# Rajalakshmi Engineering College

Name: I Mohammed Hamza

Email: 240701326@rajalakshmi.edu.in

Roll no: 240701326 Phone: 7358328592

Branch: REC

Department: I CSE AH

Batch: 2028

Degree: B.E - CSE



# NeoColab\_REC\_CS23221\_Python Programming

REC\_Python\_Week 3\_COD

Attempt : 1 Total Mark : 50 Marks Obtained : 50

Section 1: Coding

### 1. Problem Statement

Dhruv wants to write a program to slice a given string based on userdefined start and end positions.

The program should check whether the provided positions are valid and then return the sliced portion of the string if the positions are within the string's length.

# **Input Format**

The first line consists of the input string as a string.

The second line consists of the start position (0-based index) as an integer.

The third line consists of the end position (0-based index) as an integer.

### **Output Format**

The output displays the following format:

If the start and end positions are valid, print the sliced string.

If the start and end positions are invalid, print "Invalid start and end positions".

Refer to the sample output for formatting specifications.

# Sample Test Case

```
Input: pythonprogramming
0
5
Output: python
Answer
```

```
string=input()
start=int(input())
end=int(input())
if start>=0 and end<len(string) and start<end:
    sliced_string=string[start:end+1]
    print(sliced_string)
else:
    print("Invalid start and end positions")</pre>
```

Status: Correct Marks: 10/10

#### 2. Problem Statement

Ram is working on a program to manipulate strings. He wants to create a program that takes two strings as input, reverses the second string, and then concatenates it with the first string.

Ram needs your help to design a program.

Input Format

The input consists of two strings in separate lines.

# **Output Format**

The output displays a single line containing the concatenated string of the first string and the reversed second string.

Refer to the sample output for the formatting specifications.

### Sample Test Case

Input: hello

word

Output: hellodrow

#### Answer

s1=input() s2=input() s3=s2[::-1] print(s1+s3)

Status: Correct Marks: 10/10

### 3. Problem Statement

Given a list of positive and negative numbers, arrange them such that all negative integers appear before all the positive integers in the array. The order of appearance should be maintained.

# Example

Input:

[12, 11, -13, -5, 6, -7, 5, -3, -6]

Output:

List = [-13, -5, -7, -3, -6, 12, 11, 6, 5]

# **Explanation:**

The output is the arranged list where all the negative integers appear before the positive integers while maintaining the original order of appearance.

#### **Input Format**

The input consists of a single line containing a list of integers enclosed in square brackets separated by commas.

### **Output Format**

The output displays "List = " followed by an arranged list of integers as required, separated by commas and enclosed in square brackets.

Refer to the sample output for the formatting specifications.

### Sample Test Case

```
Input: [12, 11, -13, -5, 6, -7, 5, -3, -6]

Output: List = [-13, -5, -7, -3, -6, 12, 11, 6, 5]

Answer

s1=eval(input())

pos=[]

neg=[]

for i in s1:

    if i<0:

        neg.append(i)

else:

    pos.append(i)

print("List =",end=' ')

print(neg+pos)
```

Status: Correct Marks: 10/10

4. Problem Statement

You have a string containing a phone number in the format "(XXX) XXX-XXXX". You need to extract the area code from the phone number and create a new string that contains only the area code.

Write a Python program for the same.

```
Note
```

(XXX) - Area code

XXX-XXXX - Phone number

#### Input Format

The input consists of a string, representing the phone number in the format "(XXX) XXX-XXXX".

# **Output Format**

The output displays "Area code: " followed by a string representing the area code for the given phone number.

Refer to the sample output for the formatting specifications.

## Sample Test Case

Input: (123) 456-7890 Output: Area code: 123

#### Answer

```
a=input()
code=""
for i in a:
    if i.isdigit():
        code+=i
    if i==')':
        break
print("Area code:",code)
```

Status: Correct

Marks: 10/10

# 5. Problem Statement

Alex is working on a Python program to manage a list of elements. He needs to append multiple elements to the list and then remove an element from the list at a specified index.

Your task is to create a program that helps Alex manage the list. The program should allow Alex to input a list of elements, append them to the existing list, and then remove an element at a specified index.

#### **Input Format**

The first line contains an integer n, representing the number of elements to be appended to the list.

The next n lines contain integers, representing the elements to be appended to the list.

The third line of input consists of an integer M, representing the index of the element to be popped from the list.

### **Output Format**

The first line of output displays the original list.

The second line of output displays the list after popping the element of the index M.

The third line of output displays the popped element.

Refer to the sample output for the formatting specifications.

# Sample Test Case

Input: 5

64

98

90

5

26

3

240701312

240701312

```
240701326
    Output: List after appending elements: [64, 98, -1, 5, 26]
    List after popping last element: [64, 98, -1, 26]
Popped element: 5
    Answer
    n=int(input())
    Ι=Π
    for i in range(n):
      str1=int(input())
      l.append(str1)
    index=int(input())
    print("List after appending elements:",I)
                                                                              240101326
                                                   240101326
    popped=l.pop(index)
print("List after popping last element:",l)
    print("Popped element:",popped)
```

240101326

Status: Correct

040101326

240701326

240701326

Marks: 10/10

240101326

240101326

240701326

240101326