Title: Mastering Control Structures, Loops, and Operators in Python

Objective:
The purpose of this assignment is to enhance your proficiency in Python programming through challenging tasks. You will develop skills in control flow statements (if-elif-else), loops (for, while), nested loops, pattern programming, and more. The assignment also focuses on handling infinite loops, understanding loop control mechanisms (break, continue, pass), and using operators and escape characters. Additionally, tasks will challenge your understanding of input/output operations and type casting.

Task 1: Write a Python program to find the largest of three numbers.
Task 2: Create a program that checks if a number is even or odd.
Task 3: Write a program that prints numbers from 1 to 100 but skips numbers divisible by 7.

Task 4: Write a program to print the multiplication table of a given number.

Task 5: Write a program that uses a nested loop to print a right-angled triangle pattern of stars based on user input.

Task 6: Create a Python program that prints the following pattern using nested

loops:

1

12

123

1234

Task 7: Create a Python program to check if a character entered by the user is a vowel or consonant.
Task 8. Write a Python program that generates a diamond pattern of stars
For n = 5, the output should look like:

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Task 9: Write a Python program to reverse the digits of a given number.

Task 10. Create a Python program that generates the following pyramid pattern:

1

121

12321

1234321

123454321

Submit Guidelines

- Execute the assignment in a jupyter notebook file and download it as pdf. Once downloaded, zip the folder.

How to ZIP a folder:

- Put all files you want to compress into a new folder.
- Right click on that folder.
- Select the “Compress to ZIP file” option and then click “Compressed (Zipped) folder.”
- A new .ZIP file will be created that contains your document(s). Upload this folder.