- **Name: Ayush Singh**

- **Student ID: 590014204**

- **Branch: MCA**

- **Instructor: Abhirup Khanna**

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Question 1: Check for Vowels

Task: Write a program that checks if a given character is a vowel or consonant. The program should take a character input from the user and use conditional statements to determine and print whether it is a vowel or consonant.

```
a = input ("Enter character")
lis = ['a', 'e', 'i', 'o', 'u']
if a in lis:
    print (a," is a a vowel ")
else:
    print (a," is consonant")
```

Output:

```
1.py
Enter Character w
w   is consonant
PS D:\Mca_upes\codes and stuff>
```

```
Enter Character A
a   is vowel
PS D:\Mca_upes\codes and stuff>
```

Question 2: Sum of Elements in a List

Task: Write a program that takes a list of integers and calculates the sum of all the elements using a loop. Print the sum.

```
Q2

sum = 0
count = int(input("Enter the length of list"))
a = []
for i in range(0, count):
    x = int(input("enter the element of list"))
    a.append(x)
    sum = sum + x
print("Sum of list : ", sum)
```

Output:

```
Enter the length of list 5
Enter the element of list 2
Enter the element of list 4
Enter the element of list 5
Enter the element of list 6
Enter the element of list 7
Sum of list:   24
PS D:\Mca_upes\codes and stuff>
```

Question 3: Reverse a String

Task: Write a program that takes a string input from the user and prints the string in reverse order using a loop.

```
Q3   a = input (" enter string ")
     dis = list (a)
     cou = len (dis) - 1
     dis2 = []
     for i in range (cou, -1, -1):
          dis2. append (a [i]]
     b = " ". join (dis 2)
     print (newstring: ", b)
```
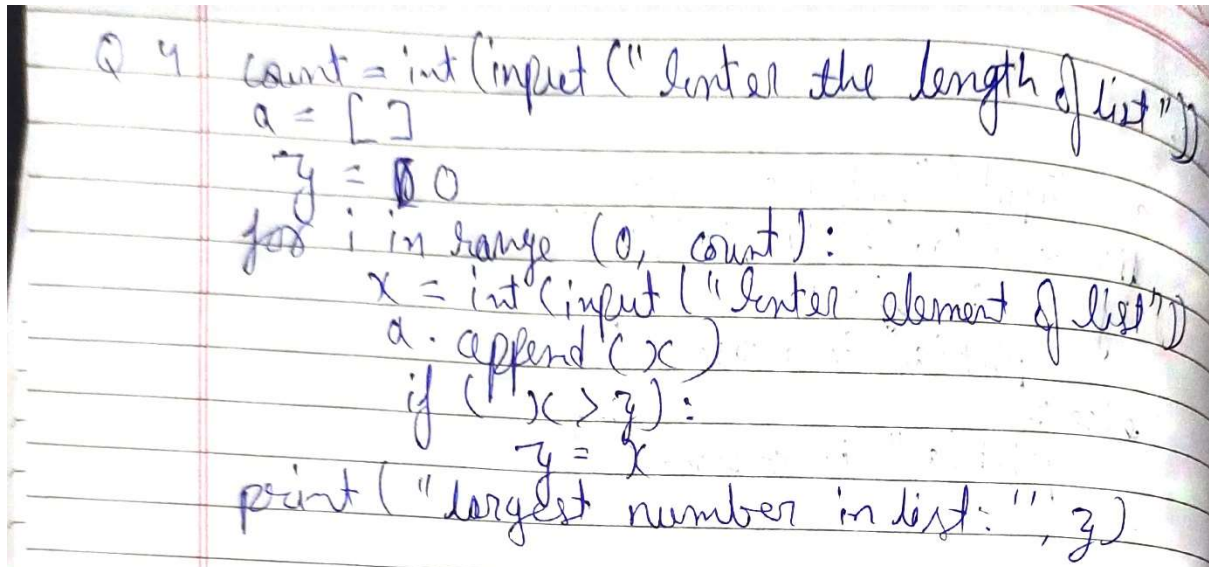
Output:

```
Enter string Ayush
old string: Ayush
new string: hsuyA
PS D:\Mca_upes\codes and stuff>
```

```
Enter string room
old string: room
new string: moor
PS D:\Mca_upes\codes and stuff>
```
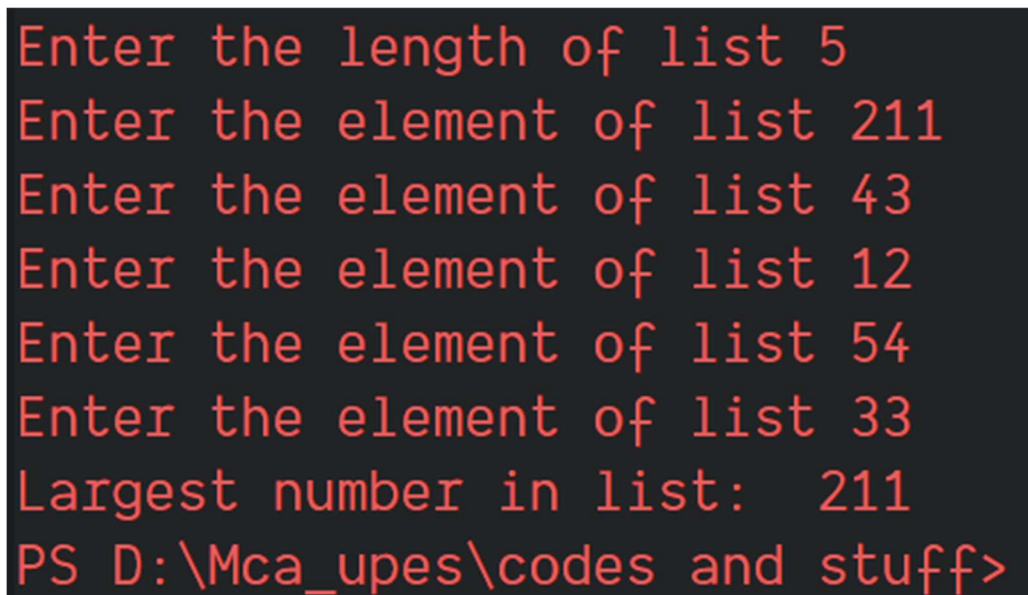
Question 4: Find the Largest Number in a List

Task: Write a program that takes a list of integers and finds the largest number in the list

using a loop and conditional statements. Print the largest number.

```
Q 4   count = int (input ("enter the length of list"))
      a = []
      y = 0
      for i in range (0, count):
          x = int (input ("enter element of list"))
          a. append (x)
          if (x > y):
              y = x
      print ("largest number in list:", y)
```

Output:

```
Enter the length of list 5
Enter the element of list 211
Enter the element of list 43
Enter the element of list 12
Enter the element of list 54
Enter the element of list 33
Largest number in list:  211
PS D:\Mca_upes\codes and stuff>
```

Question 5: Count Occurrences of a Character in a String

Task: Write a program that takes a string and a character as input from the user and counts the number of occurrences of the character in the string using a loop and conditional statements. Print the count.

```python
a = input("Enter the string")
a = a.capitalize()
ch = input("Enter char")
ch = ch.capitalize()
count = 0
for c in d
    if c == ch:
        count += 1
print(ch, "occurs", count, "times")
```

Output:

```
5.py"
Enter the string brotherhood
Enter char o
o   occurs   3   times
PS D:\Mca_upes\codes and stuff>
```

```
Enter the string hello world lets get started
Enter char l
l   occurs   4   times
PS D:\Mca_upes\codes and stuff>
```