CS23331-Design and Analysis of Algorithms-2023 Batch-CSE

Quiz navigation

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Finish review

Started on	Tuesday, 3 September 2024, 1:35 PM
State	Finished
Completed on	Tuesday, 3 September 2024, 1:45 PM
Time taken	10 mins 34 secs
Marks	1.00/1.00
Grade	**10.00** out of 10.00 (**100**%)

Question **1**

Correct

Mark 1.00 out of 1.00

Flag question

Given an array of N integer, we have to maximize the sum of arr[i] * i, where i is the index of the element (i = 0, 1, 2, ..., N).Write an algorithm based on Greedy technique with a Complexity O(nlogn).

Input Format:

First line specifies the number of elements-n

The next n lines contain the array elements.

Output Format:

Maximum Array Sum to be printed.

Sample Input:

5

2 5 3 4 0

Sample output:

40

Answer: (penalty regime: 0 %)

```
#include<stdio.h>
int main(){
    int n,temp=0,sum=0;
    scanf("%d",&n);
    int a[n];
    for(int i=0;i<n;i++){
        scanf("%d",&a[i]);
    }

    for(int i=0;i<n;i++){
        for(int j=i+1;j<n;j++){
            if(a[i]>a[j] ){
                temp=a[j];
                a[j]=a[i];
                a[i]=temp;


            }
        }
    }
    for(int i=0;i<n;i++){
       sum=sum+(a[i]*i);
    }
    printf("%d",sum);
}
```

	Input	Expected	Got	
✔	5 2 5 3 4 0	40	40	✔
✔	10 2 2 2 4 4 3 3 5 5 5	191	191	✔
✔	2 45	45	45	✔

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Passed all tests! ✔

Correct

Marks for this submission: 1.00/1.00.

Finish review

⇥ 3-G-Burger Problem

Jump to...

5-G-Product of Array elements-Minimum ⇤