

```

1  #include<stdio.h>
2  #include<stdlib.h>
3
4  struct BinaryNode
5  {
6      struct BinaryNode *left;
7      int data;
8      struct BinaryNode *right;
9  };
10
11 struct BinaryNode * CreateBinaryNode(int value)
12 {
13     struct BinaryNode *B=(struct BinaryNode *)malloc(sizeof(struct BinaryNode));
14     B->left=NULL;
15     B->data=value;
16     B->right=NULL;
17     return B;
18 };
19
20
21 struct BinaryNode * KthSmallest(struct BinaryNode *root, int k)
22 {
23     static int counter=0;
24     struct BinaryNode *left=NULL,*right=NULL;
25     if(!root)
26         return NULL;
27     left=KthSmallest(root->left,k);
28     counter++;
29     if(counter==k)
30         return root;
31
32     right=KthSmallest(root->right,k);
33
34     if(left)
35         return left;
36     else if(right)
37         return right;
38     else
39         return NULL;
40 }
41
42 void main()
43 {
44     struct BinaryNode *root;
45     root=CreateBinaryNode(100);
46     root->left=CreateBinaryNode(50);
47     root->right=CreateBinaryNode(150);
48     root->left->left=CreateBinaryNode(25);
49     root->left->right=CreateBinaryNode(75);
50     root->right->left=CreateBinaryNode(125);
51     root->right->right=CreateBinaryNode(200);
52
53     printf("3rd Smallest element u is %d",KthSmallest(root,4)->data);
54 }

```