Exercise 1 : SQL Fundamentals.

1. SELECT *
FROM employees;

id	first_name	last_name	dep	salary	hire_date	City
1	John	Doe	IT	55 000	2018-06-15	NY
2	Jane	Smith	HR	48 000	2019-07-20	Chicago
3	Mike	Johnson	Finance	60 000	2017-09-30	LA
4	Sarah	Brown	IT	53 000	2021-03-25	NY
5	David	White	Marketing	52 000	2010-04-10	SF
6	Emily	Davis	IT	62 000	2015-02-14	Chicago
7	Robert	Wilson	Finance	59 000	2019-10-01	Houston
8	Jessica	Moore	HR	51 000	2018-05-22	LA
9	Daniel	Clark	Marketing	53 000	2022-06-01	Chicago
10	Laura	Hall	IT	50 000	2020-08-10	SF

2. SELECT DISTINCT department
FROM employees;

department
IT
HR
Finance
Marketing

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

first_name	Last_name	salary
Emily	Davis	62 000
Mike	Johnson	60 000
Robert	Wilson	59 000
John	Doe	55 000
Sarah	Brown	53 000
Daniel	Clark	53 000
David	White	52 000
Jessica	Moore	51 000
Laura	Hall	50 000
Jane	Smith	48 000

4. SELECT salary
FROM employees
LIMIT 5 ~~highest_paid~~;

first_name,
last name,
salary

Salary
62 000
60 000
59 000
55 000
53 000

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

~~first_name~~ department	Last name	department
John	Doe	IT
Sarah	Brown	IT
Emily	Davis	IT
Laura	Hall	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	60 000
Robert	Wilson	Finance	59 000

*

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

first_name	last name	department
Jane	Smith	HR
David	White	Marketing
Jessica	Moore	HR
Daniel	Clark	Marketing

8. SELECT first_name,
last_name,
department
FROM employees
WHERE department NOT 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 first_name,
last_name,
department
FROM employees
WHERE department IN 'HR', 'IT' OR 'Finance';

first_name	last_name	department
John	Doe	IT
Jane	Smith	HR
Mike	Johnson	Finance
Sarah	Brown	IT
Emily	Davis	IT
Robert	Wilson	Finance
Jessica	Moore	HR
Laura	Hall	IT

10. SELECT first name,
last name,
department,
salary, city
FROM employees
WHERE department = 'IT' AND salary > 5000
AND city = 'New York'

first_name	last_name	dep	salary	city
John	Doe	IT	55 000	New York
Sarah	Brown	IT	53 000	New York

11. SELECT first_name
last_name,
department,
salary
FROM employees
WHERE department = 'Finance' or marketing AND
salary > 52 000
ORDERED BY salary DESC;

first_name	last_name	department	salary
Mike	Johnson	Finance	60 000
Robert	Wilson	Finance	59 000
Daniel	Clark	Marketing	53 000
David	White	Marketing	52 000

12. SELECT DISTINCT city, ~~departments~~
FROM employees
WHERE departments != 'IT' AND 'HR'
~~department' IN 'marketing' AND Finance'~~

department	city
Finance	Los Angeles
Marketing	SF
Finance	Houston
Marketing	Chicago

13. SELECT first_name,
last_name,
department,
salary,
hire date
FROM employee
WHERE department NOT IN 'Finance' AND
salary > 50 000
ORDERED By hire date Asc;

first_name	last_name	dep	salary	hire_date
~~Jessica~~	~~Moore~~	~~HR~~	~~50~~	
Emily	Davis	IT	62 000	2015-02-14
Daniel	White	Marketing	52 000	2016-04-10
Jessica	Moore	HR	51 000	2018-05-22
John	Doe	IT	55 000	2018-06-15
Sarah	Brown	IT	53 000	2021-03-25
Daniel	Clark	Marketing	52 000	2022-06-01

14. SELECT first_name,
last name,
department,
city
FROM employees
WHERE department IN 'IT' OR 'Marketing'
AND city IN 'Chicago or Los A'
LIMIT 3;

first_name	last_name	department	city
Emily	Davis	IT	Chicago
[illegible]	[illegible]		
Daniel	Clark	Marketing	Chicago