

Business Problem – Healthcare Analysis Project

You have been hired as a Data Analytics Consultant by a large healthcare network to analyze their patient performance data across multiple hospitals in the U.S.

The executive team wants to understand:

1. Patient Volume Trends – How are patient numbers changing over time, by age group, gender, admission type, and hospital?
2. Cost and Stay Duration – What is driving the average treatment cost and the average days patients spend in the hospital?
3. Hospital Performance – Which hospitals have the highest or lowest patient volumes, and why?
4. Medication and Test Result Patterns – What medications are commonly administered, and what are the test result distributions?
5. Insurance Impact – How does patient volume break down by insurance provider, and what implications does this have for reimbursement strategies?
6. Seasonality – Are there seasonal patterns in patient admissions across years that affect staffing and resource planning?