

## **Aggregate Functions:**

### **COUNT()**

The COUNT() function returns the number of rows that match a specified condition. It can count all rows or only rows that meet certain criteria.

#### **Example:**

```
SELECT COUNT(*) AS total_employees FROM employees;
```

### **SUM()**

The SUM() function returns the total sum of a numeric column.

#### **Example:**

```
SELECT SUM(salary) AS total_sales FROM employees;
```

### **AVG()**

The AVG() function returns the average value of a numeric column.

#### **Example:**

```
SELECT AVG(salary) AS average_salary FROM employees;
```

### **MAX()**

The MAX() function returns the maximum value in a set of values.

#### **Example:**

```
SELECT MAX(salary) AS highest_salary FROM employees;
```

### **MIN()**

The MIN() function returns the minimum value in a set of values.

#### **Example:**

```
SELECT MIN(salary) AS lowest_salary FROM employees;
```

## **Order of commands writing:**

```
SELECT
```

FROM  
WHERE  
GROUP BY  
HAVING  
ORDER BY

---

```
CREATE TABLE NewEmployees (
    EmployeeID INT PRIMARY KEY,
    EmployeeName VARCHAR(100),
    Age INT,
    Department VARCHAR(50)
);

INSERT INTO NewEmployees (EmployeeID, EmployeeName, Age, Department)
VALUES
    (5, 'Alice Johnson', 29, 'HR'),
    (6, 'Bob Martin', 32, 'Finance'),
    (7, 'Charlie Baker', 28, 'Sales'),
    (8, 'David Lee', 40, 'HR'),
    (9, 'Eva Davis', 22, 'Sales');
```

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#### GROUP BY:

```
SELECT country, COUNT(*) AS n_companies
FROM companies
GROUP BY country
ORDER BY n_companies DESC
LIMIT 10
```

#### LIMIT and OFFSET:

LIMIT is used to limit the display and OFFSET is used to skip the values

```
SELECT * FROM products
```

```
ORDER BY product_id ASC
```

```
LIMIT 2 OFFSET 2;
```