Lab Assignment 1.3

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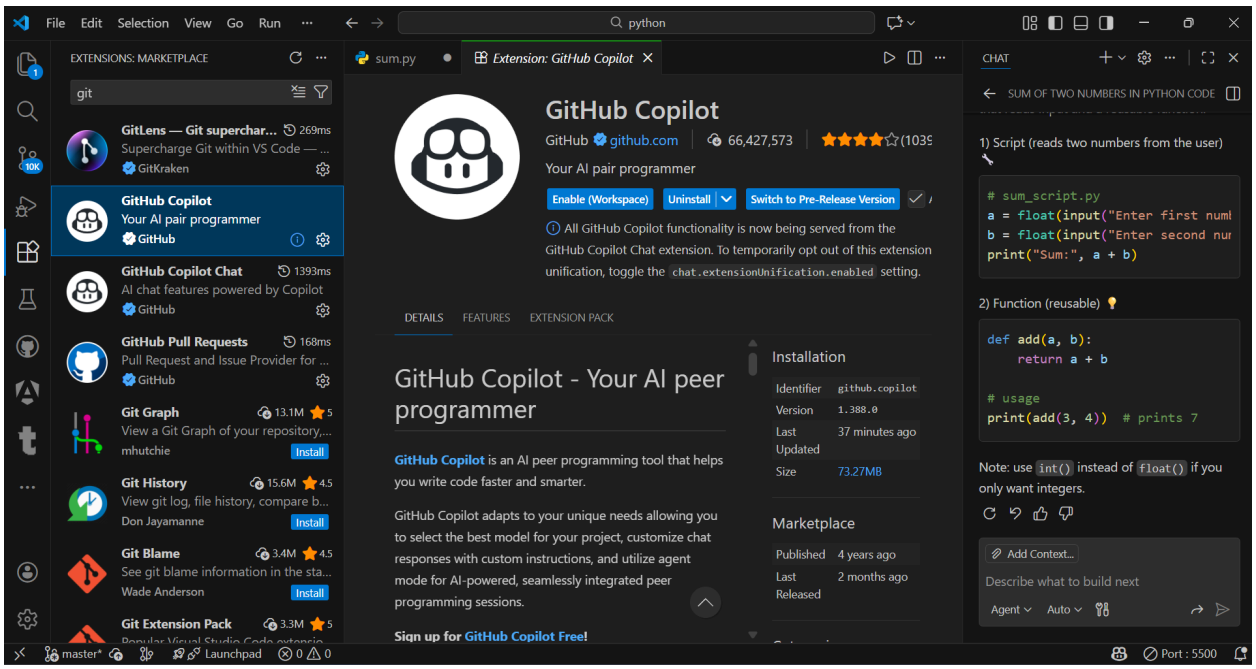
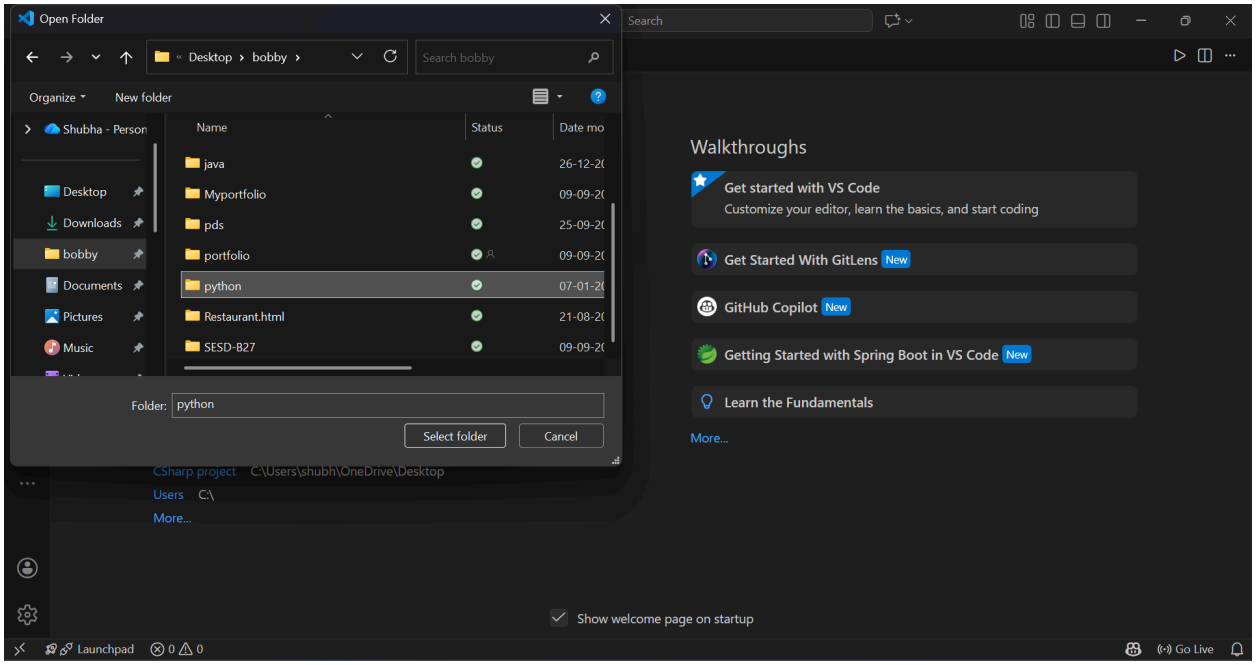
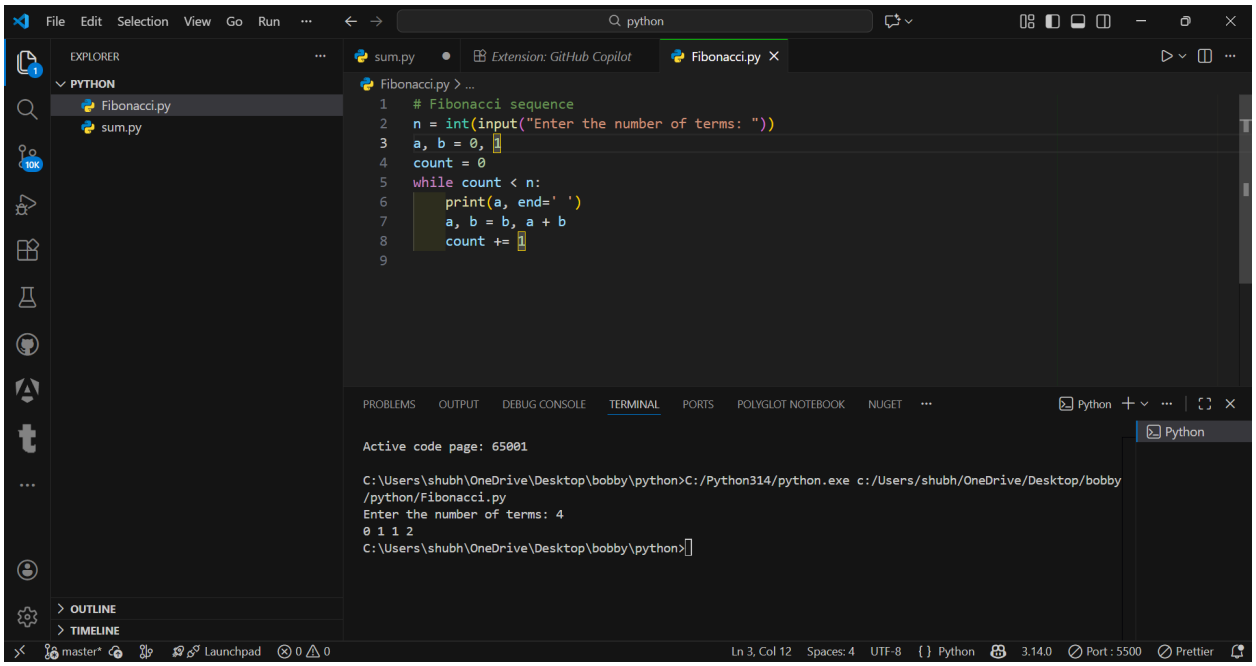




Task 1: AI-Generated Logic Without Modularization (Procedural Fibonacci) :

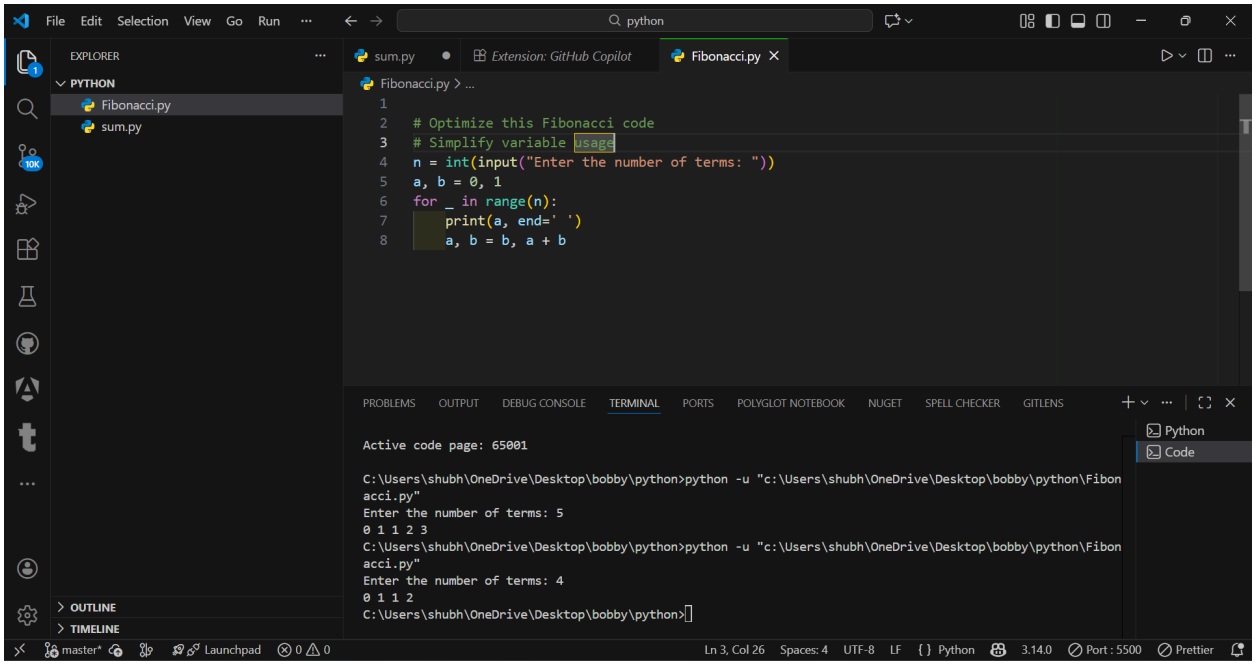
```
# Fibonacci sequence
```



Task 2: AI Code Optimization & Cleanup :

 # Optimize this Fibonacci code

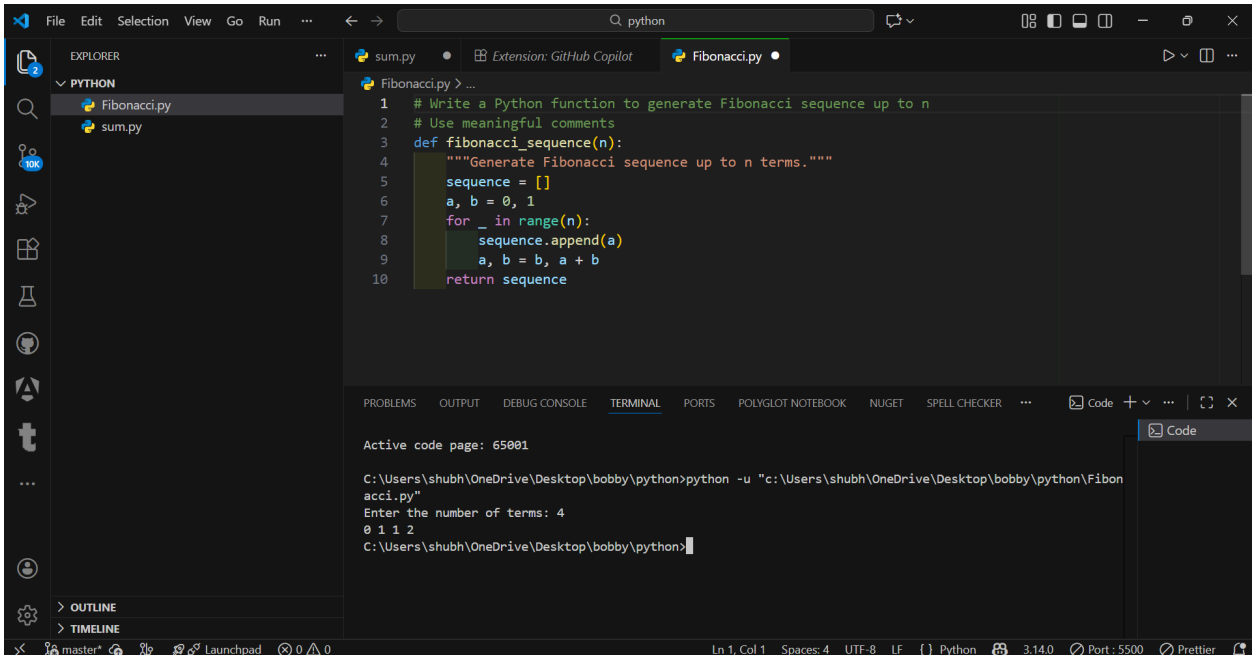
 # Simplify variable usage



Task 3: Modular Design Using AI Assistance (Function-Based Fibonacci) :

 # Write a Python function to generate Fibonacci sequence up to n

 # Use meaningful comments

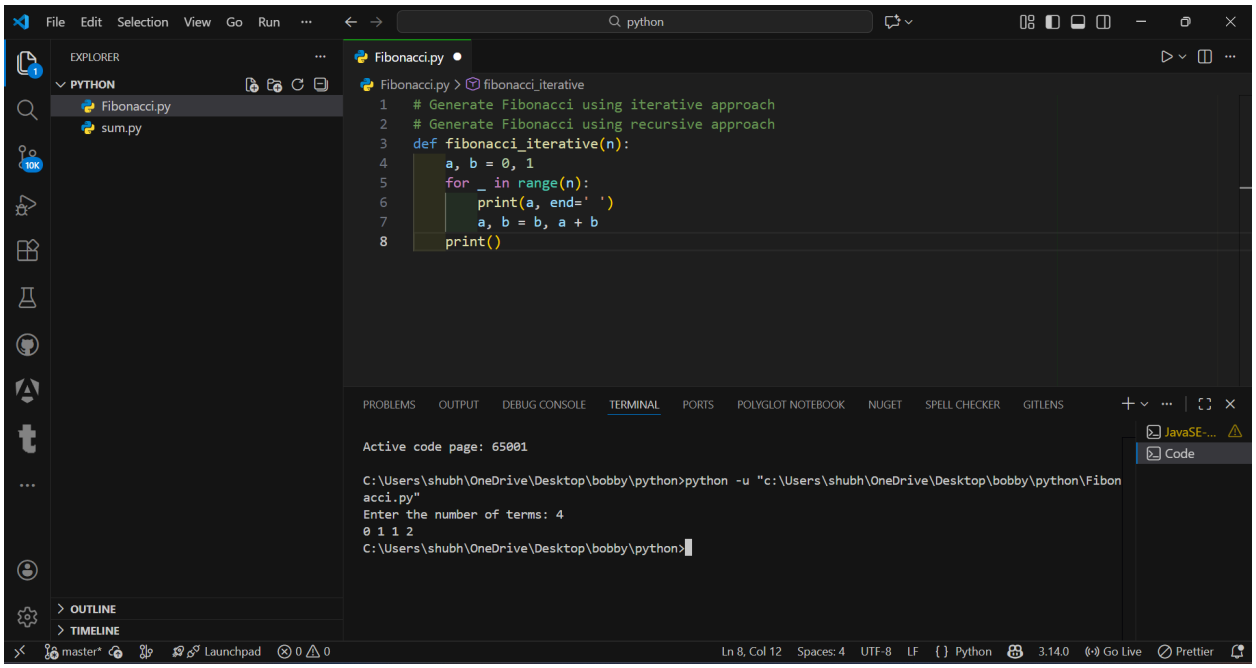


Task 4: Comparative Analysis – Procedural vs Modular Code

Criteria	Without Functions	With Functions
Code Clarity	Lower	Higher
Reusability	No	Yes
Debugging	Harder	Easier
Scalability	Poor	Excellent
Suitable for Large Systems	No	Yes

Task 5: Iterative vs Recursive Fibonacci (AI-Generated):

Generate Fibonacci using iterative approach



Generate Fibonacci using recursive approach