

```

1  #include<stdlib.h>
2  #include<stdio.h>
3  #include<iostream>
4  #include<stack>
5
6  using namespace std;
7
8  struct BinaryNode
9  {
10     struct BinaryNode *left;
11     struct BinaryNode *right;
12     int data;
13 };
14
15 stack <BinaryNode *> s;
16
17
18 struct BinaryNode * createBinaryNode(int data)
19 {
20     struct BinaryNode * B= (struct BinaryNode *)malloc(sizeof(struct BinaryNode));
21     B->left=NULL;
22     B->right=NULL;
23     B->data=data;
24     return B;
25 }
26
27 void postOrder(struct BinaryNode *root)
28 {
29     if(root==NULL)
30         return;
31     while(1)
32     {
33         while(root)
34         {
35             s.push(root);
36             root=root->left;
37         }
38
39         root=s.top();
40         s.pop();
41         if(root->right==NULL)
42         {
43             printf("%2d\t",root->data);
44             while(!s.empty())
45             {
46                 if(s.top()->right==root)
47                 {
48                     printf("%2d\t",s.top()->data);
49                     root=s.top();
50                     s.pop();
51                 }
52                 else
53                     break;
54             }
55
56             root=NULL;
57         }
58         else
59         {
60             s.push(root);
61             root=root->right;
62         }
63         if(s.empty())
64             break;
65     }
66 }

```

```
67
68 int main()
69 {
70     struct BinaryNode * root=createBinaryNode(10);
71     root->left=createBinaryNode(20);
72     root->right=createBinaryNode(30);
73     root->left->left=createBinaryNode(40);
74     root->left->right=createBinaryNode(50);
75     root->right->left=createBinaryNode(60);
76     root->right->right=createBinaryNode(70);
77     root->right->right->right=createBinaryNode(90);
78     root->right->right->left=createBinaryNode(80);
79
80     postOrder(root);
81
82 }
```