

Hospital Patient Data Analysis Project

Objective

The objective of this project is to analyze hospital patient data to gain insights into patient demographics, treatment costs, length of stay, satisfaction levels, and readmission patterns using Python and Power BI.

Tools & Technologies

- Python (Pandas, Matplotlib)
- Power BI
- CSV Dataset
- VS Code
- GitHub

Dataset Description

The dataset contains hospital patient-level information such as age, gender, medical condition, procedure cost, length of stay, readmission status, satisfaction score, doctor name, payment mode, and city.

Analysis Performed

- Data cleaning and type correction
- Gender-wise and city-wise patient distribution
- Average treatment cost by condition
- Patient satisfaction analysis
- Readmission analysis
- Geo scatter, bar charts, pie charts, histograms, and box plots

Key Insights

- Certain medical conditions have significantly higher treatment costs.
- Patient satisfaction varies across treatment types.
- Readmission rates differ by gender and condition.
- Urban cities contribute the highest patient volume.

Conclusion

This project demonstrates practical skills in healthcare data analysis, data visualization, and dashboard development. It provides actionable insights that can help hospitals improve operational efficiency and patient care.