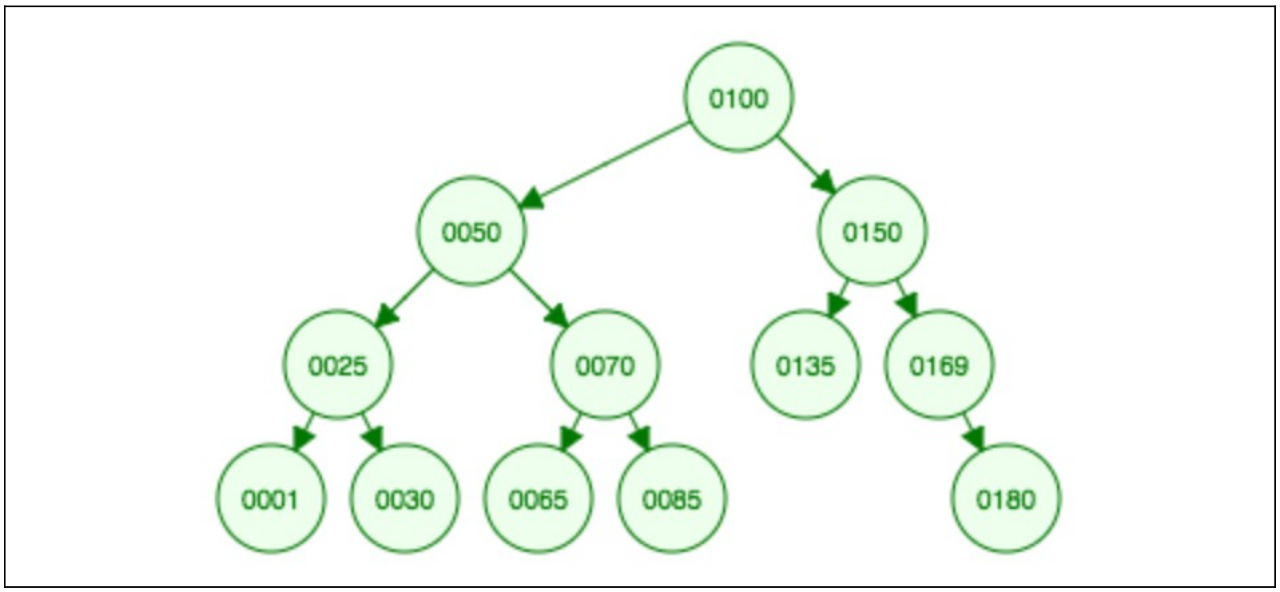
Tutorial: Binary Search Tree

1. What is a binary search tree (BST)?

2. Build a BST based on the input 50, 30, 25, 71, 80, 99, 40, 1, 7, 5. Draw the final tree.

3. What is the height of the tree built in Question 2?

4. Given the following BST, list the items in the order of:



   (a) Pre-order traversal

   (b) In-Order traversal

   (c) Post-order traversal

5. Using the same BST in Question 4, delete the element `0030'. Draw the resulting tree.

6. Again, using the same BST in Question 3 (i.e., ignoring the deletion of `0030' in Question 5), delete the element `0050'. Draw the resulting tree.