MySQL - ORDER BY CLAUSE

MySQL ORDER BY Clause

The MySQL ORDER BY clause is used to sort one or more columns of a table in provided order that can be either ascending or descending order. By default, it sorts the column(s) in ascending order if the sort order is not specified.

The sort is specified with two keywords; ASC for ascending order and DESC for descending order.

Using the ORDER BY clause, we can sort multiple columns of a table and provide different sort orders for each column. For instance, we can sort the result set first by one column, and then by another column to the first column, and so on.

Syntax

Following is the syntax of ORDER BY clause in MySQL –

```
SELECT column-list
FROM table_name
[ORDER BY column1, column2, ..., columnN] [ASC|DESC]
```

- **column-list are the names of the columns that we want to retrieve from the table_name.**
- **column1, column2,...columnN are the column(s) that we want to order (sort).**
- **ASC will sort the columns in ascending order.**
- **DESC will sort the columns in descending order.**

By default, the ORDER BY clause sorts the provided column in Ascending order.

Example

Firstly, let us create a table named **CUSTOMERS** using the following query –

```
CREATE TABLE CUSTOMERS (
   ID INT NOT NULL,
   NAME VARCHAR (20) NOT NULL,
   AGE INT NOT NULL,
   ADDRESS CHAR (25),
   SALARY DECIMAL (18, 2),
   PRIMARY KEY (ID)
);
```

```
INSERT INTO CUSTOMERS (ID,NAME,AGE,ADDRESS,SALARY) VALUES
(1, 'Ramesh', 32, 'Ahmedabad', 2000.00 ),
(2, 'Khilan', 25, 'Delhi', 1500.00 ),
(3, 'Kaushik', 23, 'Kota', 2000.00 ),
(4, 'Chaitali', 25, 'Mumbai', 6500.00 ),
(5, 'Hardik', 27, 'Bhopal', 8500.00 ),
(6, 'Komal', 22, 'Hyderabad', 4500.00 ),
(7, 'Muffy', 24, 'Indore', 10000.00 );
```

```
Select * from CUSTOMERS;
```

Now, let us display all the columns from the CUSTOMERS table, sorted by the NAME column −

By default, the ORDER BY clause sorts the provided column in **Ascending order**.

```
SELECT * FROM CUSTOMERS
ORDER BY NAME;
```

ORDER BY with DESC

We can sort a particular column of a table in descending order by using the ORDER BY clause along with the DESC keyword. Let us understand with the following example.

Example

In the following query, we are displaying all the columns from the CUSTOMERS table, sorted by the NAME column in descending order –

```
SELECT * FROM CUSTOMERS
ORDER BY NAME DESC;
```

ORDER BY with Multiple Columns

We can also sort multiple columns of a MySQL table. To do so, we need to specify all the column names in the ORDER BY clause.

Example

Here, we are selecting all the columns from the CUSTOMERS table, sorted by the ADDRESS and NAME columns.

```
SELECT * FROM CUSTOMERS
ORDER BY ADDRESS, NAME;
```

ORDER BY with ASC and DESC

In MySQL, we can order the columns with **ASC** and **DESC** in the same query. The column provided first with ASC will be sorted in Ascending order and the column provided second with DESC will be sorted in descending order.

Example

In this query, we are selecting all the columns from the CUSTOMERS table, sorted ascending by the AGE and descending by the SALARY column –

```
SELECT * FROM CUSTOMERS
ORDER BY AGE ASC, SALARY DESC;
```

ORDER BY with LENGTH()

We can use the **LENGTH()** function with the ORDER BY clause in MySQL to sort the values present in a particular column based on the length.

Example

Using the following query, we are sorting the ADDRESS column based on the length −

```
SELECT * FROM CUSTOMERS
ORDER BY LENGTH(ADDRESS) ASC;
```