Lesson 6

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

- **Bar Chart**
- **Line Chart**
- **Pie Chart**

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2. How do you add a slicer to a report?

- Go to the **Visualizations** pane → Click the **Slicer** icon
- Drag a field (e.g., `Quarter`) into the slicer's **Field well**
- Resize and position as needed on the canvas

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

- **Bar chart**: Horizontal bars
- **Column chart**: Vertical bars
  The main difference is **orientation**, but both show comparisons across categories.

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4. How do you change the color of a visual background?

- Select the visual → Go to the **Format** pane
- Expand the **Background** section → Toggle **On**
- Choose a **Color** and adjust **Transparency** if needed

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

- **Drill-down** allows users to click into a visual (e.g., Region → Product → Quarter) to explore data at **more detailed levels** within a hierarchy.

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6. Create a bar chart showing SalesAmount by Region.

- In **Visualizations**, select **Bar chart**
- Drag `Region` to the **Axis**
- Drag `SalesAmount` to **Values**

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

- Add a **Slicer** visual
- Drag `Quarter` field into it
- Ensure slicer affects all visuals (set by default or configure with **Edit interactions**)

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8. Format the bar chart to show data labels.

- Select the bar chart
- Go to **Format** pane → Expand **Data labels**
- Turn **On**, adjust **font**, **size**, or **position** as needed

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9. Use a line chart to show SalesAmount trends over Quarter.

- Insert a **Line chart**
- Drag `Quarter` to **Axis**
- Drag `SalesAmount` to **Values**

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

- Drag the `Product` field to the **Tooltip** area of the bar chart
- Optionally, create a custom tooltip page (in **Page Information**, set as tooltip) and assign it in the visual's **Tooltip** settings

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11. Sync slicers across multiple report pages.

- Select the slicer → Go to **View** tab → Click **Sync slicers**
- In the Sync Slicers pane, choose pages to **sync and/or show** the slicer

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

- Create a **Disconnected Table** with measure names:

```
MeasureSelector = DATATABLE("Measure", STRING, {{"Sales"}, {"Profit"}})
```

- Create a **Slicer** from that table
- Create a **Dynamic Measure**:

```
SelectedMeasure =
SWITCH(
  SELECTEDVALUE(MeasureSelector[Measure]),
  "Sales", [Total Sales],
  "Profit", [Total Profit]
)
```

- Use `SelectedMeasure` in a chart

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

- In the **Fields** pane:
  - Drag `Product` under `Region`, then drag `Quarter` under `Product`
- Use this hierarchy in a visual (e.g., column chart)
- Click the **drill-down** icon to enable drill interaction

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

- Create two visuals in the **same position**
- Use **Selection Pane** to hide one
- Create **Bookmarks** for each state (Visual A visible, Visual B hidden)
- Add **Buttons** and assign bookmarks via **Action > Bookmark**

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15. Optimize a slow-rendering report with 10+ visuals.

- **Reduce visuals** per page
- Use **aggregated tables** or **summary views**
- Turn off **auto date/time** in Options
- Use **Performance Analyzer** to detect slow visuals
- Optimize DAX measures and avoid using complex calculated columns or measures with `IF` inside row context
- Use **DirectQuery** cautiously; prefer **Import mode** if possible