**🏥 Power BI Project Statement**

**Title:**  
**Hospital Patient Visit & Outcome Analysis**

**Background:**  
The Ministry of Health wants to assess hospital visit trends, departmental loads, treatment types, and patient outcomes across four hospitals over a 6-month period. They aim to improve resource allocation and identify areas requiring attention based on patient demographics, visit frequency, and outcomes.

**📊 Power BI Tasks**

**🔹 1. Patient Visit Overview**

* Create cards for:
  + Total patient visits
  + Average treatment duration
  + Percentage of recovered patients
  + Total unique diagnoses

**🔹 2. Visit Trends**

* Plot a **line chart** showing total visits over time.
* Use a slicer to filter by hospital or department.

**🔹 3. Visits by Department and Hospital**

* Create a **stacked bar chart** showing number of visits by department, grouped by hospital.

**🔹 4. Patient Demographics**

* Use **pie charts** or **bar charts** to show:
  + Gender distribution
  + Age distribution (use bins: 0–18, 19–35, 36–60, 60+)

**🔹 5. Diagnosis and Treatment Mapping**

* Create a **matrix** showing number of visits by diagnosis and treatment type.
* Add conditional formatting to highlight frequently occurring combinations.

**🔹 6. Outcome Analysis**

* Use a **donut chart** or bar to show patient outcomes.
* Filter outcome rates by department and gender.

**🔹 7. Average Treatment Duration by Department**

* Use a **bar chart** to show average treatment duration across departments.
* Highlight the department with the highest and lowest averages.

**🔹 8. Interactive Filters and Slicers**

* Add filters for:
  + Date
  + Hospital
  + Gender
  + Diagnosis

Would you like a **PBIX demo file**, **PowerPoint summary**, or **Google Slides template** based on this dataset?

Here’s a full step-by-step guide to solve the **Hospital Patient Visit & Outcome Analysis** in Power BI using the provided dataset (PowerBI\_Healthcare\_Visits.csv):

**🧭 STEP-BY-STEP POWER BI GUIDE**

**✅ STEP 1: Load the Dataset**

1. **Open Power BI Desktop**
2. Click **"Get Data" > "Text/CSV"**
3. Select the file PowerBI\_Healthcare\_Visits.csv
4. Click **Load**

**📊 STEP 2: Create a Dashboard Overview Page**

**➤ Add 4 Cards:**

* **Total Patient Visits**  
  → Add a **Card visual**, set **field = Visit\_ID**, then change **Aggregation to Count**

Rename title to "Total Visits"

* **Average Treatment Duration**  
  → Card > **field = Treatment\_Duration\_Days**, aggregation = Average

Format with 1 decimal point

* **Recovered Percentage**  
  → Create a **Measure**:
* Recovered % =
* DIVIDE(
* CALCULATE(COUNTROWS(Healthcare\_Visits), Healthcare\_Visits[Outcome] = "Recovered"),
* COUNTROWS(Healthcare\_Visits)
* )

→ Add this as a **Card**, format as percent

* **Unique Diagnoses**  
  → Card > **field = Diagnosis**, aggregation = **Distinct Count**

**📈 STEP 3: Visit Trends**

**➤ Line Chart: Visits Over Time**

* Visual: **Line Chart**
  + X-axis: Visit\_Date
  + Y-axis: Visit\_ID (change to Count)
* Add a **Date Slicer** for Visit\_Date
* Optional: Add slicers for **Hospital**, **Department**

**🏥 STEP 4: Visits by Department and Hospital**

**➤ Stacked Column Chart:**

* Axis: Department
* Legend: Hospital
* Values: Visit\_ID (Count)

**👥 STEP 5: Patient Demographics**

**➤ Gender Distribution**

* Visual: **Pie Chart**
  + Legend: Gender
  + Values: Visit\_ID (Count)

**➤ Age Group Distribution**

1. **Create a new column** in Power BI:

Age\_Group =

SWITCH(TRUE(),

Healthcare\_Visits[Patient\_Age] <= 18, "0-18",

Healthcare\_Visits[Patient\_Age] <= 35, "19-35",

Healthcare\_Visits[Patient\_Age] <= 60, "36-60",

"60+"

)

1. Use a **bar chart**:
   * Axis: Age\_Group
   * Values: Count of Visit\_ID

**🩺 STEP 6: Diagnosis & Treatment Matrix**

**➤ Matrix Visual:**

* Rows: Diagnosis
* Columns: Treatment\_Type
* Values: Count of Visit\_ID
* Use **Conditional Formatting** to highlight frequent values

**📉 STEP 7: Outcome Analysis**

**➤ Donut or Bar Chart:**

* Axis or Legend: Outcome
* Values: Count of Visit\_ID
* Add slicers: Hospital, Gender, Department

**⏱ STEP 8: Avg. Treatment Duration by Department**

**➤ Bar Chart:**

* Axis: Department
* Values: **Average of Treatment\_Duration\_Days**

Highlight the highest and lowest by sorting and using conditional formatting.

**🔎 STEP 9: Filters & Slicers**

Add these slicers on the side:

* Visit\_Date
* Hospital
* Gender
* Diagnosis

**✅ FINAL DASHBOARD ELEMENTS TO INCLUDE**

| **Visual Type** | **Metric** |
| --- | --- |
| Cards | Total Visits, Avg Duration, Recovered %, Unique Diagnoses |
| Line Chart | Visits Over Time |
| Stacked Bar Chart | Visits by Department and Hospital |
| Pie Chart | Gender Distribution |
| Bar Chart | Age Groups |
| Matrix | Diagnosis vs. Treatment |
| Donut/Bar Chart | Patient Outcomes |
| Bar Chart | Avg Treatment Duration by Dept |
| Slicers | Date, Hospital, Gender, Diagnosis |

Would you like me to send you a **.PBIX sample file** with the dashboard already built, or would you like to build it yourself with screenshots and mock visuals for guidance?