**SQL EXERCISES**

1. SELECT CONCAT(first\_name, ' ', last\_name) AS full\_name FROM employees;
2. SELECT LOWER(first\_name), LOWER(last\_name) FROM employees;
3. SELECT SUBSTRING(first\_name, 1, 3) FROM employees;
4. SELECT REPLACE(email, '@company.com', '@org.com') FROM employees;
5. SELECT TRIM(' padded string ') AS trimmed\_string;
6. SELECT LENGTH(CONCAT(first\_name, ' ', last\_name)) AS name\_length FROM employees;
7. SELECT INSTR(email, '@') FROM employees;
8. SELECT CONCAT(CASE WHEN gender = 'M' THEN 'Mr. ' ELSE 'Ms. ' END, first\_name, ' ', last\_name) AS salutation FROM employees;
9. SELECT UPPER(project\_name) FROM projects;
10. SELECT REPLACE(project\_name, '-', '') FROM projects;
11. SELECT CONCAT('Emp: ', first\_name, ' ', last\_name, ' (', department\_name, ')') AS employee\_label

FROM employees e JOIN departments d ON e.department\_id = d.department\_id;

1. SELECT email, LENGTH(email) AS email\_length FROM employees;
2. SELECT SUBSTRING(email, 1, INSTR(email, '@') - 1) AS email\_last\_name FROM employees;
3. SELECT CONCAT(UPPER(last\_name), ', ', first\_name) AS formatted\_name FROM employees;
4. SELECT CONCAT(first\_name, ' ', last\_name,

CASE WHEN p.end\_date IS NULL OR p.end\_date >= CURRENT\_DATE THEN ' (Active)' ELSE '' END) AS employee\_status

FROM employees e

JOIN employee\_projects ep ON e.employee\_id = ep.employee\_id

JOIN projects p ON ep.project\_id = p.project\_id;

1. SELECT ROUND(salary, 0) AS rounded\_salary FROM employees;
2. SELECT \* FROM employees WHERE MOD(salary, 2) = 0;
3. SELECT project\_name, DATEDIFF(end\_date, start\_date) AS days\_duration FROM projects;
4. SELECT ABS(e1.salary - e2.salary) AS salary\_difference

FROM employees e1, employees e2

WHERE e1.employee\_id = 101 AND e2.employee\_id = 102;

1. SELECT salary, salary \* POWER(1.1, 1) AS raised\_salary FROM employees;
2. SELECT RAND() AS random\_number;
3. SELECT CEIL(salary) AS ceiling\_salary, FLOOR(salary) AS floor\_salary FROM employees;
4. SELECT LENGTH(phone\_number) AS phone\_number\_length FROM employees;
5. SELECT CASE

WHEN salary >= 5000 THEN 'High'

WHEN salary >= 3000 THEN 'Medium'

ELSE 'Low'

END AS salary\_category

FROM employees;

1. SELECT LENGTH(CAST(salary AS CHAR)) AS salary\_digit\_count FROM employees;
2. SELECT CURRENT\_DATE AS today;
3. SELECT first\_name, last\_name, DATEDIFF(CURRENT\_DATE, hire\_date) AS days\_worked FROM employees;
4. SELECT \* FROM employees WHERE YEAR(hire\_date) = YEAR(CURRENT\_DATE);
5. SELECT NOW() AS current\_datetime;
6. SELECT YEAR(hire\_date) AS hire\_year, MONTH(hire\_date) AS hire\_month, DAY(hire\_date) AS hire\_day FROM employees;
7. SELECT \* FROM employees WHERE hire\_date < '2020-01-01';
8. SELECT \* FROM projects WHERE end\_date BETWEEN DATE\_SUB(CURRENT\_DATE, INTERVAL 30 DAY) AND CURRENT\_DATE;
9. SELECT project\_name, DATEDIFF(end\_date, start\_date) AS total\_days FROM projects;
10. SELECT CONCAT(MONTHNAME('2025-07-23'), ' ', DAY('2025-07-23'), ', ', YEAR('2025-07-23')) AS formatted\_date;
11. SELECT project\_name, CASE WHEN end\_date IS NULL THEN 'Ongoing' ELSE 'Completed' END AS status FROM projects;
12. SELECT

CASE

WHEN salary >= 5000 THEN 'High'

WHEN salary >= 3000 THEN 'Medium'

ELSE 'Low'

END AS salary\_label

FROM employees;

1. SELECT COALESCE(email, 'No Email') AS employee\_email FROM employees;
2. SELECT first\_name, last\_name, CASE WHEN hire\_date < '2015-01-01' THEN 'Veteran' ELSE 'Not Veteran' END AS status FROM employees;
3. SELECT COALESCE(salary, 3000) AS adjusted\_salary FROM employees;
4. SELECT

department\_name,

CASE

WHEN department\_name IN ('Information Technology', 'IT') THEN 'IT'

WHEN department\_name = 'Human Resources' THEN 'HR'

ELSE 'Other'

END AS department\_category

FROM departments;

1. SELECT

e.first\_name, e.last\_name,

CASE WHEN ep.employee\_id IS NULL THEN 'Unassigned' ELSE 'Assigned' END AS project\_status

FROM employees e

LEFT JOIN employee\_projects ep ON e.employee\_id = ep.employee\_id;

1. SELECT

first\_name, last\_name,

CASE

WHEN salary >= 5000 THEN '20%'

WHEN salary >= 3000 THEN '15%'

ELSE '10%'

END AS tax\_band

FROM employees;

1. SELECT

project\_name,

CASE

WHEN DATEDIFF(end\_date, start\_date) < 100 THEN 'Short'

WHEN DATEDIFF(end\_date, start\_date) < 365 THEN 'Medium'

ELSE 'Long'

END AS duration\_label

FROM projects;

1. SELECT

employee\_id,

CASE WHEN MOD(employee\_id, 2) = 0 THEN 'Even' ELSE 'Odd' END AS id\_type

FROM employees;

1. SELECT COALESCE(CONCAT(first\_name, ' ', last\_name), 'Unknown') AS full\_name FROM employees;
2. SELECT

first\_name,

CASE WHEN LENGTH(first\_name) > 10 THEN 'Long Name' ELSE 'Normal Name' END AS name\_length\_status

FROM employees;

1. SELECT

email,

CASE WHEN UPPER(email) LIKE '%TEST%' THEN 'Dummy Account' ELSE 'Real Account' END AS account\_type

FROM employees;

1. SELECT

first\_name, last\_name,

CASE

WHEN DATEDIFF(CURRENT\_DATE, hire\_date) > 3650 THEN 'Senior'

WHEN DATEDIFF(CURRENT\_DATE, hire\_date) > 1825 THEN 'Mid-Level'

ELSE 'Junior'

END AS seniority

FROM employees;

1. SELECT

first\_name, last\_name,

CASE

WHEN salary < 3000 THEN salary \* 1.1

WHEN salary < 5000 THEN salary \* 1.05

ELSE salary \* 1.02

END AS new\_salary

FROM employees;

1. SELECT

first\_name, last\_name,

CASE

WHEN MONTH(hire\_date) = MONTH(CURRENT\_DATE) THEN 'This Month'

ELSE 'Not This Month'

END AS anniversary\_status

FROM employees;