# **SQL IN Operator**

**SQL IN Operator:**

1. The IN operator allows you to specify multiple values in a WHERE clause.
2. The IN operator is a shorthand for multiple OR conditions.
3. The syntax:

|  |
| --- |
| SELECT column\_name(s)  FROM table\_name  WHERE column\_name IN (value1, value2, ...); |

1. Example:  
   Return all customers from 'Germany', 'France', or 'UK'

|  |
| --- |
| SELECT \* FROM Customers  WHERE Country IN ('Germany', 'France', 'UK'); |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **CustomerID** | **CustomerName** | **ContactName** | **Address** | **City** | **PostalCode** | **Country** |
| 1 | Alfreds Futterkiste | Maria Anders | Obere Str. 57 | Berlin | 12209 | Germany |
| 4 | Around the Horn | Thomas Hardy | 120 Hanover Sq. | London | WA1 1DP | UK |
| 6 | Blauer See Delikatessen | Hanna Moos | Forsterstr. 57 | Mannheim | 68306 | Germany |
| 7 | Blondel père et fils | Frédérique Citeaux | 24, place Kléber | Strasbourg | 67000 | France |
| 9 | Bon app' | Laurence Lebihans | 12, rue des Bouchers | Marseille | 13008 | France |

**NOT IN:**

1. By using the NOT keyword in front of the IN operator, you return all records that are NOT any of the values in the list.
2. Example:  
   Return all customers that are NOT from 'Germany', 'France', or 'UK':

|  |
| --- |
| SELECT \* FROM Customers  WHERE Country NOT IN ('Germany', 'France', 'UK'); |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **CustomerID** | **CustomerName** | **ContactName** | **Address** | **City** | **PostalCode** | **Country** |
| 2 | Ana Trujillo Emparedados y helados | Ana Trujillo | Avda. de la Constitución 2222 | México D.F. | 05021 | Mexico |
| 3 | Antonio Moreno Taquería | Antonio Moreno | Mataderos 2312 | México D.F. | 05023 | Mexico |
| 5 | Berglunds snabbköp | Christina Berglund | Berguvsvägen 8 | Luleå | S-958 22 | Sweden |
| 8 | Bólido Comidas preparadas | Martín Sommer | C/ Araquil, 67 | Madrid | 28023 | Spain |

**IN (SELECT):**

1. You can also use IN with a subquery in the WHERE clause.
2. With a subquery you can return all records from the main query that are present in the result of the subquery.
3. Example:  
   Return all customers that have an order in the Orders table:

|  |
| --- |
| SELECT \* FROM Customers  WHERE CustomerID IN (SELECT CustomerID FROM Orders); |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
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| 3 | Antonio Moreno Taquería | Antonio Moreno | Mataderos 2312 | México D.F. | 05023 | Mexico |
| 4 | Around the Horn | Thomas Hardy | 120 Hanover Sq. | London | WA1 1DP | UK |
| 5 | Berglunds snabbköp | Christina Berglund | Berguvsvägen 8 | Luleå | S-958 22 | Sweden |
| 7 | Blondel père et fils | Frédérique Citeaux | 24, place Kléber | Strasbourg | 67000 | France |
| 8 | Bólido Comidas preparadas | Martín Sommer | C/ Araquil, 67 | Madrid | 28023 | Spain |

**NOT IN (SELECT):**

1. The result in the example above returned 74 records, that means that there are 17 customers that haven't placed any orders.
2. Let us check if that is correct, by using the NOT IN operator.
3. Example:  
   Return all customers that have NOT placed any orders in the Orders table:

|  |
| --- |
| SELECT \* FROM Customers  WHERE CustomerID NOT IN (SELECT CustomerID FROM Orders); |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **CustomerID** | **CustomerName** | **ContactName** | **Address** | **City** | **PostalCode** | **Country** |
| 1 | Alfreds Futterkiste | Maria Anders | Obere Str. 57 | Berlin | 12209 | Germany |
| 6 | Blauer See Delikatessen | Hanna Moos | Forsterstr. 57 | Mannheim | 68306 | Germany |
| 12 | Cactus Comidas para llevar | Patricio Simpson | Cerrito 333 | Buenos Aires | 1010 | Argentina |
| 22 | FISSA Fabrica Inter. Salchichas S.A. | Diego Roel | C/ Moralzarzal, 86 | Madrid | 28034 | Spain |
| 26 | France restauration | Carine Schmitt | 54, rue Royale | Nantes | 44000 | France |
| 32 | Great Lakes Food Market | Howard Snyder | 2732 Baker Blvd. | Eugene | 97403 | USA |
| 40 | La corne d'abondance | Daniel Tonini | 67, avenue de l'Europe | Versailles | 78000 | France |