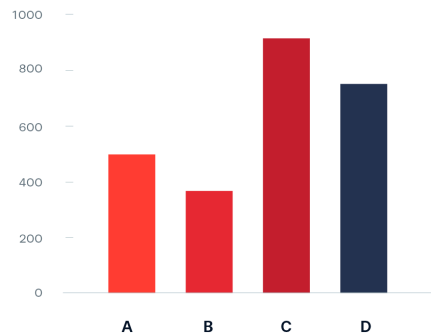
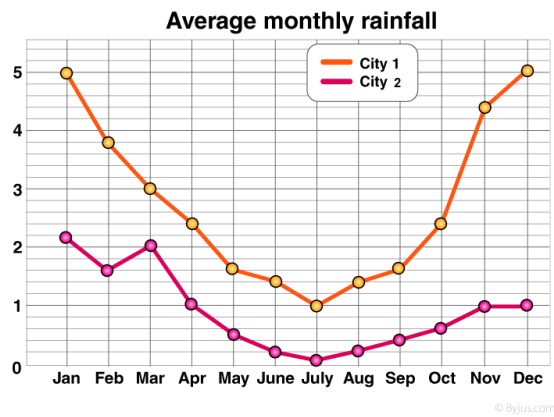

1. Name three types of visuals you can create in Power BI.

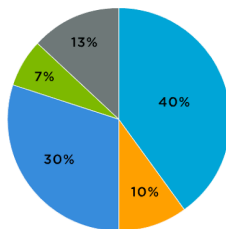
- Bar Chart



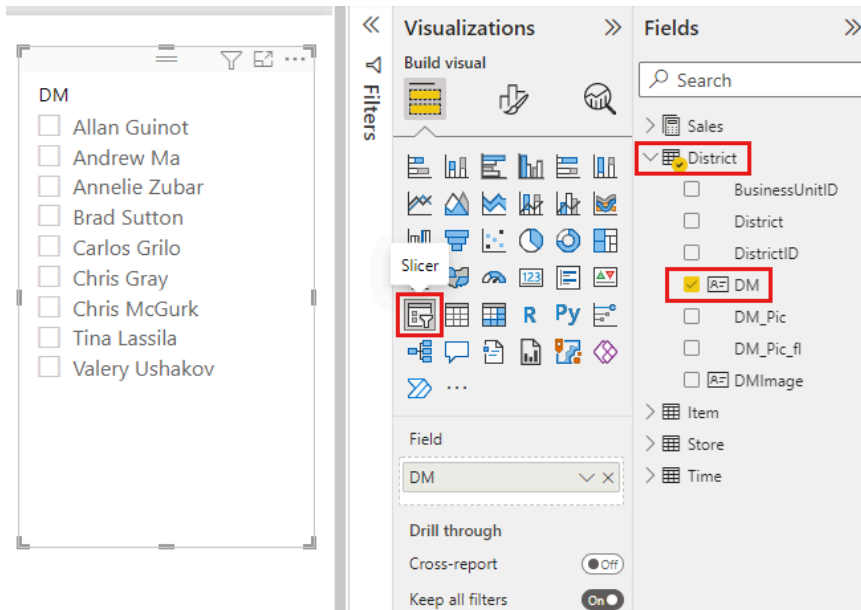
- Line Chart



- Pie Chart



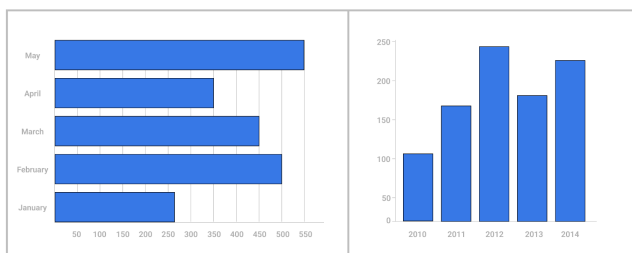
2. How do you add a slicer to a report?



- Go to the **Visualizations** pane, click on the **Slicer** icon.
- Drag a field (e.g., **Quarter**) into the slicer's **Field well**.
- The slicer will filter other visuals based on selected values.

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

Bar Graph and Column Graph Pose Great Data Presentation



- **Bar Chart:** Displays data **horizontally** (categories on the Y-axis).
 - **Column Chart:** Displays data **vertically** (categories on the X-axis).
-

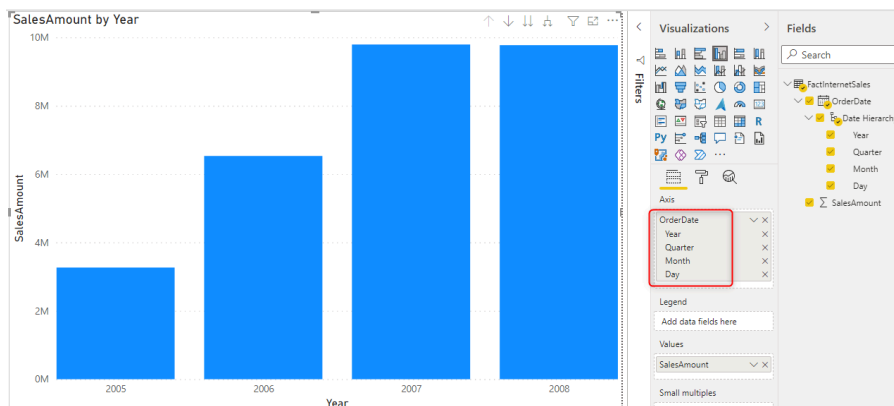
4. How do you change the color of a visual background?

- Select the visual.
- In the **Visualizations** pane, go to the **Format** tab (paint roller icon).
- Expand **"Background"**, turn it on, choose your desired **color**.

The image shows a table with three columns: Manufacturer, Sales \$, and Total Units. The table has alternating orange and blue rows. To the right of the table are two panels for formatting. The 'Column headers' panel shows options for text, font (Segoe UI, size 8), bold, italic, underline, text color (black), and background color (red). The 'Values' panel shows options for text, font (Segoe UI, size 8), bold, italic, underline, text color (black), background color (orange), alternate text color (black), alternate background color (blue), and text wrap (off).

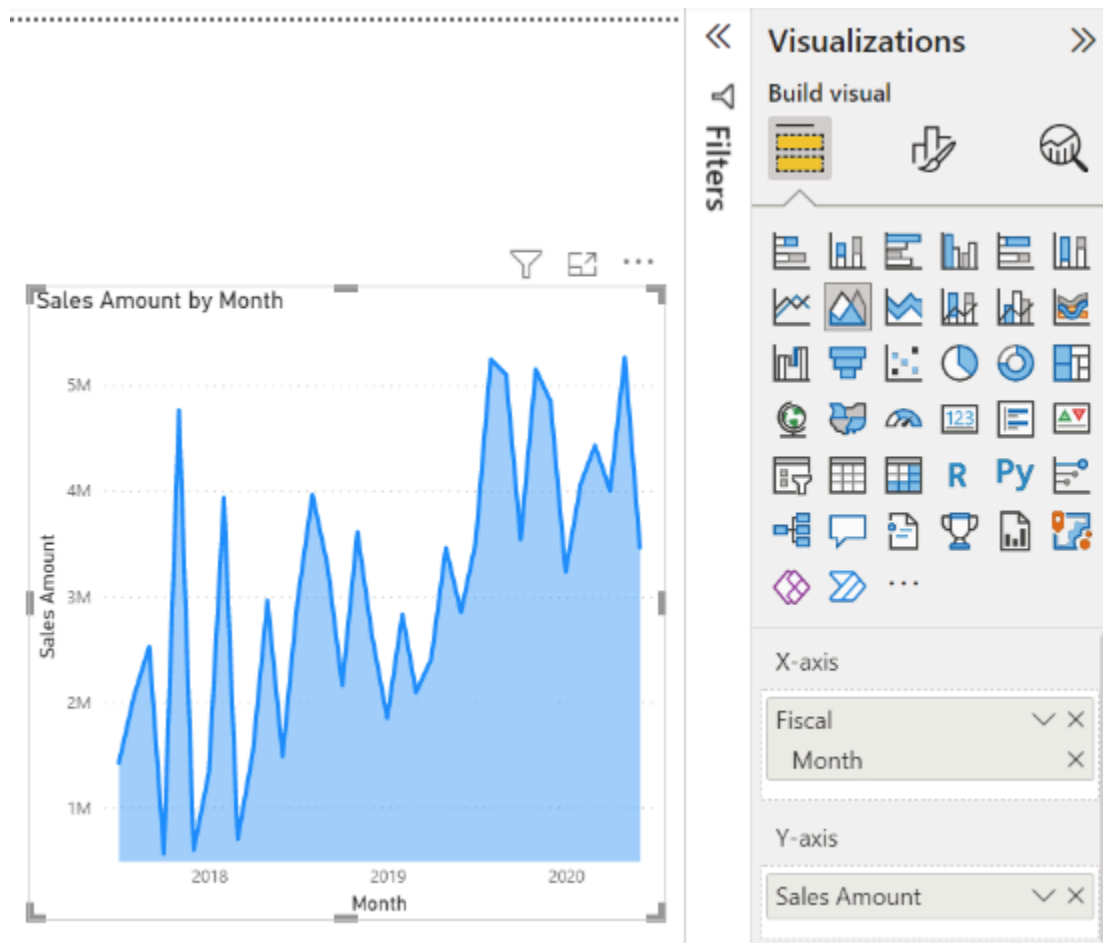
Manufacturer	Sales \$	Total Units
VanArsdel	\$3,051,157,509	297,606
Natura	\$1,263,093,451	363,789
Aliqui	\$829,176,159	243,746
Curus	\$583,361,169	134,690
Pirum	\$558,489,013	143,801
Abbas	\$176,647,835	19,026
Quibus	\$173,725,443	42,876
Fama	\$88,824,676	10,113
Leo	\$85,720,374	7,859
Victoria	\$75,035,666	11,998
Barba	\$57,150,048	4,041
Pomum	\$56,201,032	15,646
Total	\$7,024,409,825	1,299,599

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



- **Drill-down** allows users to click on a visual element (e.g., region) and **explore deeper levels** of hierarchical data (e.g., product, then quarter).

6. Create a bar chart showing SalesAmount by Region.



- Insert a **Bar Chart**.
- Drag **Region** to the **Axis**, and **SalesAmount** to the **Values** field.

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

- Insert a **Slicer**.
- Drag **Quarter** into the slicer's field well.
- Ensure slicer affects all visuals (default behavior, or check with **Edit Interactions**).

8. Format the bar chart to show data labels.

- Select the bar chart.
- In the **Format pane**, turn on **Data Labels** under the corresponding section.

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

- Insert a **Line Chart**.
 - Drag **Quarter** to the **X-axis**, and **SalesAmount** to the **Values**.
-

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

- Select your **Bar Chart**.
 - Drag **Product** to the **Tooltips** field well in the visual.
-

11. Sync slicers across multiple report pages.

- Select the slicer.
 - Go to the **View** tab → click **Sync Slicers**.
 - In the **Sync Slicer pane**, select the pages where you want it synced and shown.
-

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

- Create a **parameter table** with values like "Sales" and "Profit".
- Create a **measure**:

```
SelectedMetric =  
SWITCH (  
    SELECTEDVALUE(MetricSelector[Metric]),  
    "Sales", SUM(Sales[SalesAmount]),  
    "Profit", SUM(Sales[Profit]),  
    BLANK()  
)
```

- Use this measure in your visual, and control it via a slicer.
-

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

- In Fields pane:
 - Drag **Product** under **Region**, then drag **Quarter** under **Product** to form a hierarchy.
 - Add the hierarchy to a visual (e.g., bar chart).
 - Use the **drill icons** (↓ or double arrow) in the top-right of the visual to enable drill.
-

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

- Place both visuals in the same area (one visible, one hidden).
 - Go to **View** → **Bookmarks Pane**.
 - Create **two bookmarks**:
 - One showing Visual A (hide Visual B).
 - One showing Visual B (hide Visual A).
 - Add **buttons** to toggle using those bookmarks.
-

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

- **Recommendations**:
 - **Limit visuals per page** (Power BI suggests < 8).
 - Use **summary tables** instead of detailed ones.
 - Reduce use of **high-cardinality fields** in slicers.
 - Use **performance analyzer** (View tab) to identify slow visuals.
 - **Disable interactions** where not needed.
 - Apply **query reduction** techniques in slicers (e.g., "Apply button").
-