



11/11/2025

# DAY 9

## #SQLWithIDC

[ 21 DAYS SQL CHALLENGE ]



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# PRACTICE QUESTIONS

1. Extract the year from all patients.

```
SELECT patient_id, YEAR(arrival_date)
AS arrival_year FROM patients;
```

output

```
209 -- 1.Extract the year from all patients arrival_dates.
210 • SELECT patient_id, YEAR(arrival_date) AS arrival_year
211 FROM patients;
212
```

patient_id	arrival_year
PAT-003ce690	2025
PAT-00883d3c	2025
PAT-00b64d32	2025
PAT-029113eb	2025
PAT-02ae68da	2025
PAT-02f2e75d	2025
PAT-0307a640	2025
PAT-030f2b7d	2025
PAT-032160f4	2025
PAT-03a1bd78	2025
PAT-03ae75aa	2025
PAT-03d0b953	2025
PAT-03f5abbe	2025
PAT-044a304c	2025
PAT-0477a000	2025
PAT-0486eac6	2025
PAT-04a8031e	2025
PAT-04be60be	2025
PAT-06a9ea25	2025
PAT-06d975bc	2025
PAT-07a9ee88	2025

2. Calculate the length of stay for each patient(departure\_date - arrival\_date).

```
SELECT patient_id, name,
(departure_date - arrival_date) AS
stay_length FROM patients ;
```

output

```
214 -- 2.Calculate the length of stay for each patient(departure_date-arrival_date).
215 • SELECT patient_id, name, (departure_date - arrival_date) AS stay_length
216 FROM patients;
217
218
```

patient_id	name	stay_length
PAT-003ce690	Larry Dixon	2
PAT-00883d3c	Victor Taylor	7
PAT-00b64d32	Anber Obrien	2
PAT-029113eb	Victoria Larson	9
PAT-02ae68da	Corey Whitaker	83
PAT-02f2e75d	Thomas Atkins	74
PAT-0307a640	Steven Howard	1
PAT-030f2b7d	Chris Velazquez	5
PAT-032160f4	Angela Lin	5
PAT-03a1bd78	Helissa McFarland	10
PAT-03ae75aa	Jordan Williams	3
PAT-03d0b953	Michelle Davis DIM	13
PAT-03f5abbe	Dean Donovan	82
PAT-044a304c	George Harper	4
PAT-0477a000	Michael Wang	1
PAT-0486eac6	Scott Alexander	4
PAT-04a8031e	Jake Shaw	12
PAT-04be60be	Bradley Johnson...	84
PAT-06a9ea25	Alexander Gomez	2
PAT-06d975bc	Donald Medina	11
PAT-07a9ee88	Michael Martinez	13

3. Find all patients who arrived in a specific month.

```
SELECT name, arrival_date FROM patients
WHERE MONTH(arrival_date) = 4;
```

output

```
219 -- 3.Find all patients who arrived in a specific month.
220 • SELECT name, arrival_date FROM patients
221 WHERE MONTH(arrival_date) = 4;
222
```

name	arrival_date
Scott Alexander	2025-04-19
Alexander Gomez	2025-04-01
Monica Ellis	2025-04-24
Sandra Drake	2025-04-26
Marilyn Wang	2025-04-12
Derrick Anderson	2025-04-23
James Bradley	2025-04-14
Travis Tucker	2025-04-18
Christine Parker	2025-04-14
Mary Miller	2025-04-01
Paula Bradley	2025-04-06
William Jones	2025-04-16
Michele Smith	2025-04-19
Mary Kelly	2025-04-12
David Harris	2025-04-11
Jason Love	2025-04-23
Katherine Martinez	2025-04-19
Renee Melendez	2025-04-04
Frank Cordova	2025-04-12
Lance Simmons	2025-04-02
Carolyn Miller	2025-04-17
Arthur Hamilton MD	2025-04-19
Michael Martinez	2025-04-13

## DAILY CHALLENGE – DAY 9

1. Calculate the average length of stays(in days) for each service, showing only services where the average stay is more than 7 days. also show the count of patients and order by average stay descending.

```
SELECT service, COUNT(patient_id) AS patients_count,  
ROUND(AVG(DATEDIFF(departure_date, arrival_date)), 1) AS avg_stay_days  
FROM patients  
GROUP BY service  
HAVING avg_stay_days > 7  
ORDER BY avg_stay_days DESC ;
```



```
224 -- Daily Challenge - Day 9  
225 -- Calculate the average length of stays(in days) for each service, showing only services where the average stay is more than 7 days.  
226 -- also show the count of patients and order by average stay descending.  
227 • SELECT service, COUNT(patient_id) AS patients_count,  
228 ROUND(AVG(DATEDIFF(departure_date, arrival_date)), 1) AS avg_stay_days  
229 FROM patients  
230 GROUP BY service  
231 HAVING avg_stay_days > 7  
232 ORDER BY avg_stay_days DESC;  
233
```

Result Grid			
	service	patients_count	avg_stay_days
▶	surgery	254	7.9
	ICU	241	7.6
	emergency	263	7.2