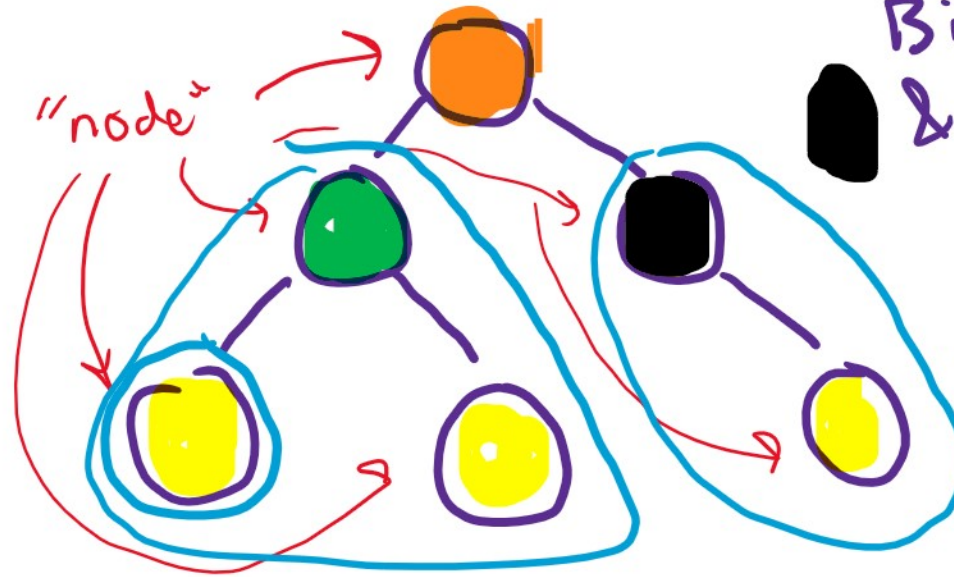


Binary trees

Monday, September 19, 2022 12:58 PM



● is the root
of ●'s
left subtree



Binary tree
& ● are children
of ●

the "top" node is
called the root of
the tree (● for our
example)

nodes without children are
called "leaves" ●

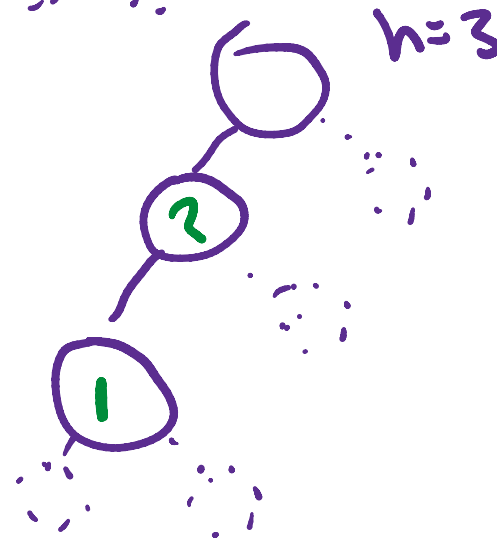
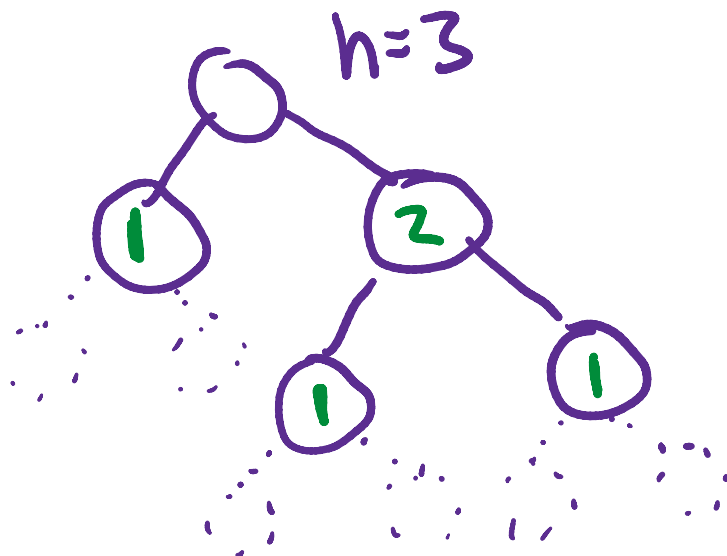
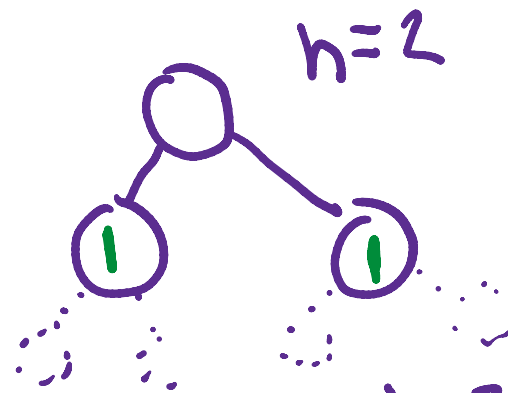
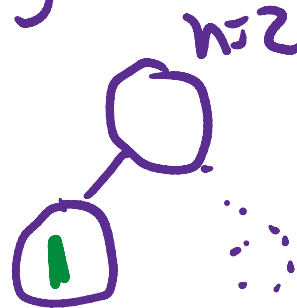
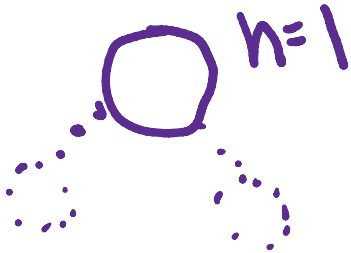
every node in a tree is
the root of its own subtree

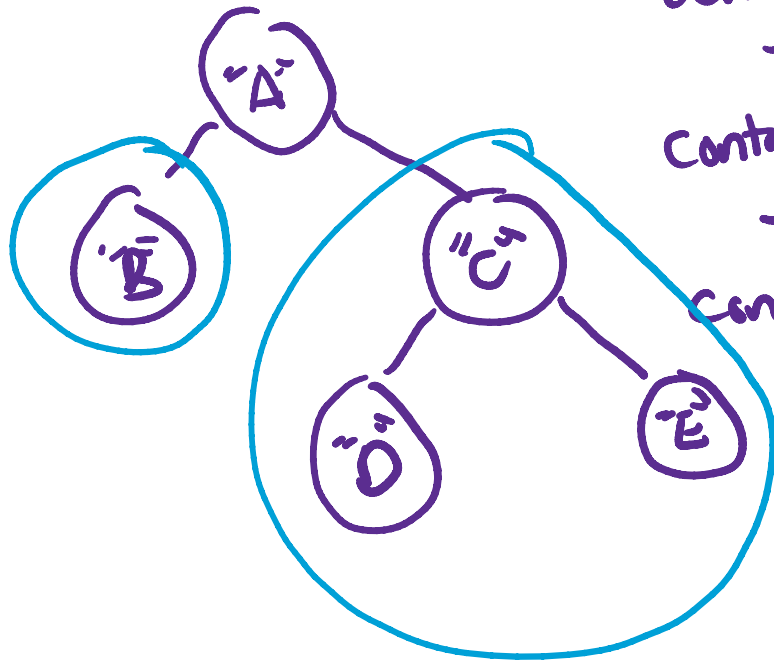


null

null

height of an empty tree is 0, otherwise $h = 1 + \max(\text{height}(\text{left}), \text{height}(\text{right}))$





contains A?

- root's value is A ✓

contains B?

- does L or R subtree contain B?

contains C?

- does L or R subtree contain C?

- contains E?

- does L or R subtree contain G?

contains X?

does L or R subtree contain X?