AI Assisted Coding Lab ass-6.1

Name:M.Mohan venkatesh

Batch:14

2303A510f0

Task Description #1 (AI-Based Code Completion for Loops)

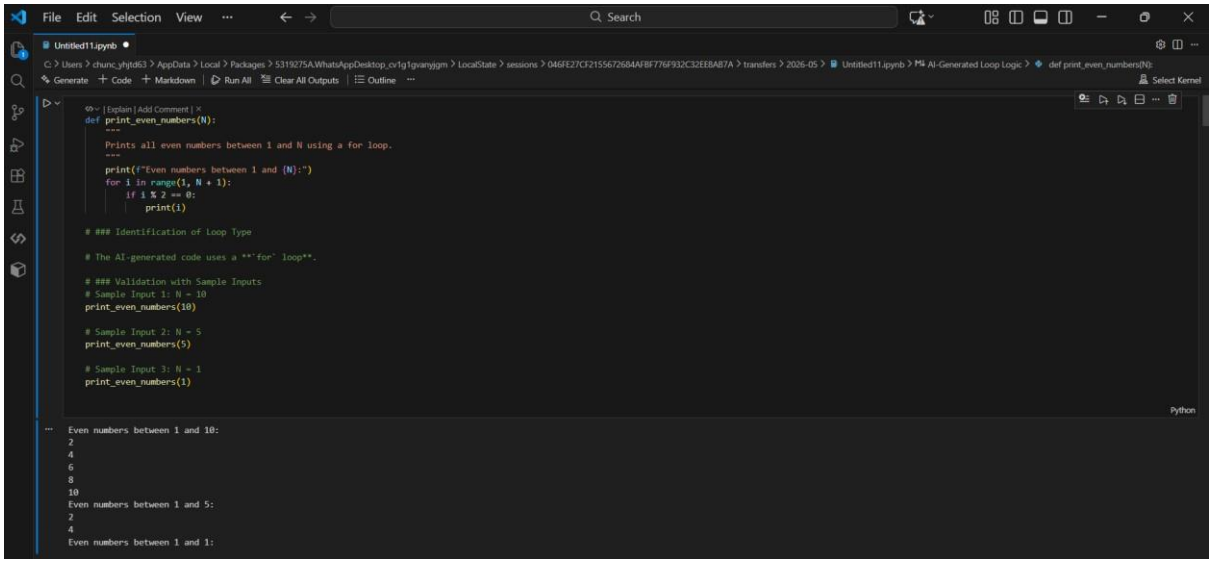
Task: Use an AI code completion tool to generate a loop-based program.

Prompt:

"Generate Python code to print all even numbers between 1 and N using a loop."

Expected Output:

- **AI-generated loop logic.**
- **Identification of loop type used (for or while).**
- **Validation with sample inputs.**

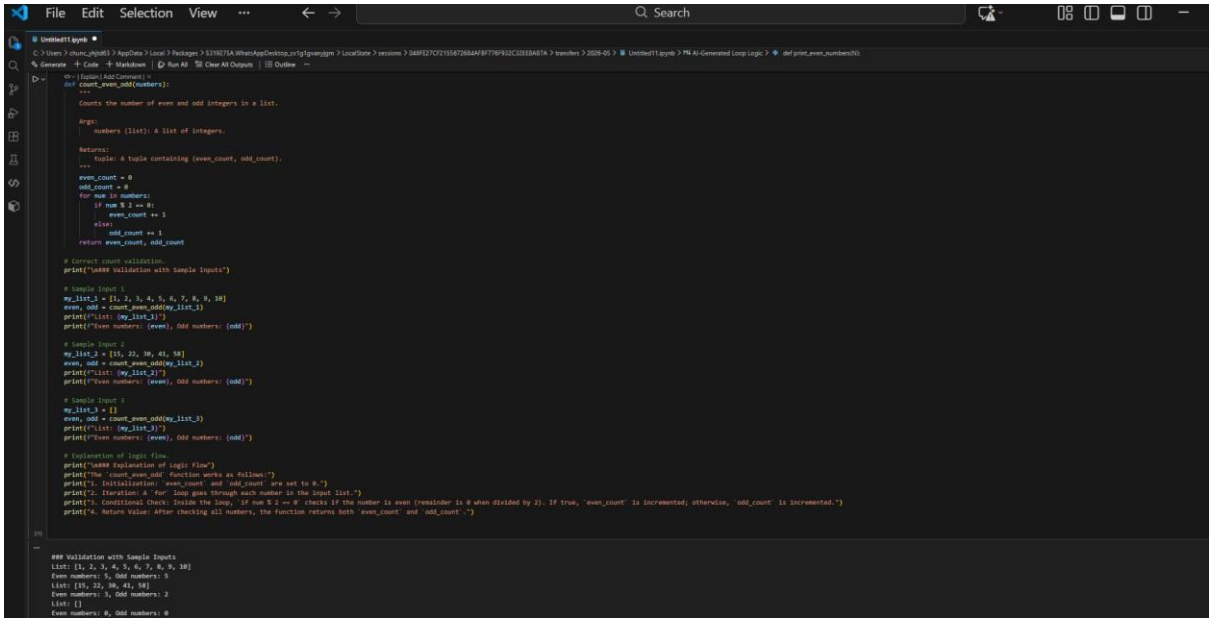


Task Description #2 (AI-Based Code Completion for Loop with Conditionals)

Task: Use an AI code completion tool to combine loops and conditionals.

Prompt:

“Generate Python code to count how many numbers in a list are even and odd.”



Expected Output:

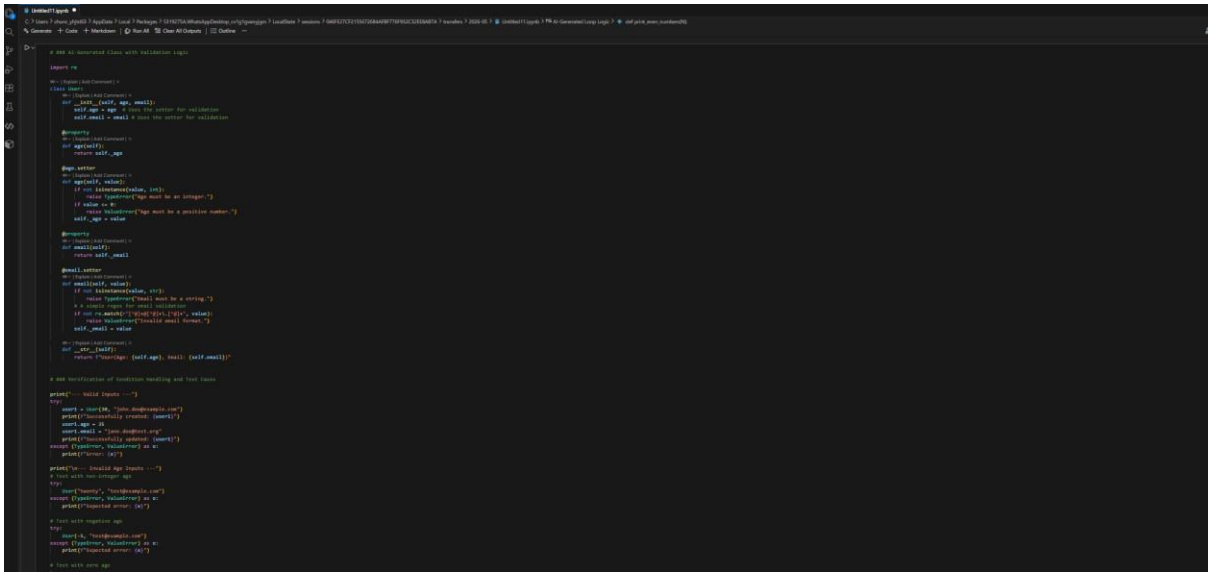
- AI-generated code using loop and if condition.
- Correct count validation.
- Explanation of logic flow.

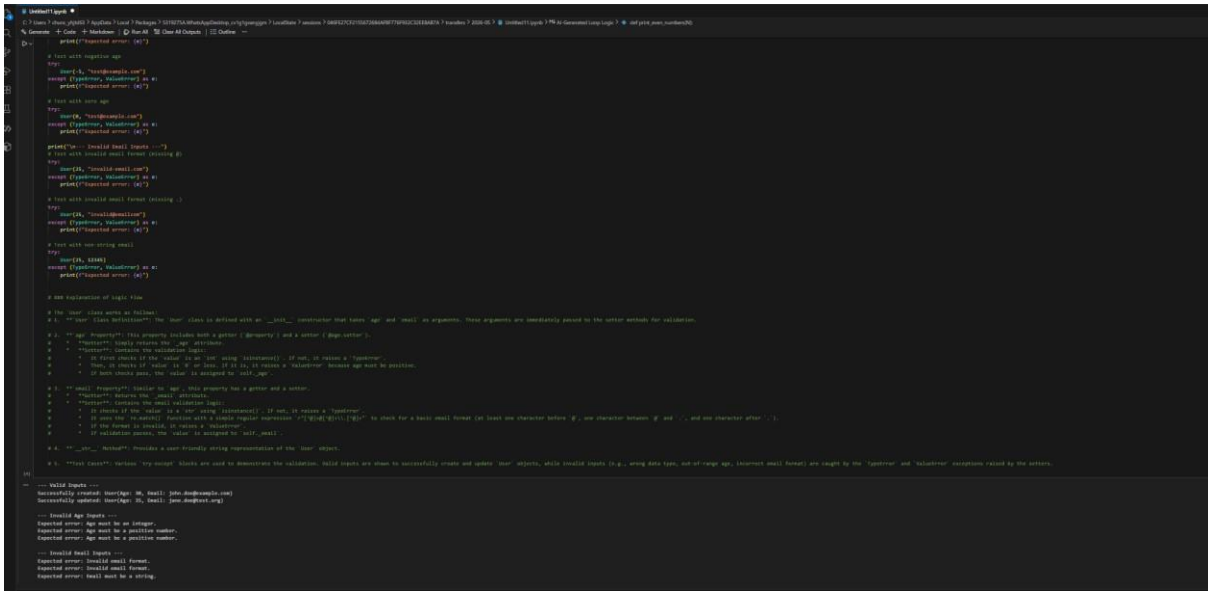
Task Description #3 (AI-Based Code Completion for Class Attributes Validation)

Task: Use an AI tool to complete a Python class that validates user input.

Prompt:

“Generate a Python class User that validates age and email using conditional statements.”





Expected Output:

- AI-generated class with validation logic.
- Verification of condition handling.
- Test cases for valid and invalid inputs.

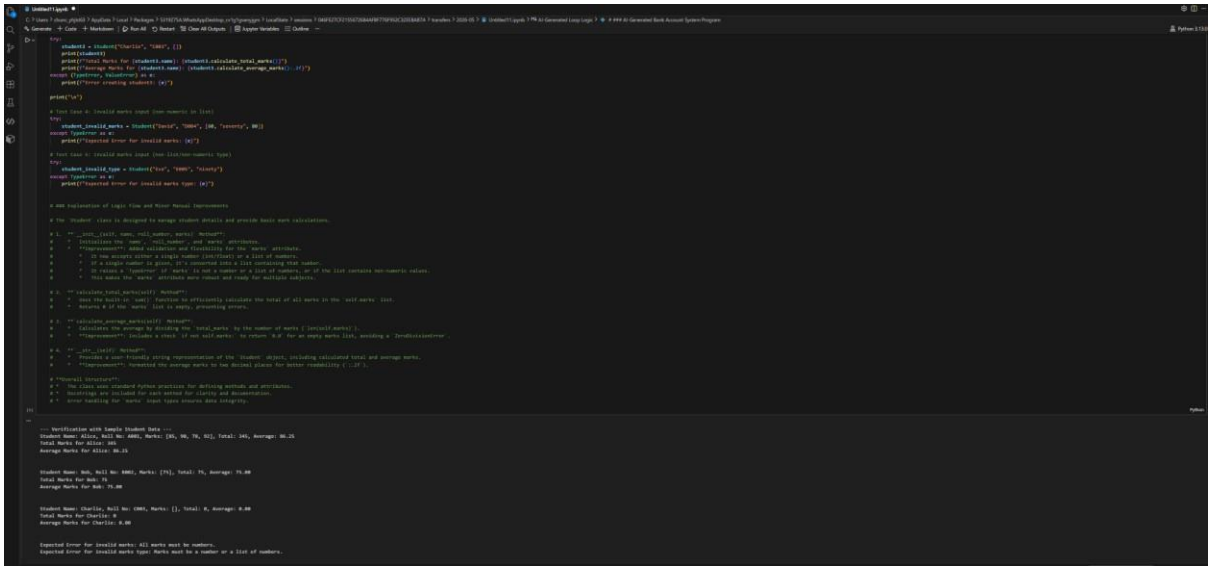
Task Description #4 (AI-Based Code Completion for Classes) Task:

Use an AI code completion tool to generate a Python class for

managing student details.

Prompt:

“Generate a Python class Student with attributes (name, roll number, marks) and methods to calculate total and average marks.”



Expected Output:

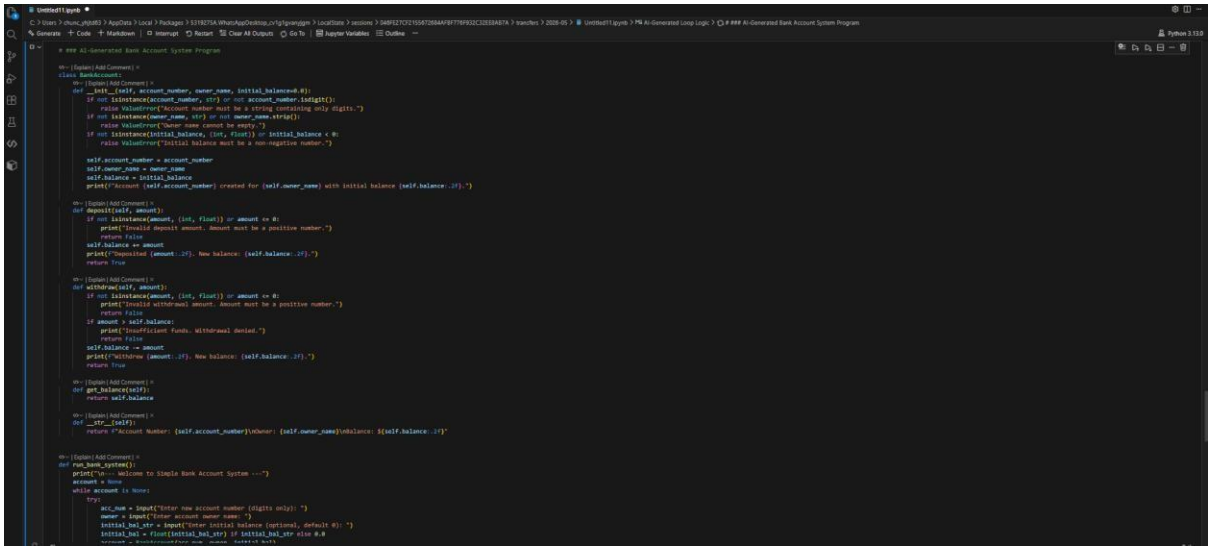
- AI-generated class code.
- Verification of correctness and completeness of class structure.
- Minor manual improvements (if needed) with justification.

Task Description 5 (AI-Assisted Code Completion Review) Task:

Use an AI tool to generate a complete Python program using classes, loops, and conditionals together.

Prompt:

“Generate a Python program for a simple bank account system using class, loops, and conditional statements.”



```
--- Welcome to Simple Bank Account System ---
Enter new account number (digits only): 6757
Enter account owner name: gg
Enter initial balance (optional, default 0):
Account 6757 created for gg with initial balance 0.00.

--- Menu ---
1. Deposit
2. Withdraw
3. Check Balance
4. Account Details
5. Exit
Enter your choice: 1
Enter amount to deposit: 6666
Deposited 6666.00. New balance: 6666.00.

--- Menu ---
1. Deposit
2. Withdraw
3. Check Balance
4. Account Details
5. Exit
Enter your choice: 3
Current Balance: $6666.00

--- Menu ---
1. Deposit
2. Withdraw
3. Check Balance
4. Account Details
5. Exit
Enter your choice: 5
Thank you for using our bank system. Goodbye!
```

Expected Output:

- Complete AI-generated program.

- Identification of strengths and limitations of AI suggestions.
- Reflection on how AI assisted coding productivity.