SalesAnalysis360 Capstone Project

1. Project Overview

- Comprehensive sales analytics solution covering revenue, margin, customer behavior, store performance, and product trends.

- Uses SQL for extraction, Python for cleaning and EDA.

2. Project Objectives

- Understand sales across products, categories, stores, regions.

- Identify growth opportunities and inefficiencies.

- Highlight customer purchase patterns.

3. Tools & Technologies Used

- SQL, Python, Pandas, NumPy, Matplotlib, Seaborn.

4. Data Sources

- Orders, Product Master, Customer Master, Store Master, Returns.

5. Project Deliverables

- Cleaned datasets, EDA report, visual charts, business insights, PPT.

- GitHub repository with all files.

6. Business Requirements

1. Track sales trends.

2. Product revenue & margin.

3. Top/Bottom SKUs.

4. Store/Region performance.

5. Customer acquisition & retention.

6. Promotion impact.

7. Return analysis.

8. Seasonal trends.

9. Customer segmentation.

10. Recommendations.

7. Data Cleaning Tasks

- Remove duplicates/nulls, standardize dates, merge datasets, create KPIs.

8. Key KPIs

- Sales, Margin%, GMV, AOV, Units Sold, Repeat Rate, Return Rate, Growth.

9. EDA Analysis Patterns

1. Monthly Revenue Trend

2. Weekly Pattern

3. Daily Variation

4. YoY/MoM Growth

5. Category Sales

6. Brand Revenue

7. Top 10 Products

8. Bottom 10 Products

9. Store Performance

10. Region Heatmap

11. Customer Acquisition

12. New vs Returning

13. RFM Segments

14. Purchase Frequency

15. AOV Distribution

16. Discount Impact

17. Return Rates

18. Promo vs Non-Promo

19. Correlation Matrix

20. Anomaly Detection

10. Business Insights

- Seasonal spikes, top products drive majority revenue, regional decline, promo customers churn faster.

11. Recommendations

- Increase stock for top SKUs.

- Reduce discounts for low-margin.

- Improve product quality.

- Target high-value customers.

- Allocate budget to strong regions.

12. PPT Structure

- Overview, Data Summary, KPIs, Trends, Product Performance, Store/Region, Customers, Promotions, Returns, Findings, Recommendations.

13. GitHub Structure

SalesAnalysis360/

- data/

- cleaning/

- analysis/

- visuals/

- report/

- README.md

14. Conclusion

SalesAnalysis360 delivers end-to-end insights enabling strong data-driven decisions.