RAJALAKSHMI ENGINEERING COLLEGE

NEIL DANIEL A 2024-CSE

N2

Started on	Saturday, 30 August 2025, 1:21 PM
State	Finished
Completed on	Saturday, 30 August 2025, 1:22 PM
Time taken	1 min 6 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>

int main() {
    int n;
    scanf("%d", &n);

    int arr[100], i, j, temp;
    for (i = 0; i < n; i++) {
        scanf("%d", &arr[i]);
    }

    for (i = 0; i < n - 1; i++) {
        for (j = 0; j < n - i - 1; j++) {
            if (arr[j] > arr[j + 1]) {
                temp = arr[j];
                arr[j] = arr[j + 1];
                arr[j + 1] = temp;
            }
        }
    }

    long long sum = 0;
    for (i = 0; i < n; i++) {
        sum = sum + (long long)arr[i] * i;
    }

    printf("%lld", sum);
    return 0;
}
```

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

	Input	Expected	Got	
✔	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.

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