

Binary search in C

Binary search in C language to find an element in a sorted array. If the array isn't sorted, we must sort it using a sorting technique such as merge sort. If the element to search is present in the list, then we print its location. The program assumes that the input numbers are in *ascending* order.

Binary search program in C

```
#include <stdio.h>

int main()
{
    int c, first, last, middle, n, search, array[100];

    printf("Enter number of elements\n");
    scanf("%d", &n);

    printf("Enter %d integers\n", n);

    for (c = 0; c < n; c++)
        scanf("%d", &array[c]);

    printf("Enter value to find\n");
    scanf("%d", &search);

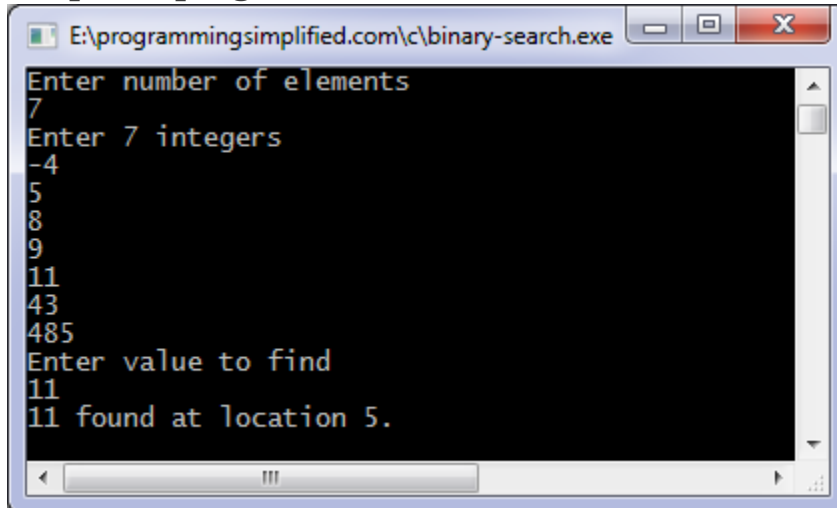
    first = 0;
    last = n - 1;
    middle = (first+last)/2;

    while (first <= last) {
        if (array[middle] < search)
            first = middle + 1;
        else if (array[middle] == search) {
            printf("%d found at location\n", search, middle+1);
            break;
        }
        else
            last = middle - 1;

        middle = (first + last)/2;
    }
    if (first > last)
```

```
    printf("Not found! %d isn't present in the  
list.\n", search);  
  
    return 0;  
}
```

Output of program:



```
E:\programmingsimplified.com\c\binary-search.exe  
Enter number of elements  
7  
Enter 7 integers  
-4  
5  
8  
9  
11  
43  
485  
Enter value to find  
11  
11 found at location 5.
```