# **SQL WHERE**

The SQL **WHERE** clause is used to specify a condition while fetching the data from single table or joining with multiple tables.

If the given condition is satisfied, then only it returns specific value from the table. You would use WHERE clause to filter the records and fetching only necessary records.

The WHERE clause is not only used in SELECT statement, but it is also used in UPDATE, DELETE statement, etc.,

Format:

The basic format of SELECT statement with WHERE clause is as follows:

```
SELECT column1, column2, column N
```

FROM table\_name

WHERE [condition]

You can specify a condition using comparison or logical operators like >, <, =, LIKE, NOT etc. Below examples would make this concept clear.

Example:

	ID	1	NAME	1	AGE	1	ADDRESS	SALAR	Y
	1	1	Ramesh	1	32	1	Ahmedabad	2000	. 00
l	2	T	Khilan	T	25	1	Delhi	1500	.00
1	3	1	kaushik	1	23	1	Kota	2000	.00
Ľ	4	1	Chaitali	1	25	1	Mumbai	6500	.00
1	5	1	Hardik	1	27	1	Bhopal	8500	.00
1	6	1	Komal	1	22	1	MP	4500	.00
I	7	1	Muffy	1	24	1	Indore	10000	.00

Following is an example, which would fetch ID, Name and Salary fields from the CUSTOMERS table where salary is greater than 2000:

SELECT ID, NAME, SALARY

FROM CUSTOMERS

WHERE SALARY > 2000;

This would produce the following result



Following is an example, which would fetch ID, Name and Salary fields from the CUSTOMERS table for a customer with name **Hardik**. Here, it is important to note that all the strings should be given inside single quotes (") where as numeric values should be given without any quote as in above example:

```
SELECT ID, NAME, SALARY
FROM CUSTOMERS
WHERE NAME = 'Hardik';
```

This would produce the following result:

+----+ | ID | NAME | SALARY | +----+ | 5 | Hardik | 8500.00 | +---+

## **SQL AND and OR Operators**

The SQL AND and OR operators are used to combine multiple conditions in an SQL statement. These two operators are called 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 an SQL statement's WHERE clause.

Format:

The basic format of AND operator with 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 AND operator. For an action to be taken by the SQL statement, all conditions separated by the AND must be TRUE.

Example:

1	ID	-	NAME		AGE	1	ADDRESS	1	SALARY
	1	1	Ramesh	1	32	1	Ahmedabad	1	2000.00
	2	T	Khilan	1	25	1	Delhi	1	1500.00
	3	1	kaushik	1	23	1	Kota	1	2000.00
	4	1	Chaitali	T	25	1	Mumbai	1	6500.00
	5	1	Hardik	1	27	1	Bhopal	1	8500.00
	6	1	Komal	1	22	1	MP	1	4500.00
	7	T	Muffy	L	24	1	Indore	I	10000.00

Following is an example, which would fetch ID, Name and Salary fields from the CUSTOMERS table where salary is greater than 2000 AND age is less tan 25 years:

```
SELECT ID, NAME, SALARY
FROM CUSTOMERS
WHERE SALARY > 2000 AND age < 25;
```

This would produce the following result:

```
+----+
| ID | NAME | SALARY |
+----+
| 6 | Komal | 4500.00 |
| 7 | Muffy | 10000.00 |
+----+
```

The OR Operator:

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

Format:

The basic format of OR operator with 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 OR operator. For an action to be taken by the SQL statement, only any ONE of the conditions separated by the OR must be TRUE.

Example:

Consider the CUSTOMERS table having the following records:

_	ID		NAME		AGE	1	ADDRESS	1	SALARY
	1	I.	Ramesh		32	1	Ahmedabad	1	2000.00
	2	T	Khilan	1	25	1	Delhi	1	1500.00
	3	1	kaushik	1	23	1	Kota	I.	2000.00
	4	1	Chaitali	1	25	1	Mumbai	1	6500.00
	5	1	Hardik	1	27	1	Bhopal	1	8500.00
	6	1	Komal	1	22	1	MP	1	4500.00
	7	1	Muffy	1	24	1	Indore	1	10000.00

Following is an example, which would fetch ID, Name and Salary fields from the CUSTOMERS table where salary is greater than 2000 OR age is less than 25 years:

SELECT ID, NAME, SALARY

FROM CUSTOMERS

WHERE SALARY > 2000 OR age < 25;

This would produce the following result:

I	D	1	NAME	1	SALARY	1
	3	1	kaushik	1	2000.00	
	4	1	Chaitali	I	6500.00	I
(	5	1	Hardik	1	8500.00	1
i -	6	1	Komal	1	4500.00	1
	7	1	Muffy	1	10000.00	1
		+-		+-		-+

#### **SQL UPDATE Query**

The SQL UPDATE Query is used to modify the existing records in a table.

You can use WHERE clause with UPDATE query to update selected rows, otherwise all the rows would be affected.

Format:

The basic format of UPDATE query with WHERE clause is as follows:

```
UPDATE table_name
SET column1 = value1, column2 = value2..., columnN = valueN
WHERE [condition];
```

You can combine N number of conditions using AND or OR operators.

Example:

	ID	-	NAME	1	AGE	1	ADDRESS	1	SALARY	
	1	I.	Ramesh	1	32	1	Ahmedabad	I	2000.00	
l.	2	T	Khilan	1	25	1	Delhi	1	1500.00	
1	3	1	kaushik	1	23	1	Kota	T	2000.00	
Ľ	4	1	Chaitali	Ĩ	25	1	Mumbai	T	6500.00	
l	5	1	Hardik	1	27	1	Bhopal	1	8500.00	
I	6	1	Komal	1	22	1	MP	1	4500.00	
I	7	1	Muffy	1	24	1	Indore	1	10000.00	

Following is an example, which would update ADDRESS for a customer whose ID is 6:

```
UPDATE CUSTOMERS
SET ADDRESS = 'Pune'
WHERE ID = 6;
```

Now, CUSTOMERS table would have the following records:

I	ID	1	NAME	AGE	1	ADDRESS	SALARY	1
1	1	1	Ramesh	32	1	Ahmedabad	2000.00	1
1	2	1	Khilan	25	1	Delhi	1500.00	1
I.	3	1	kaushik	23	1	Kota	2000.00	1
L	4	ļ	Chaitali	25	1	Mumbai	6500.00	1
1	5	1	Hardik	27	1	Bhopal	8500.00	1
1	б	1	Komal	1 22	1	Pune	4500.00	1
1	7	1	Muffy	24	1	Indore	10000.00	1

If you want to modify all ADDRESS and SALARY column values in CUSTOMERS table, you do not need to use WHERE clause and UPDATE query would be as follows:

```
UPDATE CUSTOMERS
SET ADDRESS = 'Pune', SALARY = 1000.00;
```

Now, CUSTOMERS table would have the following records:

	ID	1	NAME	1	AGE		ADDRESS	I	SALARY	
1	1	1	Ramesh	1	32	1	Pune	1	1000.00	
1	2	1	Khilan	1	25	1	Pune	I	1000.00	
I	3	1	kaushik	1	23	L	Pune	L	1000.00	
Ĺ	4	1	Chaitali	1	25	T	Pune	T	1000.00	
ŀ	5	ļ	Hardik	1	27	I.	Pune		1000.00	
1	6	1	Komal	1	22	1	Pune	1	1000.00	
1	7	1	Muffy	1	24	1	Pune	I	1000.00	
+-		+-		+-		+		+		

#### **SQL DELETE Query**

The SQL **DELETE** Query is used to delete the existing records from a table.

```
DELETE FROM table_name
WHERE [condition];
```

You can combine N number of conditions using AND or OR operators.

### Example:

1	ID	1	NAME	1	AGE		ADDRESS		SALARY	1
1	1	1	Ramesh	1	32	1	Ahmedabad	1	2000.00	1
1	2	1	Khilan	1	25	1	Delhi	1	1500.00	1
T	3	1	kaushik	Ĩ.	23	1	Kota	Ľ	2000.00	1
1	4	1	Chaitali	L	25	1	Mumbai	1	6500.00	1
T	5	1	Hardik	T	27	1	Bhopal	I	8500.00	1
1	6	1	Komal	L	22	1	MP	1	4500.00	1
1	7	1	Muffy	T	24	1	Indore	F	10000.00	1

You can use WHERE clause with DELETE query to delete selected rows, otherwise all the records would be deleted.

Format:

The basic format of DELETE query with WHERE clause is as follows:

Following is an example, which would DELETE a customer, whose ID is 6:

```
DELETE FROM CUSTOMERS
WHERE ID = 6;
```

Now, CUSTOMERS table would have the following records:

	ID	1	NAME	l	AGE	I	ADDRESS	I	SALARY	1
+-		-+		-+		-+		-+		-+
1	1	1	Ramesh	1	32	1	Ahmedabad	1	2000.00	1
I.	2	1	Khilan	1	25	1	Delhi	1	1500.00	1
L	3	Ţ	kaushik	ļ	23	I.	Kota	Ţ	2000.00	1
1	4	1	Chaitali	1	25	1	Mumbai	1	6500.00	1
1	5	1	Hardik	1	27	1	Bhopal	1	8500.00	1
1	7	1	Muffy	1	24	1	Indore	1	10000.00	1

If you want to DELETE all the records from CUSTOMERS table, you do not need to use WHERE clause and DELETE query would be as follows:

```
DELETE FROM CUSTOMERS;
```

Now, CUSTOMERS table would not have any record.