# **📊 Python Project: Sales Data Analysis**

## **📌 Overview**

This project demonstrates how to analyze **sales and product data** using **Python** and the **Pandas** library. The script loads Excel datasets, performs exploratory analysis, and provides insights into data structure and content.

The goal is to showcase practical data handling skills, including data inspection, cleaning, and summary generation.

## **📂 Files in Repository**

* script.ipynb → Python script containing the analysis code.
* sales.xlsx → Dataset containing sales records.
* products.xlsx → Dataset containing product information.
* Project\_Documentation: Sales Data Analysis.docx → Full project documentation (this file).

## **📝 Script Functionality (script.py)**

1. **Import Libraries**
   * pandas for data analysis.
   * os to check the current working directory.
2. **Load Datasets**
   * sales.xlsx → Sales transactions.
   * products.xlsx → Product details.
3. **Explore Product Data**
   * Print the product dataset.
4. **Explore Sales Data**
   * View first 10 rows (head).
   * View last 5 rows (tail).
   * Check dataset shape (rows × columns).
   * Display dataset info (column types, null values).
   * Count unique values (nunique).
   * Select specific columns (sale\_id, product\_id, quantity).