

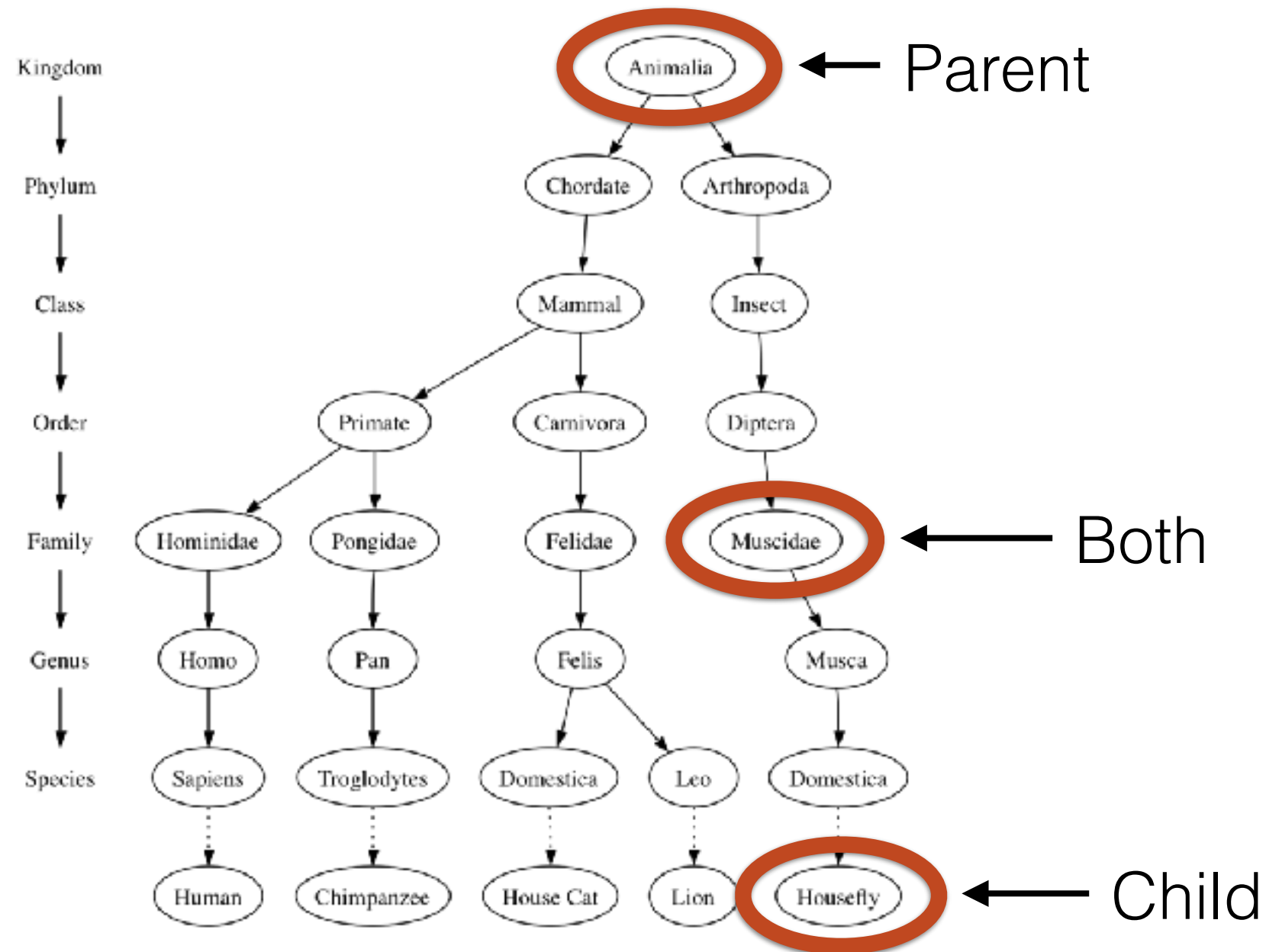
Trees



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What Is a Tree?

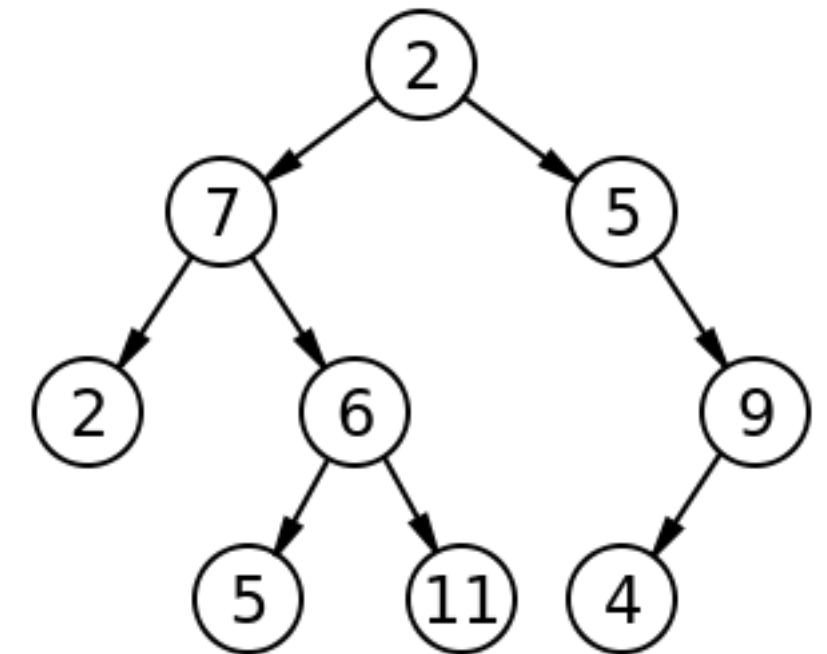


Family trees

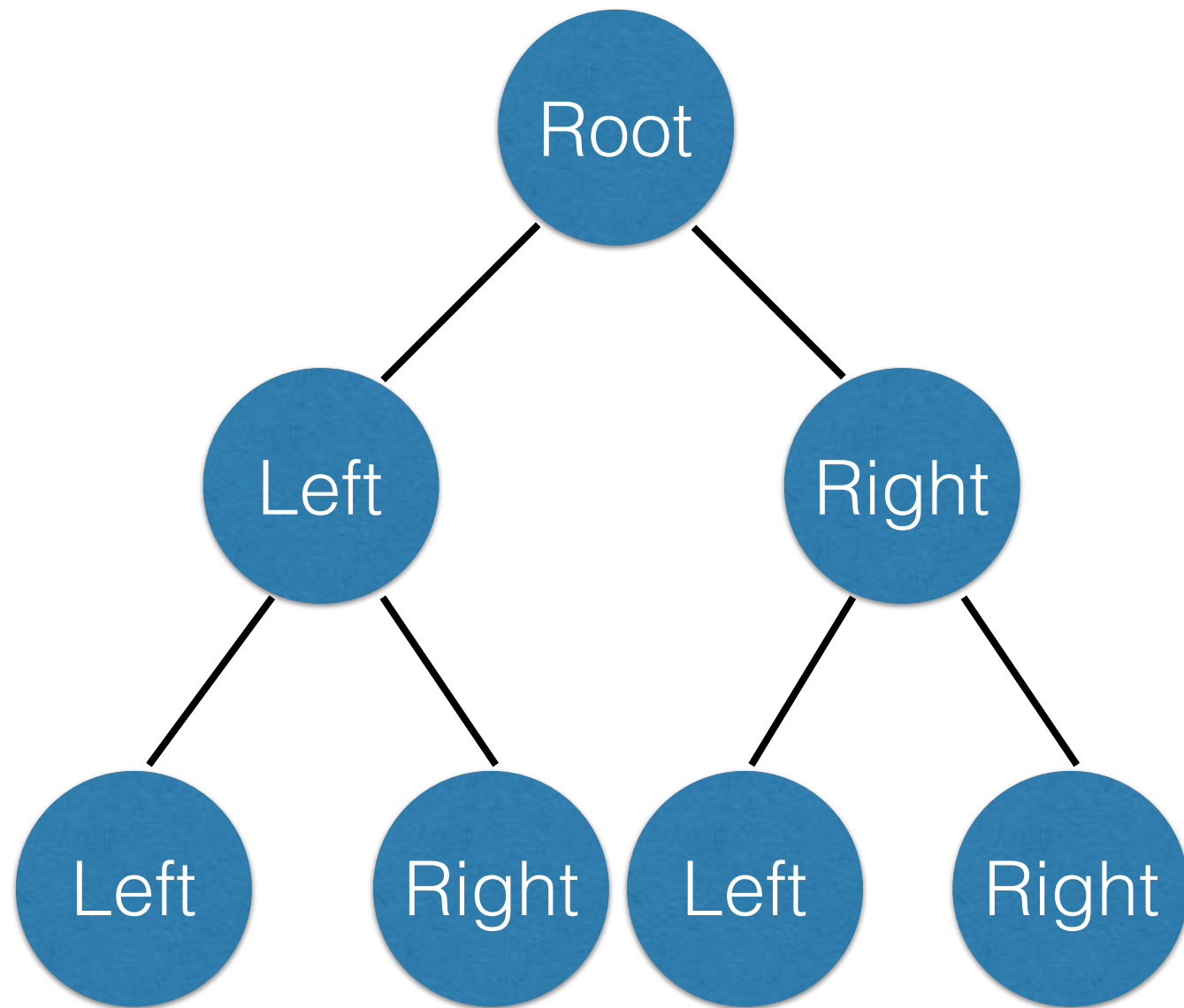
Org charts

File systems

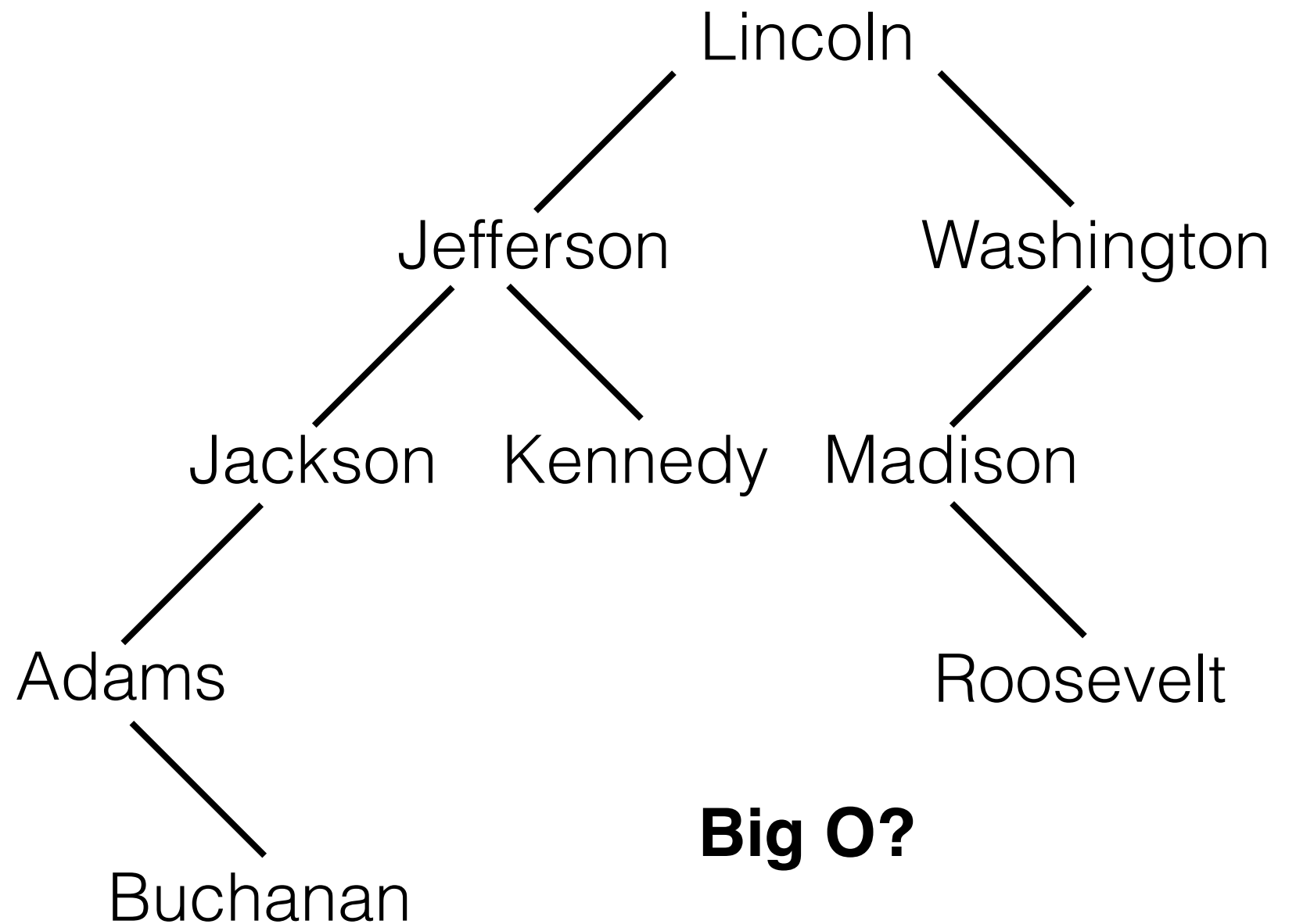
DOM browser page



Binary Tree Characteristics



Adding Data



Demo

Create binary tree class

Underlying tree node structure and root

Demo

Create size method

Create add method

Demo

Create contains method

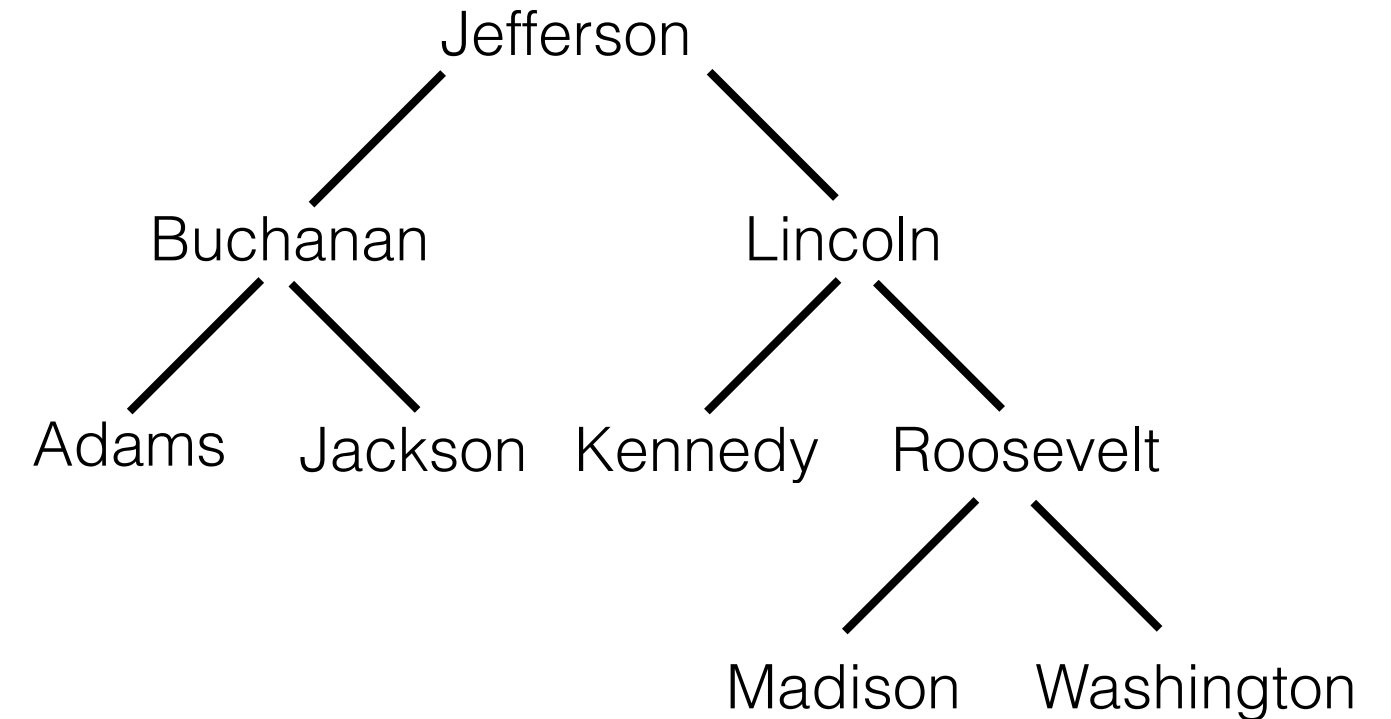
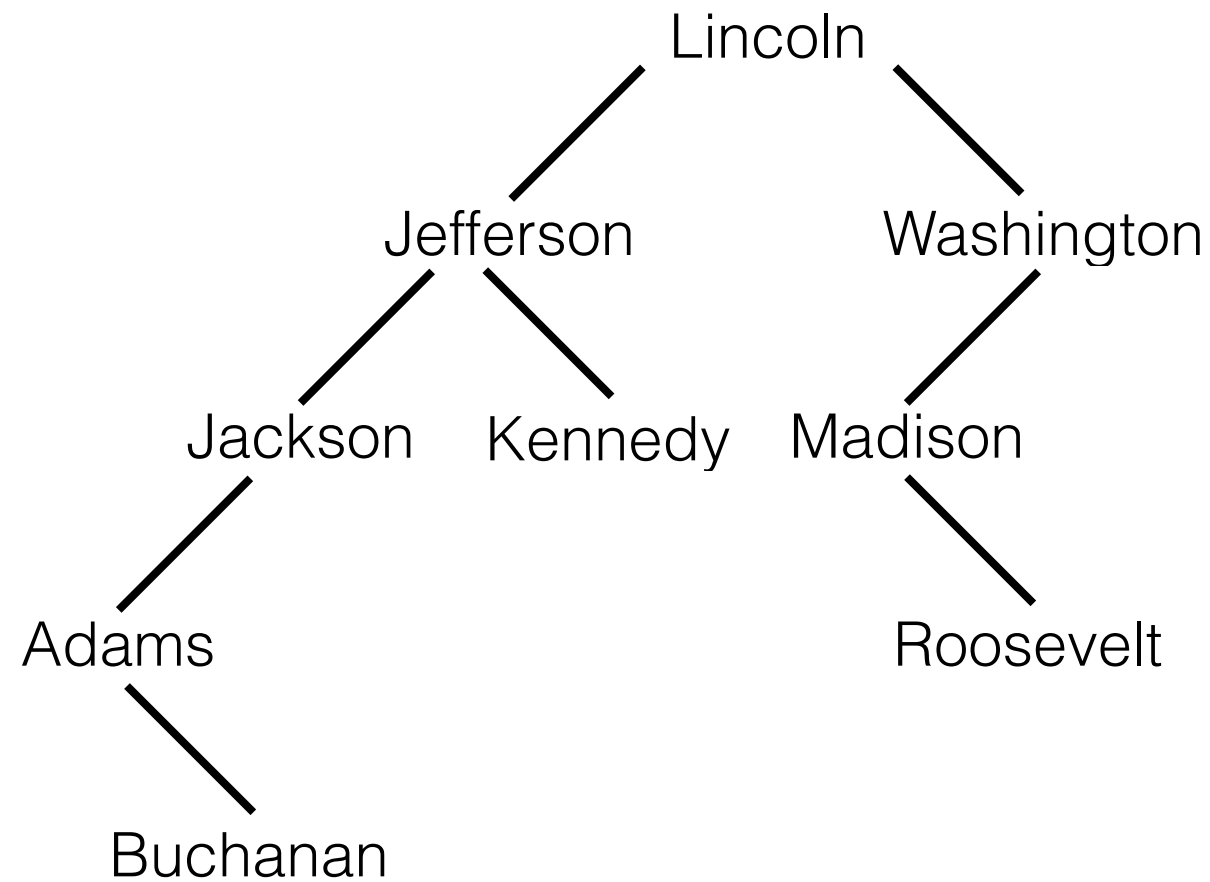
Demo

Create delete method

Contact Manager Test



Binary Tree Extra Credit

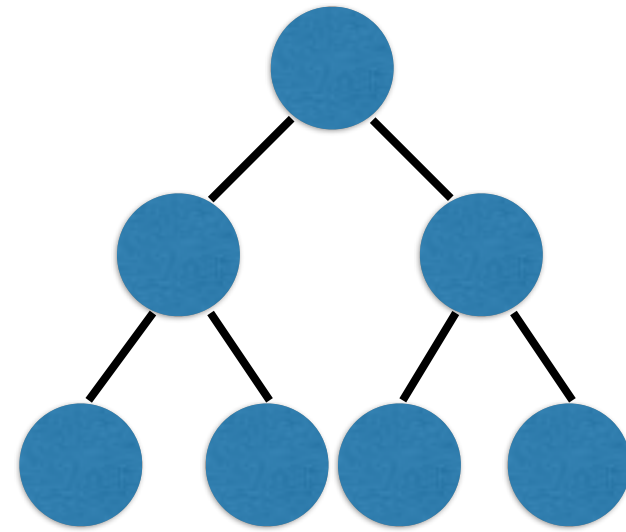


Homework

Create a rebalance method (https://en.wikipedia.org/wiki/Tree_rotation)

Create a print() or toString() method

Core Java Trees



TreeMap<K,V>

- <https://docs.oracle.com/javase/8/docs/api/java/util/TreeMap.html>

https://en.wikipedia.org/wiki/Red-black_tree

Summary

What are trees?

How binary trees work

Built the tree node and tree class

Built the add operation

Built the contains operation

Built the delete operation

Binary tree extra credit

Core Java trees