

DSA Tutorial

Topic: Binary Trees

Traversals

- How would you implement Preorder, Inorder and Postorder traversal using recursion?
- Now how would you implement Preorder and Inorder **without** using recursion?
- What about Postorder without recursion?
- What is level order traversal, how would you implement it?

Hint: Try to use data structures.

Binary Search Trees

- How to get the sorted order of elements in a BST?
- Implement the operations Insert, Delete and Search in a BST.
- What is the time complexity of each operation?
- What is the time complexity of sorting an array using BST using the above operations? Describe the worst case scenario.
- How can you mitigate the worst case while sorting an array using BST? (Hint: randomization)

Coding Problems:

- Validate if a given tree is a BST.
- Find the Closest Value to a Given Target in a BST.