Assignment-8

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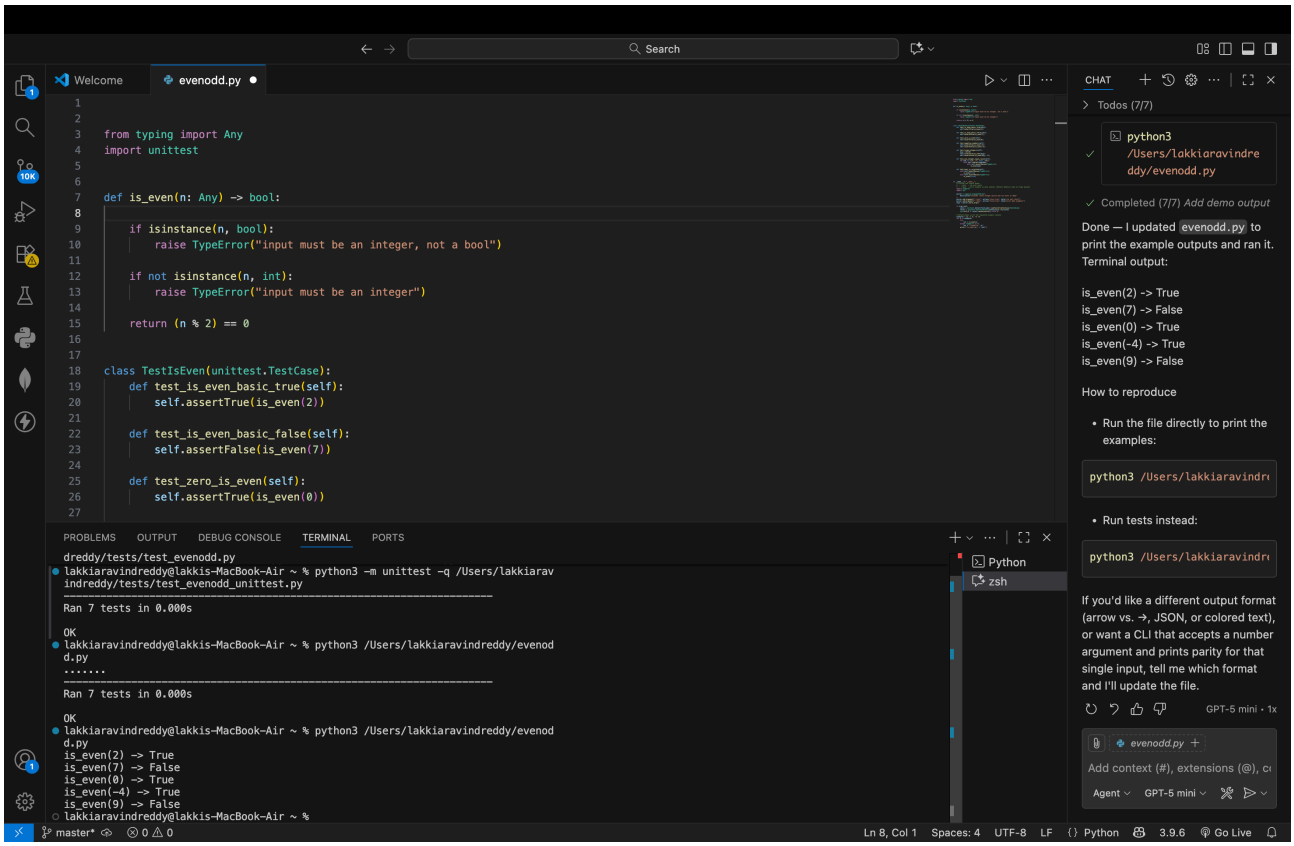
Batch - 38

TASK-1

**generate test cases for a function is_even(n)
and then implement the function so that it satisfies all generated
tests.**

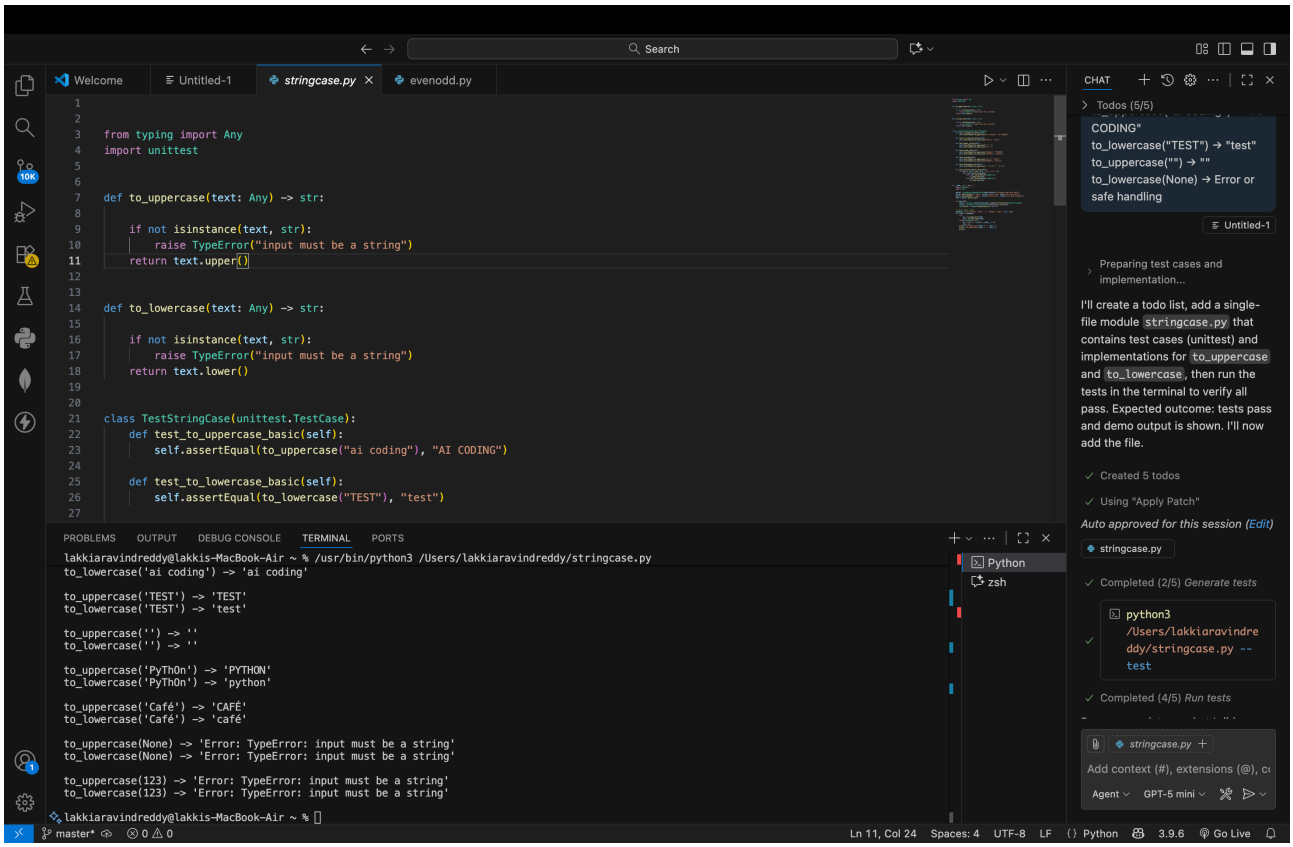
Requirements:

- **Input must be an integer**
- **Handle zero, negative numbers, and large integers**



TASK-2

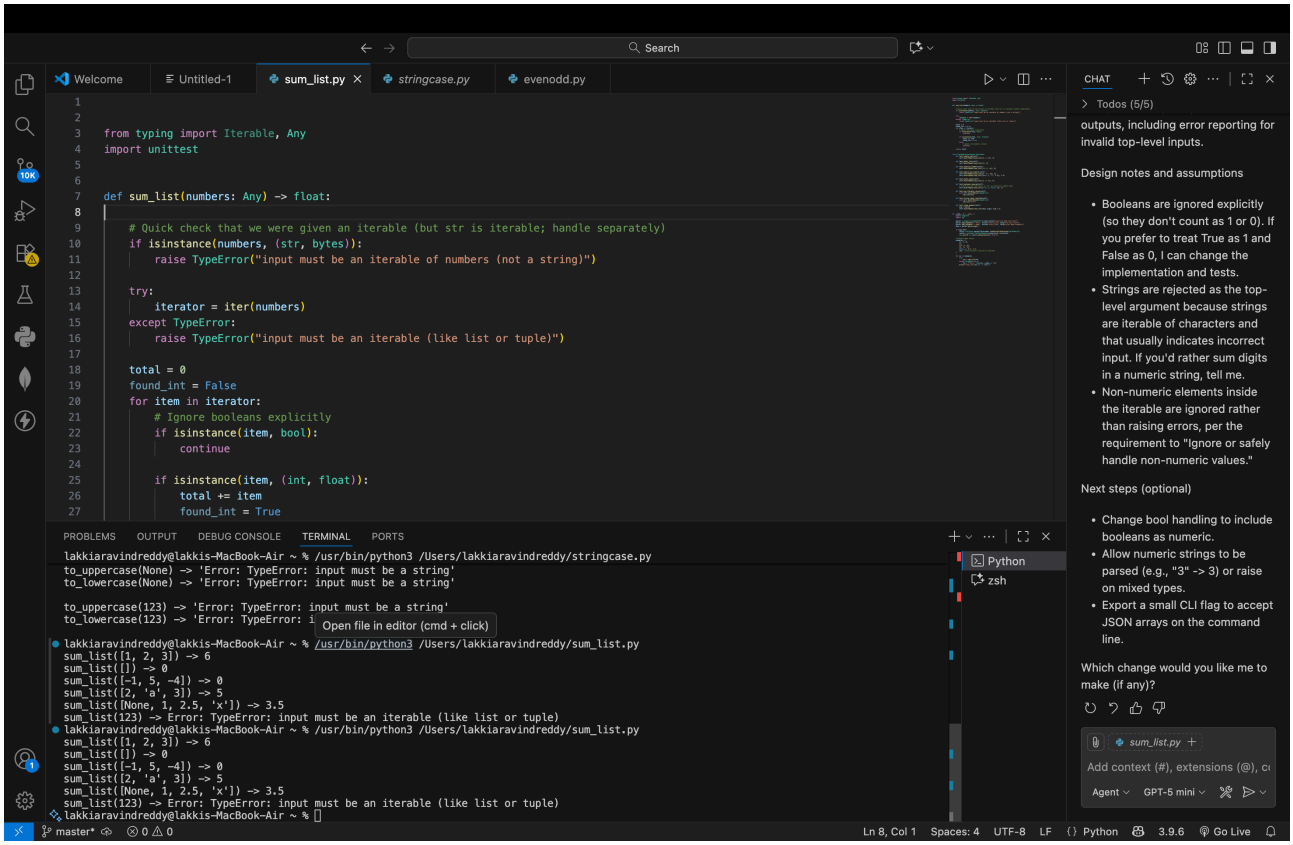
generate test cases for two functions:
• to_uppercase(text)
• to_lowercase(text)
Requirements:
• Handle empty strings
• Handle mixed-case input
• Handle invalid inputs such as numbers or None



TASK-3

Generate test cases for a StudentResult class with the following
methods:
- **add_marks(mark)**
- **calculate_average()**
- **get_result()**

Requirements:
- **Marks must be between 0 and 100**
- **Average ≥ 40 → Pass, otherwise Fail**



TASK-4

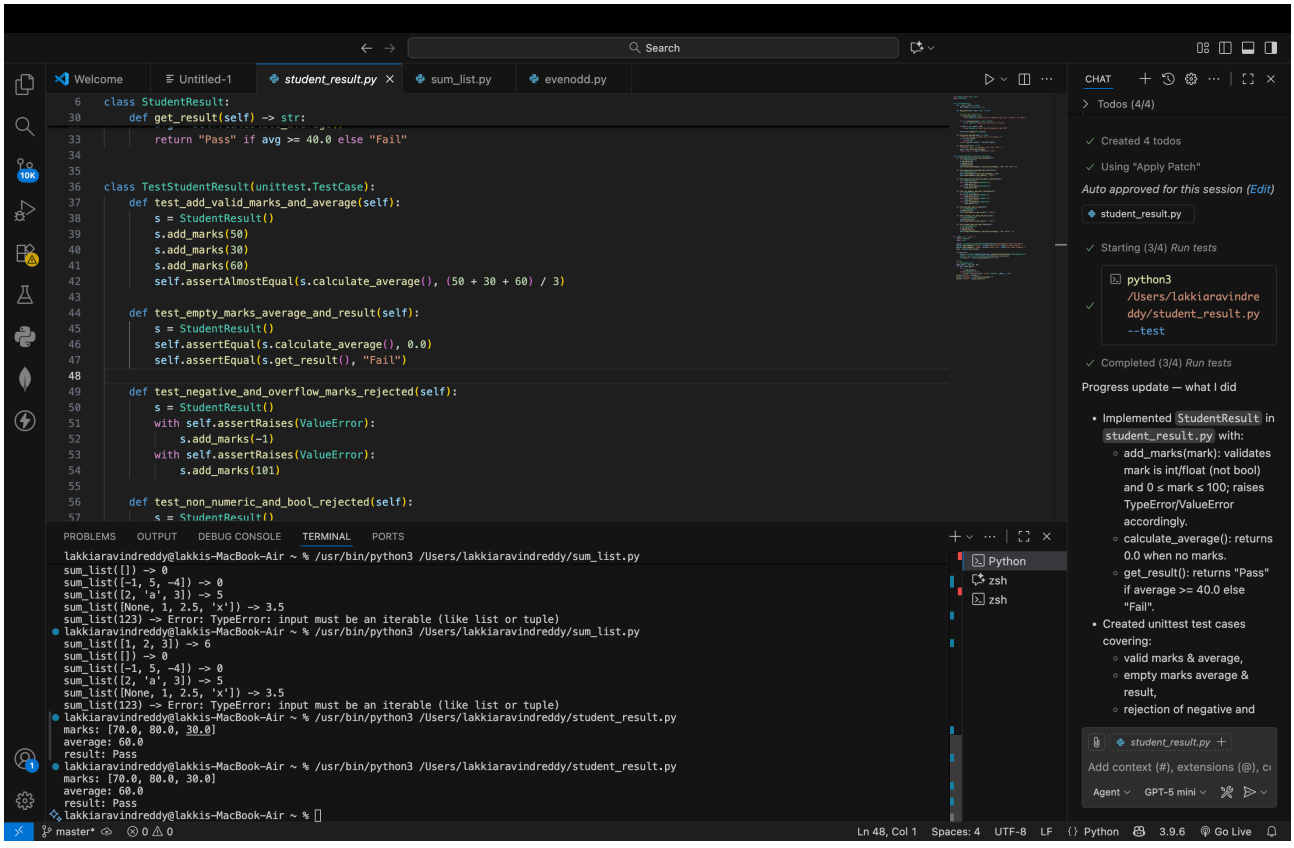
- **Generate test cases for a StudentResult class with the following**

methods:

- **add_marks(mark)**
- **calculate_average()**
- **get_result()**

Requirements:

- **Marks must be between 0 and 100**
- **Average ≥ 40 → Pass, otherwise Fail**



TASK-5

Test-Driven Development for Username Validator
Requirements:
- Minimum length: 5 characters
- No spaces allowed
- Only alphanumeric characters

Example Test Scenarios:
is_valid_username("user01") → True
is_valid_username("ai") → False
is_valid_username("user name") → False
is_valid_username("user@123") → False
Expected Output 5
A username validation function that passes all AI-generated test cases.