

SQL SELECT IN STATEMENT

SQL SELECT IN Statement allows to specify multiple values in the WHERE clause. It is similar to using multiple **OR conditions**. It is particularly useful for filtering records based on a list of values or the results of a subquery.

The **IN operator** compares a value with a set of values, and it returns a TRUE if the value belongs to that given set, else it returns a FALSE.

Syntax

SELECT IN statement syntaxes are:

Syntax 1: SELECT IN for a list of values

Using the IN operator to provide a list of values:

```
SELECT column1, column2, ..., columnN
FROM table_name
WHERE column_name IN (val-1, val-2, ..., val-N);
```

Parameters:

column1, column2, ..., columnN: The columns you want to retrieve.

table_name: The table from which to retrieve the columns.

column_name: The column you want to filter.

val-1, val-2, ..., val-N: The list of values you want to match.

Syntax 2: SELECT IN with a Subquery

Using the IN operator on values returned by another subquery:

```
SELECT column1, column2....columnN
FROM table_name1
WHERE column_name IN
(SELECT column_name FROM table_name2);
```

Parameters:

table_name1: The primary table from which to retrieve the columns.

table_name2: The secondary table used in the subquery to provide the list of values.

SQL SELECT IN Example

Let's look at some examples of the SELECT IN in SQL and understand it's working. First we have to create a **demo database** and table, on which we will perform the operation.

```
CREATE DATABASE RECORD;
```

```
USE RECORD;
```

```
CREATE TABLE COURSE(  
    course_id INT,  
    course_name VARCHAR(20),  
    duration_of_course INT,  
    PRIMARY KEY(course_id)  
);
```

```
CREATE TABLE STUDENT(  
    roll_no INT,  
    student_name VARCHAR(20),  
    course_id INT,  
    PRIMARY KEY(roll_no)  
);
```

```
INSERT INTO COURSE(course_id, course_name,  
duration_of_course)
```

```
VALUES
```

```
(1, 'BCA', 3),  
(2, 'MCA', 3),  
(3, 'B.E.', 4),  
(4, 'M.E.', 2),  
(5, 'Integrated BE and ME', 5);
```

```
INSERT INTO STUDENT(roll_no, student_name, course_id)
```

```
VALUES
```

```
(1, 'ANDREW', 1),  
(2, 'BOB', 1),  
(3, 'CHARLES', 1),  
(4, 'DAIZY', 3),  
(5, 'EMMANUEL', 2),  
(6, 'FAIZAL', 2),  
(7, 'GEORGE', 4),  
(8, 'HARSH', 5),  
(9, 'ISHA', 2),  
(10, 'JULIAN', 2),  
(11, 'KAILASH', 3),  
(12, 'LAIBA', 5),  
(13, 'MICHAEL', 3);
```

COURSE Table

1 `SELECT * FROM COURSE;`

Results **Messages**

	course_id ▾	course_name ▾	duration_of_course ▾
1	1	BCA	3
2	2	MCA	3
3	3	B.E.	4
4	4	M.E.	2
5	5	Integrated BE and ME	5

STUDENT Table

```
1 SELECT * FROM STUDENT;
```

Results Messages

	roll_no ▾	student_name ▾	course_id ▾
1	1	ANDREW	1
2	2	BOB	1
3	3	CHARLES	1
4	4	DAIZY	3
5	5	EMMANUEL	2
6	6	FAIZAL	2
7	7	GEORGE	4
8	8	HARSH	5
9	9	ISHA	2
10	10	JULIAN	2
11	11	KAILASH	3
12	12	LAIBA	5
13	13	MICHAEL	3

Example 1: SELECT IN with List Example

In this example, we will use SELECT IN statement on a list of values in **WHERE Clause**.

```
SELECT * FROM STUDENT
WHERE course_id IN (1, 2, 3);
```

```
1  SELECT * FROM
2  STUDENT
3  WHERE course_id
4  IN (1, 2, 3);
```

Results Messages

roll_no ∨	student_name ∨	course_id ∨
1	ANDREW	1
2	BOB	1
3	CHARLES	1
4	DAIZY	3
5	EMMANUEL	2
6	FAIZAL	2
9	ISHA	2
10	JULIAN	2
11	KAILASH	3
13	MICHAEL	3

Example 2: SELECT IN with a Sub-query

In this example, we will use SELECT IN to provide a subquery to **WHERE clause**.

```
SELECT * FROM STUDENT
WHERE course_id IN (SELECT course_id FROM COURSE
WHERE duration_of_course = 3);
```

Important Points about SQL SELECT IN Statement

- The SQL SELECT IN statement allows you to specify multiple values in the WHERE clause.

- The IN operator is functionally similar to using multiple OR conditions.

- + For example, **WHERE column_name IN (val-1, val-2, ..., val-N)** is equivalent to **WHERE column_name = val-1 OR column_name = val-2 OR ... OR column_name = val-N**.

- The IN operator can be used with both static lists of values and subqueries.