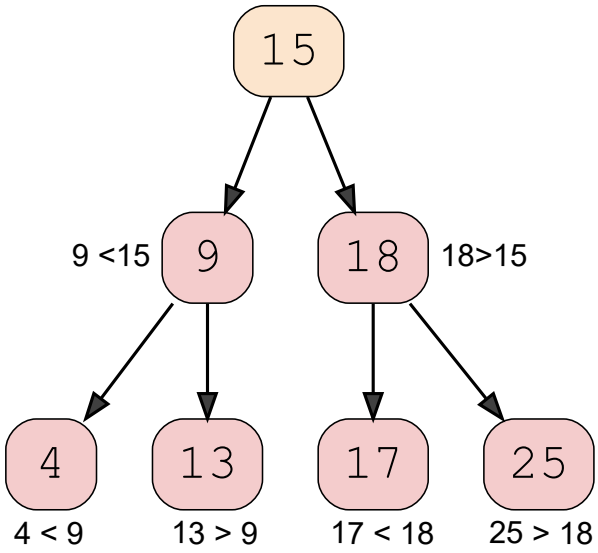
Introduction to Binary Search Tree

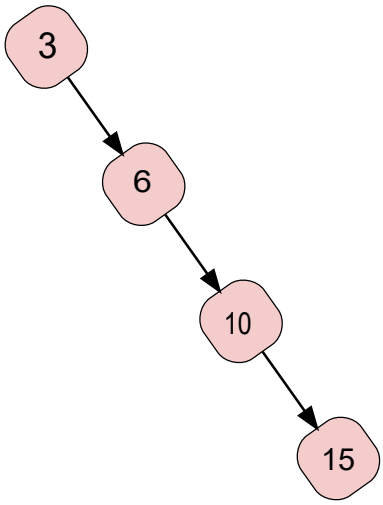
A binary search tree (BST) is a representation of data in a tree structure. (Reading time: 1 minute)

In a binary search tree, the left child node is always smaller than the parent, and the right child is always greater than the parent, i.e., **left child** < **parent node** < **right child**



The node represented with the orange background is called the **root** node. Due to the sorted nature of the tree, we can easily search through the tree: let's say we want to find the value 17. Is it bigger or smaller than 15? Bigger, so we go right. Is 17 smaller or bigger than 18? Smaller, so we go left. And we found the node!

The algorithm to **balance** the tree won't be covered in these notes, I will assume the tree is already balanced. An example of an **unbalanced tree**:



In the next lesson, I'll talk about the implementation of the binary search tree.