

```

1  #include<stdio.h>
2  #include<stdlib.h>
3
4  int first(int A[], int low, int high, int x, int n)
5  {
6      if(high >= low)
7      {
8          int mid = (low + high)/2;
9          if(( mid == 0 || x > A[mid-1]) && A[mid] == x)
10         {
11             printf("\nFirst Occurence : %d",mid);
12             return mid;
13         }
14         else if(x > A[mid])
15             return first(A, (mid + 1), high, x, n);
16         else
17             return first(A, low, (mid -1), x, n);
18     }
19     return -1;
20 }
21
22 int last(int A[], int low, int high, int x, int n)
23 {
24     if (high >= low)
25     {
26         int mid = (low + high)/2;

```



```

4  if (high >= low)
5  {
6      int mid = (low + high)/2;
7      if( ( mid == n-1 || x < A[mid+1]) && A[mid] == x )
8      {
9          printf("\nLast Occurence : %d",mid);
10         return mid;
11     }
12     else if(x < A[mid])
13         return last(A, low, (mid -1), x, n);
14     else
15         return last(A, (mid + 1), high, x, n);
16 }
17 return -1;
18 }
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41 int count(int A[], int n, int x)
42 {
43     int i;
44     int j;
45
46     i = first(A, 0, n-1, x, n);
47
48     if(i == -1)
49         return i;

```



main.c

```
52 return j-1+1;
53 }
54
55 int main()
56 {
57     int A[100000],n;
58     int i,k;
59     printf("\nEnter The Size Of The Array : ");
60     scanf("%d",&n);
61     printf("\nEnter %d Elements in Ascending Order : \n",n);
62     for(i=0;i<n;i++)
63     {
64         scanf("%d",&A[i]);
65     }
66     printf("\nEnter The Key To Be Searched : ");
67     scanf("%d",&k);
68     int c = count(A,n,k);
69     if(c != -1)
70     {
71         printf("\nThe Element %d Occurs %d Times...!",k,c);
72     }
73     else
74     {
75         printf("\n%d",c);
76     }
77     return 0;
78 }
```

Contact Us

Input

int main()

Enter The Size Of The Array : 5

Enter 5 Elements in Ascending Order :  
1 2 2 3 6

Enter The Key To Be Searched : 2

First Occurrence : 1

Last Occurrence : 2

The Element 2 Occurs 2 Times...!

...Program finished with exit code 0

Press ENTER to exit console.