

COUNTIF Function

Generates the count of rows in each group that meet a specific condition. Generated value is of Integer type.

NOTE: When added to a transformation, this function is applied to the current sample. If you change your sample or run the job, the computed values for this function are updated. Transformations that change the number of rows in subsequent recipe steps do not affect the values computed for this step.

To perform a simple count of rows without conditionals, use the `COUNT` function. See *COUNT Function*.

Wrangle vs. SQL: This function is part of Wrangle, a proprietary data transformation language. Wrangle is not SQL. For more information, see *Wrangle Language*.

Basic Usage

```
countif(failed_deliveries >= 10)
```

Output: Returns the count of records in which the value of the `failed_deliveries` column is greater than or equal to 10.

Syntax and Arguments

```
countif(test_expression) [group:group_col_ref] [limit:limit_count]
```

Argument	Required?	Data Type	Description
test_expression	Y	string	Expression that is evaluated. Must resolve to true or false

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

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

test_expression

This parameter contains the expression to evaluate. This expression must resolve to a Boolean (`true` or `false`) value.

Usage Notes:

Required?	Data Type	Example Value
Yes	String expression that evaluates to true or false	(LastName == 'Mouse' && FirstName == 'Mickey')

Examples

Tip: For additional examples, see *Common Tasks*.

Example - COUNTIF Functions

This section provides simple examples for how to use the COUNTIF and COUNTIFA functions. These functions include the following:

- COUNTIF - Count the number of values within a group that meet a specific condition. See *COUNTIF Function*.
- COUNTAIF - Count the number of non-null values within a group that meet a specific condition. See *COUNTAIF Function*.

Source:

The following data identifies sales figures by salespeople for a week:

EmployeeId	Date	Sales
S001	1/23/17	25
S002	1/23/17	40
S003	1/23/17	48
S001	1/24/17	81
S002	1/24/17	11
S003	1/24/17	25
S001	1/25/17	9
S002	1/25/17	40
S003	1/25/17	
S001	1/26/17	77
S002	1/26/17	83
S003	1/26/17	
S001	1/27/17	17
S002	1/27/17	71
S003	1/27/17	29
S001	1/28/17	
S002	1/28/17	
S003	1/28/17	14
S001	1/29/17	2
S002	1/29/17	7
S003	1/29/17	99

Transformation:

You are interested in the count of dates during the week when each salesperson sold less than 50 units, not factoring the weekend. First, you try the following:

Transformation Name	Pivot columns
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Parameter: Row labels	EmployeeId
Parameter: Values	COUNTIF(Sales < 50)
Parameter: Max columns to create	1

You notice, however, that the blank values, when employees were sick or had vacation, are being counted. Additionally, this step does not filter out the weekend. You must identify the weekend days using the WEEKDAY function:

Transformation Name	New formula
Parameter: Formula type	Single row formula
Parameter: Formula	WEEKDAY(Date)
Parameter: New column name	'DayOfWeek'

If DayOfWeek > 5, then it is a weekend date. For further precision, you can use the COUNTAIF function to remove the nulls:

Transformation Name	Pivot columns
Parameter: Row labels	EmployeeId
Parameter: Values	COUNTAIF(Sales, DayOfWeek<6)
Parameter: Max columns to create	1

The above counts the non-null values in Sales when the day of the week is not a weekend day, as grouped by individual employee.

Results:

EmployeeId	countaif_Sales
S001	5
S002	4
S003	4