# Assignment-3

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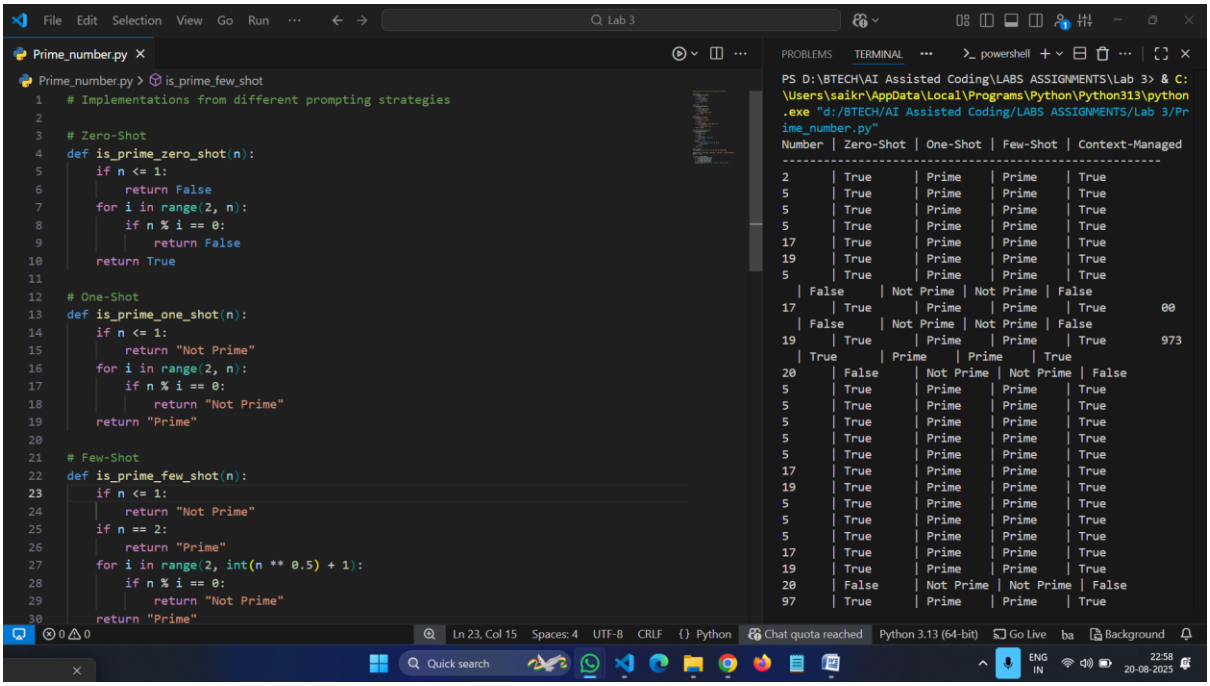
**BATCH : 16**

**TASK 1:**Select a simple task: "Write a Python function to check if a number is prime".

**Prompt:**

"Write a Python function to check if a number is prime that generate with the one shot, zero shot, few shot solution".

**CODE&OUTPUT:**




## Task 2: Mobile Data Usage Billing Application

## PROMPT:

I want to create a simple Python program for an LPG Billing System.

The program should ask the user for:

- Cylinder type (Domestic 14.2 kg / Domestic 5 kg / Commercial 19 kg / Commercial 47.5 kg)
- Number of cylinders booked

- Subsidy amount (only for domestic cylinders)
- Delivery charges (between ₹10 and ₹50)

Then, based on this input, it should calculate the total LPG bill using this formula:

**Bill Amount = (Price per Cylinder × Quantity) - Subsidy (if applicable) + Delivery Charges**

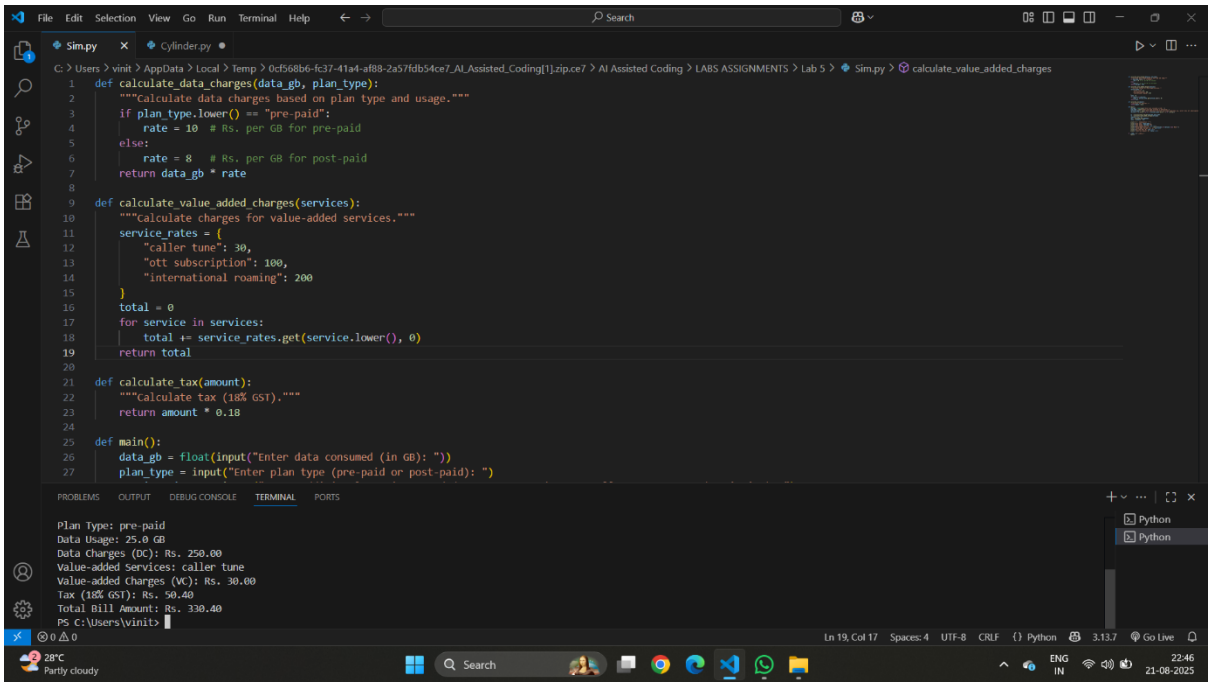
Use these LPG prices:

- Domestic 14.2 kg → ₹905.00
- Domestic 5 kg → ₹335.50
- Commercial 19 kg → ₹1,886.50
- Commercial 47.5 kg → ₹4,712.00

Finally, the program should display a clear and neat **itemized bill** showing:

- Cylinder Type
- Number of Cylinders
- Base Amount
- Subsidy
- Delivery Charges
- Total Bill Amount

**CODE & OUTPUT:**



**Task 3: Develop an LPG Billing System**

**Objective**

Apply your Python programming skills and utilize AI-assisted coding tools to build an application that calculates the LPG bill based on specified customer inputs and billing parameters.

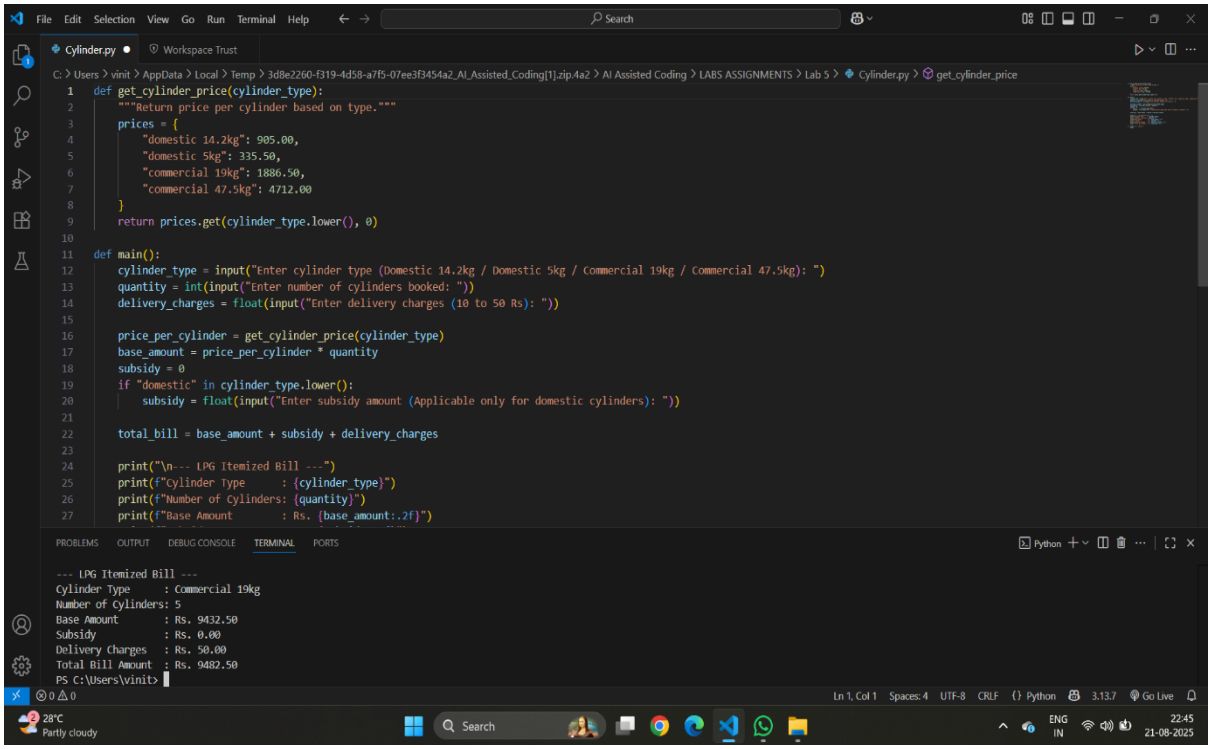
1. Use GitHub Copilot or Google Gemini to assist in writing and refining the program.
2. Read the following user inputs:
    - Cylinder Type (Domestic 14.2 kg / Domestic 5 kg / Commercial 19 kg / Commercial 47.5 kg)
    - Number of Cylinders Booked
    - Subsidy Amount (applicable only for domestic cylinders)
3. Refer to the given LPG Price List to determine the price per cylinder:
    - Domestic LPG (14.2 kg) → ₹905.00
    - Domestic LPG (5 kg) → ₹335.50
    - Commercial LPG (19 kg) → ₹1,886.50
    - Commercial LPG (47.5 kg) → ₹4,712.00
    - Delivery Charges (₹10 to ₹50)
4. Implement the billing formula:

Bill Amount = (Price per Cylinder × Quantity) - Subsidy (if applicable) + Delivery Charges

5. Calculate and display an itemized bill including:

- Cylinder Type
- Number of Cylinders
- Base Amount
- Subsidy
- Delivery Charges
- Total Bill Amount

## CODE&OUTPUT:


File Edit Selection View Go Run Terminal Help
Search
Cylinder.py
Workspace Trust
C: > Users > vinit > AppData > Local > Temp > 3d8e2260-f319-4d58-a7f5-07ee3f3454a2_AI_Assisted_Coding[1].zip.4a2 > AI Assisted Coding > LABS ASSIGNMENTS > Lab 5 > Cylinder.py > get_cylinder_price
def get_cylinder_price(cylinder_type):
"""Return price per cylinder based on type."""
prices = {
"domestic 14.2kg": 905.00,
"domestic 5kg": 335.50,
"commercial 19kg": 1886.50,
"commercial 47.5kg": 4712.00
}
return prices.get(cylinder_type.lower(), 0)
def main():
cylinder_type = input("Enter cylinder type (Domestic 14.2kg / Domestic 5kg / Commercial 19kg / Commercial 47.5kg): ")
quantity = int(input("Enter number of cylinders booked: "))
delivery_charges = float(input("Enter delivery charges (10 to 50 Rs): "))
price_per_cylinder = get_cylinder_price(cylinder_type)
base_amount = price_per_cylinder * quantity
subsidy = 0
if "domestic" in cylinder_type.lower():
subsidy = float(input("Enter subsidy amount (Applicable only for domestic cylinders): "))
total_bill = base_amount + subsidy + delivery_charges
print("\n--- LPG Itemized Bill ---")
print(f"Cylinder Type : {cylinder_type}")
print(f"Number of Cylinders: {quantity}")
print(f"Base Amount : Rs. {base_amount:.2f}")
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS
Python
--- LPG Itemized Bill ---
Cylinder Type : Commercial 19kg
Number of Cylinders: 5
Base Amount : Rs. 9432.50
Subsidy : Rs. 0.00
Delivery Charges : Rs. 50.00
Total Bill Amount : Rs. 9482.50
PS C:\Users\vinit>
Ln 1, Col 1 Spaces: 4 UTF-8 CRLF Python 3.13.7 Go Live
28°C
Partly cloudy
Search
ENG
IN
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21-08-2025