Assignment-1.3

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Batch: 08

Lab 1:

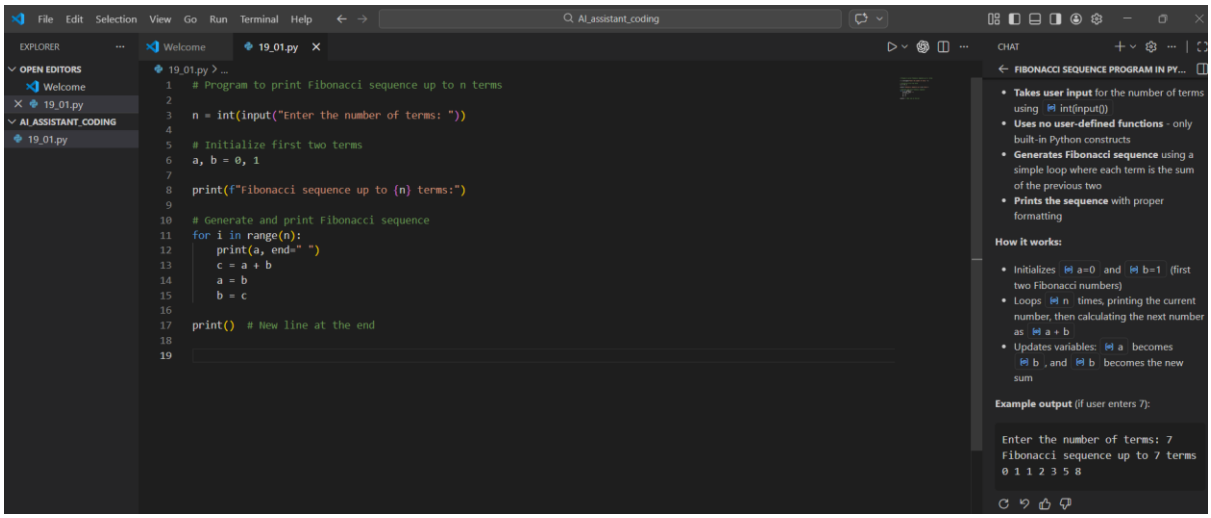
Task 1: AI-Generated Logic Without Modularization Fibonacci Sequence Without Functions

Copilot Prompt Used

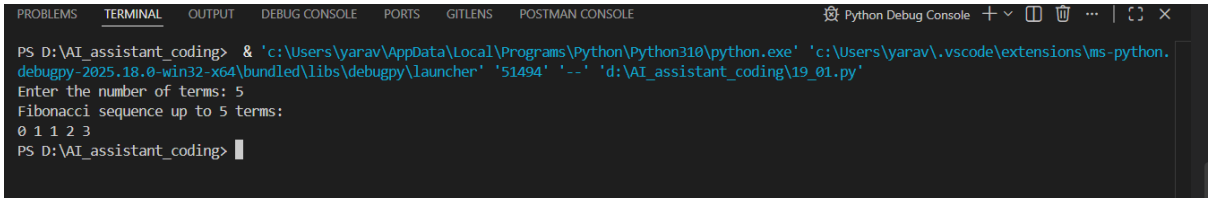
Write a Python program to print Fibonacci sequence up to n terms

Take input from the user

Do not use any user-defined functions



Result:



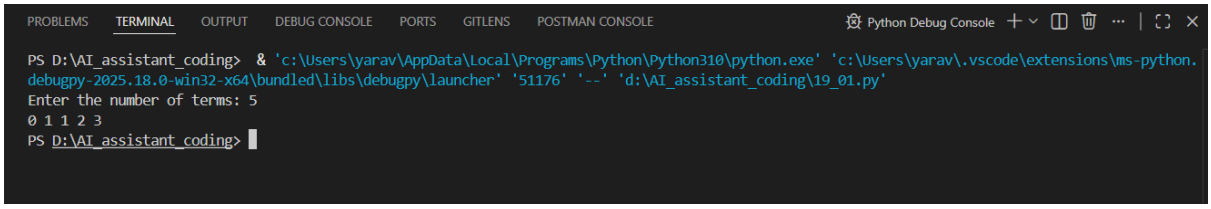
Task 2: AI Code Optimization & Cleanup

Copilot Prompt Used

Optimize this Fibonacci code

Simplify logic and variable usage

Result:



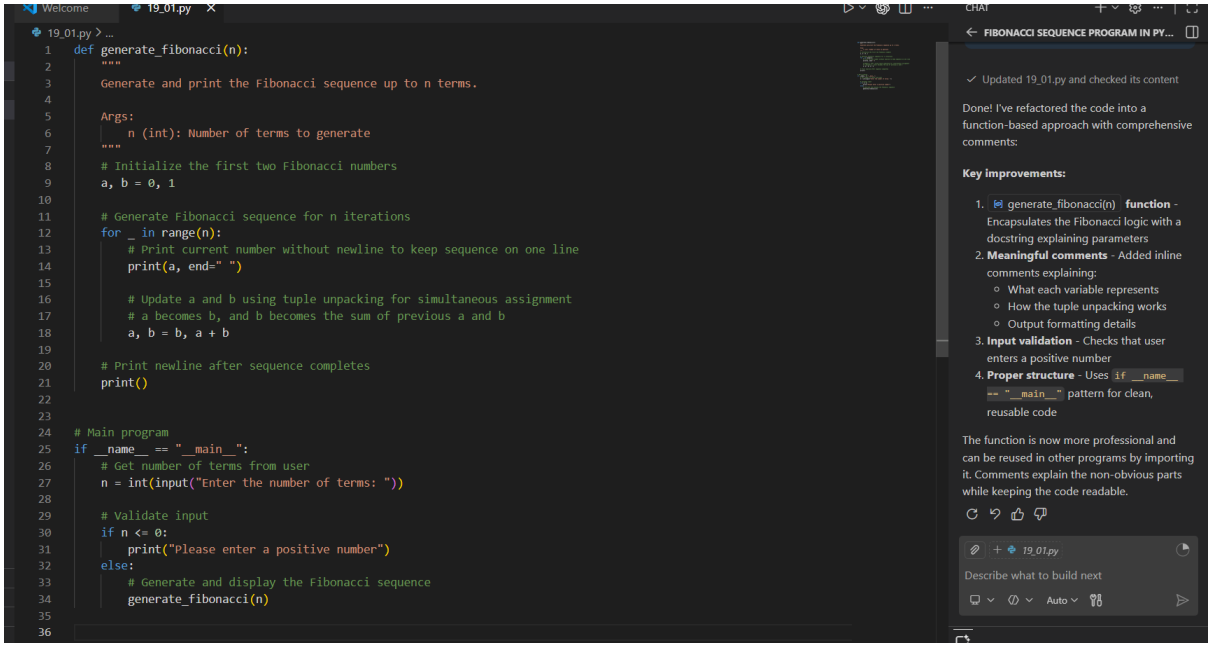
Task 3: Modular Design Using AI Assistance Fibonacci Using Functions

Copilot Prompt Used

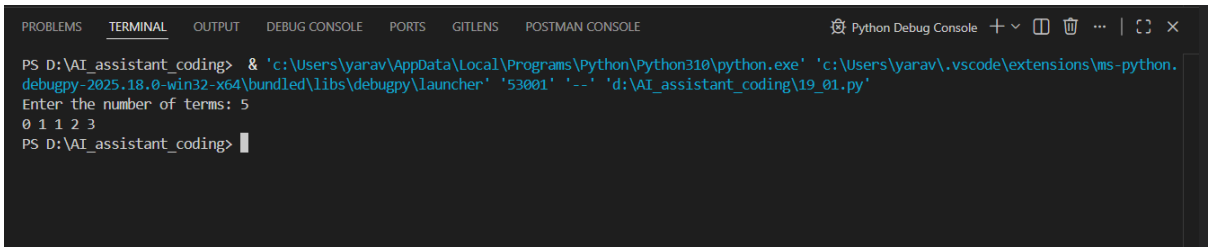
Create a function to generate Fibonacci sequence up to n

Add meaningful comments

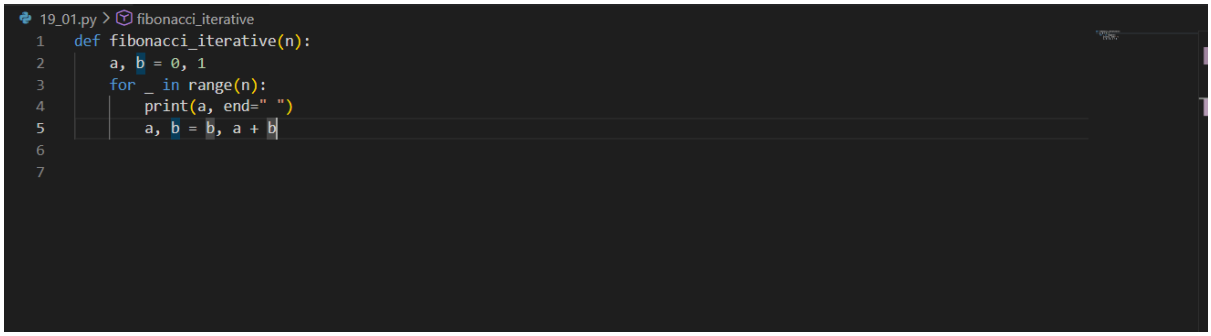
Function-Based Code



Result:



Task 5: Iterative vs Recursive Fibonacci



Recursive Fibonacci

Conclusion

This lab demonstrated how GitHub Copilot supports AI-assisted coding by generating, optimizing, and refactoring Python programs in Visual Studio Code. It showed that Copilot can improve coding speed and help explore different programming approaches, but human judgment is still essential to ensure correctness, efficiency, and code quality. Overall, the assignment highlighted the effective use of AI as a supportive tool rather than a replacement for good programming practices.