RAJALAKSHMI ENGINEERING COLLEGE

NEIL DANIEL A 2024-CSE

N2

Started on	Wednesday, 17 September 2025, 9:07 AM
State	Finished
Completed on	Wednesday, 17 September 2025, 9:27 AM
Time taken	20 mins 15 secs
Marks	1.00/1.00
Grade	**10.00** out of 10.00 (**100**%)

Question 1 | Correct Mark 1.00 out of 1.00

Problem Statement:

Given a sorted array and a value x, the floor of x is the largest element in array smaller than or equal to x. Write divide and conquer algorithm to find floor of x.

Input Format

First Line Contains Integer n – Size of array

Next n lines Contains n numbers – Elements of an array

Last Line Contains Integer x – Value for x

Output Format

First Line Contains Integer – Floor value for x

Answer: (penalty regime: 0 %)

```c
#include <stdio.h>
#include <stdlib.h>
int main(){
    int n,min=1000,mini=0;
    scanf("%d",&n);
    int a[n],diff[n];
    for(int i=0;i<n;i++){
        scanf("%d",&a[i]);
    }
    int x;
    scanf("%d",&x);
    for(int i=0;i<n;i++){
        diff[i]=abs(a[i]-x);
    }
    for(int i=0;i<n;i++){
        if(diff[i]<min && a[i]<x){
            min = diff[i];
            mini=i;
        }
    }
    printf("%d",a[mini]);
}
```

	Input	Expected	Got	
✔	6 1 2 8 10 12 19 5	2	2	✔
✔	5 10 22 85 108 129 100	85	85	✔

	Input	Expected	Got	
✔	7 3 5 7 9 11 13 15 10	9	9	✔

Passed all tests! ✔

Correct

Marks for this submission: 1.00/1.00.

Back to Course