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?

1. Go to the **Visualizations** pane.
2. Click the **Slicer** icon.
3. Drag a field (e.g., Quarter) into the slicer's **Values** area.
4. Adjust the slicer settings (dropdown, list, etc.) as needed.

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

- **Bar Chart**: Displays data with horizontal bars.
- **Column Chart**: Displays data with vertical bars.
- **Use Case**: Bar charts are better for long labels or many categories; column charts are good for showing trends over time.

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

1. Select the visual.
2. Go to the **Format** pane (paint roller icon).
3. Expand **Background**.
4. Toggle it **On**, then choose a color and adjust transparency.

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

"Drill-down" allows users to click on a data point (e.g., Region) to explore more detailed data beneath it (e.g., Product or Quarter) within the same visual.

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6. Create a bar chart showing SalesAmount by Region

1. Insert a **Bar Chart**.
2. Drag **Region** to the **Axis**.
3. Drag **SalesAmount** to the **Values**.

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

1. Add a **Slicer** visual.
2. Drag **Quarter** into it.
3. Ensure it's set to affect **all visuals**:
   - Go to **View > Sync Slicers** (optional for cross-page).
   - Use **Edit Interactions** (Format tab) to apply to specific visuals.

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8. Format the bar chart to show data labels

1. Select the **Bar Chart**.
2. Go to the **Format** pane.
3. Expand **Data Labels** and toggle **On**.

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

1. Insert a **Line Chart**.
2. Drag **Quarter** to **Axis**.
3. Drag **SalesAmount** to **Values**.

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

1. Create a new **Page** and set it as a **Tooltip** under page information.
2. Add **Product details** visuals to this page.
3. On your main chart:

- Go to **Format > Tooltip**.
- Choose **Report Page** and select your tooltip page.

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11. Sync slicers across multiple report pages

1. Select the slicer.
2. Go to **View > Sync Slicers**.
3. Select which pages to sync and make it visible or hidden.

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

1. Create a **What-If Parameter** or table: {"Sales", "Profit"}.
2. Create a **Switch Measure**:
3. Selected Measure =
4. SWITCH(
5. SELECTEDVALUE(MetricTable[Metric]),
6. "Sales", SUM(Sales[SalesAmount]),
7. "Profit", SUM(Sales[Profit])
8.)
9. Use this measure in a chart and add the slicer for metric selection.

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

1. In Fields pane, right-click on **Region** → New Hierarchy.
2. Add **Product** and **Quarter** to it.
3. Use this hierarchy in a chart.
4. Enable **drill-down** using the arrow or double-click.

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

1. Place both visuals in the same spot.
2. Create two **Bookmarks** (one per visual).
3. Hide one visual in each bookmark.
4. Add **Buttons** to toggle and assign bookmarks in the **Action** property.

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

- Reduce visuals on a page.
- Avoid excessive calculated columns/measures.
- Use **aggregation tables** or **DirectQuery** optimization.
- Disable **Auto Date/Time**.
- Enable **Performance Analyzer** to identify slow visuals.
- Use **Bookmark Navigation** to split visuals across views.