

SQL - SORTING Results

The SQL **ORDER BY** clause is used to sort the data in ascending or descending order, based on one or more columns. Some databases sort the query results in an ascending order by default.

Syntax

The basic syntax of the ORDER BY clause which would be used to sort the result in an ascending or descending order is as follows –

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

You can use more than one column in the ORDER BY clause. Make sure that whatever column you are using to sort, that column should be in the column-list.

Example

Consider the CUSTOMERS table having the following records –

ID	NAME	AGE	ADDRESS	SALARY
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	MP	4500.00
7	Muffy	24	Indore	10000.00

Following is an example, which would sort the result in an ascending order by NAME and SALARY.

```
SQL> SELECT * FROM CUSTOMERS
      ORDER BY NAME, SALARY;
```

This would produce the following result –

ID	NAME	AGE	ADDRESS	SALARY
4	Chaitali	25	Mumbai	6500.00
5	Hardik	27	Bhopal	8500.00
3	kaushik	23	Kota	2000.00
2	Khilan	25	Delhi	1500.00
6	Komal	22	MP	4500.00
7	Muffy	24	Indore	10000.00
1	Ramesh	32	Ahmedabad	2000.00

The following code block has an example, which would sort the result in a descending order by NAME.

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

This would produce the following result –

ID	NAME	AGE	ADDRESS	SALARY
1	Ramesh	32	Ahmedabad	2000.00
7	Muffy	24	Indore	10000.00
6	Komal	22	MP	4500.00
2	Khilan	25	Delhi	1500.00
3	kaushik	23	Kota	2000.00
5	Hardik	27	Bhopal	8500.00
4	Chaitali	25	Mumbai	6500.00

To fetch the rows with their own preferred order, the SELECT query used would be as follows –

```
SQL> SELECT * FROM CUSTOMERS
      ORDER BY (CASE ADDRESS
        WHEN 'DELHI' THEN 1
        WHEN 'BHOPAL' THEN 2
        WHEN 'KOTA' THEN 3
        WHEN 'AHMEDABAD' THEN 4
        WHEN 'MP' THEN 5
        ELSE 100 END) ASC, ADDRESS DESC;
```

This would produce the following result –

ID	NAME	AGE	ADDRESS	SALARY
2	Khilan	25	Delhi	1500.00
5	Hardik	27	Bhopal	8500.00
3	kaushik	23	Kota	2000.00
6	Komal	22	MP	4500.00
4	Chaitali	25	Mumbai	6500.00
7	Muffy	24	Indore	10000.00
1	Ramesh	32	Ahmedabad	2000.00

This will sort the customers by ADDRESS in your **ownOrder** of preference first and in a natural order for the remaining addresses. Also, the remaining Addresses will be sorted in the reverse alphabetical order.