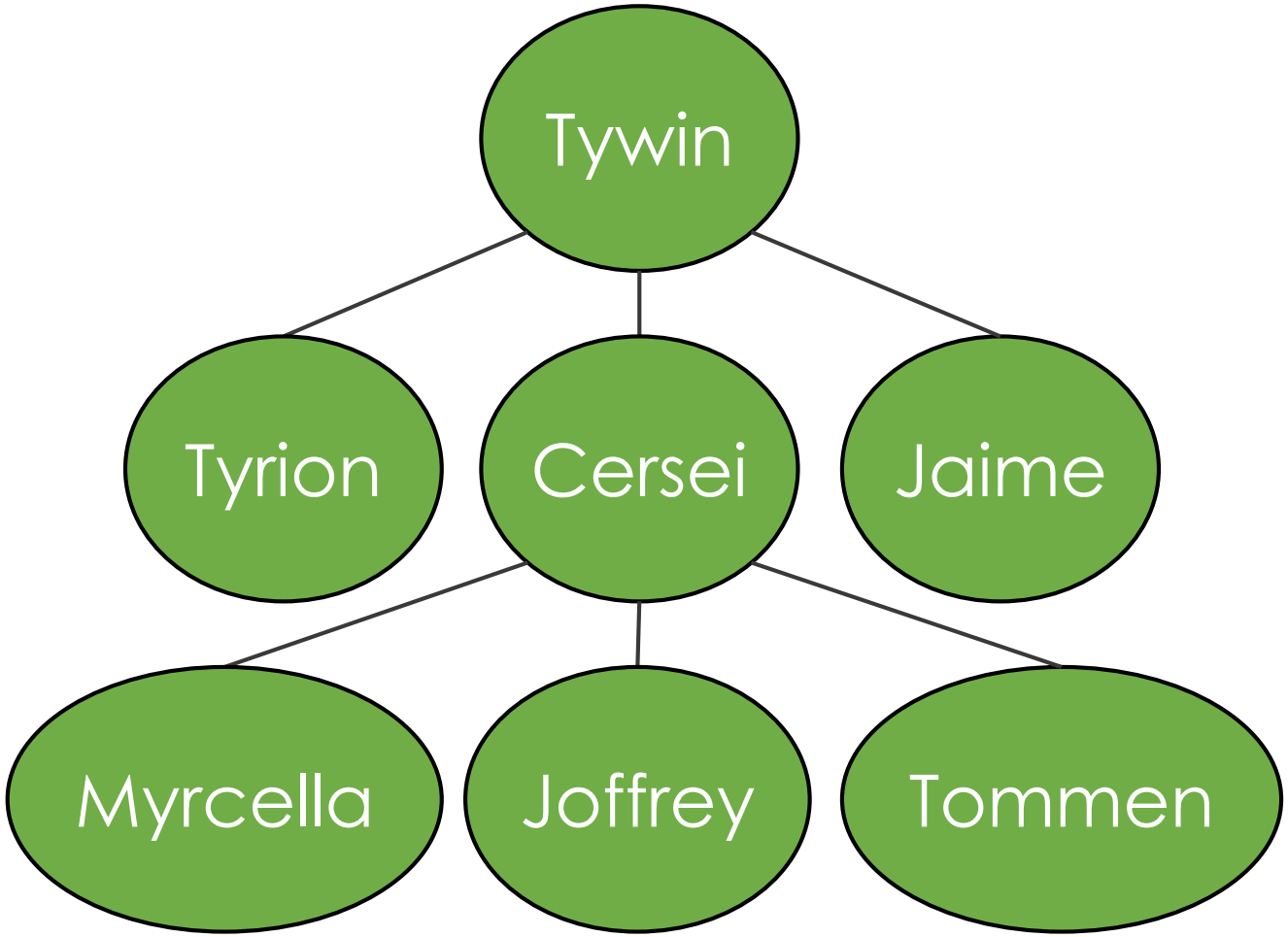
Introduction to Trees

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

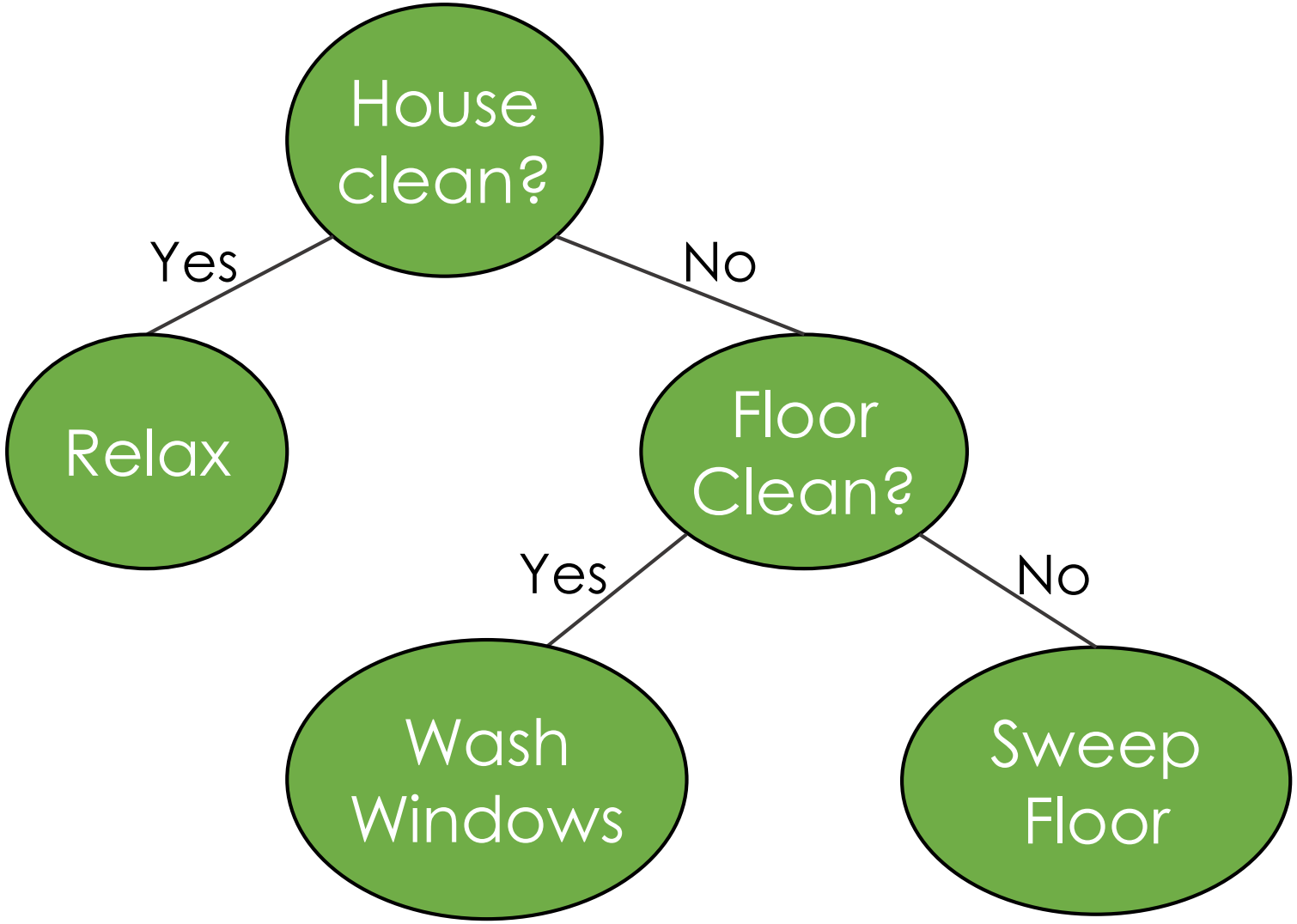
- Describe the value of trees

Family Trees

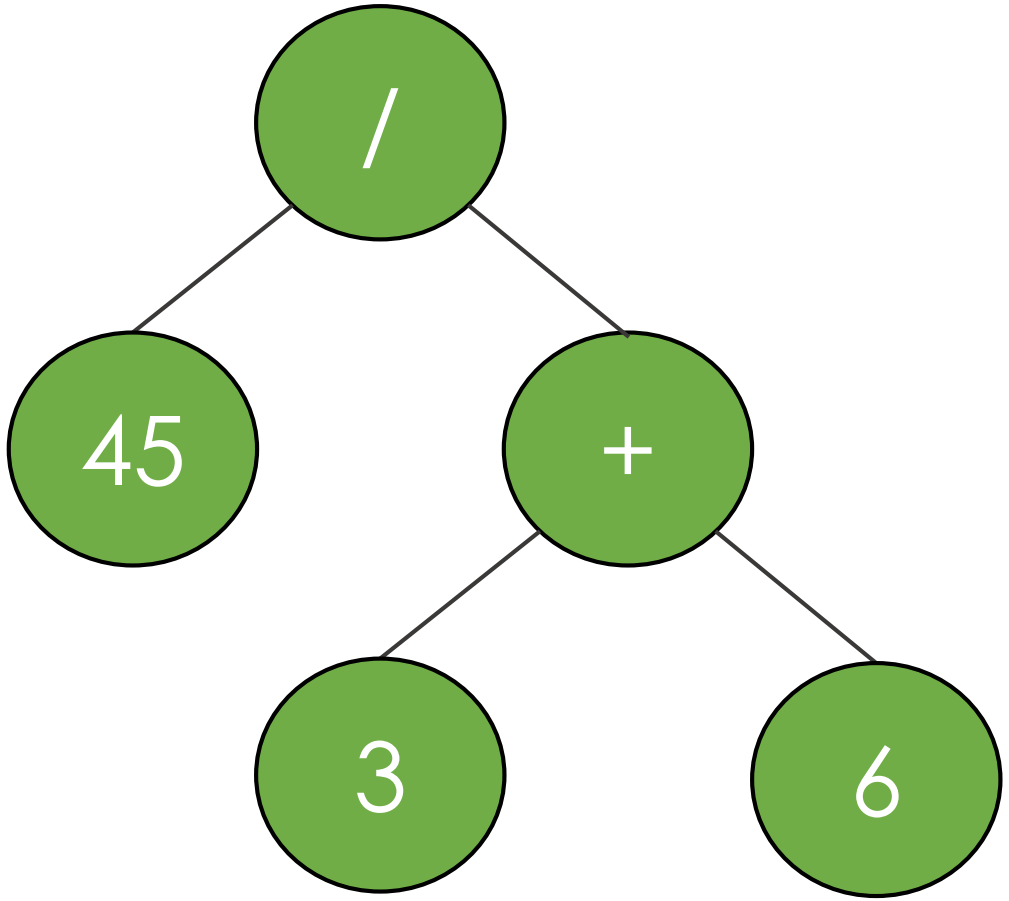


http://www.hbo.com/game-of-thrones

Decision Trees



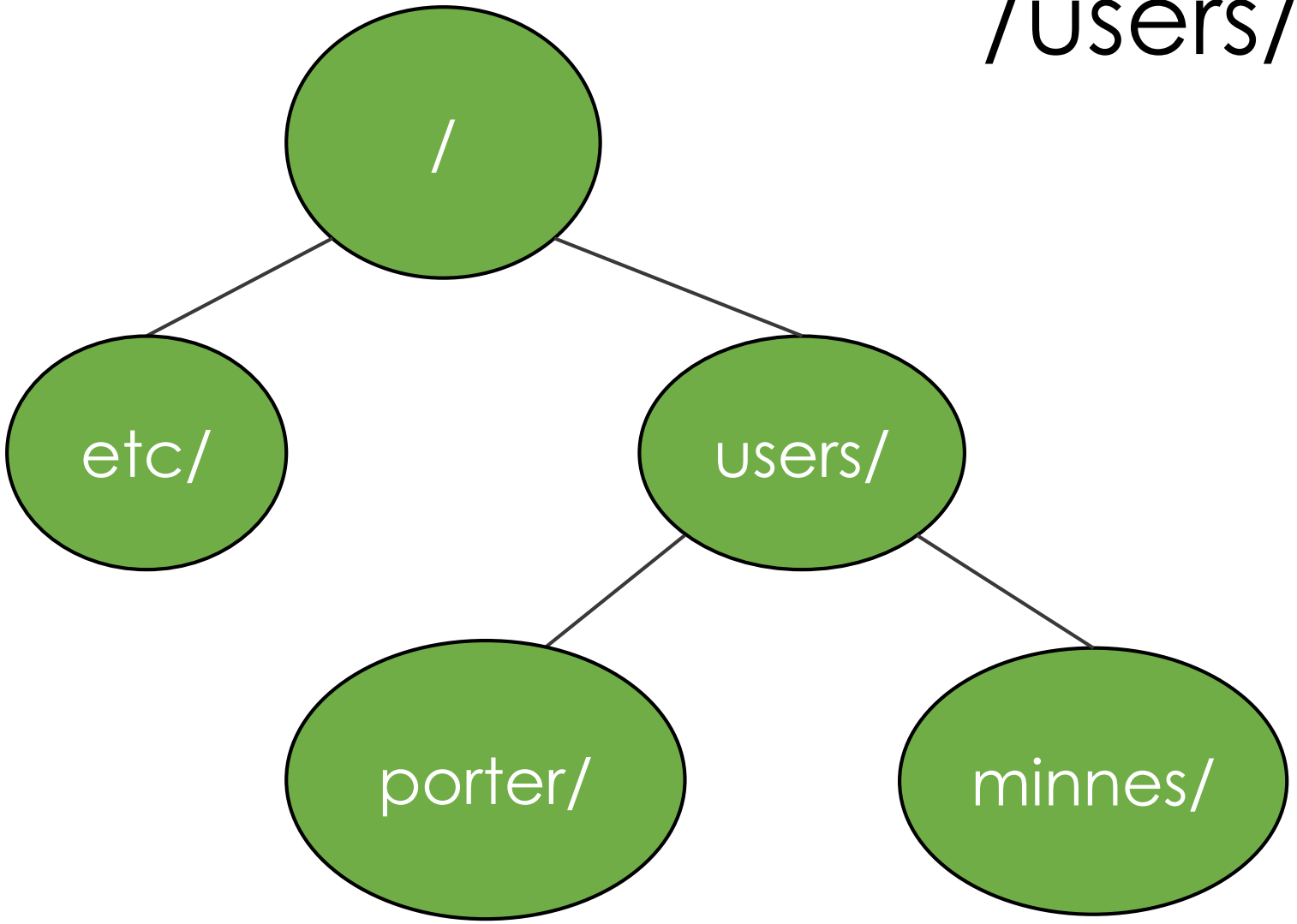
Expression Trees



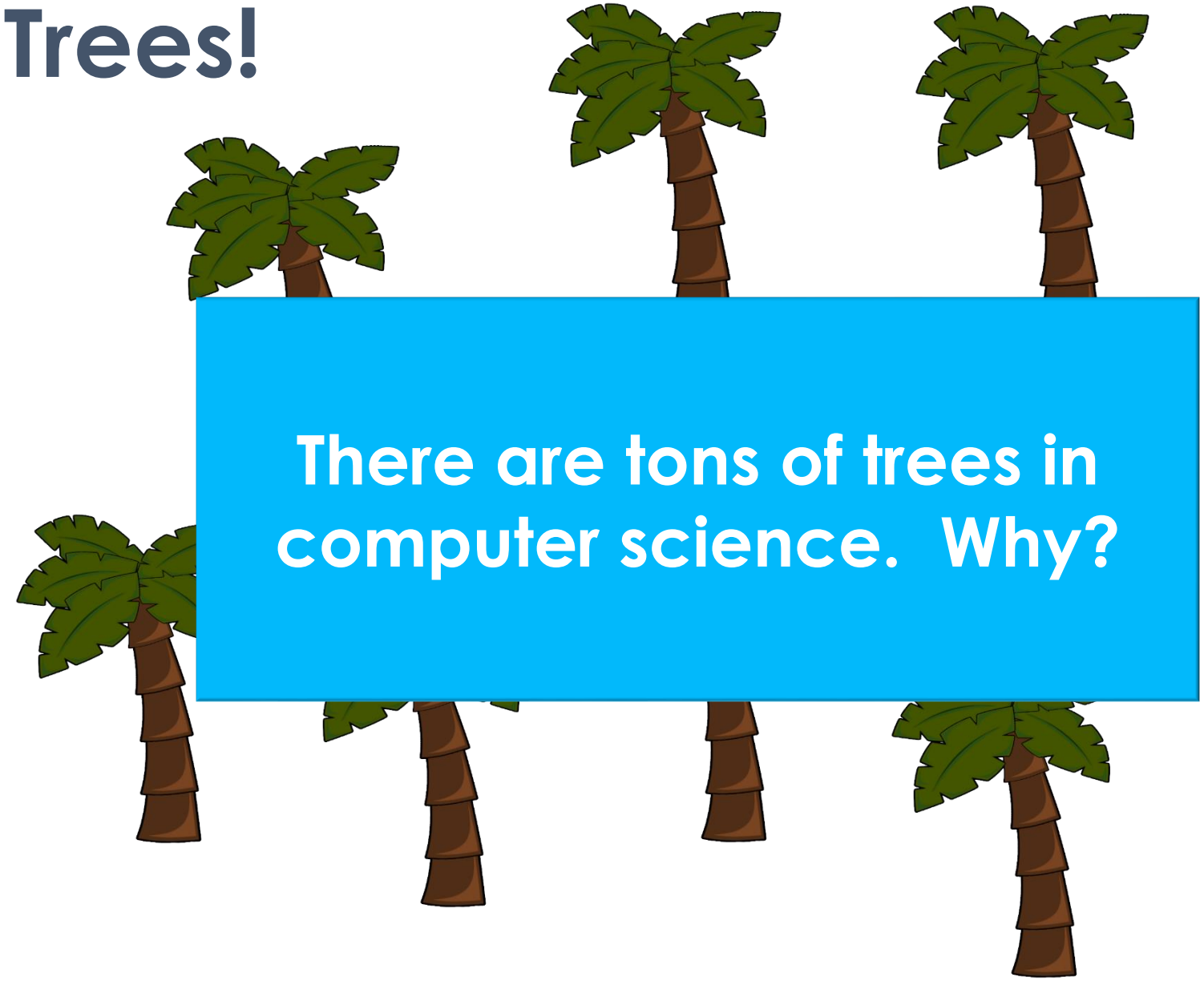
Evaluate:
45 / (3 + 6)

File System

/users/porter/

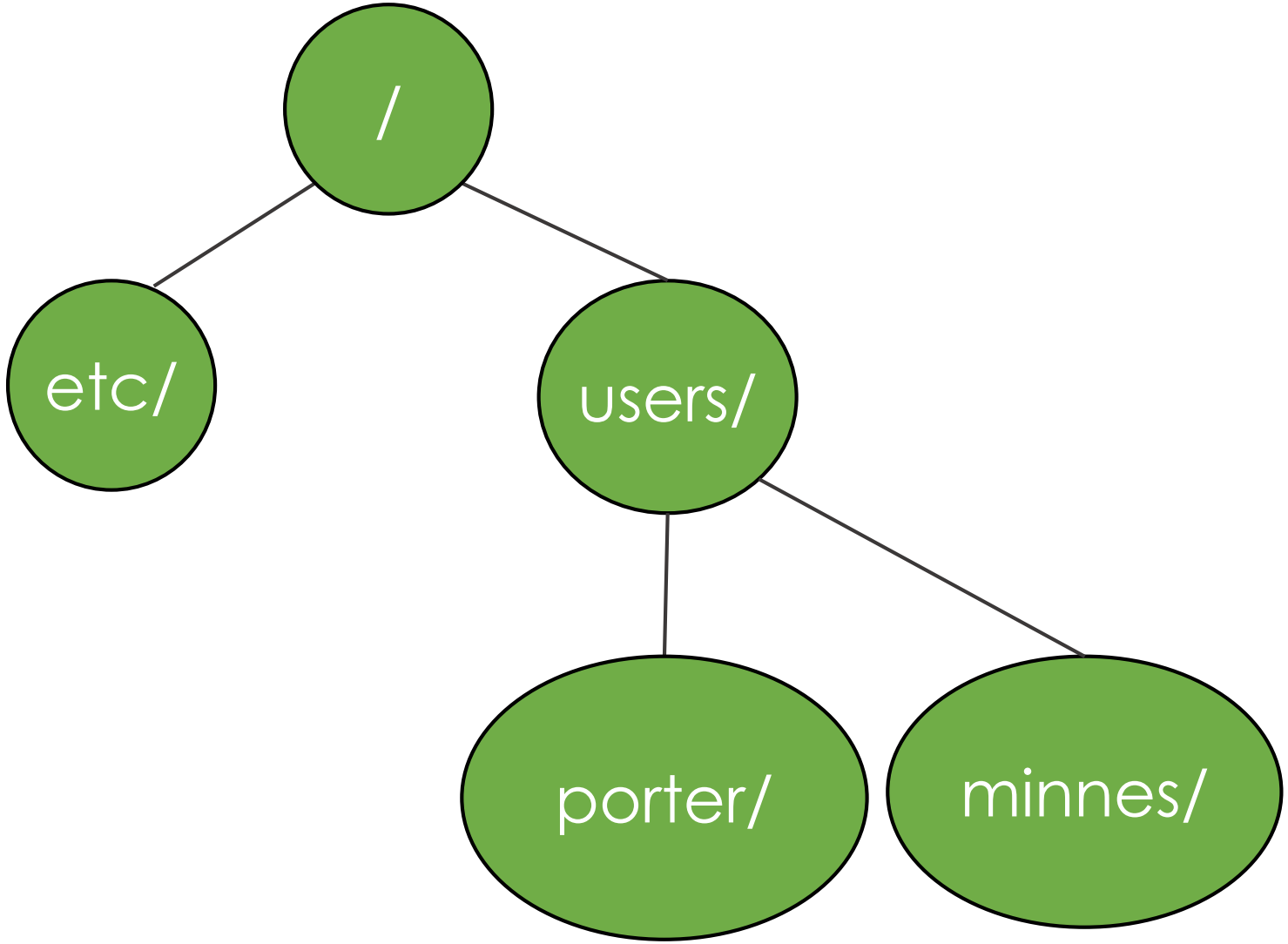


Trees!

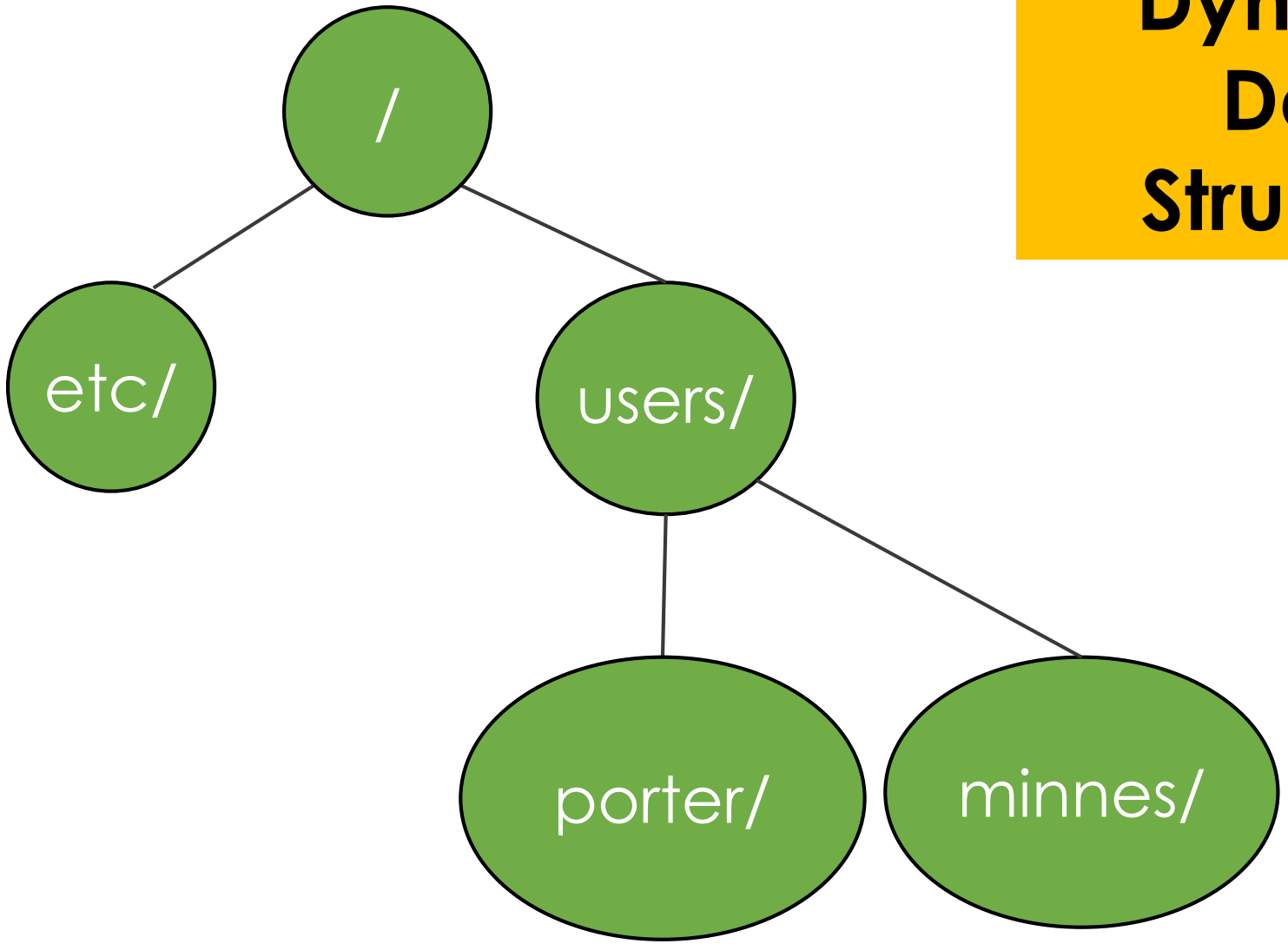


There are tons of trees in computer science. Why?

Why trees?

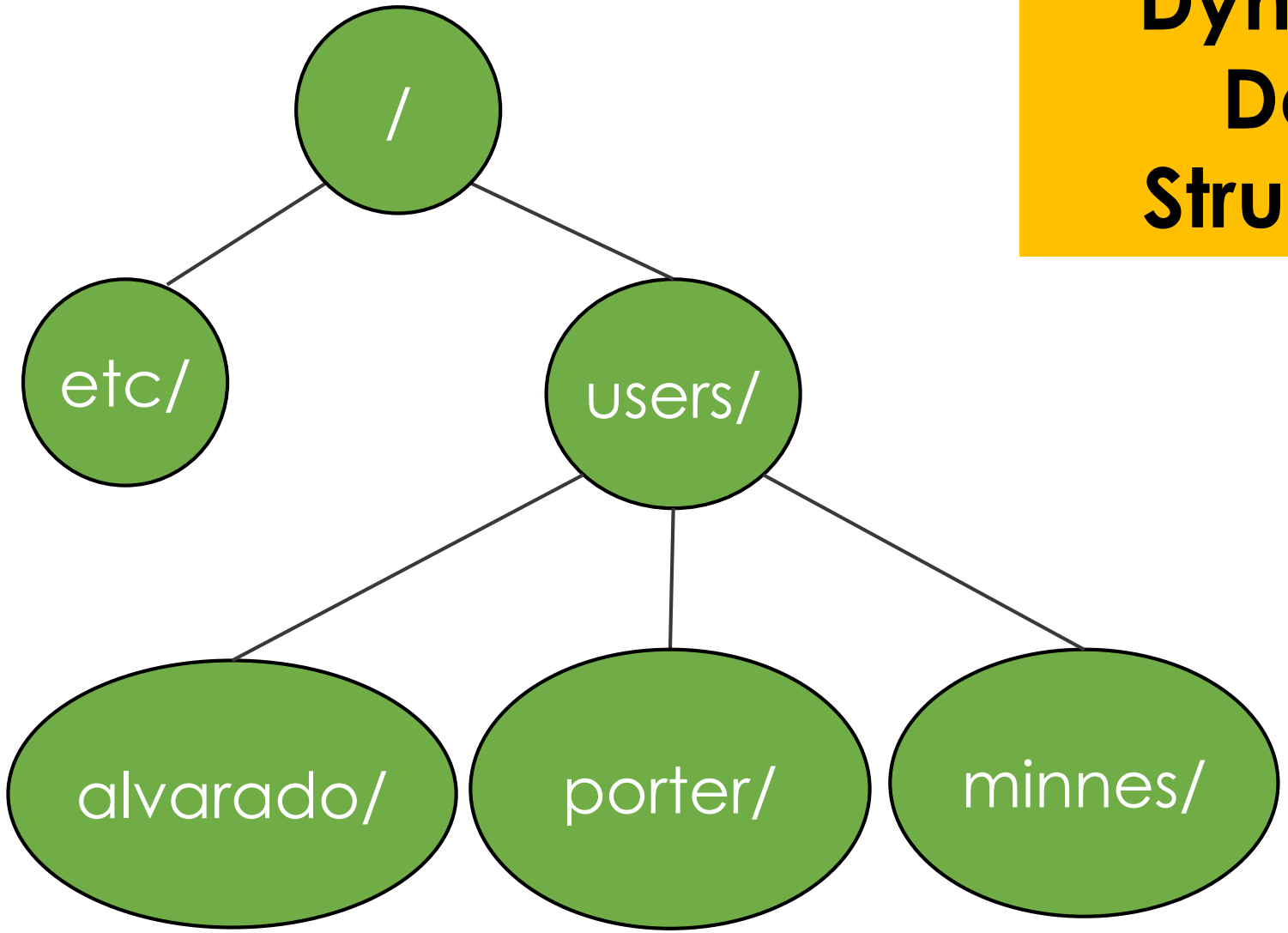


Why trees?



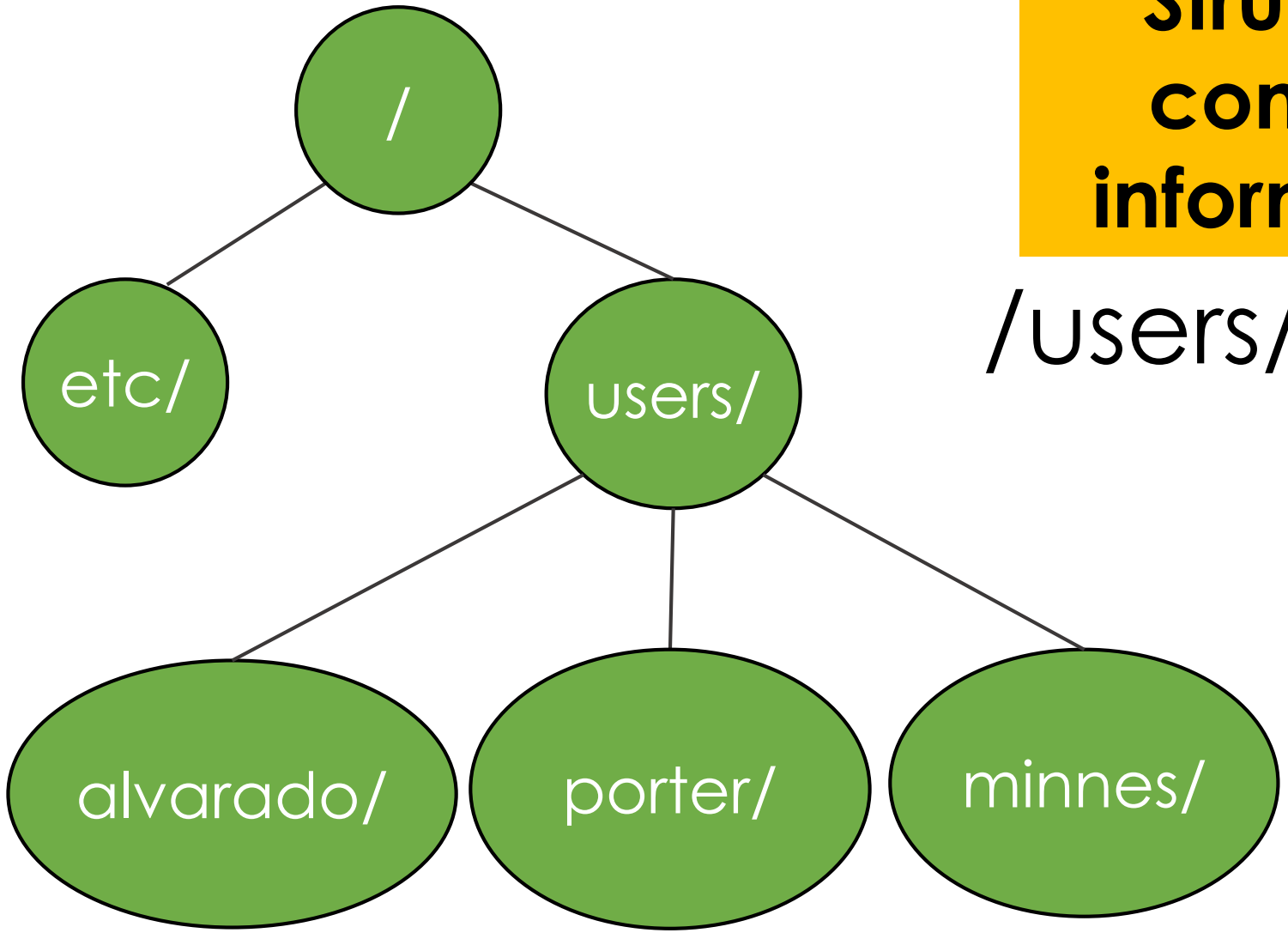
Dynamic Data Structure

Why trees?



Dynamic Data Structure

Why trees?



Structure conveys information

/users/porter/

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…