

# Aggregate Functions

Aggregate functions perform a computation against a set of values to generate a single result. For example, you could use an aggregate function to compute the average (mean) order over a period of time. Aggregations can be applied as standard functions or used as part of a transformation step to reshape the data.

## Aggregate across an entire column:

|                                |                    |
|--------------------------------|--------------------|
| <b>Transformation Name</b>     | New formula        |
| <b>Parameter: Formula type</b> | Single row formula |
| <b>Parameter: Formula</b>      | average(Scores)    |

**Output:** Generates a new column containing the average of all values in the `Scores` column.

|   |                |
|---|----------------|
| <b>Transformation Name</b>                        | Pivot columns  |
| <b>Parameter: Values</b>                          | average(Score) |
| <b>Parameter: Max number of columns to create</b> | 1              |

**Output:** Generates a single-column table with a single value, which contains the average of all values in the `Scores` column. The limit defines the maximum number of columns that can be generated.

**NOTE:** When aggregate functions are applied as part of a pivot transformation, they typically involve multiple parameters as part of an operation to reshape the dataset. See below.

## Aggregate across groups of values within a column:

Aggregate functions can be used with the pivot transformation to change the structure of your data. Example:

|   |                |
|---|----------------|
| <b>Transformation Name</b>                        | Pivot columns  |
| <b>Parameter: Row labels</b>                      | StudentId      |
| <b>Parameter: Values</b>                          | average(Score) |
| <b>Parameter: Max number of columns to create</b> | 1              |

In the above instance, the resulting dataset contains two columns:

- `studentId` - one row for each distinct student ID value
- `average_Scores` - average score by each student (`studentId`)

**NOTE:** You cannot use aggregate functions inside of conditionals that evaluate to `true` or `false`.

A pivot transformation can include multiple aggregate functions and group columns from the pre-aggregate dataset.

For more information on the transformation, see *Pivot Data*.

**NOTE:** Null values are ignored as inputs to these functions.

These aggregate functions are available: