Additive Measures

Additive measures are those whose values can be summarized for any dimension attribute of the cube, and the results can be combined consistently.

For example, if adding how much was sold per state, you could calculate the total sales for California and the total sales for Texas independently, and add them together to get the total sales for both. You can compute the individual summarized results and combine them to get a new result.

Likewise with MIN and MAX, you can compare the total sales for California and Texas to determine which state had the highest or lowest sales.

The following aggregate calculations produce additive measures in AtScale:

- SUM
- MIN
- MAX
- AVERAGE
- COUNT (non-distinct)
- DISTINCT COUNT (estimated only)

> **Note:** AtScale does not create system-defined aggregate tables that aggregate on DISTINCT COUNT (estimated only) measures when Amazon Redshift is being used as a data warehouse.You can define your own aggregate tables to aggregate on such measures. However, the AtScale engine will use those tables only when queries both exactly match the dimensions in them and use no filters.

AtScale can create and manage smart aggregates for all additive measures.