PLACEMENTS KEY’S

Coding Challenge #21 (Question)

Day - 11

Write a program to find the k^{th} odd integer in a sequence of non-negative integers, and then call your function from main.

Your function should be according to the following declaration.

int find_odd(int k);

Input:

1. You are given the input in two lines.
2. The first line contains a positive integer k.
3. In the second line, you will be given a sequence of non-negative integers, terminated with -1. Please note that -1 is not part of the sequence.

Output:

If there are k odd numbers in the sequence, then output the k^{th} odd number in the sequence. If there aren’t k odd numbers in the sequence, output -1.

Sample Input 0:

```
2

1 1 3 2 3 4 1 -1
```

Sample Output 0:

```
1
```

PLACEMENTS KEY'S

Coding Challenge #21 (Question Contd.)

Day - 11

Sample Input 1:

```
2
2 4 6 1 7 -1
```

Sample Output 1:

```
7
```

Sample Input 2:

```
3
2 4 6 18 -1
```

Sample Output 2:

```
-1
```

PLACEMENTS KEY'S

Coding Challenge #21 (C Solution)

Day - 11

```
#include <stdio.h>
int oddOccurence(int n)
{
    int x=0;
    int y=0;
    printf("Enter the elements\n");
    while(x!=-1)
    {
        scanf("%d",&x);
        if(x%2!=0){
            y++;
            if(y==n)
                return x;
        }
    }
}
void main()
{
    int num,result;
    printf("Enter the frequency of odd numbers\n");
    scanf("%d",&num);
    result=oddOccurence(num);
    printf("The (%d) odd number is : %d",num,result);
}
```

PLACEMENTS KEY'S

Coding Challenge #21 (JAVA Solution)

Day - 11

```
import java.util.*;
public class OddOccurence
{
    public static int counting(ArrayList <Integer> A){
        int count=0;
        for(int x : A){
            if(x%2!=0){
                count++;
            }
        }
        return count;
    }
    public static void main(String[] args)
    {
        Scanner input = new Scanner(System.in);
        System.out.println("Enter the no. of occurence");
        int n = input.nextInt();
        ArrayList <Integer> array = new ArrayList<>();
        System.out.println("Please enter the elements");
        while(true){
            int x = input.nextInt();
            if(x==-1)
                break;
            else
                array.add(x);
        }
```

PLACEMENTS KEY'S

Coding Challenge #21(JAVA Solution Contd.)

Day - 11

```
int test = counting(array);
        if(test<n)
           System.out.println(-1);
        else{
            int c=1;
           for(int i=0;i<array.size();i++){
                if((array.get(i)%2)!=0){
                        if(c==n){
                           System.out.println(array.get(i));
                           break;
                         }
                        else
                            c++;
                         }
                   else
                    continue;
                   }
                }
        }
}
```

Day - 11

PLACEMENTS KEY'S

Coding Challenge #22 (Question)

In the question, you have to output the "moving average" of a sequence of non-negative numbers. The moving average is the sequence of averages of the last 2 entries. For the first number, no average is output.

For example , if the sequence of numbers is a1, a2, a3, a4, a5 then the 2-moving average is (a1+a2)/2, (a2+a3)/2, (a3+a4)/2, (a4+a5)/2.

Input:

The input is a sequence of non-negative floating point numbers, terminated by -1. Please note that -1 is not part of the sequence. There will be at least 3 numbers in the sequence.

Output:

You have to output the moving average of the sequence. The output should be printed correct to one digit after the decimal.

Sample input 0:

```
1 2 3 -1
```

Sample output 0:

```
1.5 2.5
```

Sample input 1:

```
4 6 2 -1
```

Sample output 1:

```
5.0 4.0
```

PLACEMENTS KEY'S

Coding Challenge #22 (C Solution)

Day - 11

```
#include <stdio.h>
void main()
{
    float x,y,avg;
    printf("Enter the elements\n");
    scanf("%f %f",&x,&y);
    avg=((x+y)/2.0);
    printf("%f ",avg);
    while(y!=-1)
    {
        x=y;
        scanf("%f",&y);
        if(y!=-1)
        {
            avg=((x+y)/2.0);
            printf(" %f ",avg);
        }
    }
}
```

Day - 11

PLACEMENTS KEY'S

Coding Challenge #22 (JAVA Solution)

```
import java.util.*;
public class MovingAverage
{
    public static void main(String[] args)
    {
        Scanner input = new Scanner(System.in);
        ArrayList <Integer> array = new ArrayList<>();
        System.out.println("Enter the elements");
        while(true){
            int x = input.nextInt();
            if(x==-1)
                break;
            else
                array.add(x);
        }
        System.out.println("Moving average of given sequence");
        for(int i=0;i<array.size()-1;i++){
            double avg = (array.get(i) + array.get(i+1))/2.0;
            System.out.print(avg + " ");
        }
    }
}
```