**PROJECT TITLE:**

**HOSPITAL RESOURCES UTILIZATIONS AND PATIENT OUTCOMES DASHBOARD**

**PROBLEM STATEMENT:**

Hospitals handle many patients across multiple departments every day. Without proper analytics, it is difficult to Monitor resource usage, Identify peak load times, Track patient outcomes and Plan doctors and beds efficiently. This dashboard solves that problem by converting hospital data into clear visuals and KPIs.

**DATASET DESCRIPTION:**

A synthetic hospital dataset was created based on the problem requirements.

The dataset includes:

- Patient demographics (age, gender, insurance type)

- Admission and discharge details

- Department information

- Doctor schedules and utilization

- Emergency vs scheduled cases

- Patient outcomes

**KPIS & METRICS:**

The following KPIs were calculated and visualized:

- Total Patients

- Average Length of Stay

- Emergency Cases (%)

- Readmission Rate (%)

- Doctor Utilization (%)

- Patient Outcomes Distribution

These KPIs provide a high-level view of hospital efficiency and performance.

**DASHBOARD OVERVIEW:**

The Power BI dashboard presents hospital operations data using clear and simple visualizations suitable for non-technical users.

Key features include:

- KPI cards for quick performance overview

- Department-wise analysis using a slicer

- Doctor utilization comparison across departments

- Emergency vs non-emergency case distribution

- Patient outcome analysis

The dashboard allows decision-makers to quickly identify workload imbalance and operational pressure points.

**KEY INSIGHTS:**

- Emergency cases account for 44% of total admissions, indicating high emergency demand.
- Doctor utilization is 64%, showing balanced workload across departments.
- Orthopedics has the highest patient load, requiring more resources.
- Average length of stay is 6 days, indicating moderate bed usage.
- Most patients are recovered or improved, reflecting positive treatment outcomes.

**TOOLS USED:**

- Power BI – Dashboard development and DAX calculations

- Microsoft Excel – Dataset creation and preparation

**CONCLUSION:**

This dashboard provides a clear view of hospital operations by tracking patient flow, doctor utilization, emergency cases, and outcomes. It helps hospital administrators quickly identify workload imbalance and operational bottlenecks. The use of simple KPIs and visuals makes the dashboard easy to understand for non-technical users. Overall, the solution supports better decision-making for efficient resource utilization and patient care.