

11/17/2025

DAY 17

#SQLWithIDC

[21 DAYS SQL CHALLENGE]

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PRACTICE QUESTIONS

1. Show each patient with their service's average satisfaction as an additional column. Show each patient with their service's average satisfaction as an additional column.

```
SELECT p.name AS patient_name, p.service, p.satisfaction,  
(  
    SELECT ROUND ( AVG ( sw.patients_satisfaction ), 2 )  
    FROM services_weekly AS sw  
    WHERE sw.service = p.service  
) AS service_avg_satisfaction  
FROM patients AS p;
```

2. Create a derived table of service statistics and query from it.

```
SELECT d.service, d.total_admitted, d.avg_satisfaction
FROM (
    SELECT service,
           SUM(patients_admitted) AS total_admitted,
           AVG(patients_satisfaction) AS avg_satisfaction
    FROM services_weekly
   GROUP BY service
) d
ORDER BY d.total_admitted DESC;
```

3. Display staff with their services total patient count as a calculated field.

```
SELECT s.staff_id, s.staff_name, s.role, s.service,
(
    SELECT SUM(sw.patients_admitted)
    FROM services_weekly AS sw
    WHERE sw.service = s.service
) AS total_patients_in_service
FROM staff AS s;
```

DAILY CHALLENGE – DAY 17

1. Create a report showing each service with: service name, total patients admitted, the difference between their total admissions and the average admissions across all services, and a rank indicator ("Above Average", "Average", "Below Average").
 - Order by total patients admitted descending.

```
SELECT d.service, d.total_admitted, ( d.total_admitted - overall.avg_total ) AS diff_from_avg,  
CASE  
WHEN d.total_admitted > overall.avg_total THEN 'Above Average'  
WHEN d.total_admitted = overall.avg_total THEN 'Average'  
ELSE 'Below Average'  
END AS rank_indicator  
FROM  
(  
    SELECT service,  
    SUM(patients_admitted) AS total_admitted  
    FROM services_weekly  
    GROUP BY service  
) d  
CROSS JOIN (  
    SELECT ROUND( AVG (total_admitted), 2 ) AS avg_total  
FROM (  
        SELECT service,  
        SUM(patients_admitted) AS total_admitted  
        FROM services_weekly  
        GROUP BY service  
) t  
) overall  
ORDER BY d.total_admitted DESC;
```