

Review Questions 06

Topic: Binary Tree Data Structure

1. How many leaf nodes does a fully balanced binary tree of depth $d = 3$ have?
2. How many nodes does a fully balanced binary tree of depth $d = 3$ have?
3. What is the range of possible depths of a binary tree with 100 nodes?
4. What are the advantages and disadvantages of using a BST?
5. Insert the following 10 states in the US that firstly ratified the US Constitution into a BST. After the insertion, show the results of in-order, pre-order, and postorder visitations of this BST.

MD, DE, PA, NJ, GA, CT, MA, SC, NH, VA