BETWEEN OPERATOR

SQL BETWEEN operator select the value in the given range, including the **start and end values**.

BETWEEN Operator in SQL

The **BETWEEN operator in SQL** is used to get the values present in the given range. The values can be text, date, or numbers.

The BETWEEN operator can be used with **SELECT**, **INSERT**, **UPDATE**, and **DELETE** commands. This operator is particularly useful for filtering records based on a range of values

Syntax

SQL BETWEEN Syntax is:

```
BETWEEN value1 AND value2;
```

SQL Between Operator Example

Let's look at **some examples of BETWEEN Operator in SQL**, to understand **how to use BETWEEN operators in SQL**:

First, we need to create a new database and a table inside the database. We will then use the **BETWEEN operator in SQL query**.

Demo Database

```
CREATE DATABASE QL_HocSinh;
USE QL_HocSinh;
CREATE TABLE STUDENTS
(
    STUDENT_ID INT PRIMARY KEY,
    NAME VARCHAR(20),
    ADDRESS VARCHAR(20),
    AGE INT,
    DOB DATE
);
INSERT INTO STUDENTS
VALUES
    (1, 'DEV', '120', 2001, '2001-03-09'),
    (2, 'AMAN', '92', 2003, '2003-11-28'),
    (3, 'VINOD', '184', 2002, '2002-09-16'),
    (4, 'YASH', '87', 2001, '2001-06-18'),
    (5, 'NITYA', '195', 2000, '2000-01-12');
SELECT * FROM STUDENTS;
```

Output

```
mysql> SELECT * FROM STUDENTS;
+------+-------+-------------+------------+
| ID   | NAME  | TOTAL_MARKS | DOB        |
+------+-------+-------------+------------+
|    1 | DEV   |         120 | 2001-03-09 |
|    2 | AMAN  |          92 | 2003-11-28 |
|    3 | VINOD |         184 | 2002-09-16 |
|    4 | YASH  |          87 | 2001-06-18 |
|    5 | NITYA |         195 | 2000-01-12 |
+------+-------+-------------+------------+
5 rows in set (0.00 sec)

mysql>
```

Table's data

SQL BETWEEN Example

In this example, we will display the details of students having TOTAL_MARKS between 100-200 and DOB between 2001-01-01 and 2003-01-01.

Query

```
SELECT * FROM STUDENTS
WHERE TOTAL_MARKS BETWEEN 100 AND 200 AND DOB BETWEEN "2001-
01-01" AND "2003-01-01";
```

Output

```
+------+-------+-------------+------------+
| ID   | NAME  | TOTAL_MARKS | DOB        |
+------+-------+-------------+------------+
|    1 | DEV   |         120 | 2001-03-09 |
|    3 | VINOD |         184 | 2002-09-16 |
+------+-------+-------------+------------+
2 rows in set (0.00 sec)

mysql>
```

Final result

Important Points About SQL BETWEEN Operator

- The BETWEEN operator is a logical operator used in SQL to retrieve data within a specified range. The range is inclusive, meaning it includes the start and end values.

- The BETWEEN operator can be used with SELECT, INSERT, UPDATE, and DELETE commands to filter records based on a range of values.
- The values in the range can be of textual, numeric, or date data types.
- The NOT BETWEEN operator can be used to retrieve data that falls outside the specified range.
- The BETWEEN operator can be combined with the **IN operator** to further refine the query and select values within a range that also matches a list of values.
- The BETWEEN operator simplifies queries that would otherwise require multiple greater than and less than conditions.

SQL BETWEEN Operator- FAQs

Why do we use the SQL BETWEEN operator?

We use the BETWEEN operator in SQL when we want to select values within a given range.

In how many ways can we define the range?

We can define ranges in as either numeric, date, text.

Can we find ranges within a date and time using BETWEEN the?

Yes, we can find ranges within mentioned date & time using BETWEEN statement.

How to get data between two timestamps in SQL?

The difference between the start and end timestamps is calculated by using the following query: SELECT TIMESTAMPDIFF(SECOND, start_timestamp, end_timestamp) FROM events WHERE event_name = 'Meeting';