

Decision Trees

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Objective

By the end of this lecture, you'll have bragging rights for:

- **Describing decision trees**
- **Explaining how decision trees work**
- **Building a decision tree**

Intro

- **Tree-like model of decisions**
- **Non-parametric and hierarchical**
- **Covers both regression and classification**

Ex: Tinder Lovin' 🔥

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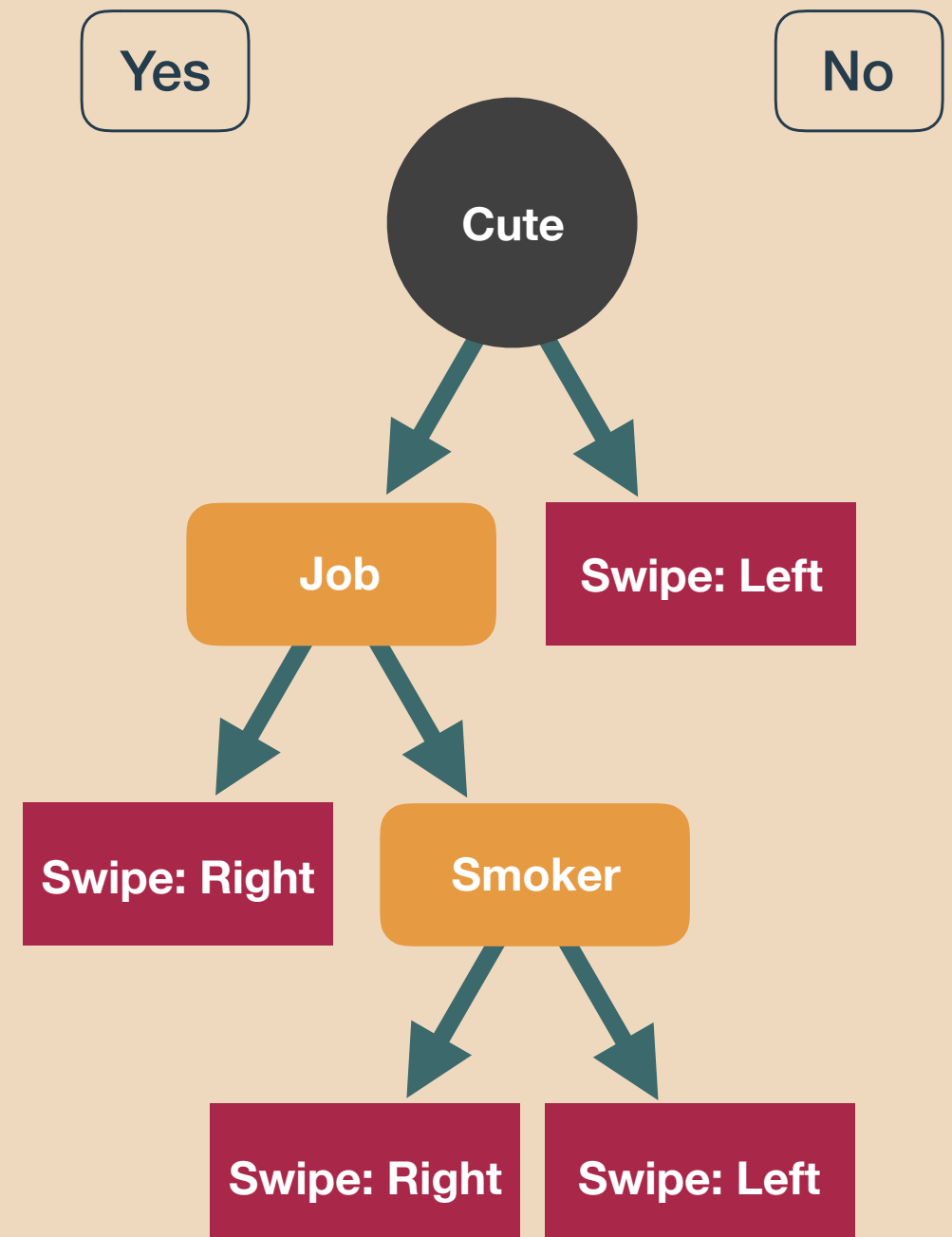
Features:

- Cute
- Job
- Smoker
- Swipe

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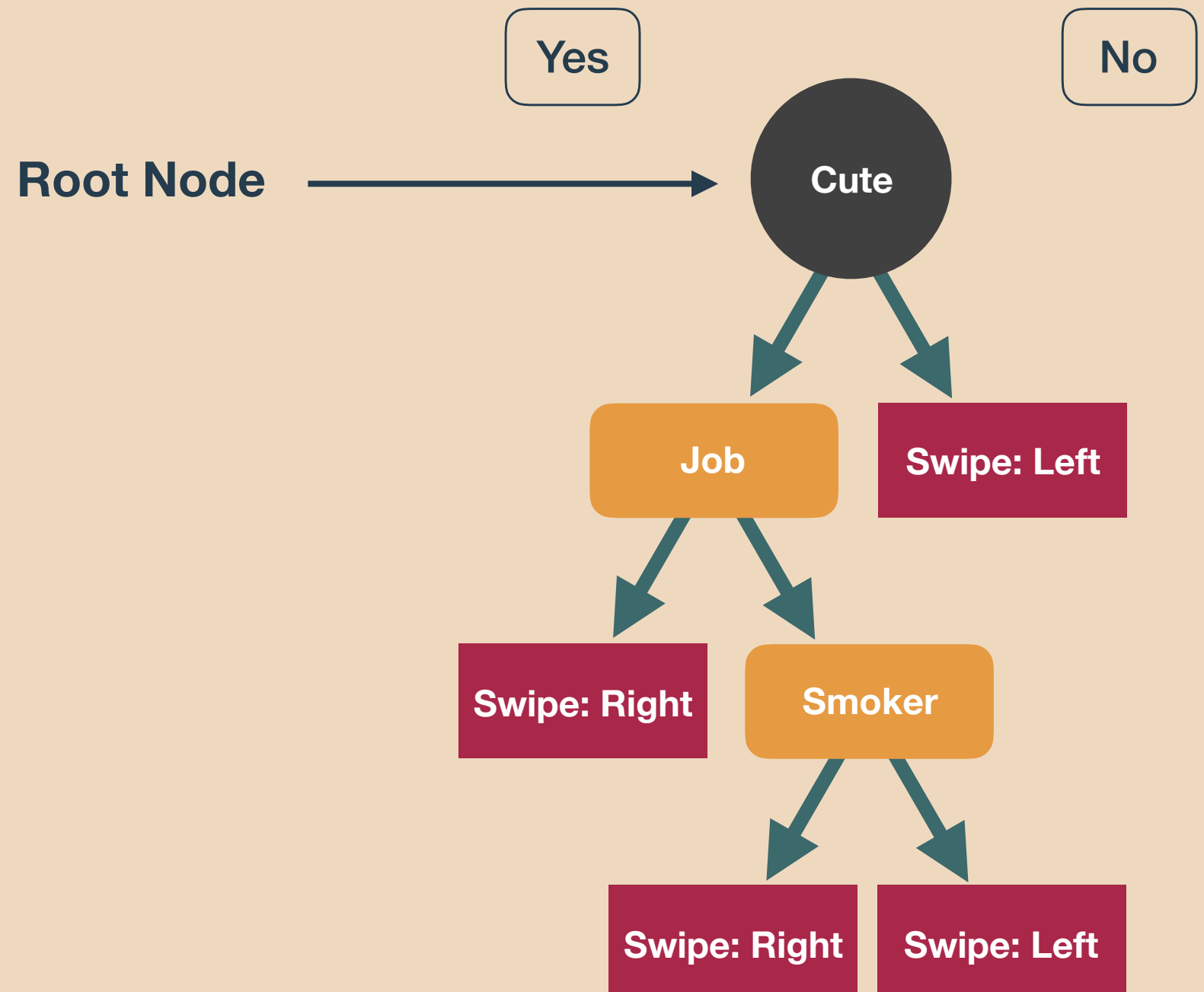
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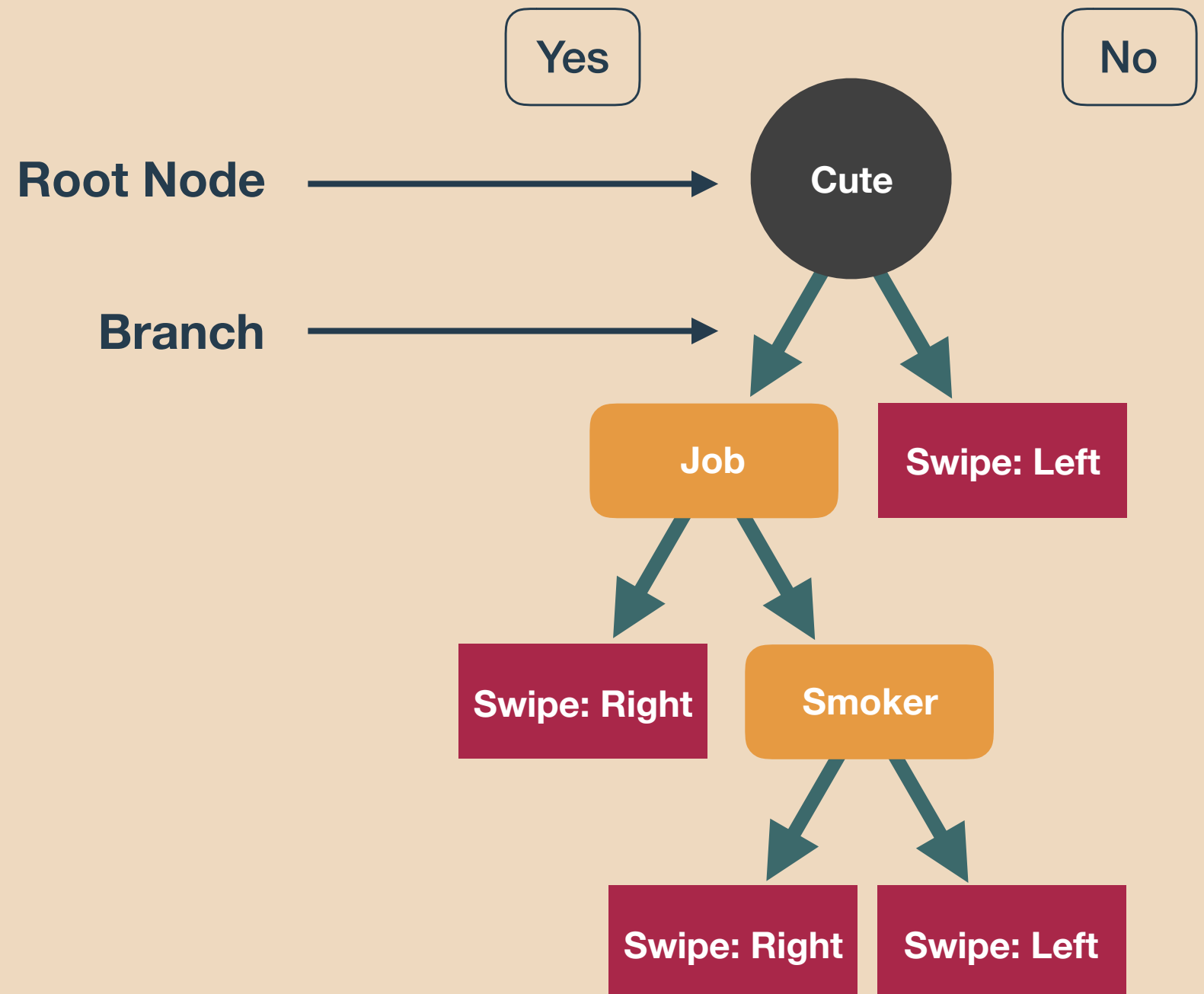
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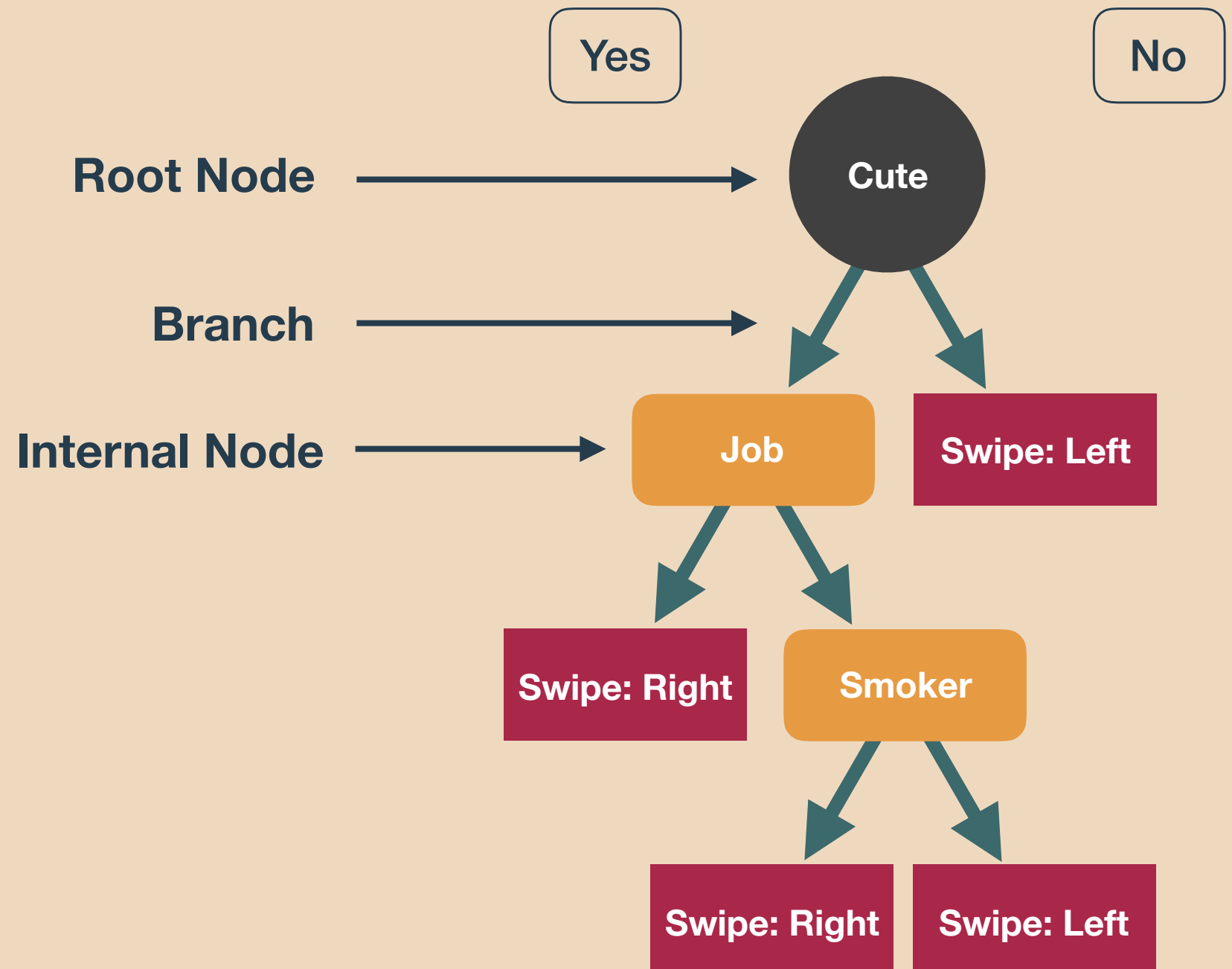
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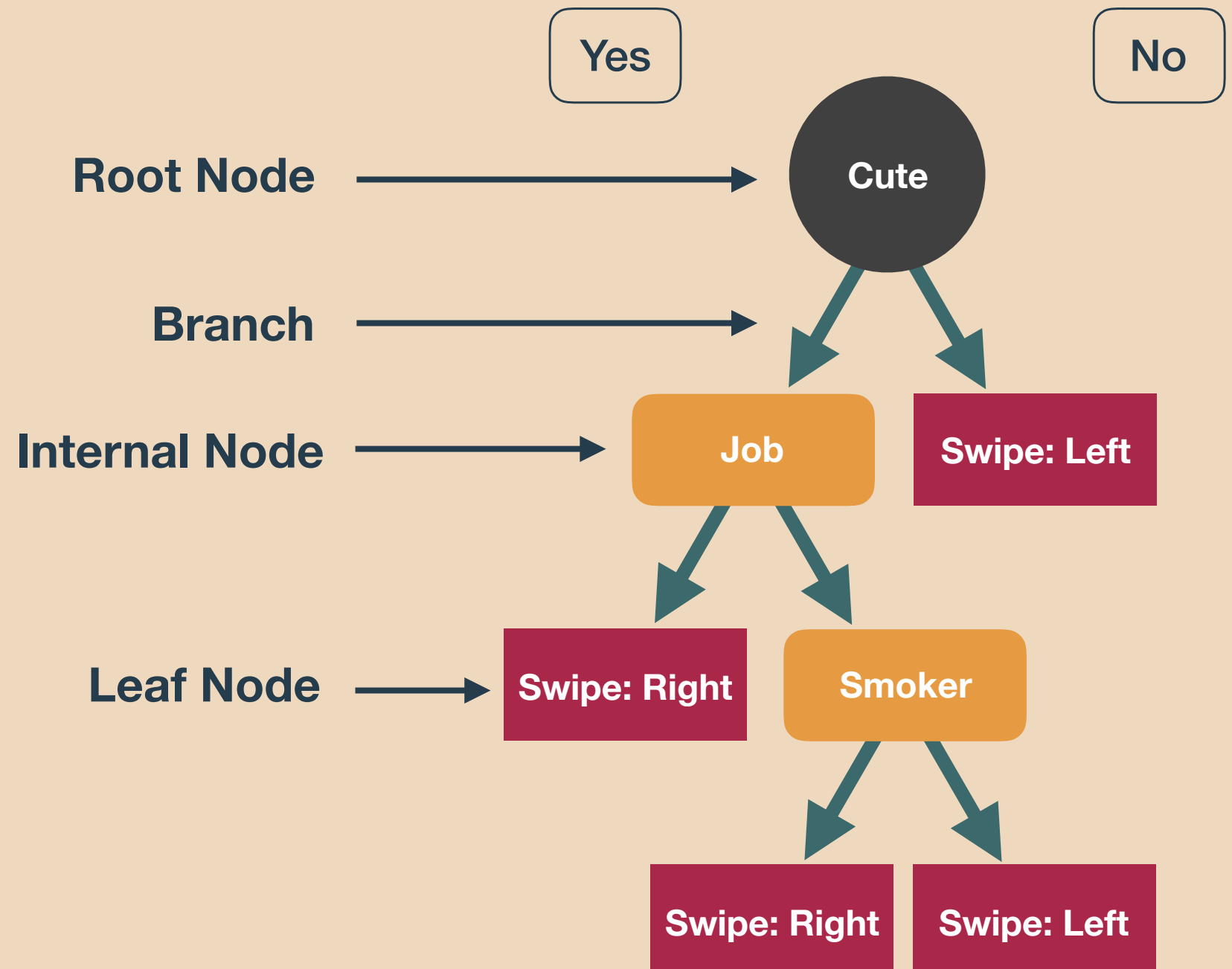
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Decision Tree Constraints

How do you stop growing the tree?

- **Set a minimum number of observations a leaf node needs**
- **Set a maximum depth for the tree (i.e. the longest path from the root node to the leaf node)**