

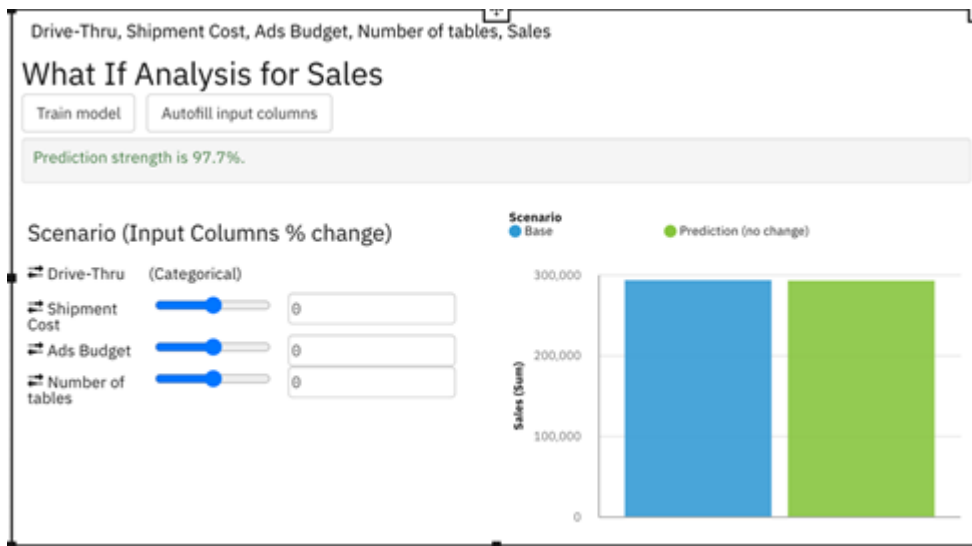
Extension: Analyze what-if scenarios using machine learning

Selecting Target and Input Columns

Drag the target data item from the *Source* tab to the *Target Column* slot of the visualization. The target column is the column that you would like to predict. Drag key drivers (measure columns), or predictors, for the target column. Key drivers are the main cause of the target column. If you are not sure what are possible key drivers, you can click on the *Autofill input columns* button to automatically discover key drivers.

Creating the ML Model

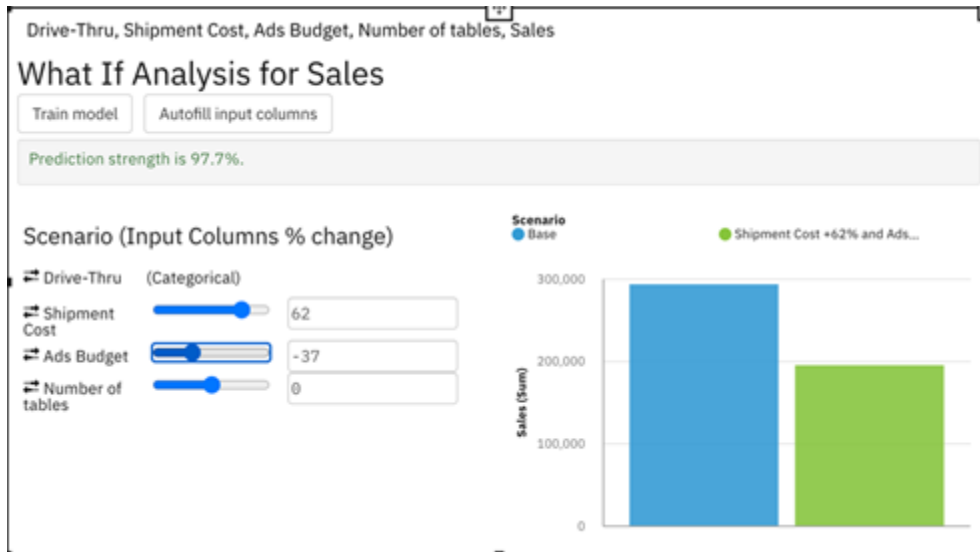
To create a machine learning model and start your what-if analysis, click the *Create model* button. This process takes approximately 1 minute. A neural network model is built and trained on your data. The ML model is built, fitted, and run entirely in the browser (client-side) without pushing any compute to the server. After training is completed, it should be able to estimate the target column for any value of input columns. The prediction strength measures how good is the model in predicting the target column. If the prediction strength is good, the base and prediction bars will have relatively the same values:



If you are not happy with the model prediction strength, you can apply additional training by clicking on the *Train model* button. The additional training gives the model another chance to better fitting your data to the model and results in better model with higher prediction strength. This process usually takes a few minutes.

Examining What-If Scenarios

Now, you are ready to simulate what-if scenarios by applying percentage changes to input columns. For example, if shipment cost increases by 62%, ads budget decreases by 37%, and the number of tables remains constant, what is the estimated sales?



The *Base* value bar represents the actual target value shown in your data. The prediction bar is what the model predicted after applying your scenario. The combination of changes in shipment cost and ads budget will result in sales going down, as shown by the green bar.

Adding Context

The *Context* slot is optional. If *Context* is empty, the target column values will be aggregated using the aggregation specified for the target column. For example, the aggregation for *Sales* is Sum. If we would like to show predictions for a particular data segment, for example for a few states, you can add a context column and apply filters:

