📱 Switch to mobile version

muhammed-salman / **DSLab**

Watch 2 | ⭐ Star 4 | Fork 6

<> Code | ⓘ Issues 0 | Pull requests 0 | Projects 0 | 📖 Wiki | Insights

Branch: master ▾ **DSLab** / **binarysearch.c**

Find file | Copy path

muhammed-salman Binary search   ee6f8c3 22 days ago

1 contributor

40 lines (38 sloc) | 771 Bytes

Raw | Blame | History

```c
1    #include<stdio.h>
2    #define MAX_SIZE 100
3    int binary_search(int a[],int num,int n){
4            int low=0,high=n-1,mid;
5            while(low<=high){
6                    mid=(low+high)/2;
7                    if(a[mid]==num)
8                            return mid;
9                    else{
10                           if(num>a[mid])
11                                   low=mid+1;
12                           else
13                                   high=mid-1;
14                   }
15           }
16           return -1;
17   }
18
19   int main(){
20           int a[MAX_SIZE],i,pos,n,e;
21           printf("\nEnter the size of array(1 to 100): ");
22           scanf("%d",&n);
23           if(n<0 || n>100)
24           {
25                   printf("\nInvalid Array Size");
26                   return 0;
27           }
28           printf("\nEnter the elements of array in ascending order: ");
29           for(i=0;i<n;i++)
30                   scanf("%d",&a[i]);
31           printf("\nEnter the element to be searched: ");
32           scanf("%d",&e);
33           pos=binary_search(a,e,n);
34           if(pos==-1)
35                   printf("\nThe Element is not found");
36           else
37                   printf("\nThe Element is found at %d position",pos);
38           return 0;
39   }
```