

VALUES is a DML statement introduced in MySQL 8.0.19 which returns a set of one or more rows as a table. In other words, it is a table value constructor which also functions as a standalone SQL statement.

```
VALUES row_constructor_list [ORDER BY column_designator] [LIMIT BY number]

row_constructor_list:
    ROW(value_list)[, ROW(value_list)][, ...]

value_list:
    value[, value][, ...]

column_designator:
    column_index
```

The **VALUES** statement consists of the **VALUES** keyword followed by a list of one or more row constructors, separated by commas. A row constructor consists of the **ROW()** row constructor clause with a value list of one or more scalar values enclosed in the parentheses. A value can be a literal of any MySQL data type or an expression that resolves to a scalar value.

ROW() cannot be empty (but each of the supplied scalar values can be **NULL**). Each **ROW()** in the same **VALUES** statement must have the same number of values in its value list.

The **DEFAULT** keyword is not supported by **VALUES** and causes a syntax error, except when it is used to supply values in an **INSERT** statement.

The output of **VALUES** is a table:

```
mysql> VALUES ROW(1,-2,3), ROW(5,7,9), ROW(4,6,8);
+-----+-----+-----+
| column_0 | column_1 | column_2 |
+-----+-----+-----+
|         1 |        -2 |         3 |
|         5 |         7 |         9 |
|         4 |         6 |         8 |
+-----+-----+-----+
3 rows in set (0.00 sec)
```

The columns of the table output from **VALUES** have the implicitly named columns **column_0**, **column_1**, **column_2**, and so on, always beginning with 0. This fact can be used to order the rows by column using an optional **ORDER BY** clause in the same way that this clause works with a **SELECT** statement, as shown here:

```
mysql> VALUES ROW(1,-2,3), ROW(5,7,9), ROW(4,6,8) ORDER BY column_1;
+-----+-----+-----+
| column_0 | column_1 | column_2 |
+-----+-----+-----+
|         1 |        -2 |         3 |
|         4 |         6 |         8 |
|         5 |         7 |         9 |
+-----+-----+-----+
3 rows in set (0.00 sec)
```

The **VALUES** statement also supports a **LIMIT** clause for limiting the number of rows in the output.

The **VALUES** statement is permissive regarding data types of column values; you can mix types within the same column, as shown here:

```
mysql> VALUES ROW("q", 42, '2019-12-18'),
->      ROW(23, "abc", 98.6),
->      ROW(27.0002, "Mary Smith", '{"a": 10, "b": 25}');
+-----+-----+-----+
| column_0 | column_1 | column_2 |
+-----+-----+-----+
```