VINOLIA MACAMES EXCERSTICES 5: DATE FUNCTIONS

Table1: Employees

emp_id	Name	hire_date
1	Alice	
2	Bob	
3	Charlie	

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

```
SELECT
    Emp_Id,
    name,
    hire_date
DATEADD(MONTH, 6, hire_date) As hire_plus
    -6_ Months
FROM Employees;
```

emp_id	name	hire_date	hire_plus_6_Months
1	Alice		
2	Bob		
3	Charlie		

Table2: Students

student_id	name	dob
101	Maya	2005-08-10
102	Ethan	2004-12-01
103	Siena	2006-03-15

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

```
SELECT
    student_id,
    Name,
DATEDIFF(DAY, dob, GETDATE()) AS Age_
    in_days
FROM students;
```

Student_id	Name	age_in_days
101	Maya	7389
102	Ethan	7653
103	Siena	7141

Table 3: Events

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

Table 3

even_id	Event_name	event_date
1	Seminar	2024-06-15
2	Workshop	2025-09-01
3	Hackathon	2025-01-20

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

Event_id	event_name	days_remaining
1	Seminar	-118
2	workshop	- 40
3	Hackathon	-264

Table 4: Invoices

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

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

Table5: Courses

Course_Id	Name	Start_date
201	SQL Basics	2025-05-01
202	Python	2025-06-01

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

```
SELECT
    course_id,
    Name,
TO_CHAR(start_date, 'Month YYYY') AS Formated_date
FROM Courses;
```

Course_Id	Name	Formated_date
201	SQL Basics	May 2025
202	Python	~~May~~ June 2025

Table 6: Memberships

member_id	start_year	start_month	start_day
1	2023	5	10
2	2022	11	25

Q6 → Create Full date From parts using DATE_FROM_PARTS()

```
SELECT
    member_id,
DATE_FROM_PARTS(start_year, start_month, start_day) AS full_start_date
FROM memberships;
```

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

Table 7: Subscriptions

sub_id	plan	renewal_date
11	Basic	2025-01-01
12	Premium	2025-03-15

Q7. Extend 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

Table 8: orders

order_id	order_date
1001	2025-04-15
1002	2025-04-10

Q8- show current date and difference from order_date. Use CURRENT_DATE and DATEDIFF().

```
SELECT
    order_id,
    order_date,
CURRENT_DATE AS today_date,
DATEDIFF(
```

Table 9: Trainings

Training_id	Topic	training_date
1	Safety	2025-01-10
2	Compliance	2025-02-20

Q.9 → Extract the year from date using DATE_PART() or Extract().

```
SELECT
    training_id,
    topic,
DATE_PART(year, training_date) AS training_year
FROM Trainings;
```

training_id	topic	training_year
1	Safety	2025
2	Compliance	2025

Table 10: Blog_Posts

post_id	title	published_on
1	SQL Tips	2025-04-01 10:15:00
2	Data Cleanup	2025-04-12 16:45:00

Q10 → 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 Minutes_Published
FROM Blog_posts;
```

post_id	title	hour_published	minutes_Published
1	SQL Tips	10	15
2	Data Cleanup	16	45

Table 11: Drivers

driver_id	license_expiry
301	2025-08-10
302	2023-12-31

Q11 → Calculate days left until license expiry using DATEDIFF() and todays date.

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

driver_id	license expiry	day_left
301	2025-08-10	-62
302	2023-12-31	-680

Table 12: messages

message_id	sent_timestamp
1	2025-04-19 09:32:45
2	2025-04-18 23:59:59

```
SELECT
    message_id,
    sent_timestamp,
    TO_CHAR(sent_timestamp, 'YYYY-MM-DD') AS sent_date,
    TO_CHAR(sent_timestamp, 'HH24:MI:SS') AS sent_time,
    CURRENT_TIMESTAMP AS current_timestamp,
    DATEDIFF(second, sent_timestamp, CURRENT_
        TIMESTAMP) AS seconds_since_sent
FROM messages;
```

message_id	sent_timestamp	sent_date	sent_time	current_timestamp	seconds_since_sent
1	2025-04-19 09:32:45	2025-04-19	09:32:45	2025-10-11 06:00:00	14601435
2	2025-04-18 23:59:59	2025-04-18	23:59:59	2025-10-11 06:00:00	14612401

Table 13: Returns

return_id	return_date
901	2025-04-05
902	2025-04-01

Q13 → 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	2025-04-05	2025-04-20
901	2025-04-01	2025-04-16

Table 14: Assignments

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

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

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

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

Table 15: Meetings

meeting_id	scheduled_time
1	2025-04-19 14:00:00
2	2025-04-19 09:30:00

Q 15 Convert scheduled_time to Formated string like 'April 19, 2025 at 2:00 PM' using TO_CHAR().

```
SELECT meeting_id,
TO_CHAR(scheduled_time, 'Month DD, YYYY "at" HH12:MI AM') AS Formatted_meeting_time,
TO_CHAR(scheduled_time AS DATE) AS meeting_date,
TO_CHAR(scheduled_time AS TIME) AS Meeting_time
FROM Meetings;
```

meeting_id	Formatted_meeting_time	meeting_date	Meeting time
1	April 19, 2025 at 02:00 PM	2025-04-19	14:00:00
2	April 19, 2025 at 09:30 AM	2025-04-19	09:30:00