Marwadi University	Marwadi University Faculty of Technology Department of Information and Communication Technology	
Sem : 3	Name : VEDANT BHARAD	
Day : 43	Date : 29/11/2022	Enrollment No: 92100133023

CP Club 365Days Challenge

Date – 29/11/2022

Programming language – Your preferred programming language

Problem Statement

https://www.hackerrank.com/challenges/marcs-cakewalk/problem?isFullScreen=true

Your Code:

```
// 0x43Day of 0x365Days challenge
// VEDANT BHARAD
// 29-11-2022
#include <assert.h>
#include <ctype.h>
#include <limits.h>
#include <math.h>
#include <stdbool.h>
#include <stddef.h>
#include <stdint.h>
#include <stdio.h>
#include <stdlib.h>
#include <string.h>

char* readline();
char* ltrim(char*);
char* rtrim(char*);
char** split_string(char*);
int parse_int(char*);
int* myFun(int* arr,int len)
{
    for(int loop=0;loop<len;loop++){
        for(int loop2=loop;loop2<len;loop2++){
            if(arr[loop]<arr[loop2]){
                int temp=arr[loop];
                arr[loop]=arr[loop2];
                arr[loop2]=temp;
            }
        }
    }
    return arr;
```

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```
}
long marcsCakewalk(int calorie_count, int* calorie) {
    long sum=0,val=1;
    myFun(calorie,calorie_count);
    for(int loop=0; loop<calorie_count; loop++) {
        sum=sum+(calorie[loop]*val);
        val=val*2;
    }
    return sum;
}
int main()
{
    FILE* fptr = fopen(getenv("OUTPUT_PATH"), "w");
    int n = parse_int(ltrim(rtrim(readline())));
    char** calorie_temp = split_string(rtrim(readline()));
    int* calorie = malloc(n * sizeof(int));
    for (int i = 0; i < n; i++) {
        int calorie_item = parse_int(*(calorie_temp + i));
        *(calorie + i) = calorie_item;
    }
    long result = marcsCakewalk(n, calorie);
    // fprintf(fptr, "%ld\n", result);
    printf("%ld\n", result);
    fclose(fptr);
    return 0;
}
char* readline() {
    size_t alloc_length = 1024;
    size_t data_length = 0;
    char* data = malloc(alloc_length);
    while (true) {
        char* cursor = data + data_length;
        char* line = fgets(cursor, alloc_length - data_length, stdin);
        if (!line) {
            break;
        }
        data_length += strlen(cursor);
        if (data_length < alloc_length - 1 || data[data_length - 1] == '\n') {
            break;
        }
        alloc_length <<= 1;
        data = realloc(data, alloc_length);
        if (!data) {
            data = '\0';
            break;
        }
    }
    if (data[data_length - 1] == '\n') {
        data[data_length - 1] = '\0';
        data = realloc(data, data_length);
        if (!data) {
            data = '\0';
        }
```

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```
    } else {
        data = realloc(data, data_length + 1);
        if (!data) {
            data = '\0';
        } else {
            data[data_length] = '\0';
        }
    }
    return data;
}
char* ltrim(char* str) {
    if (!str) {
        return '\0';
    }
    if (!*str) {
        return str;
    }
    while (*str != '\0' && isspace(*str)) {
        str++;
    }
    return str;
}
char* rtrim(char* str) {
    if (!str) {
        return '\0';
    }
    if (!*str) {
        return str;
    }
    char* end = str + strlen(str) - 1;
    while (end >= str && isspace(*end)) {
        end--;
    }
    *(end + 1) = '\0';
    return str;
}
char** split_string(char* str) {
    char** splits = NULL;
    char* token = strtok(str, " ");
    int spaces = 0;
    while (token) {
        splits = realloc(splits, sizeof(char*) * ++spaces);
        if (!splits) {
            return splits;
        }
        splits[spaces - 1] = token;
        token = strtok(NULL, " ");
    }
    return splits;
}
int parse_int(char* str) {
    char* endptr;
    int value = strtol(str, &endptr, 10);
```

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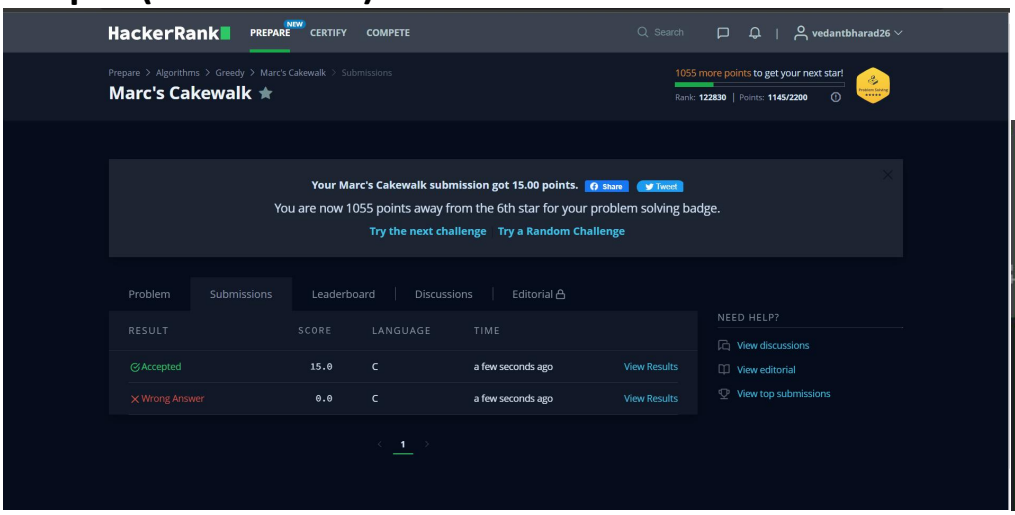
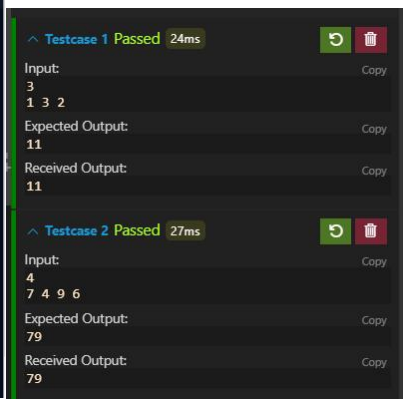
```
    if (endptr == str || *endptr != '\0') {
        exit(EXIT_FAILURE);
    }
    return value;
}
```

Output (Screen Shot):





Understanding about problem:

- In this task there two input first is size of array and second is array it self.
- first I need to sort array in descending order.
- In this task I need to return long int value which will be sum of array element with power of 2.

Note: If you can't understand the problem, feel free to contact us and we'll help you. Please don't copy and paste from anywhere.

ALL THE BEST

Team CP Club