Regression Tree

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Outline

- What is a regression tree?

- How does it work?

- A quick demonstration of regression tree

Regression Tree

- So far, we dealt with classification tree
  - A decision tree that has a binary or a nominal target
- Regression tree deals with an interval target
- Most of the principles of building a regression tree is same as that of a classification tree. Except, the metrics and the statistics used to evaluate building and pruning of a regression tree are somewhat different
  - In classification tree, we work with making child nodes more pure (based on % of target classes) and the default is using Chi-square and its probability (logworth)
  - In regression tree, we work with making child nodes more divergent (based on average of target) and the default is using F-statistic and its probability

A Quick Demo

- PVA97NK data > Add a **Metadata Nod**e after **Data Partition** node > Change role of **TargetB** to rejected and role of **TargetD** to Target

- Add a **Decision Tree** node to the **Metadata Node**

- Rename the Tree as **Regression Tree** and **run** it with default options

  - SAS will use ASE for interval target using default options

- Explore results