Vendor Performance Analysis

End to End Data Pipeline to evaluate and optimize vendor and Inventory performance using Python, SQL, PowerBI

To Do:

1)Data Ingestion Using Python And Creating Logs

2) SQL Summary for vendor Performance

3)EDA with outlier detection & Analysis

4)Profit Analysis

5)Dashboard

Objectives:

- Identify underperforming brands for strategic action: Find brands that aren't selling well or making enough profit, so the company can decide whether to improve, replace, or stop working with them.
- Pinpoint vendors with low stock turnover or losses: Detect suppliers whose products sit in inventory too long or result in financial losses.
- Leverage bulk purchasing insights to reduce unit cost: If buying more reduces the cost per item, the company can plan smarter purchases.
- Validate profitability differences statistically between vendor tiers
- Reduce risk from vendor over-dependence: Avoid relying too much on a single vendor. If that vendor fails, it could disrupt operations

Dashboard:

- Top vendors by sales and margin: Shows which vendors sell the most and generate the highest profit margins.
- Inventory turnover heatmap: A visual showing how quickly inventory is sold and replaced.
- Sales vs. Purchase ratios: Compares how much is bought vs. how much is sold.
- High-margin but low-volume brands: Highlights brands that make good profit per item but don't sell many units.