

```
1  #include<stdio.h>
2  #include<stdlib.h>
3
4  struct Node {
5      int data;
6      struct Node *left, *right;
7  };
8
9  struct Node *createNode(int value){
10     struct Node *newNode = (struct Node*)malloc(sizeof(struct Node));
11     newNode->data = value;
12     newNode->left = newNode->right = NULL;
13     return newNode;
14 }
15 struct Node *insert(struct Node* root, int value){
16     if(root == NULL) return createNode(value);
17     if(value < root->data){
18         root->left = insert(root->left, value);
19     }
20     else if(value > root->data){
21         root->right = insert(root->right, value);
22     }
23     return root;
24 }
25
26 void inorder(struct Node* root){
27     if(root != NULL){
28         inorder(root->left);
29         printf("%d ", root->data);
30         inorder(root->right);
31     }
32 }
33 void preorder(struct Node* root){
34     if(root != NULL){
35         printf("%d ", root->data);
36         preorder(root->left);
37         preorder(root->right);
38     }
39 }
40 void postorder(struct Node* root){
41     if(root != NULL){
42         postorder(root->left);
43         postorder(root->right);
44         printf("%d ", root->data);
45     }
46 }
```

```
47
48 int main() {
49     struct Node *root = NULL;
50     int n, value;
51     printf("Enter number of elements to insert into Binary Search Tree: ")
52     scanf("%d", &n);
53
54     printf("Enter %d elements:\n", n);
55     for(int i = 0; i < n; i++) {
56         scanf("%d", &value);
57         root = insert(root, value);
58     }
59
60     printf("\nInorder Traversal: ");
61     inorder(root);
62
63     printf("\nPreorder Traversal: ");
64     preorder(root);
65
66     printf("\nPostorder Traversal: ");
67     postorder(root);
68
69     return 0;
70 }
71
```

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▼

Enter number of elements to insert into Binary Search Tree: 6

Enter 6 elements:

12

-23

-3

100

56

95

Inorder Traversal: -23 -3 12 56 95 100

Preorder Traversal: 12 -23 -3 100 56 95

Postorder Traversal: -3 -23 95 56 100 12

Process returned 0 (0x0) execution time : 36.795 s

Press any key to continue.

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