

# AI Assisted Coding Lab Assignment (1.4/24)

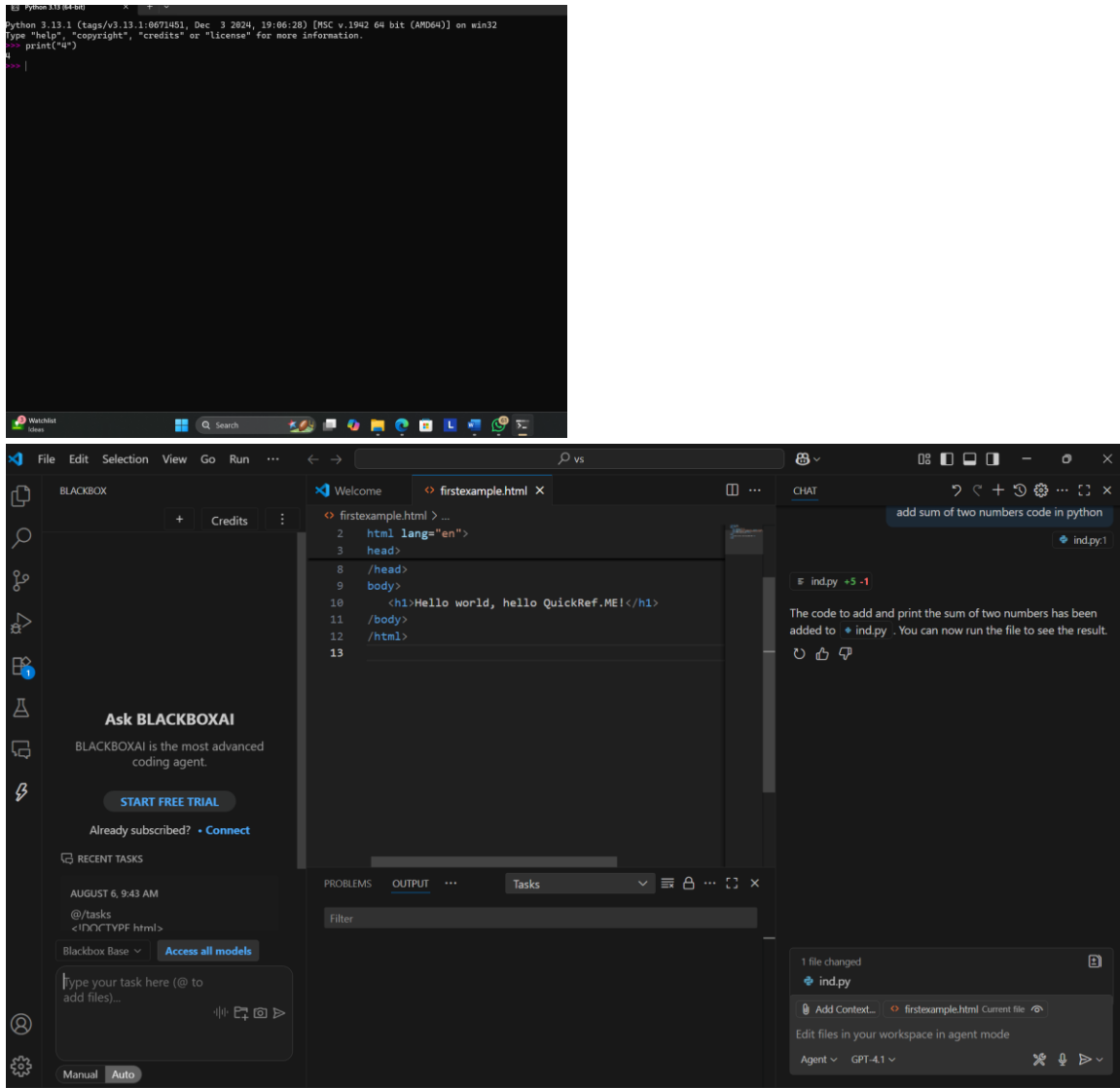
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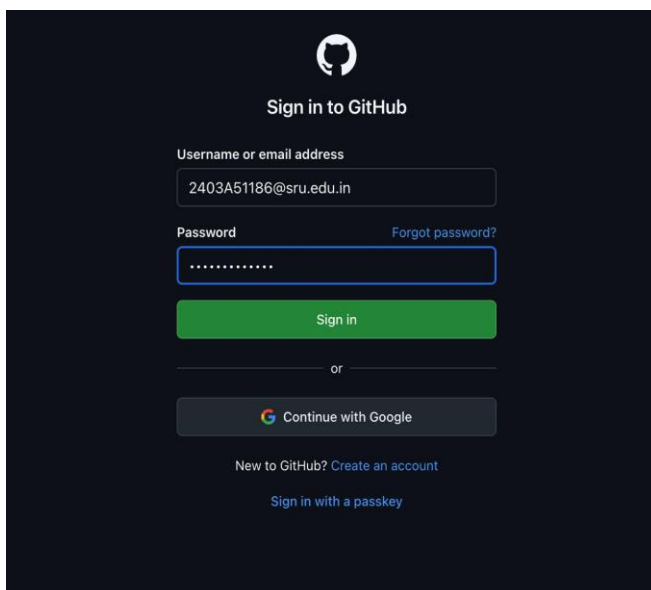
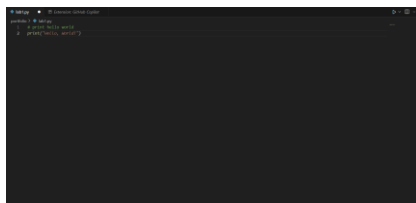
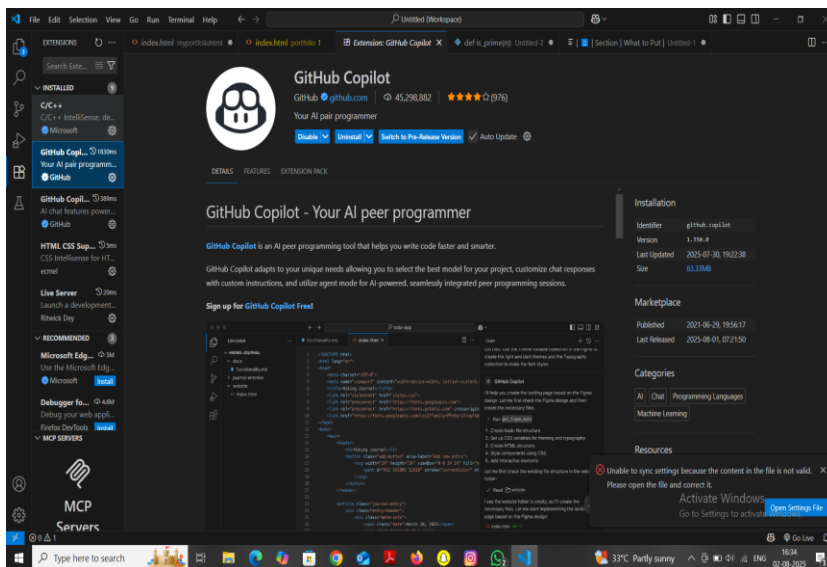
**Name : Chandana .V**

**Roll No : 2403A51186**

**Section : CS-B09**

## Task 1: Install python , vscode , github co-pilot



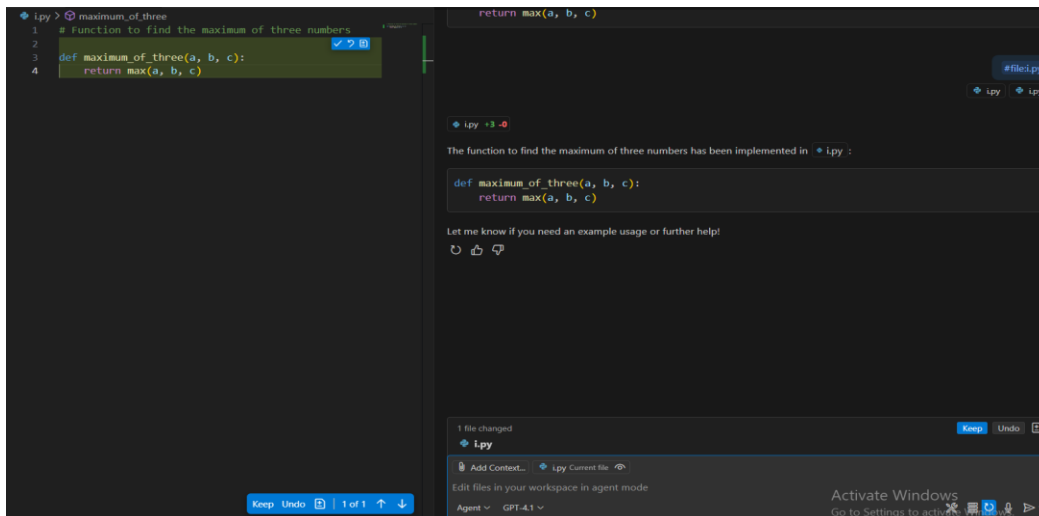


## Task 2: Maximum of Three Numbers

Prompt used:

#write a Function to find the maximum of three numbers

Code:



The screenshot shows a code editor with a dark theme. On the left, a file named 'maximum\_of\_three.py' is open, containing the following Python code:

```
1 # Function to find the maximum of three numbers
2
3 def maximum_of_three(a, b, c):
4     return max(a, b, c)
```

On the right, a chat window is visible. It shows a prompt: 'ipy → 3 → 0'. Below the prompt, a message states: 'The function to find the maximum of three numbers has been implemented in ipy :'. This is followed by a code block containing the function definition: 'def maximum\_of\_three(a, b, c): return max(a, b, c)'. Below the code block, there is a suggestion: 'Let me know if you need an example usage or further help!'. At the bottom of the chat window, there is a status bar that says '1 file changed' and 'ipy'. The bottom of the editor shows a status bar with 'Keep Undo' and '1 of 1'.

Explanation:

The function uses Python's built-in `max()` function to return the largest of the three inputs.

Sample Output:

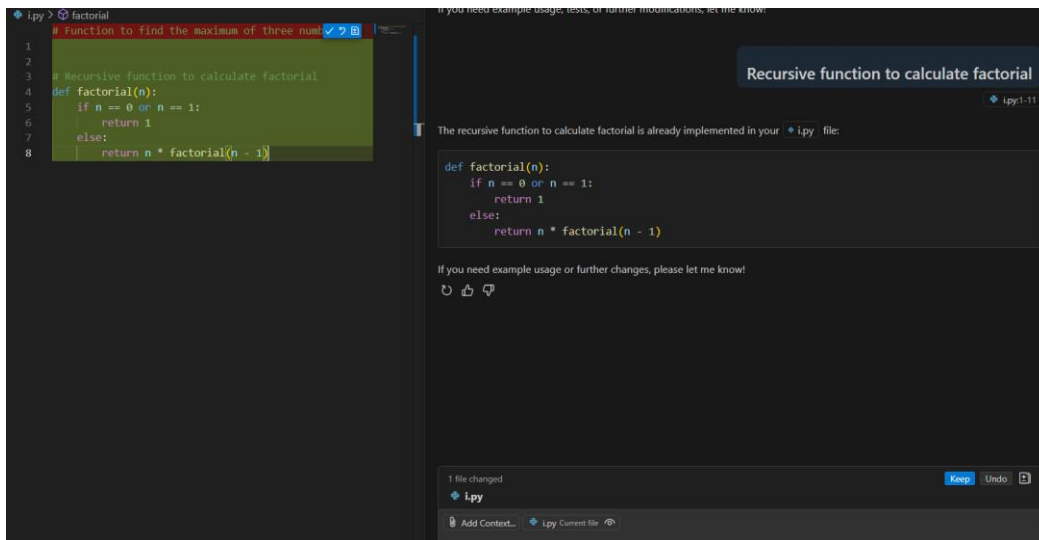
Maximum is: 25

## Task 3: Factorial (Recursive)

Prompt used:

# write a Recursive function to calculate factorial

Code:



Explanation:

The function calls itself recursively until  $n$  becomes 1 or 0, which is the base case.

Sample Output:

Factorial of 5 is: 120

## Task 4: Student Class

Prompt used:

# write a prompt to Define a class Student with name, roll\_no, marks and display method

Code:

```
ipy > ...
1
2
3 # Define a class Student with name, roll_no, marks a
4 class Student:
5     def __init__(self, name, roll_no, marks):
6         self.name = name
7         self.roll_no = roll_no
8         self.marks = marks
9
10
11     def display(self):
12         print(f"Name: {self.name}")
13         print(f"Roll No: {self.roll_no}")
14         print(f"Marks: {self.marks}")
```

Define a class Student with name, roll\_no, marks and display method

ipy +13 -0

The `Student` class with `name`, `roll_no`, `marks`, and a `display` method has been added to your `ipy` file.

Let me know if you need an example of how to use this class or any further help!

1 file changed  
ipy  
Add Context... ipy Current file

Edit files in your workspace in agent mode

Activate Windows  
Go to Settings to activate Windows

Agent GPT-4.1

Explanation:

This class defines a constructor (`__init__`) and a method `display()` to print the details of a student object.

Sample Output:

Name: Chandana.V

Roll No: 2403A51186

## Task 5: Word Frequency

Prompt used:

# Function to return word frequency from a given string

Code:

```
# Function to return word frequency from a given string
def word_frequency(s):
    words = s.split()
    freq = {}
    for word in words:
        freq[word] = freq.get(word, 0) + 1
    return freq
```

Function to return word frequency from a given string

ipy +8 -0

The function to return word frequency from a given string has been added to your `ipy` file.

```
def word_frequency(s):
    words = s.split()
    freq = {}
    for word in words:
        freq[word] = freq.get(word, 0) + 1
    return freq
```

Let me know if you need anything else!

1 file changed  
ipy  
Add Context... ipy Current file

Edit files in your workspace in agent mode

Activate Windows  
Go to Settings to activate Windows

Agent GPT-4.1

Explanation:

The function splits the input string into words, converts them to lowercase, and uses a dictionary to count how many times each word appears.

Sample Output:

```
{'ai': 2, 'makes': 1, 'coding': 2, 'easier': 1, 'is': 1, 'fun': 1, 'with': 1}
```