

# About Metrics And Aggregates

AtScale's aggregate management system depends on the metrics you define in a model. Every model must have at least one metric. The metrics of a model provide the basis for analysis in a BI client application.

When users connect to an AtScale model using a BI client tool, what they see is a list of metrics and dimensions that they can use.

What makes a field a metric is that it produces aggregated data values for the dimensions chosen in the visualization or report. For example, suppose you wanted to see the total Sales Amount (a metric) for each State (a dimension). The Sales Amount metric is actually a `SUM` aggregate calculation applied to the sales fact data. In this visualization the Sales Amount is summarized for each State.

Because this metric is defined in the model, AtScale is able to optimize this query by creating and using an aggregate table. Any future queries that involve this metric and dimension will use the pre-aggregated data rather than having to compute the summarized values again.