SCHOOL OF COMPUTER SCIENCE AND ARTIFICIAL INTELLIGENCE		DEPARTMENT OF COMPUTER SCIENCE ENGINEERING	
ProgramName: B. Tech		**Assignment Type: Lab**	**AcademicYear:** 2025-2026
Course Coordinator Name	Venkataramana Veeramsetty		
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CourseCode	24CS002PC215	**CourseTitle**	AI Assisted Coding
Year/Sem	II/I	**Regulation**	R24
Date and Day of Assignment	Week1 - Thursday	**Time(s)**	
Duration	2 Hours	**Applicableto Batches**	24CSBTB01 To 24CSBTB39
AssignmentNumber: **1.4**(Present assignment number)/**24**(Total number of assignments)			

C. No.	Question	*Expected Time to complete*
1	Lab 1: Environment Setup – GitHub Copilot and VS Code Integration	Wee

k1 - Thursday

Lab Objectives:

- To install and configure GitHub Copilot in Visual Studio Code.
- 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:

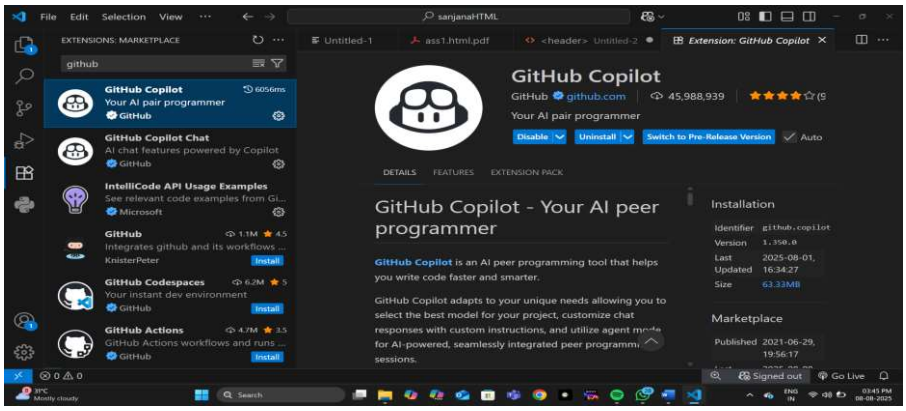
- Set up GitHub Copilot in VS Code successfully.
- Use inline comments and context to generate code with Copilot.
- Evaluate AI-generated code for correctness and readability.
- Compare code suggestions based on different prompts and programming styles.

Task Description #1

• Install and configure GitHub Copilot in VS Code. Take screenshots of each step.

Expected Output #1

• Successfully install and activate GitHub Copilot in VS Code. Include screenshots showing installation, authentication via GitHub, and an example suggestion from Copilot.



Task Description #2

• A function in Python that returns the maximum of three numbers using GitHub Copilot. Use an appropriate comment as a prompt.

Expected Output #2

• Python function that takes three inputs and returns the largest value. Include the code and output

```
def largest_of_three(a, b, c):
    return max(a, b, c)
num1 = int(input("Enter first number: "))
num2 = int(input("Enter second number: "))
num3 = int(input("Enter third number: "))
largest = largest_of_three(num1, num2, num3)
print("The largest value is:", largest)
```

```
Enter first number: 10
Enter second number: 50
Enter third number: 20
The largest value is: 50
```

Task Description #3

• Use GitHub Copilot to create a recursive Python function that calculates the factorial of a number.

Expected Output #3

• Python function for factorial using recursion with input and output examples.

```
def factorial(n):
    if n == 0 or n == 1:
        return 1
    else:
        return n * factorial(n - 1)

# Example usage:
num = 5
print(f"Factorial of {num} is {factorial(num)}")
```

```
Factorial of 5 is 120
PS C:\Users\achin\Downloads\aicode>
```

Task Description #4

• Prompt GitHub Copilot to create a class named Student with attributes name, roll_no, and marks. Add a method to display student details.

Expected Output #4

• Python class definition with an initializer and a display method. Include object creation and output.

```
# Define the Student class
class Student:
    def __init__(self, name, roll_no, marks):
        self.name = name
        self.roll_no = roll_no
        self.marks = marks

    def display_details(self):
        print(f"Name: {self.name}")
        print(f"Roll No: {self.roll_no}")
        print(f"Marks: {self.marks}")

# Example usage
student1 = Student("alice", 101, 95)
student1.display_details()
```

```
Name: Alice
Roll No: 101
Marks: 95
```

Task Description #5

• Ask GitHub Copilot to generate a Python function that takes a string as input and returns the frequency of each word.

Expected Output #5

• Python function that returns word frequency using a dictionary. Provide sample input and

output

```
def word_frequency(text):
    words = text.split()
    freq = {}
    for word in words:
        word = word.lower().strip('.,!?;:"()[]{}')
        freq[word] = freq.get(word, 0) + 1
    return freq

# Example usage
sample_text = "Hello world! Hello AI world."
print(word_frequency(sample_text))
```

```
oads/aicode/Untitled-3.py
{'hello': 2, 'world': 2, 'ai': 1}
```

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
Install and configure GitHub Copilot in VS Code (Task #1)	0.5
Python function that takes three inputs and returns the largest value (Task #2)	0.5
Python function for factorial using recursion (Task #3)	0.5
Python class definition with an initializer and a display method (Task #4)	0.5
Function that returns word frequency using a dictionary (Task #5)	0.5
Total	**2.5 Marks**