AI Assisted Coding lab Assignment:6.4

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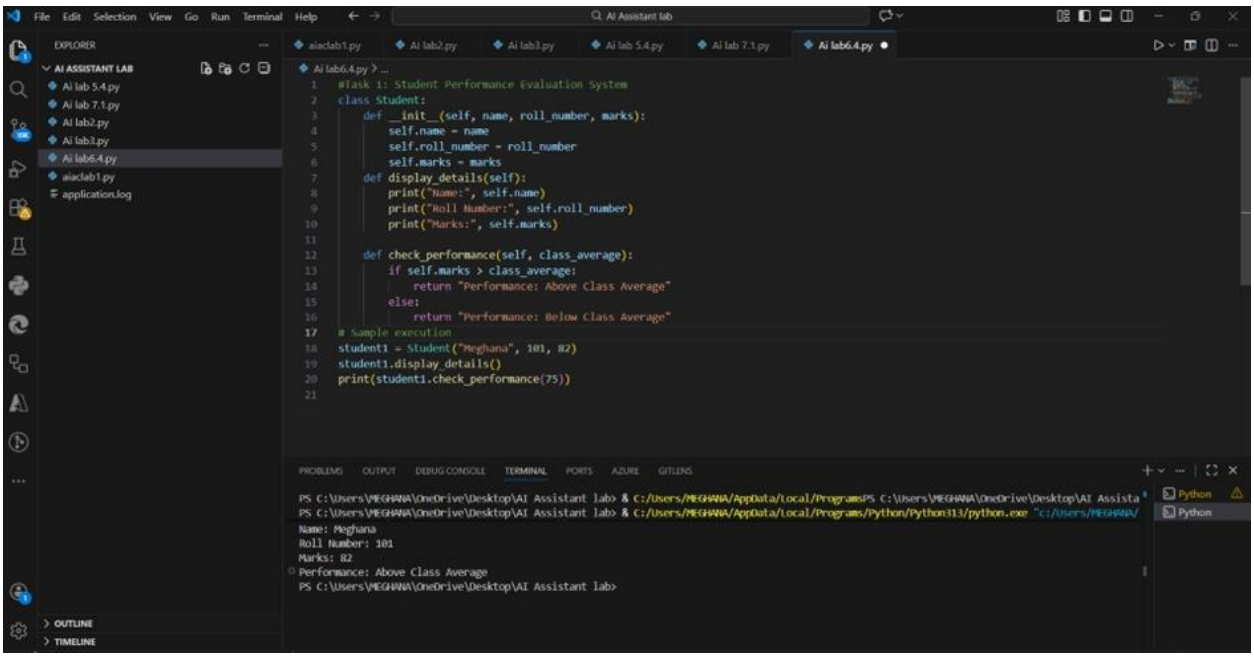
Batch : 44

Task 1: Student Performance Evaluation System

Prompt: Complete the `Student` class by adding methods to display student details



Explanation:

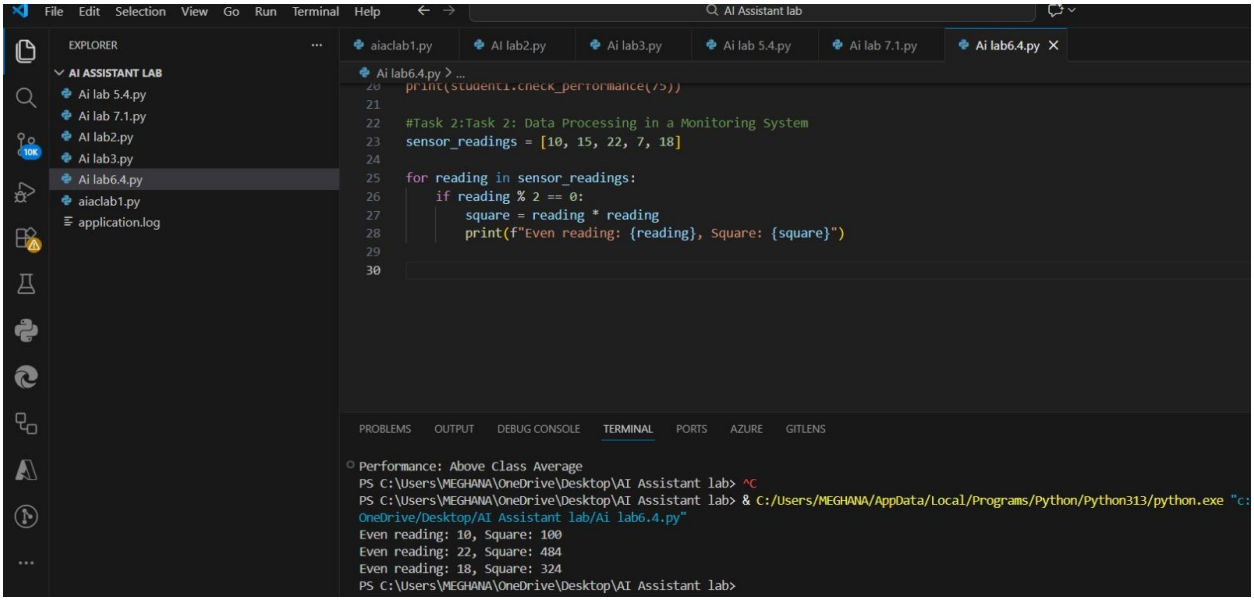
1. A `Student` class is created with name, roll number, and marks.
2. The constructor initializes these attributes using `self`.

3. GitHub Copilot is guided using comments to generate methods.
4. One method displays student details.
5. Another method checks performance using if-else conditions.

Task 2: Data Processing in a Monitoring System

Prompt:

Generate the loop logic to identify even sensor readings, calculate square, and print the result using if-else.

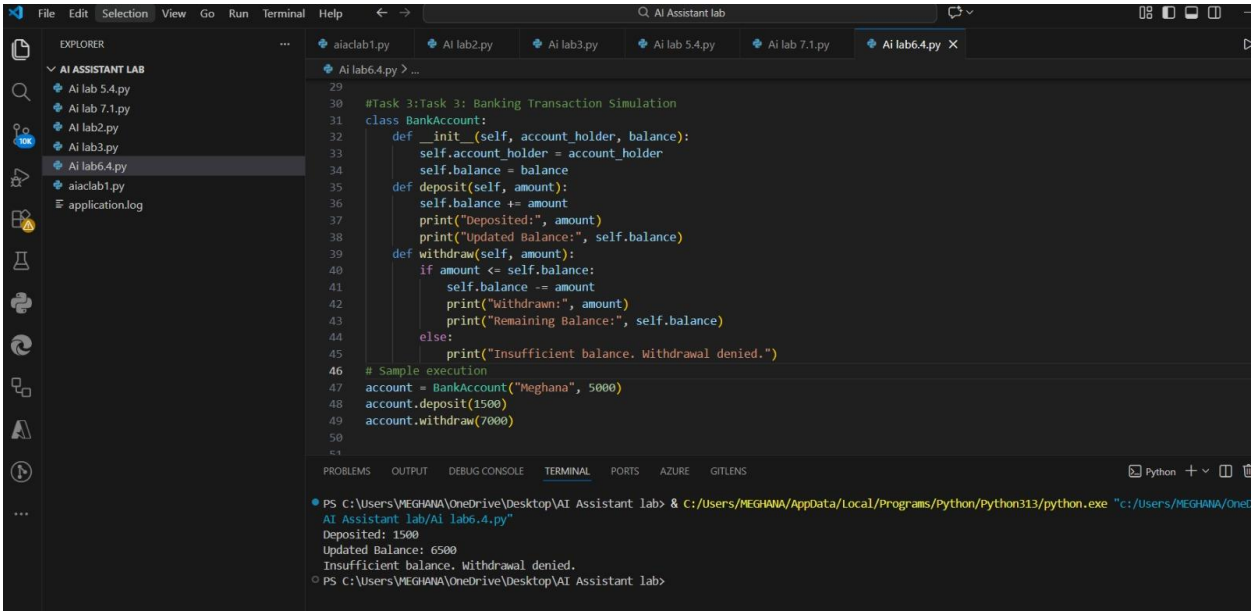


Explanation:

- A for loop iterates through sensor readings.
- Copilot identifies even numbers using the modulus operator.
- Squares of even numbers are calculated and printed.
- Conditional statements control the processing logic.

Task 3: Banking Transaction Simulation

Prompt: Generate Complete the BankAccount class by adding deposit and withdrawal methods with balance checks using if-else.



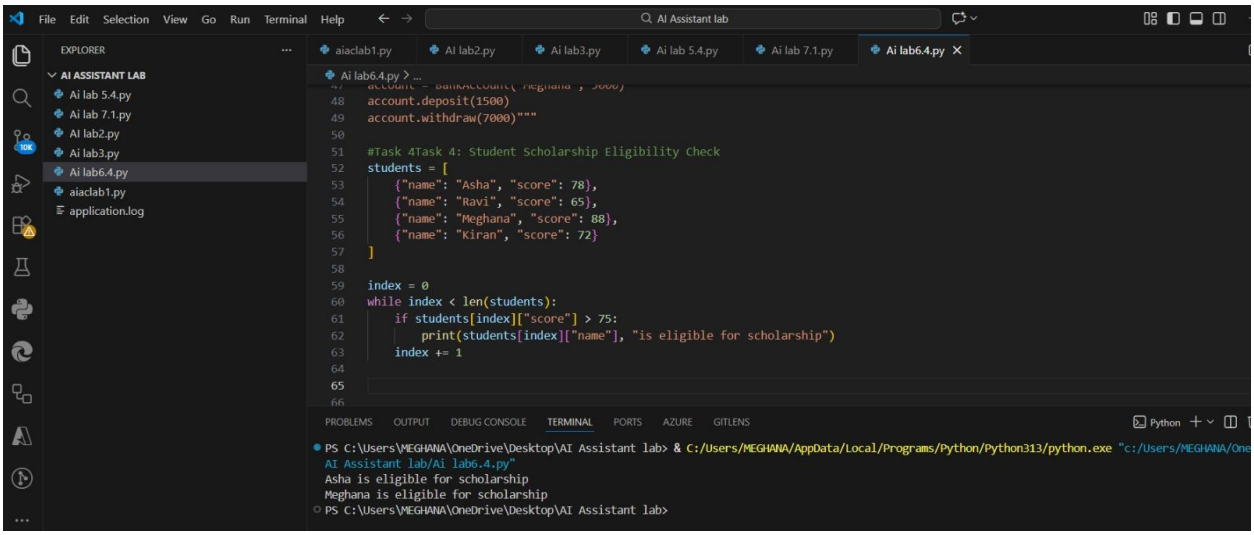
Explanation

- A BankAccount class stores account holder and balance.
- Copilot generates deposit and withdraw methods.
- If-else conditions prevent invalid withdrawals.
- User-friendly messages handle insufficient balance cases.

Task 4: Student Scholarship Eligibility Check

Prompt

Generate a while loop to iterate through the student list and print names of students scoring above 75.



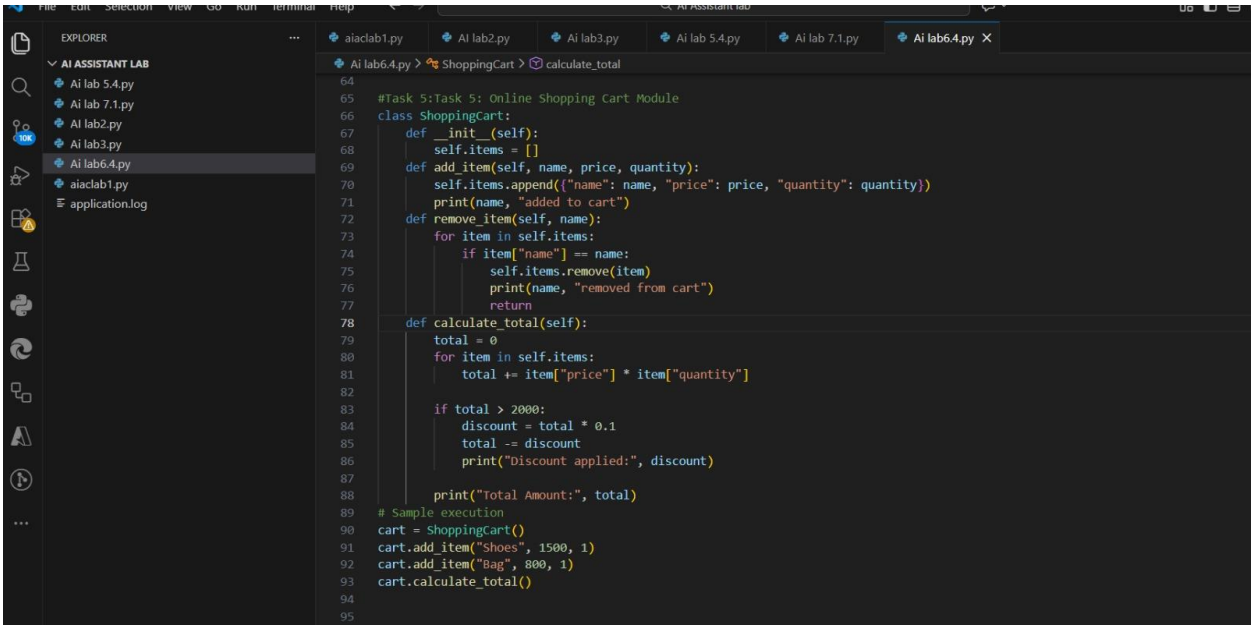
◇ Explanation

- Student data is stored as a list of dictionaries.
- Copilot creates a while loop with index handling.
- Scores are checked using conditional statements.
- Eligible student names are printed clearly.

Task 5: Online Shopping Cart Module

Prompt :

Complete the shopping cart class by adding methods to add items, remove items, and calculate total price using conditions.



Explanation

- A shopping cart structure manages items and prices.
- Copilot generates methods for cart operations.
- Conditional logic ensures valid item handling.
- The total cost is calculated and displayed correctly.