🏆 Coding/GitHub Challenge – Week 2

Problem Title: Number Spiral Pattern

📌 Problem Statement

You are asked to generate a **spiral pattern of numbers** for a given size n.

- The spiral starts with **1** in the top-left corner and fills numbers in a **clockwise direction** until reaching n × n.

Example

For n = 3

1 2 3

8 9 4

7 6 5

For n = 4

1 2 3 4

12 13 14 5

11 16 15 6

10 9 8 7

🎯 Task Requirements

1. Write a Python program that:
    - Takes an integer n as input.
    - Generates and prints the **spiral matrix** of size n × n.
2. Ensure your code works for any n ≥ 2.

🌟 Extra Challenge

- Format the output so numbers align neatly in columns (use spacing).
- Allow the user to choose **clockwise** or **counter-clockwise** spiral filling.

📥 Input Format

- An integer n (size of the matrix).

📤 Output Format

- An n × n spiral matrix printed line by line.

✅ Sample Test Case

Input:

3

Output:

1 2 3

8 9 4

7 6 5