

Introduction to Trees



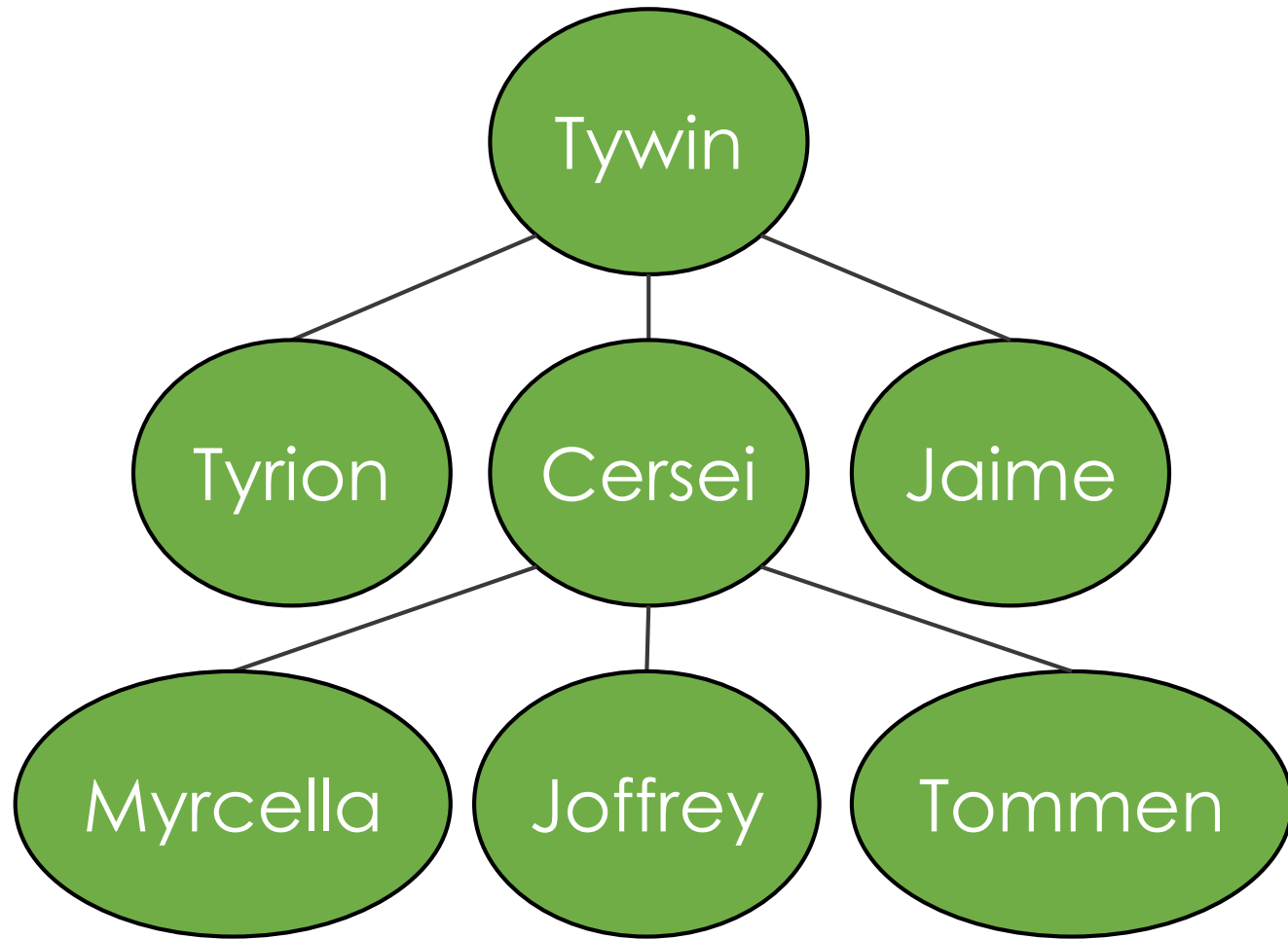
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by Christine Alvarado, Mia Minnes, and Leo Porter, 2015.



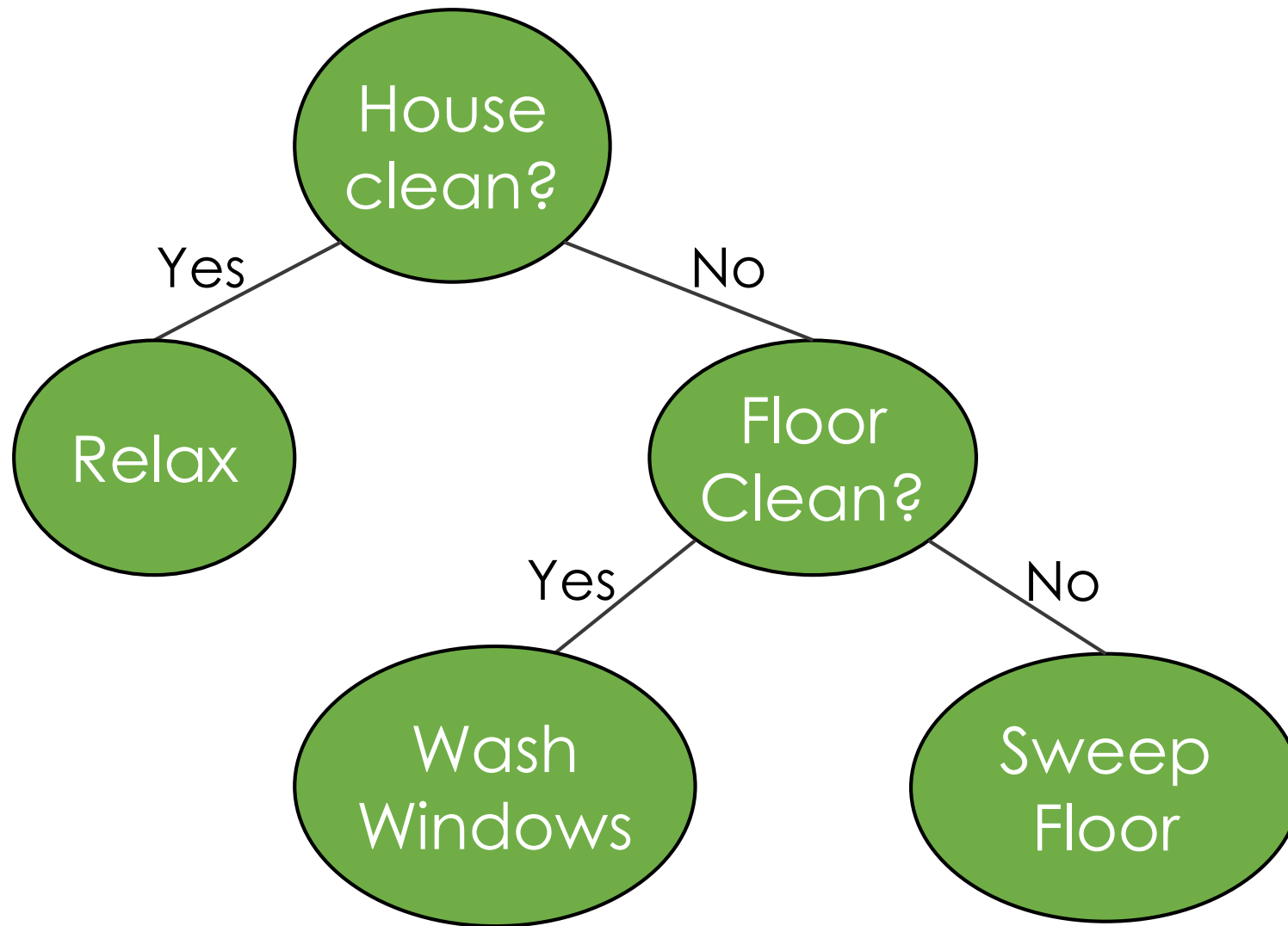
By the end of this video you will be able to...

- Describe the value of trees

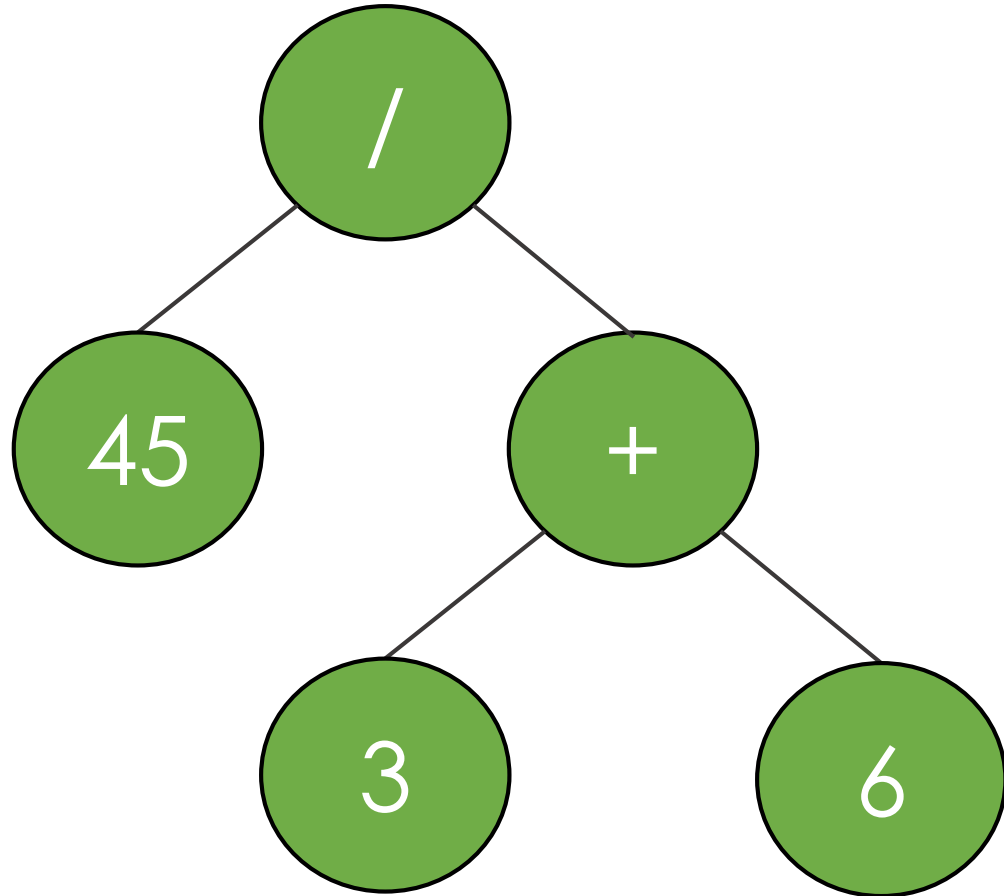
Family Trees



Decision Trees



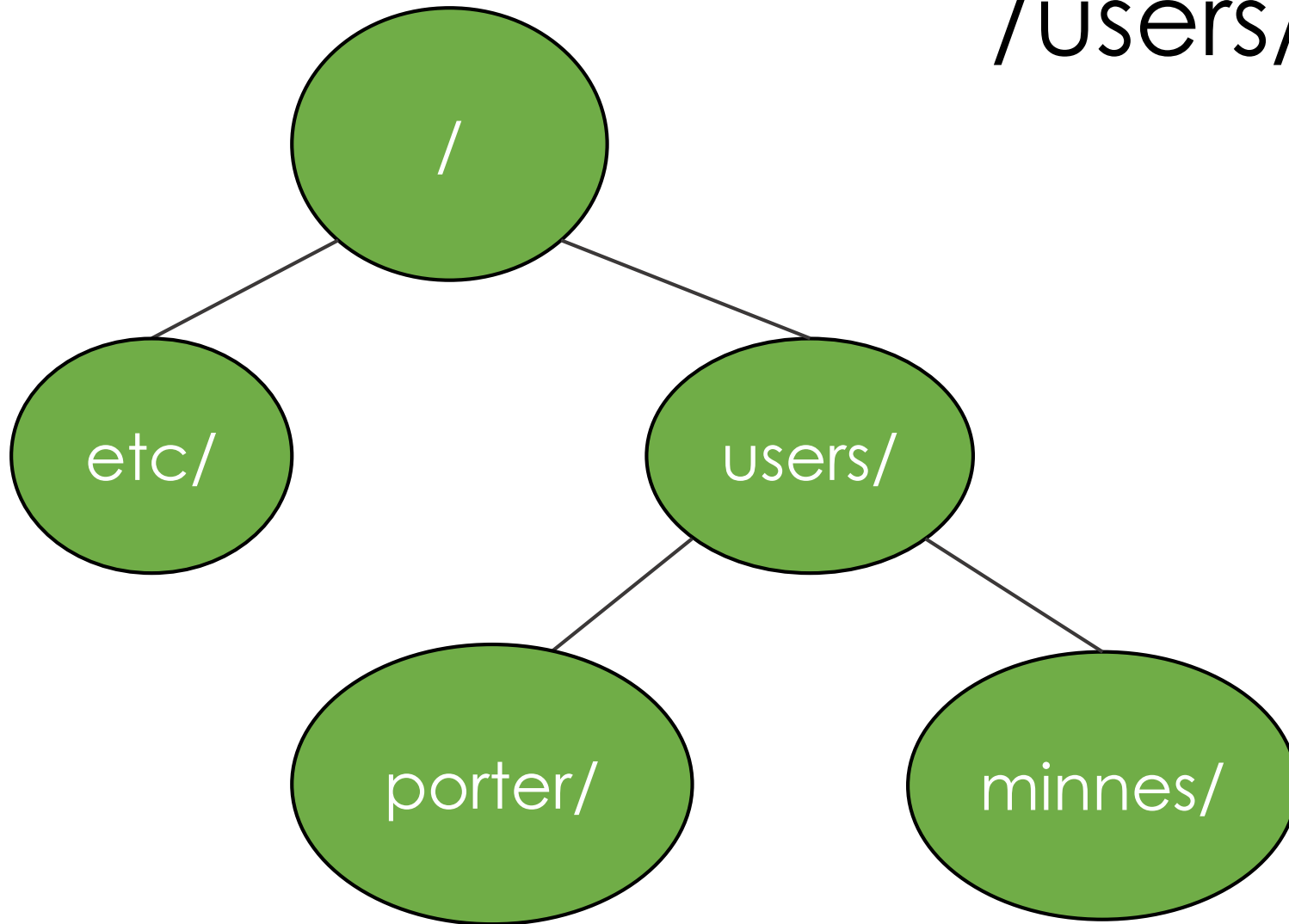
Expression Trees



Evaluate:
 $45 / (3 + 6)$

File System

/users/porter/

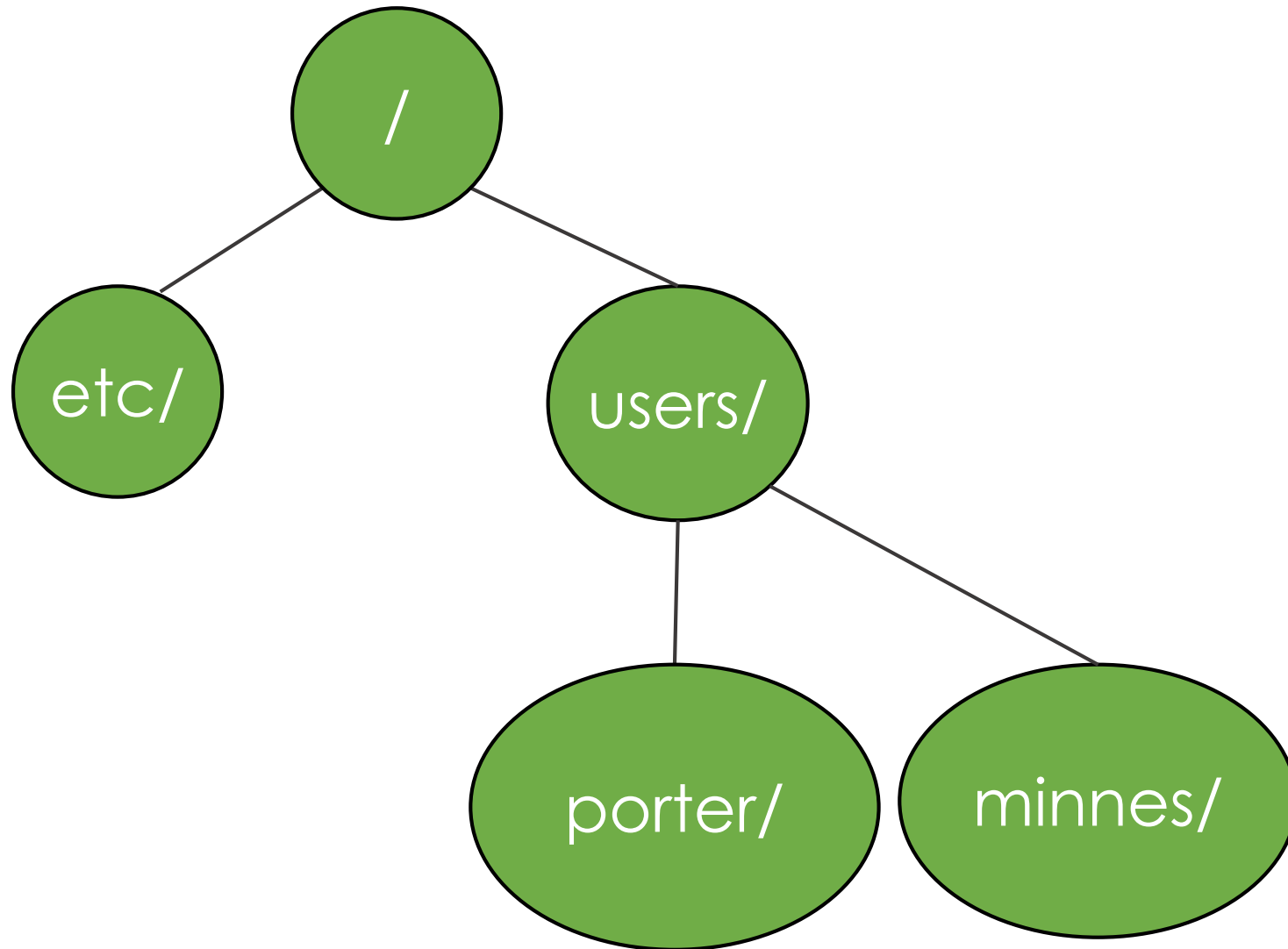


Trees!



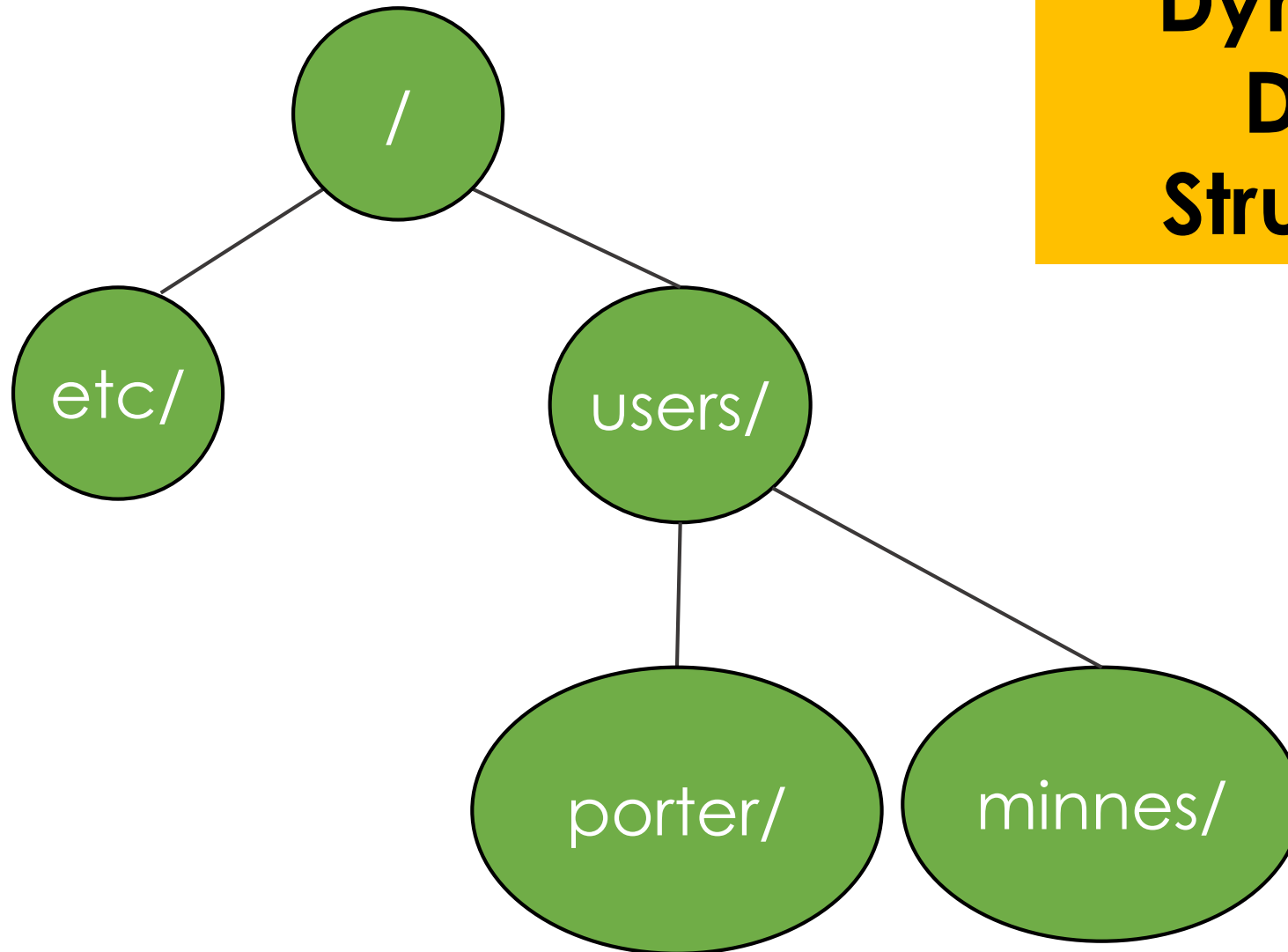
There are tons of trees in
computer science. Why?

Why trees?



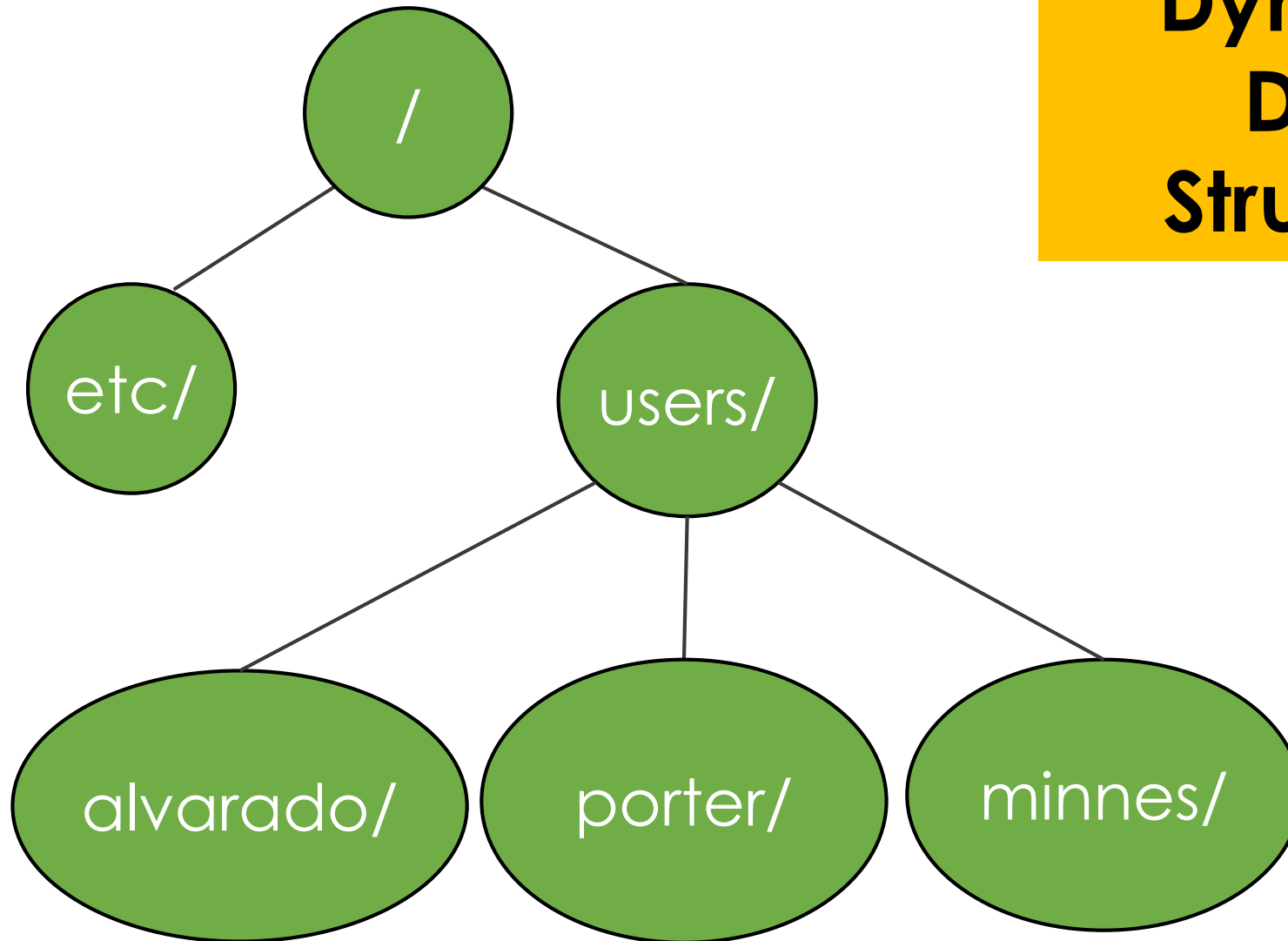
Why trees?

**Dynamic
Data
Structure**

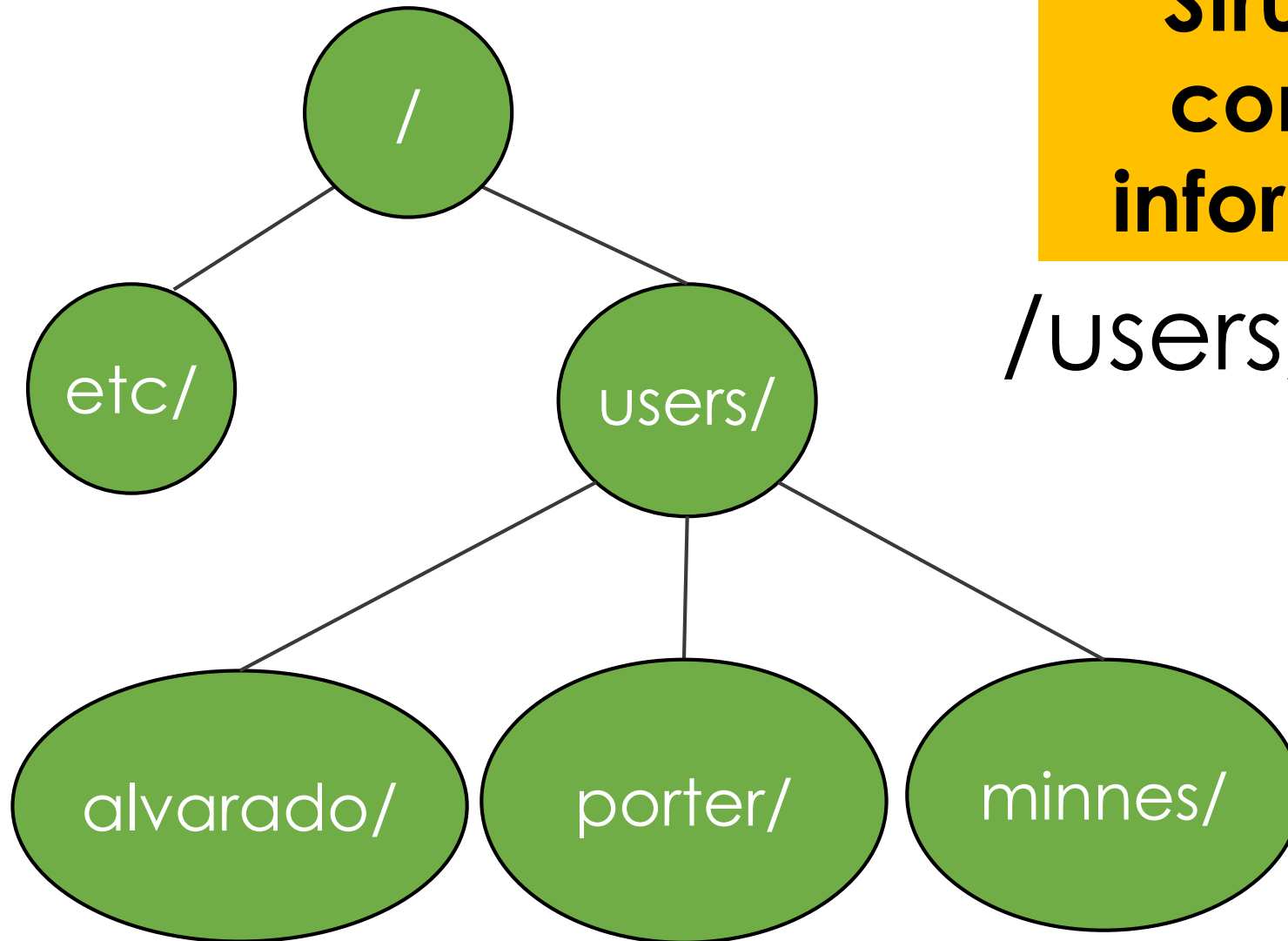


Why trees?

**Dynamic
Data
Structure**



Why trees?



**Structure
conveys
information**

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Different organizations → Different Trees

- Root is most important – Heap
- Organized by character frequency – Huffman Tree
- Organized by node ordering – Search Trees
- Etc...

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We'll look in detail at a few trees in this lesson...