Started on	Thursday, 29 August 2024, 10:22 AM
State	Finished
Completed on	Thursday, 29 August 2024, 10:52 AM
Time taken	29 mins 54 secs
Marks	1.00/1.00
Grade	**10.00** out of 10.00 (**100**%)

Question **1**

Correct

Mark 1.00 out of 1.00

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>
void swap(int*a,int*b) {
    int temp=*a;
    *a=*b;
    *b=temp;
}
void bs(int arr[],int size) {
    for (int i=0;i<size-1;i++) {
        for (int j=0;j<size-i-1;j++) {
            if (arr[j]>arr[j + 1]) {
                swap(&arr[j],&arr[j+1]);
            }
        }
    }
}

int main() {
    int size;
    scanf("%d", &size);
    int arr[size];
    for (int i = 0; i < size; i++) {
        scanf("%d", &arr[i]);
    }
    bs(arr, size);
    int mSum = 0;
    //printf("array:\n");
    for (int i = 0; i < size; i++) {
        //printf("%d",arr[i]);
        mSum+=arr[i]*i;
    }
    printf("%d",mSum);
    return 0;
}
```

	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 3	45	45	✔

Passed all tests! ✔

Correct

Marks for this submission: 1.00/1.00.

◄ 3-G-Burger Problem

Jump to...

5-G-Product of Array elements-Minimum ►