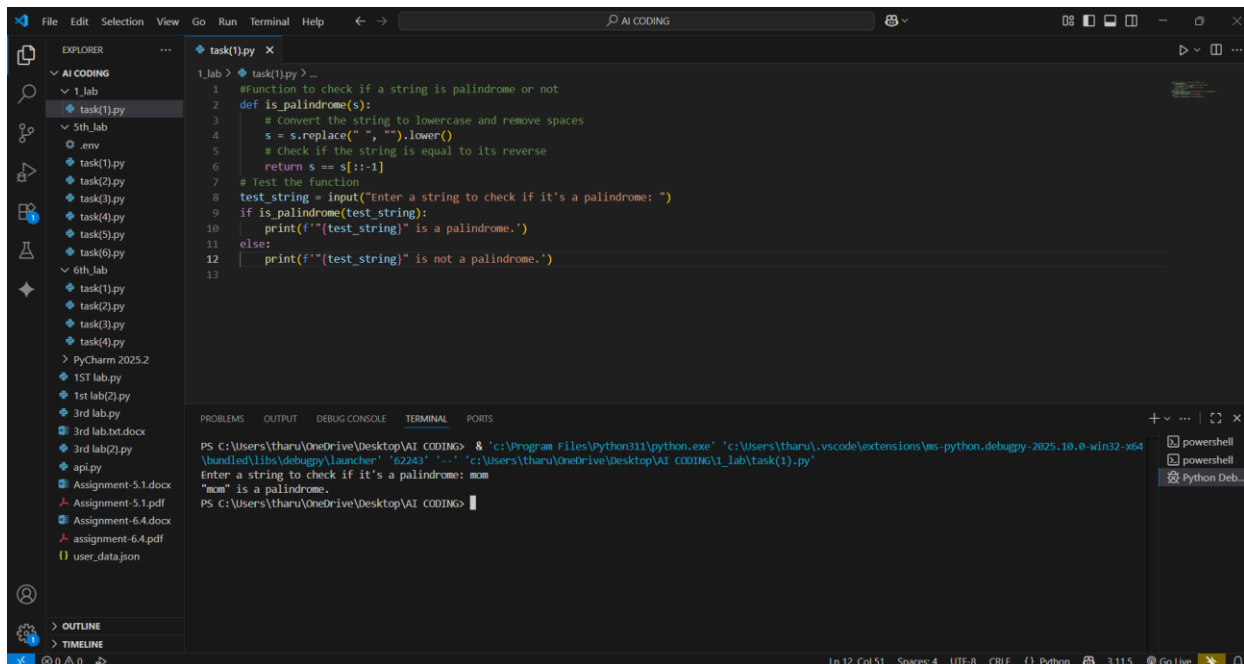# ASSIGNMENT-1

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HT.NO: 2403A52050

BATCH: AIB03

Task 1:

Write a comment: # Function to check if a string is a valid palindrome (ignoring spaces and case) and allow Copilot to complete it.
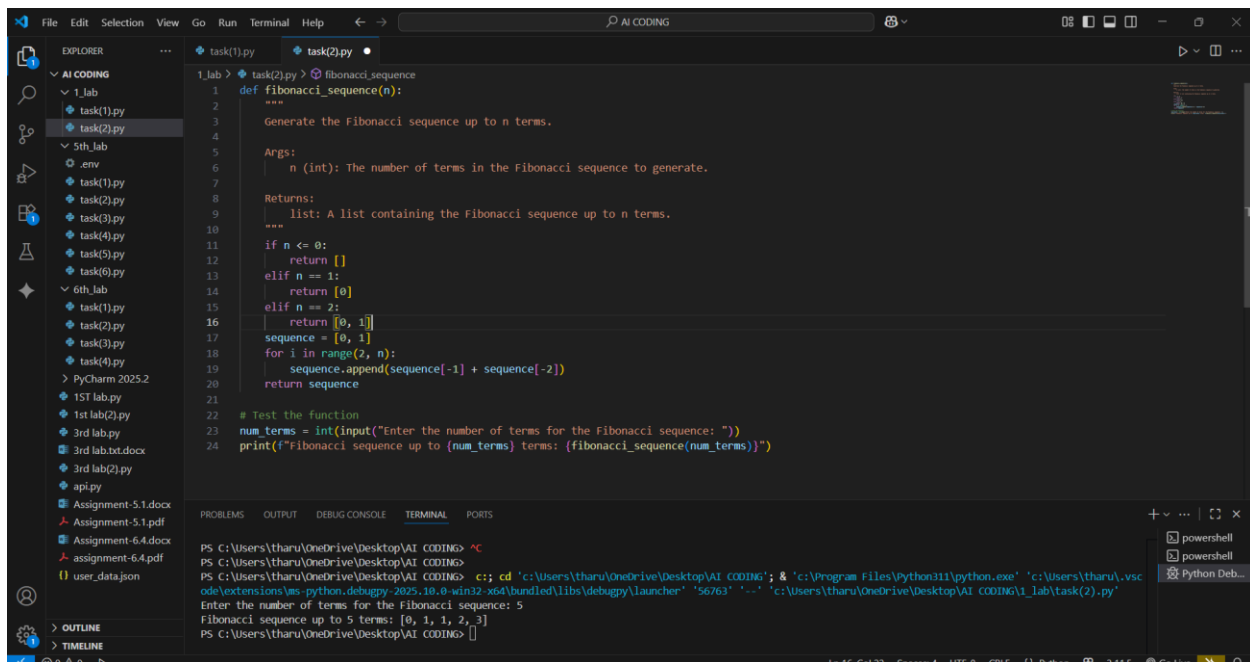


Task 2:
● Generate a Python function that returns the Fibonacci sequence up to n terms. Prompt
with only a function header and docstring
Expected Output#2
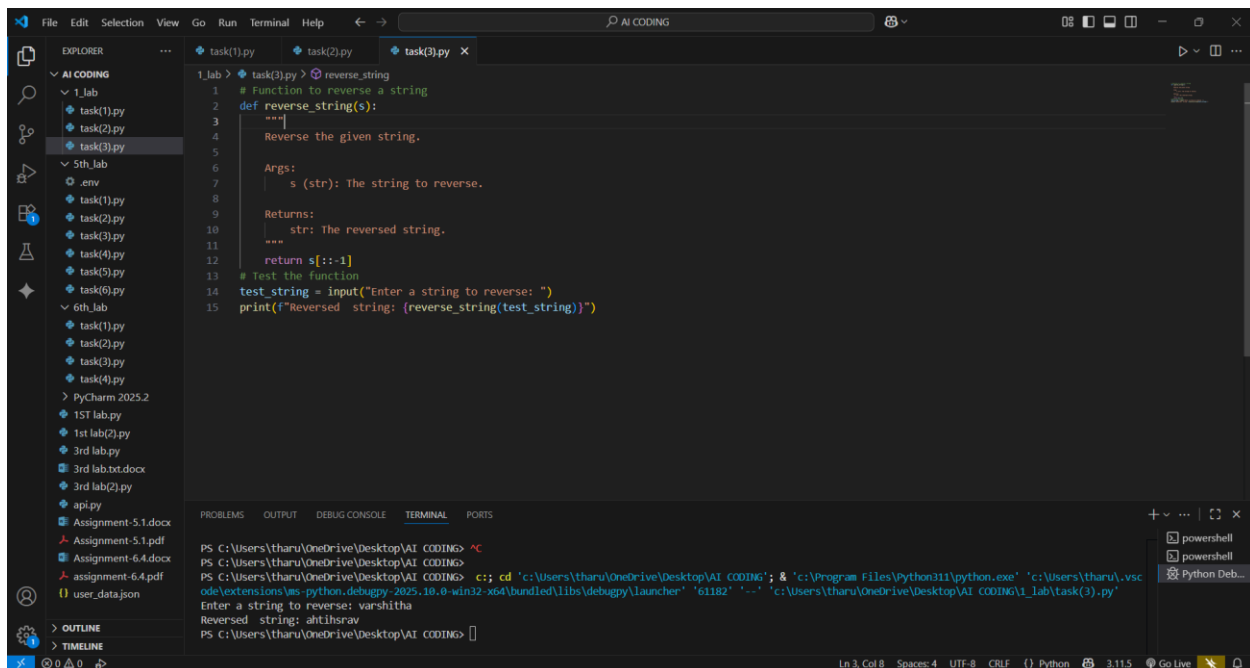● AI completes the function logic using loop or recursion with accurate output

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

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

## 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()

```python
# Function to read a file and return the number of lines
def count_lines_in_file(file_path):
    """
    Count the number of lines in a given file.

    Args:
        file_path (str): The path to the file.

    Returns:
        int: The number of lines in the file.
    """
    try:
        with open(file_path, 'r') as file:
            lines = file.readlines()
            return len(lines)
    except FileNotFoundError:
        return "Error: File not found."


# Test the function
file_path = input("Enter the file path: ")
result = count_lines_in_file(file_path)
print(f"Number  of lines in the file: {result}")
```

PROBLEMS   OUTPUT   DEBUG CONSOLE   TERMINAL   PORTS

```
The result is: 66.0
PS C:\Users\tharu\OneDrive\Desktop\AI CODING> ^C
PS C:\Users\tharu\OneDrive\Desktop\AI CODING>
PS C:\Users\tharu\OneDrive\Desktop\AI CODING>  c:; cd 'c:\Users\tharu\OneDrive\Desktop\AI CODING'; & 'c:\Program Files\Python311\python.exe' 'c:\Users\tharu\.vsc
ode\extensions\ms-python.debugpy-2025.10.0-win32-x64\bundled\libs\debugpy\launcher' '62488' '--' 'c:\Users\tharu\OneDrive\Desktop\AI CODING\1_lab\task(5).py'
Enter the file path:
```