**Q1.** WAP to insert 10,20,30, 40, 50, 60, 70, 75, 80 in the given sequence in a BST. Given the root node as an argument,Write a function recursive/non recursive to return height of the tree. WAP to find below traversals of a given root node in a non-recursive manner.

1. Inorder
2. Preorder
3. Post order
4. Level order

**Q.2.** WAP to Insert BST nodes in Q.1. in a balanced BST. Call above written function in Q.1. to find height of this Balanced Tree.

**Q.3.** Write a program to construct an AVL tree by inserting following elements (one by one): 10, 20, 30, 40, 50, 45, 35, 25, 15, 5, 8, 18, 28, 38, and 48. Display the in-order traversal of the constructed AVL tree. Now, one by one delete following elements: 38, 50, and 10 from the AVL tree. Further, display the in-order traversal of the updated AVL.

**Q.4.** It is desired to check whether given BST is an AVL Tree or not. Write a program to perform the desired task.

**Q.5.** It is desired to insert following elements {10, 20, 30, 40, 50, 45, 35, 25, 15, 5, 8, 18, 28, 38, and 48} into a) Binary tree, and b) K=3 ary tree and (c) Balanced BST 2. Write a program to construct both the Trees by inserting the mentioned elements one by one. Traverse each node of the Tree in pre-order. Insert Further you need to delete following elements (one by one) from BST: 18, 50, 25, 30, and 28. After deletion, traverse each node of the BST in pre-order.