

### \*\*\*TaskDescription 2:

>>Use a copilot to generate a is\_prime() python function.

### Expected Output:

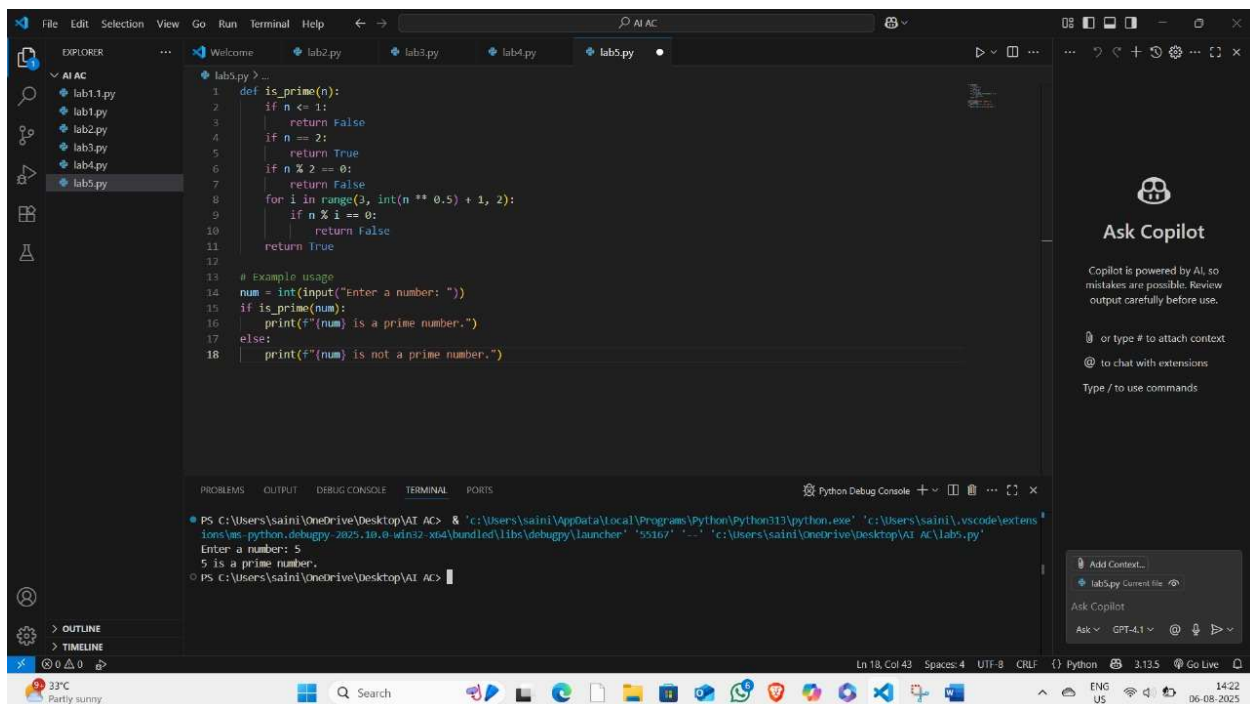
>>Function to check primality with correct logic.

### Prompt:

>>Write a python code to check whether a number is prime or not

### Observation:

>>The code checks if a number is divisible by any number from 2 to  $\sqrt{n}$ .  
If no such divisor is found, the number is prime; otherwise, it is not.



```
1 def is_prime(n):
2     if n <= 1:
3         return False
4     if n == 2:
5         return True
6     if n % 2 == 0:
7         return False
8     for i in range(2, int(n ** 0.5) + 1, 2):
9         if n % i == 0:
10            return False
11    return True
12
13 # Example usage
14 num = int(input("Enter a number: "))
15 if is_prime(num):
16     print(f"{num} is a prime number.")
17 else:
18     print(f"{num} is not a prime number.")
```

Python Debug Console

```
PS C:\Users\saini\OneDrive\Desktop\VAI AC> & 'c:\Users\saini\AppData\Local\Programs\Python\Python313\python.exe' 'c:\Users\saini\.vscode\extensions\ms-python.debugpy-2025.10.0-win32-x64\bundle\libs\debugpy\launcher' '55167' '...' 'c:\Users\saini\OneDrive\Desktop\VAI AC\lab5.py'
Enter a number: 5
5 is a prime number.
PS C:\Users\saini\OneDrive\Desktop\VAI AC>
```

### \*\*\*TaskDescription3:

>>Write a comment like # function to reverse a string and use copilot to generate the function.

### Expected output:

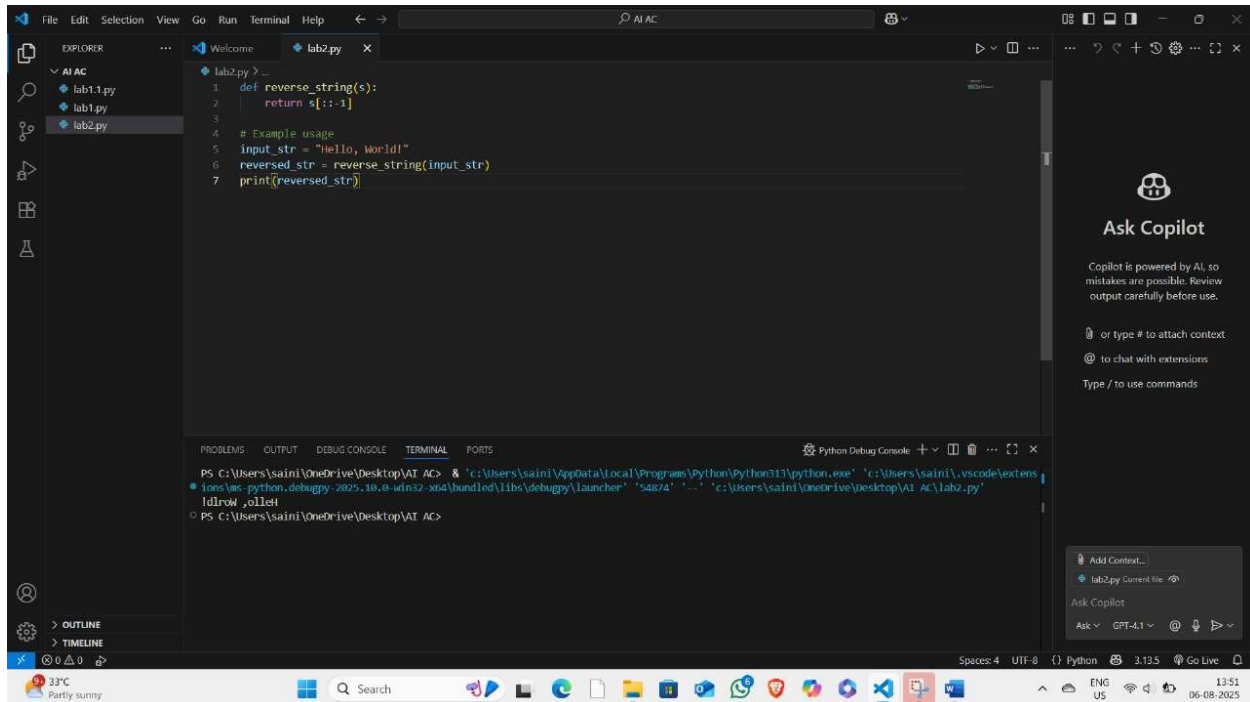
>>Auto-completed Reverse Function.

### Prompt:

>>Write a python code to reverse a string by using python functions.

## Observation:

>>The function uses Python's slicing feature to reverse the string efficiently. It returns a new string with characters in reverse order from the original.



```
1 def reverse_string(s):
2     return s[::-1]
3
4 # Example usage
5 input_str = "Hello, World!"
6 reversed_str = reverse_string(input_str)
7 print(reversed_str)
```

```
PS C:\Users\saini\OneDrive\Desktop\AI AC> & 'c:\Users\saini\AppData\Local\Programs\Python\Python313\python.exe' 'c:\Users\saini\.vscode\extensions\ms-python.debugpy-2025.18.0-windows-x64\bundle\libs\debugpy\launcher' '54874' '-.' 'c:\Users\saini\OneDrive\Desktop\AI AC\lab2.py'
dlrow ,olleH
PS C:\Users\saini\OneDrive\Desktop\AI AC>
```

## \*\*\*TaskDescription4:

>>Generate Both Recursive and Iterative Version of a Factorial Using Comments.

## Expected output:

>>Two Working Factorial Implementation

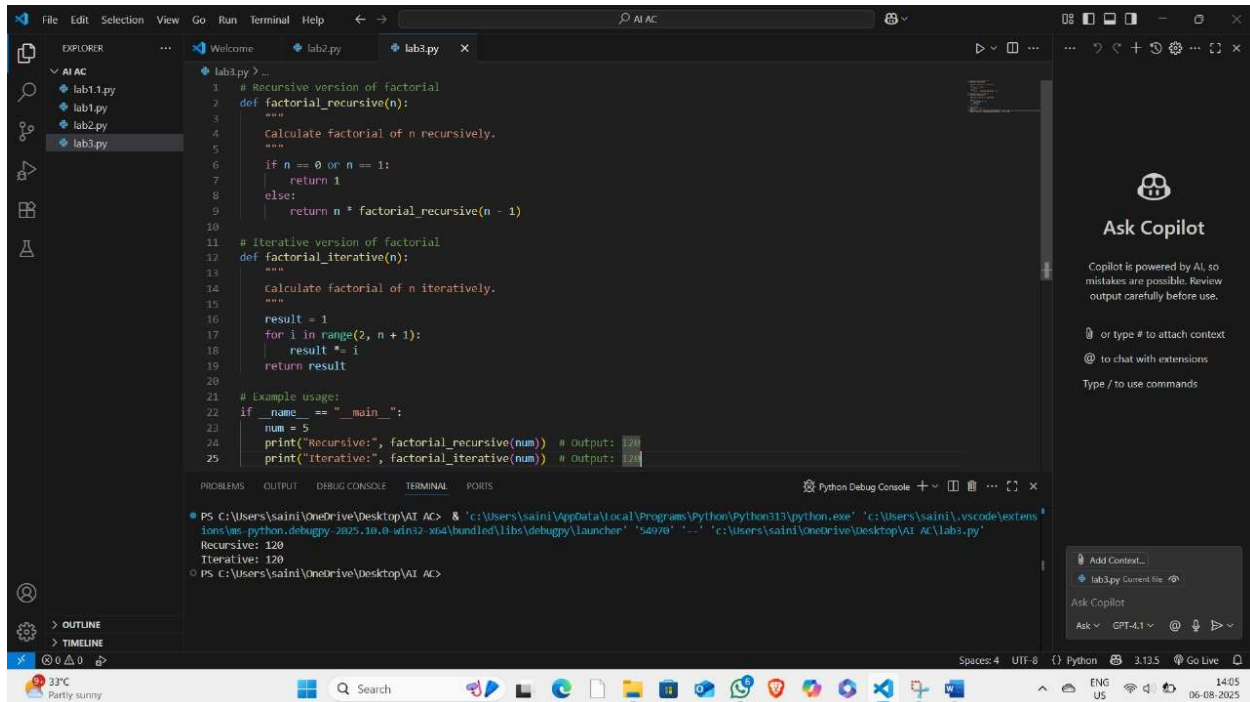
## Prompt:

>>Generate Both Recursive and Iterative Version of a Factorial Using Comments by using python program.

## Observation:

>>The recursive version uses function calls to break the problem down into smaller subproblems.

The iterative version uses a loop for better space efficiency and avoids call stack overhead.



### \*\*\*TaskDescription 5:

>>Use copilot to find the largest number in a list. Assess code quality and efficiency.

### Expected output:

>> A valid function with your review.

### Prompt:

>> Write a python code to find the largest number in a list and assess code quality and efficiency.

### Observation:

>>The recursive version uses function calls to break the problem down into smaller subproblems.

The iterative version uses a loop for better space efficiency and avoids call stack overhead.

File Edit Selection View Go Run Terminal Help

AI AC

lab4.py

EXPLORER

AI AC

lab1.1.py

lab1.py

lab2.py

lab3.py

lab4.py

lab4.py

def find\_largest\_number(numbers):  
 """  
 Returns the largest number in a list.  
 Args:  
 numbers (list): List of numeric values.  
 Returns:  
 The largest number in the list, or None if the list is empty.  
 """  
 if not numbers:  
 return None  
 return max(numbers)  
  
# Example usage  
nums = [3, 7, 2, 0, 5]  
print("Largest number:", find\_largest\_number(nums))

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

Python Debug Console

PS C:\Users\saini\OneDrive\Desktop\AI AC> & 'c:\Users\saini\AppData\Local\Programs\Python\Python313\python.exe' 'c:\Users\saini\.vscode\extensions\ms-python.debugpy-2025.10.0-win32-x64\bundled\libs\debugpy\launcher' '55076' '-' 'c:\Users\saini\OneDrive\Desktop\AI AC\lab4.py'  
Largest number: 9  
PS C:\Users\saini\OneDrive\Desktop\AI AC>

OUTLINE

TIMELINE

33°C Partly sunny

Search

ENG US 14:14 06-08-2025

Ask Copilot

Copilot is powered by AI, so mistakes are possible. Review output carefully before use.

or type # to attach context

@ to chat with extensions

Type / to use commands

Add Context...  
lab4.py Current file

Ask Copilot

Ask GPT-4.1



