■ Coding/GitHub Challenge – Week 3

Problem Title: The Balanced Brackets Checker

A string of brackets is considered **balanced** if: - Every opening bracket has a matching closing bracket of the same type. - Brackets are closed in the correct order. Brackets include: - Round: () - Square: [] - Curly: {} You need to write a program that checks whether a given string of brackets is **balanced or not**.

Examples:
Input: {[()]}
Output: Balanced

Input: {[(])}
Output: Not Balanced

Input: ((()))
Output: Balanced

Task Requirements:
1. Take a string of brackets as input.
2. Use a **stack-based approach** to check if it is balanced.
3. Print Balanced or Not Balanced.

■ Extra Challenge (Bonus Marks):
- Allow the string to contain letters/numbers along with brackets, and only validate the brackets. Example: a+(b*c)-{d/e} → Balanced.
- Write your own **stack implementation** (using list or class) instead of using built-in shortcuts.

■ Input Format:
- A single string containing brackets (and optionally other characters).

■ Output Format:
- Balanced or Not Balanced

■ Sample Test Cases:

Test Case 1:
Input: [()]{}{[()()]()}
Output: Balanced

Test Case 2:
Input: [(])
Output: Not Balanced