Exercise 1 : SQL Fundamentals

1. SELECT * ✓
   FROM employees; ✓

id	first_name	last_name	department	salary	hire_date	city
1	John	Doe	IT	5500	2018-06-15	New_york
2	Jane	Smith	HR	4800	2019-07-20	Chicago
3	Mike	Johnson	Finance	60000	2017-09-30	Los_Angeles
4	Sarah	Brown	IT	53000	2021-03-25	New_York
5	David	White	Marketing	52000	2016-04-10	San_Francisco
6	Emily	Davis	IT	62000	2015-02-14	Chicago
7	Robert	Wilson	Finance	59000	2019-10-01	Houston
8	Jessica	Moore	HR	51000	2018-05-22	LosAngeles
9	Daniel	Clark	Marketing	53000	2022-06-01	Chicago
10	Laura	Hall	IT	50000	2020-08-10	SanFrancisco

2. SELECT DISTINCT ✓ department
   FROM employees;

department
IT
HR ✓
Finance
Marketing

3. SELECT first_name,
   last_name,
   Salary
   FROM employees
   ORDER BY salary DESC;

first_name	last_name	Salary
Emily	Davis	62000
Mike	Johnson	60000
Robert	Wilson	59000
John	Doe	55000
Sarah	Brown	53000
Daniel	Clark	53000
David	White	52000
Jessica	Moore	51000
Laura	Hall	50000
Jane	Smith	48000

first_name	last_name	Salary
Emily	Davis	62000
Mike	Johnson	60000
Robert	Wilson	59000

4. SELECT id,
first_name,
last_name,
salary
FROM employees
LIMIT 5;

id	first_name	last_name	salary
6	Emily	Davis	62000
3	Mike	Johnson	60000
7	Robert	Wilson	59000
1	John	Doe	55000
4	Sarah	Brown	58000

5. SELECT first_name,
last_name,
department
FROM employees
WHERE department = 'IT';

first_name	last_name	department
John	Doe	IT
Sarah	Brown	IT
Emily	Davis	IT
Laura	Hill	IT

6. SELECT first_name,
last_name,
department,
Salary
FROM employees
WHERE department = 'Finance' AND salary > 58000;

first_name	last_name	department	salary
Mike	Johnson	Finance	60000
Robert	Wilson	Finance	59000

7. SELECT first_name,
last_name,
department
FROM employees
WHERE department = 'HR' OR 'Marketing';

first_name	last_name	department
Jane	Smith	HR
Dave	White	Marketing
Jessica	Moore	HR
Daniel	Clark	Marketing

8. SELECT first_name,
last_name,
department
FROM employees
WHERE department != 'IT'; WHERE NOT department = 'IT';

first_name	last_name	department
Jane	Smith	HR
Mike	Johnson	Finance
David	White	Marketing
Robert	Wilson	Finance
Jessica	Moore	HR
Daniel	Clark	Marketing

9. SELECT id,
first_name,
last_name,
department
FROM employees
WHERE department IN ('HR', 'IT', 'Finance');

id	first_name	last_name	department
1	John	Doe	IT
2	Jane	Smith	HR
3	Mike	Johnson	Finance
4	Sarah	Brown	IT
6	Emily	Davis	IT
7	Robert	Wilson	Finance
8	Jessica	Moore	HR
10	Laura	Hall	IT

10. SELECT id,
first_name,
last_name
department,
Salary,
city
FROM employees
WHERE department = 'IT' AND salary > 50000 AND City = 'New_York';

id	first_name	last_name	department	salary	City
1	John	Doe	IT	55000	New_York

11. SELECT first_name,
last_name
department
salary
FROM Employees
WHERE (department = 'Finance' OR 'Department = 'Marketing')
department IS LIKE 'Finance' OR 'Marketing'
AND salary > 52000
ORDER BY Salary DESC;

first_name	last_name	department	Salary
Mike	Johnson	Finance	60000
Robert	Wilson	Finance	59000
Daniel	Clark	Marketing	53000

12. SELECT DISTINCT city
WHERE department NOT IN ('IT' 'HR');

City
Los_Angeles
San_Francisco
Chicago
Houston

13. SELECT first_name,
last_name,
department,
salary,
hire_date

FROM employees

WHERE department NOT LIKE 'Finance' AND Salary > 50000

ORDER BY hire_date ASC;

first_name	last_name	department	salary	hire_date
Emily	Davis	IT	62000	2015-02-14
John	Doe	IT	55000	2018-06-15
Sarah	Brown	IT	53000	2021-03-25
Daniel	Clark	Marketing	53000	2022-06-01

14. SELECT first_name,
last_name,
department,
city

FROM employees

WHERE department = 'IT' OR 'Marketing'

AND city = IN 'Chicago' OR 'Los_Angeles'

LIMIT 3;

first_name	last_name	department	city
Emily	Davis	IT	Chicago
Daniel	Clark	Marketing	Chicago