1) Three types of visuals in Power BI
Bar/Column chart

Line chart

Matrix (or Table)

2) How to add a slicer
Visualizations pane → Slicer → drag a field (e.g., Quarter) into the slicer.

3) Difference between bar chart and column chart
Bar chart: categories on the Y-axis, bars horizontal.

Column chart: categories on the X-axis, bars vertical.

4) Change visual background color
Select the visual → Format (paint roller icon) → Background → choose the color (and adjust Opacity if needed).

5) What does "drill-down" mean?
Navigating down a hierarchy to view lower-level details (e.g., Region → Product → Quarter).

6) Bar chart showing SalesAmount by Region
DAX measure:

DAX
Копировать
Редактировать
Total Sales = SUM(Sales_Interactive[SalesAmount])
Visual: Clustered Bar Chart → Axis: Region, Values: [Total Sales].

7) Add a slicer for Quarter to filter the whole page
Slicer visual → Field: Quarter → Format > Edit interactions → set Filter for all visuals on the page.

8) Show data labels in bar chart
Bar chart → Format → Data labels = On → adjust Number format/Display units.

9) Show Quarter trend in a line chart
To display quarters in correct order, create a calculated column:

DAX
Копировать

Редактировать
Quarter Order =
SWITCH(Sales_Interactive[Quarter],
    "Q1", 1, "Q2", 2, "Q3", 3, "Q4", 4, BLANK()
)
In the model, set Quarter to Sort by Column = Quarter Order.
Line chart → X-axis: Quarter, Values: [Total Sales].

10) Show Product details on hover (tooltip)
Basic tooltip measure:

DAX
Копировать
Редактировать
Tooltip Details =
"Product: " & SELECTEDVALUE(Sales_Interactive[Product]) &
UNICHAR(10) & "Quarter: " &
SELECTEDVALUE(Sales_Interactive[Quarter]) &
UNICHAR(10) & "Sales: " & FORMAT([Total Sales], "#,##0")
Create a tooltip page (Page information > Tooltip=On) and place [Tooltip Details] on it.
In the bar chart, Format > Tooltip: choose Report page and select your tooltip page.

11) Sync slicers across multiple pages
Select the slicer → View > Sync slicers → enable Sync and Visible for required pages.

12) Dynamic measure selection (Sales vs. Profit) — using table data
We'll calculate Profit from Sales (adding a margin parameter for easy use).

Create a What-If parameter (Profit Margin %) from 0%–100%, default 25%.
This creates the field Profit Margin %[Profit Margin % Value].

Measures:

DAX
Копировать
Редактировать
Profit =
[Total Sales] * 'Profit Margin %'[Profit Margin % Value]

-- Create a disconnected "Metric" table (Enter data):
-- MetricName: "Sales", "Profit"

```
Selected Metric Value =
VAR Metric = SELECTEDVALUE(Metric[MetricName], "Sales")
RETURN
   SWITCH(Metric,
      "Profit", [Profit],
      [Total Sales]  -- default Sales
   )
```
Use [Selected Metric Value] in cards or charts; add a slicer from Metric[MetricName].

13) Hierarchy: Region > Product > Quarter
In Fields pane, combine Region, Product, Quarter into a Hierarchy → Add hierarchy to Axis → Turn on Drill mode (down arrow).

14) Toggle two visuals in the same space with bookmarks
Create two states (e.g., Bar and Line):

Visual 1 On, Visual 2 Off → View > Bookmarks > Add (check Data and Current page).

Visual 1 Off, Visual 2 On → Add second bookmark.
Add buttons and set Action to each bookmark.

15) Optimize a slow page with 10+ visuals
Reduce unnecessary visuals; replace many cards with one Matrix or small multiples.

Data reduction: use Top N, Add data field to filters.

Use VAR to store complex calculations for reuse in a measure.

Pre-calculate heavy logic in Power Query (ETL).

Optimize the model: remove unused columns/high cardinality, avoid unnecessary bidirectional filters.

Extra useful DAX (with this table)
Region share (% of total):

DAX
Копировать
Редактировать
```
Sales % of Total =
DIVIDE([Total Sales], CALCULATE([Total Sales],
ALL(Sales_Interactive)))
```

Quarterly cumulative sales:

DAX
Копировать
Редактировать
```
Cumulative Sales =
VAR qOrder = MAX(Sales_Interactive[Quarter Order])
RETURN
CALCULATE(
    [Total Sales],
    FILTER(ALLSELECTED(Sales_Interactive[Quarter Order]),
        Sales_Interactive[Quarter Order] <= qOrder)
)
```