AI ASSISTED CODING

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LAB-2

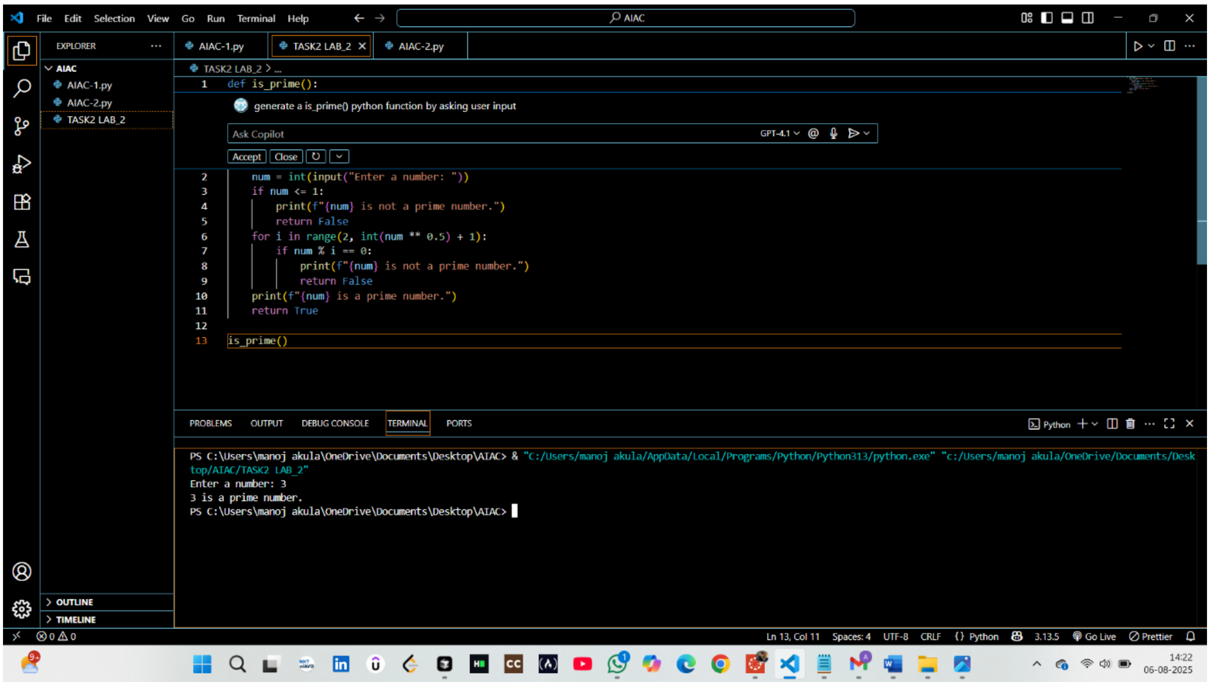
TASK DESCRIPTION 2:

USE THE CO-PILOT TO GENERATE A is_prime PYTHON FUNCTION

EXPECTED OUTPUT:

FUNCTION TO CHECK PRIMILITY WITH CORRECT LOGIC.

PROMPT:generate a is_prime() python function by asking user input



generate a is_prime() python function by asking user input

```python
def is_prime():
    num = int(input("Enter a number: "))
    if num <= 1:
        print(f"{num} is not a prime number.")
        return False
    for i in range(2, int(num ** 0.5) + 1):
        if num % i == 0:
            print(f"{num} is not a prime number.")
            return False
    print(f"{num} is a prime number.")
    return True

is_prime()
```

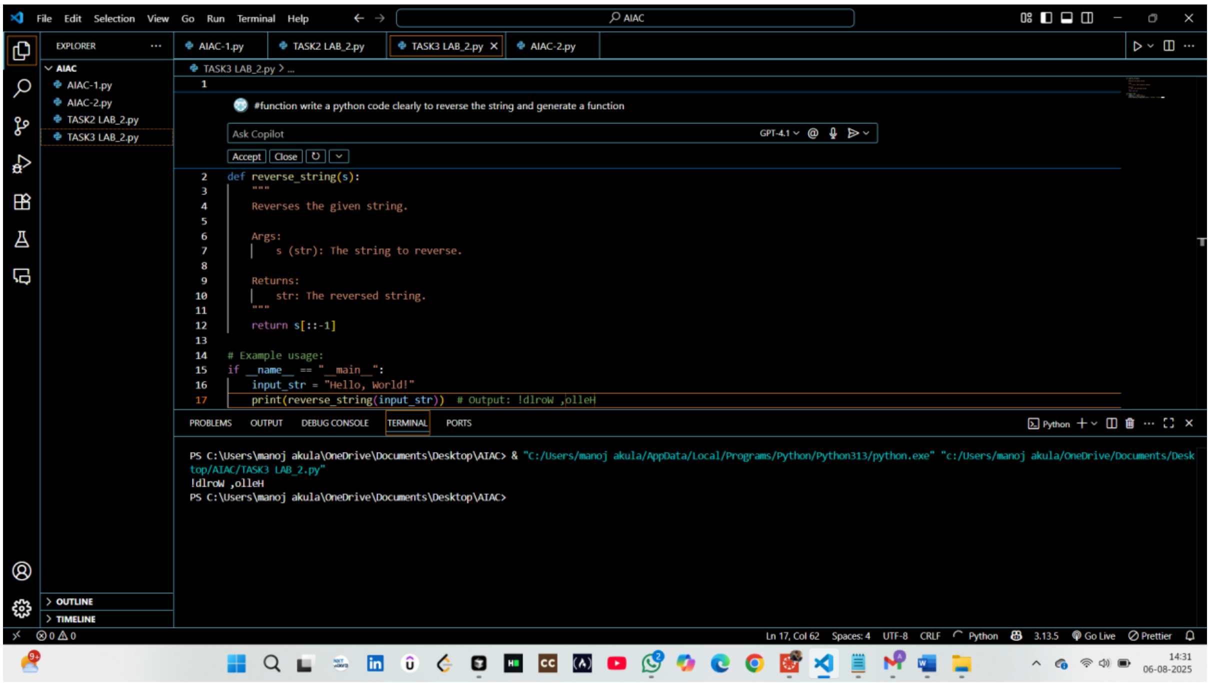
```
PS C:\Users\manoj akula\OneDrive\Documents\Desktop\AIAC> & "C:/Users/manoj akula/AppData/Local/Programs/Python/Python313/python.exe" "c:/Users/manoj akula/OneDrive/Documents/Desktop/AIAC/TASK2 LAB_2"
Enter a number: 3
3 is a prime number.
PS C:\Users\manoj akula\OneDrive\Documents\Desktop\AIAC> 
```

TASK DESCRIPTION 3:

Write a comment like #function to revrse the string and use copilot to generate the function

EXPECTED OUTPUT 3: Auto-completed reverse function

PROMPT: #function write a python code clearly to reverse the string and generate a function



#function write a python code clearly to reverse the string and generate a function

```python
def reverse_string(s):
    """
    Reverses the given string.

    Args:
        s (str): The string to reverse.

    Returns:
        str: The reversed string.
    """
    return s[::-1]

# Example usage:
if __name__ == "__main__":
    input_str = "Hello, World!"
    print(reverse_string(input_str))  # Output: !dlroW ,olleH
```

```
PS C:\Users\manoj akula\OneDrive\Documents\Desktop\AIAC> & "C:/Users/manoj akula/AppData/Local/Programs/Python/Python313/python.exe" "c:/Users/manoj akula/OneDrive/Documents/Desktop/AIAC/TASK3 LAB_2.py"
!dlroW ,olleH
PS C:\Users\manoj akula\OneDrive\Documents\Desktop\AIAC>
```

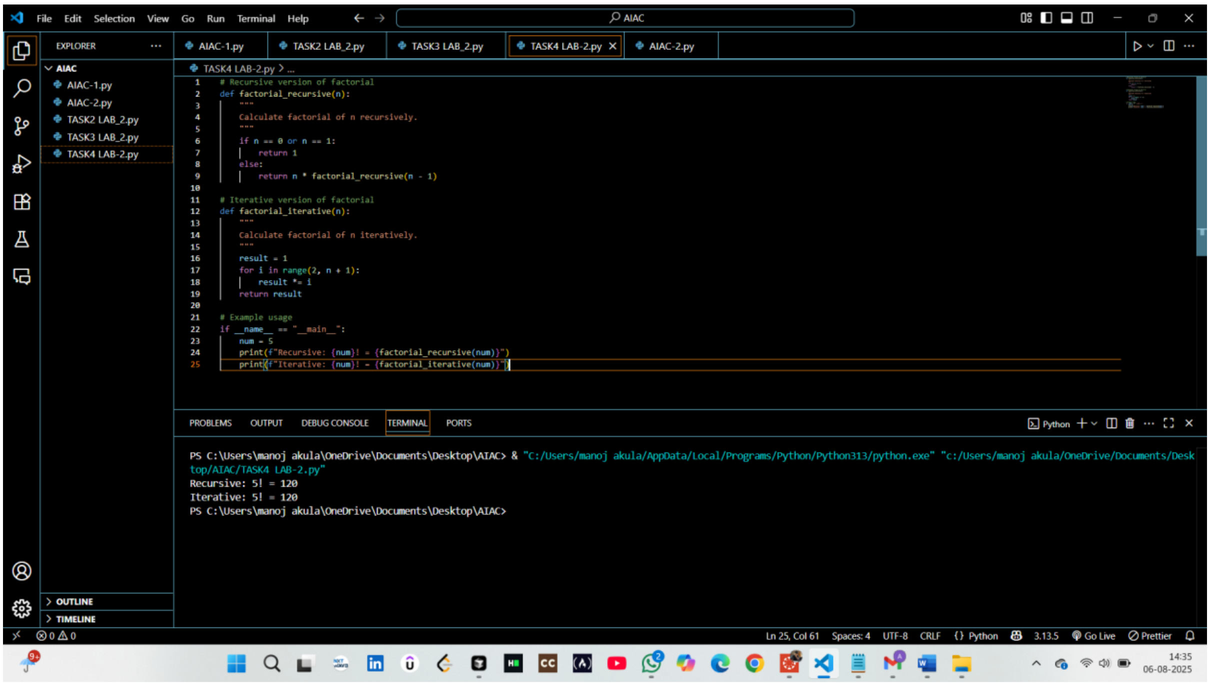
TASK DESCRIPTION 4:

Generate both recursive and iterative versions of a factorial function using comments.

EXPECTED OUTPUT 4:

Two working factorial implements

PROMPT: Generate a code in python that should both recursive and iterative versions of a factorial function using comments. Two working factorial implements.



```python
# Recursive version of factorial
def factorial_recursive(n):
    """
    Calculate factorial of n recursively.
    """
    if n == 0 or n == 1:
        return 1
    else:
        return n * factorial_recursive(n - 1)

# Iterative version of factorial
def factorial_iterative(n):
    """
    Calculate factorial of n iteratively.
    """
    result = 1
    for i in range(2, n + 1):
        result *= i
    return result

# Example usage
if __name__ == "__main__":
    num = 5
    print(f"Recursive: {num}! = {factorial_recursive(num)}")
    print(f"Iterative: {num}! = {factorial_iterative(num)}")
```

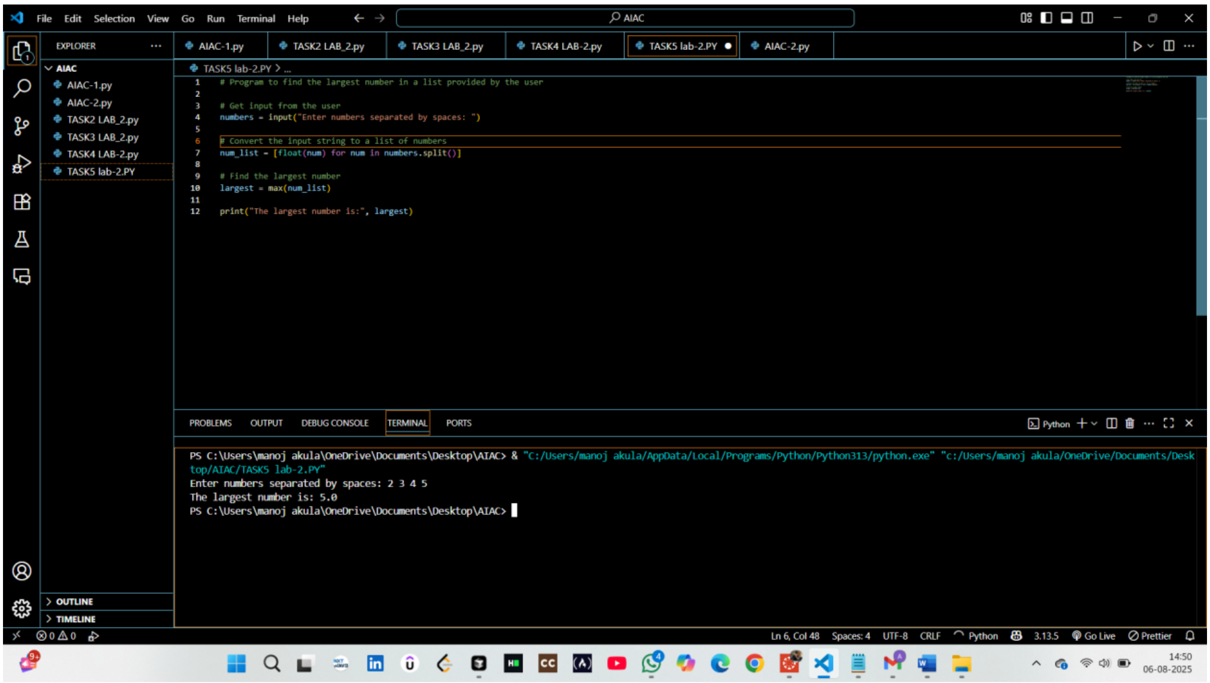
```
PS C:\Users\manoj akula\OneDrive\Documents\Desktop\AIAC> & "C:/Users/manoj akula/AppData/Local/Programs/Python/Python313/python.exe" "c:/Users/manoj akula/OneDrive/Documents/Desk
top/AIAC/TASK4 LAB-2.py"
Recursive: 5! = 120
Iterative: 5! = 120
PS C:\Users\manoj akula\OneDrive\Documents\Desktop\AIAC>
```

TASK DESCRIPTION 5: Use copilot to find the largest number in a list .Access code quality and efficiency.

EXPECTED OUTPUT 5:

A valid function with your review

PROMPT: generate a python code to find the largest number among the given list as an input given by user.


File Edit Selection View Go Run Terminal Help
AIAC
EXPLORER
AIAC
AIAC-1.py
AIAC-2.py
TASK2 LAB_2.py
TASK3 LAB_2.py
TASK4 LAB-2.py
TASK5 lab-2.PY
TASK5 lab-2.PY > ...
OUTLINE
TIMELINE
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS
Python
Ln 6, Col 48 Spaces: 4 UTF-8 CRLF Python 3.13.5 Go Live Prettier
14:50
06-08-2025

```python
# Program to find the largest number in a list provided by the user

# Get input from the user
numbers = input("Enter numbers separated by spaces: ")

# Convert the input string to a list of numbers
num_list = [float(num) for num in numbers.split()]

# Find the largest number
largest = max(num_list)

print("The largest number is:", largest)
```

```
PS C:\Users\manoj akula\OneDrive\Documents\Desktop\AIAC> & "C:/Users/manoj akula/AppData/Local/Programs/Python/Python313/python.exe" "c:/Users/manoj akula/OneDrive/Documents/Desk
top/AIAC/TASK5 lab-2.PY"
Enter numbers separated by spaces: 2 3 4 5
The largest number is: 5.0
PS C:\Users\manoj akula\OneDrive\Documents\Desktop\AIAC> 
```

CONCLUSION : I have learnt a lot about proper way of using github copilot and generating expected code through our prompts

THANK YOU