### **Pivot Tables**

### **Provider Workload: Number of Patients per Healthcare Provider**

This metric shows how many unique pregnant women each provider has been responsible for. Since each provider performs multiple follow-ups for various prescriptions, we can use the FollowUps and Prescriptions tables to calculate the number of unique patients (pregnant women) each provider is responsible for.

**SQL Query:**

SELECT

hp.name AS provider\_name,

COUNT(DISTINCT p.woman\_id) AS number\_of\_patients

FROM

HealthcareProviders hp

JOIN

FollowUps fu ON hp.provider\_id = fu.provider\_id

JOIN

Prescriptions pr ON fu.prescription\_id = pr.prescription\_id

JOIN

PregnantWomen pw ON pr.woman\_id = pw.woman\_id

GROUP BY

hp.provider\_id;

**Explanation**:

* + - Join HealthcareProviders, FollowUps, Prescriptions, and PregnantWomen tables.
    - Group the data by provider\_id to get the count of distinct women (woman\_id) each provider is responsible for.

### **Follow-Up Success by Provider**

This metric shows the success rate of follow-ups for each provider. We'll calculate the success rate as the percentage of "Successful" follow-ups over the total follow-ups done by the provider.

**SQL Query:**

SELECT

hp.name AS provider\_name,

SUM(CASE WHEN fu.status = 'Successful' THEN 1 ELSE 0 END) AS successful\_followups,

COUNT(fu.followup\_id) AS total\_followups,

(SUM(CASE WHEN fu.status = 'Successful' THEN 1 ELSE 0 END) / COUNT(fu.followup\_id)) \* 100 AS success\_rate

FROM

HealthcareProviders hp

JOIN

FollowUps fu ON hp.provider\_id = fu.provider\_id

GROUP BY

hp.provider\_id;

**Explanation**:

* + - We use a CASE statement to count only successful follow-ups.
    - The total follow-ups per provider are also counted, and the success rate is calculated as a percentage.

1. **Registration Trends Data**

### **Option 1: Use Year and Month without Aliases**

SELECT

YEAR(registration\_date) AS **Year** ,

MONTH(registration\_date)AS **Month** ,

COUNT(woman\_id)

FROM

PregnantWomen

GROUP BY

YEAR(registration\_date), MONTH(registration\_date)

ORDER BY

YEAR(registration\_date), MONTH(registration\_date);

### **Average Follow-Up Time**

The average follow-up time can be calculated as the difference between the prescription\_date in the Prescriptions table and the followup\_date in the FollowUps table. You can write a query to compute this average for all follow-ups.

#### **SQL Query for Average Follow-Up Time**

SELECT AVG(DATEDIFF(f.followup\_date, p.prescription\_date)) AS avg\_follow\_up\_time

FROM FollowUps f

JOIN Prescriptions p ON f.prescription\_id = p.prescription\_id;

### **Medication Side Effects Reported**

The side\_effects column in the Medications table contains details about reported side effects. To get a count of medications with reported side effects, you can query the number of medications that have entries in the side\_effects column (i.e., where this column is not empty or null).

#### **SQL Query for Medication Side Effects Reported**

SELECT COUNT(\*) AS side\_effects\_reported

FROM Medications

WHERE side\_effects IS NOT NULL AND side\_effects != '';

#### **Total Number of Pregnant Women Registered**

SELECT COUNT(\*) AS total\_registered

FROM PregnantWomen;

#### **Medication Adherence Rate**

SELECT

(COUNT(CASE WHEN f.status = 'Successful' THEN 1 END) \* 100.0 / COUNT(\*)) AS adherence\_rate

FROM FollowUps f;

#### **Upcoming Follow-Ups**

SELECT w.name, pr.follow\_up\_date

FROM PregnantWomen w

JOIN Prescriptions pr ON w.woman\_id = pr.woman\_id

JOIN FollowUps f ON pr.prescription\_id = f.prescription\_id

WHERE f.followup\_date > CURRENT\_DATE;

#### **Follow-Up Status Summary**

SELECT f.status, COUNT(\*) AS count

FROM FollowUps f

GROUP BY f.status;

#### **Prescriptions by Medication**

SELECT m.name AS medication\_name, COUNT(pr.prescription\_id) AS prescription\_count

FROM Medications m

JOIN Prescriptions pr ON m.medication\_id = pr.medication\_id

GROUP BY m.name;

#### **Follow-Ups by Healthcare Provider**

SELECT hp.name AS provider\_name, COUNT(f.followup\_id) AS followup\_count

FROM FollowUps f

JOIN Prescriptions pr ON f.prescription\_id = pr.prescription\_id

JOIN HealthcareProviders hp ON f.provider\_id = hp.provider\_id

GROUP BY hp.name;

### 