

Table Create

- CREATE TABLE employee (
name VARCHAR(50),
city VARCHAR(50),
age INT,
salary DECIMAL(10, 2)
);
- INSERT INTO employee (name, city, age, salary)

VALUES

```
('John Doe', 'New York', 30, 50000.00),  
( 'Jane Smith', 'Los Angeles', 25, 45000.00),  
( 'Michael Johnson', 'Chicago', 28, 55000.00),  
( 'Emily Brown', 'San Francisco', 32, 60000.00),  
( 'William Lee', 'Houston', 35, 58000.00);
```

- CREATE TABLE employees (
emp_id INT AUTO_INCREMENT PRIMARY KEY,
first_name VARCHAR(50) NOT NULL,
last_name VARCHAR(50) NOT NULL,
age INT NOT NULL,
department VARCHAR(100) NOT NULL
);
- INSERT INTO employees (first_name, last_name, age, department)

VALUES

```
('John', 'Doe', 30, 'Human Resources'),  
( 'Jane', 'Smith', 25, 'Marketing'),  
( 'Michael', 'Johnson', 28, 'Finance'),
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('Emily', 'Williams', 22, 'Sales');

Select

- SELECT name, city FROM employee;

Distinct

- SELECT DISTINCT city FROM employee;

Limit

- SELECT * FROM employee LIMIT 5;
- SELECT * FROM employee LIMIT 3,5;

Order by

- SELECT * FROM employee ORDER BY name;
- SELECT * FROM employee ORDER BY age DESC;
- Retrieve employee records sorted by salary in ascending order and limit the result to the top 5 salaries (**SELECT * FROM employee ORDER BY salary ASC LIMIT 5;**)

Where (Relational Operator & Logical Operator)

- SELECT * FROM employee WHERE salary > 50000;
- SELECT * FROM employee WHERE city = 'New York';
- SELECT * FROM employee WHERE age BETWEEN 25 AND 35;
- SELECT * FROM employee WHERE name LIKE 'J%';
- SELECT * FROM employee WHERE name LIKE '_J%';
- SELECT * FROM employee WHERE name = 'Jane Smith' AND city = 'Los Angeles';
- SELECT * FROM employee WHERE name = 'Michael Johnson' OR city = 'Chicago';
- SELECT * FROM employee WHERE city <> 'San Francisco'; (**who are not from a specific city**)
- SELECT * FROM employee WHERE age IS NOT NULL;
- SELECT * FROM employee WHERE NOT city = 'San Francisco';
-- Retrieve employees who are from New York and either have age less than 30 or salary greater than 55000.00
- SELECT * FROM employee WHERE city = 'New York' AND (age < 30 OR salary > 55000.00);

- Retrieve employees from Chicago or Houston with age greater than 30 and salary greater than 55000.00
- SELECT * FROM employee WHERE (city = 'Chicago' OR city = 'Houston') AND age > 30 AND salary > 55000.00;
 - Retrieve employees who are not from New York and have age less than or equal to 30
- SELECT * FROM employee WHERE city <> 'New York' AND NOT age > 30;
 - Retrieve employees with specific names
- SELECT * FROM employee WHERE name IN ('John Doe', 'Emily Brown', 'William Lee');
 - Retrieve employees from New York or Los Angeles
- SELECT * FROM employee WHERE city IN ('New York', 'Los Angeles');

Arithmetic operator

- SELECT SUM(salary) AS total_salary FROM employee;
- SELECT name, salary - 50000.00 AS salary_difference FROM employee WHERE name = 'Jane Smith';
- SELECT name, salary * 12 AS yearly_salary FROM employee;
 - Calculate the average salary of all employees
- SELECT AVG(salary) AS average_salary FROM employee;
 - Retrieve the employees whose age is an even number
- SELECT * FROM employee WHERE age % 2 = 0;

ALTER

- Add a column named "department" to the "employee" table
- ALTER TABLE employee ADD department VARCHAR(50);
 - Remove the "department" column from the "employee" table
- ALTER TABLE employee DROP COLUMN department;
 - Rename the "employee" table to "employees"
- ALTER TABLE employee RENAME TO employees;
 - Change the name of the column "city" to "location" in the "employee" table
- ALTER TABLE employees CHANGE COLUMN city location VARCHAR(50);
 - Update
 - Update the salary of employee "John Doe" to 52000.00
- UPDATE employee SET salary = 52000.00 WHERE name = 'John Doe';
 - Update the salary and city of employee "Emily Brown"
- UPDATE employee SET salary = 62000.00, city = 'Los Angeles' WHERE name = 'Emily Brown';
 - Increase the salary by 10% for all employees in Chicago
- UPDATE employee SET salary = salary * 1.10 WHERE city = 'Chicago';
 - Set the salary of employee "Jane Smith" to the average salary of all employees
- UPDATE employee SET salary = (SELECT AVG(salary) FROM employee) WHERE name = 'Jane Smith';
 - Update the city of employees whose names start with 'J' to 'Seattle'

- UPDATE employee SET city = 'Seattle' WHERE name LIKE 'J%';
-- Increase the age of all employees by 1
- UPDATE employee SET age = age + 1;

DELETE

- Delete the employee record for "John Doe"
- DELETE FROM employee WHERE name = 'John Doe';
-- Delete all employees from the "Chicago" city
- DELETE FROM employee WHERE city = 'Chicago';
-- Delete employees from "Los Angeles" or "San Francisco"
- DELETE FROM employee WHERE city = 'Los Angeles' OR city = 'San Francisco';
- -- Delete all records from the "employee" table
- DELETE FROM employee;

TRUNCATE

- TRUNCATE TABLE employee;

END