

Week 8 - Implementation of Binary Search Tree and it's traversals.

Write a program to perform the following operations on a binary search tree (BST) :

1. Insert a node into a binary search tree
2. Print the preorder traversal of the binary search tree
3. Print the inorder traversal of the binary search tree
4. Print the postorder traversal of the binary search tree
5. Delete a node from a binary search tree

Input Format :

Every new line has one of the following operation codes and any data needed for the operation (For ex: The element that needs to be inserted):

- 1 x - Insert element 'x' into it's valid position in the binary search tree
- 2 - Print the preorder traversal of the binary search tree
- 3 - Print the inorder traversal of the binary search tree
- 4 - Print the postorder traversal of the binary search tree
- 5 x - Delete element 'x' and reconstruct the binary search tree.

Output Format :

While printing the preorder, inorder and postorder (operation codes 2, 3, 4 respectively), print the elements in a single line in a space-separated manner.