

5. DESC & ASC

DESC and ASC keywords are used to sort data in descending and ascending order of columns in SQL. This article provides more information on data sorting with examples that support both [SQL Server](#) and [MySQL](#).

All the examples are based on the “Orders” table as shown below.

Orders Table:

Id	ItemId	SizeId	ColourId	Quantity	Price
1	5	3	1	10	10.00
2	5	2	4	12	11.00
3	5	2	2	6	12.00
4	3	3	1	24	50.00
5	3	3	4	15	54.00
6	3	3	2	10	55.00
7	3	1	1	12	52.00
8	7	3	1	6	80.00
9	7	3	4	24	82.00
10	7	3	2	15	85.00

Table 1. Sample Data for “Orders”

DESC Keyword in SQL

DESC keyword is used to sort data in descending order of a column.

Syntax
<code>SELECT Value FROM Table ORDER BY Column DESC;</code>

Table 2. Using DESC Keyword in SQL

Example 1. DESC Keyword in SQL

This example shows how to order by itemId in descending order.

Syntax
<code>SELECT * FROM Orders ORDER BY ItemId DESC</code>

Table 3. "DESC" Example in SQL

Result:

Id	ItemId	SizeId	ColourId	Quantity	Price
8	7	3	1	6	80.00
9	7	3	4	24	82.00
10	7	3	2	15	85.00
1	5	3	1	10	10.00
2	5	2	4	12	11.00
3	5	2	2	6	12.00
4	3	3	1	24	50.00
5	3	3	4	15	54.00
6	3	3	2	10	55.00
7	3	1	1	12	52.00

Table 4. Order Data

Example 2. Find Maximum Price

These examples show how to find the maximum price using DESC.

SQL Server Script:

<code>SELECT TOP 1 Price FROM Orders ORDER BY Price DESC;</code>
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Script 1. Find Maximum Price by using "DESC"

Price
85.00

Table 5. Maximum Price

MySQL Script:

```
SELECT Price FROM Orders ORDER BY Price DESC LIMIT 1 ;
```

Script 2. Find Maximum Price by using "DESC"

Price
85.00

Table 6. Maximum Price

We can get the same result by using the below query.

```
SELECT MAX(Price) AS Price FROM Orders;
```

Script 3. Find Maximum Price

Price
85.00

Table 7. Maximum Price

ASC Keyword in SQL

ASC keyword is used to sort data in ascending order of a column.

Syntax

```
SELECT Value FROM Table ORDER BY Column ASC;
```

Table 8. Find the Minimum Price

Whenever we use the "ORDER BY" keyword, the ascending order will be the default ordering option. So when we sort data by ascending order, we may not use the ASC keyword as shown below.

Syntax
<code>SELECT * FROM Table ORDER BY Column;</code>

Table 9. Using ORDER BY in SQL

“ORDER BY Column ASC” is equal to “ORDER BY Column”.

Example 3. Order Data by Ascending Order

This example shows how to sort data in ascending order.

SQL Script:

<code>SELECT * FROM Orders</code>
<code>WHERE ItemId = 5</code>
<code>ORDER BY SizeId, ColourId</code>

Script 4. Order Data by Ascending Order in SQL

Result:

Id	ItemId	SizeId	ColourId	Quantity	Price
3	5	2	2	6	12.00
2	5	2	4	12	11.00
1	5	3	1	10	10.00

Table 10. Query Result

Example 4. Find Minimum price

These examples show how to find the minimum price by using ascending order.

SQL Server Script:

<code>SELECT TOP 1 Price FROM Orders ORDER BY Price;</code>

Script 5. Using “TOP 1” to find the Minimum Price

Price
10.00

Table 11. Minimum Price

MySQL:

```
SELECT Price FROM Orders ORDER BY Price LIMIT 1 ;
```

Script 6. Using "Limit" to find the minimum price

Price
10.00

Table 12. Minimum Price

We can get the same result by using the query shown below.

```
SELECT MIN(Price) AS UnitPrice FROM Orders;
```

Script 7. Find Minimum Price

Price
85.00

Table 13. Minimum Price

Example 5. Using both ascending and descending order

These example shows how to use both ascending and descending order to sort data.

Syntax

```
SELECT * FROM Orders ORDER BY ItemId DESC, SizeId ASC, ColourId DESC
```

Table 14. Example of using both ASC and DESC in SQL

We can get the same result by using the below query as ORDER BY statement sort data in ascending order by default.

Syntax

```
SELECT * FROM Orders ORDER BY ItemId DESC, SizeId, ColourId DESC
```

Table 15. Example of using both ASC and DESC in SQL

Result:

Id	ItemId	SizeId	ColourId	Quantity	Price
9	7	3	4	24	82.00
10	7	3	2	15	85.00
8	7	3	1	6	80.00
2	5	2	4	12	11.00
3	5	2	2	6	12.00
1	5	3	1	10	10.00
7	3	1	1	12	52.00
5	3	3	4	15	54.00
6	3	3	2	10	55.00
4	3	3	1	24	50.00

Table 16. Query Result