

## Q&A Section

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

- Bar/Column Chart
  - Line Chart
  - Pie/Donut Chart
- (others: Map, Table, Matrix, Funnel, Gauge, etc.)

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

- Go to the **Visualizations** pane → select **Slicer** → drag a field (e.g., Quarter) to the slicer's *Values*.

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

- **Bar chart:** horizontal bars (good for long category names).
- **Column chart:** vertical bars (good for comparing values across categories).

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

- Select the visual → go to **Format pane** (paint roller icon) → **Background** → turn it *On* → choose a color.

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

- Drill-down lets you **navigate from higher-level data to more detailed levels** (e.g., Region → Country → City).

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## Practical Tasks

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

- Insert a **Clustered Bar Chart** → put **Region** on *Axis* → *SalesAmount* on *Values*.

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

- Add a **Slicer visual** → drag **Quarter** field → it will filter every visual on the report page.

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

- Select the bar chart → **Format pane** → **Data labels** → **On**.

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

- Insert a **Line Chart** → place **Quarter** on *Axis* → *SalesAmount* on *Values*.

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

- Create a **Tooltip page** (new page → mark it as Tooltip in Page Information).
- Add `Product` info there → then assign this tooltip page to your bar chart.

#### 11. Sync slicers across multiple report pages.

- Select slicer → Go to **View** → **Sync slicers** → choose which pages to sync with (and whether visible or not).

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

- Create a disconnected **Measure Table** with values “Sales”, “Profit”.
- Write a measure using `SWITCH( SELECTEDVALUE( MeasureTable[Measure] ), "Sales", [Total Sales], "Profit", [Total Profit] )`.
- Use that measure in your custom visual.

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

- In your data model, create a hierarchy: **Region** → **Product** → **Quarter**.
- Use it in a visual (bar or matrix) → enable **drill-down** (double arrow in visual header).

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

- Place Visual A and Visual B in the same spot.
- Create **Bookmarks** (one showing A, one showing B).
- Add a **button** to toggle between bookmarks.

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

- Use **Aggregations** or pre-aggregated tables.
- Limit unnecessary visuals per page.
- Avoid excessive use of complex DAX.
- Use **measure tables** instead of calculated columns.
- Enable **Query Reduction** in Options.