

Exercise 1.- SELECT & Filtering Statement

(1) SELECT statement

Query `SELECT *`

`FROM employees;`

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	2014-07-20	Chicago
3	Mike	Johnson	Finance	60000	2017-09-30	Los Angeles
4	Sarah	Brown	IT	55000	2021-03-25	New York
5	Daniel	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	Los Angeles
9	Daniel	Clark	Marketing	53000	2022-06-01	Chicago
10	Laura	Hull	IT	50000	2020-08-10	San Francisco

(2) SELECT DISTINCT statement

Query `SELECT DISTINCT department`

`FROM employees`

department
IT
HR
Finance
Marketing



(3) ORDER BY statement

Query
 SELECT first-name,
 last-name,
 salary
 FROM employees
 ORDER BY salary DESC

first-name	last-name	salary
Emily	Davis	62000
Mike	Johnson	60000
Robert	Kilpon	59000

(4) LIMIT Statement

Query
 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	Kilpon	59000
John	Doe	55000
Sarah	Brown	53000

(5) HAVING Statement

Query
 SELECT first-name,
 last-name,
 department
 FROM employees
 HAVING department = 'IT'

first-name	last-name	department
John	Doe	IT
Sarah	Brown	IT

(6) AND Statement

Query
 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

(7) OR Statement

Query `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
Barcl	White	Marketing

(8) NOT statement

Query `SELECT first-name, last-name, department
FROM employees`

`WHERE NOT department = 'IT';`

↓

first-name	last-name	department
Jane	Smith	HR
Mike	Johnson	Finance

(9) IN Statement

Query `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
Robert	Hilson	Finance
Mike	Johnson	Finance

(10) Combining Conditions

Q

```
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

(11) Combining WHERE, AND, and ORDER BY

Q

```
SELECT first-name,  
       last-name,  
       department, salary
```

FROM employees

WHERE (department = 'Finance' OR department = 'Marketing')

AND salary > 52 000

ORDER BY salary DESC;



first-name	last-name	department	salary
Mike	Johnson	Finance	60000
Robert	Kilson	Finance	59000
Daniel	Clark	Marketing	53000



(12) Combining SELECT DISTINCT, WHERE and IN

Q SELECT distinct city
from employees

WHERE department NOT IN ('IT', 'HR');



city
Los Angeles
San Francisco
Houston
Chicago

(13) Combining WHERE, NOT, AND, and ORDER BY

Q SELECT first-name, last-name, department,
salary, hire-date
from employees

WHERE department = 'Finance'

AND salary > 50000

ORDER BY hire-date ASC;



first-name	last-name	department	salary	hire-date
Robert	Kilson	Finance	59000	2019-10-01
Mike	Johnson	Finance	60000	2017-09-30

(14) Combining WHERE, OR, IN and LIMIT

Q SELECT first-name, last-name, department, city
from employees

WHERE city IN ('chicago', 'los angeles')

AND department IN ('IT', 'Marketing')

LIMIT 3;



(4)

first-name	last-name	department	city
Emily	Daris	IT	chicago
Daniel	Clark	Marketing	chicago

(5) Combining WHERE, AND, OR, NOT, ORDER BY, and LIMIT

Q SELECT first-name, last-name,
department, salary,
city

FROM employees

WHERE (department = 'IT' OR department = 'Finance')

AND city = 'San Francisco'

AND salary > 55 000

ORDER BY salary DESC

LIMIT 5;



first-name	last-name	department	salary	city
Daniel	Khlite	Marketing	52 000	San Francisco
Laura	Hall	IT	50 000	San Francisco