

Select Statement

=====

DELETE

TRUNCATE

ALTER

UPDATE

5 different tables

customers table

20 columns

1 million records

FILTER

=====

```
SELECT *
FROM customers
WHERE customer_state = 'CA'
```

```
select count(*) from employees;
-- 30 records in the employees table
```

```
-- get employee details where employee first name is John
SELECT * FROM employees
WHERE first_name = 'John';
```

```
-- all employees whose salary is more than 50000
SELECT * FROM employees
WHERE salary > 60000;
```

```
SELECT count(*)
FROM employees
WHERE salary > 60000;
```

```
SELECT *
FROM employees
WHERE first_name > 'John' ;
```

```
SELECT *
FROM employees
WHERE department_id = 3;
```

```
-- get all employees hired after the year 2019  
SELECT *  
FROM employees  
WHERE hire_date > '2019-12-31';
```

can we apply multiple filters?

```
-- departement id 1 and salary > 5000  
SELECT * FROM employees  
WHERE department_id = 1  
AND salary > 50000
```

```
-- salary > 50000 (15)  
-- department_id = 1 (9)
```

-- ALL EMPLOYEES WORKING FOR DEP1 OR DEP2

DEP 1-9
DEP 2-12

```
SELECT * FROM employees  
WHERE department_id = 1  
OR department_id = 2
```

AND
OR
NOT

-- you want to get all the managers from department 1 and department 2

```
SELECT * FROM employees WHERE  
(department_id = 1 OR department_id = 2) AND job_title = 'Manager';
```

```
SELECT * FROM employees WHERE  
department_id = 2 AND job_title = 'Manager';
```

```
SELECT * FROM employees WHERE  
(department_id = 1 OR department_id = 2) AND job_title = 'Manager';
```

-- all employees from department 3, salary > 50000, hire_date after 2019

```
SELECT *  
FROM employees  
WHERE department_id = 3  
AND salary < 50000  
AND hire_date > '2019-12-31';
```

```
BETWEEN
IN

SELECT *
FROM employees
WHERE salary
BETWEEN 30000 AND 50000;

-- GET ALL EMPLOYEES HIRED IN 2020 AND 2021

SELECT *
FROM employees
WHERE hire_date
BETWEEN '2020-01-01' AND '2021-12-31';

-- IN

SELECT *
FROM employees
WHERE NOT (department_id = 1 OR department_id = 2 OR department_id = 4);

SELECT *
FROM employees
WHERE department_id IN (1,2,4);

SELECT *
FROM employees
WHERE department_id NOT IN (1,2,4)

-- all employees which are not manager or sales manager

SELECT *
FROM employees
WHERE job_title NOT IN ('Manager','Sales Manager');

-- get all the employees who do not have a manager

SELECT *
FROM employees
WHERE manager_id is null;

-- all employees who have a manager
SELECT *
FROM employees
WHERE manager_id is not null;
```

Basic filtering
Logical Operators - AND OR NOT
IN and BETWEEN
Handle Null Value

SCRIPT :

```
INSERT INTO employees (
    first_name, last_name, department_id, salary, hire_date, manager_id, email, phone_number,
    job_title
) VALUES
    ('John', 'Doe', 1, 60000, '2018-01-15', NULL, 'john.doe@example.com', '555-1234', 'Manager'),
    ('Jane', 'Smith', 2, 50000, '2019-03-22', 1, 'jane.smith@example.com', '555-5678', 'Developer'),
    ('Michael', 'Johnson', 1, 45000, '2020-06-11', 1, 'michael.johnson@example.com', '555-8765',
    'Analyst'),
    ('Emily', 'Davis', 3, 55000, '2017-09-30', NULL, 'emily.davis@example.com', '555-3456', 'Sales'),
    ('Daniel', 'Wilson', 3, 40000, '2018-11-10', 4, 'daniel.wilson@example.com', '555-6543', 'Sales
    Representative'),
    ('Sophia', 'Martinez', 2, 47000, '2021-01-25', 2, 'sophia.martinez@example.com', '555-7898',
    'Developer'),
    ('James', 'Brown', 1, 38000, '2020-04-18', 1, 'james.brown@example.com', '555-1239', 'Support'),
    ('Olivia', 'Jones', 2, 62000, '2019-07-21', 1, 'olivia.jones@example.com', '555-4321', 'Lead
    Developer'),
    ('William', 'Garcia', 3, 52000, '2018-12-01', NULL, 'william.garcia@example.com', '555-5670', 'Sales
    Manager'),
    ('Isabella', 'Miller', 2, 48000, '2020-08-15', 2, 'isabella.miller@example.com', '555-6789', 'QA
    Engineer'),
    ('Alex', 'White', 1, 61000, '2020-11-23', 1, 'alex.white@example.com', '555-2345', 'HR Specialist'),
    ('Liam', 'Lee', 2, 55000, '2017-05-19', 8, 'liam.lee@example.com', '555-3457', 'Developer'),
    ('Emma', 'Clark', 3, 58000, '2021-03-14', 4, 'emma.clark@example.com', '555-4568', 'Sales
    Executive'),
    ('Noah', 'Lopez', 1, 43000, '2019-12-10', 1, 'noah.lopez@example.com', '555-5679', 'HR Assistant'),
    ('Ava', 'Gonzalez', 2, 49000, '2018-07-25', 2, 'ava.gonzalez@example.com', '555-6780', 'QA
    Analyst'),
    ('Mason', 'Harris', 3, 61000, '2016-08-29', 4, 'mason.harris@example.com', '555-7891', 'Senior
    Sales Manager'),
    ('Ethan', 'Walker', 1, 42000, '2021-02-10', 1, 'ethan.walker@example.com', '555-8901', 'HR
    Coordinator'),
    ('Mia', 'Young', 2, 57000, '2018-09-15', 8, 'mia.young@example.com', '555-9012', 'Developer'),
    ('Logan', 'Hall', 3, 45000, '2020-05-17', 4, 'logan.hall@example.com', '555-1230', 'Sales Associate'),
    ('Charlotte', 'Allen', 2, 53000, '2019-01-20', 8, 'charlotte.allen@example.com', '555-2341', 'UI/UX
    Designer'),
    ('Benjamin', 'King', 1, 47000, '2017-11-22', 1, 'benjamin.king@example.com', '555-3452', 'HR
    Manager'),
    ('Amelia', 'Wright', 2, 50000, '2020-06-13', 8, 'amelia.wright@example.com', '555-4563', 'Software
    Tester'),
    ('Lucas', 'Scott', 3, 49000, '2016-10-30', 4, 'luca.scott@example.com', '555-5674', 'Sales
    Coordinator'),
    ('Ella', 'Green', 1, 53000, '2018-02-14', 1, 'ella.green@example.com', '555-6785', 'HR Specialist'),
    ('Aiden', 'Adams', 2, 51000, '2019-08-26', 8, 'aiden.adams@example.com', '555-7896', 'Backend
    Developer'),
    ('Grace', 'Baker', 3, 52000, '2021-04-21', 4, 'grace.baker@example.com', '555-8907', 'Sales
    Analyst'),
```

('Oliver', 'Nelson', 1, 45000, '2020-01-19', 1, 'oliver.nelson@example.com', '555-9018', 'HR Associate'),
('Avery', 'Carter', 2, 60000, '2017-12-11', 8, 'avery.carter@example.com', '555-1239', 'Front-End Developer'),
('Matthew', 'Mitchell', 3, 48000, '2018-06-07', 4, 'matthew.mitchell@example.com', '555-2340', 'Sales Representative'),
('Harper', 'Perez', 2, 56000, '2019-03-28', 8, 'harper.perez@example.com', '555-3451', 'Quality Assurance');