

# SMAI Class 13

September 26, 2022

## Contents

[Decision Tree](#)

1

## Decision Tree

- [Reference](#)
- Decision boundaries are axis parallel.
  - You might notice that the decision boundaries made by a decision tree are parallel to the axis, and that's how they always are: Parallel to the axis. The reason for this is that a Decision tree splits the data based on a feature value and this value would remain constant throughout for one decision boundary e.g.,  $x=2$  or  $y=3$  where  $x$  and  $y$  are two different features.
- Decision trees are extremely efficient.