

Day 2 Coding Challenge:

Household Energy Consumption Analysis

Scenario

A city wants to understand household energy usage patterns to design **subsidy schemes** for energy efficiency. Your task is to analyze household energy data and provide actionable insights.

Dataset

The dataset contains the following columns:

Column	Description
Household_ID	Unique identifier for each household
Family_Size	Number of family members in the household
Monthly_Income	Household monthly income
Electricity_Usage (kWh)	Monthly electricity consumption
Gas_Usage	Monthly gas consumption
Appliances_Count	Number of household appliances
Month	Month of data recording

The dataset has been provided **Household_Energy.csv**

Task

1. **Analyze energy consumption patterns** across households.
2. Identify **which types of households consume the most energy**, based on family size, appliance count, or income level.
3. Suggest **energy-saving measures** for high-energy-consuming households.
4. Visualize your insights using charts or dashboards.

Deliverables

- Excel workbook showing analysis.

- Summary of findings and recommendations for energy-saving measures.
- Charts or dashboards illustrating consumption patterns.

Instructions for Submitting via Git

1. Create a new repository on GitHub, e.g., 10 days coding challenge.
2. Push or upload the files by mentioning

Eg: **Day 1 - Household Energy Consumption Analysis**