**RIGHT JOIN SQL Practice Questions with Answers (Doctors & Appointments)**

Table 1: Doctors

| doctor_id | doctor_name | specialization | experience | department |
|---|---|---|---|---|
| 1 | Dr. Smith | Cardiologist | 10 | Cardiology |
| 2 | Dr. John | Neurologist | 8 | Neurology |
| 3 | Dr. Alex | Dermatologist | 6 | Skin |
| 4 | Dr. Mary | Orthopedic | 12 | Bone |
| 5 | Dr. Rahul | Pediatrician | 7 | Child Care |

Table 2: Appointments

| appointment_id | patient_name | doctor_id | appointment_date | fees |
|---|---|---|---|---|
| 101 | Alice | 1 | 2024-01-02 | 500 |
| 102 | Bob | 2 | 2024-01-03 | 600 |
| 103 | Charlie | 2 | 2024-01-05 | 600 |
| 104 | David | 6 | 2024-01-06 | 700 |
| 105 | Emma | 3 | 2024-01-07 | 400 |
| 106 | Frank | NULL | 2024-01-09 | 350 |

**1. Display all doctors and their corresponding appointment details using RIGHT JOIN**

- SELECT doctor_name, specialization, patient_name, appointment_date, fees FROM Appointments RIGHT JOIN Doctors ON Appointments.doctor_id = Doctors.doctor_id;

**2. Show each doctor's name along with the patient's name. Include doctors who have no appointments.**

- SELECT doctor_name, COALESCE(patient_name, 'No Appointment') AS patient_name FROM Appointments RIGHT JOIN Doctors ON Appointments.doctor_id = Doctors.doctor_id;

**3. Retrieve doctor name, specialization, and appointment date for all doctors, even those without patients.**

- SELECT doctor_name, specialization, appointment_date FROM Appointments RIGHT JOIN Doctors ON Appointments.doctor_id = Doctors.doctor_id;

**4. Find the list of doctors who don't have any appointments yet.**

- SELECT doctor_name FROM Appointments RIGHT JOIN Doctors ON Appointments.doctor_id = Doctors.doctor_id WHERE appointment_id IS NULL;

**5. Display each doctor's name and the total number of appointments they have (include 0 if none).**

- SELECT doctor_name, COUNT(appointment_id) AS total_appointments FROM Appointments RIGHT JOIN Doctors ON Appointments.doctor_id = Doctors.doctor_id GROUP BY doctor_name;

**6. Show the total fees collected by each doctor (display 0 if no fees were collected).**

- SELECT doctor_name, COALESCE(SUM(fees), 0) AS total_fees FROM Appointments RIGHT JOIN Doctors ON Appointments.doctor_id = Doctors.doctor_id GROUP BY doctor_name;

**7. List all doctors and the patients they treated, ordered by doctor name.**

- SELECT doctor_name, patient_name FROM Appointments RIGHT JOIN Doctors ON Appointments.doctor_id = Doctors.doctor_id ORDER BY doctor_name;

**8. Display doctor name, specialization, and average fee charged per doctor.**

- SELECT doctor_name, specialization, AVG(fees) AS avg_fee FROM Appointments RIGHT JOIN Doctors ON Appointments.doctor_id = Doctors.doctor_id GROUP BY doctor_name, specialization;

**9. Find doctors whose average consultation fee is greater than ₹500.**

- SELECT doctor_name, AVG(fees) AS avg_fee FROM Appointments RIGHT JOIN Doctors ON Appointments.doctor_id = Doctors.doctor_id GROUP BY doctor_name HAVING AVG(fees) > 500;

**10. Show all doctor names with their department and total number of distinct patients.**

- SELECT doctor_name, department, COUNT(DISTINCT patient_name) AS unique_patients FROM Appointments RIGHT JOIN Doctors ON Appointments.doctor_id = Doctors.doctor_id GROUP BY doctor_name, department;

**11. List doctors who have treated at least two unique patients.**

- SELECT doctor_name FROM Appointments RIGHT JOIN Doctors ON Appointments.doctor_id = Doctors.doctor_id GROUP BY doctor_name HAVING COUNT(DISTINCT patient_name) >= 2;

**12. Display each department and total revenue generated from its doctors (include departments with no revenue).**

- SELECT department, COALESCE(SUM(fees), 0) AS total_revenue FROM Appointments RIGHT JOIN Doctors ON Appointments.doctor_id = Doctors.doctor_id GROUP BY department;

**13. Retrieve each doctor's name and their most recent appointment date (if any).**

- SELECT doctor_name, COALESCE(MAX(appointment_date), 'No Appointments Yet') AS latest_appointment FROM Appointments RIGHT JOIN Doctors ON Appointments.doctor_id = Doctors.doctor_id GROUP BY doctor_name;

**14. Show all doctors, replacing missing patient names with 'No Patient'.**

- SELECT doctor_name, COALESCE(patient_name, 'No Patient') AS patient_name FROM Appointments RIGHT JOIN Doctors ON Appointments.doctor_id = Doctors.doctor_id;

**15. Find the total number of appointments, ensuring that doctors without appointments are also included.**

- SELECT doctor_name, COUNT(appointment_id) AS total_appointments FROM Appointments RIGHT JOIN Doctors ON Appointments.doctor_id = Doctors.doctor_id GROUP BY doctor_name;