EXERCISE 5: ADVANCED SQL - DATE FUNCTIONS
NOTE: ASSUME CURRENT-DATE IS 18/12/2023.

Q1.   SELECT ~~DATE ADD~~ emp-id, name, hire-date,
              DATEADD (month, 6, hire-date) AS
              hire_plus_6_maths
       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

Q2.   SELECT student_id, name, DATE DIFF (DAY, dob,
              current-date) AS age_in_days
       FROM students;

student-id	name	age-in-days
101	Mya	7360
102	Ethan	7639
103	Siena	7114

Note: Assuming today is 2023-12-18

Q3.   SELECT event_id, event_name, DATEDIFF (DAY, Current-date,
              event-date) AS days-remaining
       FROM Events;

event_id	event-name	days-remaining
1	Seminar	-490
2	Workshop	-412
3	Hackathon	-636

Q4.   SELECT invoice_id, issue_date, due-date,
              DATEDIFF (DAY, issue_date, due_date) AS
              days between
       FROM Invoices;

Invoice_id	Isue_date	de_due	days_letter
S01	2023-03-10	2023-03-23	13
S02	2023-04-10	2023-04-23	14
S03	2023-04-10	2023-04-20	10

Q5. SELECT course_id, name,
       TO_CHAR (start_date, 'month yyy') AS
       formatted_date
    FROM courses ;

course_id	name	formatted_date
201	Sql Basics	may 2023
202	Python	June 2023

Q6. SELECT member_id, DATE_FROM_PARTS (start_year,
     start_mont, start_day) AS full_start_date
     FROM memberships ;

Member_id	full_start_date
1	2023-03-10
2	2022-11-25

Q7. 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

Q8. SELECT orderid, order_date, CURRENT_DATE AS
     today_date, DATEDIFF (CURRENT_DATE, day,
     order_date, CURRENT_DATE) AS days_since_order
    FROM Orders ;

order_id	order_date	today-date	days-since-order
1001	2025-04-15	2025-10-18	186
1002	2025-05-10	2025-10-18	141

Q9. SELECT training-id, topic, EXTRACT(YEAR FROM training-date) AS training-year
FROM trainings;

training-id	topic	training-year
1	Safety	2025
2	Compliance	2025

*Q10. 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	SQL Tips	10	15
2	Data Clean	16	45

Q11. SELECT driver-id, license-expiry, DATEDIFF(CURRENT-DATE, day) license-expiry) AS days-left
FROM Drivers;

driver-id	license-expiry	days-left
301	2025-03-20	-69
302	2023-12-31	-57

Q12. SELECT message-id, sent-timestamp, CURRENT-TIMESTAMP AS current-timestamp,
DATEDIFF(second, sent-timestamp, CURRENT-TIMESTAMP) AS seconds_since_sent
FROM messages;

message-id	set-timestamp	current timestamp	seconds-since-set
1	2023-04-14 09:32:41	2023-10-13 11:8:57	15768677
2	2023-04-18 23:04:54	2023-10-13 11:18:59	1876 8000

Q13.   SELECT return-id, return-date,
        DATEADD (day, 15, return-date) AS resbck-date
        From Returns;

return-id	return-date	resbck-date
901	2023-04-05	2023-04-20
902	2023-04-01	2025-04-16

Q14.   SELECT assign-id, TO_DATE (assigned-on,
            'YYYY-mm-DD') AS assigned-on-date
        From Assignments;

assign-id	assigned-on-date
1	2023-03-01
2	2023-03-05

Q15.   SELECT meeting-id,
        TO-CHAR (scheduled-time, 'Month DD, YYYY
        "at" HH:MI AM') AS formatted-meeting-time
        From meeting;

meeting-id	formatted-meeting-time
1	April 19, 2023 at 02:00 pm
2	April 19, 2023 at 09:30 Am