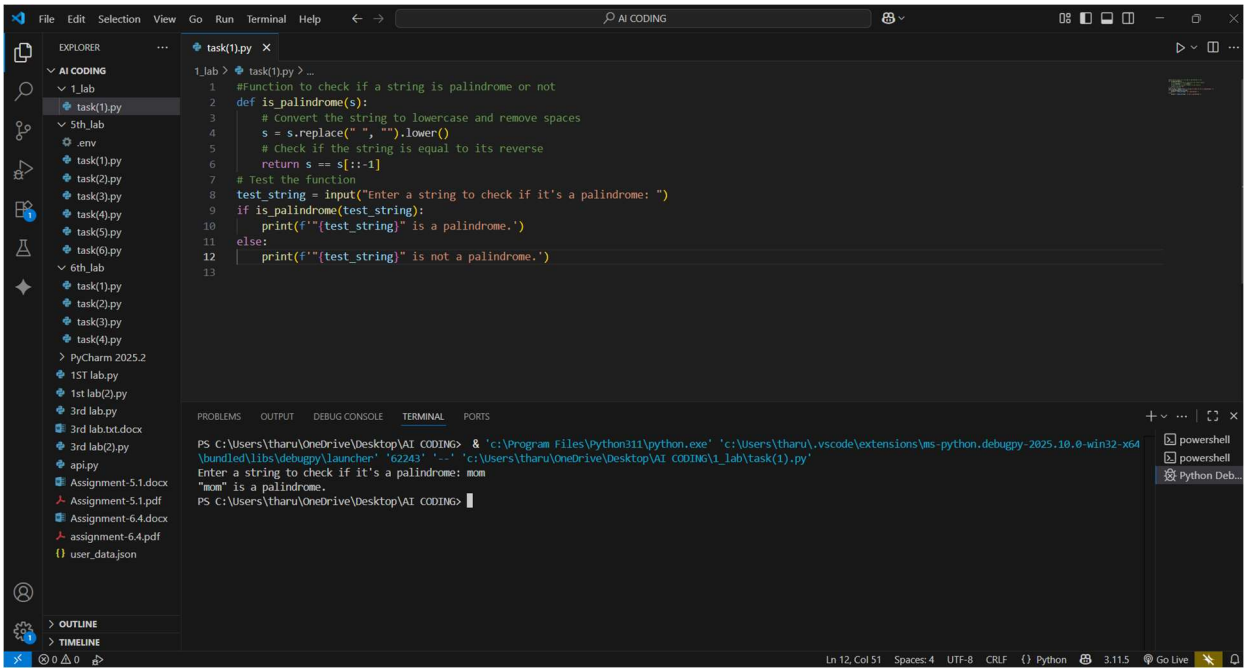
AI Assisted Coding-ASSIGNMENT-1

Task 1:

Write a Function to check if a string is a valid palindrome (ignoring spaces and case).



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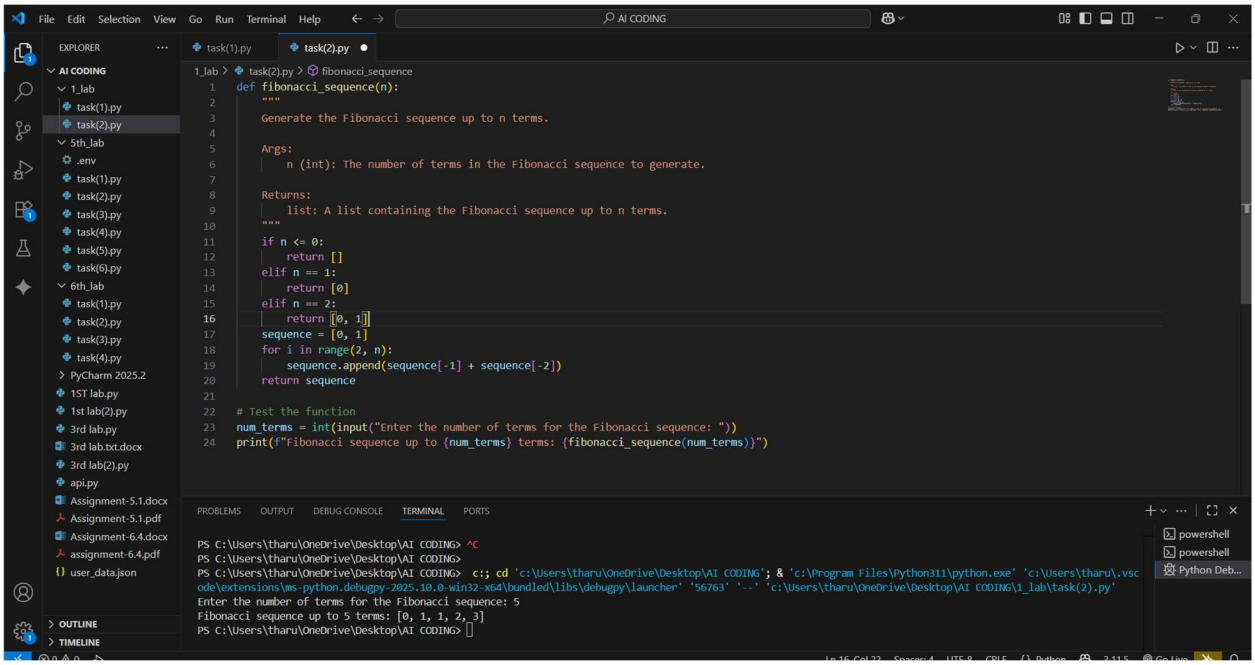
Task 2:

● Generate a Python function that returns the Fibonacci sequence up to n terms. Prompt

with only a function header and docstring

Expected Output#2

● AI completes the function logic using loop or recursion with accurate output



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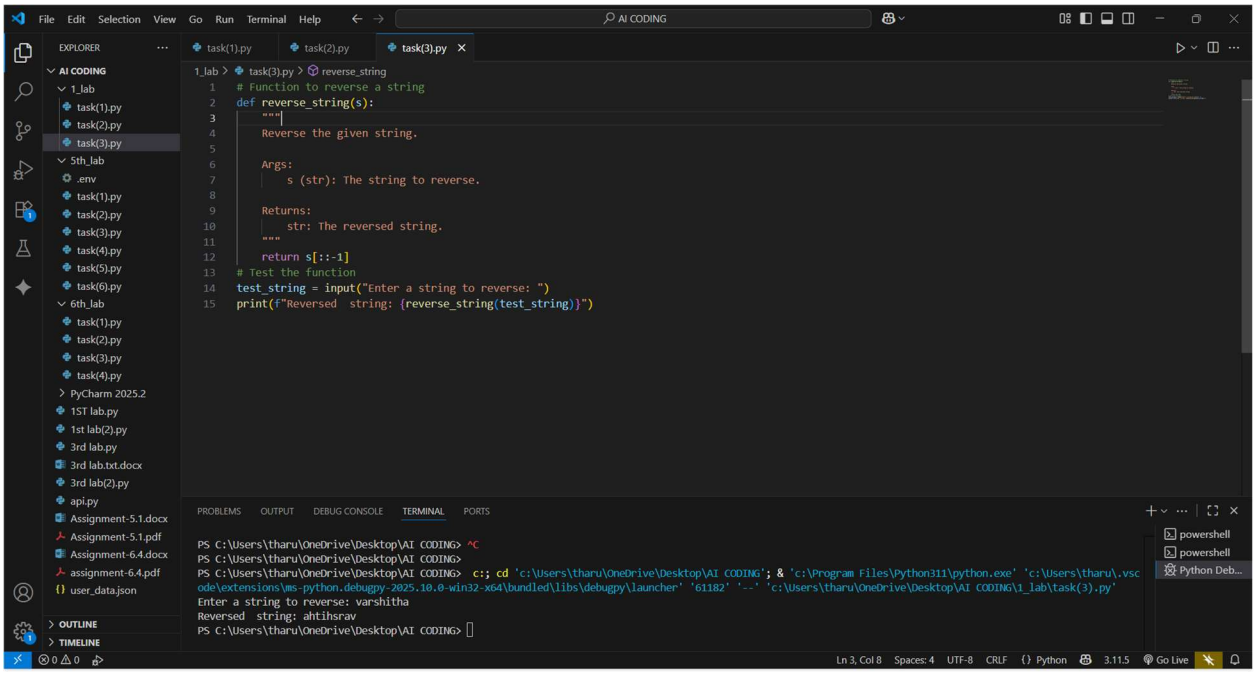
Task 3:

● Write a comment like # Function to reverse a string and use Copilot to generate the
function.

Expected Output#3

● Auto-completed reverse function



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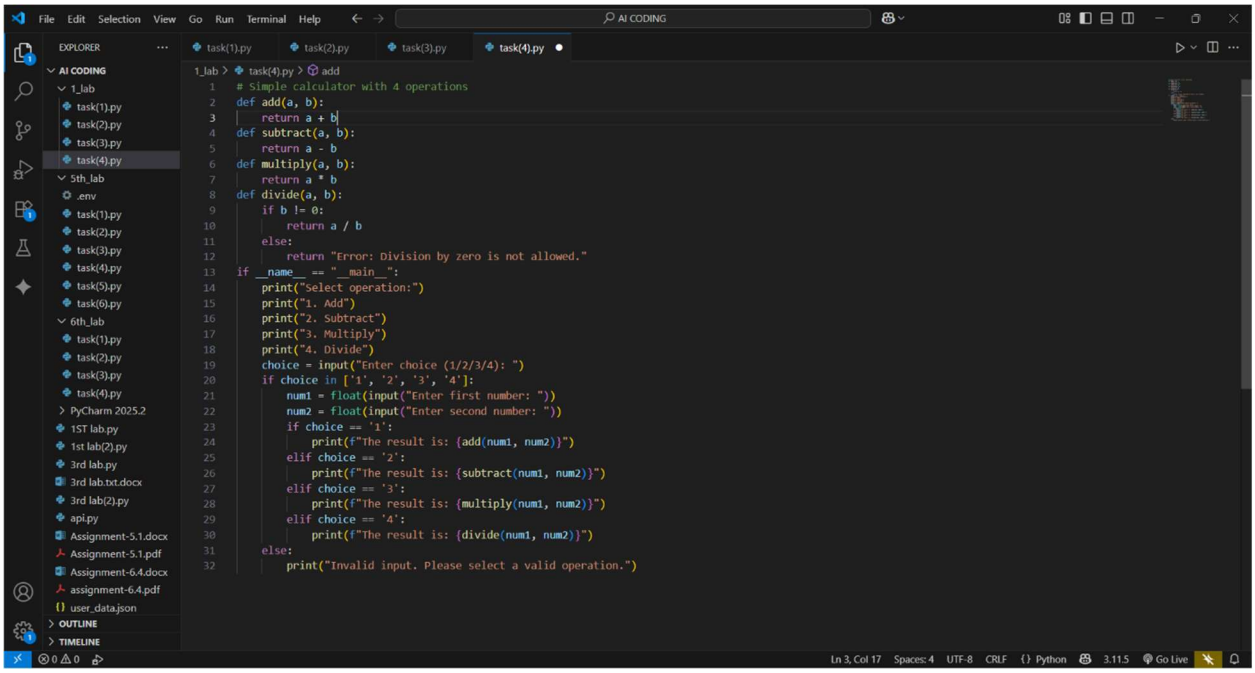
Task 4:

Generate a program that simulates a basic calculator (add, subtract, multiply, divide).

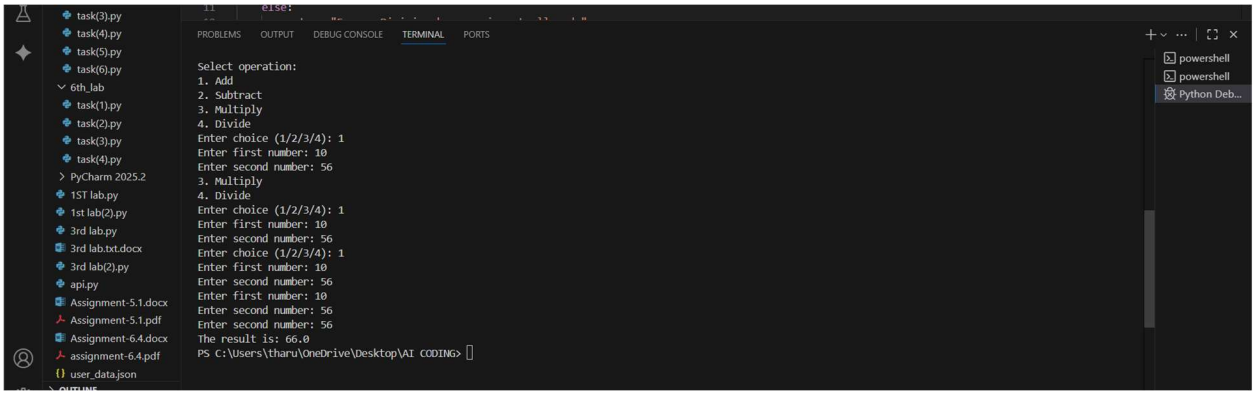
Write the comment: # Simple calculator with 4 operations and let AI complete it.

Expected Output#4

- Fully working calculator with input/output and operator selection logic



```python
# Simple calculator with 4 operations
def add(a, b):
    return a + b
def subtract(a, b):
    return a - b
def multiply(a, b):
    return a * b
def divide(a, b):
    if b != 0:
        return a / b
    else:
        return "Error: Division by zero is not allowed."
if __name__ == "__main__":
    print("Select operation:")
    print("1. Add")
    print("2. Subtract")
    print("3. Multiply")
    print("4. Divide")
    choice = input("Enter choice (1/2/3/4): ")
    if choice in ['1', '2', '3', '4']:
        num1 = float(input("Enter first number: "))
        num2 = float(input("Enter second number: "))
        if choice == '1':
            print(f"The result is: {add(num1, num2)}")
        elif choice == '2':
            print(f"The result is: {subtract(num1, num2)}")
        elif choice == '3':
            print(f"The result is: {multiply(num1, num2)}")
        elif choice == '4':
            print(f"The result is: {divide(num1, num2)}")
    else:
        print("Invalid input. Please select a valid operation.")
```



```
Select operation:
1. Add
2. Subtract
3. Multiply
4. Divide
Enter choice (1/2/3/4): 1
Enter first number: 10
Enter second number: 56
3. Multiply
4. Divide
Enter choice (1/2/3/4): 1
Enter first number: 10
Enter second number: 56
Enter choice (1/2/3/4): 1
Enter first number: 10
Enter second number: 56
Enter first number: 10
Enter second number: 56
Enter second number: 56
The result is: 66.0
PS C:\Users\tharu\OneDrive\Desktop\AI CODING>
```

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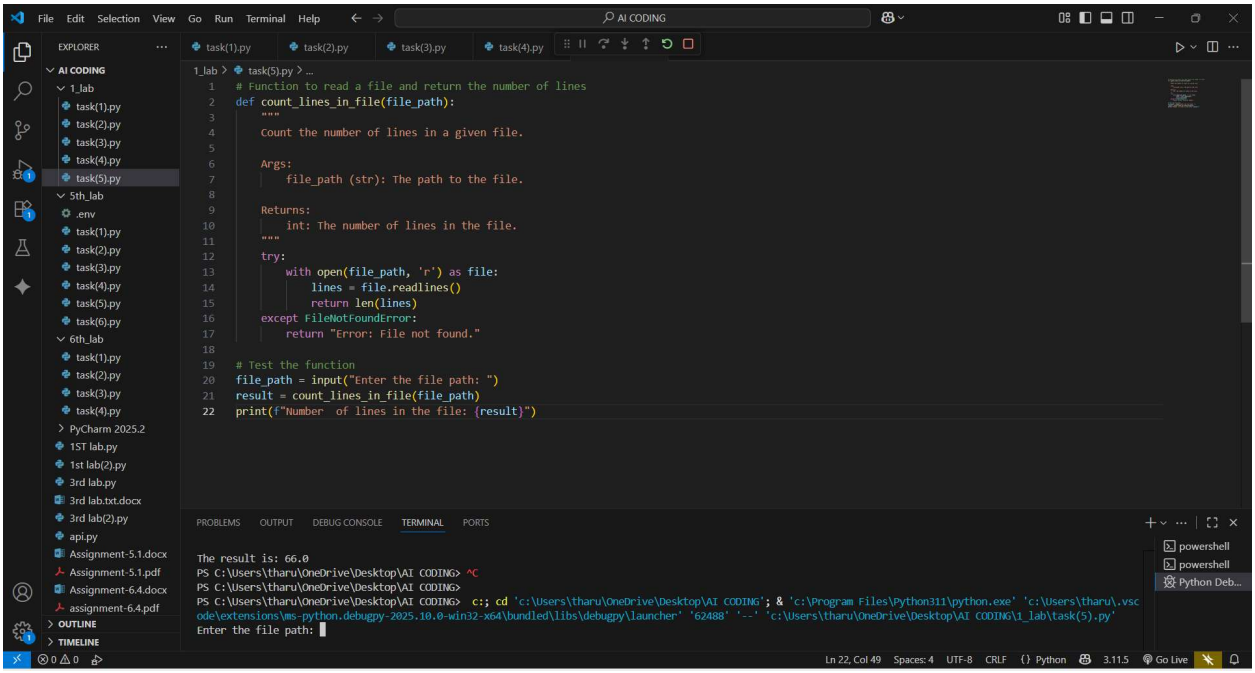
Task 5:

● Use a comment to instruct AI to write a function that reads a file and returns the number of lines.

Expected Output#5

● Functional implementation using open() or with open() and readlines()



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