

```

1  #include<stdio.h>
2  #include<stdlib.h>
3
4  typedef struct bst
5  {
6      int data;
7      struct bst * left;
8      struct bst * right;
9  }node;
10
11  node *create ()
12  {
13
14      node * temp;
15      temp=(node*)malloc(sizeof(node *));
16      printf("enter data");
17      scanf("%d",&temp->data);
18      temp->left=temp->right=NULL;
19
20      return temp;
21  }
22  node * insert(node * root, node * temp)
23  {
24      if(temp->data<root->data)
25      {
26
27          if(root->left!=NULL)
28          {
29              insert(root->left,temp);
30          }
31          else
32              root->left=temp;
33      }
34      if(temp->data>root->data)
35      {
36          if(root->right!=NULL)
37          {
38              insert(root->right,temp);
39          }
40          else
41              root->right=temp;
42      }
43  }
44
45  void preorder(node * root)
46  {
47      if(root!=NULL)
48      {

```

```

47     if(root!=NULL)
48     {
49         printf("%d\t", root->data);
50         preorder(root->left);
51         preorder(root->right);
52     }
53 }
54
55 void inorder(node * root)
56 {
57     if(root!=NULL)
58     {
59
60         inorder(root->left);
61         printf("%d\t", root->data);
62         inorder(root->right);
63     }
64 }
65 void postorder(node * root)
66 {
67     if(root!=NULL)
68     {
69
70         postorder(root->left);
71         postorder(root->right);
72         printf("%d\t", root->data);
73     }
74 }
75
76
77 void main()
78 {
79     char ch;
80     node * root=NULL, *temp;
81     do
82     {
83
84         temp=create();
85         if(root==NULL)
86             root=temp;
87         else
88             insert(root, temp);
89         printf("you want to enter more number");
90         getchar();
91         scanf("%c", &ch);
92     }while(ch=='Y' || ch=='y');
93     printf("preorder ");

```

94  
95  
96  
97  
98  
99  
100  
101  
102

```
preorder(root);  
printf("\ninorder ");  
inorder(root);  
printf("\npostorder ");  
postorder(root);  
}
```

C:\Users\Admin\Desktop\bst.exe

enter data20

you want to enter more number y

enter data25

you want to enter more number y

enter data15

you want to enter more number y

enter data10

you want to enter more number y

enter data5

you want to enter more number y

enter data35

you want to enter more number n

preorder 20      15      10      5      25      35

inorder 5      10      15      20      25      35

postorder 5      10      15      35      25      20

Process returned 3 (0x3)      execution time : 33.838 s

Press any key to continue.