

SUM Function

Computes the sum of all values found in all row values in a column. Input column can be of Integer or Decimal.

- If a row contains a missing or null value, it is not factored into the calculation. If no numeric values are found in the source column, the function returns 0 .
- When used in a `pivot` transform, the function is computed for each instance of the value specified in the `group` parameter. See *Pivot Transform*.

For a version of this function computed over a rolling window of rows, see *ROLLINGSUM Function*.

Basic Usage

```
sum(myRating)
```

Output: Returns the sum of the group of values from the `myRating` column.

Syntax

```
sum(function_col_ref) [group:group_col_ref] [limit:limit_count]
```

| Argument | Required? | Data Type | Description |
|------------------|-----------|-----------|---|
| function_col_ref | Y | string | Name of column to which to apply the function |

For more information on the `group` and `limit` parameters, see *Pivot Transform*.

For more information on syntax standards, see *Language Documentation Syntax Notes*.

function_col_ref

Name of the column the values of which you want to calculate the sum. Column must contain Integer or Decimal values.

- Literal values are not supported as inputs.
- Multiple columns and wildcards are not supported.

Usage Notes:

| Required? | Data Type | Example Value |
|-----------|---------------------------|---------------|
| Yes | String (column reference) | myValues |

Examples

This example illustrates the following functions:

- `LIST` - Extracts up to 1000 values from one column into an array in a new column. See *LIST Function*.
- `UNIQUE` - Extracts up to 1000 unique values from one column into an array in a new column. See *UNIQUE Function*.

You have the following set of orders for two months, and you are interested in identifying the set of colors that have been sold for each product for each month and the total quantity of product sold for each month.

Source:

| OrderId | Date | Item | Qty | Color |
|---------|---------|-------|-----|--------|
| 1001 | 1/15/15 | Pants | 1 | red |
| 1002 | 1/15/15 | Shirt | 2 | green |
| 1003 | 1/15/15 | Hat | 3 | blue |
| 1004 | 1/16/15 | Shirt | 4 | yellow |
| 1005 | 1/16/15 | Hat | 5 | red |
| 1006 | 1/20/15 | Pants | 6 | green |
| 1007 | 1/15/15 | Hat | 7 | blue |
| 1008 | 4/15/15 | Shirt | 8 | yellow |
| 1009 | 4/15/15 | Shoes | 9 | brown |
| 1010 | 4/16/15 | Pants | 1 | red |
| 1011 | 4/16/15 | Hat | 2 | green |
| 1012 | 4/16/15 | Shirt | 3 | blue |
| 1013 | 4/20/15 | Shoes | 4 | black |
| 1014 | 4/20/15 | Hat | 5 | blue |
| 1015 | 4/20/15 | Pants | 6 | black |

Transformation:

To track by month, you need a column containing the month value extracted from the date:

| | |
|----------------------------|------------------------------|
| Transformation Name | Edit column with formula |
| Parameter: Columns | Date |
| Parameter: Formula | DATEFORMAT(Date, 'MMM yyyy') |

You can use the following transform to check the list of unique values among the colors:

| | |
|---|---------------------|
| Transformation Name | Pivot columns |
| Parameter: Row labels | Date |
| Parameter: Values | unique(Color, 1000) |
| Parameter: Max number of columns to create | 10 |

| Date | unique_Color |
|----------|---|
| Jan 2015 | ["green","blue","red","yellow"] |
| Apr 2015 | ["brown","blue","red","yellow","black","green"] |

Delete the above transform.

You can aggregate the data in your dataset, grouped by the reformatted `Date` values, and apply the `LIST` function to the `Color` column. In the same aggregation, you can include a summation function for the `Qty` column:

| | |
|---|---|
| Transformation Name | Pivot columns |
| Parameter: Row labels | Date |
| Parameter: Values | <code>list(Color, 1000),sum(Qty)</code> |
| Parameter: Max number of columns to create | 10 |

Results:

| Date | list_Color | sum_Qty |
|----------|--|---------|
| Jan 2015 | ["green","blue","blue","red","green","red","yellow"] | 28 |
| Apr 2015 | ["brown","blue","red","yellow","black","blue","black","green"] | 38 |