

## AI ASSISTED CODING

### Lab 4.4: AI-Based Code Auto-Completion – Classes, Loops, and Conditionals in Python using GitHub Copilot

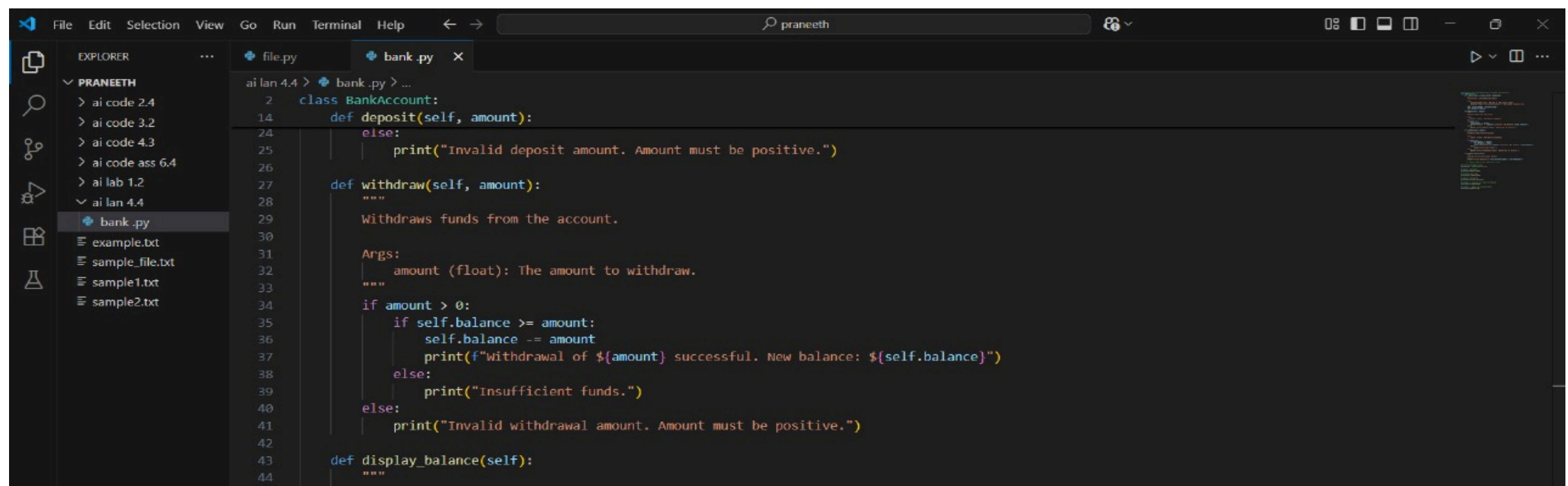
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**BATCH:**25BTCAICSB19

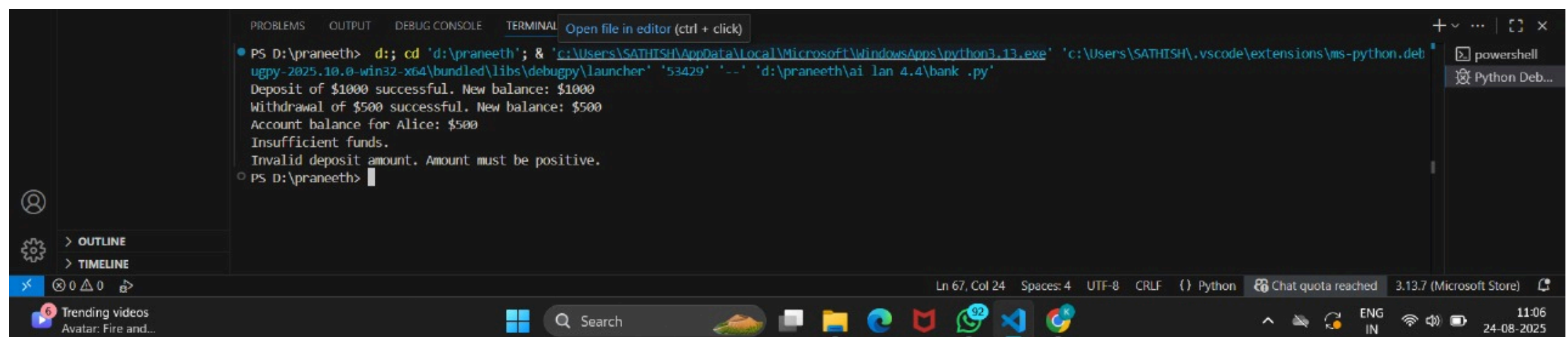
#### TASK-1:

**PROMPT:**Write a class definition comment and start the constructor for a class called BankAccount with account\_holder and balance attributes. Use GitHub Copilot to auto-complete the rest of the class, including methods to deposit, withdraw, and display balance.Code Generated:



```
2 class BankAccount:
14     def deposit(self, amount):
24         else:
25             print("Invalid deposit amount. Amount must be positive.")
26
27     def withdraw(self, amount):
28         """
29         Withdraws funds from the account.
30
31         Args:
32             amount (float): The amount to withdraw.
33         """
34         if amount > 0:
35             if self.balance >= amount:
36                 self.balance -= amount
37                 print(f"Withdrawal of ${amount} successful. New balance: ${self.balance}")
38             else:
39                 print("Insufficient funds.")
40         else:
41             print("Invalid withdrawal amount. Amount must be positive.")
42
43     def display_balance(self):
44         """
```

#### **Output:**

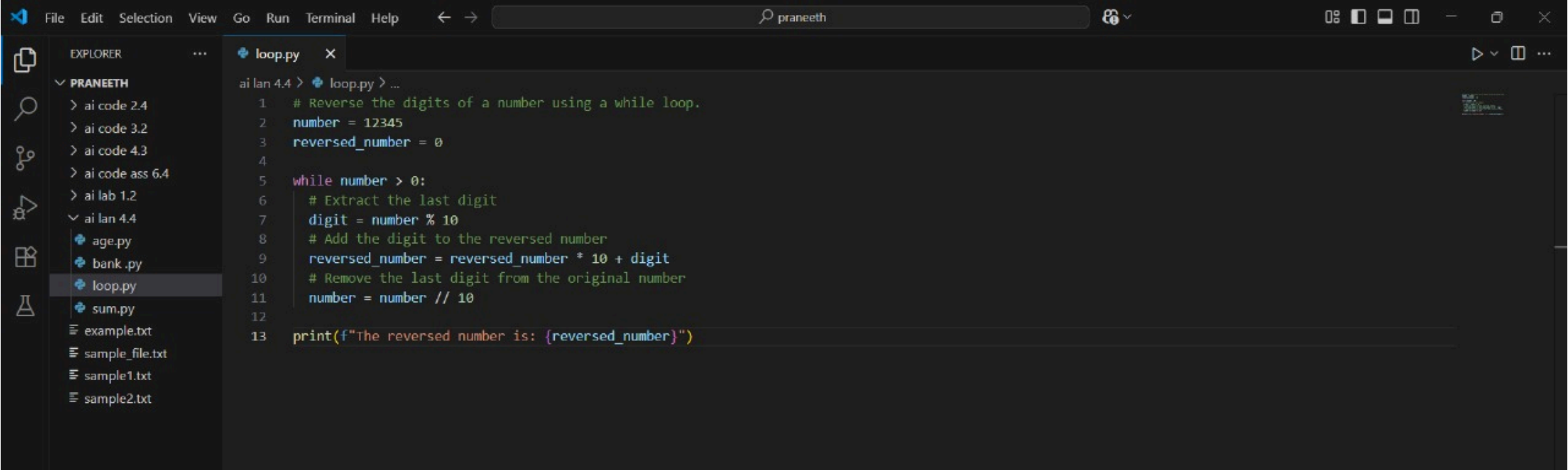


```
PS D:\praneeth> d:;; cd 'd:\praneeth'; & 'c:\Users\SATHISH\AppData\Local\Microsoft\WindowsApps\python3.13.exe' 'c:\Users\SATHISH\.vscode\extensions\ms-python.debugpy-2025.10.0-win32-x64\libs\debugpy\launcher' '53429' '...' 'd:\praneeth\ai lan 4.4\bank .py'
Deposit of $1000 successful. New balance: $1000
Withdrawal of $500 successful. New balance: $500
Account balance for Alice: $500
Insufficient funds.
Invalid deposit amount. Amount must be positive.
PS D:\praneeth>
```

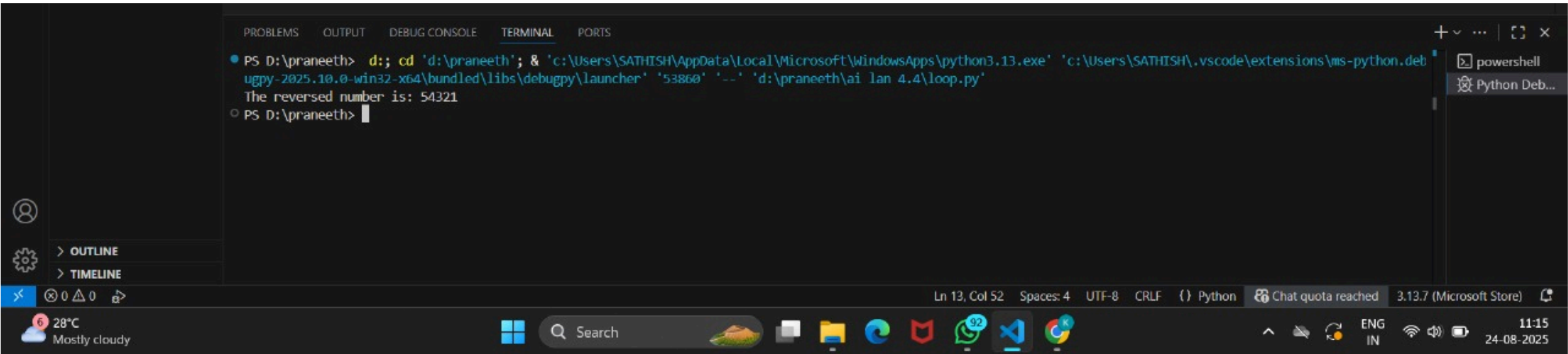
TASK-2:

**PROMPT:** Write a comment and the initial line of a loop to iterate over a list. Allow GitHub Copilot to complete the logic to sum all even numbers in the list.

Code generated:



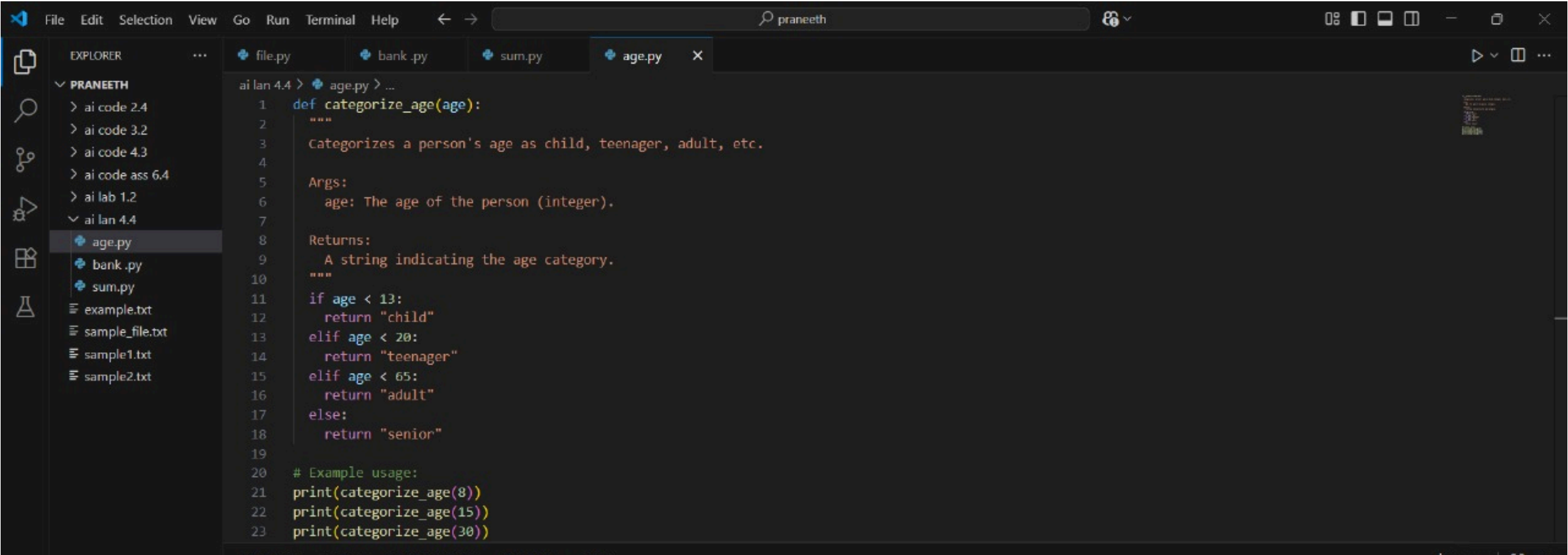
Output:



TASK-3:

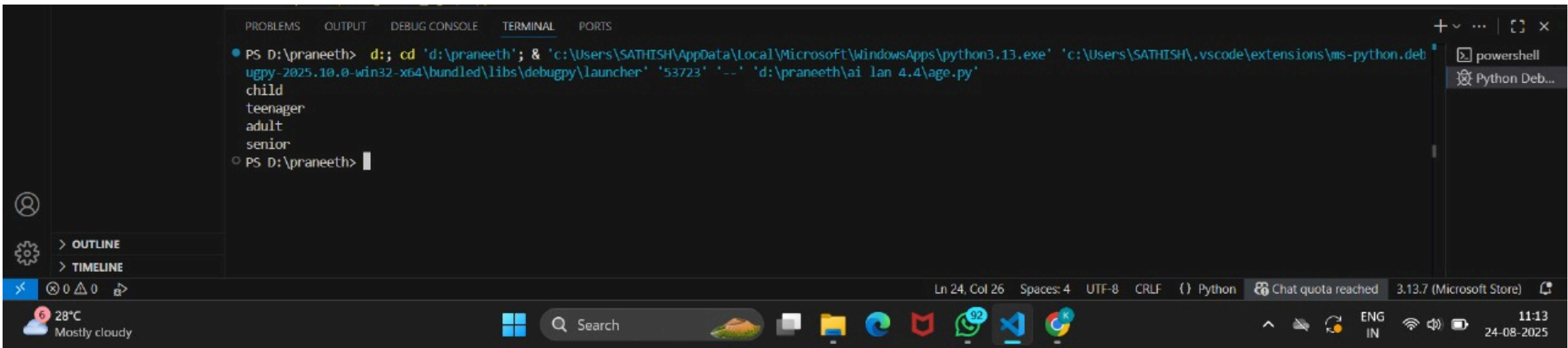
**PROMPT:** Start a function that takes age as input and returns whether the person is a **child**, **teenager**, **adult**, or **senior** using if-elif-else. Use Copilot to complete the conditionals.

Code Generated:





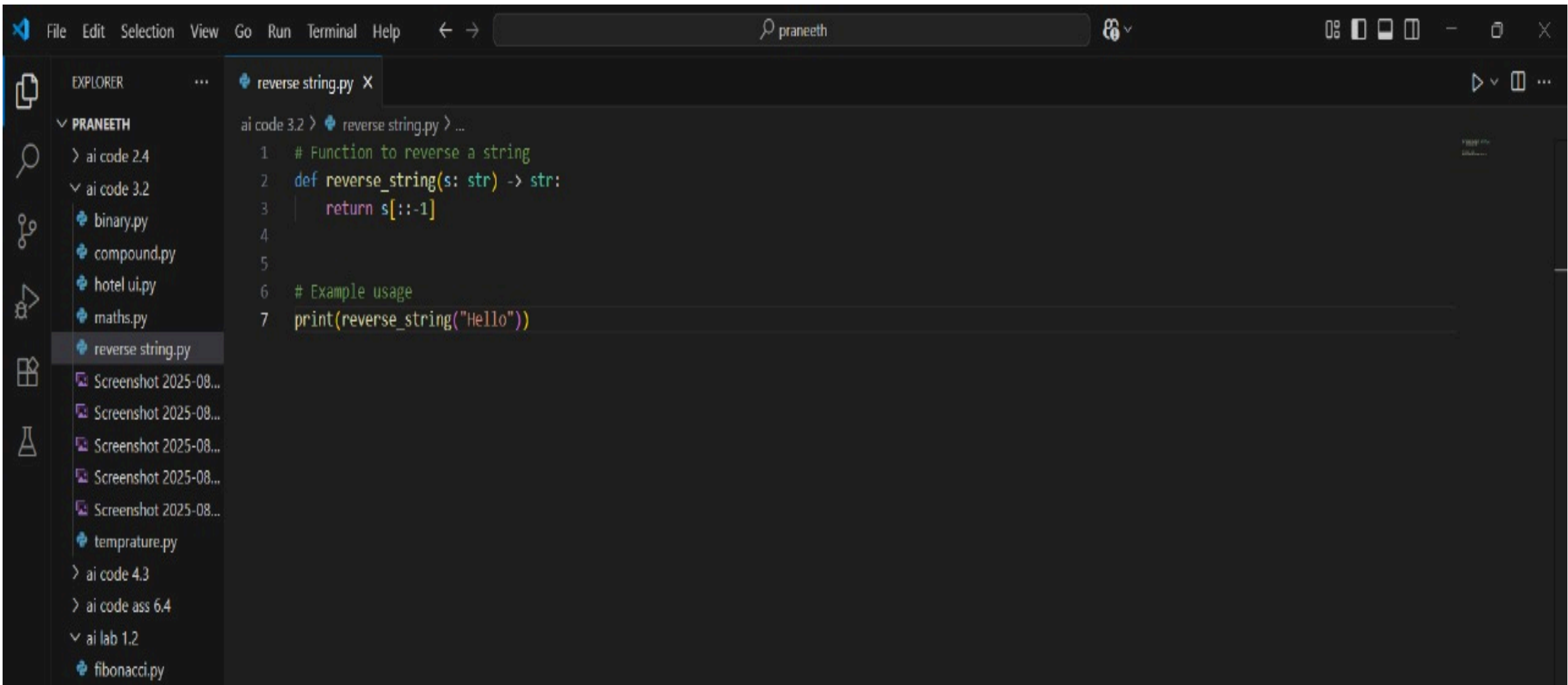
Output:



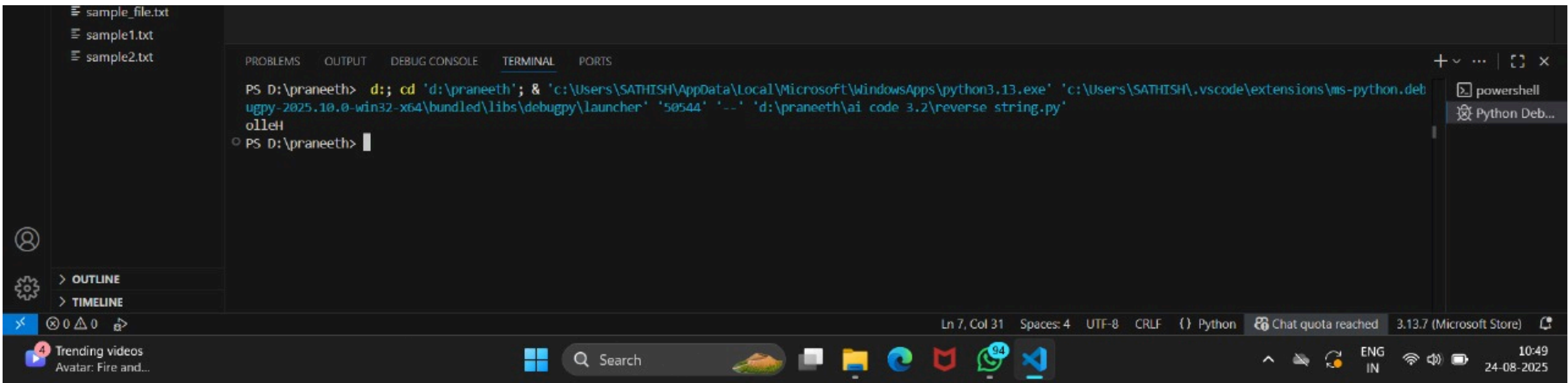
**TASK-4:**

**PROMPT:** Write a comment and start a while loop to reverse the digits of a number. Let Copilot complete the loop logic.

Code Generated:



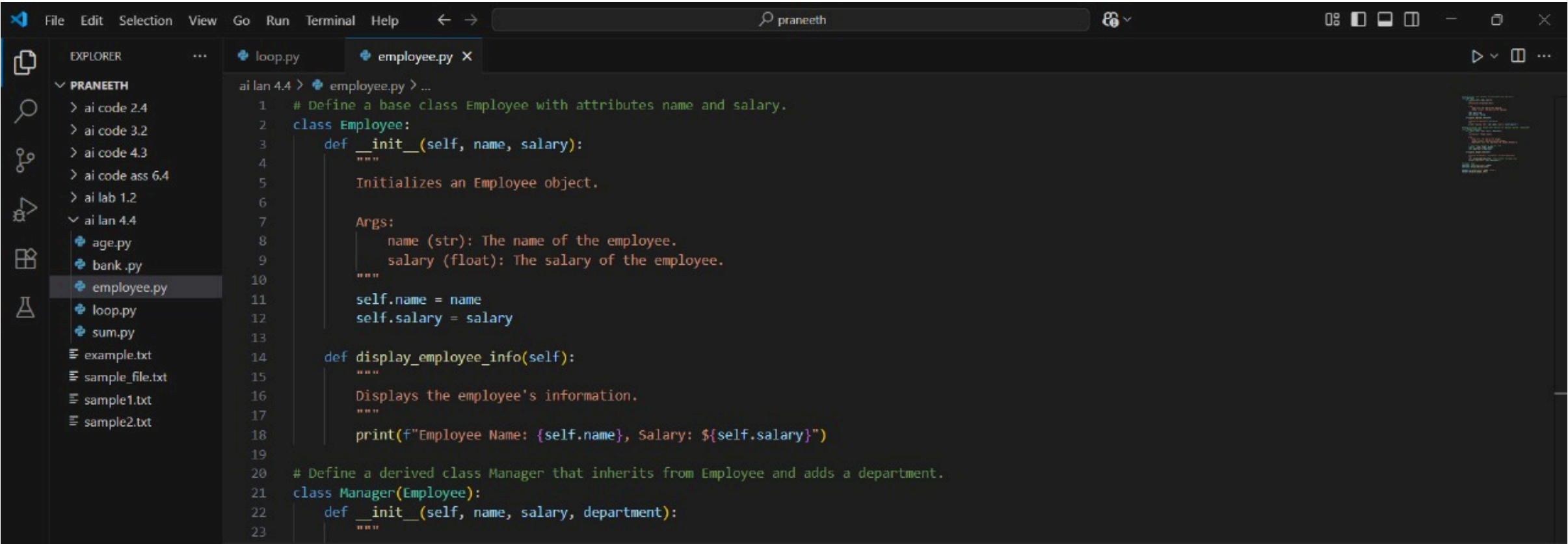
Output:



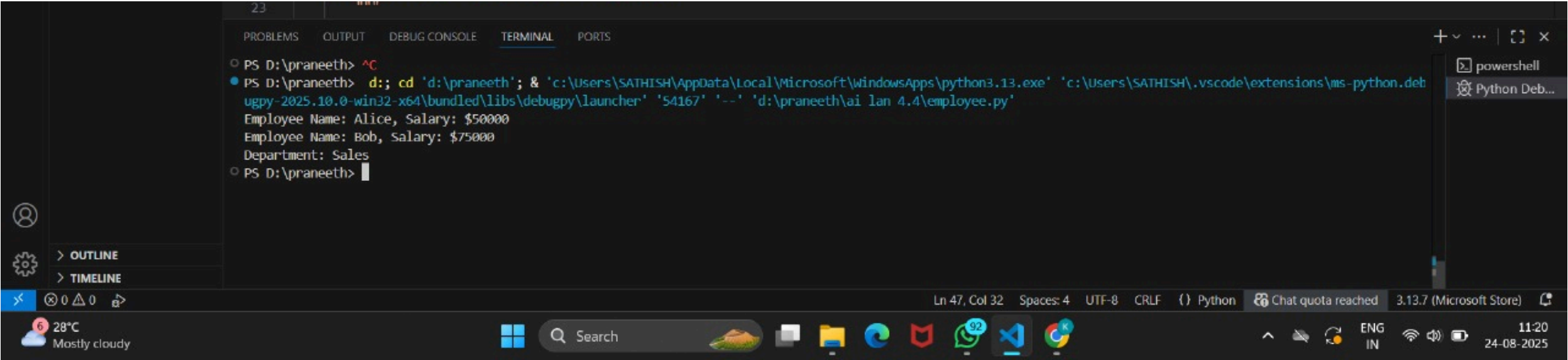
Task-5:

**PROMPT:**Begin a class Employee with attributes name and salary. Then, start a derived class Manager that inherits from Employee and adds a department. Let GitHub Copilot complete the methods and constructor chaining.

Code Generated:



Output:



**OBSERVATION:** I observed that GitHub copilot can quickly generate working code for tasks such as finding of persons age who are adults and who are the child's ,bank account details for the clients who are using the bank as the diposit amount withdrawal and checking with the secure environment ,and finding the sum of all the even as per using of maths logics same and using the revse system of the python for the string to given the number as turned to reverse type given as 1234 converted as 4321 without any errors , inheriting the employee details to class HR including of the ids, employee salary and personal details it is perfectly fine by the GITHUB Copilot after the exciting details from employee to HR correctly code excited perfectly .