

## SQL Home

The screenshot shows the SQL Tryit Editor v1.6 interface. The SQL Statement field contains the query: `SELECT * FROM Customers;`. Below the field, a green button labeled "Run SQL" is visible. The Result section shows the output of the query, indicating 91 records were returned. The results are displayed in a table with the following columns: CustomerID, CustomerName, ContactName, Address, City, PostalCode, and Country. The table lists the first 7 records of the Customers table.

SQL Statement:

```
SELECT * FROM Customers;
```

Run SQL

Result:

Number of Records: 91

CustomerID	CustomerName	ContactName	Address	City	PostalCode	Country
1	Alfreds Futterkiste	Maria Anders	Obere Str. 57	Berlin	12209	Germany
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
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
6	Blauer See Delikatessen	Hanna Moos	Forsterstr. 57	Mannheim	68306	Germany
7	Blondel père et fils	Frédérique Citeaux	24, place Kléber	Strasbourg	67000	France

Your Database:

Tablenames	Records
Customers	91
Categories	8
Employees	10
OrderDetails	518
Orders	196
Products	77
Shippers	3
Suppliers	29

## SQL Intro

The screenshot shows the SQL Tryit Editor v1.6 interface. The SQL Statement field contains the query: `SELECT * FROM Customers;`. Below the field, a green button labeled "Run SQL" is visible. The Result section shows the output of the query, indicating 91 records were returned. The results are displayed in a table with the following columns: CustomerID, CustomerName, ContactName, Address, City, PostalCode, and Country. The table lists the first 7 records of the Customers table.

SQL Statement:

```
SELECT * FROM Customers;
```

Run SQL

Result:

Number of Records: 91

CustomerID	CustomerName	ContactName	Address	City	PostalCode	Country
1	Alfreds Futterkiste	Maria Anders	Obere Str. 57	Berlin	12209	Germany
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
4	Around the Horn	Thomas Hardy	120 Hanover Sq.	London	WA1 1DP	UK
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7	Blondel père et fils	Frédérique Citeaux	24, place Kléber	Strasbourg	67000	France

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Suppliers	29

## SQL Syntax

SQL Statement: [Get your own SQL server](#)

```
SELECT CustomerName FROM Customers;
```

Edit the SQL Statement, and click "Run SQL" to see the result.

[Run SQL >](#)

Result:

Number of Records: 91

CustomerName
Alfreds Futterkiste
Ana Trujillo Emparedados y helados
Antonio Moreno Taquería
Around the Horn
Berglunds snabbköp
Blauer See Delikatessen
Blondel père et fils
Bólido Comidas preparadas

Your Database:

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Products	77
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Suppliers	29

## SQL Select

SQL Statement: [Get your own SQL server](#)

```
SELECT CustomerName, City, Country  
FROM Customers;
```

Edit the SQL Statement, and click "Run SQL" to see the result.

[Run SQL >](#)

Result:

Number of Records: 91

CustomerName	City	Country
Alfreds Futterkiste	Berlin	Germany
Ana Trujillo Emparedados y helados	México D.F.	Mexico
Antonio Moreno Taquería	México D.F.	Mexico
Around the Horn	London	UK
Berglunds snabbköp	Luleå	Sweden
Blauer See Delikatessen	Mannheim	Germany
Blondel père et fils	Strasbourg	France
Bólido Comidas preparadas	Madrid	Spain

Your Database:

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## SQL Select Distinct

SQL Statement: [Get your own SQL server](#)

```
SELECT DISTINCT Country FROM Customers;
```

Edit the SQL Statement, and click "Run SQL" to see the result.

[Run SQL >](#)

Result:

Number of Records: 21

Country
Argentina
Austria
Belgium
Brazil
Canada
Denmark
Finland
France

Your Database:

Tablenames	Records
Customers	91
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Employees	10
OrderDetails	518
Orders	196
Products	77
Shippers	3
Suppliers	29

## SQL Where

SQL Statement: [Get your own SQL server](#)

```
SELECT * FROM Customers  
WHERE Country='Mexico';
```

Edit the SQL Statement, and click "Run SQL" to see the result.

[Run SQL >](#)

Result:

Number of Records: 5

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
13	Centro comercial Moctezuma	Francisco Chang	Sierras de Granada 9993	México D.F.	05022	Mexico
58	Pericles Comidas clásicas	Guillermo Fernández	Calle Dr. Jorge Cash 321	México D.F.	05033	Mexico
80	Tortuga Restaurante	Miguel Angel Paolino	Avda. Azteca 123	México D.F.	05033	Mexico

Your Database:

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## SQL Order By

SQL ORDER BY Keyword

SQL Tryit Editor v1.6

https://www.w3schools.com/sql/trysql.asp?filename=trysql\_select\_orderby\_price

SQL Statement:

```
SELECT * FROM Products
ORDER BY Price;
```

Get your own SQL server

Your Database:

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Edit the SQL Statement, and click "Run SQL" to see the result.

Run SQL >

Result:

Number of Records: 77

ProductID	ProductName	SupplierID	CategoryID	Unit	Price
33	Geltoost	15	4	500 g	2.5
24	Guaraná Fantástica	10	1	12 - 355 ml cans	4.5
13	Konbu	6	8	2 kg box	6
52	Filo Mix	24	5	16 - 2 kg boxes	7
54	Tourtière	25	6	16 pies	7.45
75	Rhönbräu Klosterbier	12	1	24 - 0.5 l bottles	7.75
23	Tunnbröd	9	5	12 - 250 g pkgs.	9
19	Teatime Chocolate Biscuits	8	3	10 boxes x 12 pieces	9.2

## SQL And

SQL AND Operator

SQL Tryit Editor v1.6

https://www.w3schools.com/sql/trysql.asp?filename=trysql\_select\_orderby\_price

SQL Statement:

```
SELECT *
FROM Customers
WHERE Country = 'Spain' AND CustomerName LIKE 'GW';
```

Get your own SQL server

Your Database:

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Edit the SQL Statement, and click "Run SQL" to see the result.

Run SQL >

Result:

Number of Records: 2

CustomerID	CustomerName	ContactName	Address	City	PostalCode	Country
29	Galería del gastrónomo	Eduardo Saavedra	Rambla de Cataluña, 23	Barcelona	08022	Spain
30	Godos Cocina Típica	José Pedro Freyre	C/ Romero, 33	Sevilla	41101	Spain

## SQL Or

SQL Statement:

```
SELECT *
FROM Customers
WHERE Country = 'Germany' OR Country = 'Spain';
```

Edit the SQL Statement, and click "Run SQL" to see the result.

Run SQL

Result:

Number of Records: 16

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
8	Bólido Comidas preparadas	Martín Sommer	C/ Araquil, 67	Madrid	28023	Spain
17	Drachenblut Delikatessend	Sven Ottlieb	Walserweg 21	Aachen	52066	Germany
22	FISSA Fabrica Inter. Salchichas S.A.	Diego Roel	C/ Moralzarzal, 86	Madrid	28034	Spain
25	Frankenversand	Peter Franken	Berliner Platz 43	München	80805	Germany
29	Galería del gastrónomo	Eduardo Saavedra	Rambla de Cataluña, 23	Barcelona	08022	Spain
30	Godos Cocina Típica	José Pedro Freyre	C/ Romero, 33	Sevilla	41101	Spain

Your Database:

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## SQL Not

SQL Statement:

```
SELECT * FROM Customers
WHERE NOT Country = 'Spain';
```

Edit the SQL Statement, and click "Run SQL" to see the result.

Run SQL

Result:

Number of Records: 86

CustomerID	CustomerName	ContactName	Address	City	PostalCode	Country
1	Alfreds Futterkiste	Maria Anders	Obere Str. 57	Berlin	12209	Germany
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
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
6	Blauer See Delikatessen	Hanna Moos	Forsterstr. 57	Mannheim	68306	Germany
7	Blondel père et fils	Frédérique Citeaux	24, place Kléber	Strasbourg	67000	France

Your Database:

Tablenames	Records
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OrderDetails	518
Orders	196
Products	77
Shippers	3
Suppliers	29

## SQL Insert Into

The screenshot shows the W3Schools SQL Tryit Editor interface. The SQL Statement field contains the following code:

```
INSERT INTO Customers (CustomerName, ContactName, Address, City, PostalCode, Country)
VALUES ('Cardinal', 'Tom B. Erichsen', 'Skagen 21', 'Stavanger', '4006', 'Norway');
```

Below the code, there is a "Run SQL" button. The Result section displays an error message:

**Error in SQL:**  
Operation must use an updateable query.

**Note:** Your browser does not support WebSQL, so you are now using a light-version of our Try-SQL Editor, with a read-only Database.

If you use a browser with WebSQL support (Chrome, Safari, or Opera), you can try any SQL statement, and play with the Database as much as you like.

On the right side, the "Your Database:" section shows a list of tables and their record counts:

Tablenames	Records
Customers	91
Categories	8
Employees	10
OrderDetails	518
Orders	196
Products	77
Shippers	3
Suppliers	29

## SQL Null Values

The screenshot shows the W3Schools SQL Tryit Editor interface. The SQL Statement field contains the following code:

```
SELECT CustomerName, ContactName, Address
FROM Customers
WHERE Address IS NULL;
```

Below the code, there is a "Run SQL" button. The Result section displays the following information:

Number of Records: 0

CustomerName	ContactName	Address
--------------	-------------	---------

The table is empty, indicating that no records were found where the address is null.

On the right side, the "Your Database:" section shows the same list of tables and their record counts as in the previous screenshot.

## SQL Update

SQL UPDATE Statement

SQL Tryit Editor v1.6

https://www.w3schools.com/sql/trysql.asp?filename=trysql\_select\_orderby\_price

SQL Statement:

```
UPDATE Customers
SET ContactName='Juan'
WHERE Country='Mexico';
```

Get your own SQL server

Your Database:

Tablenames	Records
Customers	91
Categories	8
Employees	10
OrderDetails	518
Orders	196
Products	77
Shippers	3
Suppliers	29

Edit the SQL Statement, and click "Run SQL" to see the result.

Run SQL »

Result:

Error in SQL:

Operation must use an updateable query.

**Note:** Your browser does not support WebSQL, so you are now using a light-version of our Try-SQL Editor, with a read-only Database.

If you use a browser with WebSQL support (Chrome, Safari, or Opera), you can try any SQL statement, and play with the Database as much as you like.

## SQL Delete

SQL DELETE Statement

SQL Tryit Editor v1.6

https://www.w3schools.com/sql/trysql.asp?filename=trysql\_select\_orderby\_price

SQL Statement:

```
DELETE FROM Customers WHERE CustomerName='Alfreds Futterkiste';
```

Get your own SQL server

Your Database:

Tablenames	Records
Customers	91
Categories	8
Employees	10
OrderDetails	518
Orders	196
Products	77
Shippers	3
Suppliers	29

Edit the SQL Statement, and click "Run SQL" to see the result.

Run SQL »

Result:

Error in SQL:

Could not delete from specified tables.

**Note:** Your browser does not support WebSQL, so you are now using a light-version of our Try-SQL Editor, with a read-only Database.

If you use a browser with WebSQL support (Chrome, Safari, or Opera), you can try any SQL statement, and play with the Database as much as you like.

## SQL Top

SQL Statement: [Get your own SQL server](#)

```
SELECT TOP 3 * FROM Customers;
```

Edit the SQL Statement, and click "Run SQL" to see the result.

[Run SQL](#)

Result:

Number of Records: 3

CustomerID	CustomerName	ContactName	Address	City	PostalCode	Country
1	Alfreds Futterkiste	Maria Anders	Obere Str. 57	Berlin	12209	Germany
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

Your Database:

Tablenames	Records
Customers	91
Categories	8
Employees	10
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Orders	196
Products	77
Shippers	3
Suppliers	29

## SQL Aggregate Function

SQL Aggregate Functions

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### SQL Aggregate Functions

An aggregate function is a function that performs a calculation on a set of values, and returns a single value.

Aggregate functions are often used with the **GROUP BY** clause of the **SELECT** statement. The **GROUP BY** clause splits the result-set into groups of values and the aggregate function can be used to return a single value for each group.

The most commonly used SQL aggregate functions are:

- MIN()** - returns the smallest value within the selected column
- MAX()** - returns the largest value within the selected column
- COUNT()** - returns the number of rows in a set
- SUM()** - returns the total sum of a numerical column
- AVG()** - returns the average value of a numerical column

Aggregate functions ignore null values (except for **COUNT()**).

We will go through the aggregate functions above in the next chapters.

[Previous](#) [Next](#)

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## SQL Min And Max



SQL MIN() and MAX() Functions x SQL Tryit Editor v1.6 x SQL Tryit Editor v1.6 x +

https://www.w3schools.com/sql/trysql.asp?filename=trysql\_select\_min

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SQL Statement: [Get your own SQL server](#)

```
SELECT MIN(Price)
FROM Products;
```

Edit the SQL Statement, and click "Run SQL" to see the result.

[Run SQL >](#)

Result:

Number of Records: 1

Expr1000
2.5

Your Database:

Tablenames	Records
Customers	91
Categories	8
Employees	10
OrderDetails	518
Orders	196
Products	77
Shippers	3
Suppliers	29

Type here to search

10:41 AM 5/2/2024

SQL MIN() and MAX() Functions x SQL Tryit Editor v1.6 x SQL Tryit Editor v1.6 x +

https://www.w3schools.com/sql/trysql.asp?filename=trysql\_select\_max

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SQL Statement: [Get your own SQL server](#)

```
SELECT MAX(Price)
FROM Products;
```

Edit the SQL Statement, and click "Run SQL" to see the result.

[Run SQL >](#)

Result:

Number of Records: 1

Expr1000
263.5

Your Database:

Tablenames	Records
Customers	91
Categories	8
Employees	10
OrderDetails	518
Orders	196
Products	77
Shippers	3
Suppliers	29

Type here to search

10:41 AM 5/2/2024

## SQL Count

The screenshot shows the W3Schools SQL Tryit Editor interface. The SQL Statement field contains the query: `SELECT COUNT(*) FROM Products;`. Below the query, there is a green button labeled "Run SQL". The Result section shows "Number of Records: 1" and a table with one row: 

Expr1000
77

. On the right side, under "Your Database:", there is a list of tables and their record counts: 

Tablenames	Records
Customers	91
Categories	8
Employees	10
OrderDetails	518
Orders	196
Products	77
Shippers	3
Suppliers	29

. The browser's address bar shows the URL: `https://www.w3schools.com/sql/trysql.asp?filename=trysql_select_count`. The Windows taskbar at the bottom shows the time as 10:42 AM on 5/2/2024.

## SQL Sum

The screenshot shows the W3Schools SQL Tryit Editor interface. The SQL Statement field contains the query: `SELECT SUM(Quantity) FROM OrderDetails;`. Below the query, there is a green button labeled "Run SQL". The Result section shows "Number of Records: 1" and a table with one row: 

Expr1000
12743

. On the right side, under "Your Database:", there is a list of tables and their record counts: 

Tablenames	Records
Customers	91
Categories	8
Employees	10
OrderDetails	518
Orders	196
Products	77
Shippers	3
Suppliers	29

. The browser's address bar shows the URL: `https://www.w3schools.com/sql/trysql.asp?filename=trysql_select_count`. The Windows taskbar at the bottom shows the time as 10:43 AM on 5/2/2024.

## SQL Avg

SQL Statement:

```
SELECT AVG(Price)
FROM Products;
```

Get your own SQL server

Your Database:

Tablenames	Records
Customers	91
Categories	8
Employees	10
OrderDetails	518
Orders	196
Products	77
Shippers	3
Suppliers	29

Edit the SQL Statement, and click "Run SQL" to see the result.

Run SQL »

Result:

Number of Records: 1

Expr1000
28.8664

## SQL Like

SQL Statement:

```
SELECT * FROM Customers
WHERE CustomerName LIKE 'a%';
```

Get your own SQL server

Your Database:

Tablenames	Records
Customers	91
Categories	8
Employees	10
OrderDetails	518
Orders	196
Products	77
Shippers	3
Suppliers	29

Edit the SQL Statement, and click "Run SQL" to see the result.

Run SQL »

Result:

Number of Records: 4

CustomerID	CustomerName	ContactName	Address	City	PostalCode	Country
1	Alfreds Futterkiste	Maria Anders	Obere Str. 57	Berlin	12209	Germany
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
4	Around the Horn	Thomas Hardy	120 Hanover Sq.	London	WA1 1DP	UK

## SQL Wildcards

SQL LIKE Operator

SQL Tryit Editor v1.6

https://www.w3schools.com/sql/trysql.asp?filename=trysql\_select\_count

SQL Statement:

```
SELECT * FROM Customers
WHERE CustomerName LIKE 'a%';
```

Get your own SQL server

Your Database:

Tablenames	Records
Customers	91
Categories	8
Employees	10
OrderDetails	518
Orders	196
Products	77
Shippers	3
Suppliers	29

Edit the SQL Statement, and click "Run SQL" to see the result.

Run SQL

Result:

Number of Records: 4

CustomerID	CustomerName	ContactName	Address	City	PostalCode	Country
1	Alfreds Futterkiste	Maria Anders	Obere Str. 57	Berlin	12209	Germany
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
4	Around the Horn	Thomas Hardy	120 Hanover Sq.	London	WA1 1DP	UK

## SQL In

SQL IN Operator

SQL Tryit Editor v1.6

https://www.w3schools.com/sql/trysql.asp?filename=trysql\_select\_count

SQL Statement:

```
SELECT * FROM Customers
WHERE Country IN ('Germany', 'France', 'UK');
```

Get your own SQL server

Your Database:

Tablenames	Records
Customers	91
Categories	8
Employees	10
OrderDetails	518
Orders	196
Products	77
Shippers	3
Suppliers	29

Edit the SQL Statement, and click "Run SQL" to see the result.

Run SQL

Result:

Number of Records: 29

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
11	B's Beverages	Victoria Ashworth	Fauntleroy Circus	London	EC2 5NT	UK
16	Consolidated Holdings	Elizabeth Brown	Berkeley Gardens 12 Brewery	London	WX1 6LT	UK
17	Drachenblut Delikatessend	Sven Ottlieb	Walserweg 21	Aachen	52066	Germany