

Sales Data Analysis Using Python

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GitHub Link: <https://github.com/Satyam-Jhinkwan/Python-College-/tree/main/project>

1. Objective

To perform an insightful analysis on sales data using Python libraries to extract meaningful patterns, visualize trends, and provide actionable insights into business performance.

2. Novelty

This project focuses on turning raw transactional sales data into meaningful business insights using data science techniques. While sales analysis is common, the novelty lies in using beginner-friendly tools like Pandas and Matplotlib to achieve an end-to-end analytical pipeline. Furthermore, the project builds a solid foundation for advanced techniques like forecasting, customer segmentation, and dashboard integration in the future.

3. Work Done So Far

- ✓ Created a custom sales dataset in Excel format
- ✓ Loaded and cleaned data using Pandas
- ✓ Converted date column and calculated new Revenue column
- ✓ Performed Exploratory Data Analysis (EDA)
- ✓ Visualized trends using bar, pie, and line charts
- ✓ Hosted the full code and insights on GitHub

4. Future Scope

- Include deeper time series analysis using monthly and weekly breakdowns
- Use NumPy and Scikit-learn to perform trend forecasting
- Build an interactive dashboard using Streamlit or Plotly Dash
- Integrate sales categorization and customer behavior analysis
- Automate data cleaning pipeline for real-time analysis

Conclusion

This project has provided valuable hands-on experience in handling real-world data and drawing actionable insights from it. The skills practiced here set a strong base for advanced analytics, data science workflows, and business intelligence applications.

Submitted by:

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B.Tech Computer Science

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