# DA213 Python Programming Laboratory (JAN-MAY 2024)
# Lab Assignment 4

Instructions:

All questions are compulsory.

- You need to submit single python file named as ROLLNUMBER.py.
- Please ensure your Python script includes your name, roll number, date (DD/MM/YYYY), and start time (HH:MM) for proper identification.

**Question:1 [2 Marks]**

Write a Python program that reads a message from the user, alters the case of each character (converting lowercase letters to uppercase and vice versa), and then outputs the modified message.

Ensure that your program handles input strings with varying cases and non-alphabetic characters appropriately.

**Note:**

- You can assume that the input message contains only ASCII characters.

```
Enter a message: Hello World!
Altered Message: hELLO wORLD!
```

**Question:2 [2 Marks]**

Write a Python program that takes a string from the user and counts the number of vowels (a, e, i, o, u) in it. Ignore case sensitivity.

**Question: 3 [2 Marks]**
Reverse a string using slicing.

```
Enter a string: Hello World!
Reversed string using slicing: !dlroW olleH
```

**Question:4 [2 Marks]**

Write a Python program that creates a tuple of your favorite fruits. Then, perform the following operations:

- Print the length of the tuple.
- Print the first and last elements of the tuple.
- Use slicing to print the elements from the 2nd to the 4th.
- Attempt to change one of the elements of the tuple and observe the result.

**Question:5 [2 Marks]**

Create two tuples of numbers and perform the following operations:

- Concatenate them.
- Find their maximum and minimum values.
- Calculate the sum of all elements.