WEEK_05-Lists

Started on	Monday, 25 March 2024, 8:14 PM
State	Finished
Completed on	Monday, 25 March 2024, 8:42 PM
Time taken	28 mins 19 secs
Marks	5.00/5.00
Grade	**50.00** out of 50.00 (**100**%)
Name	SAKTHI MAHESWARI C 2022-CSD-A

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Question **1**

Correct

Mark 1.00 out of 1.00

Flag question

Program to print all the distinct elements in an array. Distinct elements are nothing but the unique (non-duplicate) elements present in the given array.

Input Format:

First line take an Integer input from stdin which is array length n.

Second line take n Integers which is inputs of array.

Output Format:

Print the Distinct Elements in Array in single line which is space Separated

Example Input:

5

1 2 2 3 4

Output:

1 2 3 4

Answer: (penalty regime: 0 %)

```
n=int(input())
l1=list()
for i in range(0,n):
    num=int(input())
    l1.append(num)
s1=set(l1)
for i in s1:
    print(i,end=" ")
```

	Input	Expected	Got	
✔	5 1 2 2 3 4	1 2 3 4	1 2 3 4	✔
✔	6 1 1 2 2 3 3	1 2 3	1 2 3	✔
✔	5 11 22 11 22 11	11 22	11 22	✔
✔	10 1 2 3 4 5 1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	✔

Passed all tests! ✔

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Question **2**

Correct

Mark 1.00 out of 1.00

Flag question

An array is monotonic if it is either **monotone increasing** or **monotone decreasing**.
An array A is monotone increasing if for all i <= j, **A[i] <= A[j]**. An array A is monotone decreasing if for all i <= j, **A[i] >= A[j]**.

Write a program if n array is monotonic or not. Print "True" if is monotonic or "False" if it is not. Array can be monotone increasing or decreasing.

Input Format:

First line n-get number of elements

Next n Lines is the array of elements

Output Format:

True ,if array is monotone increasing or decreasing.

otherwise False is printed

Answer: (penalty regime: 0 %)

```
n=int(input())
diff=0
n1=int(input())
n2=int(input())
diff=n2-n1
n1=n2
m1=0
if(diff>0):
    m1=1
for i in range(n-2):
    n2=int(input())
    diff1=n2-n1
    m2=0
    if(diff1>0):
        m2=1
    if(diff1!=diff and(n1+diff>=n2 or n2+diff>=n1)):
        c=1
    else:
        c=0
    n1=n2
if(c==1):
    print("False")
else:
    print("True")
```

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	Input	Expected	Got	
✔	4 6 5 4 3	True	True	✔
✔	4 3 5 7 9	True	True	✔
✔	4 1 6 9 2	False	False	✔
✔	4 9 6 4 2	True	True	✔
✔	3 2 1 4	False	False	✔

Passed all tests! ✔

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Question **3**

Correct

Mark 1.00 out of 1.00

Flag question

Given a list and we have to find the index/position of minimum and maximum elements of a list in Python.

```
if list = [10, 1, 2, 20, 3, 20]
```

then it must print

1

20

First line of input is no of elements in a list

Followed by n inputs one by one.

Output line 1 contains index of minimum element

Output line 2 contains index of maximum element

Answer: (penalty regime: 0 %)

```
n=int(input())
l1=list()
for i in range(0,n):
    num=int(input())
    l1.append(num)
    #continue
mi=l1[0]
ma=l1[0]
for i in l1:
    mi=min(l1)
    ma=max(l1)
print(l1.index(mi))
print(l1.index(ma))
```

	Input	Expected	Got	
✔	3 10 20 15	0 1	0 1	✔
✔	5 12 15 85 65 11	4 2	4 2	✔
✔	6 6 5 4 3 2 1	5 0	5 0	✔

Passed all tests! ✔

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Question **4**

Correct

Mark 1.00 out of 1.00

Flag question

Consider the following program statement:

One needs to first input a set of N number of ALPHABETIC Strings each representing a name of a student in an array studname [N]. Assume each string can be Max. 40 Character Long. Subsequently, one needs to input Marks obtained by those students in another array marks [N]. Assume that studname[I] i.e. ith student in the list of student names has obtained Marks [I] in the Marks List. You need to find out and print the Max Marks obtained by a student and also print the name of the student who has obtained this marks. Considering here both the arrays of size 5. Complete the program by filling up required code in editable section.

Sample Test Cases

Test Case 1

Input

Amit
Bratin
Sandip
Sundar
Patrick
34
48
23
16
45

Output

48
Bratin

Answer: (penalty regime: 0 %)

```
n=5
names=[]
marks=[]
for i in range(0,5):
    name=str(input())
    names.append(name)
for i in range(0,5):
    mark=int(input())
    marks.append(mark)
maxi=max(marks)
print(maxi)
m=marks.index(maxi)
print(names[m])
```

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	Input	Expected	Got	
✔	Amit Bratin Sandip Sundar Patrick 89 90 45 67 82	90 Bratin	90 Bratin	✔
✔	Amit Bratin Sandip Sundar Patrick 34 48 23 16 45	48 Bratin	48 Bratin	✔
✔	Amit Bratin Sandip Sundar Patrick 49 48 34 23 45	49 Amit	49 Amit	✔

Passed all tests! ✔

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Question **5**

Correct

Mark 1.00 out of 1.00

Flag question

Write a program that reads integers from the user and stores them in a list. Use 0 as a sentinel value to mark the end of the input. Once all of the values have been read your program should display them (except for the 0) in reverse order, with one value appearing on each line.

Sample Input

```
33
11
22
55
44
0
```

```
Sample Output

55
44
33
22
11
```

Answer: (penalty regime: 0 %)

```
l1=list()
while True:
    num=int(input())
    if num!=0:
        l1.append(num)
    else:
        l1.sort()
        for i in l1[::-1]:
            print(i)
        break
```

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	Input	Expected	Got	
✔	33 11 22 55 44 0	55 44 33 22 11	55 44 33 22 11	✔
✔	50 40 20 10 30 0	50 40 30 20 10	50 40 30 20 10	✔
✔	1 2 3 4 5 6 7 8 9 0	9 8 7 6 5 4 3 2 1	9 8 7 6 5 4 3 2 1	✔

Passed all tests! ✔