Regression Trees

- For **classification**, purity of the regions is a good indicator the performance of the model
- For **regression**, we want to select a splitting criterion that promotes splits that improves the predictive accuracy of the model as measured by e.g. the MSE

1. start with an empty decision tree
2. choose a predictor on which to split and choose a threshold for splitting such that the weighted average MSE of the new region is as small as possible
3. Recurse on each node until **stopping condition** is met
    - maximum depth
    - minimum number of points in region

instead of purity gain, we instead compute accuracy gain

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