Kalimwabo Emile **assignment of DBMS**
ID:28892

Q1. select concat(first_name,' ',last_name) as full_name from employees;

```
+----------------+
| full_name      |
+----------------+
| Alice  Johnson |
| Bob  Smith     |
| Carol  Adams   |
| David  Lee     |
| Eve  Martins   |
| Frank  Green   |
| Grace  Brown   |
| Hank  Wilson   |
| Ivy  Clark     |
| Jake  White    |
+----------------+
```

Q2. select lower(first_name) from employees;

```
+-------------------+
| lower(first_name) |
+-------------------+
| alice             |
| bob               |
| carol             |
```

| david |

| eve |

| frank |

| grace |

| hank |

| ivy |

| jake |

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

10 rows in set (0.001 sec)

Q3. select substring(first_name,1,3) from employees;

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

| substring(first_name,1,3) |

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

| Ali |

| Bob |

| Car |

| Dav |

| Eve |

| Fra |

| Gra |

| Han |

| Ivy |

| Jak |

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

10 rows in set (0.001 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, trim(first_name),trim(last_name) from employees;

```
+-------------+------------------+-----------------+
| employee_id | trim(first_name) | trim(last_name) |
+-------------+------------------+-----------------+
|         101 | Alice            | Johnson         |
|         102 | Bob              | Smith           |
|         103 | Carol            | Adams           |
|         104 | David            | Lee             |
|         105 | Eve              | Martins         |
|         106 | Frank            | Green           |
|         107 | Grace            | Brown           |
|         108 | Hank             | Wilson          |
|         109 | Ivy              | Clark           |
|         110 | Jake             | White           |
+-------------+------------------+-----------------+
10 rows in set (0.000 sec)
```

6. select employee_id,first_name,last_name,length(concat(first_name,' ',last_name)) from employees;

```
+-------------+------------+-----------+-----------------------------------------+
| employee_id | first_name | last_name | length(concat(first_name,' ',last_name)) |
+-------------+------------+-----------+-----------------------------------------+
|         101 | Alice      | Johnson   |                                      14 |
|         102 | Bob        | Smith     |                                      10 |
|         103 | Carol      | Adams     |                                      12 |
|         104 | David      | Lee       |                                      10 |
|         105 | Eve        | Martins   |                                      12 |
|         106 | Frank      | Green     |                                      12 |
|         107 | Grace      | Brown     |                                      12 |
|         108 | Hank       | Wilson    |                                      12 |
```

| 109 | Ivy | Clark | 10 |

| 110 | Jake | White | 11 |

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

10 rows in set (0.001 sec)

Q7. select employee_id,email,instr(email, '@') from employees;

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Q8. SELECT

```
    ->     employee_id,
    ->     first_name,
    ->     last_name,
    ->     CONCAT(
    ->         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   | Ms. Alice Johnson |
|         102 | Bob        | Smith     | Mr. Bob Smith     |
|         103 | Carol      | Adams     | Ms. Carol Adams   |
|         104 | David      | Lee       | Mr. David Lee     |
|         105 | Eve        | Martins   | Ms. Eve Martins   |
|         106 | Frank      | Green     | Mr. Frank Green   |
|         107 | Grace      | Brown     | Ms. Grace Brown   |
|         108 | Hank       | Wilson    | Mr. Hank Wilson   |
|         109 | Ivy        | Clark     | Ms. Ivy Clark     |
|         110 | Jake       | White     | Mr. Jake White    |
+-------------+------------+-----------+------------------+
10 rows in set (0.002 sec)
```

Q9. select upper(project_name) from projects;

```
+--------------------------+
| upper(project_name)      |
+--------------------------+
| HR REVAMP                |
| FINANCE AUTOMATION       |
| IT INFRASTRUCTURE UPGRADE |
| MARKETING BLITZ 2025     |
| LEGAL COMPLIANCE         |
| CUSTOMER PORTAL          |
| SALES BOOSTER            |
```

| R&D PILOT |

| PROCUREMENT TRACKER |

| OPERATIONS STREAMLINE |

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

10 rows in set (0.000 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)

Q12. SELECT

-> employee_id,

-> email,

-> SUBSTRING_INDEX(SUBSTRING_INDEX(email, '@', 1), '.', -1) AS last_name_from_email

-> FROM

-> employees;

```
+-------------+--------------------------+----------------------+
| employee_id | email                    | last_name_from_email |
+-------------+--------------------------+----------------------+
|         101 | alice.johnson@company.com | johnson              |
|         102 | bob.smith@company.com     | smith                |
|         103 | carol.adams@company.com   | adams                |
|         104 | david.lee@company.com     | lee                  |
|         105 | eve.martins@company.com   | martins              |
|         106 | frank.green@company.com   | green                |
|         107 | grace.brown@company.com   | brown                |
|         108 | hank.wilson@company.com   | wilson               |
|         109 | ivy.clark@company.com     | clark                |
|         110 | jake.white@company.com    | white                |
+-------------+--------------------------+----------------------+
```

10 rows in set (0.001 sec)

Q14. SELECT

-> employee_id,

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

-> FROM

-> employees;

```
+-------------+----------------+
| employee_id | formatted_name |
```

```
+-------------+----------------+
|         101 | JOHNSON, Alice |
|         102 | SMITH, Bob     |
|         103 | ADAMS, Carol   |
|         104 | LEE, David     |
|         105 | MARTINS, Eve   |
|         106 | GREEN, Frank   |
|         107 | BROWN, Grace   |
|         108 | WILSON, Hank   |
|         109 | CLARK, Ivy     |
|         110 | WHITE, Jake    |
+-------------+----------------+
10 rows in set (0.003 sec)
```

15. SELECT

```
   -> CONCAT(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     |
```

```
+----------------------+
| Alice Johnson        |
| Bob Smith (Active)   |
| Carol Adams          |
| David Lee            |
| Eve Martins (Active) |
| Frank Green          |
| Grace Brown          |
| Hank Wilson          |
| Ivy Clark            |
| Jake White           |
+----------------------+
10 rows in set (0.009 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(
   ->   MONTHNAME('2025-07-23'), ' ',
   ->   DAY('2025-07-23'), ', ',
   ->   YEAR('2025-07-23')
   -> ) AS formatted_date;
+----------------+
| formatted_date |
+----------------+
| July 23, 2025  |
+----------------+
1 row in set (0.001 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(
   ->  COALESCE(first_name, 'First'),
   ->  ' ',
   ->  COALESCE(last_name, 'Last')
```

```
   -> ) AS display_name
   -> FROM employees;
+---------------+
| display_name  |
+---------------+
| Alice Johnson |
| Bob Smith     |
| Carol Adams   |
| David Lee     |
| Eve Martins   |
| Frank Green   |
| Grace Brown   |
| Hank Wilson   |
| Ivy Clark     |
| Jake White    |
+---------------+
10 rows in set (0.000 sec)
```

46. SELECT

```
   -> employee_id,
   -> CONCAT(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 | AliceJohnson | Long Name         |
```

| 102 | BobSmith | Short Name |

| 103 | CarolAdams | Short Name |

| 104 | DavidLee | Short Name |

| 105 | EveMartins | Short Name |

| 106 | FrankGreen | Short Name |

| 107 | GraceBrown | Short Name |

| 108 | HankWilson | Short Name |

| 109 | IvyClark | Short Name |

| 110 | JakeWhite | Short Name |

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

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)
```