BrightLearn Tutorials

SQL DATE Functions Exercise: SOLUTIONS

Q1. Add 6 months to each employee's hire date using DATEADD().

SQL QUERY:

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

Expected output:

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

Q2. Use DATEDIFF() to find age in days from dob to today.

SQL QUERY:

```
SELECT student_id, name,
    DATEDIFF(DAY, dob, CURRENT_DATE) AS age_in_days
FROM Students;
```

Expected output: (as of 2025-10-15)

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

Q3. Find how many days are left until each event using DATEDIFF().

SQL QUERY:

```
SELECT event_id, event_name,
    DATEDIFF(DAY, CURRENT_DATE, event_date) AS days_remaining
FROM Events;
```

Expected output: (Negative means event already passed.)

event_id	event_name	days_remaining
1	Seminar	-487
2	Workshop	-44
3	Hackathon	-268

Q4. Calculate the number of days between issue_date and due_date.

SQL QUERY:

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

Expected output

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

Q5. Format start_date as 'Month YYYY' using TO_CHAR().

SQL QUERY:

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

Expected output

course_id	name	formatted_date
201	SQL Basics	May 2025
202	Python	June 2025

Q6. Create full date from parts using DATE_FROM_PARTS().

SQL QUERY:

```
SELECT member_id,
    DATEFROMPARTS(start_year, start_month, start_day) AS full_start_date
FROM Memberships;
```

Expected output

member_id	full_start_date
1	2023-05-10
2	2022-11-25

Q7. Extend each renewal_date by 1 year using DATEADD().

SQL QUERY:

```
SELECT sub_id, plan,
    DATEADD(YEAR, 1, renewal_date) AS extended_renewal_date
```

FROM Subscriptions;

Expected output

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

Q8. Show current date and difference from order_date.

SQL QUERY:

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

Expected output

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

Q9. Extract the year from training_date using DATE_PART() or EXTRACT().

SQL QUERY:

```
SELECT training_id, topic,
    EXTRACT(YEAR FROM training_date) AS training_year
FROM Trainings;
```

Expected output

training_id	topic	training_year
1	Safety	2025
2	Compliance	2025

Q10. Extract hour and minute from published_on.

SQL QUERY:

```
SELECT post_id, title,
    EXTRACT(HOUR FROM published_on) AS hour_published,
    EXTRACT(MINUTE FROM published_on) AS minute_published
FROM Blog_Posts;
```

Expected output

post_id	title	hour_published	minute_published
1	SQL Tips	10	15
2	Data Cleaning	16	45

Q11. Calculate days left until license expiry using DATEDIFF() and today's date.

SQL QUERY:

```
SELECT driver_id, license_expiry,
    DATEDIFF(DAY, CURRENT_DATE, license_expiry) AS days_left
FROM Drivers;
```

Expected output

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

Q12. Display the current timestamp and calculate seconds since the message was sent.

SQL QUERY:

```
SELECT message_id, sent_timestamp,
    CURRENT_TIMESTAMP AS current_timestamp,
    DATEDIFF(SECOND, sent_timestamp, CURRENT_TIMESTAMP) AS seconds_since_sent
FROM Messages;
```

Expected output

message_id	sent_timestamp	current_timestamp	seconds_since_sent
1	2025-04-19 09:32:45	2025-10-15 00:00:00	~15300000
2	2025-04-18 23:59:59	2025-10-15 00:00:00	~15310000

Q13. Add 15 days to return_date using DATEADD() to show restock_date.

SQL QUERY:

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

Expected output

return_id	return_date	restock_date
901	2025-04-05	2025-04-20
902	2025-04-01	2025-04-16

Q14. Convert assigned_on to date using TO_DATE() (if it's stored as string).

SQL QUERY:

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

Expected output

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

Q15. Convert scheduled_time to formatted string like 'April 19, 2025 at 2:00 PM' using TO_CHAR().

SQL QUERY:

```
SELECT meeting_id,
    TO_CHAR(scheduled_time, 'Month DD, YYYY "at" HH:MI AM') AS formatted_meeting_time
FROM Meetings;
```

Expected output

meeting_id	formatted_meeting_time
1	April 19, 2025 at 02:00 PM
2	April 19, 2025 at 09:30 AM