MariaDB: UNION Operator

This MariaDB tutorial explains how to use the MariaDB **UNION operator** with syntax and examples.

Description

The MariaDB UNION operator is used to combine the result sets of 2 or more SELECT statements. It removes duplicate rows between the various SELECT statements.

Each SELECT statement within the UNION operator must have the same number of fields in the result sets with similar data types.

Syntax

The syntax for the UNION operator in MariaDB is:

```
SELECT expression1, expression2, ... expression_n
FROM tables
[WHERE conditions]
UNION [DISTINCT]
SELECT expression1, expression2, ... expression_n
FROM tables
[WHERE conditions];
```

Parameters or Arguments

expression1, expression2, ... expression_n
    The columns or calculations that you wish to retrieve.

tables
    The tables that you wish to retrieve records from. There must be at least one table listed in the FROM clause.

WHERE conditions
    Optional. The conditions that must be met for the records to be selected.

DISTINCT
    Removes duplicates from the result set, but the inclusion of the DISTINCT modifier has no impact on the result set of the UNION operator because, by default, the UNION operator already removes duplicates.

Note

- There must be same number of expressions in both SELECT statements.
- Since the UNION operator by default removes all duplicate rows from the result set, providing the UNION DISTINCT modifier has no effect on the results.
- The column names from the first SELECT statement in the UNION operator are used as the column names for the result set.

Example - Return single field

The following is an example of the MariaDB UNION operator that returns one field from multiple SELECT statements (and both fields have the same data type):

```
SELECT site_id
FROM sites
UNION
SELECT site_id
FROM pages;
```

In this MariaDB UNION operator example, if a *site_id* appeared in both the *sites* and *pages* table, it would appear once in your result set. The MariaDB UNION operator removes duplicates. If you do **not** wish to remove duplicates, try using the <u>MariaDB UNION ALL operator</u>.

Example - Using ORDER BY

The MariaDB UNION operator can use the <u>ORDER BY clause</u> to order the results of the query.

For example:

```
SELECT site_id, site_name
FROM sites
WHERE site_name = 'TechOnTheNet.com'
UNION
SELECT page_id, page_title
FROM pages
WHERE page_id > 10
ORDER BY 2;
```

In this MariaDB UNION operator, since the column names are different between the two SELECT statements, it is more advantageous to reference the columns in the ORDER BY clause by their position in the result set. In this example, we've sorted the results by *site_name* / *page_title* in ascending order, as denoted by the `ORDER BY 2`.

The *site_name* / *page_title* fields are in position #2 in the result set.