

AI ASSIST CODING

Lab:1 Environment Setup – GitHub Copilot and VS Code Integration

ROLL NO:2503A51L31

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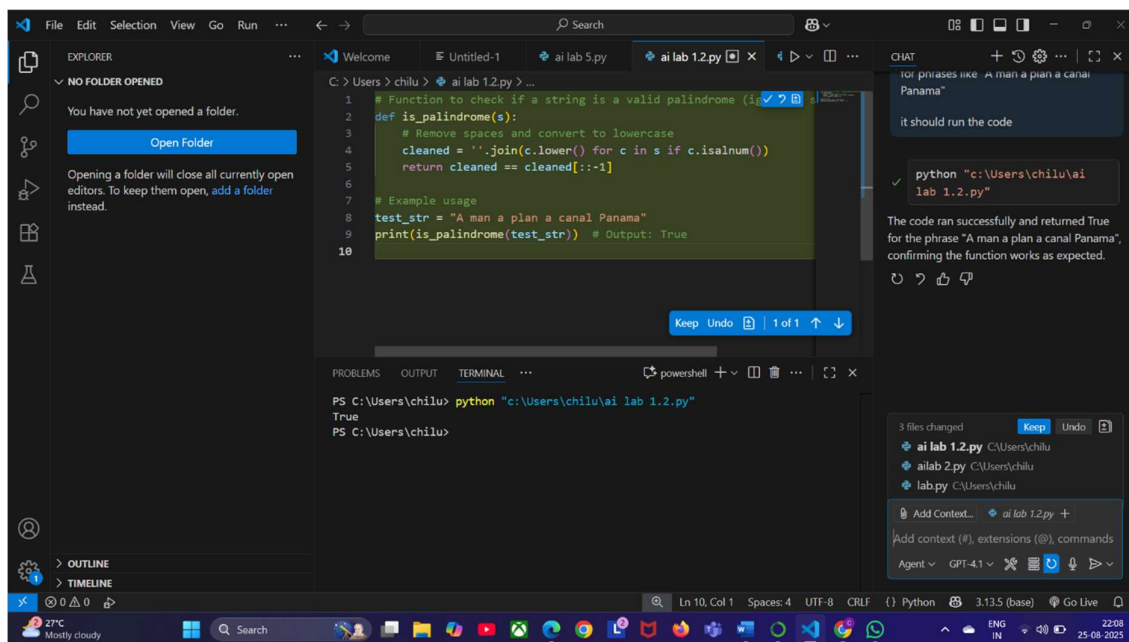
BATCH:20

TASK#1:

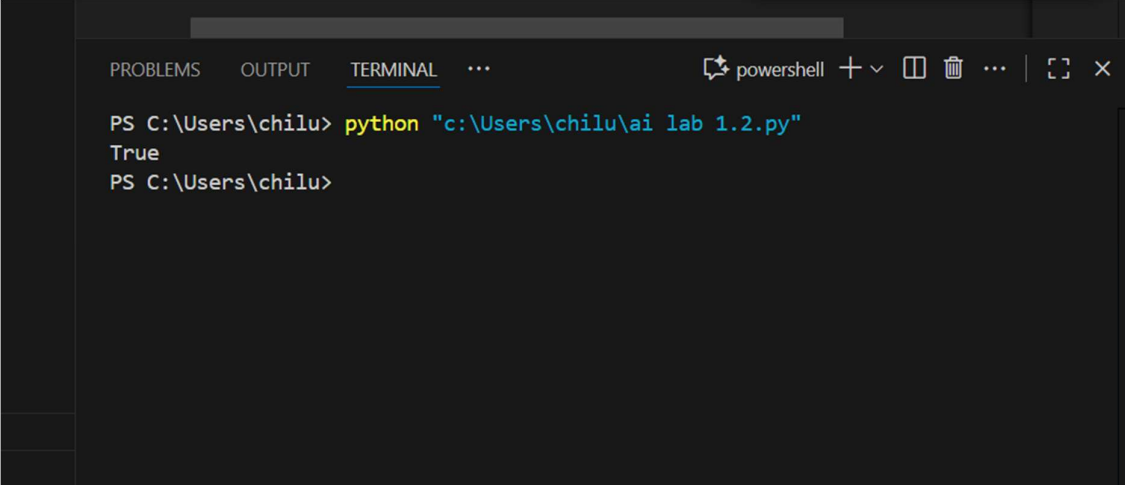
Prompt used:

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

Code Generated:



Output After executing Code:

A screenshot of a PowerShell terminal window. The window has a dark background and a light-colored title bar. The title bar contains the text "powershell" and several icons. The terminal content shows a command prompt "PS C:\Users\chilu>" followed by the command "python \"c:\Users\chilu\ai lab 1.2.py\"". The output of the command is "True". The prompt "PS C:\Users\chilu>" is shown again on the next line.

```
PS C:\Users\chilu> python "c:\Users\chilu\ai lab 1.2.py"
True
PS C:\Users\chilu>
```

Observations:

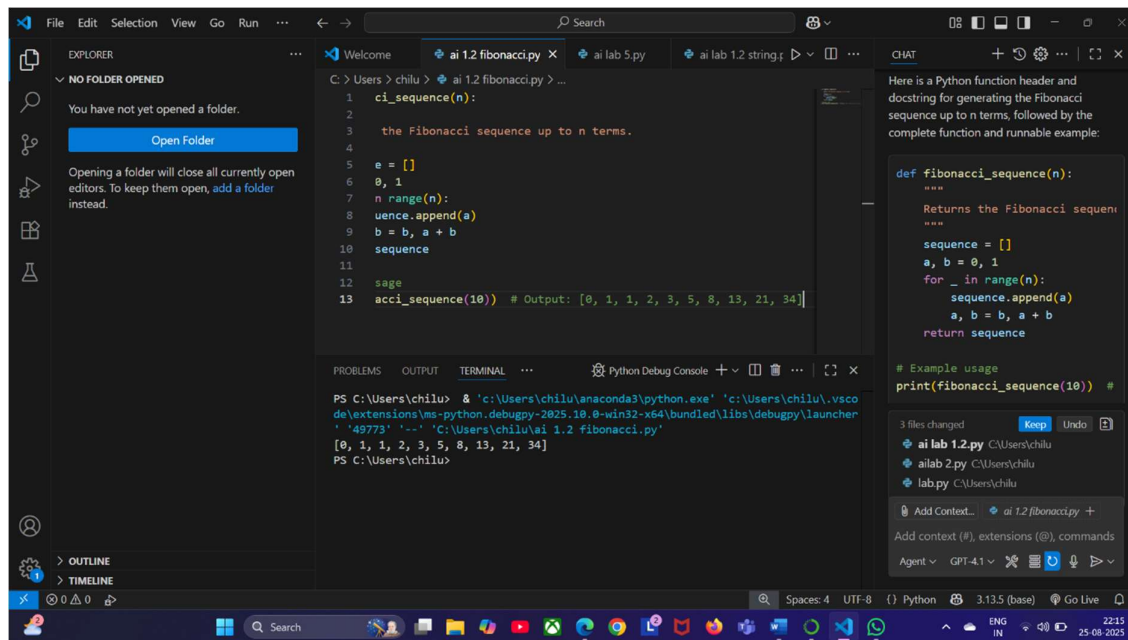
- Used of the palindrome to verify the given is string or not
- In this used the code if any given word contains the spaces and special symbols it if defined as the not as string

TASK#2:

Prompt used:

Generate a python function that returns the Fibonacci sequence up to n terms
Prompt with only a function header and docstring

Code generated:



```
1  def fibonacci_sequence(n):
2      """
3      Returns the Fibonacci sequence up to n terms, followed by the
4      complete function and runnable example:
5      """
6      sequence = []
7      a, b = 0, 1
8      for _ in range(n):
9          sequence.append(a)
10         a, b = b, a + b
11     return sequence
12
13 # Example usage
14 print(fibonacci_sequence(10))
```

Here is a Python function header and docstring for generating the Fibonacci sequence up to n terms, followed by the complete function and runnable example:

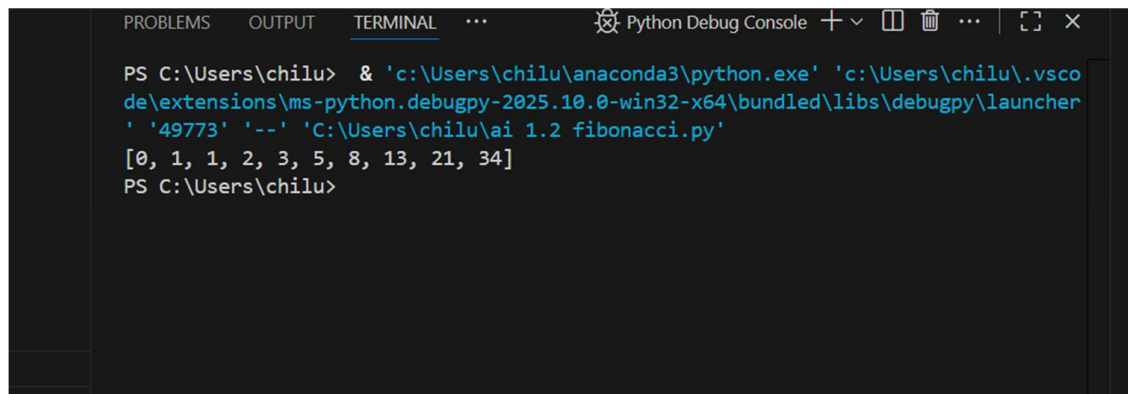
```
def fibonacci_sequence(n):
    """
    Returns the Fibonacci sequence up to n terms, followed by the
    complete function and runnable example:
    """
    sequence = []
    a, b = 0, 1
    for _ in range(n):
        sequence.append(a)
        a, b = b, a + b
    return sequence

# Example usage
print(fibonacci_sequence(10))
```

3 files changed
ai lab 1.2.py C:\Users\chilu
ailab 2.py C:\Users\chilu
lab.py C:\Users\chilu

Add Context... ai 1.2 fibonacci.py +
Add context (#), extensions (@), commands
Agent GPT-4.1

Output after executing Code:



```
PS C:\Users\chilu> & 'c:\Users\chilu\anaconda3\python.exe' 'c:\Users\chilu\.vscode\extensions\ms-python.debugpy-2025.10.0-win32-x64\bundled\libs\debugpy\launcher' '49773' '--' 'C:\Users\chilu\ai 1.2 fibonacci.py'
[0, 1, 1, 2, 3, 5, 8, 13, 21, 34]
PS C:\Users\chilu>
```

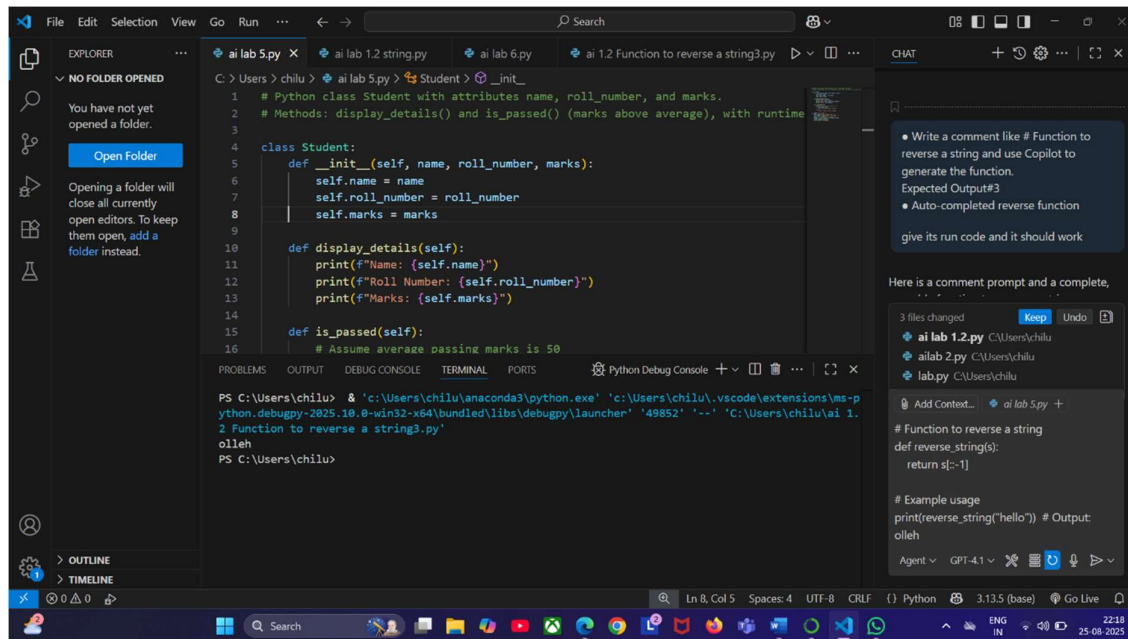
Observations:

- By following as the maths formula the given numbers it found the Fibonacci sequence for the given numbers
- Using the conditions in python

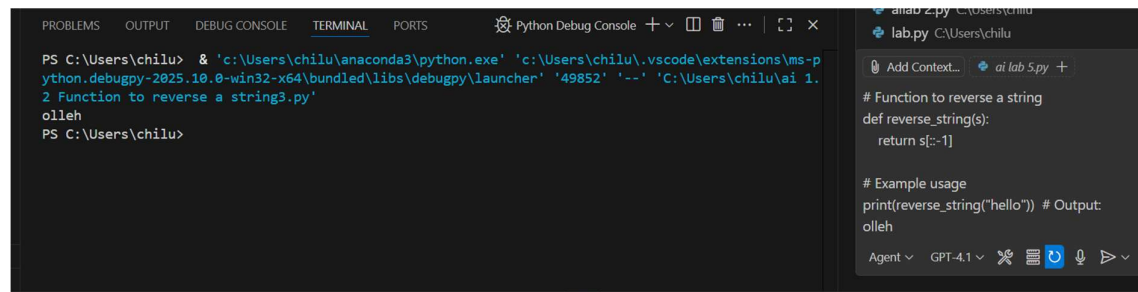
TASK#3:

Prompt used: Write a comment like #Function to reverse a string and use copilot to generate the function

Code generated:



Output after executing Code:



Observations:

- Using the string functions in the python reversed the given string “hello” as the using reverse as “olleh”
- This is done in the fraction of seconds by the python interpreter

TASK#4:

Prompt used:

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.

Code generated:

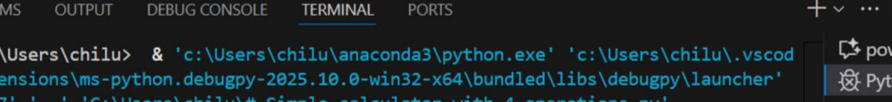
The screenshot shows the Visual Studio Code editor with a Python file named `# Simple calculator with 4 operations.py` open. The code prompts the user for two numbers and an operation. The terminal output shows the user entering '1' for addition, '2.0' for the first number, and '2' for the second number, resulting in 'Result: 2.0'.

```

C:\Users\chilu> python # Simple calculator with 4 operations.py
Enter first number: 2.0
Enter second number: 2
Result: 2.0
PS C:\Users\chilu>

```

Output after executing Code:



```
PS C:\Users\chilu> & 'c:\Users\chilu\anaconda3\python.exe' 'c:\Users\chilu\.vscode\extensions\ms-python.debugpy-2025.10.0-win32-x64\bundled\libs\debugpy\launcher' '58447' '--' 'C:\Users\chilu\# Simple calculator with 4 operations.py'
Select operation:
1. Add
2. Subtract
3. Multiply
4. Divide
Enter choice (1/2/3/4): 3
Enter first number: 1
Enter second number: 2
Result: 2.0
PS C:\Users\chilu>
```

Observations:

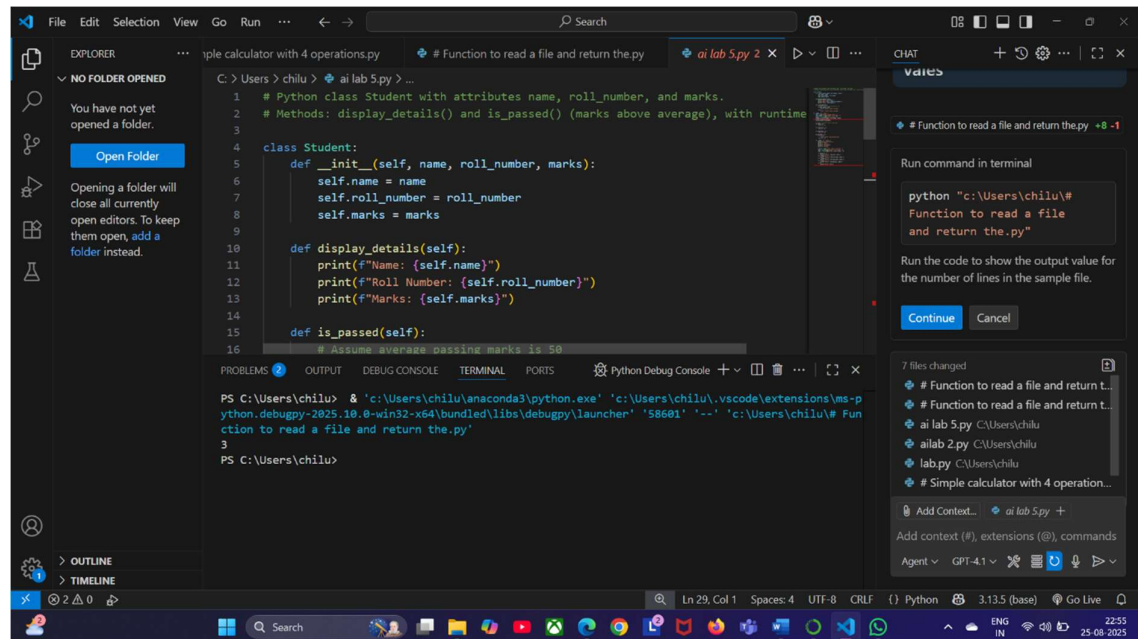
- In the above code for the calculator its done the operations addition ,substraction,multiplication and division for the given numbers by choosing the choice which we want to do as numbers 1,2,3,4

TASK#5:

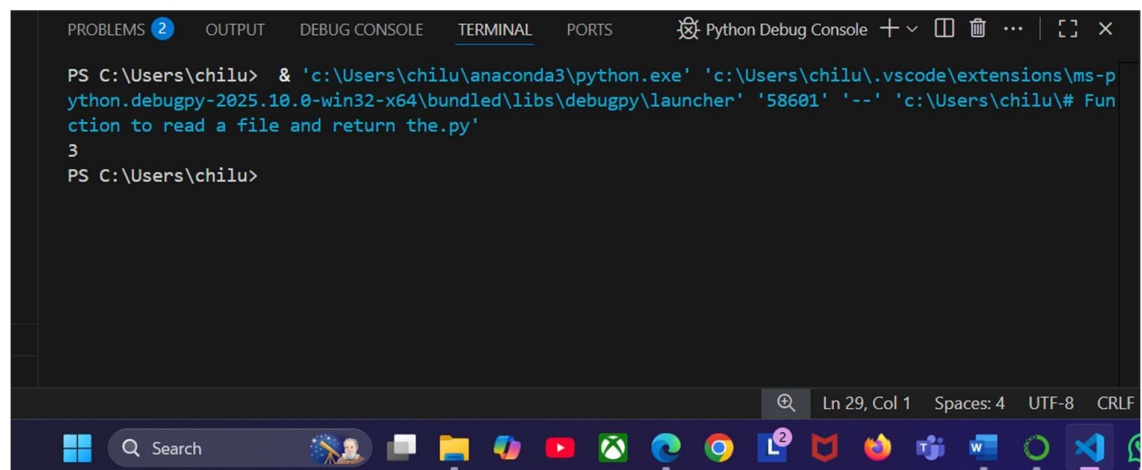
Prompt used:

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

Code generated:



Output after executing Code:



Observations:

- The given code open the file by the given access path in my pc and it read the whole file and counted the number of lines the in the text file.

After the number given as the output