**🌟 Mini Project 1: Bar Chart – Revenue by Department**

**Page Name: Revenue by Department (Bar Chart)**

**Goal: Create a simple visual showing total revenue per department.**

**Instructions:**

1. **Open Power BI Desktop.**
2. **Click "Get Data" > "Text/CSV" and import Hospital Visits.csv.**
3. **Go to the Report view (bar chart icon on the left).**
4. **Select a Bar Chart from the Visualizations pane.**
5. **Drag Department to the X-axis.**
6. **Drag Revenue to the Y-axis.**
7. **Title your chart: *"Revenue by Department"*.**
8. **Edit Suggestions:**
   * **Change bar colors to match hospital branding.**
   * **Turn on Data Labels to show exact revenue.**
   * **Format the Y-axis as currency.**
     1. **Format > Data format > Apply settings to: Sum of Revenue > Format options > Format as Currency**
   * **Adjust font size and chart border to improve readability.**
9. **Add this to Page 1 and name the page: Revenue by Department.**

**Reflection Questions:**

* **Which department made the most revenue?**
* **How easy was it to build the visual?**
* **What did you change to make the chart your own?**

**📊 Mini Project 2: KPI Table – Actual vs. Goal**

**Page Name: Actual vs. Goal (KPI Table)**

**Goal: Compare actual revenue to department goals using a table and a clustered bar chart.**

**Instructions:**

1. **Use the same Power BI file from Project 1.**
2. **Import Hospital Goals.csv.**
3. **In Model view, create a relationship between the Department columns in Hospital Visits and Hospital Goals.**
4. **Go to Report view and create a new page (Page 2) and name it Actual vs. Goal.**
5. **Select a Table visual.**
6. **Add the following fields:**
   * **Department (from either table)**
   * **Revenue (Sum) from Hospital Visits**
   * **Goal from Hospital Goals**
7. **On the same page, add a Clustered Bar Chart:**
   * **X-Axis: Revenue and Goal (Sum)**
   * **Y-Axis: Department**
8. **Click on the Filters pane, go to Filters on this Page, and drag Year from the Date of Admit hierarchy into the filter area.**
9. **In the Filter type select Basic filtering and select 2019.**

**Edit Suggestions:**

* **Sort the table by Revenue or Goal to show top performers.**
* **Format the Revenue and Goal columns as currency.**
* **Use different colors for Revenue vs. Goal bars in the chart.**
* **Add a chart title like: *"2019 Revenue vs. Goal by Department"*.**

**Reflection Questions:**

* **Which departments came closest to meeting their 2019 goals?**
* **Did the visual chart help confirm or challenge what the table showed?**
* **How did the page-level year filter change your view of the data?**
* **Did any departments exceed their revenue goals?**
* **How did you format the table to make it easier to read?**

**🏥 Mini Project 3: Stacked Column – Branch & Department Revenue**

**Page Name: Revenue by Branch (Stacked Column)**

**Goal: Explore how department revenue varies by hospital branch.**

**Instructions:**

1. **Continue using your existing Power BI file.**
2. **Go to a new report page (Page 3) and name it Revenue by Branch.**
3. **Choose a Stacked Column Chart visual.**
4. **Add:**
   * **X-Axis: Department**
   * **Y-Axis: Revenue (Sum)**
   * **Legend: Hospital Branch**
5. **Title your chart: *"Department Revenue by Branch"*.**
6. **Edit Suggestions:**
   * **Pick contrasting colors for each branch.**
   * **Enable Data Labels for each stacked section.**
   * **Use a border or background color to separate the chart.**
   * **Add tooltips to show totals by department.**

**Reflection Questions:**

* **Which branch performs best overall?**
* **Are any departments consistent across branches?**
* **What design choices helped clarify your findings?**

**🧠 Mini Project 4: Column Chart – Patient Risk by Department Type**

**Page Name:** Patient Risk Profile (Column Chart)

**Goal:** Compare patient risk profiles across department types using a column chart.

**Instructions:**

1. Continue working in your existing Power BI file.
2. Create a new page (**Page 4**) and name it **Patient Risk Profile**.
3. In Report view, select a **Clustered Column Chart** visual.
4. Add the following fields:
   * **X-Axis (Columns):** Sum of *Number of Patient Visits*
   * **Y-Axis (Rows):** *Department Type*
   * **Legend:** *Patient Risk Profile*
5. If needed, convert *Number of Patient Visits* to a numeric field and ensure it's being summed.
6. Title your chart: *"Patient Risk by Department Type"*.
7. **Edit Suggestions:**
   * Use custom colors for each risk profile (Low, Medium, High).
   * Enable Data Labels to show exact numbers.
   * Sort bars by total visits for better comparison.
   * Add a background or border to make the chart pop.

**Reflection Questions:**

* Which department type sees the highest number of high-risk patients?
* What patterns do you notice across patient risk profiles?
* How did your formatting choices improve your chart's clarity?

**Need help? Ask your instructor or partner up with a classmate!**

**Challenge Bonus: Add slicers to each report to allow filtering by Department or Branch!**