Report 1: Basic Data Retrieval from "Patient" Table

Objective: Retrieve the details of all patients who have an appointment with any doctor.

Instructions:

- Write a SQL query that selects all columns from the "Patient" table.
- Filter the results to only show patients who have appointments in the "Appointment" table.

Expected Result:

• A list of all patients with appointments, displaying patient details (name, contact information, etc.).

Report 2: Appointment and Payment History

Objective: Retrieve a list of all appointments along with the corresponding payment status for each.

Instructions:

- Join the "Appointment" table with the "Payment" table based on the patient ID.
- Select the appointment ID, patient name, appointment date, payment status, and amount paid.
- Order the results by appointment date in descending order.

Expected Result:

• A report of all appointments with payment details, showing any pending or completed payments.

Report 3: Doctor's Prescription History

Objective: List all prescriptions issued by each doctor, along with the patient's name and prescription details.

Instructions:

- Join the "Doctor", "Prescription", and "Patient" tables.
- Select the doctor's name, patient name, prescription ID, and the medication prescribed.
- Group the results by doctor and patient.

Expected Result:

 A list of prescriptions issued, organized by doctor, with corresponding patient details and medications.

Report 4: Patient's Upcoming Appointments

Objective: Show a list of all patients with their upcoming appointments.

Instructions:

- Select all patients from the "Patient" table and join them with the "Appointment" table.
- Filter the results to show only future appointments (i.e., appointments where the appointment date is after the current date).
- Include patient details such as name, appointment date, and doctor name.

Expected Result:

 A list of patients with their upcoming appointments, showing the doctor assigned to each appointment.

Report 5: List of Patients Who Haven't Made a Payment

Objective: Identify all patients who have appointments but have not yet made a payment.

Instructions:

- Join the "Patient" table with the "Appointment" table and the "Payment" table.
- Filter the results to show only patients who have appointments but have no corresponding payment entry.
- Display patient name, appointment date, and doctor name.

Expected Result:

• A list of patients with appointments but no payments, including their contact information.

Report 6: Doctors with No Upcoming Appointments

Objective: Find doctors who do not have any upcoming appointments.

Instructions:

- Join the "Doctor" table with the "Appointment" table.
- Filter out doctors who have upcoming appointments (appointments where the appointment date is after the current date).
- Display the doctor's name and the number of upcoming appointments they have.

Expected Result:

A list of doctors who do not have any upcoming appointments.

Report 7: Top 5 Patients with the Most Appointments

Objective: Identify the top 5 patients who have the most number of appointments.

Instructions:

- Join the "Patient" and "Appointment" tables.
- Group the results by patient and count the number of appointments each patient has.
- Order the results by the number of appointments in descending order.
- Limit the results to the top 5.

Expected Result:

• A list of the top 5 patients with the most appointments.

Report 8: Doctor Appointment and Payment Summary

Objective: Generate a report that shows the total amount paid for appointments by each doctor.

Instructions:

- Join the "Doctor", "Appointment", and "Payment" tables.
- Group the results by doctor and calculate the sum of payments for each doctor's appointments.
- Display the doctor's name and the total amount received.

Expected Result:

A summary of payments for each doctor, showing the total amount received.

Report 9: Detailed Patient Appointment Analysis

Objective: Create a detailed report showing patients' appointments, payment statuses, and prescriptions.

Instructions:

- Join the "Patient", "Appointment", "Payment", and "Prescription" tables.
- Select patient name, appointment date, payment status, prescription details, and doctor assigned.
- Filter the results to show only patients who have both prescriptions and appointments.

Expected Result:

• A detailed report showing patients' appointments, their payment status, and the prescriptions they received.

Report 10: Patients with No Prescriptions and Pending Payments

Objective: List all patients who have pending payments and have not received any prescriptions.

Instructions:

- Join the "Patient", "Appointment", "Payment", and "Prescription" tables.
- Filter the results to show only patients with pending payments and no prescriptions.
- Include patient name, appointment date, and payment status.

Expected Result:

• A list of patients who have pending payments but have not received any prescriptions, showing their appointment details.