

Day 1 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**