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Started on	Tuesday, 1 October 2024, 11:48 AM
State	Finished
Completed on	Tuesday, 1 October 2024, 11:49 AM
Time taken	33 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 ($i = 0, 1, 2, \dots, N$). Write an algorithm based on Greedy technique with a Complexity $O(n \log n)$.

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 %)

```
1  #include<stdio.h>
2  int main (){
3      int n;
4      scanf("%d",&n);
5      int arr[n];
6      for(int i=0; i<n; i++){
7          int x;
8          scanf("%d",&x);
9          arr[i]=x;
10     }
11
12     for (int i=0; i<n; i++) {
13         for (int j=i+1; j<n; j++){
14             if (arr[i] > arr[j]) {
15                 int a = arr[i];
16                 arr[i] = arr[j];
17                 arr[j] = a;
18             }
19         }
20     }
21
22     }
23     int sum=0;
24     for(int i=1; i<n; i++){
25         sum+=arr[i]*i;
26     }
27     printf("%d",sum);
28 }
29
30
```

	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 ▶