Exercise 1: SQL Fundamentals

Malejone Moqhoba

25000NaN

Exercise 1

Question 1

```sql
SELECT (*)
FROM employee;
```

id	first_name	last_name	department	Salary	hire-date	City
1	John	Doe	IT	55000	2018-06-15	New-York
2	Jane	Smith	HR	48000	2019-07-20	Chicago
3	Mike	Johnson	Finance	60000	2017-09-30	Los Ange
4	Sarah	Brown	IT	53000	2021-03-25	New-Yor
5	David	White	Marketing	52000	2016-04-10	San Fra
6	Emely	Davis	IT	62000	2015-02-14	Chicago
7	Robert	Wilson	Finance	59000	2019-10-01	Houston
8	Jessica	Moore	HR	57000	2018-05-22	Los Angel
9	Daniel	Clark	Marketing	53000	2022-06-01	Chicago
10	Laura	Hall	IT	50000	2020-08-10	San Fran

Question 2

```sql
SELECT DISTINCT department
FROM employees
```

department

IT

HR

Finance

Marketing

Question 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	58000
David	White	52000
Jessica	More	51000
Laura	Hall	50000
Jane	Smith	48000

Question 4

```
SELECT first-name,
       last-name,
       salary
From   employees
ORDER BY salary DESC
LIMIT 5;
```

first_name	last-name	salary
Emily	Davis	62000
Mike	Johnson	60000
Robert	Wilson	59000
John	Doe	55000
Sarah	Brown	58000

Question 5

```sql
SELECT first_name,
       last_name,
       department
FROM   employees
WHERE  department = 'IT';
```

first_name	last_name	department
John	Doe	IT
Sarar	Brown	IT
Emsly	Davis	IT
Laura	Hall	IT

Question 6

```sql
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	Wolson	Finance	59000

Question 7

```sql
SELECT first_name,
       last_name,
       department
From   employees
WHERE  department = 'HR' OR department = 'marketing';
```

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

Question 8

```sql
SELECT first_name,
       last_name,
       department
From   employees
WHERE NOT department = 'IT';
```

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

Question 9

```
SELECT first_name, last_name, department
FROM employees
WHERE department IN ('HR', 'IT', '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

Question 10

```
SELECT first_name, last_name, department, salary, city
FROM employees
WHERE department = 'IT'
AND salary > 50000
AND city = 'New York';
```

first_name	last_name	department	Salary	city
John	Doe	IT	55000	New York
Sarah	Brown	IT	53000	New York

Question 11

SELECT first_name, last_name, department, Salary
From employees
WHERE (department = 'Finance' OR department = '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

Question 12

SELECT DISTINCT city
From employees
WHERE department NOT IN ('IT', 'HR');

City
Los Angels
San Fransisco
Houston
Chicago

Question 13

SELECT first_name, last_name, department, salary, hire-date
From employees
WHERE department <> 'Finance';

first_name	last_name	department	Salary	hire - date
Jessica	Moore	HR	51000	2018-05-22
Daniel	Clark	Marketing	53000	2022-06-01
Sarah	Brown	IT	53000	2021-03-25
John	Doe	IT	55000	2018-06-15
Emily	Davis	IT	62000	2015-02-14

Question 14
SELECT id,
        first_name,
        last_name
        department,
        city
FROM   employee
WHERE   City IN ('Chicago', 'Los Angeles')
AND   department IN ('IT', 'Marketing')
Limit 3;

id	first_name	last_name	department	City
6	Emily	Davis	IT	Chicago
9	Daniel	Clark	Marketing	Chicago