SUM function in SQL Server

The SQL Server SUM function returns the total value of a column, a data set, or an expression.

This article will show you in detail how to use the SUM () numeric processing function in SQL Server with specific syntax and examples to better visualize and capture functions.

Describe

The SQL Server **SUM function** returns the total value of a column, a data set, or an expression.

Syntax

To use the SUM function in SQL Server, we use the following syntax:

```
SELECT SUM(cot)
FROM bang
[WHERE dieukien];
```

Parameters :

1. *cot:* column or calculated value, the expression you want to sum
2. *state: the* table used to retrieve the record. Must have at least 1 table in the FROM clause.
3. *dieukien:* optional. Conditions that the record must meet to be selected.

Note :

1. The SUM function can be used in later versions of SQL Server: SQL Server 2017, SQL Server 2016, SQL Server 2014, SQL Server 2012, SQL Server 2008 R2, SQL Server 2008, and SQL Server 2005.

For example

Take a look and explore some examples of SUM functions in SQL Server.

Suppose, we have the following data table:

Bang: Quantrimang

IDChuyenmuc	Chuyenmuccon	Chuyenmuclon	Sobai
QTM01	SQL Server	Lap trinh	101
QTM02	Facebook	Mang xa hoi	152
QTM03	Python	Lap trinh	101
QTM04	JavaScript	Lap trinh	122
QTM05	Google Chrome	Trinh duyet web	94
QTM06	Instagram	Mang xa hoi	165

Example 1: Calculate the total number of articles of website Quantrimang

```
SELECT SUM(Sobai) AS "Tong so bai"
FROM Quantrimang
WHERE Sobai > 100;

Result: Tong so bai 641
```

In this example we need to output the value of the total number of articles of the website, so the result is calculated by adding all values ??in the Sobai column with different data and greater than 100 together.

Example 2: Use DISTINCT

```
SELECT SUM(DISTINCT Sobai) AS "Tong so bai"
FROM Quantrimang
WHERE Sobai > 100;

Result: Tong so bai 540
```

This example uses the keyword DISTINCT, so the repeated values ??are counted only once. In the given data table, the value '101' appears twice, but only once, so the total number of calculated lines will be 4, the result is calculated as follows:

```
152 + 101 + 122 + 165 = 540
```

Example 3: Calculate the total value by the column specified by the selected row

To calculate the total value by the specified column of the selected rows, we use the GROUP BY clause.

The following example calculates the total value of all records related to a large section and you will do the following:

```
SELECT Chuyenmuclon, SUM(Sobai) AS "Tong so bai"
FROM Quantrimang
GROUP BY Chuyenmuclon;

Result:
Chuyenmuclon Tong so bai
Laptrinh 324
Mang xa hoi 317
```

```
Trinh duyet web 94
```

Previous article: SIGN function in SQL Server

Next lesson: CURRENT_TIMESTAMP command in SQL Server