Sales Data Cleaning and Visualization Project (SELF LEARNING PROJECT)

This project simulates a real-world scenario where messy sales data is cleaned, analyzed, and visualized using beginner-friendly Python code.  
  
**It is built entirely for self-learning purposes to practice data cleaning, analysis, and visualization using loops, conditionals, pandas, and matplotlib.**

# What This Project Does

- Loads a raw `.csv` file containing dummy sales records  
- Cleans the data using Python (`csv`, `if`, `for`):  
 - Removes rows with missing customers, prices, or invalid quantities  
- Calculates total revenue using basic math logic  
- Saves the cleaned data into a new CSV file  
- Generates two graphs using matplotlib:  
 - 📊 Revenue by Product (Bar Chart)  
 - 📈 Orders Over Time (Line Chart)  
- Saves those graphs as `.jpeg` images for reporting or portfolio use

# Files Included

- sales\_data.csv → Raw sales data (with errors)  
- cleaned\_sales\_data.csv → Cleaned and processed data  
- revenue\_by\_product.jpeg → Bar chart showing product-wise revenue  
- orders\_over\_time.jpeg → Line chart showing daily order count  
- project\_script.ipynb → Full Google Colab code script

# NOTE (VERY IMPORTANT)

**ALL THIS DATA IS DUMMY DATA — NOT TAKEN FROM ANY COMPANY OR EXTERNAL SOURCE. THIS DATA WAS GENERATED TODAY (July 16, 2025, 06:19 PM IST) PURELY FOR SELF LEARNING PURPOSES.**  
  
**It has NOTHING to do with any actual client, company, or commercial data.**

# Tools Used

- Python (Beginner Level)  
- CSV module  
- Pandas  
- Matplotlib  
- Google Colab