

# 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 transform step to reshape the data.

## Aggregate across an entire column:

```
derive type:single value:AVERAGE(Scores)
```

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

```
pivot value: AVERAGE(Score) limit: 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` transform, 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` transform to change the structure of your data. Example:

```
pivot group: StudentId value: AVERAGE(Score) limit: 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 transform can include multiple aggregate functions and group columns from the pre-aggregate dataset.

For more information on the transform, see *Pivot Transform*.

These aggregate functions are available: