

Aggregate functions :

Functions that compute a single result from a set of input values.

| functions | Description |
|----------------|--|
| MIN() | returns the smallest value of the selected column. |
| MAX() | returns the largest value of the selected column. |
| COUNT() | function returns the number of rows that matches a specified criteria. |
| AVG() | returns the average value of a numeric column. |
| SUM() | returns the total sum of a numeric column. |

Syntax of aggregate functions:

```
SELECT aggregate functions (column_name)
FROM table_name
```

Example :

display the largest Salary From employee table

```
SELECT Max( Salary) as 'largestSalary'
FROM Employee
```

Result:

| largestSalary |
|---------------|
| 450\$ |

The SQL ORDER BY Keyword

The ORDER BY keyword is used to sort the result-set in ascending or descending order.

ORDER BY Syntax

```
SELECT column1, column2, ...  
FROM table_name  
ORDER BY column1, column2, ... ASC|DESC
```


Example :

show the EmpName and Salary From employee table ordered from less Salary to large

```
SELECT EmpName, Salary  
FROM Employee  
ORDER BY Salary ASC
```

Result:

| EmpName | Salary |
|----------|--------|
| Omer | 270\$ |
| Mohammed | 350\$ |
| Ahmed | 400\$ |
| Sami | 450\$ |



The SQL SELECT DISTINCT Statement

The SELECT DISTINCT statement is used to return only (different) values.

SELECT DISTINCT Syntax

SELECT DISTINCT *column1*

FROM *table_name*

Example:

Show StuName without duplication from student table:

| StuID | StuName |
|-------|---------|
| 1 | Mazen |
| 2 | Ahmed |
| 3 | Ahmed |
| 4 | Ahmed |

SELECT DISTINCT StuName

FROM student

Result:

| StuName |
|---------|
| Mazen |
| Ahmed |

The SQL IN Operator

The IN operator allows you to specify multiple values in a WHERE clause.

IN Syntax

```
SELECT column_name(s)
FROM table_name
WHERE column_name IN (value1, value2, ...)
```

Example :

show the EmpName and Salary From employee table when Salary is 270 or 400

```
SELECT EmpName, Salary
FROM Employee
WHERE Salary in(270,400)
```

Result:

| <i>EmpName</i> | <i>Salary</i> |
|-----------------------|----------------------|
| Omer | 270\$ |
| Ahmed | 400\$ |