Q9.

In this problem, you are required to implement **a Binary Search Tree (BST)** data structure along with three traversal functions: **Preorder, Inorder, and Postorder**.

Please do not modify any functions that are labeled as "do not modify" in the file.

Note:

- In DeleteNode(), if the node has both a left and right child, the node should be replaced with the maximum value node from its left subtree.

Input Format

Each input file contains a number of operations ,a single line with a list of random integers for initial BST and a sequence of **valid** operations.

- '+': Insert a new node to BST
- '-': Delete a node from BST
-

Output Format

You must store the results of each traversal in their corresponding vectors for output.
For example, the result of the Preorder traversal should be stored in **preOrderAnswer.**

Sample Input 1

```
5
6 2 8 0 4 7 9 3 5
+ 10
- 7
- 6
+ 1
+ 11
```

Sample Output 1

```
PreOrder traversal:5,2,0,1,4,3,8,9,10,11
InOrder traversal:0,1,2,3,4,5,8,9,10,11
PostOrder traversal:1,0,3,4,2,11,10,9,8,5
```

Sample Input 2

```
8
7 3 2 5 10 8 12
+ 1
+ 4
+ 13
+ 20
- 7
- 20
+ 7
- 5
```

Sample Output 2

PreOrder traversal:4,3,2,1,10,8,7,12,13
InOrder traversal:1,2,3,4,7,8,10,12,13
PostOrder traversal:1,2,3,7,8,13,12,10,4