COS 102:
Problem Solving Assignment

Group 7: Fibonacci Sequence Generator
Instructor: Anozie Onyezewe
Course: COS 102 – Problem Solving
Submission Date: April 17, 2025

1. UNDERSTANDING THE PROJECT

Problem Statement:

Generate the first **N** numbers of the Fibonacci sequence.

The **Fibonacci sequence** is a series of numbers where each number is the sum of the two preceding ones, usually starting with 0 and 1, The sequence looks like this:

0, 1, 1, 2, 3, 5, 8, 13, 21, 34, ...

2. **Pseudocode**

Using for loop

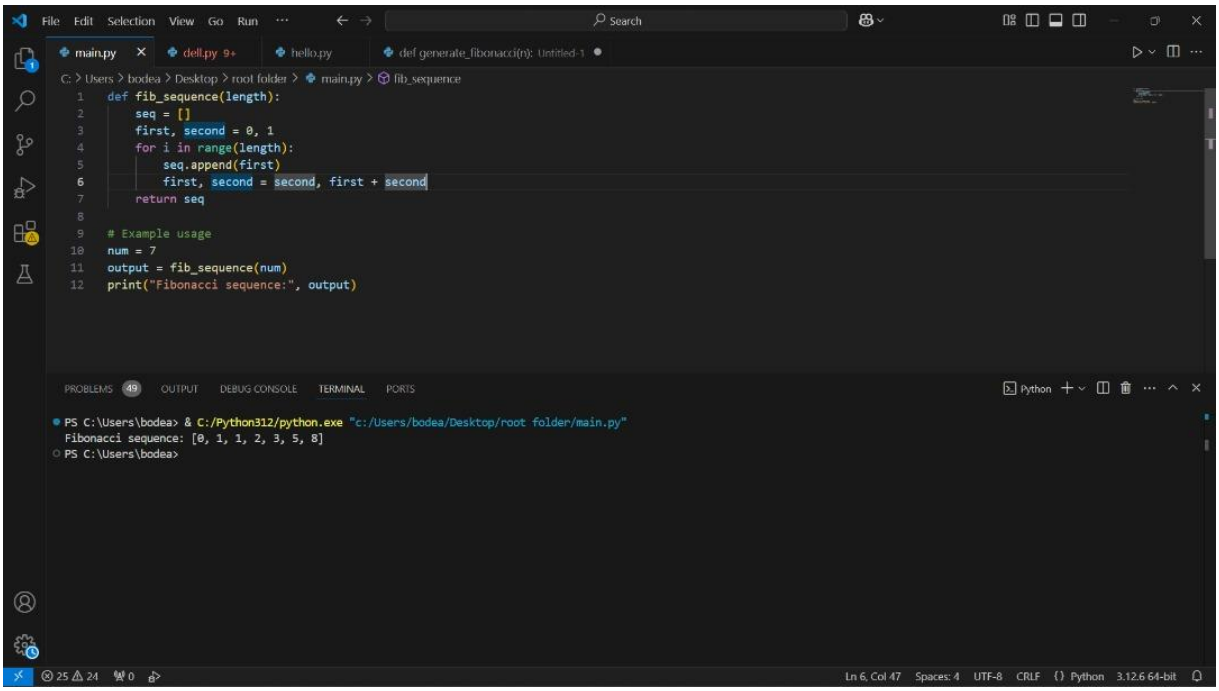
Input: N (number of Fibonacci terms to generate)
Output: First N numbers in the Fibonacci sequence

```
Begin
  If N <= 0
    Print "Invalid input"
    Exit
  Endif

  Initialize a = 0, b = 1

  For i from 1 to N
    Print a
    temp = a + b
    a = b
    b = temp
  End For
End
```

3. Flowchart

REMAINS THIS

4. Python Code Implementation



5. Test Cases and Evaluation

Test Case	**Input (N)**	**Output**
TC1	**1**	**[**0,]
TC2	**7**	[0, 1, 1, 2, 3, 5, 8]
TC3	**4**	[0, 1, 1, 2]
TC4	**0**	**INVALID INPUT**