

```
1 #include <stdio.h>
2 int binarySearch(int arr[], int n, int x) {
3     int low = 0, high = n - 1;
4     while(low <= high) {
5         int mid = (low + high) / 2;
6         if(arr[mid] == x) return mid;
7         else if(arr[mid] < x) low = mid + 1;
8         else high = mid - 1;
9     }
10    return -1;
11 }
12 int main() {
13     int n, x;
14     scanf("%d", &n);
15     int arr[n];
16     for(int i = 0; i < n; i++) scanf("%d", &arr[i]);
17     scanf("%d", &x);
18     int res = binarySearch(arr, n, x);
19     if(res != -1)
20         printf("Element found at location %d\n", res);
21     else
22         printf("Element not found\n");
23     return 0;
24 }
```

6

1 5 6 7 9 10

7

Element found at location 3