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**Project Name:** Energy Consumption Trend Analysis with Power BI

## **Week-1**

**Aim:** To study energy usage patterns in different buildings, find key trends, and provide useful insights to save costs and promote sustainable practices.

### **Objectives:**

1. Analyze daily, monthly, and yearly energy usage (electricity, water, gas)
2. Calculate the cost of energy consumption using unit rates.
3. Compare how energy is used in different cities and countries.
4. Spot unusual energy usage patterns or outliers.
5. Offer ideas to reduce energy use and save money.

### **Tools:**

- **Data Analysis:** Python (using libraries like Pandas, NumPy, and Matplotlib/Seaborn).
- **Visualization:** Power BI for creating interactive reports and dashboards.
- **Data Storage:** Excel or SQL databases to organize and store the data.

### **Problem-Statement:**

Energy use varies greatly between buildings, cities, and energy types, leading to higher costs and environmental damage if used inefficiently. This project aims to study past energy usage to find trends, improve energy management, and suggest ways to cut costs. The main challenge is the lack of clear insights into how energy is used in different areas, which this project will address with actionable solutions.

## Snaps of loading data set into power bi:



