

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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CourseCode	24CS002PC215	CourseTitle	AI Assisted Coding
Year/Sem	II/I	Regulation	R24
Date and Day of Assignment	Week1 - Thursday	Time(s)	
Duration	2 Hours	Applicable to Batches	24CSBTB01 To 24CSBTB39
AssignmentNumber: 1.4(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. To explore AI-assisted code generation using GitHub Copilot. 	Week1 - Thursday	

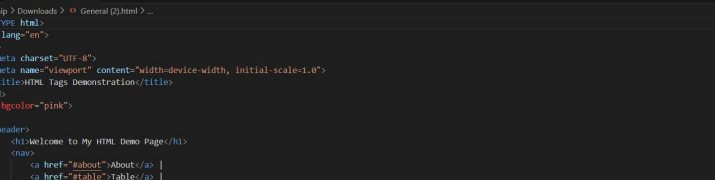
- To analyze the accuracy and effectiveness of Copilot's code suggestions.
- To understand prompt-based programming using comments and code context

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.

Expected Output #1



The screenshot shows a web browser window with the address bar displaying "file:///C:/Users/Abhishek/Downloads/General (2).html". The page content is as follows:

```

<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>HTML Tags Demonstration</title>
</head>
<body bgcolor="pink">

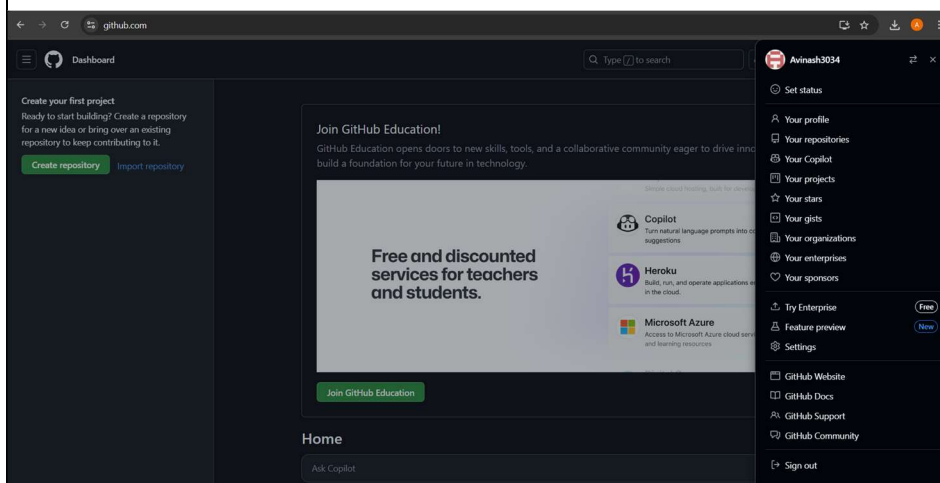
  <div>
    <h1>Welcome to My HTML Demo Page</h1>
    <nav>
      <a href="#about">About</a> |
      <a href="#table">Table</a> |
      <a href="#form">Form</a>
    </nav>
  </div>

  <div id="about">
    <h2>About This Page</h2>
    <p>This page demonstrates <strong>basic HTML tags</strong> including text formatting, lists, media, tables, and forms.</p>
    <p><em>HTML</em> is the backbone of all web pages!</p>
  </div>

  <div>
    <h2>Text Formatting</h2>
    <p>This is a normal paragraph.</p>
    <p>This is <b>bold</b> and this is <i>italic</i>.</p>
    <p>This is <strong>strong</strong> and this is <em>emphasized</em>.</p>
    <p>Line 1<br>Line 2 (after line break)</p>
  </div>

  <div>
    <h2>Lists</h2>
    <ul>
      <li>Unordered List</li>
    </ul>
  </div>

```



Expected Output #2

```
File Edit Selection View Go Run Terminal Help
C:\Users\Abhip> Downloads > problem.py > ...
1 # Get three inputs from the user
2 a = float(input("Enter first number: "))
3 b = float(input("Enter second number: "))
4 c = float(input("Enter third number: "))
5
6 # Find the largest value
7 largest = max(a, b, c)
8
9 print("The largest value is:", largest)

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS
Python + Python 3.11.3

PS C:\Users\Abhip> & C:\Users\Abhip\AppData\Local\Programs\Python\Python311\python.exe c:/Users/Abhip/Downloads/problem.py
File "c:/Users/Abhip/Downloads/problem.py", line 9
    print("The largest
          ^
SyntaxError: unterminated string literal (detected at line 9)
Enter first number: 1
Enter second number: 2
Enter third number: 10
The largest value is: 10.0
PS C:\Users\Abhip>
```

Expected Output #3

```
File Edit Selection View Go Run Terminal Help
C:\Users\Abhip> Downloads > fact.py > ...
1 def factorial(n):
2     """Returns the factorial of n using recursion."""
3     if n == 0 or n == 1:
4         return 1
5     else:
6         return n * factorial(n - 1)
7
8 # Example usage:
9 num = int(input("Enter a number to find its factorial: "))
10 result = factorial(num)
11 print("factorial of (num) is (result)")

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS
Python + Python 3.11.3

PS C:\Users\Abhip> & C:\Users\Abhip\AppData\Local\Programs\Python\Python311\python.exe c:/Users/Abhip/Downloads/fact.py
File "c:/Users/Abhip/Downloads/fact.py", line 9
    print("factorial of (num) is (result)")
          ^
SyntaxError: unterminated string literal (detected at line 9)
Enter first number: 1
Enter second number: 2
Enter third number: 10
The largest value is: 10.0
PS C:\Users\Abhip> & C:\Users\Abhip\AppData\Local\Programs\Python\Python311\python.exe c:/Users/Abhip/Downloads/fact.py
Enter a number to find its factorial: 5
factorial of 5 is 120
PS C:\Users\Abhip>
```

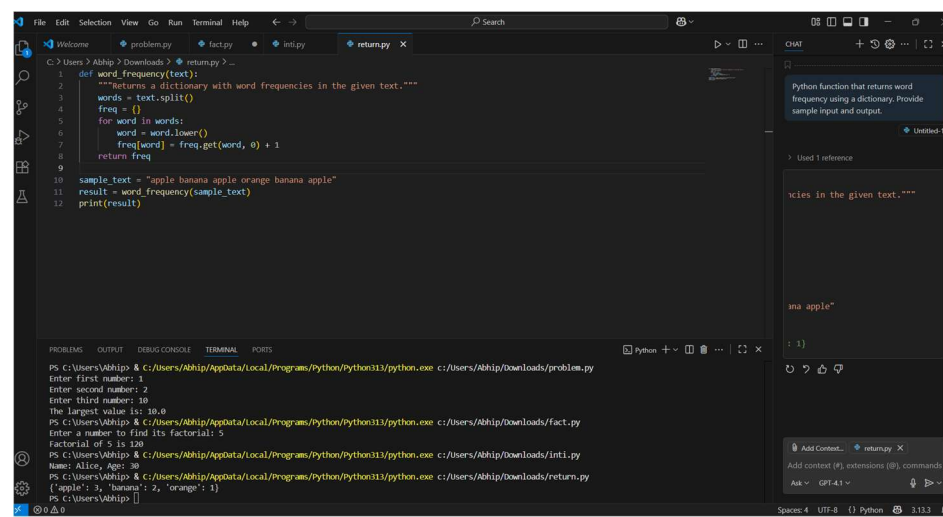
Expected Output #4

```
File Edit Selection View Go Run Terminal Help
C:\Users\Abhip> Downloads > int.py > ...
1 class Person:
2     def __init__(self, name, age):
3         self.name = name
4         self.age = age
5
6     def display(self):
7         print("Name: {self.name}, Age: {self.age}")
8
9 # Object creation and output
10 person1 = Person("Alice", 30)
11 person1.display()

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS
Python + Python 3.11.3

PS C:\Users\Abhip> & C:\Users\Abhip\AppData\Local\Programs\Python\Python311\python.exe c:/Users/Abhip/Downloads/int.py
File "c:/Users/Abhip/Downloads/int.py", line 9
    print("Name: {self.name}, Age: {self.age}")
          ^
SyntaxError: unterminated string literal (detected at line 9)
Enter first number: 1
Enter second number: 2
Enter third number: 10
The largest value is: 10.0
PS C:\Users\Abhip> & C:\Users\Abhip\AppData\Local\Programs\Python\Python311\python.exe c:/Users/Abhip/Downloads/fact.py
Enter a number to find its factorial: 5
factorial of 5 is 120
PS C:\Users\Abhip> & C:\Users\Abhip\AppData\Local\Programs\Python\Python311\python.exe c:/Users/Abhip/Downloads/int.py
Name: Alice, Age: 30
PS C:\Users\Abhip>
```

Expected Output #5



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