SELECT statement

MySQL SELECT statement is used to retrieve rows from one or more tables.

Following clauses are commonly used in SELECT statements:

SELECT can also be used to retrieve rows computed without reference to any table.

For example:

mysql> SELECT 5 - 3 ;

+-------+

| 5 - 3 |

+-------+

| 2 |

+-------+

**MySQL selecting all data**

MySQL SELECT statement without any condition retrieves all records from a table. The following SELECT statement will retrieve all data from publisher table.

SELECT \*

FROM publisher;

**MySQL SELECT specific rows**

When a user wants to retrieve some individual rows from a table, a WHERE clause has to be added with the SELECT statement immediately followed by a condition.

**Syntax:**

SELECT \*

FROM

WHERE

where\_condition

Here \* indicates all columns.

**Example:**

This following SELECT statement will retrieve those particular rows where 'country' is the USA.

Code :

SELECT \*

FROM publisher

WHERE country='USA'

**MySQL SELECT specific columns**

To retrieve records from specific columns, you need to specify a list of comma separated columns. The following MySQL statement returns the name of the book, author id, and price of the books from book\_mast table.

Code:

SELECT book\_name,aut\_id,book\_price

FROM book\_mast;

**MySQL select specific columns with distinct operator**

DISTINCT clause is used to retrieve unique rows from a table. The following MySQL statement retrieves the unique author ids from book\_mast table.

Code:

SELECT DISTINCT aut\_id

FROM book\_mast;

**MySQL SELECT specific rows with AND operator**

MySQL AND operator is used to combine more than one conditions aiming to fetch records when both of the conditions are satisfied. The following SELECT statement will retrieve those particular rows where country and city of the publisher are 'USA' and 'New York'.

Code:

SELECT \*

FROM publisher

WHERE country='USA'

AND pub\_city='New York';

**MySQL SELECT specific columns with logical OR operator**

OR operator retrieves records from a table if at least one of the given conditions is satisfied. The following MySQL statement retrieves records of pub\_name, country, pub\_city columns from publisher table if either Country (i.e. country) of the publisher is 'USA' or his city (i.e. pub\_city) is 'New York'.

Code :

SELECT pub\_name, country,pub\_city

FROM publisher

WHERE country='USA' OR pub\_city='New York';

**MySQL sorting rows in ascending order**

MySQL ORDER BY clause specifies the order in which columns are sorted while retrieving data in a SELECT statement.

By default, columns are sorted in ascending order. You can use ASC keyword to achieve the same result.

**Note** : In the case of character type column sorting the sorting is dependent upon case sensitivity. The default sort order is ascending this means smallest value comes first. To sort in reverse order, DESC key has to be used.

In the following MySQL statement, all records of pub\_name, country and pub\_city columns of publisher table are being fetched and sorted against pub\_name column. Since we have not specified any order keyword (ASC or DESC), by default, it is sorted in ascending order.

Code:

SELECT pub\_name, country,pub\_city

FROM publisher

ORDER BY pub\_name;

**MySQL sorting rows in descending order**

The following MySQL statement sort rows of a table in descending order using ORDER BY clause.

Code:

SELECT pub\_name, country,pub\_city

FROM publisher

ORDER BY pub\_name DESC;

**MySQL sorting rows on multiple columns**

Sort can be performed on multiple columns. The way this type of sort happen is, firstly the rows will be sorted on the first column then the rows will be sorted on the second column whose first column's data are same.

In the following MySQL statement, all records of pub\_name, country and pub\_city columns of publisher table are being fetched and sorted against country and pub\_city columns. Since we have not specified any order keyword (ASC or DESC), by default, it is sorted in ascending order.

Code:

SELECT pub\_name, country,pub\_city

FROM publisher

ORDER BY country,pub\_city;

**MySQL select with NULL value**

IS NULL, IS NOT NULL is used to select or test if a value stored in a table is NULL. While writing a MySQL statement, NULL keyword is used to specify a null value.

What is NULL value ?

* A value of NULL says that the value is unknown, not applicable or will be added later.
* A value of NULL is not an empty or zero value.
* No two null values are equal.
* Since a value of NULL is unknown, comparisons between two null values, or between a NULL and any other value, returns unknown.

Example of SELECT with NULL :

Code:

SELECT 1 = NULL, 1 <> NULL, 1 < NULL, 1 > NULL;

Example of SELECT with IS NULL, IS NOT NULL :

Code:

SELECT 1 IS NULL, 1 IS NOT NULL;