Name three types of visuals you can create in Power BI.

-card

-chart

-map

-table

-matrix

-column chart

-line chart

-pie chart

How do you add a slicer to a report?

Open your report in Power BI Desktop.

On the **Visualizations pane**, click the **Slicer icon** (it looks like a small filter).

A blank slicer visual will appear on the report canvas.

Drag a field (for example, *Product Category* or *Year*) from the Fields pane into the slicer.

Now you can **click values** in the slicer to filter all visuals in your report instantly.

What is the difference between a bar chart and a column chart?

Column = vertical bars (good for time-based data)

Bar = horizontal bars (good for category comparisons)

Column Chart – Displays data **vertically** (up and down).

→ Best for showing changes **over time** or comparing a few categories.

Example: *Sales by Month*

Bar Chart – Displays data **horizontally** (side to side).

→ Best for comparing **many categories** with long labels.

Example: *Sales by Product Name*

How do you change the color of a visual background?

Select the visual you want to change.

In the **Visualizations pane**, click the **Format (paint roller)** icon.

Find the **“Visual”** or **“General”** → **“Effects”** section.

Expand **Background**.

Turn the **Background toggle ON**.

Click the **color box** to choose your desired color (you can also adjust transparency).

What does "drill-down" mean in a visual?

If you have a **sales by year** chart, drill-down lets you click on a year to see **sales by month**, then click again to see **sales by day**.

Drill-down = go **deeper** into data levels (e.g., Year → Month → Day).

Drill-up = go **back** to higher levels (e.g., Day → Month → Year).

Create a bar chart showing SalesAmount by Region.

done

Add a slicer for Quarter to filter all visuals on the page.

done

Format the bar chart to show data labels.

Click your bar chart to select it.

Go to the **Visualizations pane** on the right.

Click the **Format icon** (the paint roller 🎨).

Expand the **Data labels** section.

Turn the **Data labels toggle** → **ON**.

(Optional) Customize:

- **Color** → choose label text color.
- **Text size** → adjust to make numbers clear.
- **Display units** → show in thousands (K), millions (M), etc.
- **Position** → inside or outside the bars.

Use a line chart to show SalesAmount trends over Quarter.

done

Add a tooltip to display Product details when hovering over bars.

1. **Select your bar chart** on the report canvas.
2. In the **Visualizations pane**, look for the **“Tooltip”** field well (it’s below the Values area) .
3. From the **Fields pane**, **drag the Product field** into the **Tooltip** area.

Now when you hover your mouse over any bar, Power BI will display:

- The Region (or main category on your bar chart),
- The SalesAmount, and
- The Product name(s) in that tooltip.

Sync slicers across multiple report pages.

Add a slicer to your first report page.

- For example, use a slicer for **Region** or **Year**.

Copy the slicer to another page.

- Right-click the slicer → **Copy** → go to the next page → **Paste**.
- (Or simply recreate the same slicer using the same field on that page.)

Enable Sync Slicers panel:

- Go to the top ribbon → **View** → turn on ✅ **Sync slicers**.
- A new panel will appear on the right side of your screen.

Use the Sync Slicers panel:

- Select one of your slicers.
- In the **Sync Slicers** pane, you’ll see a list of all report pages.
- Under each page, you’ll see two checkboxes:
    - **Sync** → links the slicer filters between pages.
    - **Visible** → shows or hides the slicer on that page.

Check both boxes (Sync + Visible) for all pages you want the slicer to affect.

Test it

- Change a value in your slicer on Page 1 —
- The same filter will now apply automatically on Page 2 and others.

Create a custom visual with dynamic measure selection (e.g., Sales vs. Profit).

Implement a hierarchy for Region > Product > Quarter drill-down.

1. Go to the **Data pane** (on the right side).

2. Find your table (e.g., Sales).
3. Right-click the **Region** column → choose **Create hierarchy**.
    - Power BI will make a new hierarchy named **Region Hierarchy**, with **Region** as the top level.
4. Now, right-click the **Product** column → select **Add to hierarchy** → **Region Hierarchy**.
5. Do the same for **Quarter** → **Add to hierarchy** → **Region Hierarchy**.

You now have a hierarchy with three levels:

Region → Product → Quarter

Use bookmarks to toggle between two visuals in the same space.

done**Create both visuals**

1. Insert a **Bar Chart** → Add Region to Axis and SalesAmount to Values.
2. Insert a **Table** → Add Product and SalesAmount.
3. **Place both visuals in the same position** on the canvas (overlapping).
    - You can use the **Selection Pane** (View → Selection Pane) to manage which one is visible.

2 Show only one visual at a time

- In the **Selection Pane**, click the **eye icon** to **hide** one visual (e.g., hide the table).
- Keep only the *bar chart* visible for now.

3 Create the first bookmark

1. Go to the **View tab** → **Bookmarks Pane** → **Add Bookmark**.
2. Rename it to **"Bar View"**.
3. Make sure **Data** is **unchecked** (only "Display" is needed), so it doesn't reset filters.

4 Now switch visuals

1. In the **Selection Pane**, hide the *bar chart* and show the *table*.
2. Go to the **Bookmarks Pane** → **Add Bookmark** again.
3. Rename it **"Table View"**.
4. Again, ensure **Data** is **unchecked**.

5 Create toggle buttons

1. Go to **Insert** → **Buttons** → **Blank** (or use icons/text).
2. Add two buttons:
    - One labeled **"Show Bar Chart"**
    - Another labeled **"Show Table"**
3. Select the **"Show Bar Chart"** button → go to the **Format pane** → **Action** → turn it **On** → choose **Bookmark** → **"Bar View"**.
4. Do the same for the **"Show Table"** button → link it to **"Table View"**.

6 Test it

Now click **View → Reading View** (or just Ctrl + click buttons in edit mode).

- When you click **"Show Table"**, the bar chart hides and the table appears.
- When you click **"Show Bar Chart"**, the table hides and the bar chart appears.

Optimize a slow-rendering report with 10+ visuals.

Reduce visuals – too many visuals slow down the page.

Simplify the model – use a star schema, remove unused columns early.

Pre-aggregate data – group or summarize data before loading.

Use simple measures – avoid complex DAX formulas.

Limit filters – use slicers or page filters instead of many visual filters.

Turn off Auto Date/Time – saves memory.

Disable unnecessary interactions between visuals.

Use Performance Analyzer – find which visuals are slow.