4-G-Array Sum max problem

Started on	Wednesday, 27 August 2025, 9:10 AM
State	Finished
Completed on	Wednesday, 27 August 2025, 9:33 AM
Time taken	23 mins 30 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 %)

```c
#include<stdio.h>
#include<stdlib.h>
#include<math.h>
int main(){
    int a;
    scanf("%d",&a);
    int arr[a];
    for(int i=0;i<a;i++){
        scanf("%d",&arr[i]);
    }
    for(int i=0;i<a;i++){
        for(int j=0;j<a-1;j++){
            if(arr[j]>arr[j+1]){
                int temp=arr[j];
                arr[j]=arr[j+1];
                arr[j+1]=temp;
            }
        }
    }
    int c=0;
    for(int i=0;i<a;i++){
        c+=arr[i]*i;
    }
    printf("%d",c);
    return 0;
}
```

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

	5 5			
✔	2 45 3	45	45	✔

Passed all tests! ✔

Correct

Marks for this submission: 1.00/1.00.

Finish review

Back to Course