Names : MUHOZA Eliane ZAWADI
ID: 28871
ASSIGNMENT OF DABATASE MANAGEMENT SYSTEM

Q1 SELECT CONCAT('28871 - ', first_name, ' ', last_name) AS full_name

-> FROM employees;

```
+----------------------+
| full_name            |
+----------------------+
| 28871 - Alice Johnson |
| 28871 - Bob Smith     |
| 28871 - Carol Adams   |
| 28871 - David Lee     |
| 28871 - Eve Martins   |
| 28871 - Frank Green   |
| 28871 - Grace Brown   |
| 28871 - Hank Wilson   |
| 28871 - Ivy Clark     |
| 28871 - Jake White    |
+----------------------+
10 rows in set (0.040 sec)
```

Q2. SELECT CONCAT('28871 - ', LOWER(first_name)) AS lower_name

-> FROM employees;

```
+---------------+
| lower_name    |
+---------------+
| 28871 - alice |
| 28871 - bob   | |
28871 - carol |
```

| 28871 - david |

| 28871 - eve |

| 28871 - frank |

| 28871 - grace | |

28871 - hank |

| 28871 - ivy |

| 28871 - jake |

+---------------+

Q3. SELECT CONCAT('28871 - ', SUBSTRING(first_name, 1, 3)) AS short_name

-> FROM employees;

+-------------+

| short_name |

+-------------+

| 28871 - Ali |

| 28871 - Bob |

| 28871 - Car |

| 28871 - Dav |

| 28871 - Eve |

| 28871 - Fra |

| 28871 - Gra |

| 28871 - Han |

| 28871 - Ivy |

| 28871 - Jak |

+-------------+

10 rows in set (0.003 sec)

Q4**. UPDATE employees**

-> SET email = REPLACE(email, '@company.com', '@org.com')

-> WHERE email LIKE '%@company.com';

Query OK, 10 rows affected (0.014 sec)

Rows matched: 10 Changed: 10 Warnings: 0

MariaDB [employee_management]> **select * from employees;**

```
+-------------+------------+-----------+----------------------+------------+---------+---------------+
| employee_id | first_name | last_name | email                | hire_date  | salary  | department_id |
+-------------+------------+-----------+----------------------+------------+---------+---------------+
|         101 | Alice      | Johnson   | alice.johnson@org.com | 2015-03-15 | 4500.00 |             1 |
|         102 | Bob        | Smith     | bob.smith@org.com     | 2018-06-23 | 5200.00 |             3 |
|         103 | Carol      | Adams     | carol.adams@org.com   | 2012-09-10 | 6700.00 |             2 |
|         104 | David      | Lee       | david.lee@org.com     | 2020-01-05 | 3800.00 |             4 |
|         105 | Eve        | Martins   | eve.martins@org.com   | 2019-12-11 | 4000.00 |             3 |
|         106 | Frank      | Green     | frank.green@org.com   | 2017-07-08 | 6000.00 |             8 |
|         107 | Grace      | Brown     | grace.brown@org.com   | 2014-11-02 | 4900.00 |             5 |
|         108 | Hank       | Wilson    | hank.wilson@org.com   | 2013-02-17 | 3100.00 |             6 |
|         109 | Ivy        | Clark     | ivy.clark@org.com     | 2021-08-30 | 2700.00 |             9 |
|         110 | Jake       | White     | jake.white@org.com    | 2022-05-19 | 3600.00 |             7 |
+-------------+------------+-----------+----------------------+------------+---------+---------------+
```

10 rows in set (0.000 sec)

Q5. SELECT employee_id,

**   ->   CONCAT('28871 - ', TRIM(first_name)) AS first_name,**

**   ->   CONCAT('28871 - ', TRIM(last_name)) AS last_name**

**   -> FROM employees;**

```
+-------------+---------------+----------------+
| employee_id | first_name    | last_name      |
+-------------+---------------+----------------+
|         101 | 28871 - Alice | 28871 - Johnson |
|         102 | 28871 - Bob   | 28871 - Smith   |
|         103 | 28871 - Carol | 28871 - Adams   |
```

| 104 | 28871 - David | 28871 - Lee |

| 105 | 28871 - Eve | 28871 - Martins |

| 106 | 28871 - Frank | 28871 - Green |

| 107 | 28871 - Grace | 28871 - Brown |

| 108 | 28871 - Hank | 28871 - Wilson |

| 109 | 28871 - Ivy | 28871 - Clark |

| 110 | 28871 - Jake | 28871 - White |

+-------------+---------------+-----------------+

10 rows in set (0.002 sec)

6. SELECT employee_id, first_name, last_name,

-> CONCAT('28871 - ', LENGTH(CONCAT(first_name, ' ', last_name))) AS name_length

-> FROM employees;

+-------------+------------+-----------+-------------+

| employee_id | first_name | last_name | name_length |

+-------------+------------+-----------+-------------+

| 101 | Alice | Johnson | 28871 - 13 |

| 102 | Bob | Smith | 28871 - 9 |

| 103 | Carol | Adams | 28871 - 11 |

| 104 | David | Lee | 28871 - 9 |

| 105 | Eve | Martins | 28871 - 11 |

| 106 | Frank | Green | 28871 - 11 |

| 107 | Grace | Brown | 28871 - 11 |

| 108 | Hank | Wilson | 28871 - 11 |

| 109 | Ivy | Clark | 28871 - 9 |

| 110 | Jake | White | 28871 - 10 |

+-------------+------------+-----------+-------------+

10 rows in set (0.003 sec)

Q7 SELECT employee_id, email, INSTR(email, '@') FROM employees;

+-------------+--------------------------+------------------+

| employee_id | email | INSTR(email, '@') |

+-------------+--------------------------+-------------------+

| 101 | alice.johnson@campany.com | 14 | |

102 | bob.smith@campany.com | 10 |

| 103 | carol.adams@campany.com | 12 |

| 104 | david.lee@campany.com | 10 |

| 105 | eve.martins@campany.com | 12 |

| 106 | frank.green@campany.com | 12 |

| 107 | grace.brown@campany.com | 12 |

| 108 | hank.wilson@campany.com | 12 |

| 109 | ivy.clark@campany.com | 10 |

| 110 | jake.white@campany.com | 11 |

+-------------+--------------------------+-------------------+

10 rows in set (0.002 sec)

Q8. SELECT employee_id, first_name, last_name,

-> CONCAT('28871 - ',

-> CASE

-> WHEN first_name IN ('Alice', 'Carol', 'Eve', 'Grace', 'Ivy') THEN 'Ms. '

-> WHEN first_name IN ('Bob', 'David', 'Frank', 'Hank', 'Jake') THEN 'Mr. ' -> ELSE ''

-> END,

-> first_name, ' ', last_name) AS titled_name

-> FROM employees;

+-------------+------------+-----------+--------------------------+

| employee_id | first_name | last_name | titled_name |

+-------------+------------+-----------+--------------------------+

| 101 | Alice | Johnson | 28871 - Ms. Alice Johnson |

| 102 | Bob | Smith | 28871 - Mr. Bob Smith |

| 103 | Carol | Adams | 28871 - Ms. Carol Adams |

| 104 | David | Lee | 28871 - Mr. David Lee |

| 105 | Eve | Martins | 28871 - Ms. Eve Martins |

| 106 | Frank | Green | 28871 - Mr. Frank Green |

| 107 | Grace | Brown | 28871 - Ms. Grace Brown |

| 108 | Hank | Wilson | 28871 - Mr. Hank Wilson |

| 109 | Ivy | Clark | 28871 - Ms. Ivy Clark |

| 110 | Jake | White | 28871 - Mr. Jake White |

+-------------+------------+-----------+--------------------------+

10 rows in set (0.008 sec)

Q9. SELECT CONCAT('28871 - ', UPPER(project_name)) AS project_name_upper

-> FROM projects;

+-----------------------------------+

| project_name_upper |

+-----------------------------------+

| 28871 - HR REVAMP |

| 28871 - FINANCE AUTOMATION |

| 28871 - IT INFRASTRUCTURE UPGRADE |

| 28871 - MARKETING BLITZ 2025 |

| 28871 - LEGAL COMPLIANCE |

| 28871 - CUSTOMER PORTAL |

| 28871 - SALES BOOSTER |

| 28871 - R&D PILOT |

| 28871 - PROCUREMENT TRACKER |

| 28871 - OPERATIONS STREAMLINE |

+-----------------------------------+

10 rows in set (0.004 sec)

Q10. select project_name,replace (project_name, '-','') from projects;

+--------------------------+------------------------------+

| project_name | replace (project_name, '-','') |

+--------------------------+------------------------------+

| HR Revamp | HR Revamp |

| Finance Automation | Finance Automation |

| IT Infrastructure Upgrade | IT Infrastructure Upgrade |

| Marketing Blitz 2025 | Marketing Blitz 2025 |

| Legal Compliance | Legal Compliance |

| Customer Portal | Customer Portal |

| Sales Booster | Sales Booster |

| R&D Pilot | R&D Pilot |

| Procurement Tracker | Procurement Tracker |

| Operations Streamline | Operations Streamline |

+---------------------------+--------------------------------+

10 rows in set (0.000 sec)

Q11. SELECT

-> e.employee_id,

-> CONCAT('Emp: ', e.first_name, ' ', e.last_name, ' (', d.department_name, ')') AS employee_label

-> FROM

-> employees e

-> JOIN

-> department d ON e.department_id = d.department_id;

+-------------+---+

| employee_id | employee_label |

+-------------+---+

| 101 | Emp: Alice Johnson (Human Resources) |

| 102 | Emp: Bob Smith (Information Technology) |

| 103 | Emp: Carol Adams (Finance) |

| 104 | Emp: David Lee (Marketing) |

| 105 | Emp: Eve Martins (Information Technology) |

| 106 | Emp: Frank Green (Sales) |

| 107 | Emp: Grace Brown (Legal) |

| 108 | Emp: Hank Wilson (Operations) |

| 109 | Emp: Ivy Clark (Research and Development) |

| 110 | Emp: Jake White (Customer Service) |

+-------------+--+

10 rows in set (0.010 sec)

Q12. select email,length(email) from employees;

+--------------------------+---------------+

| email | length(email) |

+--------------------------+---------------+

| alice.johnson@company.com | 25 | |

bob.smith@company.com | 21 |

| carol.adams@company.com | 23 |

| david.lee@company.com | 21 |

| eve.martins@company.com | 23 |

| frank.green@company.com | 23 |

| grace.brown@company.com | 23 |

| hank.wilson@company.com | 23 |

| ivy.clark@company.com | 21 |

| jake.white@company.com | 22 |

+--------------------------+---------------+

10 rows in set (0.001 sec)

13. SELECT

-> employee_id,

-> email,

-> CONCAT('28871 - ', SUBSTRING_INDEX(SUBSTRING_INDEX(email, '@', 1), '.', -1)) AS last_name_extracted -> FROM

-> employees;

+-------------+--------------------------+--------------------+

| employee_id | email | last_name_extracted |

```
+-------------+--------------------------+--------------------+
|         101 | alice.johnson@campany.com | 28871 - johnson    |
|         102 | bob.smith@campany.com     | 28871 - smith      |
|         103 | carol.adams@campany.com   | 28871 - adams      |
|         104 | david.lee@campany.com     | 28871 - lee        |
|         105 | eve.martins@campany.com   | 28871 - martins    |
|         106 | frank.green@campany.com   | 28871 - green      |
|         107 | grace.brown@campany.com   | 28871 - brown      |
|         108 | hank.wilson@campany.com   | 28871 - wilson     |
|         109 | ivy.clark@campany.com     | 28871 - clark      |
|         110 | jake.white@campany.com    | 28871 - white      |
+-------------+--------------------------+--------------------+
10 rows in set (0.002 sec)
```

Q14. SELECT employee_id,

-> CONCAT('28871 - ', UPPER(last_name), ', ', first_name) AS formatted_name

-> FROM employees;

```
+-------------+-----------------------+
| employee_id | formatted_name        |
+-------------+-----------------------+
|         101 | 28871 - JOHNSON, Alice |
|         102 | 28871 - SMITH, Bob     |
|         103 | 28871 - ADAMS, Carol   |
|         104 | 28871 - LEE, David     |
|         105 | 28871 - MARTINS, Eve   |
|         106 | 28871 - GREEN, Frank   |
|         107 | 28871 - BROWN, Grace   |
|         108 | 28871 - WILSON, Hank   |
|         109 | 28871 - CLARK, Ivy     |
|         110 | 28871 - WHITE, Jake    |
```

```
+-------------+------------------------+
10 rows in set (0.001 sec)
15. SELECT CONCAT('28871 - ', first_name, ' ', last_name,
    ->       IF(
    ->          employee_id IN (
    ->             SELECT employee_id
    ->             FROM employee_projects ep
    ->             JOIN projects p ON ep.project_id = p.project_id
    ->             WHERE p.end_date IS NULL OR p.end_date > CURDATE()
    ->          ),
    ->          ' (Active)', ''
    ->       )) AS name_with_status
    -> FROM employees;
+------------------------------+
| name_with_status             |
+------------------------------+
| 28871 - Alice Johnson        |
| 28871 - Bob Smith (Active)   |
| 28871 - Carol Adams          |
| 28871 - David Lee            |
| 28871 - Eve Martins (Active) |
| 28871 - Frank Green          |
| 28871 - Grace Brown          |
| 28871 - Hank Wilson          |
| 28871 - Ivy Clark            |
| 28871 - Jake White           |
+------------------------------+
10 rows in set (0.031 sec)
16. MariaDB [employee_management]> SELECT
```

```
    -> employee_id,
    -> first_name,
    -> last_name,
    -> salary,
    -> ROUND(salary) AS rounded_salary
    -> FROM
    -> employees;
+-------------+------------+-----------+---------+----------------+
| employee_id | first_name | last_name | salary  | rounded_salary |
+-------------+------------+-----------+---------+----------------+
|         101 | Alice      | Johnson   | 4500.00 |           4500 |
|         102 | Bob        | Smith     | 5200.00 |           5200 |
|         103 | Carol      | Adams     | 6700.00 |           6700 |
|         104 | David      | Lee       | 3800.00 |           3800 |
|         105 | Eve        | Martins   | 4000.00 |           4000 |
|         106 | Frank      | Green     | 6000.00 |           6000 |
|         107 | Grace      | Brown     | 4900.00 |           4900 |
|         108 | Hank       | Wilson    | 3100.00 |           3100 |
|         109 | Ivy        | Clark     | 2700.00 |           2700 |
|         110 | Jake       | White     | 3600.00 |           3600 |
+-------------+------------+-----------+---------+----------------+
10 rows in set (0.001 sec)
```

17. SELECT

```
    -> employee_id,
    -> first_name,
    -> last_name,
    -> salary
    -> FROM
    -> employees
```

```
   -> WHERE
   ->     MOD(ROUND(salary), 2) = 0;
+-------------+------------+-----------+---------+
| employee_id | first_name | last_name | salary  |
+-------------+------------+-----------+---------+
|         101 | Alice      | Johnson   | 4500.00 |
|         102 | Bob        | Smith     | 5200.00 |
|         103 | Carol      | Adams     | 6700.00 |
|         104 | David      | Lee       | 3800.00 |
|         105 | Eve        | Martins   | 4000.00 |
|         106 | Frank      | Green     | 6000.00 |
|         107 | Grace      | Brown     | 4900.00 |
|         108 | Hank       | Wilson    | 3100.00 |
|         109 | Ivy        | Clark     | 2700.00 |
|         110 | Jake       | White     | 3600.00 |
+-------------+------------+-----------+---------+
10 rows in set (0.001 sec)
```

18. SELECT

```
   -> project_id,
   -> project_name,
   -> DATEDIFF(end_date, start_date) AS duration_days
   -> FROM
   -> projects
   -> WHERE
   -> end_date IS NOT NULL;
+------------+----------------------+---------------+
| project_id | project_name         | duration_days |
+------------+----------------------+---------------+
|        201 | HR Revamp            |           364 |
```

| 202 | Finance Automation | 350 |

| 204 | Marketing Blitz 2025 | 149 |

| 205 | Legal Compliance | 184 |

| 206 | Customer Portal | 364 |

| 207 | Sales Booster | 364 |

| 209 | Procurement Tracker | 245 |

| 210 | Operations Streamline | 365 |

+------------+----------------------+---------------+

8 rows in set (0.003 sec)

19. SELECT

-> ABS(

-> (SELECT salary FROM employees WHERE employee_id = 101) -

-> (SELECT salary FROM employees WHERE employee_id = 102)

->) AS salary_diff;

+-------------+

| salary_diff |

+-------------+

| 700.00 |

+-------------+ 1 row in

set (0.004 sec)

20.

MariaDB [employee_management]> SELECT

-> employee_id,

-> salary,

-> salary * POWER(1.10, 1) AS increased_salary

-> FROM

-> employees;

+-------------+---------+-------------------+

| employee_id | salary | increased_salary |

```
+-------------+---------+--------------------+
|         101 | 4500.00 |               4950 |
|         102 | 5200.00 |  5720.000000000001 |
|         103 | 6700.00 |  7370.000000000001 |
|         104 | 3800.00 |               4180 |
|         105 | 4000.00 |               4400 |
|         106 | 6000.00 |  6600.000000000001 |
|         107 | 4900.00 |               5390 |
|         108 | 3100.00 | 3410.0000000000005 |
|         109 | 2700.00 | 2970.0000000000005 |
|         110 | 3600.00 | 3960.0000000000005 |
+-------------+---------+--------------------+
10 rows in set (0.003 sec)
21. SELECT
   ->   employee_id,
   ->   FLOOR(RAND() * 10000) AS random_test_id
   -> FROM
   ->   employees;
+-------------+----------------+
| employee_id | random_test_id |
+-------------+----------------+
|         101 |           4028 |
|         102 |           3300 |
|         103 |           4415 |
|         104 |           2179 |
|         105 |           7647 |
|         106 |           1701 |
|         107 |           5563 |
|         108 |           2715 |
```

| 109 | 6883 |

| 110 | 6273 |

+-------------+----------------+

10 rows in set (0.002 sec)

22. SELECT

-> employee_id,

-> salary,

-> CEIL(salary) AS salary_ceil,

-> FLOOR(salary) AS salary_floor

-> FROM

-> employees;

+-------------+---------+-------------+--------------+

| employee_id | salary | salary_ceil | salary_floor |

+-------------+---------+-------------+--------------+

| 101 | 4500.00 | 4500 | 4500 |

| 102 | 5200.00 | 5200 | 5200 |

| 103 | 6700.00 | 6700 | 6700 |

| 104 | 3800.00 | 3800 | 3800 |

| 105 | 4000.00 | 4000 | 4000 |

| 106 | 6000.00 | 6000 | 6000 |

| 107 | 4900.00 | 4900 | 4900 |

| 108 | 3100.00 | 3100 | 3100 |

| 109 | 2700.00 | 2700 | 2700 |

| 110 | 3600.00 | 3600 | 3600 |

+-------------+---------+-------------+--------------+

10 rows in set (0.000 sec)

23.

24. **SELECT**

-> employee_id,

-> salary,

-> CASE

-> WHEN salary > 6000 THEN 'High'

-> WHEN salary BETWEEN 4000 AND 6000 THEN 'Medium'

-> ELSE 'Low'

-> END AS salary_category

-> FROM

-> employees;

```
+-------------+---------+-----------------+
| employee_id | salary  | salary_category |
+-------------+---------+-----------------+
|         101 | 4500.00 | Medium          |
|         102 | 5200.00 | Medium          |
|         103 | 6700.00 | High            |
|         104 | 3800.00 | Low             |
|         105 | 4000.00 | Medium          |
|         106 | 6000.00 | Medium          |
|         107 | 4900.00 | Medium          |
|         108 | 3100.00 | Low             |
|         109 | 2700.00 | Low             |
|         110 | 3600.00 | Low             |
+-------------+---------+-----------------+
```

10 rows in set (0.001 sec)

25**. SELECT**

-

-

-

```
    > employee_id,
    > salary,
    > LENGTH(REPLACE(CAST(salary AS CHAR), '.', '')) AS digit_count
   -> FROM
   -> employees;
+-------------+---------+-------------+
| employee_id | salary  | digit_count |
+-------------+---------+-------------+
|         101 | 4500.00 |           6 |
|         102 | 5200.00 |           6 |
|         103 | 6700.00 |           6 |
|         104 | 3800.00 |           6 |
|         105 | 4000.00 |           6 |
|         106 | 6000.00 |           6 |
|         107 | 4900.00 |           6 |
|         108 | 3100.00 |           6 |
|         109 | 2700.00 |           6 |
|         110 | 3600.00 |           6 |
+-------------+---------+-------------+
10 rows in set (0.002 sec)
```

26. **SELECT CURRENT_DATE() AS today_date;**

```
+------------+
| today_date |
+------------+
| 2025-07-27 |
+------------+
```

-

-

-

27. **SELECT**

-> employee_id,

-> first_name,

> last_name,

> hire_date

> FROM

-> employees

-> WHERE

-> YEAR(hire_date) = YEAR(CURRENT_DATE());

Empty set (0.043 sec)

28. **SELECT**

-> employee_id,

-> first_name,

-> last_name,

-> hire_date

-> FROM

-> employees

-> WHERE

-> YEAR(hire_date) = YEAR(CURRENT_DATE());

Empty set (0.001 sec)

29. **SELECT NOW() AS current_datetime;**

+---------------------+

| current_datetime |

+---------------------+

| 2025-07-27 21:01:47 |

+---------------------+

-

-

-

1 row in set (0.000 sec)

30**. SELECT**

-> employee_id,

-> hire_date,

-> YEAR(hire_date) AS hire_year,

-> MONTH(hire_date) AS hire_month,

> DAY(hire_date) AS hire_day

> FROM

> employees;

-

-

-

```
+-------------+------------+-----------+------------+----------+
| employee_id | hire_date  | hire_year | hire_month | hire_day |
+-------------+------------+-----------+------------+----------+
|         101 | 2015-03-15 |      2015 |          3 |       15 |
|         102 | 2018-06-23 |      2018 |          6 |       23 |
|         103 | 2012-09-10 |      2012 |          9 |       10 |
|         104 | 2020-01-05 |      2020 |          1 |        5 |
|         105 | 2019-12-11 |      2019 |         12 |       11 |
|         106 | 2017-07-08 |      2017 |          7 |        8 |
|         107 | 2014-11-02 |      2014 |         11 |        2 |
|         108 | 2013-02-17 |      2013 |          2 |       17 |
|         109 | 2021-08-30 |      2021 |          8 |       30 |
|         110 | 2022-05-19 |      2022 |          5 |       19 |
+-------------+------------+-----------+------------+----------+
10 rows in set (0.001 sec)
```

31. **SELECT**

```
    -> employee_id,
    -> first_name,
    -> last_name,
    -> hire_date
    -> FROM
    -> employees
    -> WHERE
    -> hire_date < '2020-01-01';
+-------------+------------+-----------+------------+
| employee_id | first_name | last_name | hire_date  |
+-------------+------------+-----------+------------+
|         101 | Alice      | Johnson   | 2015-03-15 |
|         102 | Bob        | Smith     | 2018-06-23 |
```

| 103 | Carol | Adams | 2012-09-10 |

| 105 | Eve | Martins | 2019-12-11 |

| 106 | Frank | Green | 2017-07-08 |

| 107 | Grace | Brown | 2014-11-02 |

| 108 | Hank | Wilson | 2013-02-17 |

+-------------+------------+-----------+------------+

7 rows in set (0.000 sec)

32.

MariaDB [employee_management]> SELECT

-> project_id,

-> project_name,

-> end_date

-> FROM

-> projects

-> WHERE

-> end_date IS NOT NULL

-> AND end_date BETWEEN DATE_SUB(CURRENT_DATE(), INTERVAL 30 DAY) AND CURRENT_DATE();

+------------+---------------------+------------+

| project_id | project_name | end_date |

+------------+---------------------+------------+

| 204 | Marketing Blitz 2025 | 2025-06-30 |

+------------+---------------------+------------+

33. **SELECT**

-> project_id,

-> project_name,

-> DATEDIFF(end_date, start_date) AS total_days

-> FROM

-> projects

```
   -> WHERE
   ->   end_date IS NOT NULL;
+------------+----------------------+------------+
| project_id | project_name         | total_days |
+------------+----------------------+------------+
|        201 | HR Revamp            |        364 |
|        202 | Finance Automation   |        350 |
|        204 | Marketing Blitz 2025 |        149 |
|        205 | Legal Compliance     |        184 |
|        206 | Customer Portal      |        364 |
|        207 | Sales Booster        |        364 |
|        209 | Procurement Tracker  |        245 |
|        210 | Operations Streamline |       365 |
+------------+----------------------+------------+
8 rows in set (0.000 sec)
```

34. **SELECT CONCAT('28871 - ',**

```
   ->       MONTHNAME('2025-07-23'), ' ',
   ->       DAY('2025-07-23'), ', ',
   ->       YEAR('2025-07-23')) AS formatted_date;
+----------------------+
| formatted_date       |
+----------------------+
| 28871 - July 23, 2025 |
+----------------------+
1 row in set (0.007 sec)
```

35. **SELECT**

```
   ->   project_id,
   ->   project_name,
   ->   CASE
```

```
    ->     WHEN end_date IS NULL THEN 'Ongoing'
    ->     ELSE 'Completed'
    ->   END AS project_status
    -> FROM
    ->   projects;
+------------+--------------------------+----------------+
| project_id | project_name             | project_status |
+------------+--------------------------+----------------+
|        201 | HR Revamp                | Completed      |
|        202 | Finance Automation       | Completed      |
|        203 | IT Infrastructure Upgrade | Ongoing       |
|        204 | Marketing Blitz 2025     | Completed      |
|        205 | Legal Compliance         | Completed      |
|        206 | Customer Portal          | Completed      |
|        207 | Sales Booster            | Completed      |
|        208 | R&D Pilot                | Ongoing        |
|        209 | Procurement Tracker      | Completed      |
|        210 | Operations Streamline    | Completed      |
+------------+--------------------------+----------------+
10 rows in set (0.000 sec)
```

36.
```
SELECT
    ->   employee_id,
    ->   salary,
    ->   CASE
    ->     WHEN salary >= 6000 THEN 'High'
    ->     WHEN salary BETWEEN 4000 AND 5999.99 THEN 'Medium'
    ->     ELSE 'Low'
    ->   END AS salary_category
    -> FROM employees;
```

```
+-------------+---------+-----------------+
| employee_id | salary  | salary_category |
+-------------+---------+-----------------+
|         101 | 4500.00 | Medium          |
|         102 | 5200.00 | Medium          |
|         103 | 6700.00 | High            |
|         104 | 3800.00 | Low             |
|         105 | 4000.00 | Medium          |
|         106 | 6000.00 | High            |
|         107 | 4900.00 | Medium          |
|         108 | 3100.00 | Low             |
|         109 | 2700.00 | Low             |
|         110 | 3600.00 | Low             |
+-------------+---------+-----------------+
10 rows in set (0.001 sec)
```

37. **SELECT**

```
   -> employee_id,
   -> COALESCE(email, 'No Email') AS email_or_default
   -> FROM employees;
+-------------+--------------------------+
| employee_id | email_or_default         |
+-------------+--------------------------+
|         101 | alice.johnson@company.com |
|         102 | bob.smith@company.com     |
|         103 | carol.adams@company.com   |
|         104 | david.lee@company.com     |
|         105 | eve.martins@company.com   |
|         106 | frank.green@company.com   |
|         107 | grace.brown@company.com   |
```

| 108 | hank.wilson@company.com |

| 109 | ivy.clark@company.com |

| 110 | jake.white@company.com |

+-------------+--------------------------+

10 rows in set (0.001 sec)

38**. SELECT**

-> employee_id,

-> hire_date,

-> CASE

-> WHEN hire_date < '2015-01-01' THEN 'Veteran'

-> ELSE 'Newcomer'

-> END AS veteran_status

-> FROM employees;

+-------------+------------+----------------+

| employee_id | hire_date | veteran_status |

+-------------+------------+----------------+

| 101 | 2015-03-15 | Newcomer |

| 102 | 2018-06-23 | Newcomer |

| 103 | 2012-09-10 | Veteran |

| 104 | 2020-01-05 | Newcomer |

| 105 | 2019-12-11 | Newcomer |

| 106 | 2017-07-08 | Newcomer |

| 107 | 2014-11-02 | Veteran |

| 108 | 2013-02-17 | Veteran |

| 109 | 2021-08-30 | Newcomer |

| 110 | 2022-05-19 | Newcomer |

+-------------+------------+----------------+

10 rows in set (0.000 sec)

39. SELECT

```
   -> employee_id,
   -> COALESCE(salary, 3000) AS salary_with_default
   -> FROM employees;
+-------------+--------------------+
| employee_id | salary_with_default |
+-------------+--------------------+
|         101 |            4500.00 |
|         102 |            5200.00 |
|         103 |            6700.00 |
|         104 |            3800.00 |
|         105 |            4000.00 |
|         106 |            6000.00 |
|         107 |            4900.00 |
|         108 |            3100.00 |
|         109 |            2700.00 |
|         110 |            3600.00 |
+-------------+--------------------+
10 rows in set (0.000 sec)
```

40.
```
SELECT
   -> e.employee_id,
   -> d.department_name,
   -> CASE
   ->   WHEN d.department_name = 'Information Technology' THEN 'IT'
   ->   WHEN d.department_name = 'Human Resources' THEN 'HR'
   ->   ELSE 'Other'
   -> END AS dept_group
   -> FROM employees e
   -> JOIN department d USING(department_id);
+-------------+------------------------+------------+
```

| employee_id | department_name | dept_group |

+-------------+------------------------+------------+

| 101 | Human Resources | HR |

| 102 | Information Technology | IT |

| 103 | Finance | Other |

| 104 | Marketing | Other |

| 105 | Information Technology | IT |

| 106 | Sales | Other |

| 107 | Legal | Other |

| 108 | Operations | Other |

| 109 | Research and Development | Other |

| 110 | Customer Service | Other |

+-------------+------------------------+------------+

10 rows in set (0.001 sec)

41. SELECT

-> e.employee_id,

-> CASE

-> WHEN ep.project_id IS NULL THEN 'Unassigned'

-> ELSE 'Assigned'

-> END AS assignment_status

-> FROM employees e

-> LEFT JOIN employee_projects ep ON e.employee_id = ep.employee_id;

+-------------+-------------------+

| employee_id | assignment_status |

+-------------+-------------------+

| 101 | Assigned |

| 102 | Assigned |

| 103 | Assigned |

| 104 | Assigned |

| 105 | Assigned |

| 106 | Assigned |

| 107 | Unassigned |

| 108 | Unassigned |

| 109 | Unassigned |

| 110 | Unassigned |

+-------------+-------------------+

10 rows in set (0.000 sec)

42. SELECT

-> employee_id,

-> COALESCE(salary, 0) AS salary,

-> CASE

-> WHEN COALESCE(salary, 0) > 6000 THEN 'H1'

-> WHEN salary BETWEEN 4000 AND 6000 THEN 'H2'

-> ELSE 'H3'

-> END AS tax_band

-> FROM employees;

+-------------+---------+----------+

| employee_id | salary | tax_band |

+-------------+---------+----------+

| 101 | 4500.00 | H2 |

| 102 | 5200.00 | H2 |

| 103 | 6700.00 | H1 |

| 104 | 3800.00 | H3 |

| 105 | 4000.00 | H2 |

| 106 | 6000.00 | H2 |

| 107 | 4900.00 | H2 |

| 108 | 3100.00 | H3 |

| 109 | 2700.00 | H3 |

```
|        110 | 3600.00 | H3       |
+------------+---------+----------+
10 rows in set (0.000 sec)
```

43. SELECT

```
   -> project_id,
   -> project_name,
   -> CASE
   ->   WHEN end_date IS NULL THEN 'Ongoing'
   ->   WHEN DATEDIFF(end_date, start_date) < 30 THEN 'Short-term'
   ->   WHEN DATEDIFF(end_date, start_date) <= 180 THEN 'Medium-term'
   ->   ELSE 'Long-term'
   -> END AS duration_label
   -> FROM projects;
+------------+--------------------------+----------------+
| project_id | project_name             | duration_label |
+------------+--------------------------+----------------+
|        201 | HR Revamp                | Long-term      |
|        202 | Finance Automation       | Long-term      |
|        203 | IT Infrastructure Upgrade | Ongoing       |
|        204 | Marketing Blitz 2025     | Medium-term    |
|        205 | Legal Compliance         | Long-term      |
|        206 | Customer Portal          | Long-term      |
|        207 | Sales Booster            | Long-term      |
|        208 | R&D Pilot                | Ongoing        |
|        209 | Procurement Tracker      | Long-term      |
|        210 | Operations Streamline    | Long-term      |
+------------+--------------------------+----------------+
10 rows in set (0.000 sec)
```

44. SELECT

-> employee_id,

-> salary,

-> CASE

-> WHEN MOD(ROUND(COALESCE(salary,0)), 2) = 0 THEN 'Even Salary'

-> ELSE 'Odd Salary'

-> END AS salary_parity

-> FROM employees;

```
+-------------+---------+---------------+
| employee_id | salary  | salary_parity |
+-------------+---------+---------------+
|         101 | 4500.00 | Even Salary   |
|         102 | 5200.00 | Even Salary   |
|         103 | 6700.00 | Even Salary   |
|         104 | 3800.00 | Even Salary   |
|         105 | 4000.00 | Even Salary   |
|         106 | 6000.00 | Even Salary   |
|         107 | 4900.00 | Even Salary   |
|         108 | 3100.00 | Even Salary   |
|         109 | 2700.00 | Even Salary   |
|         110 | 3600.00 | Even Salary   |
+-------------+---------+---------------+
10 rows in set (0.000 sec)
```

45. SELECT CONCAT('28871 - ', COALESCE(first_name, 'First'), ' ', COALESCE(last_name, 'Last')) AS display_name

-> FROM employees;

```
+----------------------+
| display_name         |
+----------------------+
| 28871 - Alice Johnson |
```

| 28871 - Bob Smith |

| 28871 - Carol Adams |

| 28871 - David Lee |

| 28871 - Eve Martins |

| 28871 - Frank Green |

| 28871 - Grace Brown |

| 28871 - Hank Wilson |

| 28871 - Ivy Clark |

| 28871 - Jake White |

+----------------------+

10 rows in set (0.001 sec) **46.**

```
SELECT employee_id,
   ->       CONCAT('28871 - ', first_name, last_name) AS name_joined,
   ->       CASE
   ->          WHEN LENGTH(CONCAT(first_name, last_name)) > 10 THEN 'Long Name'
   ->          ELSE 'Short Name'
   ->       END AS name_length_label
   -> FROM employees;
```

+-------------+---------------------+-------------------+

| employee_id | name_joined | name_length_label |

+-------------+---------------------+-------------------+

| 101 | 28871 - AliceJohnson | Long Name |

| 102 | 28871 - BobSmith | Short Name |

| 103 | 28871 - CarolAdams | Short Name |

| 104 | 28871 - DavidLee | Short Name |

| 105 | 28871 - EveMartins | Short Name |

| 106 | 28871 - FrankGreen | Short Name |

| 107 | 28871 - GraceBrown | Short Name |

| 108 | 28871 - HankWilson | Short Name |

| 109 | 28871 - IvyClark | Short Name |

| 110 | 28871 - JakeWhite | Short Name |

+-------------+---------------------+------------------+

10 rows in set (0.001 sec)10 rows in set (0.001 sec)

47. SELECT

-> employee_id,

-> email,

-> CASE

-> WHEN UPPER(email) LIKE '%TEST%' THEN 'Dummy Account'

-> ELSE 'Real Account'

-> END AS email_type

-> FROM employees;

+-------------+--------------------------+--------------+

| employee_id | email | email_type |

+-------------+--------------------------+--------------+

| 101 | alice.johnson@company.com | Real Account | |

102 | bob.smith@company.com | Real Account |

| 103 | carol.adams@company.com | Real Account |

| 104 | david.lee@company.com | Real Account |

| 105 | eve.martins@company.com | Real Account |

| 106 | frank.green@company.com | Real Account |

| 107 | grace.brown@company.com | Real Account |

| 108 | hank.wilson@company.com | Real Account |

| 109 | ivy.clark@company.com | Real Account |

| 110 | jake.white@company.com | Real Account |

+-------------+--------------------------+--------------+

10 rows in set (0.000 sec)

48. SELECT

-> employee_id,

```
   -> hire_date,
   -> CASE
   ->  WHEN YEAR(hire_date) <= YEAR(CURRENT_DATE()) - 10 THEN 'Senior'
   ->  ELSE 'Junior'
   -> END AS seniority
   -> FROM employees;
+-------------+------------+-----------+
| employee_id | hire_date  | seniority |
+-------------+------------+-----------+
|         101 | 2015-03-15 | Senior    |
|         102 | 2018-06-23 | Junior    |
|         103 | 2012-09-10 | Senior    |
|         104 | 2020-01-05 | Junior    |
|         105 | 2019-12-11 | Junior    |
|         106 | 2017-07-08 | Junior    |
|         107 | 2014-11-02 | Senior    |
|         108 | 2013-02-17 | Senior    |
|         109 | 2021-08-30 | Junior    |
|         110 | 2022-05-19 | Junior    |
+-------------+------------+-----------+
10 rows in set (0.001 sec)
```

49. SELECT

```
   -> employee_id,
   -> salary,
   -> CASE
   ->  WHEN salary IS NULL THEN 'N/A'
   ->  WHEN salary <= 4000 THEN '5%'
->  WHEN salary <= 6000 THEN '7%'
   ->  ELSE '10%'
```

```
   -> END AS increment_rate
   -> FROM employees;
+-------------+---------+----------------+
| employee_id | salary  | increment_rate |
+-------------+---------+----------------+
|         101 | 4500.00 | 7%             |
|         102 | 5200.00 | 7%             |
|         103 | 6700.00 | 10%            |
|         104 | 3800.00 | 5%             |
|         105 | 4000.00 | 5%             |
|         106 | 6000.00 | 7%             |
|         107 | 4900.00 | 7%             |
|         108 | 3100.00 | 5%             |
|         109 | 2700.00 | 5%             |
|         110 | 3600.00 | 5%             |
+-------------+---------+----------------+
10 rows in set (0.001 sec)
```

50. SELECT

```
   -> employee_id,
   -> hire_date,
   -> CASE
   ->  WHEN MONTH(hire_date) = MONTH(CURRENT_DATE()) THEN 'Anniversary Month'
   ->  ELSE 'Regular Month'
   -> END AS anniversary_flag
   -> FROM employees;
+-------------+------------+------------------+
| employee_id | hire_date  | anniversary_flag |
+-------------+------------+------------------+
|         101 | 2015-03-15 | Regular Month    |
```

| 102 | 2018-06-23 | Regular Month |

| 103 | 2012-09-10 | Regular Month |

| 104 | 2020-01-05 | Regular Month |

| 105 | 2019-12-11 | Regular Month |

| 106 | 2017-07-08 | Anniversary Month |

| 107 | 2014-11-02 | Regular Month |

| 108 | 2013-02-17 | Regular Month |

| 109 | 2021-08-30 | Regular Month |

| 110 | 2022-05-19 | Regular Month |

+----------+------------+------------------+

10 rows in set (0.000 sec)