SCHOOL OF ADVANCED SCIENCES

Winter Semester 2024-2025

Digital Assignment 1

Programme Name & Branch	: MSc. & Data Science
Slot	: L29+L30
Course Name & code	: Regression Analysis and Predictive Models Lab & PMDS504P
Faculty Name	: Dr. Jisha Francis
Due Date & Max. Marks	: 23 January, 2025 & 10 Marks

Instructions:

1. Solve each of the following questions by writing Python code in a Jupyter notebook.

2. After completing the program, convert the Jupyter notebook into a PDF.

3. Upload the PDF file to VTOP before the due date. **I will not accept any submissions after the due date.**

Questions:

1. **Greatest of Three Numbers**
   Write a Python program to find the greatest of three numbers entered by the user. **Example:**

   - Input: last three digits of your register number, say 2, 8, 1.
   - Output: 8 is the greatest number

2. **Multiplication Table**
   Write a Python program to print the multiplication table of a number entered by the user.

3. **Print Numbers from 1 to 10 Using a For Loop**
   Write a Python program to print numbers from 1 to 10 using a `for` loop.

4. **Leap Year Program**
   Write a Python program using a single-line if-else statement to determine if a number is positive or negative.
   Example:

   - Input: -5
   - Output: Number is negative

5. **Mark Range (Pass or Fail)**
   Write a Python program that takes a student's marks as input and determines if the student has passed or failed. Assume passing marks are 40.

6. **Checking Vowels**
   Write a Python program to check if a given character is a vowel or not.

7. **Sum and Average Using While Loop**
   Write a Python program to calculate the sum and average of n numbers entered by the user using a `while` loop.

8. **Program to Print Fibonacci Sequence up to a Given Limit**
   Write a Python program to generate the Fibonacci sequence up to a user-specified limit.