patient_id, insurance_id, claim_date,
claim_amount, is_claim_approved, claim_amount_approved) VALUES (38, 38,
28, '2023-12-05', 331.18, FALSE, 138.7);
INSERT INTO Claim (claim_id, patient_id, insurance_id, claim_date,
claim_amount, is_claim_approved, claim_amount_approved) VALUES (39, 39,
19, '2024-09-30', 1576.47, TRUE, 1576.47);
INSERT INTO Claim (claim_id, patient_id, insurance_id, claim_date,
claim_amount, is_claim_approved, claim_amount_approved) VALUES (40, 40,
37, '2023-11-18', 1368.91, TRUE, 1368.91);
INSERT INTO Claim (claim_id, patient_id, insurance_id, claim_date,
claim_amount, is_claim_approved, claim_amount_approved) VALUES (41, 41,
50, '2024-01-14', 315.58, FALSE, 192.91);
INSERT INTO Claim (claim_id, patient_id, insurance_id, claim_date,
claim_amount, is_claim_approved, claim_amount_approved) VALUES (42, 42, 7,
'2024-02-24', 2309.95, TRUE, 583.22);
INSERT INTO Claim (claim_id, patient_id, insurance_id, claim_date,
claim_amount, is_claim_approved, claim_amount_approved) VALUES (43, 43,
12, '2024-09-05', 148.54, TRUE, 89.07);
INSERT INTO Claim (claim_id, patient_id, insurance_id, claim_date,
claim_amount, is_claim_approved, claim_amount_approved) VALUES (44, 44,
17, '2024-03-26', 520.26, TRUE, 520.26);
INSERT INTO Claim (claim_id, patient_id, insurance_id, claim_date,
claim_amount, is_claim_approved, claim_amount_approved) VALUES (45, 45, 3,
'2024-08-02', 2948.86, FALSE, 1099.77);
INSERT INTO Claim (claim_id, patient_id, insurance_id, claim_date,
claim_amount, is_claim_approved, claim_amount_approved) VALUES (46, 46,
34, '2024-01-06', 1995.65, TRUE, 1160.74);
INSERT INTO Claim (claim_id, patient_id, insurance_id, claim_date,
claim_amount, is_claim_approved, claim_amount_approved) VALUES (47, 47, 9,
'2024-01-21', 2375.4, TRUE, 2375.4);
INSERT INTO Claim (claim_id, patient_id, insurance_id, claim_date,
claim_amount, is_claim_approved, claim_amount_approved) VALUES (48, 48,
35, '2024-05-17', 2116.27, FALSE, 2116.27);
INSERT INTO Claim (claim_id, patient_id, insurance_id, claim_date,
claim_amount, is_claim_approved, claim_amount_approved) VALUES (49, 49,
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46, '2024-02-07', 2553.77, FALSE, 2000.6);
INSERT INTO Claim (claim_id, patient_id, insurance_id, claim_date,
claim_amount, is_claim_approved, claim_amount_approved) VALUES (50, 50,
20, '2024-07-03', 1653.27, FALSE, 689.48);
```

Bill INSERT statements:

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INSERT INTO Bill (bill_id, patient_id, therapist_id, therapy_id,
amount_due, amount_paid, billing_status, notes) VALUES (1, 1, 1, 1,
171.81, 171.81, 'PAID', NULL);
INSERT INTO Bill (bill_id, patient_id, therapist_id, therapy_id,
amount_due, amount_paid, billing_status, notes) VALUES (2, 2, 2, 2,
126.01, 126.01, 'PAID', NULL);
INSERT INTO Bill (bill_id, patient_id, therapist_id, therapy_id,
amount_due, amount_paid, billing_status, notes) VALUES (3, 3, 3, 3,
2007.89, 1836.7, 'PARTIALLY PAID', NULL);
INSERT INTO Bill (bill_id, patient_id, therapist_id, therapy_id,
amount_due, amount_paid, billing_status, notes) VALUES (4, 4, 4, 4,
284.91, 97.47, 'PARTIALLY PAID', NULL);
INSERT INTO Bill (bill_id, patient_id, therapist_id, therapy_id,
amount_due, amount_paid, billing_status, notes) VALUES (5, 5, 5, 5,
2380.98, 966.35, 'PARTIALLY PAID', NULL);
INSERT INTO Bill (bill_id, patient_id, therapist_id, therapy_id,
amount_due, amount_paid, billing_status, notes) VALUES (6, 6, 6, 6,
1183.72, 0.0, 'UNPAID', NULL);
INSERT INTO Bill (bill_id, patient_id, therapist_id, therapy_id,
amount_due, amount_paid, billing_status, notes) VALUES (7, 7, 7, 7,
222.94, 222.94, 'PAID', NULL);
INSERT INTO Bill (bill_id, patient_id, therapist_id, therapy_id,
amount_due, amount_paid, billing_status, notes) VALUES (8, 8, 8, 8,
2071.8, 2071.8, 'PAID', NULL);
INSERT INTO Bill (bill_id, patient_id, therapist_id, therapy_id,
amount_due, amount_paid, billing_status, notes) VALUES (9, 9, 9, 9,
2558.03, 0.0, 'UNPAID', NULL);
INSERT INTO Bill (bill_id, patient_id, therapist_id, therapy_id,
amount_due, amount_paid, billing_status, notes) VALUES (10, 10, 10, 10,
2901.53, 609.17, 'PARTIALLY PAID', NULL);
INSERT INTO Bill (bill_id, patient_id, therapist_id, therapy_id,
amount_due, amount_paid, billing_status, notes) VALUES (11, 11, 11, 11,
1229.05, 0.0, 'UNPAID', NULL);
INSERT INTO Bill (bill_id, patient_id, therapist_id, therapy_id,
amount_due, amount_paid, billing_status, notes) VALUES (12, 12, 12, 12,
223.42, 223.42, 'PAID', NULL);
INSERT INTO Bill (bill_id, patient_id, therapist_id, therapy_id,
amount_due, amount_paid, billing_status, notes) VALUES (13, 13, 13, 13,
2612.52, 2612.52, 'PAID', NULL);
INSERT INTO Bill (bill_id, patient_id, therapist_id, therapy_id,
amount_due, amount_paid, billing_status, notes) VALUES (14, 14, 14, 14,
1665.79, 1665.79, 'PAID', NULL);
INSERT INTO Bill (bill_id, patient_id, therapist_id, therapy_id,
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amount_due, amount_paid, billing_status, notes) VALUES (15, 15, 15, 15,
1131.35, 1131.35, 'PAID', NULL);
INSERT INTO Bill (bill_id, patient_id, therapist_id, therapy_id,
amount_due, amount_paid, billing_status, notes) VALUES (16, 16, 16, 16,
400.36, 0.0, 'UNPAID', NULL);
INSERT INTO Bill (bill_id, patient_id, therapist_id, therapy_id,
amount_due, amount_paid, billing_status, notes) VALUES (17, 17, 17, 17,
2523.92, 2523.92, 'PAID', NULL);
INSERT INTO Bill (bill_id, patient_id, therapist_id, therapy_id,
amount_due, amount_paid, billing_status, notes) VALUES (18, 18, 18, 18,
2616.62, 2616.62, 'PAID', NULL);
INSERT INTO Bill (bill_id, patient_id, therapist_id, therapy_id,
amount_due, amount_paid, billing_status, notes) VALUES (19, 19, 19, 19,
3467.44, 3467.44, 'PAID', NULL);
INSERT INTO Bill (bill_id, patient_id, therapist_id, therapy_id,
amount_due, amount_paid, billing_status, notes) VALUES (20, 20, 20, 20,
18.46, 18.46, 'PAID', NULL);
INSERT INTO Bill (bill_id, patient_id, therapist_id, therapy_id,
amount_due, amount_paid, billing_status, notes) VALUES (21, 21, 1, 21,
3458.36, 0.0, 'UNPAID', NULL);
INSERT INTO Bill (bill_id, patient_id, therapist_id, therapy_id,
amount_due, amount_paid, billing_status, notes) VALUES (22, 22, 2, 22,
2297.36, 0.0, 'UNPAID', NULL);
INSERT INTO Bill (bill_id, patient_id, therapist_id, therapy_id,
amount_due, amount_paid, billing_status, notes) VALUES (23, 23, 3, 23,
1668.48, 0.0, 'UNPAID', NULL);
INSERT INTO Bill (bill_id, patient_id, therapist_id, therapy_id,
amount_due, amount_paid, billing_status, notes) VALUES (24, 24, 4, 24,
2641.71, 1430.57, 'PARTIALLY PAID', NULL);
INSERT INTO Bill (bill_id, patient_id, therapist_id, therapy_id,
amount_due, amount_paid, billing_status, notes) VALUES (25, 25, 5, 25,
672.48, 0.0, 'UNPAID', NULL);
INSERT INTO Bill (bill_id, patient_id, therapist_id, therapy_id,
amount_due, amount_paid, billing_status, notes) VALUES (26, 26, 6, 26,
3098.21, 3098.21, 'PAID', NULL);
INSERT INTO Bill (bill_id, patient_id, therapist_id, therapy_id,
amount_due, amount_paid, billing_status, notes) VALUES (27, 27, 7, 27,
2150.04, 0.0, 'UNPAID', NULL);
INSERT INTO Bill (bill_id, patient_id, therapist_id, therapy_id,
amount_due, amount_paid, billing_status, notes) VALUES (28, 28, 8, 28,
460.69, 460.69, 'PAID', NULL);
INSERT INTO Bill (bill_id, patient_id, therapist_id, therapy_id,
amount_due, amount_paid, billing_status, notes) VALUES (29, 29, 9, 29,
2316.65, 2316.65, 'PAID', NULL);
INSERT INTO Bill (bill_id, patient_id, therapist_id, therapy_id,
amount_due, amount_paid, billing_status, notes) VALUES (30, 30, 10, 30,
1391.54, 880.73, 'PARTIALLY PAID', NULL);
INSERT INTO Bill (bill_id, patient_id, therapist_id, therapy_id,
amount_due, amount_paid, billing_status, notes) VALUES (31, 31, 11, 31,
1732.01, 370.19, 'PARTIALLY PAID', NULL);
INSERT INTO Bill (bill_id, patient_id, therapist_id, therapy_id,
amount_due, amount_paid, billing_status, notes) VALUES (32, 32, 12, 32,
787.26, 712.87, 'PARTIALLY PAID', NULL);
INSERT INTO Bill (bill_id, patient_id, therapist_id, therapy_id,
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amount_due, amount_paid, billing_status, notes) VALUES (33, 33, 13, 33,
655.42, 516.7, 'PARTIALLY PAID', NULL);
INSERT INTO Bill (bill_id, patient_id, therapist_id, therapy_id,
amount_due, amount_paid, billing_status, notes) VALUES (34, 34, 14, 34,
788.92, 788.92, 'PAID', NULL);
INSERT INTO Bill (bill_id, patient_id, therapist_id, therapy_id,
amount_due, amount_paid, billing_status, notes) VALUES (35, 35, 15, 35,
1972.87, 1972.87, 'PAID', NULL);
INSERT INTO Bill (bill_id, patient_id, therapist_id, therapy_id,
amount_due, amount_paid, billing_status, notes) VALUES (36, 36, 16, 36,
2653.45, 0.0, 'UNPAID', NULL);
INSERT INTO Bill (bill_id, patient_id, therapist_id, therapy_id,
amount_due, amount_paid, billing_status, notes) VALUES (37, 37, 17, 37,
533.53, 430.66, 'PARTIALLY PAID', NULL);
INSERT INTO Bill (bill_id, patient_id, therapist_id, therapy_id,
amount_due, amount_paid, billing_status, notes) VALUES (38, 38, 18, 38,
797.26, 636.64, 'PARTIALLY PAID', NULL);
INSERT INTO Bill (bill_id, patient_id, therapist_id, therapy_id,
amount_due, amount_paid, billing_status, notes) VALUES (39, 39, 19, 39,
1319.43, 1319.43, 'PAID', NULL);
INSERT INTO Bill (bill_id, patient_id, therapist_id, therapy_id,
amount_due, amount_paid, billing_status, notes) VALUES (40, 40, 20, 40,
3071.72, 3071.72, 'PAID', NULL);
INSERT INTO Bill (bill_id, patient_id, therapist_id, therapy_id,
amount_due, amount_paid, billing_status, notes) VALUES (41, 41, 1, 41,
547.35, 547.35, 'PAID', NULL);
INSERT INTO Bill (bill_id, patient_id, therapist_id, therapy_id,
amount_due, amount_paid, billing_status, notes) VALUES (42, 42, 2, 42,
2286.18, 2286.18, 'PAID', NULL);
INSERT INTO Bill (bill_id, patient_id, therapist_id, therapy_id,
amount_due, amount_paid, billing_status, notes) VALUES (43, 43, 3, 43,
2055.64, 1435.27, 'PARTIALLY PAID', NULL);
INSERT INTO Bill (bill_id, patient_id, therapist_id, therapy_id,
amount_due, amount_paid, billing_status, notes) VALUES (44, 44, 4, 44,
2181.58, 0.0, 'UNPAID', NULL);
INSERT INTO Bill (bill_id, patient_id, therapist_id, therapy_id,
amount_due, amount_paid, billing_status, notes) VALUES (45, 45, 5, 45,
1966.74, 1966.74, 'PAID', NULL);
INSERT INTO Bill (bill_id, patient_id, therapist_id, therapy_id,
amount_due, amount_paid, billing_status, notes) VALUES (46, 46, 6, 46,
1702.47, 0.0, 'UNPAID', NULL);
INSERT INTO Bill (bill_id, patient_id, therapist_id, therapy_id,
amount_due, amount_paid, billing_status, notes) VALUES (47, 47, 7, 47,
1468.14, 1371.84, 'PARTIALLY PAID', NULL);
INSERT INTO Bill (bill_id, patient_id, therapist_id, therapy_id,
amount_due, amount_paid, billing_status, notes) VALUES (48, 48, 8, 48,
1216.19, 0.0, 'UNPAID', NULL);
INSERT INTO Bill (bill_id, patient_id, therapist_id, therapy_id,
amount_due, amount_paid, billing_status, notes) VALUES (49, 49, 9, 49,
1679.86, 1679.86, 'PAID', NULL);
INSERT INTO Bill (bill_id, patient_id, therapist_id, therapy_id,
amount_due, amount_paid, billing_status, notes) VALUES (50, 50, 10, 50,
1273.49, 1273.49, 'PAID', NULL);
```

Bill Payment INSERT statements:

```
INSERT INTO BillPayment (payment_id, bill_id, claim_id, payment_date,
payment_amount, payment_source) VALUES (1, 19, 25, '2024-09-06', 1101.96,
'Self-Pay');
INSERT INTO BillPayment (payment_id, bill_id, claim_id, payment_date,
payment_amount, payment_source) VALUES (2, 25, 38, '2023-11-22', 893.38,
'Insurance');
INSERT INTO BillPayment (payment_id, bill_id, claim_id, payment_date,
payment_amount, payment_source) VALUES (3, 38, 21, '2024-01-01', 2502.35,
'Self-Pay');
INSERT INTO BillPayment (payment_id, bill_id, claim_id, payment_date,
payment_amount, payment_source) VALUES (4, 36, 42, '2023-10-25', 1467.08,
'Insurance');
INSERT INTO BillPayment (payment_id, bill_id, claim_id, payment_date,
payment_amount, payment_source) VALUES (5, 38, 37, '2024-03-22', 568.04,
'Self-Pay');
INSERT INTO BillPayment (payment_id, bill_id, claim_id, payment_date,
payment_amount, payment_source) VALUES (6, 36, 41, '2024-08-25', 2812.65,
'Insurance');
INSERT INTO BillPayment (payment_id, bill_id, claim_id, payment_date,
payment_amount, payment_source) VALUES (7, 7, 5, '2023-12-21', 1177.96,
'Self-Pay');
INSERT INTO BillPayment (payment_id, bill_id, claim_id, payment_date,
payment_amount, payment_source) VALUES (8, 36, 12, '2023-11-14', 1661.36,
'Insurance');
INSERT INTO BillPayment (payment_id, bill_id, claim_id, payment_date,
payment_amount, payment_source) VALUES (9, 11, 25, '2024-02-01', 1364.3,
'Self-Pay');
INSERT INTO BillPayment (payment_id, bill_id, claim_id, payment_date,
payment_amount, payment_source) VALUES (10, 20, 40, '2024-09-19', 671.56,
'Insurance');
INSERT INTO BillPayment (payment_id, bill_id, claim_id, payment_date,
payment_amount, payment_source) VALUES (11, 10, 3, '2024-04-06', 3261.67,
'Self-Pay');
INSERT INTO BillPayment (payment_id, bill_id, claim_id, payment_date,
payment_amount, payment_source) VALUES (12, 49, 7, '2024-04-20', 120.18,
'Insurance');
INSERT INTO BillPayment (payment_id, bill_id, claim_id, payment_date,
payment_amount, payment_source) VALUES (13, 48, 6, '2023-10-29', 1896.54,
'Insurance');
INSERT INTO BillPayment (payment_id, bill_id, claim_id, payment_date,
payment_amount, payment_source) VALUES (14, 21, 46, '2024-08-02', 932.51,
'Self-Pay');
INSERT INTO BillPayment (payment_id, bill_id, claim_id, payment_date,
payment_amount, payment_source) VALUES (15, 12, 22, '2024-04-06', 3166.61,
'Insurance');
INSERT INTO BillPayment (payment_id, bill_id, claim_id, payment_date,
payment_amount, payment_source) VALUES (16, 45, 36, '2024-09-01', 2649.09,
'Self-Pay');
```

```
INSERT INTO BillPayment (payment_id, bill_id, claim_id, payment_date,
payment_amount, payment_source) VALUES (17, 43, 6, '2024-05-30', 2997.59,
'Self-Pay');
INSERT INTO BillPayment (payment_id, bill_id, claim_id, payment_date,
payment_amount, payment_source) VALUES (18, 19, 22, '2023-11-24', 1225.95,
'Insurance');
INSERT INTO BillPayment (payment_id, bill_id, claim_id, payment_date,
payment_amount, payment_source) VALUES (19, 31, 18, '2023-12-07', 1829.82,
'Self-Pay');
INSERT INTO BillPayment (payment_id, bill_id, claim_id, payment_date,
payment_amount, payment_source) VALUES (20, 10, 44, '2024-02-11', 2428.5,
'Self-Pay');
INSERT INTO BillPayment (payment_id, bill_id, claim_id, payment_date,
payment_amount, payment_source) VALUES (21, 40, 14, '2024-03-18', 3164.86,
'Self-Pay');
INSERT INTO BillPayment (payment_id, bill_id, claim_id, payment_date,
payment_amount, payment_source) VALUES (22, 36, 24, '2024-04-21', 601.35,
'Self-Pay');
INSERT INTO BillPayment (payment_id, bill_id, claim_id, payment_date,
payment_amount, payment_source) VALUES (23, 38, 27, '2024-08-20', 1217.12,
'Insurance');
INSERT INTO BillPayment (payment_id, bill_id, claim_id, payment_date,
payment_amount, payment_source) VALUES (24, 30, 19, '2024-06-01', 805.53,
'Insurance');
INSERT INTO BillPayment (payment_id, bill_id, claim_id, payment_date,
payment_amount, payment_source) VALUES (25, 40, 38, '2024-06-28', 958.59,
'Insurance');
INSERT INTO BillPayment (payment_id, bill_id, claim_id, payment_date,
payment_amount, payment_source) VALUES (26, 12, 33, '2024-08-26', 2343.38,
'Self-Pay');
INSERT INTO BillPayment (payment_id, bill_id, claim_id, payment_date,
payment_amount, payment_source) VALUES (27, 37, 26, '2023-12-02', 409.23,
'Self-Pay');
INSERT INTO BillPayment (payment_id, bill_id, claim_id, payment_date,
payment_amount, payment_source) VALUES (28, 7, 12, '2024-06-28', 1681.81,
'Self-Pay');
INSERT INTO BillPayment (payment_id, bill_id, claim_id, payment_date,
payment_amount, payment_source) VALUES (29, 49, 21, '2024-05-05', 2936.09,
'Self-Pay');
INSERT INTO BillPayment (payment_id, bill_id, claim_id, payment_date,
payment_amount, payment_source) VALUES (30, 5, 47, '2024-02-01', 2691.45,
'Insurance');
INSERT INTO BillPayment (payment_id, bill_id, claim_id, payment_date,
payment_amount, payment_source) VALUES (31, 34, 30, '2024-03-31', 2820.46,
'Self-Pay');
INSERT INTO BillPayment (payment_id, bill_id, claim_id, payment_date,
payment_amount, payment_source) VALUES (32, 17, 20, '2024-03-29', 143.93,
'Insurance');
INSERT INTO BillPayment (payment_id, bill_id, claim_id, payment_date,
payment_amount, payment_source) VALUES (33, 16, 48, '2024-06-16', 1991.1,
'Insurance');
INSERT INTO BillPayment (payment_id, bill_id, claim_id, payment_date,
payment_amount, payment_source) VALUES (34, 48, 1, '2024-07-18', 3444.23,
'Insurance');
```

```
INSERT INTO BillPayment (payment_id, bill_id, claim_id, payment_date,
payment_amount, payment_source) VALUES (35, 25, 28, '2024-09-30', 294.27,
'Insurance');
INSERT INTO BillPayment (payment_id, bill_id, claim_id, payment_date,
payment_amount, payment_source) VALUES (36, 42, 18, '2023-11-10', 2492.89,
'Self-Pay');
INSERT INTO BillPayment (payment_id, bill_id, claim_id, payment_date,
payment_amount, payment_source) VALUES (37, 5, 11, '2024-09-21', 225.42,
'Insurance');
INSERT INTO BillPayment (payment_id, bill_id, claim_id, payment_date,
payment_amount, payment_source) VALUES (38, 9, 4, '2024-03-22', 1541.87,
'Self-Pay');
INSERT INTO BillPayment (payment_id, bill_id, claim_id, payment_date,
payment_amount, payment_source) VALUES (39, 46, 24, '2023-12-22', 611.3,
'Self-Pay');
INSERT INTO BillPayment (payment_id, bill_id, claim_id, payment_date,
payment_amount, payment_source) VALUES (40, 45, 27, '2024-03-31', 331.26,
'Insurance');
INSERT INTO BillPayment (payment_id, bill_id, claim_id, payment_date,
payment_amount, payment_source) VALUES (41, 8, 12, '2024-03-21', 2239.16,
'Self-Pay');
INSERT INTO BillPayment (payment_id, bill_id, claim_id, payment_date,
payment_amount, payment_source) VALUES (42, 18, 34, '2024-03-07', 1437.82,
'Insurance');
INSERT INTO BillPayment (payment_id, bill_id, claim_id, payment_date,
payment_amount, payment_source) VALUES (43, 7, 10, '2024-04-03', 1700.17,
'Self-Pay');
INSERT INTO BillPayment (payment_id, bill_id, claim_id, payment_date,
payment_amount, payment_source) VALUES (44, 3, 16, '2024-09-27', 3243.0,
'Self-Pay');
INSERT INTO BillPayment (payment_id, bill_id, claim_id, payment_date,
payment_amount, payment_source) VALUES (45, 40, 42, '2024-03-13', 844.44,
'Self-Pay');
INSERT INTO BillPayment (payment_id, bill_id, claim_id, payment_date,
payment_amount, payment_source) VALUES (46, 14, 44, '2023-10-09', 1743.13,
'Insurance');
INSERT INTO BillPayment (payment_id, bill_id, claim_id, payment_date,
payment_amount, payment_source) VALUES (47, 24, 40, '2024-02-23', 1622.51,
'Insurance');
INSERT INTO BillPayment (payment_id, bill_id, claim_id, payment_date,
payment_amount, payment_source) VALUES (48, 10, 13, '2023-12-06', 1009.19,
'Insurance');
INSERT INTO BillPayment (payment_id, bill_id, claim_id, payment_date,
payment_amount, payment_source) VALUES (49, 30, 9, '2024-07-30', 377.25,
'Self-Pay');
INSERT INTO BillPayment (payment_id, bill_id, claim_id, payment_date,
payment_amount, payment_source) VALUES (50, 37, 36, '2024-03-17', 213.86,
'Self-Pay');
```

Data Manipulations

```sql
-- Data Manipulation With Simulated Data in Patient Table
-- Demonstrating the ability to add new patients to the database and check
to make sure a new patient id is created for each new patient. Practice
using
-- the LIKE function when deleting if patients have the same last name,
i.e. if a family leaves the practice (note: must be used with caution to
avoid deleting
-- existing patients unintentionally who also have the same last name).
Updating patient medical history notes with varying diagnoses to simulate
realistic
-- data. Also practice updating contact information such as phone number
in a patient, as that is often required in real life with real patients.
INSERT INTO Patient (first_name, last_name, dob, gender, phone_number,
medical_history_notes, street, city, state, zipcode)
    VALUES ('Lucy', 'Smith', '1992-05-16', 'F', '623-995-8547',
            'Depression', '63 Hatcher Road', 'Springfield', 'Illinois',
'42875');
INSERT INTO Patient (first_name, last_name, dob, gender, phone_number,
medical_history_notes, street, city, state, zipcode)
    VALUES ('Tom', 'Smith', '1990-02-11', 'M', '871-665-1247',
            'PTSD', '75 Green Ave', 'Dallas', 'Texas', '95867');
DELETE FROM Patient WHERE last_name LIKE 'Smi__';
UPDATE Patient SET medical_history_notes = 'PTSD' WHERE patient_id IN (6,
47);
UPDATE Patient SET medical_history_notes = 'General Anxiety' WHERE
patient_id IN (48, 49, 50);
UPDATE Patient SET phone_number = '536-986-7422' WHERE first_name =
'Kipper' and last_name = 'Eldin';

-- Data Manipulation With Simulated Data in Therapist Table
-- Practice demonstrating the ability to add new therapists into the
database and making sure that a new therapist id is created for each new
therapist. Updated
-- the highest qualification for therapists as well as updated the
specialization of on therapist to simulate more variety in the data. Also
deleted two therapists
-- to keep just 20 therapists in the system.
INSERT INTO Therapist (therapist_id, first_name, last_name,
specialization, qualification) VALUES (21, 'Mary', 'Dobbs', 'Trauma
Focused', 'PsyD');
INSERT INTO Therapist (therapist_id, first_name, last_name,
specialization, qualification) VALUES (22, 'Mary', 'Adams', 'Family
Systems', 'MD');
UPDATE Therapist SET qualification = 'PsyD' WHERE therapist_id IN (2, 3,
15);
UPDATE Therapist SET qualification = 'MD' WHERE therapist_id IN (16, 18,
20);
```

```
DELETE FROM Therapist WHERE first_name = 'Mary';
UPDATE Therapist SET specialization = 'Family Systems' WHERE therapist_id
= 4;


-- Data Manipulation With Simulated Data in TherapistSchedule Table
-- Inserted two new schedules to simulate how therapists often have
multiple therapy session availability in a day and/or week. Updated
schedules that had conflicting times
-- and/or days and practiced deleting a therapist to simulate realistic
data.
INSERT INTO TherapistSchedule (schedule_id, therapist_id, DayOfTheWeek,
Start_Time, End_Time) VALUES (51, 14, 'Tuesday', '10:30:00', '12:30:00');
INSERT INTO TherapistSchedule (schedule_id, therapist_id, DayOfTheWeek,
Start_Time, End_Time) VALUES (52, 15, 'Thursday', '08:15:00', '09:15:00');
UPDATE TherapistSchedule SET start_time = '08:00:00', end_time =
'08:30:00' WHERE schedule_id = 48;
UPDATE TherapistSchedule SET end_time = '15:30:00' WHERE schedule_id = 11;
UPDATE TherapistSchedule SET dayoftheweek = 'Thursday' WHERE schedule_id =
43;
UPDATE TherapistSchedule SET dayoftheweek = 'Tuesday' WHERE schedule_id =
45;
DELETE FROM TherapistSchedule WHERE schedule_id = 44;

-- Data Manipulation With Simulated Data in Therapy Table
-- Inserted two new therapy sessions to simulate how patients often
undergo multiple sessions. Updated all records that either require or do
not require follow up
-- based on therapy notes. Deleted two therpy sessions that did not
contain any notes, to simulate patients that are lost in follow up and to
keep the number of
--sessions at 200.
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (201, 50,
'2024-05-15', 60, 'Continue Medications', TRUE);
INSERT INTO Therapy (therapy_id, patient_id, appointment_date,
duration_minutes, therapy_notes, followup_required) VALUES (202, 25,
'2024-08-16', 30, 'Continue CBT', TRUE);
UPDATE Therapy SET followup_required = TRUE WHERE therapy_notes LIKE
'Continue%';
UPDATE Therapy SET followup_required = FALSE WHERE therapy_notes NOT LIKE
'Continue%';
DELETE FROM Therapy WHERE therapy_id = 194;
DELETE FROM Therapy WHERE therapy_id = 196;

-- Data Manipulation With Simulated Data in Medication Table
-- Inserted two new medication ids to simulate how patients can be
prescribed multiple medications by different therapists. Updates to some
medication names were included to
-- simulate more realistic medication that is actually prescribed for
mental health disorders. Deleted medication name that was too long and
uncommon treatment for mental
-- health disorders.
INSERT INTO Medication (medication_id, patient_id, therapist_id,
```

```
medication_name, dosage, start_date, end_date) VALUES (201, 4, 2,
'Valium', '30 mg', '2024-02-20', '2023-09-30');
INSERT INTO Medication (medication_id, patient_id, therapist_id,
medication_name, dosage, start_date, end_date) VALUES (202, 5, 1,
'Lexapro', ' 25 mg', '2024-03-15', '2023-10-15');
UPDATE Medication SET medication_name = 'Lamictal' WHERE medication_id =
113;
UPDATE Medication SET medication_name = 'Fluoxetine' WHERE medication_id
IN (69, 86, 5);
DELETE FROM Medication WHERE LOWER(medication_name) = 'acetaminophen,
dextromethorphan hydrobromide, phenylephrine hydrochloride';

-- Data Manipulation With Simulated Data in MentalHealthScreening Table
-- Two new mental health screening records inserted to simulate how
patients can fill out either one or both forms upon initial assessment or
on a follow-up visit.
-- To simulate a change in PHQ-9 score upon a follow up visit. Date of
assessment was also updated for a patient's follow up visit. One record
was delete to simulate
-- how some patients may not fill out any forms.
INSERT INTO MentalHealthScreening VALUES (51, 'GAD-7', 1, '2024-01-10',
'Initial Assessment', 6, 'Mild anxiety');
INSERT INTO MentalHealthScreening VALUES (52, 'PHQ-9', 2, '2024-01-11',
'Follow-up', 12, 'Moderate depression');
UPDATE MentalHealthScreening SET score = '3' WHERE screening_id = 4;
UPDATE MentalHealthScreening SET notes = 'Minimal Anxiety' WHERE
screening_id = 4;
UPDATE MentalHealthScreening SET assessment_date = TO_DATE('01/25/2024',
'mm/dd/yyyy') WHERE screening_id = 52;
DELETE FROM MentalHealthScreening WHERE screening_id = 5;

-- Data Manipulation With Simulated Data in Insurance Table
-- Two new insurance id records were inserted to simulate how patients may
have a change in insurance provider and/or plan, which will generate a new
insurance id. Updates to
-- a couple records including provider name and policy number to generate
more varied data. Two records were deleted as patients cannot have more
than one insurance plan.
INSERT INTO Insurance (insurance_id, patient_id, provider_name,
policy_number, plan_name, is_active) VALUES (51, 1, 'Blue Cross Blue
Shield', '15487695423', 'PPO', TRUE);
INSERT INTO Insurance (insurance_id, patient_id, provider_name,
policy_number, plan_name, is_active) VALUES (52, 2, 'Humana Gold Plus',
'854769584123', 'HDHP', TRUE);
UPDATE Insurance SET provider_name = 'UnitedHealthcare' WHERE insurance_id
= 45;
UPDATE Insurance SET policy_number = '85746921458' WHERE insurance_id = 6;
DELETE FROM Insurance WHERE insurance_id IN (1, 2);

-- Data Manipulation With Simulated Data in Claim Table
-- Deleted two records that depended on prior records from the insurance
table. Inserted a claim record for the new insurance record that inserted
above in the insurance table to simulate
-- how each claim is linked to one insurance. Inserted another claim for
```

```
insurance id 4 to simulate that one insurance can have more than one
claim. Updated a claim id 49
-- where the full claim was approved and therefore marked true for 'is
claim approved'. Also updated the 'is claim approved' column to true for
claim id 32 where full claim amount was
-- approved.
DELETE FROM Claim WHERE claim_id = 15;
DELETE FROM Claim WHERE claim_id = 25;
INSERT INTO Claim (claim_id, patient_id, insurance_id, claim_date,
claim_amount, is_claim_approved, claim_amount_approved) VALUES (51, 1, 51,
'2023-10-01', 1584.31, FALSE, 587.16);
INSERT INTO Claim (claim_id, patient_id, insurance_id, claim_date,
claim_amount, is_claim_approved, claim_amount_approved) VALUES (52, 2, 4,
'2023-08-04', 1247.31, FALSE, 688.24);
UPDATE Claim SET claim_amount_approved = '2553.77' WHERE claim_id = 49;
UPDATE Claim SET is_claim_approved = true WHERE claim_id = 49;
UPDATE Claim SET is_claim_approved = true WHERE claim_id = 32;

-- Data Manipulation With Simulated Data in Bill Table
-- Inserted two new bill records to simulate how each bill is connected to
one patient but one patient can have multiple bills. Updated a bill with a
previously unpaid bill
-- to a partially paid bill to simulate how billing status can change and
must be updated accordingly. Also, updated all notes to say 'contact
patient regarding payment' on
-- any bills that are not fully paid yet. Deleted a bill record that was
unpaid to simulate how some patients may be dropped from the clinic if
bills are not paid or if patient
-- cannot be reached.
INSERT INTO Bill (bill_id, patient_id, therapist_id, therapy_id,
amount_due, amount_paid, billing_status, notes) VALUES (51, 3, 1, 1,
200.35, 150.63, 'PARTIALLY PAID', NULL);
INSERT INTO Bill (bill_id, patient_id, therapist_id, therapy_id,
amount_due, amount_paid, billing_status, notes) VALUES (52, 6, 2, 2,
100.58, 100.58, 'PAID', NULL);
UPDATE Bill SET amount_paid = '2000.94', billing_status = 'PARTIALLY PAID'
WHERE bill_id = 9;
UPDATE Bill SET notes = 'Contact patient regarding payment' WHERE
amount_paid < amount_due;
DELETE FROM Bill WHERE bill_id = 6;

-- Data Manipulation With Simulated Data in BillPayment Table
-- Inserted two new bill payments to simulate how a bill payment is always
linked to a bill and each bill can have one or more bill payments. Updated
a bill payment amount
-- to simulate when patients make payments and updated payment source to
simulate variation in how a bill is paid. Deleted two bill payment records
that were dependent on
-- previous tables and not needed.
INSERT INTO BillPayment (payment_id, bill_id, claim_id, payment_date,
payment_amount, payment_source) VALUES (51, 20, 10, '2024-07-03', 1005.85,
'Insurance');
INSERT INTO BillPayment (payment_id, bill_id, claim_id, payment_date,
payment_amount, payment_source) VALUES (52, 22, 14, '2024-08-02', 1200.15,
```

```
'Self-Pay');
UPDATE BillPayment SET payment_amount = '750.50' WHERE payment_id = 2;
UPDATE BillPayment SET payment_source = 'Insurance' WHERE bill_id = 9 AND
claim_id = 4;
DELETE FROM BillPayment WHERE payment_id = 9;
DELETE FROM BillPayment WHERE payment_id = 1;
```

Query Examples

```
-- #1. Display the count of therapists based on their specialization.
-- CBT has the highest count, suggests that perhaps most therapists either
prefer to specialize in that field and/or that
-- is where the patient demand is.
SELECT specialization, COUNT(*) FROM Therapist GROUP BY specialization
ORDER BY specialization;

-- #2. Display names of therapist along with their start time and end time
for the therapists who are available on Tuesdays and
-- specialized in CBT.
-- The results display 6 therapists who fit these criteria, with Roman
Cadore having the most availability on Tuesdays.This is
-- useful information when scheduling.
SELECT t.first_name, t.last_name, ts.start_time, ts.end_time
FROM Therapist t
INNER JOIN TherapistSchedule ts ON t.therapist_id  = ts.therapist_id
WHERE dayoftheweek = 'Tuesday' AND specialization = 'CBT';

-- #3. Display the medications with start date in the last 30 days.
Include medication id, patient name, therapist name, dosage, and start
date.
-- This query results in 9 medication records that were prescribed
recently, also noting that Bealle Duffitt prescribed the most in the last
-- 30 days. Emphasizes the need for follow up with specific patients and
the prescribing therapist.
SELECT
Medication.medication_id,
Patient.first_name, Patient.last_name,
Therapist.first_name, Therapist.last_name,
Medication.medication_name,
Medication.dosage,
Medication.start_date
FROM Medication
NATURAL JOIN Patient
JOIN Therapist ON Medication.therapist_id = Therapist.therapist_id
WHERE Medication.start_date >= CURRENT_DATE - 30;

-- #4. Display the count of scores surveyed for various levels of
depression if the count is more than 2.
-- Order the results by notes in descending order.
-- This query shows that there are 14 counts of 'Moderately severe
depression' and 8 counts of 'Moderate depression',
-- suggesting there is a higher frequency of higher severity depression
which can prompt therapists to focus on specific
-- treatment options.
SELECT
form_no, COUNT(score), notes
FROM MentalHealthScreening
```

```
WHERE notes like '%depression%'
GROUP BY notes, form_no
HAVING COUNT(score) > 2
ORDER BY notes DESC;

-- #5. Display the names of patients who have an active insurance policy.
-- Currently there are 34 patients with an active insurance policy,
suggesting that
-- at least the majority of the clinic's patients are able to be billed
using an active policy.
SELECT first_name, last_name
FROM Patient
WHERE patient_id IN (SELECT distinct patient_id FROM Insurance WHERE
is_active = TRUE);

-- #6. Display patients who need a follow-up therapy session, using
correlated subqueries.
-- Currently there are 39 patients that need follow-up. This is imperative
for effective patient care
-- and management. Well over half of the clinic's patients need follow-up
and cannot be overlooked.
SELECT first_name, last_name
FROM Patient p
WHERE EXISTS(
    SELECT therapy_id
    FROM Therapy t
    WHERE t.patient_id = p.patient_id AND t.followup_required = TRUE
);

-- #7. Display the average mental health screening score for each form.
-- The average PHQ-9 score is 16.12 which is moderately severe depression
-- and the average score for GAD-7 is 6.42 which is mild anxiety. This
will
-- help the clinic understand the severity of these disorders across all
patients
-- based on screening tools and modify treatment plans accordingly.
SELECT form_no, AVG (score) AS Average_Score
FROM MentalHealthScreening GROUP BY form_no;

-- #8. Display first and last name of both patients and therapists
associated with medications using the UNION operator.
-- This query retrieves a combined total of 68 entries, which is a
comprehensive list of all parties associated with medication
-- to better understand the distribution of medication accross both
patients and therapists.
SELECT first_name, last_name
FROM Patient p
JOIN Medication m ON p.patient_id = m.patient_id
UNION
SELECT t.first_name, t.last_name
FROM Therapist t
JOIN Medication m ON t.therapist_id = m.therapist_id;

-- #9. Display all patients along with their medication, if available.
```

```
-- There are 203 medication records, with two records without medications
prescribed.
-- Patients with multiple medications especially must be monitored for
proper regime
-- and avoidance of any cross reactions.
SELECT p.first_name, p.last_name, m.medication_name
FROM Patient p
LEFT JOIN Medication m
ON p.patient_id = m.patient_id;

-- #10. Display the patient_id of patients that were not prescribed any
medication treatment.
-- Patient id 35 and 50 currently have no medications prescribed to them.
It is important to
-- evaluate treatment outcomes with medication vs without to reduce the
incidence of either over-medication
-- or under-medication.

SELECT patient_id
FROM therapy
EXCEPT
SELECT patient_id
FROM Medication;


-- #11. Display the therapy_id along with duration of therapy in minutes
casted to interval data type.
-- All 200 therapy session durations are converted into interval format
for ease of tracking how long sessions
-- are and could be useful in reports or scheduling.
SELECT therapy_id, duration_minutes AS "duration in minutes",
CAST(CONCAT(duration_minutes, ' minutes') AS INTERVAL) AS "duration in
interval"
FROM Therapy;

-- #12. Display the bill id, bill amount, total bill amount, and average
bill amount partitioned by billing status. Order the records in descending
-- order by amount due. Use window functions.
-- The details of each bill are displayed along with total and average
bill amount partiioned by the billing status. There are currently 25 paid
records,
-- 15 partially paid records, and 11 unpaid records.
SELECT bill_id AS "Bill ID", amount_due AS "Bill Amount", SUM(amount_due)
OVER W AS "Total Bill Amount",
ROUND (AVG(amount_due) OVER W, 2) AS "Average Bill Amount", billing_status
AS "Billing Status"
FROM Bill
Window W AS (PARTITION BY billing_status ORDER BY amount_due DESC);

-- #13. Display the severity of the condition based on the scores received
in the forms PHQ-9 and GAD-7.
-- Mental health screening scores are sorted into general severity levels.
Most patients fall under the 'Mild' severity
-- for anxiety and under the 'Severe' category for depression based on the
```

```
two forms. This helps therapist quickly assess severity
-- and provide appropriate urgent care or referral when necessary
SELECT screening_id, form_no, score,
CASE
    WHEN score >= 0 AND score <=4 THEN 'Minimal'
    WHEN score >= 5 AND score <=9 THEN 'Mild'
    WHEN score >=10 AND score <=14 THEN 'Moderate'
    WHEN score >=15 THEN 'Severe'
ELSE
    'None'
END AS "Severity"
FROM MentalHealthScreening
ORDER BY form_no, "Severity";

-- #14. Display the count of patients with different groupsets based on
year, month, and day extracted from their appointment date using rollup
function.
-- So the groupsets will be (Year, Month, Day), (Year, Month), (Year), ().
-- The information retrieved displays the number of patient encounters
since the clinic's opening, grouped by year, month, and day. There are 50
patient encounters
-- recorded in 2023 and 150 encounters in 2024 thus far, with September
having the highest number with 22. The clinic can use this information to
analyze busy periods in the year.
SELECT
    EXTRACT (YEAR FROM appointment_date) "Year",
    EXTRACT (MONTH FROM appointment_date) "Month",
    EXTRACT (DAY FROM appointment_date) "Day",
    COUNT (patient_id) "Number of Patients"
FROM Therapy
GROUP BY
    ROLLUP(
        EXTRACT (YEAR FROM appointment_date),
        EXTRACT (MONTH FROM appointment_date),
        EXTRACT (DAY FROM appointment_date)
    )
ORDER BY "Year", "Month", "Day";

-- #15. Display the count of patients with different groupsets based on
year, month, and day extracted from their appointment date using cube
function.
-- So the groupsets will be (Year, Month, Day), (Year, Month), (Year,
Day), (Month, Day), (Year), (Month), (Day), ().
-- All possible combinations of number of patient encounters are displayed
using the CUBE function, providing a data for a more detailed analysis of
patient
-- encounters across multiple time dimensions and help identify peak
periods and any seasonal trends throughout the year.
SELECT
    EXTRACT (YEAR FROM appointment_date) "Year",
    EXTRACT (MONTH FROM appointment_date) "Month",
    EXTRACT (DAY FROM appointment_date) "Day",
    COUNT (patient_id) "Number of Patients"
FROM Therapy
```

```
GROUP BY
    CUBE(
        EXTRACT (YEAR FROM appointment_date),
        EXTRACT (MONTH FROM appointment_date),
        EXTRACT (DAY FROM appointment_date)
    )
ORDER BY "Year", "Month", "Day";
```

Mental Health Database (MHD) Python Data Analysis and Visualization

Data Analysis

In [ ]:
```
import pandas as pd
import psycopg2
import sqlalchemy
from sqlalchemy import create_engine, text
```

In [ ]:
```
engine = create_engine('postgresql+psycopg2://postgres:Twins123%40@localhost
```

In [ ]:
```
# Retrieving data from all 10 tables

# Retrieving data from Patient table
engine = create_engine('postgresql+psycopg2://postgres:Twins123%40@localhost
with engine.connect() as conn:
    p_query = conn.execute(text("Select * From Patient;"))
p_df = pd.DataFrame(p_query.fetchall(), columns=p_query.keys())
p_df

# Retrieving data from Therapist table
engine = create_engine('postgresql+psycopg2://postgres:Twins123%40@localhost
with engine.connect() as conn:
    t_query = conn.execute(text("Select * From Therapist;"))
t_df = pd.DataFrame(t_query.fetchall(), columns=t_query.keys())
t_df

# Retrieving data from TherapistSchedule table
engine = create_engine('postgresql+psycopg2://postgres:Twins123%40@localhost
with engine.connect() as conn:
    ts_query = conn.execute(text("Select * From TherapistSchedule;"))
ts_df = pd.DataFrame(ts_query.fetchall(), columns=ts_query.keys())
ts_df

# Retrieving data from Therapy table
engine = create_engine('postgresql+psycopg2://postgres:Twins123%40@localhost
with engine.connect() as conn:
    tp_query = conn.execute(text("Select * From Therapy;"))
tp_df = pd.DataFrame(tp_query.fetchall(), columns=tp_query.keys())
tp_df

# Retrieving data from Medication table
engine = create_engine('postgresql+psycopg2://postgres:Twins123%40@localhost
with engine.connect() as conn:
    m_query = conn.execute(text("Select * From Medication;"))
m_df = pd.DataFrame(m_query.fetchall(), columns=m_query.keys())
m_df

# Retrieving data from MentalHealthScreening table
engine = create_engine('postgresql+psycopg2://postgres:Twins123%40@localhost
with engine.connect() as conn:
    mhs_query = conn.execute(text("Select * From MentalHealthScreening;"))
mhs_df = pd.DataFrame(mhs_query.fetchall(), columns=mhs_query.keys())
mhs_df
```

```
# Retrieving data from Insurance table
engine = create_engine('postgresql+psycopg2://postgres:Twins123%40@localhost
with engine.connect() as conn:
    i_query = conn.execute(text("Select * From Insurance;"))
i_df = pd.DataFrame(i_query.fetchall(), columns=i_query.keys())
i_df

# Retrieving data from Claim table
engine = create_engine('postgresql+psycopg2://postgres:Twins123%40@localhost
with engine.connect() as conn:
    c_query = conn.execute(text("Select * From Claim;"))
c_df = pd.DataFrame(c_query.fetchall(), columns=c_query.keys())
c_df

# Retrieving data from Bill table
engine = create_engine('postgresql+psycopg2://postgres:Twins123%40@localhost
with engine.connect() as conn:
    b_query = conn.execute(text("Select * From Bill;"))
b_df = pd.DataFrame(b_query.fetchall(), columns=b_query.keys())
b_df

# Retrieving data from BillPayment table
engine = create_engine('postgresql+psycopg2://postgres:Twins123%40@localhost
with engine.connect() as conn:
    bp_query = conn.execute(text("Select * From BillPayment;"))
bp_df = pd.DataFrame(bp_query.fetchall(), columns=bp_query.keys())
bp_df

p_df.head()
```

Out[ ]:

	patient_id	first_name	last_name	dob	gender	phone_number	medical_history_notes
0	1	Shelby	Rottger	2000-07-31	F	865-649-1475	Depression
1	2	Erie	Hazeldene	1968-11-22	M	408-444-3555	General Anxiety
2	3	Rolf	Cudmore	1997-08-15	M	612-441-2503	PTSD
3	4	Bailey	Huscroft	1978-02-22	M	407-653-3947	OCD
4	5	Channa	Yeude	1970-12-20	F	212-997-8204	Social Anxiety Disorder

In [ ]:
```
# Descriptive statistics for Therapy session durations
tp_df['duration_minutes'].describe()
```

Out[ ]:
```
count    200.000000
mean      73.500000
std       32.357146
min       30.000000
25%       60.000000
50%       60.000000
75%       90.000000
max      120.000000
Name: duration_minutes, dtype: float64
```

In [ ]:
```
# Obtain descriptive statistics about age
```

```
from datetime import datetime

# Calculating current age of each patient in years
p_df['dob'] = pd.to_datetime(patient_df['dob'], errors='coerce')

current_date = pd.to_datetime(datetime.now())
patient_df['age'] = (current_date - p_df['dob']).dt.days // 365

# Checking the age calculation
p_df[['first_name', 'last_name', 'dob', 'age']].head()

# Display age descriptive stats
age_stats = patient_df['age'].describe()
age_stats
```

Out[ ]:
```
count    50.000000
mean     35.260000
std      12.953307
min      18.000000
25%      24.000000
50%      32.500000
75%      45.750000
max      61.000000
Name: age, dtype: float64
```

In [ ]:
```
# Obtain the counts of each gender
gender_count = p_df['gender'].value_counts()
print(gender_count)
```

```
gender
F    32
M    18
Name: count, dtype: int64
```

In [ ]:
```
# Analysis of Correlation Between Therapy Duration and Claim Amount

combinded_df = pd.merge(tp_df, c_df, on='patient_id')
correlation = combined_df['duration_minutes'].corr(combined_df['claim_amount
print(f"Correlation Between Therapy Duration and Claim Amount: {correlation]
```

```
Correlation Between Therapy Duration and Claim Amount: -0.00957871017190290
6
```

In [ ]:
```
# Calculating the total number of claims
total_claims = c_df['is_claim_approved'].count()
total_claims
```

Out[ ]:
```
50
```

In [ ]:
```
# Calculating the number of approved claims
approved_claims = c_df[c_df['is_claim_approved'] == True]['is_claim_approved

# Calculating the number of not approved claims
not_approved_claims = c_df[c_df['is_claim_approved'] == False]['is_claim_app

# Calculating the percentages
percent_approved = (approved_claims / total_claims) * 100
percent_not_approved = (not_approved_claims / total_claims) * 100


# Display the results
print(f"Percentage of Claims Approved: {percent_approved:.2f}%")
print(f"Percentage of Claims Not Approved: {percent_not_approved:.2f}%")
```

```
Percentage of Claims Approved: 60.00%
Percentage of Claims Not Approved: 40.00%
```

In [ ]:
```
# Calculating the Approval Rates by Insurance Provider

# Merge the Claim and Insurance tables by insurance_id
claims_with_insurance = pd.merge(c_df, i_df, on='insurance_id')

# Group by insurance provider and calculate the approval rates
approval_by_provider = claims_with_insurance.groupby('provider_name')['is_c

# Sort the results by the highest and lowest approval rates
approval_by_provider_sorted = approval_by_provider.sort_values(ascending=Fa

# See approval rates by provider
approval_by_provider_sorted
```

Out[ ]:
```
provider_name
Aetna Silver Choice       100.000000
Anthem Blue Cross         100.000000
Cigna Preferred           100.000000
Humana Gold Plus          100.000000
Medicare Advantage        100.000000
Molina Medicaid            83.333333
Molina Healthcare          80.000000
Aetna Health Plan          75.000000
WellCare Classic           50.000000
Oscar Health Plan          40.000000
UnitedHealthcare           40.000000
Blue Cross Blue Shield     33.333333
Cigna Connect               0.000000
Kaiser Permanente           0.000000
Name: is_claim_approved, dtype: float64
```

In [ ]:
```
# Count of patients by state
state_distribution = p_df.groupby('state')['patient_id'].count().reset_index
state_distribution
```

Out[ ]:

	state	patient_id
0	Alabama	1
1	Arizona	1
2	California	6
3	Colorado	1
4	Connecticut	2
5	District of Columbia	1
6	Florida	5
7	Georgia	2
8	Illinois	2
9	Kansas	2
10	Louisiana	1
11	Michigan	2
12	Minnesota	1
13	Missouri	3
14	Nebraska	1
15	Nevada	1
16	New Jersey	1
17	New Mexico	1
18	New York	4
19	North Carolina	1
20	Ohio	1
21	Oklahoma	2
22	Pennsylvania	1
23	Tennessee	1
24	Texas	4
25	Washington	1
26	Wisconsin	1

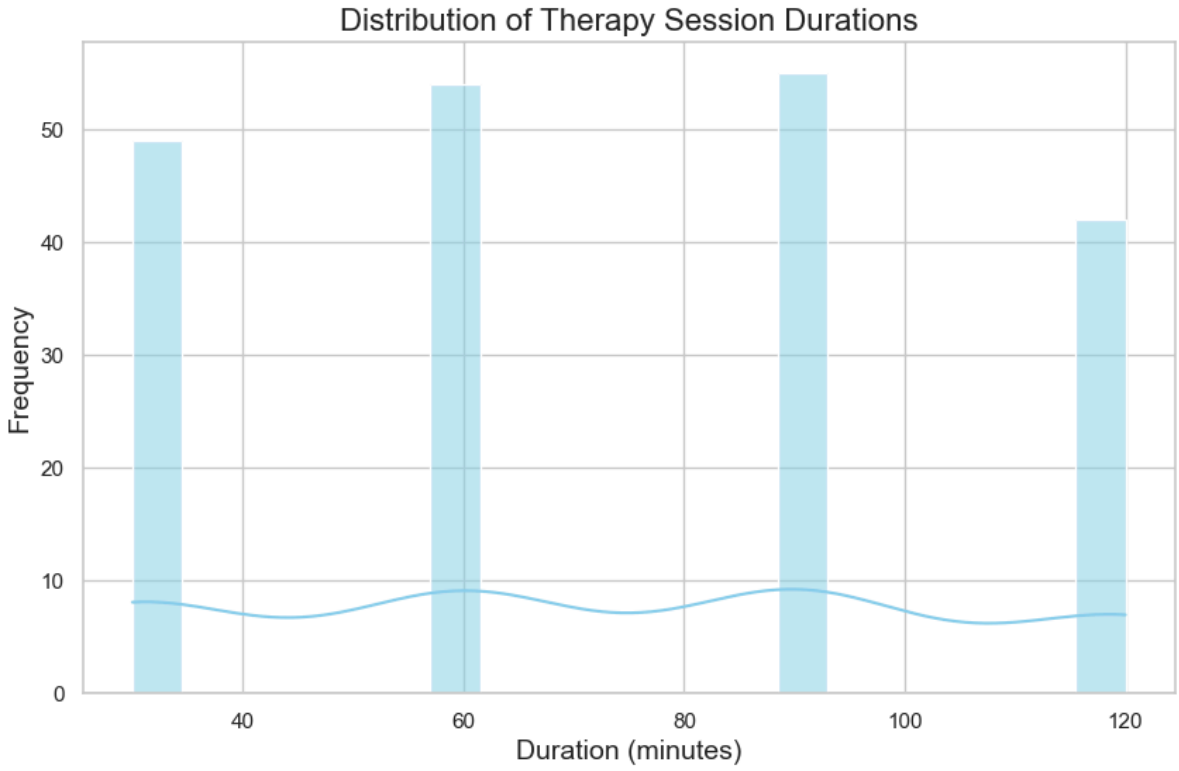
Data Visualization

In [ ]:
```
import matplotlib.pyplot as plt
import seaborn as sns
```

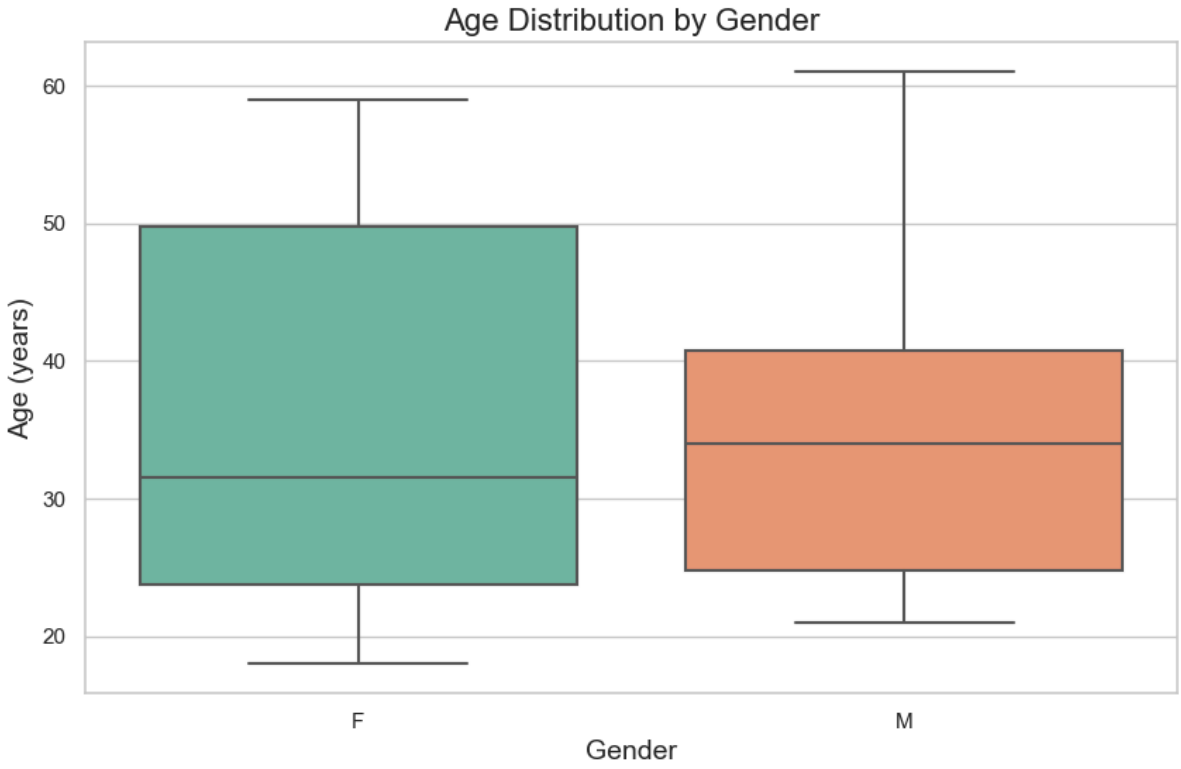
In [ ]:
```
# Creating a histogram of the distribution of therapy session duration

# Set the aesthetics for the plot
sns.set(style="whitegrid")

# Create the histogram with a distribution line

# Setting the aesthetics
sns.set(style="whitegrid")
```

```
# Histogram
plt.figure(figsize=(10, 5))
sns.histplot(tp_df['duration_minutes']), bins=20, kde=True, color='skyblue'


# Labels and Title
plt.title('Distribution')
plt.title('Distribution of Therapy Session Durations', fontsize=16)
plt.xlabel('Duration (minutes)', fontsize=14)
plt.ylabel('Frequency', fontsize=14)

# Show the plot
plt.show()
```

```
/Users/jilmajoy/anaconda3/lib/python3.11/site-packages/seaborn/_oldcore.py:
1119: FutureWarning: use_inf_as_na option is deprecated and will be removed
in a future version. Convert inf values to NaN before operating instead.
  with pd.option_context('mode.use_inf_as_na', True):
```



In [ ]:
```
#Boxplot showing age distribution by gender
plt.figure


# Boxplot showing age distribution by gender
plt.figure(figsize=(10, 6))
sns.boxplot(x='gender', y='age', data=patient_df, palette='Set2')
plt.title('Age Distribution by Gender', fontsize=16)
plt.xlabel('Gender', fontsize=14)
plt.ylabel('Age (years)', fontsize=14)
plt.show()
```



In [ ]:
```
pip install plotly
```

```
Requirement already satisfied: plotly in /Users/jilmajoy/anaconda3/lib/pyth
on3.11/site-packages (5.9.0)
Requirement already satisfied: tenacity>=6.2.0 in /Users/jilmajoy/anaconda
3/lib/python3.11/site-packages (from plotly) (8.2.2)
Note: you may need to restart the kernel to use updated packages.
```

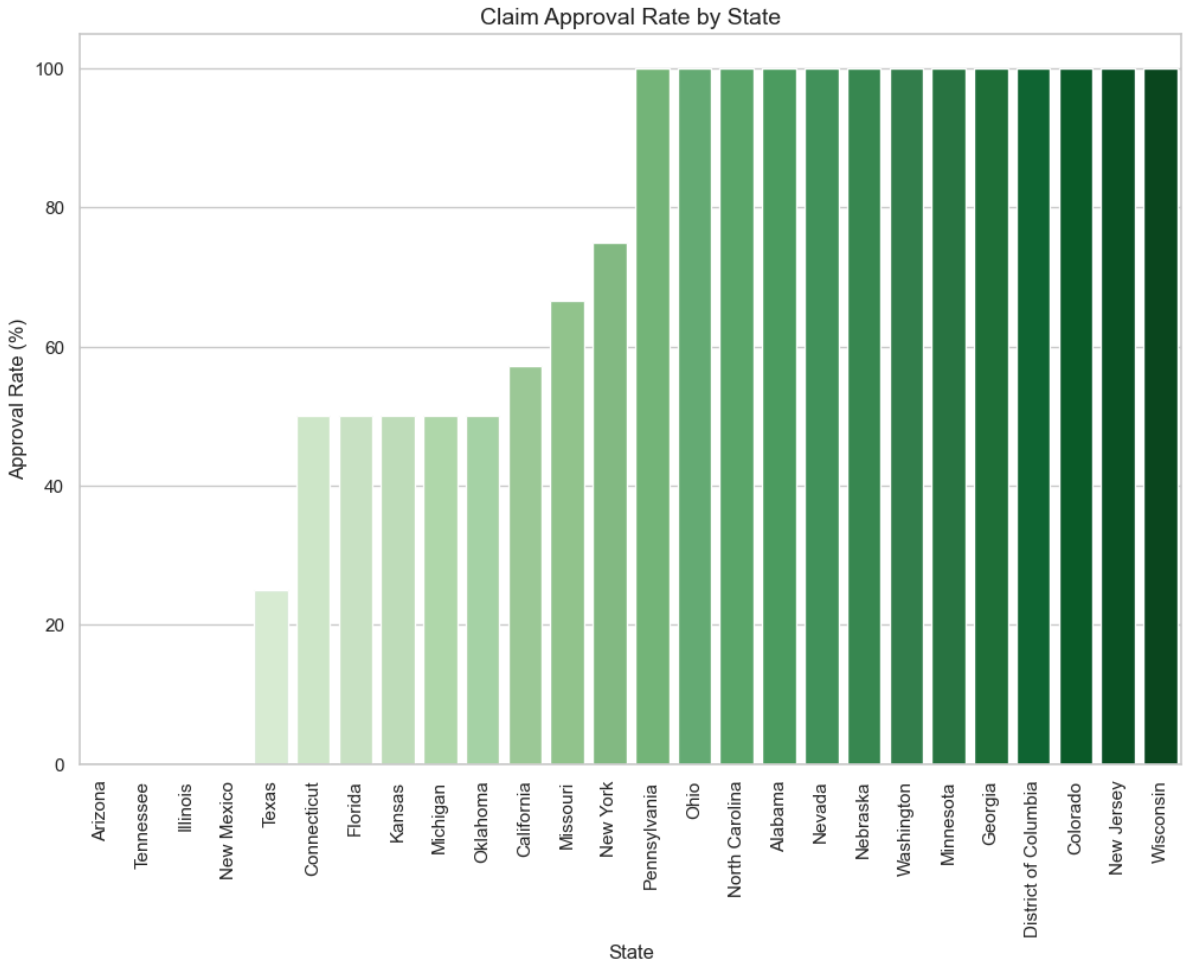
In [ ]:
```
# Creating a Heatlike Map on a United States Map to Display the Distributio

# Using state abbreviations
us_state_abbrev = {
    'Alabama': 'AL', 'Alaska': 'AK', 'Arizona': 'AZ', 'Arkansas': 'AR',
    'California': 'CA', 'Colorado': 'CO', 'Connecticut': 'CT', 'Delaware':
    'Florida': 'FL', 'Georgia': 'GA', 'Hawaii': 'HI', 'Idaho': 'ID', 'Illin
    'Indiana': 'IN', 'Iowa': 'IA', 'Kansas': 'KS', 'Kentucky': 'KY', 'Louis
    'Maine': 'ME', 'Maryland': 'MD', 'Massachusetts': 'MA', 'Michigan': 'MI
    'Minnesota': 'MN', 'Mississippi': 'MS', 'Missouri': 'MO', 'Montana': 'M
    'Nebraska': 'NE', 'Nevada': 'NV', 'New Hampshire': 'NH', 'New Jersey':
    'New Mexico': 'NM', 'New York': 'NY', 'North Carolina': 'NC', 'North Da
    'Ohio': 'OH', 'Oklahoma': 'OK', 'Oregon': 'OR', 'Pennsylvania': 'PA',
    'Rhode Island': 'RI', 'South Carolina': 'SC', 'South Dakota': 'SD', 'Te
    'Texas': 'TX', 'Utah': 'UT', 'Vermont': 'VT', 'Virginia': 'VA', 'Washin
    'West Virginia': 'WV', 'Wisconsin': 'WI', 'Wyoming': 'WY'
}

# Switch state names to their abbreviations
state_distribution['state'] = state_distribution['state'].map(us_state_abbr

# Create a choropleth map on Plotly
fig = px.choropleth(
    state_distribution,
    locations='state',
    locationmode="USA-states",
    color='patient_id',
    hover_name='state',
    color_continuous_scale="Reds",
    scope="usa"
)
```

```
# Layout for better visualization
fig.update_layout(
    title_text='Distribution of Patients by State',
    geo=dict(
        showlakes=True,
        lakecolor='rgb(255, 255, 255)'
    )
)

# Show the map
fig.show()
```

In [ ]:
```
# Does claim approval rate differs by state

# Merge the Claim and Patient to include states
claims_with_states = pd.merge(c_df, p_df, on='patient_id')

# Group by state and calculate the approval rate
approval_rate_by_state = claims_with_states.groupby('state')['is_claim_appro
approval_rate_by_state
```

Out[ ]:
```
state
Alabama                 100.000000
Arizona                   0.000000
California               57.142857
Colorado                100.000000
Connecticut              50.000000
District of Columbia    100.000000
Florida                  50.000000
Georgia                 100.000000
Illinois                  0.000000
Kansas                   50.000000
Michigan                 50.000000
Minnesota               100.000000
Missouri                 66.666667
Nebraska                100.000000
Nevada                  100.000000
New Jersey              100.000000
New Mexico                0.000000
New York                 75.000000
North Carolina          100.000000
Ohio                    100.000000
Oklahoma                 50.000000
Pennsylvania            100.000000
Tennessee                 0.000000
Texas                    25.000000
Washington              100.000000
Wisconsin               100.000000
Name: is_claim_approved, dtype: float64
```

In [ ]:
```
# Sort the approval rates in order from highest to lowest
approval_rate_by_state_sorted = approval_rate_by_state.sort_values(ascending

# Creating the bar chart
plt.figure(figsize=(12, 8))
sns.barplot(x=approval_rate_by_state_sorted.index, y=approval_rate_by_state_
plt.title('Claim Approval Rate by State', fontsize=14)
plt.xlabel('State', fontsize=12)
plt.ylabel('Approval Rate (%)', fontsize=12)
plt.xticks(rotation=90)
plt.show()
```


Claim Approval Rate by State
Approval Rate (%)
0
20
40
60
80
100
Arizona
Tennessee
Illinois
New Mexico
Texas
Connecticut
Florida
Kansas
Michigan
Oklahoma
California
Missouri
New York
Pennsylvania
Ohio
North Carolina
Alabama
Nevada
Nebraska
Washington
Minnesota
Georgia
District of Columbia
Colorado
New Jersey
Wisconsin
State

In [ ]:

Mental Health Database Capstone Project

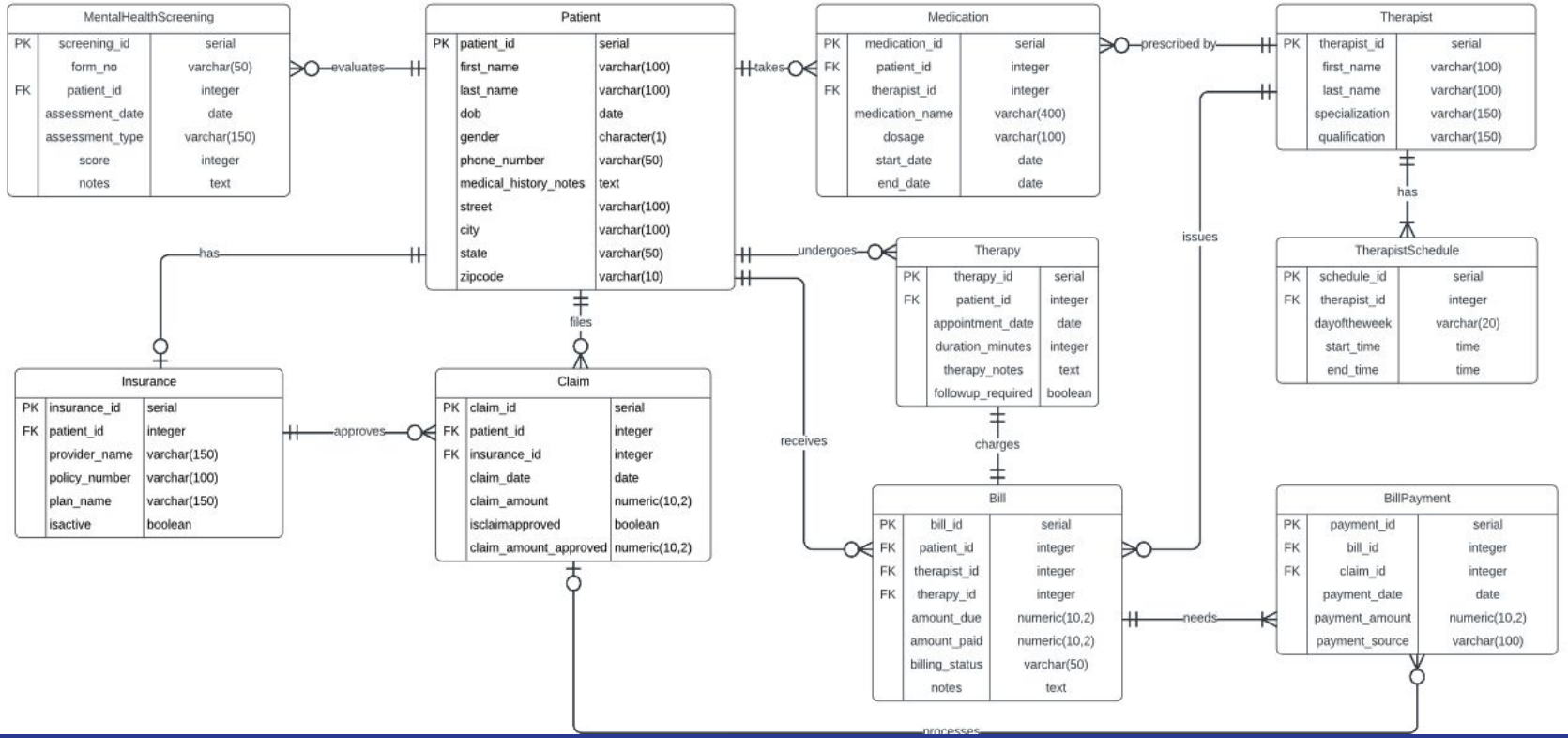
DTSC 691: Applied Data Science

Jilma Joy

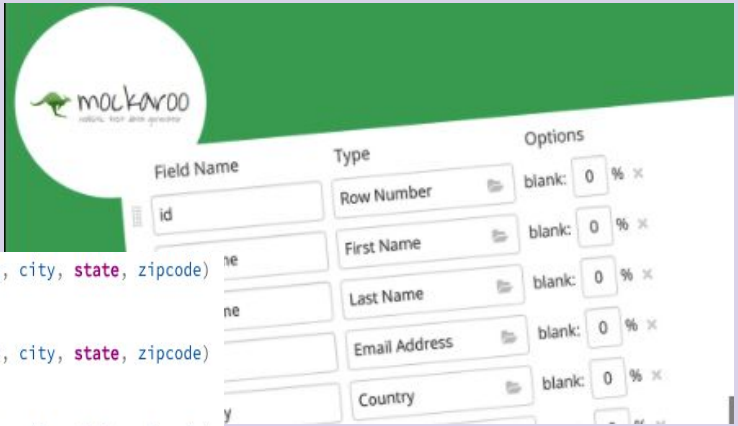
Problem Domain

- **Mental Health Data Management**
  - Mental Health Services
- **Mindful Health Clinic**
  - Telehealth clinic, opened September 2023
  - Anxiety and mood disorders
  - Inefficient patient record management
  - **Pitch to the Clinic:** Develop an integrated relational database, comprehensive data analysis – provide business insights, improve patient care

Entity Relationship / Schema Diagram for Mental Health Database



Data Creation and Insertion




```
INSERT INTO Patient (first_name, last_name, dob, gender, phone_number, medical_history_notes, street, city, state, zipcode)
    VALUES ('Shelby', 'Rottger', '2000-07-31', 'F', '865-649-1475',
            'Depression', '50 Ridgeway Avenue', 'Knoxville', 'Tennessee', '37939');
INSERT INTO Patient (first_name, last_name, dob, gender, phone_number, medical_history_notes, street, city, state, zipcode)
    VALUES ('Erie', 'Hazeldene', '1968-11-22', 'M', '408-444-3555',
            'General Anxiety', '2 Carberry Place', 'San Jose', 'California', '95123');
INSERT INTO Patient (first_name, last_name, dob, gender, phone_number, medical_history_notes, street, city, state, zipcode)
    VALUES ('Rolf', 'Cudmore', '1997-08-15', 'M', '612-441-2503',
            'PTSD', '2548 Talisman Crossing', 'Minneapolis', 'Minnesota', '55423');
INSERT INTO Patient (first_name, last_name, dob, gender, phone_number, medical_history_notes, street, city, state, zipcode)
    VALUES ('Bailey', 'Huscroft', '1978-02-22', 'M', '407-653-3947',
            'OCD', '3060 South Point', 'Kissimmee', 'Florida', '34745');
INSERT INTO Patient (first_name, last_name, dob, gender, phone_number, medical_history_notes, street, city, state, zipcode)
    VALUES ('Channa', 'Yeude', '1970-12-20', 'F', '212-997-8204',
            'Social Anxiety Disorder', '62 Raven Alley', 'New York City', 'New York', '10249');
INSERT INTO Patient (first_name, last_name, dob, gender, phone_number, medical_history_notes, street, city, state, zipcode)
    VALUES ('Eduard', 'MacTerrelly', '2002-12-19', 'M', '917-854-0461',
            'Depression', '392 Mallory Way', 'New York City', 'New York', '10039');
INSERT INTO Patient (first_name, last_name, dob, gender, phone_number, medical_history_notes, street, city, state, zipcode)
    VALUES ('Garvey', 'Steaning', '1992-01-03', 'F', '321-186-9871',
            'Depression', '9632 Sherman Crossing', 'Melbourne', 'Florida', '32941');
```

SQL Queries

```sql
-- #1. Display the count of therapists based on their specialization.
-- CBT has the highest count, suggests that perhaps most therapists either prefer to specialize in that field and/or that
-- is where the patient demand is.
SELECT specialization, COUNT(*) FROM Therapist GROUP BY specialization ORDER BY specialization;
```

	specialization character varying (150)	count bigint
1	CBT	7
2	DBT	5
3	Family Systems	5
4	Trauma Focused	3

```sql
-- #5. Display the names of patients who have an active insurance policy.
-- Currently there are 34 patients with an active insurance policy, suggesting that
-- at least the majority of the clinic's patients are able to be billed using an active policy.
SELECT first_name, last_name
FROM Patient
WHERE patient_id IN (SELECT distinct patient_id FROM Insurance WHERE is_active = TRUE);
```

	first_name character varying (100)	last_name character varying (100)
1	Erie	Hazeldene
2	Rolf	Cudmore
3	Bailey	Huscroft
4	Channa	Yeude
5	Garvey	Steaning

SQL Queries

```sql
-- #6. Display patients who need a follow-up therapy session, using correlated subqueries.
-- Currently there are 39 patients that need follow-up. This is imperative for effective patient care
-- and management. Well over half of the clinic's patients need follow-up and cannot be overlooked.
SELECT first_name, last_name
FROM Patient p
WHERE EXISTS(
    SELECT therapy_id
    FROM Therapy t
    WHERE t.patient_id = p.patient_id AND t.followup_required = TRUE
);
```

	first_name character varying (100)	last_name character varying (100)
1	Erie	Hazeldene
2	Rolf	Cudmore
3	Bailey	Huscroft
4	Channa	Yeude
5	Garvey	Steaning

```sql
-- #7. Display the average mental health screening score for each form.
-- The average PHQ-9 score is 16.12 which is moderately severe depression
-- and the average score for GAD-7 is 6.42 which is mild anxiety. This will
-- help the clinic understand the severity of these disorders across all patients
-- based on screening tools and modify treatment plans accordingly.
SELECT form_no, AVG (score) AS Average_Score
FROM MentalHealthScreening GROUP BY form_no;
```

	form_no character varying (50)	average_score numeric
1	GAD-7	6.4230769230769231
2	PHQ-9	16.1200000000000000

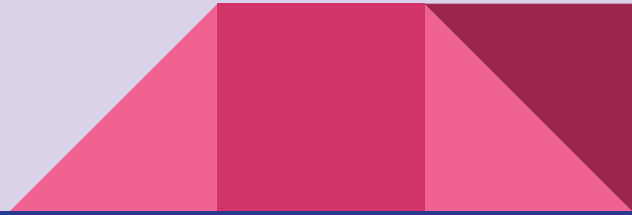
SQL Queries

```sql
-- #12. Display the bill id, bill amount, total bill amount, and average bill amount partitioned by billing status. Order the records in descending
-- order by amount due. Use window functions.
-- The details of each bill are displayed along with total and average bill amount partiioned by the billing status. There are currently 25 paid records,
-- 15 partially paid records, and 11 unpaid records.
SELECT bill_id AS "Bill ID", amount_due AS "Bill Amount", SUM(amount_due) OVER W AS "Total Bill Amount",
ROUND (AVG(amount_due) OVER W, 2) AS "Average Bill Amount", billing_status AS "Billing Status"
FROM Bill
Window W AS (PARTITION BY billing_status ORDER BY amount_due DESC);
```

	Bill ID integer	Bill Amount numeric (10,2)	Total Bill Amount numeric	Average Bill Amount numeric	Billing Status character varying (50)
1	19	3467.44	3467.44	3467.44	PAID
2	26	3098.21	6565.65	3282.83	PAID
3	40	3071.72	9637.37	3212.46	PAID
4	18	2616.62	12253.99	3063.50	PAID
5	13	2612.52	14866.51	2973.30	PAID

Database Integration

- Python (Jupyter Notebook)
- Data Analysis
- Data Visualization

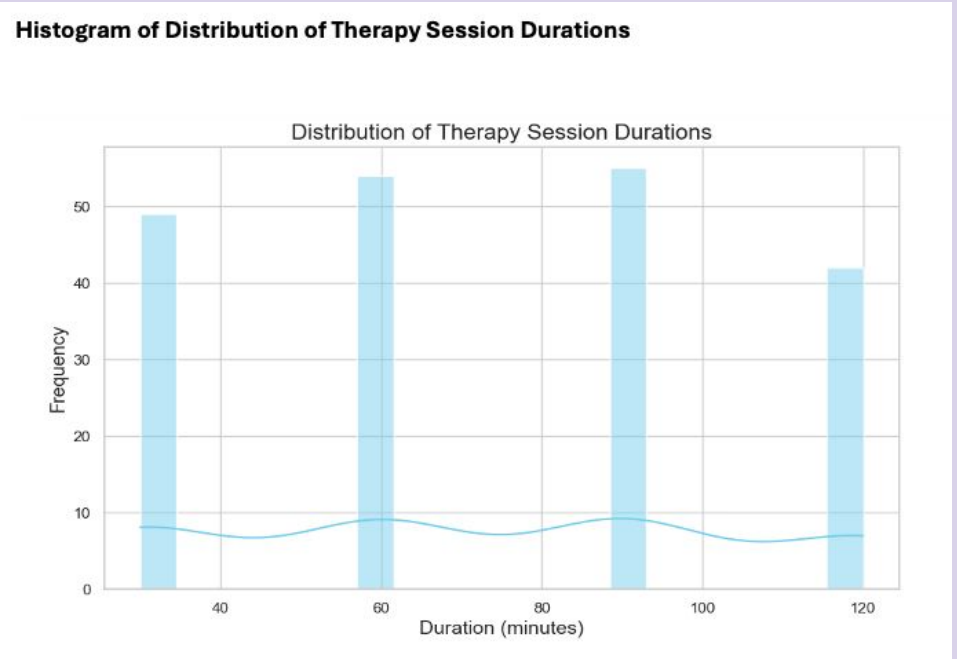


Data Analysis and Visualization

Descriptive Statistics for Therapy Session Durations:

```
count    200.000000
mean      73.500000
std       32.357146
min       30.000000
25%       60.000000
50%       60.000000
75%       90.000000
max      120.000000
Name: duration_minutes, dtype: float64
```

Histogram of Distribution of Therapy Session Durations



Data Analysis and Visualization

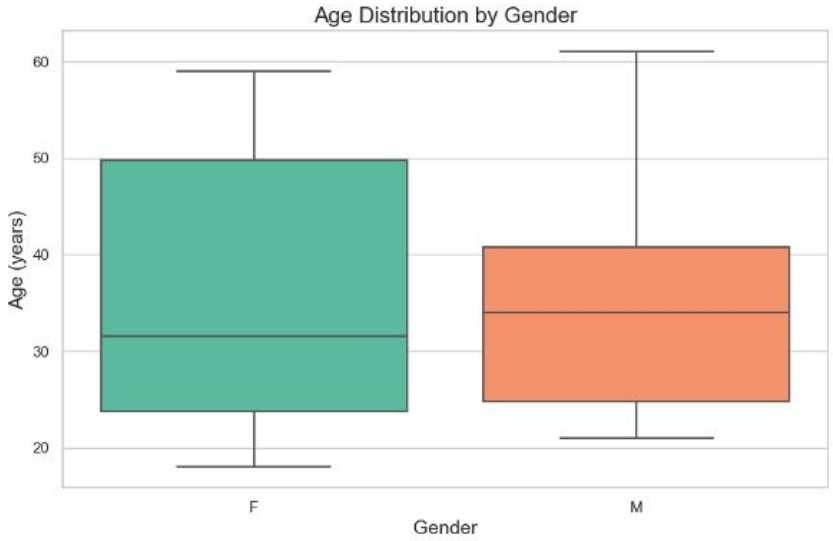
Descriptive Statistics of Age of Patient:

```
count    50.000000
mean     35.280000
std      12.970988
min      18.000000
25%      24.000000
50%      32.500000
75%      45.750000
max      61.000000
Name: age, dtype: float64
```

Counts of Each Gender of Patient:

```
gender
F    32
M    18
Name: count, dtype: int64
```

Box Plot of Age Distribution by Gender



Data Analysis and Visualization

Analysis of Correlation Between Therapy Duration and Claim Amount

```
Correlation Between Therapy Duration and Claim Amount: -0.009578710171902906
```

Statistical Analysis on Percentage of Claims Approved Versus Not Approved

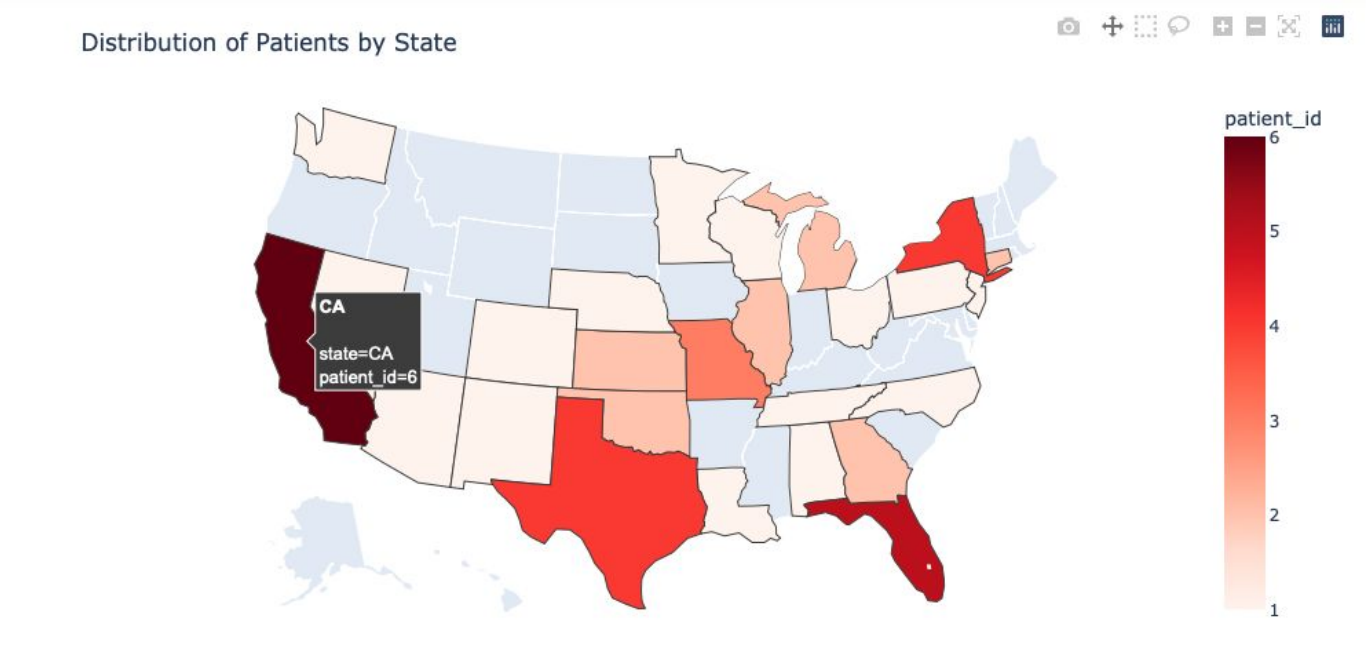
```
Percentage of Claims Approved: 60.00%
Percentage of Claims Not Approved: 40.00%
```

Calculating the Approval Rates by Insurance Provider

```
provider_name
Aetna Silver Choice       100.000000
Anthem Blue Cross         100.000000
Cigna Preferred           100.000000
Humana Gold Plus          100.000000
Medicare Advantage        100.000000
Molina Medicaid            83.333333
Molina Healthcare          80.000000
Aetna Health Plan          75.000000
WellCare Classic           50.000000
Oscar Health Plan          40.000000
UnitedHealthcare           40.000000
Blue Cross Blue Shield     33.333333
Cigna Connect               0.000000
Kaiser Permanente           0.000000
Name: is_claim_approved, dtype: float64
```

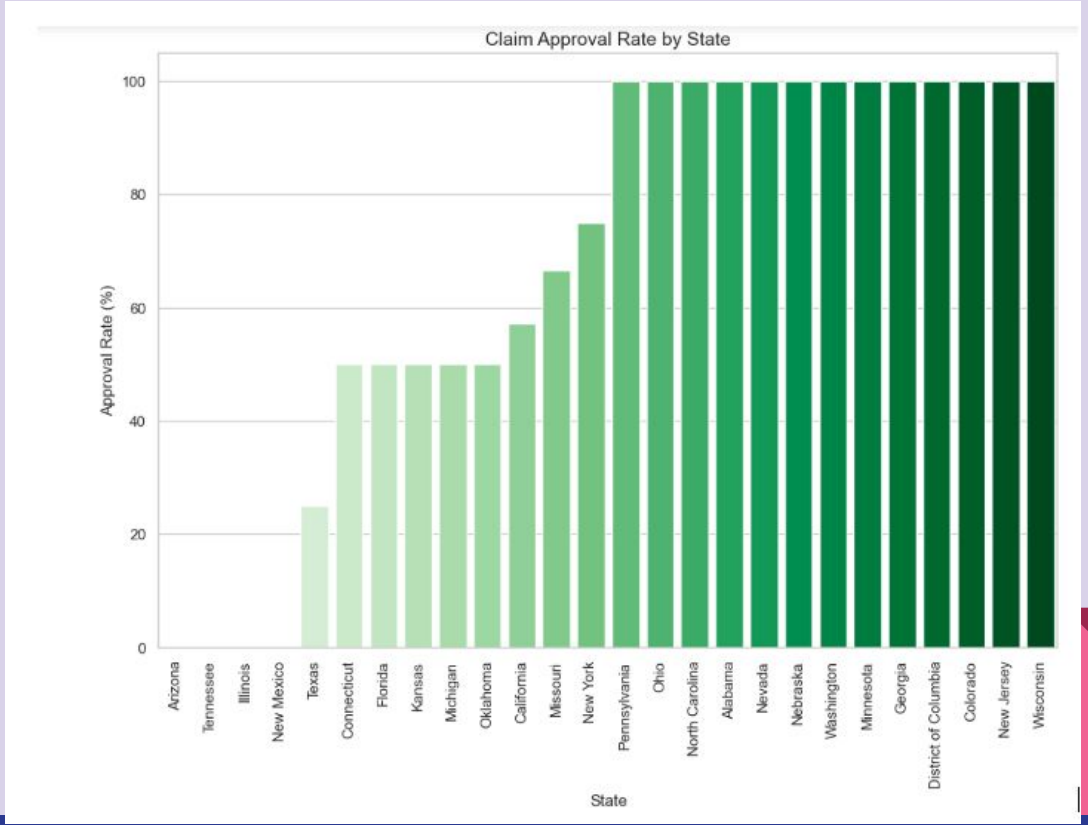
Data Analysis and Visualization

Heat-like Map on the United States Map Displaying the Distribution of Patients By State



Data Analysis and Visualization

Claim Approval Rate By State



Conclusion

Summary:

- Relational database
- Queries
- Comprehensive data analysis

    Age and Gender Demographics

    State Distribution

    Insurance Claim Approval

    Therapy Durations

Future Considerations:

Data protection, security, and privacy

Medical data is highly sensitive

HIPAA compliance

External Application (i.e. Flask)

- User friendly interface
- Centralized patient portal, navigate between all tables
- User login, protect user and patient privacy, password protected

Limitations:

- Mock data