Started on	Saturday, 30 March 2024, 7:55 PM
State	Finished
Completed on	Saturday, 30 March 2024, 8:31 PM
Time taken	35 mins 46 secs
Marks	5.00/5.00
Grade	**50.00** out of 50.00 (**100**%)
Name	LIVIA MARY SEBASTIAN 2022-CSD-A

Question **1**

Correct

Mark 1.00 out of 1.00

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

Note: if more than one element is minimum / maximum then first index will be considered.

For example:

Input	Result
3 10 20 15	0 1

Answer: (penalty regime: 0 %)

```python
1  n=int(input())
2  l1=list()
3  for i in range(0,n):
4      num=int(input())
5      l1.append(num)
6  mi=l1[0]
7  ma=l1[0]
8  for i in l1:
9      mi=min(l1)
10     ma=max(l1)
11 print(l1.index(mi))
12 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! ✔

Correct

Marks for this submission: 1.00/1.00.

Question **2**

Correct

Mark 1.00 out of 1.00

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

Sample Input1

4

5

6

7

8

Sample Output1

True

Sample Input2

4

6

5

4

3

Sample Output2

True

Sample Input 3

4

6

7

 8

 7

Sample Output3

False

For example:

Input	Result
4 6 5 4 3	True

Answer: (penalty regime: 0 %)

```python
1  n=int(input())
2  diff=0
3  num1=int(input())
4  num2=int(input())
5  diff=num2-num1
6  num1=num2
7  m1=0
8  if(diff>0):
9      m1=1
10 for i in range(n-2):
11    num2=int(input())
12    diff1=num2-num1
13    m2=0
14    if(diff1>0):
15        m2=1
16    if(diff1!=diff and (num1+diff>=num2 or num2+diff>=num1)):
17        #print(diff," ",diff1)
18        flag=1
19    else:
20        flag=0
21    num1=num2
22 print(flag==0)
```

	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! ✔

Correct

Marks for this submission: 1.00/1.00.

Correct

Marks for this submission: 1.00/1.00.

Question **3**

Correct

Mark 1.00 out of 1.00

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

Test Case 2

 Input

 Amit

Bratin

Sandip

Sundar

Patrick

49

48

34

23

45

Output

 49

Amit

For example:

Input	Result
Amit Bratin Sandip Sundar Patrick 89 90 45 67 82	90 Bratin

Answer: (penalty regime: 0 %)

```
1  n=5
2  names=[]
3  marks=[]
4  for i in range (0,5):
5      name=str(input())
6      names.append(name)
7  for i in range(0,5):
8      mark=int(input())
9      marks.append(mark)
10 maxi=max(marks)
11 print(maxi)
12 m=marks.index(maxi)
13 print(names[m])
```

	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	✔

	Input	Expected	Got	
✔	Amit Bratin Sandip Sundar Patrick 49 48 34 23 45	49 Amit	49 Amit	✔

Passed all tests! ✔

<div style="border:1px solid;display:inline-block;padding:2px 6px;">Correct</div>

Marks for this submission: 1.00/1.00.

Question **4**

Correct

Mark 1.00 out of 1.00

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
```

For example:

Input	Result
33	55
11	44
22	33
55	22
44	11
0	

Answer: (penalty regime: 0 %)

```python
 1  l1=list()
 2  while True:
 3      num= int(input())
 4      if num!=0:
 5          l1.append(num)
 6      else:
 7          l1.sort()
 8          for i in l1[::-1]:
 9              print(i)
10          break
```

	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! ✔

Correct

Marks for this submission: 1.00/1.00.

Question **5**

Correct

Mark 1.00 out of 1.00

You are given an array of N integers, A1, A2, . . . , AN and an integer K. Return the of count of distinct numbers in all windows of size K.

Input :

1 2 1 3 4 3

3

Output :

2

3

3

2

Explanation

All windows of size K are

[1, 2, 1]

[2, 1, 3]

[1, 3, 4]

[3, 4, 3]

Answer: (penalty regime: 0 %)

```
 1  def count_distinct(arr, k):
 2    result = []
 3    for i in range(len(arr) - k + 1):
 4      distinct_elements = set(arr[i:i + k])
 5      result.append(len(distinct_elements))
 6    return result
 7
 8  # Get input from the user
 9  arr_str = input( )
10  arr = [int(x) for x in arr_str.split()]  # Convert string to integer list
11  k = int(input())
12
13  # Calculate and print the count of distinct numbers for each window
14  distinct_counts = count_distinct(arr, k)
15  for count in distinct_counts:
16    print(count)
```

	Input	Expected	Got	
✔	1 2 1 3 4 3 3	2 3 3 2	2 3 3 2	✔

Passed all tests! ✔

Correct

Marks for this submission: 1.00/1.00.

◄ Week-05_MCQ

Jump to...

WEEK-05-Extra ►

Correct

Marks for this submission: 1.00/1.00.