

SCHOOL OF COMPUTER SCIENCE AND ARTIFICIAL INTELLIGENCE		DEPARTMENT OF COMPUTER SCIENCE ENGINEERING	
ProgramName: B. Tech		Assignment Type: Lab	AcademicYear: 2025-2026
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		Intern 1 (Dharma teja)	
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		NS_2 (Mounika)	
CourseCode	24CS002PC215	CourseTitle	AI Assisted Coding
Year/Sem	II/I	Regulation	R24
Date and Day of Assignment	Week1 - Tuesday	Time(s)	
Duration	2 Hours	Applicable to Batches	24CSBTB01 To 24CSBTB39
AssignmentNumber: 1.2 (Present assignment number) / 24 (Total number of assignments)			
Q.No.	Question	Expected Time to complete	
1	Lab 1: Environment Setup – GitHub Copilot and VS Code Integration Lab Objectives: <ul style="list-style-type: none"> To install and configure GitHub Copilot in Visual Studio Code. 	Week1 - wednesday	

- To explore AI-assisted code generation using GitHub Copilot.
- To analyze the accuracy and effectiveness of Copilot's code suggestions.
- To understand prompt-based programming using comments and code context

Lab Outcomes (LOs):

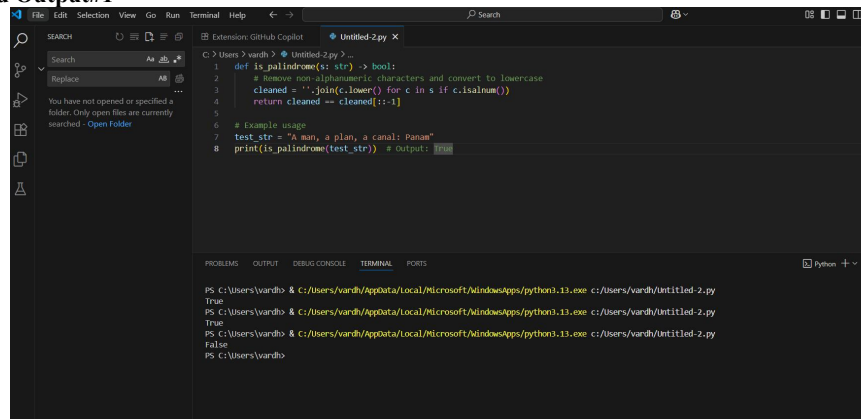
After completing this lab, students will be able to:

- Set up GitHub Copilot in VS Code successfully.
- Use inline comments and context to generate code with Copilot.
- Evaluate AI-generated code for correctness and readability.
- Compare code suggestions based on different prompts and programming styles.

Task Description#1

- Write a comment: # Function to check if a string is a valid palindrome (ignoring spaces and case) and allow Copilot to complete it.
- **Prompt:** write a python code to check wheather a given string is palindrome or not.

Expected Output#1



```

1 def is_palindrome(s: str) -> bool:
2     # Remove non-alphanumeric characters and convert to lowercase
3     cleaned = ''.join(c.lower() for c in s if c.isalnum())
4     return cleaned == cleaned[::-1]
5
6 # Example usage
7 test_str = "A man, a plan, a canal: Panama"
8 print(is_palindrome(test_str)) # output: True

```

```

PS C:\Users\vandho > & c:/Users/vandho/AppData/Local/Microsoft/WindowsApps/python3.11.exe c:/Users/vandho/Untitled-2.py
True
PS C:\Users\vandho > & c:/Users/vandho/AppData/Local/Microsoft/WindowsApps/python3.11.exe c:/Users/vandho/Untitled-2.py
True
PS C:\Users\vandho > & c:/Users/vandho/AppData/Local/Microsoft/WindowsApps/python3.11.exe c:/Users/vandho/Untitled-2.py
False
PS C:\Users\vandho >

```

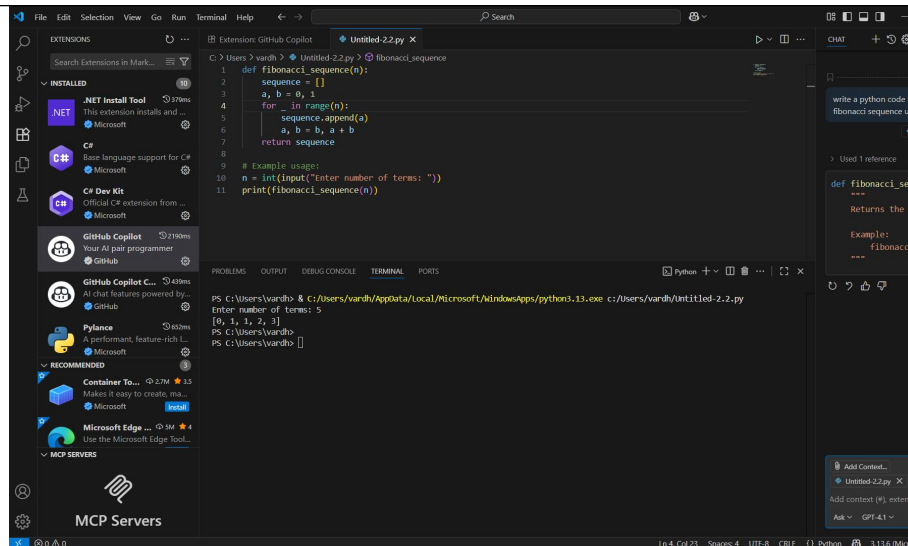
Task Description#2

write a code in python language that returns fibonacci series upto n terms
with only header and docstring

- Prompt with only a function header and docstring

Expected Output#2

Prompt: write a python code to find fibonacci sequence upto n terms.

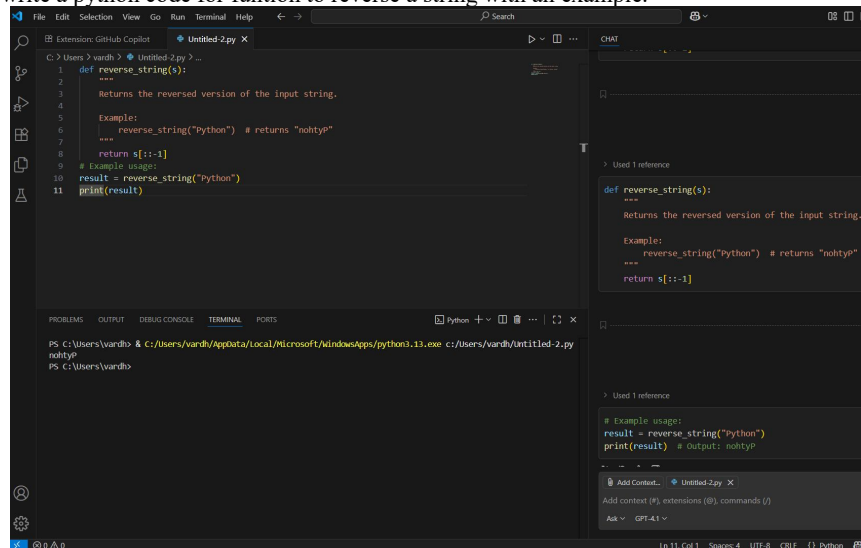


Task Description#3

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

Expected Output#3

Prompt:write a python code for funtion to reverse a string with an example.

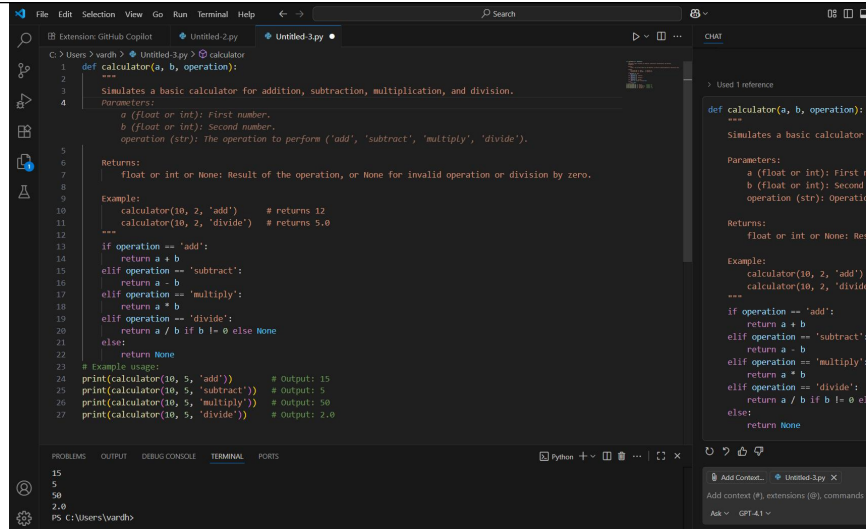


Task Description#4

- 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

Prompt:write a python code that simulates a basic calculator (add, subtract, multiply, divide).

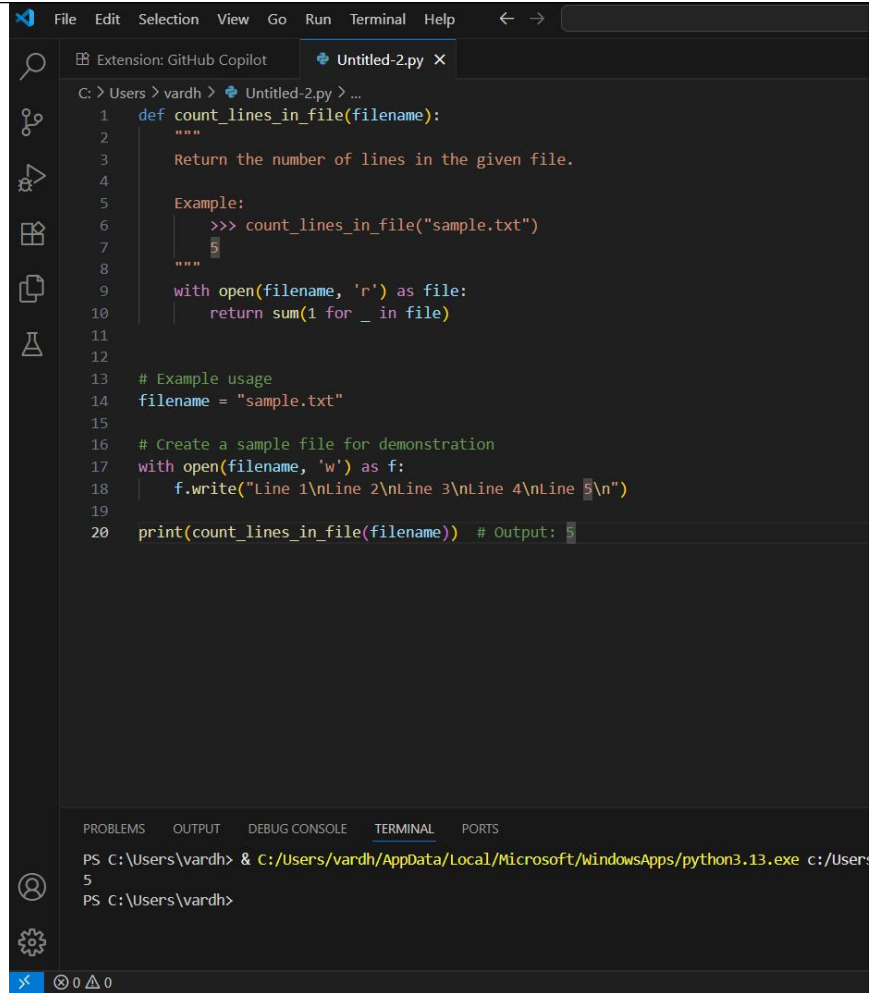


Task Description#5

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

Expected Output#5

- **Prompt:**write a python code only for a funtion that reads a file and returns the number of lines



The screenshot shows a Visual Studio Code editor window with a file named 'Untitled-2.py'. The code is a Python function 'count_lines_in_file' that takes a filename as input and returns the number of lines in the file. It includes a docstring with an example usage and a test script that creates a sample file 'sample.txt' with 5 lines and prints the output of the function. The terminal at the bottom shows the command to run the script and the output '5'.

```
C: > Users > vardh > Untitled-2.py > ...
1 def count_lines_in_file(filename):
2     """
3     Return the number of lines in the given file.
4
5     Example:
6     >>> count_lines_in_file("sample.txt")
7         5
8     """
9     with open(filename, 'r') as file:
10         return sum(1 for _ in file)
11
12
13 # Example usage
14 filename = "sample.txt"
15
16 # Create a sample file for demonstration
17 with open(filename, 'w') as f:
18     f.write("Line 1\nLine 2\nLine 3\nLine 4\nLine 5\n")
19
20 print(count_lines_in_file(filename)) # Output: 5
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

```
PS C:\Users\vardh> & C:/Users/vardh/AppData/Local/Microsoft/WindowsApps/python3.13.exe c:/Users/
5
PS C:\Users\vardh>
```

Note: Report should be submitted a word document for all tasks in a single document with prompts, comments & code explanation, and output and if required, screenshots

Evaluation Criteria:

Criteria	Max Marks
Task #1	0.5
Task #2	0.5
Task #3	0.5
Task #4	0.5
Task #5	0.5
Total	2.5 Marks