1. 📊 **Bar/Column Chart** – to compare values across categories (e.g., sales by product).

📈 **Line Chart** – to show trends over time (e.g., monthly revenue trend).

🃏 **Card (KPI Card)** – to highlight a single key metric (e.g., Total Sales, Total Customers).

2. 🔹 **Steps to Add a Slicer**

1. **Open your report** in Power BI Desktop.
2. In the **Visualizations pane**, click the **Slicer icon** (it looks like a filter).
3. Drag and drop a **field (column)** from your data model into the slicer (e.g., *OrderDate*, *ProductName*, *CustomerName*).
4. Resize and position the slicer on your canvas.

🔹 **Customize Your Slicer**

- **List or Dropdown** → Click the top-right arrow of the slicer visual to toggle between list and dropdown mode.
- **Date Slicer** → If you use a date field, you can set it as a *Between*, *Before*, *After*, or *Relative Date* slicer.
- **Multi-select** → Hold CTRL to select multiple values.
- **Sync slicers** → If you want one slicer to filter multiple report pages, use the **View → Sync Slicers** option.

3. 📊 Column Chart

- Categories are shown on the X-axis (horizontal).
- Values are shown on the Y-axis (vertical).
- Columns grow upward.
- Best for showing changes over time (e.g., monthly sales).

Example:

Month → Jan Feb Mar

Sales ↑ 100 200 150

📊 Bar Chart

- Categories are shown on the Y-axis (vertical).
- Values are shown on the X-axis (horizontal).
- Bars grow to the right.
- Best for comparing categories with long names or when there are many categories (easier to read).

Example:

Product A ▇▇▇▇▇▇▇ 300

Product B ▇▇▇ 120

Product C ▇▇▇▇▇ 200

✅ Rule of thumb:

- Use a Column chart → when categories are time-based (months, years).
- Use a Bar chart → when categories are names or labels (products, customers).

4. 🔹 Steps:

1. Select the visual you want to format.
2. In the Visualizations pane, click on the Format (paint roller) icon.
3. Expand the Background section.
4. Toggle it to On.
5. Choose your desired color (and adjust transparency if needed).

🔹 Example:

- Set a light gray background for a chart to make the data stand out.
- Use transparent (100%) if you don’t want any background color.

5. 🔹 Example:

If you have a column chart showing Sales by Year, drill-down allows you to click a year and see:

- Sales by Quarter → then by Month → then by Day.

So instead of creating multiple charts, you can explore different levels of your data inside one visual.

🔹 How to Use Drill-Down:

1. Add a hierarchy to your visual (e.g., Date hierarchy: Year → Quarter → Month → Day).
2. In the visual, enable the drill-down button (a little double-arrow icon in the top-right corner).
3. Click a bar/column/slice → it expands into the next detail level.
4. Use drill-up (arrow pointing up) to return to the higher-level view.

✅ Why useful?

- Helps explore trends without cluttering dashboards.
- Makes visuals more interactive and dynamic.

15. 🔹 **1. Reduce the number of visuals**

- Instead of showing **10+ visuals on a single page**,
    - Use **Bookmarks** to toggle visuals in the same space.
    - Create **Drillthrough pages** for details instead of overloading one report page.

🔹 **2. Optimize the data model**

- **Remove unnecessary columns** (keep only what is used in visuals).
- **Delete unused tables**.
- Aggregate your fact table (e.g., store *Sales by Day/Region/Product* instead of *every transaction* if detail is not needed).

🔹 **3. Improve DAX performance**

- Move heavy calculations into **pre-calculated columns or summary tables** where possible.
- Use CALCULATE and FILTER with the most restrictive filter context.
- Replace complex nested IF with SWITCH or SELECTEDVALUE for efficiency.

🔹 **4. Optimize visuals**

- Reduce **data points** in visuals (don't try to plot hundreds of thousands of rows).
- Avoid high-cardinality fields (e.g., Customer Name, Invoice ID) on axes.
- Minimize **Table/Matrix visuals** since they are the slowest to render.

🔹 **5. Use aggregations & refresh strategy**

- Build **aggregated tables** for large datasets.
- **Import mode** is faster than DirectQuery (if dataset size allows).
- If using DirectQuery, ensure **query folding** is happening to push logic to the source database.

🔹 **6. Use Performance Analyzer**

1. Go to **View → Performance Analyzer**.
2. Refresh the page and see which visuals take the most time.
3. Inspect the DAX queries and optimize the slow ones.

✅ With these steps, reports usually load **2–3x faster**.