🛠️ Dashboard Requirements for Health Care Analysis Project

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1. Data Requirements:

- Patient demographic data (optional if needed for deeper insights).
- Medical service records including:
    - Patient ID
    - Procedure Performed (X-Ray, MRI, etc.)
    - Department (Cardiology, Orthopedics, etc.)
    - Treatment Cost
    - Room Charges (Daily Rate)
    - Number of Days Stayed (Stayed)
    - Medication Cost
    - Insurance Coverage Amount
    - Out-of-Pocket Payment (calculated field)
    - Patient Satisfaction Score
    - Location Information (City, State)

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2. Technical Requirements:

- Build the dashboard using Microsoft Power BI Desktop.
- Create a Date Table using DAX with columns for Year, Month, Weekday, Quarter, and Week Type.
- Develop calculated columns and measures using DAX formulas for:
    - Total and average costs
    - Percentage contributions
    - Dynamic location switching

- Implement a dynamic location slicer to toggle between City and State views.
- Design calculations for both individual service categories and aggregated financials.

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3. Visualization Requirements:

- KPI Cards at the top showing:
    - Total Billing Amount
    - Total Treatment Cost
    - Total Room Charges
    - Total Insurance Coverage
    - Average Billing Amount per Visit
- Bar/Column Charts to show:
    - Billing amount by Procedure
    - Billing amount by Department
- Stacked Bar/Column Chart to show:
    - Billing distribution by Service Type (Emergency, Inpatient, Outpatient) for each procedure
- Maps or Geographic Visualization (optional) based on City and State for billing amount.
- Filters/Slicers:
    - Procedure
    - Department
    - Service Type
    - City/State Switcher
    - Date (Month, Year)

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4. Design Requirements:

- Deliver two visual theme options:
    - Dark Mode Dashboard
    - Light Mode Dashboard
- Maintain a clean, minimal, professional layout.
- Use consistent color schemes and iconography for service types and departments.
- Responsive layout to ensure elements don't overlap or cut off when resized.

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5. Performance Requirements:

- All visuals should load quickly without lag even when filters are applied.
- Calculated measures and columns should be optimized to avoid heavy model refresh times.
- DAX measures must use efficient functions (SUMX, DIVIDE, CALCULATE, etc.) for scalability.

🚀 Summary (Short Version for quick use):

- Build a healthcare billing and financial analysis dashboard in Power BI.
- Use DAX to calculate total/average costs and create dynamic KPIs.
- Enable analysis by procedure, department, service type, and location (City/State).
- Support interactive filtering and multiple viewing modes (Dark/Light).
- Focus on performance optimization and professional design.