

## Exercise 5 - DATE Functions

1. Add 6 months to each employee's hire date using `DATEADD`.

`SELECT emp_id, name,  
 DATEADD(MONTH, 6, hire_date) AS hire_plus_6_months  
FROM employees;`

emp_id	name	hire_date	hire_plus_6_months
1	Alice	2020-01-15	2020-07-15
2	Bob	2021-06-10	2021-12-10
3	Charlie	2023-03-22	2023-09-22

2. Use `DATEDIFF()` to find age in days from dob to today.

`SELECT student_id, name,  
 DATEDIFF(DAY, dob, current_date) AS age_in_days  
FROM students;`

student_id	name	age_in_days
101	Maya	7388
102	Ethan	7642
103	Senna	7141

3. Find how many days are left until each event using `DATEDIFF`.

`SELECT event_id, event_name,  
 DATEDIFF(DAY, CURRENT_DATE, event_date) AS days_left  
FROM events;`

event_id	event_name	days_left
1	Seminar	487
2	Workshop	44
3	Hadathon	268

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Q4. Calculate the number of days between issue-date and due-date.

```
SELECT invoice_id, issue_date, due_date,
       DATEDIFF(DAY, issue_date, due_date) AS days_between
FROM invoices;
```

invoice_id	issue_date	due_date	days_between
501	2025-03-10	2025-03-25	15
502	2025-04-01	2025-04-15	14
503	2025-04-10	2025-04-20	10

5. Format start\_date as 'Month YY YY' using TO\_CHAR()

```
SELECT course_id, name,
       TO_CHAR(start_date, 'Month YY YY') AS formatted_date
FROM Courses;
```

Course-id	Name	formatted_date
201	SQL Basics	May 2025
202	Python	June 2025

6. Create full date from parts using DATE - FROM - PARTS()

7. Extended columns: sub\_id, plan, extended\_renewal\_date
7. Extended each renewal date by 1 year using DATEADD()
- ```
SELECT sub_id, plan,
       DATEADD(YEAR, 1, renewal_date) AS extended_renewal_date
  FROM subscriptions;
```

| sub_id | plan    | extended_renewal_date |
|--------|---------|-----------------------|
| 11     | Basic   | 2026-01-01            |
| 12     | Premium | 2026-03-15            |

8. Show current date and difference from order\_date.

Use CURRENT\_DATE and DATEDIFF()

```
SELECT order_id, order_date,
       CURRENT_DATE AS today_date,
       DATEDIFF(DAY, order_date, CURRENT_DATE) AS days_since_order
  FROM orders;
```

| order_id | order_date | today_date | days_since_order |
|----------|------------|------------|------------------|
| 1001     | 2025-04-15 | 2025-10-15 | 183              |
| 1002     | 2025-04-10 | 2025-10-15 | 188              |

9. Extract the year from training\_date Using DATE\_PART() or EXTRACT()

10. Extract hour and minute from published\_on

SELECT post\_id, title,

EXTRACT(HOUR FROM published\_on) AS hour\_published,

EXTRACT(MINUTE FROM published\_on) AS minute\_published

FROM blog\_posts;

| Post_id | title         | hour_published | minute_published |
|---------|---------------|----------------|------------------|
| 1       | SQLTips       | 10             | 15               |
| 2       | Data_cleaning | 16             | 45               |

11. Calculate days left until license expiry using DATEDIFF()  
and today's date.

SELECT driver\_id, license\_expiry,

DATEDIFF(DAY, license\_expiry, CURRENT\_DATE) AS days\_left

FROM drivers;

| driver_id | license_expiry | days_left |
|-----------|----------------|-----------|
| 301       | 2025-08-10     | 66        |
| 302       | 2023-12-31     | 654       |

12. Display the current timestamp and calculate seconds since the message was sent

SELECT message\_id, sent\_timestamp,

CURRENT\_TIMESTAMP AS current\_timestamp,

DATEDIFF(SECOND, sent\_timestamp, CURRENT\_TIMESTAMP) AS

seconds\_since\_sent

FROM messages;

| message_id | sent_timestamp      | current_timestamp   | seconds_since_sent |
|------------|---------------------|---------------------|--------------------|
| 1          | 2025-04-19 09:32:45 | 2025-10-15 00:00:00 | 153 00000          |
| 2          | 2025-04-18 23:59:59 | 2025-10-15 00:00:00 | 153 00000          |

B Add 15 days to return\_date using DATEADD() to show restock\_date.

```
SELECT return_id, return_date,  
       DATEADD(DAY, 15, return_date) AS restock_date  
FROM returns;
```

| return_id | return_date | restock_date |
|-----------|-------------|--------------|
| 901       | 2025-04-03  | 2025-04-18   |
| 902       | 2025-04-01  | 2025-04-16   |

14 Convert assigned\_on to date using TO\_DATE() (if its stored as string)

```
SELECT assign_id,  
       TO_DATE(assigned_on, 'YY YY-MM-DD') AS assigned_on_date  
FROM assignments;
```

| assign_id | assigned_on_date |
|-----------|------------------|
| 1         | 2025-03-01       |
| 2         | 2025-03-05       |