

# The AND & OR Clauses

In this lesson, we will discuss how can we combine multiple conditions in WHERE using the AND & OR operators.

## We'll cover the following

- The AND & OR clauses
- The AND Operator
  - Syntax
  - Example
- The OR Operator
  - Syntax
  - Example
- Quick quiz!

## The AND & OR clauses #

The SQL **AND** & **OR** operators are used to combine multiple conditions in order to narrow data in an SQL statement. These two operators are called the **conjunctive operators**.

These operators provide a means to make multiple comparisons with different operators in the same SQL statement.

## The AND Operator #

The **AND** operator allows the existence of multiple conditions in a SQL statement's **WHERE** clause.

## Syntax #

The basic syntax of the **AND** operator with a **WHERE** clause is as follows:

```
SELECT column1, column2, ... columnN
```

```
FROM table_name
```

```
WHERE [condition1] AND [condition2]...AND [conditionN];
```

You can combine N number of conditions using the **AND** operator. For an action to be taken by the SQL statement, whether it be a transaction or a query, all conditions separated by the **AND** must be **TRUE**.

## Example #

In this example, we will retrieve the **ID**, **Name** and **Salary** fields from the CUSTOMERS table, where the salary is greater than \$20,000 (inclusive) and the age is less than 25 years.

The steps needed to solve this problem are highlighted below:

The WHERE clause will return those customers that have both salary greater than 20000 and are less than 20 years old

ID	NAME	AGE	ADDRESS	SALARY
1	Mark	32	Texas	50000.00
2	John	25	NY	65000.00
3	Emily	23	Ohio	20000.00
4	Bill	25	Chicago	75000.00
5	Tom	27	Washington	35000.00
6	Jane	22	Texas	45000.00

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The following code shows how to do this in SQL:

```
SELECT ID, NAME, SALARY  
FROM CUSTOMERS
```



```
WHERE SALARY >= 20000 AND age < 25;
```



## The OR Operator #

The **OR** operator is used to combine multiple conditions in a SQL statement's **WHERE** clause.

### Syntax #

The basic syntax of the **OR** operator with a **WHERE** clause is as follows:

```
SELECT column1, column2, ... columnN

FROM table_name

WHERE [condition1] OR [condition2]...OR [conditionN];
```

You can combine N number of conditions using the **OR** operator. For an action to be taken by the SQL statement, whether it be a transaction or query, only ONE of the conditions separated by the **OR** can be **TRUE**.

### Example #

Consider the following query, which will fetch the **ID**, **Name** and **Salary** fields from the CUSTOMERS table, where the salary is greater than \$50,000 or the age is less than 25 years.

The following slides show the steps needed to solve this problem:

The WHERE clause will return those customers that either have salary greater than 20000 or they are less than 20 years old

ID	NAME	AGE	ADDRESS	SALARY
1	Mark	32	Texas	50000.00
2	John	25	NY	65000.00
3	Emily	23	Ohio	20000.00
4	Bill	25	Chicago	75000.00
5	Tom	27	Washington	35000.00
6	Jane	22	Texas	45000.00

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The following code shows how to do this in SQL:

```
SELECT ID, NAME, SALARY
FROM CUSTOMERS
WHERE SALARY > 50000 OR age < 25;
```



## Quick quiz! #

Q

Which of the following query will return the customers who have SALARY between 40000 and 60000?

☐

A)

```
SELECT *
FROM CUSTOMERS
WHERE SALARY > 40000 OR SALARY < 60000;
```



B)

```
SELECT *  
FROM CUSTOMERS  
WHERE SALARY > 40000 AND SALARY < 60000;
```



C)

```
SELECT *  
FROM CUSTOMERS  
WHERE SALARY > 40000 OR SALARY < 60000
```



D)

```
SELECT *  
FROM CUSTOMERS  
WHERE SALARY > 40000 AND SALARY < 60000
```

COMPLETED 0%

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In the next lesson, we will learn about SQL aggregate functions.