Kaggle (API) Data Analysis using SQL Dataset Data cleaning and processing Python Python Python/Pandas SQL Server

API data set link: https://www.kaggle.com/datasets/ankitbansal06/retail-orders

Project Statement

This project involves the analysis of retail sales data to derive actionable insights that enhance sales strategies, optimize product offerings, and improve market penetration. Using Python for data extraction and cleaning, SQL for data querying and analysis, and Power BI for visualization, this project aims to deliver a robust dashboard that tracks sales performance across multiple dimensions.

1.Python:

- Data Extraction
- Data Cleaning
- Data Processing

2.SQL:

- Data Analysis
 - 1. Find the top 10 highest revenue generating products.
 - 2. Find Top 5 highest Selling Products in Each Region
 - 3. Find month over month growth comparison for 2022 and 2023 sales (e.g.: Jan,2020 vs Jan,2023)
 - 4. For each category which month had highest sales.
 - 5. Which Sub-category had highest growth by profit in 2023 compare to 2022.

3.Power BI:

- Data visualization
 - 1. KPIs
 - (a) Total Sales
 - (b) Total Profit
 - (c) Profit Margin
 - (d) Total Quantity
 - (e) Total Orders
 - 2. Charts
 - (a) Sales Trends over Month
 - (b) Categories by Sales and Profit
 - (c) Comparing Sales and Profit across Segment
 - (d) Top 5 Products based on Sales
 - (e) Sales Performance by Region
 - (f) Sales Performance by State