Assignment 3.3

AIAC

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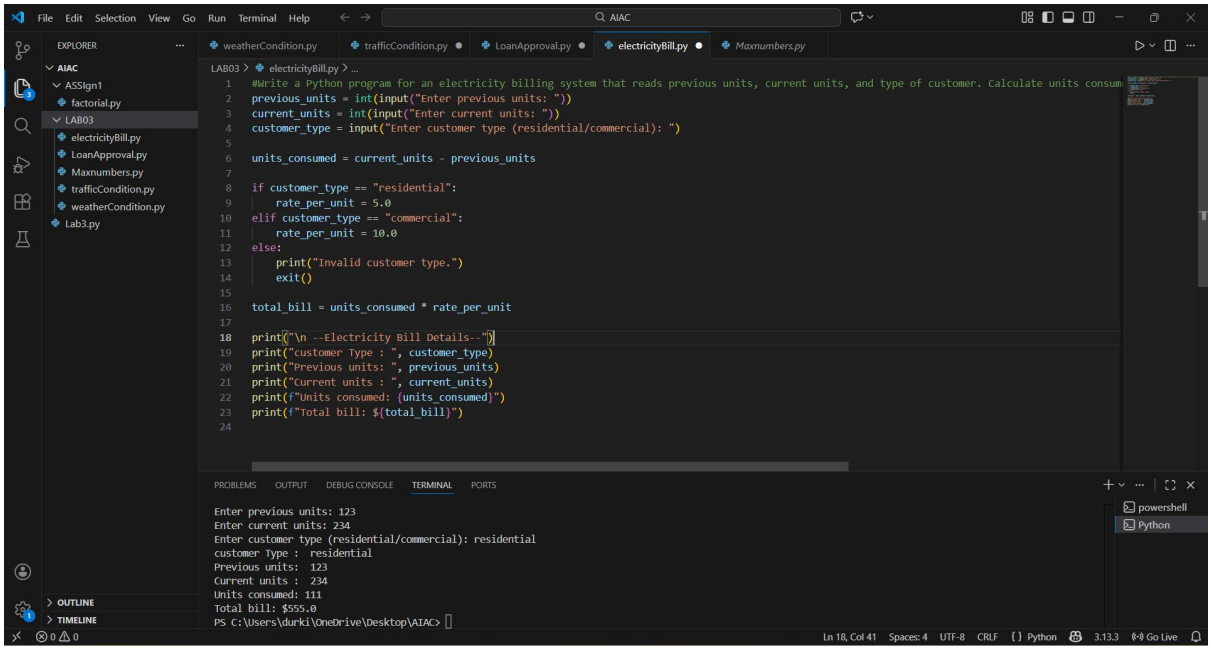
Batch: 31

Lab 3: Application for TGNPDCL - Electricity Bill Generation Using Python & AI Tools

Task 1:

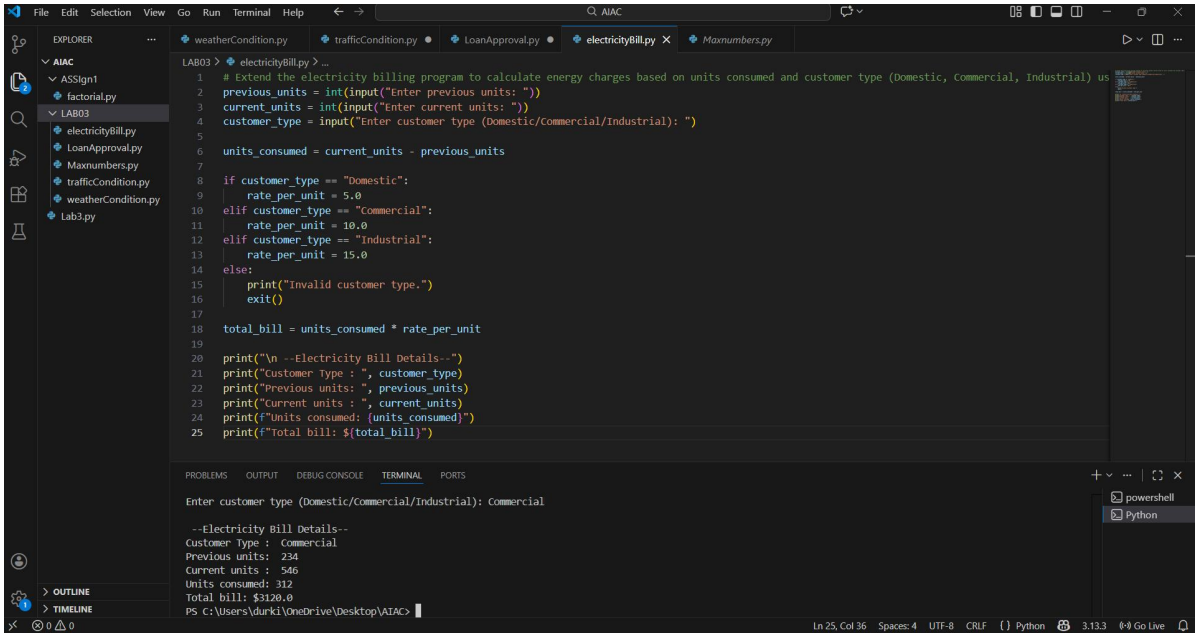
Prompt: #Write a Python program for an electricity billing system that reads previous units, current units, and type of customer. Calculate units consumed and display the bill details clearly without using functions



This task focuses on creating a simple Python program that reads previous units, current units, and customer type from the user. The program calculates units consumed by finding the difference between the meter readings. It then displays basic bill details clearly without using any user-defined functions.

Task 2:

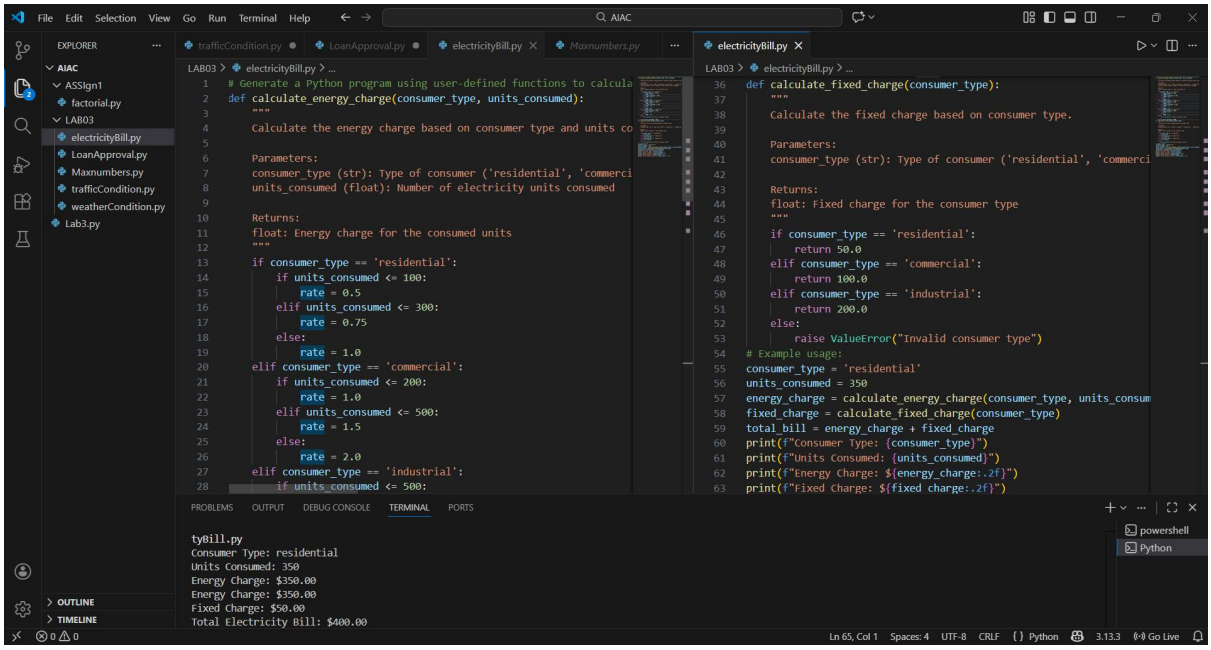
Prompt: # Extend the electricity billing program to calculate energy charges based on units consumed and customer type (Domestic, Commercial, Industrial) using simple and optimized conditional statements



In this task, the program is extended to calculate energy charges based on units consumed and customer type. Simple and optimized conditional statements are used to apply different rates for Domestic, Commercial, and Industrial consumers. This improves clarity while keeping the logic easy to understand.

Task3:

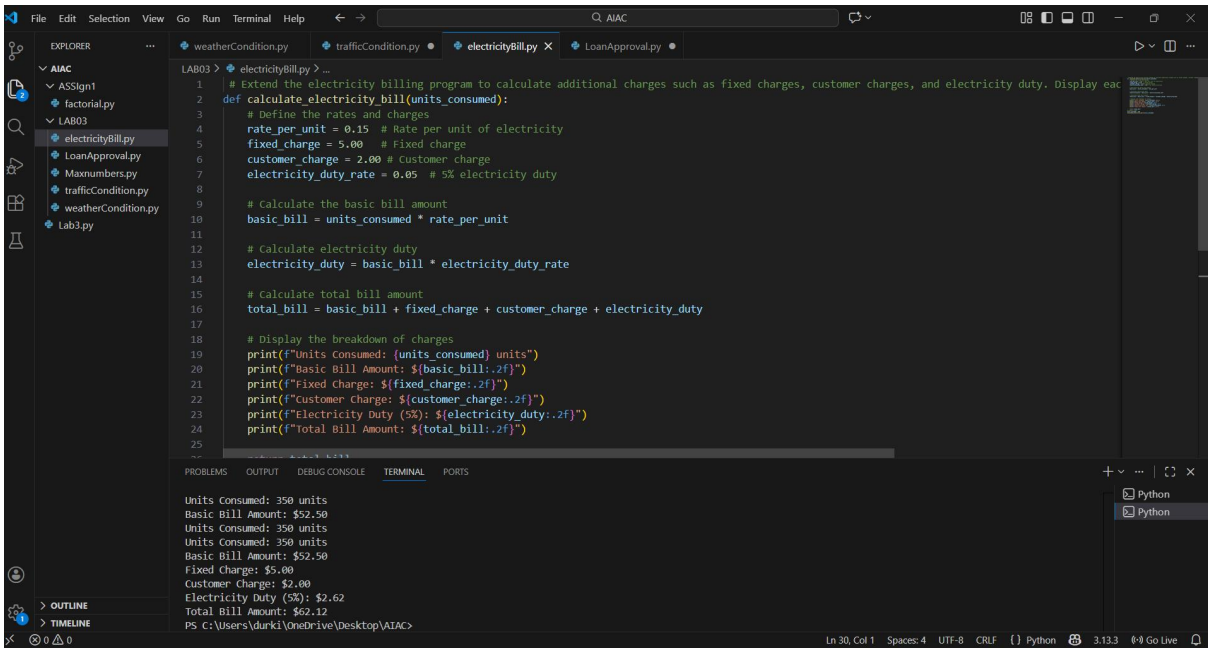
Prompt: # Generate a Python program using user-defined functions to calculate energy charges and fixed charges for different types of electricity consumers. The functions should return values and include clear comments



This task introduces user-defined functions to calculate energy charges and fixed charges. Each function returns calculated values and includes proper comments for better readability. Using functions makes the program modular, reusable, and easier to maintain.

Task 4:

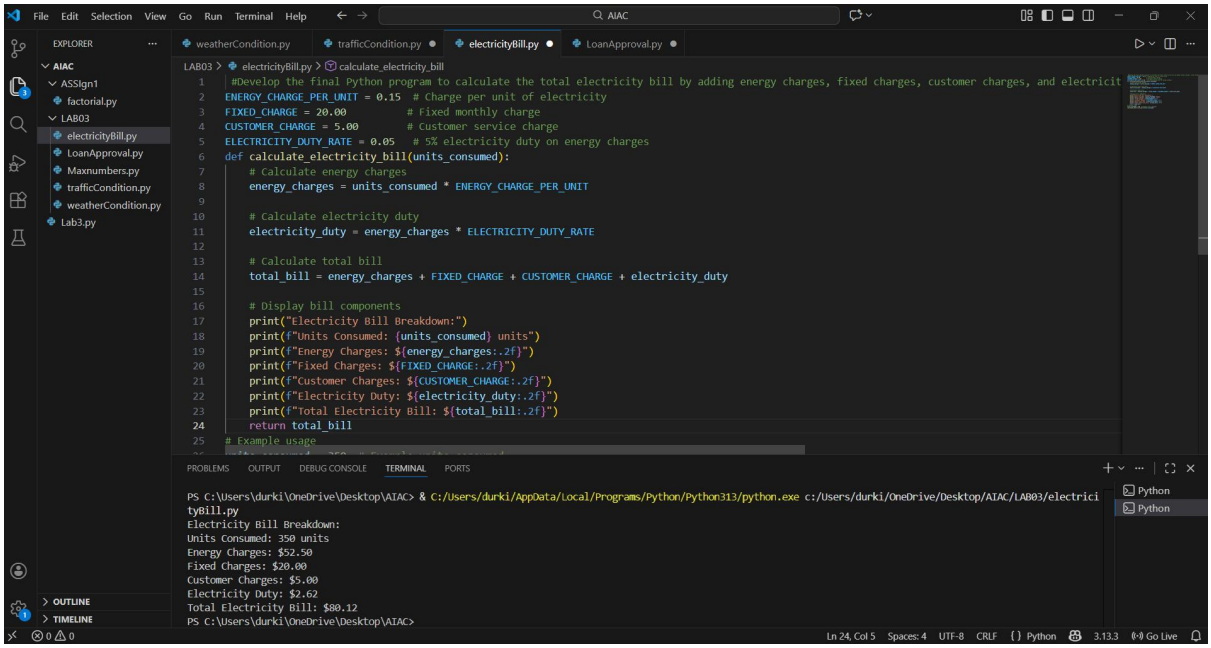
Prompt: # Extend the electricity billing program to calculate additional charges such as fixed charges, customer charges, and electricity duty. Display each charge separately to improve billing accuracy



The program is further enhanced to include additional charges such as fixed charges, customer charges, and electricity duty. Each charge is calculated separately based on customer type and usage. Displaying individual charges improves transparency and billing accuracy

Task5:

Prompt: Develop the final Python program to calculate the total electricity bill by adding energy charges, fixed charges, customer charges, and electricity duty. Display all bill components clearly in a structured format.



In the final task, all calculated components are combined to generate the total electricity bill. Energy charges, fixed charges, customer charges, and electricity duty are added together. The bill is displayed in a structured format, resembling a real-world electricity bill.