SQL UNION Operator

The SQL UNION operator combines the result of two or more SELECT statements.

The SQL UNION Operator

The UNION operator is used to combine the result-set of two or more SELECT statements.

Notice that each SELECT statement within the UNION must have the same number of columns. The columns must also have similar data types. Also, the columns in each SELECT statement must be in the same order.

SQL UNION Syntax

```
SELECT column_name(s) FROM table1
UNION
SELECT column_name(s) FROM table2;
```

Note: The UNION operator selects only distinct values by default. To allow duplicate values, use the ALL keyword with UNION.

SQL UNION ALL Syntax

```
SELECT column_name(s) FROM table1
UNION ALL
SELECT column_name(s) FROM table2;
```

PS: The column names in the result-set of a UNION are usually equal to the column names in the first SELECT statement in the UNION.

Demo Database

In this tutorial we will use the well-known Northwind sample database.

Below is a selection from the "Customers" table:

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

And a selection from the "Suppliers" table:

SupplierID	SupplierName	ContactName	Address	City	PostalCode	Country
1	Exotic Liquid	Charlotte Cooper	49 Gilbert St.	Londona	EC1 4SD	UK
2	New Orleans Cajun Delights	Shelley Burke	P.O. Box 78934	New Orleans	70117	USA
3	Grandma Kelly's Homestead	Regina Murphy	707 Oxford Rd.	Ann Arbor	48104	USA

SQL UNION Example

The following SQL statement selects all the **different** cities (only distinct values) from the "Customers" and the "Suppliers" tables:

Example
```
SELECT City FROM Customers
UNION
SELECT City FROM Suppliers
ORDER BY City;
```

Try it yourself »

Note: UNION cannot be used to list ALL cities from the two tables. If several customers and suppliers share the same city, each city will only be listed once. UNION selects only distinct values. Use UNION ALL to also select duplicate values!

SQL UNION ALL Example

The following SQL statement uses UNION ALL to select **all** (duplicate values also) cities from the "Customers" and "Suppliers" tables:

Example

```
SELECT City FROM Customers
UNION ALL
SELECT City FROM Suppliers
ORDER BY City;
```

Try it yourself »

SQL UNION ALL With WHERE

The following SQL statement uses UNION ALL to select **all** (duplicate values also) **German** cities from the "Customers" and "Suppliers" tables:

Example

```
SELECT City, Country FROM Customers
WHERE Country='Germany'
UNION ALL
SELECT City, Country FROM Suppliers
WHERE Country='Germany'
ORDER BY City;
```

Try it yourself »