# **SQL BETWEEN Operator**

**SQL BETWEEN Operator:**

1. The BETWEEN operator selects values within a given range. The values can be numbers, text, or dates.
2. The syntax:

|  |
| --- |
| SELECT column\_name(s)  FROM table\_name  WHERE column\_name BETWEEN value1 AND value2; |

1. The BETWEEN operator is inclusive: begin and end values are included.
2. Example:  
   Selects all products with a price between 10 and 20:

|  |
| --- |
| SELECT \* FROM Products  WHERE Price BETWEEN 10 AND 20; |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **ProductID** | **ProductName** | **SupplierID** | **CategoryID** | **Unit** | **Price** |
| 1 | Chais | 1 | 1 | 10 boxes x 20 bags | 18 |
| 2 | Chang | 1 | 1 | 24 - 12 oz bottles | 19 |
| 3 | Aniseed Syrup | 1 | 2 | 12 - 550 ml bottles | 10 |
| 15 | Genen Shouyu | 6 | 2 | 24 - 250 ml bottles | 15.5 |
| 16 | Pavlova | 7 | 3 | 32 - 500 g boxes | 17.45 |
| 21 | Sir Rodney's Scones | 8 | 3 | 24 pkgs. x 4 pieces | 10 |

**NOT BETWEEN:**

1. To display the products outside the range of the previous example, use NOT BETWEEN:
2. Example:

|  |
| --- |
| SELECT \* FROM Products  WHERE Price NOT BETWEEN 10 AND 20; |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **ProductID** | **ProductName** | **SupplierID** | **CategoryID** | **Unit** | **Price** |
| 4 | Chef Anton's Cajun Seasoning | 2 | 2 | 48 - 6 oz jars | 22 |
| 5 | Chef Anton's Gumbo Mix | 2 | 2 | 36 boxes | 21.35 |
| 6 | Grandma's Boysenberry Spread | 3 | 2 | 12 - 8 oz jars | 25 |
| 7 | Uncle Bob's Organic Dried Pears | 3 | 7 | 12 - 1 lb pkgs. | 30 |
| 8 | Northwoods Cranberry Sauce | 3 | 2 | 12 - 12 oz jars | 40 |

**BETWEEN with IN:**

1. The following SQL statement selects all products with a price between 10 and 20. In addition, the CategoryID must be either 1,2, or 3.
2. Example:

|  |
| --- |
| SELECT \* FROM Products  WHERE Price BETWEEN 10 AND 20  AND CategoryID IN (1,2,3); |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **ProductID** | **ProductName** | **SupplierID** | **CategoryID** | **Unit** | **Price** |
| 1 | Chais | 1 | 1 | 10 boxes x 20 bags | 18 |
| 2 | Chang | 1 | 1 | 24 - 12 oz bottles | 19 |
| 3 | Aniseed Syrup | 1 | 2 | 12 - 550 ml bottles | 10 |
| 15 | Genen Shouyu | 6 | 2 | 24 - 250 ml bottles | 15.5 |
| 16 | Pavlova | 7 | 3 | 32 - 500 g boxes | 17.45 |

**BETWEEN Text Values:**

1. The following SQL statement selects all products with a ProductName alphabetically between Carnarvon Tigers and Mozzarella di Giovanni.
2. Example:

|  |
| --- |
| SELECT \* FROM Products  WHERE ProductName BETWEEN 'Carnarvon Tigers' AND 'Mozzarella di Giovanni'  ORDER BY ProductName; |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **ProductID** | **ProductName** | **SupplierID** | **CategoryID** | **Unit** | **Price** |
| 18 | Carnarvon Tigers | 7 | 8 | 16 kg pkg. | 62.5 |
| 1 | Chais | 1 | 1 | 10 boxes x 20 bags | 18 |
| 2 | Chang | 1 | 1 | 24 - 12 oz bottles | 19 |
| 39 | Chartreuse verte | 18 | 1 | 750 cc per bottle | 18 |
| 4 | Chef Anton's Cajun Seasoning | 2 | 2 | 48 - 6 oz jars | 22 |
| 5 | Chef Anton's Gumbo Mix | 2 | 2 | 36 boxes | 21.35 |
| 48 | Chocolade | 22 | 3 | 10 pkgs. | 12.75 |
| 38 | Côte de Blaye | 18 | 1 | 12 - 75 cl bottles | 263.5 |
| 58 | Escargots de Bourgogne | 27 | 8 | 24 pieces | 13.25 |
| 52 | Filo Mix | 24 | 5 | 16 - 2 kg boxes | 7 |
| 71 | Fløtemysost | 15 | 4 | 10 - 500 g pkgs. | 21.5 |
| 33 | Geitost | 15 | 4 | 500 g | 2.5 |
| 15 | Genen Shouyu | 6 | 2 | 24 - 250 ml bottles | 15.5 |
| 56 | Gnocchi di nonna Alice | 26 | 5 | 24 - 250 g pkgs. | 38 |
| 31 | Gorgonzola Telino | 14 | 4 | 12 - 100 g pkgs | 12.5 |
| 6 | Grandma's Boysenberry Spread | 3 | 2 | 12 - 8 oz jars | 25 |
| 37 | Gravad lax | 17 | 8 | 12 - 500 g pkgs. | 26 |
| 24 | Guaraná Fantástica | 10 | 1 | 12 - 355 ml cans | 4.5 |
| 69 | Gudbrandsdalsost | 15 | 4 | 10 kg pkg. | 36 |
| 44 | Gula Malacca | 20 | 2 | 20 - 2 kg bags | 19.45 |
| 26 | Gumbär Gummibärchen | 11 | 3 | 100 - 250 g bags | 31.23 |
| 22 | Gustaf's Knäckebröd | 9 | 5 | 24 - 500 g pkgs. | 21 |
| 10 | Ikura | 4 | 8 | 12 - 200 ml jars | 31 |
| 36 | Inlagd Sill | 17 | 8 | 24 - 250 g jars | 19 |
| 43 | Ipoh Coffee | 20 | 1 | 16 - 500 g tins | 46 |
| 41 | Jack's New England Clam Chowder | 19 | 8 | 12 - 12 oz cans | 9.65 |
| 13 | Konbu | 6 | 8 | 2 kg box | 6 |
| 76 | Lakkalikööri | 23 | 1 | 500 ml | 18 |
| 67 | Laughing Lumberjack Lager | 16 | 1 | 24 - 12 oz bottles | 14 |
| 74 | Longlife Tofu | 4 | 7 | 5 kg pkg. | 10 |
| 65 | Louisiana Fiery Hot Pepper Sauce | 2 | 2 | 32 - 8 oz bottles | 21.05 |
| 66 | Louisiana Hot Spiced Okra | 2 | 2 | 24 - 8 oz jars | 17 |
| 51 | Manjimup Dried Apples | 24 | 7 | 50 - 300 g pkgs. | 53 |
| 32 | Mascarpone Fabioli | 14 | 4 | 24 - 200 g pkgs. | 32 |
| 49 | Maxilaku | 23 | 3 | 24 - 50 g pkgs. | 20 |
| 9 | Mishi Kobe Niku | 4 | 6 | 18 - 500 g pkgs. | 97 |
| 72 | Mozzarella di Giovanni | 14 | 4 | 24 - 200 g pkgs. | 34.8 |

The following SQL statement selects all products with a ProductName between Carnarvon Tigers and Chef Anton's Cajun Seasoning:  
  
Example:

|  |
| --- |
| SELECT \* FROM Products  WHERE ProductName BETWEEN "Carnarvon Tigers" AND "Chef Anton's Cajun Seasoning"  ORDER BY ProductName; |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **ProductID** | **ProductName** | **SupplierID** | **CategoryID** | **Unit** | **Price** |
| 18 | Carnarvon Tigers | 7 | 8 | 16 kg pkg. | 62.5 |
| 1 | Chais | 1 | 1 | 10 boxes x 20 bags | 18 |
| 2 | Chang | 1 | 1 | 24 - 12 oz bottles | 19 |
| 39 | Chartreuse verte | 18 | 1 | 750 cc per bottle | 18 |
| 4 | Chef Anton's Cajun Seasoning | 2 | 2 | 48 - 6 oz jars | 22 |

**NOT BETWEEN Text Values:**

1. The following SQL statement selects all products with a ProductName not between Carnarvon Tigers and Mozzarella di Giovanni:

|  |
| --- |
| SELECT \* FROM Products  WHERE ProductName NOT BETWEEN 'Carnarvon Tigers' AND 'Mozzarella di Giovanni'  ORDER BY ProductName; |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **ProductID** | **ProductName** | **SupplierID** | **CategoryID** | **Unit** | **Price** |
| 17 | Alice Mutton | 7 | 6 | 20 - 1 kg tins | 39 |
| 3 | Aniseed Syrup | 1 | 2 | 12 - 550 ml bottles | 10 |
| 40 | Boston Crab Meat | 19 | 8 | 24 - 4 oz tins | 18.4 |
| 60 | Camembert Pierrot | 28 | 4 | 15 - 300 g rounds | 34 |
| 30 | Nord-Ost Matjeshering | 13 | 8 | 10 - 200 g glasses | 25.89 |
| 8 | Northwoods Cranberry Sauce | 3 | 2 | 12 - 12 oz jars | 40 |
| 25 | NuNuCa Nuß-Nougat-Creme | 11 | 3 | 20 - 450 g glasses | 14 |
| 77 | Original Frankfurter grüne Soße | 12 | 2 | 12 boxes | 13 |
| 70 | Outback Lager | 7 | 1 | 24 - 355 ml bottles | 15 |
| 55 | Pâté chinois | 25 | 6 | 24 boxes x 2 pies | 24 |
| 16 | Pavlova | 7 | 3 | 32 - 500 g boxes | 17.45 |
| 53 | Perth Pasties | 24 | 6 | 48 pieces | 32.8 |
| 11 | Queso Cabrales | 5 | 4 | 1 kg pkg. | 21 |
| 12 | Queso Manchego La Pastora | 5 | 4 | 10 - 500 g pkgs. | 38 |
| 59 | Raclette Courdavault | 28 | 4 | 5 kg pkg. | 55 |
| 57 | Ravioli Angelo | 26 | 5 | 24 - 250 g pkgs. | 19.5 |
| 75 | Rhönbräu Klosterbier | 12 | 1 | 24 - 0.5 l bottles | 7.75 |
| 73 | Röd Kaviar | 17 | 8 | 24 - 150 g jars | 15 |
| 45 | Røgede sild | 21 | 8 | 1k pkg. | 9.5 |
| 28 | Rössle Sauerkraut | 12 | 7 | 25 - 825 g cans | 45.6 |
| 34 | Sasquatch Ale | 16 | 1 | 24 - 12 oz bottles | 14 |
| 27 | Schoggi Schokolade | 11 | 3 | 100 - 100 g pieces | 43.9 |
| 68 | Scottish Longbreads | 8 | 3 | 10 boxes x 8 pieces | 12.5 |
| 42 | Singaporean Hokkien Fried Mee | 20 | 5 | 32 - 1 kg pkgs. | 14 |
| 20 | Sir Rodney's Marmalade | 8 | 3 | 30 gift boxes | 81 |
| 21 | Sir Rodney's Scones | 8 | 3 | 24 pkgs. x 4 pieces | 10 |
| 61 | Sirop d'érable | 29 | 2 | 24 - 500 ml bottles | 28.5 |
| 46 | Spegesild | 21 | 8 | 4 - 450 g glasses | 12 |
| 35 | Steeleye Stout | 16 | 1 | 24 - 12 oz bottles | 18 |
| 62 | Tarte au sucre | 29 | 3 | 48 pies | 49.3 |
| 19 | Teatime Chocolate Biscuits | 8 | 3 | 10 boxes x 12 pieces | 9.2 |
| 29 | Thüringer Rostbratwurst | 12 | 6 | 50 bags x 30 sausgs. | 123.79 |
| 14 | Tofu | 6 | 7 | 40 - 100 g pkgs. | 23.25 |
| 54 | Tourtière | 25 | 6 | 16 pies | 7.45 |
| 23 | Tunnbröd | 9 | 5 | 12 - 250 g pkgs. | 9 |
| 7 | Uncle Bob's Organic Dried Pears | 3 | 7 | 12 - 1 lb pkgs. | 30 |
| 50 | Valkoinen suklaa | 23 | 3 | 12 - 100 g bars | 16.25 |
| 63 | Vegie-spread | 7 | 2 | 15 - 625 g jars | 43.9 |
| 64 | Wimmers gute Semmelknödel | 12 | 5 | 20 bags x 4 pieces | 33.25 |
| 47 | Zaanse koeken | 22 | 3 | 10 - 4 oz boxes | 9.5 |

**BETWEEN Dates:**

1. The following SQL statement selects all orders with an OrderDate between '01-July-1996' and '31-July-1996':
2. Example:

|  |
| --- |
| SELECT \* FROM Orders  WHERE OrderDate BETWEEN #07/01/1996# AND #07/31/1996#; |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **OrderID** | **CustomerID** | **EmployeeID** | **OrderDate** | **ShipperID** |
| 10248 | 90 | 5 | 7/4/1996 | 3 |
| 10249 | 81 | 6 | 7/5/1996 | 1 |
| 10250 | 34 | 4 | 7/8/1996 | 2 |
| 10251 | 84 | 3 | 7/8/1996 | 1 |
| 10252 | 76 | 4 | 7/9/1996 | 2 |
| 10253 | 34 | 3 | 7/10/1996 | 2 |
| 10254 | 14 | 5 | 7/11/1996 | 2 |
| 10255 | 68 | 9 | 7/12/1996 | 3 |

Or

Example:

|  |
| --- |
| SELECT \* FROM Orders  WHERE OrderDate BETWEEN '1996-07-01' AND '1996-07-31'; |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **OrderID** | **CustomerID** | **EmployeeID** | **OrderDate** | **ShipperID** |
| 10248 | 90 | 5 | 1996-07-04 | 3 |
| 10249 | 81 | 6 | 1996-07-05 | 1 |
| 10250 | 34 | 4 | 1996-07-08 | 2 |
| 10251 | 84 | 3 | 1996-07-08 | 1 |
| 10252 | 76 | 4 | 1996-07-09 | 2 |
| 10253 | 34 | 3 | 1996-07-10 | 2 |
| 10254 | 14 | 5 | 1996-07-11 | 2 |