SQL Hospital Data Analysis Project

👨🏽‍💻In this SQL project, I worked with a healthcare dataset containing hospital details, departments, doctor availability, patient numbers, medical expenses, and patient stay durations. I designed and analyzed the database using PostgreSQL and executed SQL queries to generate insights such as total patients treated, top-performing departments, highest-expense hospitals, city-wise patient load, and average hospitalization time. This project strengthened my ability to work with real-world healthcare data, apply date-based calculations, use grouping and aggregations, and extract analytical insights for hospital performance and resource planning.

- 🔍 Key SQL Queries Performed:
  - Total number of patients across all hospitals
  - Hospital-wise average doctor strength
  - Top 3 departments managing the most patients
  - Hospital with highest medical expenses
  - Average medical expense per patient stay day
  - Longest hospitalization duration analysis
  - City-based patient distribution
  - Department-wise average treatment duration
  - Least-busy departments
  - Monthly medical expense trends

📊What I Learned

- Through this project, I learned how to manage and analyze healthcare data using SQL. I gained hands-on experience with importing datasets, writing analytical queries, calculating date differences, and using grouping and aggregation functions to find business insights. I improved my understanding of PostgreSQL, data logic, and how to convert raw data into meaningful information for hospital performance and decision-making.