

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

- **Bar chart** – Horizontal bars for comparing values
  - **Line chart** – Trends over time
  - **Pie chart** – Show parts of a whole
- (Also: table, matrix, scatter, map, gauge, KPI, card, etc.)

## 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
- It will now filter all visuals on the page (unless interaction is edited)

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

- **Bar chart**: Horizontal bars
- **Column chart**: Vertical bars

Both display categorical comparisons, but orientation differs.

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

- Select the visual
- Go to **Format pane > Visual > Background**
- Enable it and choose a color

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

It allows users to:

- Click on a data point to **navigate deeper** into a hierarchy (e.g., `Region` → `Product` → `Quarter`)
- Controlled using the **drill icons** in the top-left of the visual (down arrow)

## 6. Create a bar chart showing `SalesAmount` by `Region`

- Choose **Bar chart** from the Visualizations pane
- Drag `Region` to **Axis**
- Drag `SalesAmount` to **Values**

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

- Add a **Slicer** visual
- Drag `Quarter` to the slicer's field well
- Ensure interactions are enabled for all visuals (check: **Format > Edit Interactions**)

## 8. Format the bar chart to show data labels

- Select the bar chart
- Go to **Format > Data labels**
- Toggle **On**, and adjust font/position as needed

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

- Add a **Line chart** visual
- Drag Quarter to **X-axis**
- Drag SalesAmount to **Values**

Ensure Quarter is in correct date order (use date hierarchy if needed)

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

- Add Product to the **Tooltips** field well of the bar chart
- Or create a **custom tooltip page**:
  - New Page → Format as **Tooltip**
  - Add visuals like product details
  - On main chart: go to **Format > Tooltip > Type: Report Page** and select the tooltip page

## 11. Sync slicers across multiple report pages

- Select a slicer
- Go to **View > Sync Slicers**
- Choose which pages to sync on (check both **Sync** and **Visible** if needed)

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

1. Create a **disconnected table**:

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

2. Create measures:

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

3. Add a slicer with MeasureSelector[Metric], and use Selected Measure in your visual

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

- In **Fields pane**:
  - Drag Product and Quarter onto Region to create a hierarchy
- Use this hierarchy in a bar/column chart
- Enable **drill-down** by clicking the **drill icon** on the chart

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

1. Create two visuals (e.g., line chart and bar chart), position them on top of each other
2. Create **two bookmarks**:

- One with line chart visible
- One with bar chart visible
- 3. Add **buttons** and assign actions:
  - Button A → Bookmark: Line
  - Button B → Bookmark: Bar
- 4. Use **Selection Pane** to manage visibility

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

- Use fewer visuals per page — consider tabs or bookmarks
- **Disable auto date/time hierarchy** in options
- Turn off **interactions** if not needed
- **Use aggregated tables** instead of detailed rows
- Pre-calculate heavy DAX measures
- Use **summary tables or views** from source queries
- Minimize visuals using complex filters or cross-highlighting