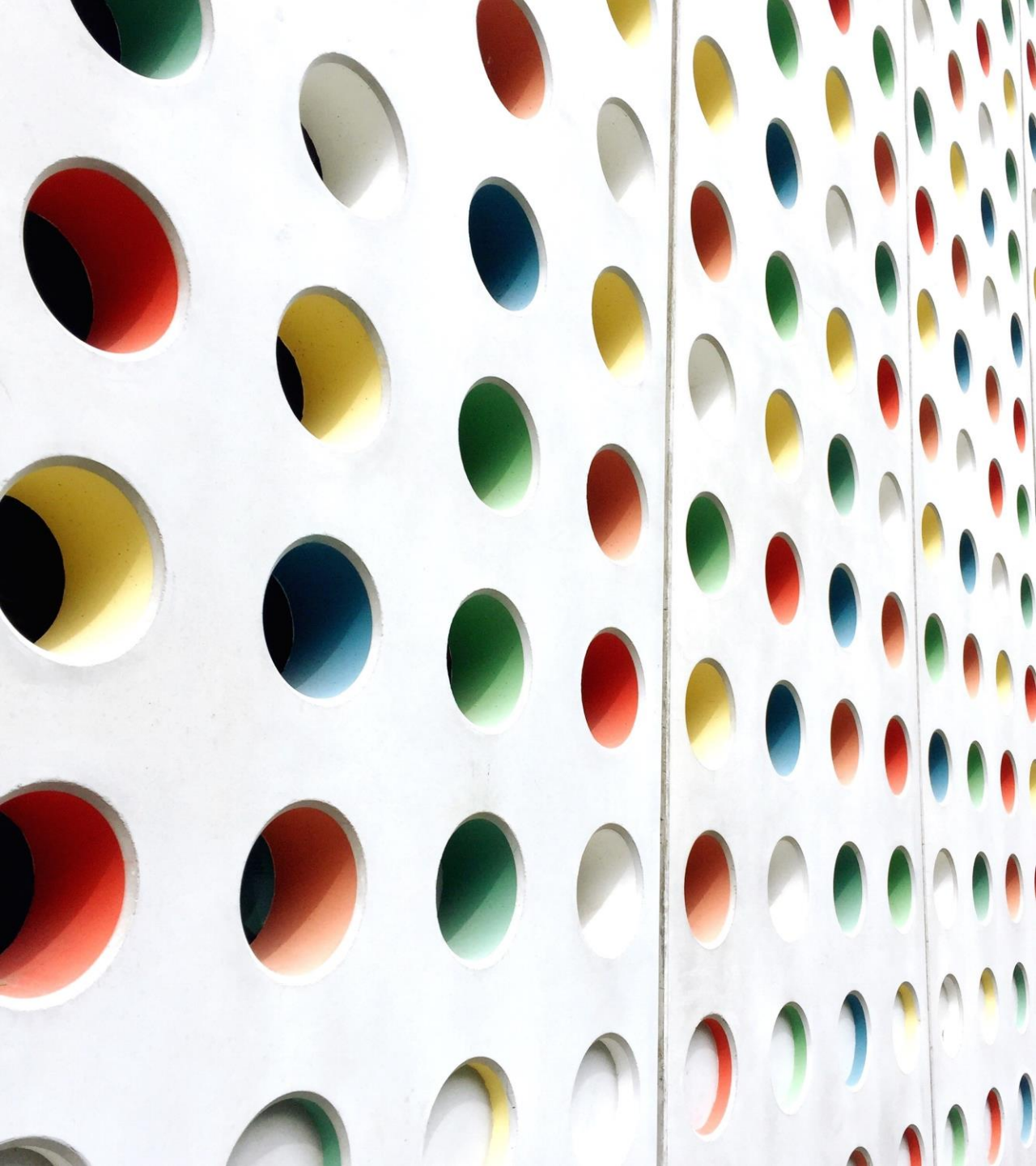




Data Visualization

BM 4419

BUSINESS ANALYTICS

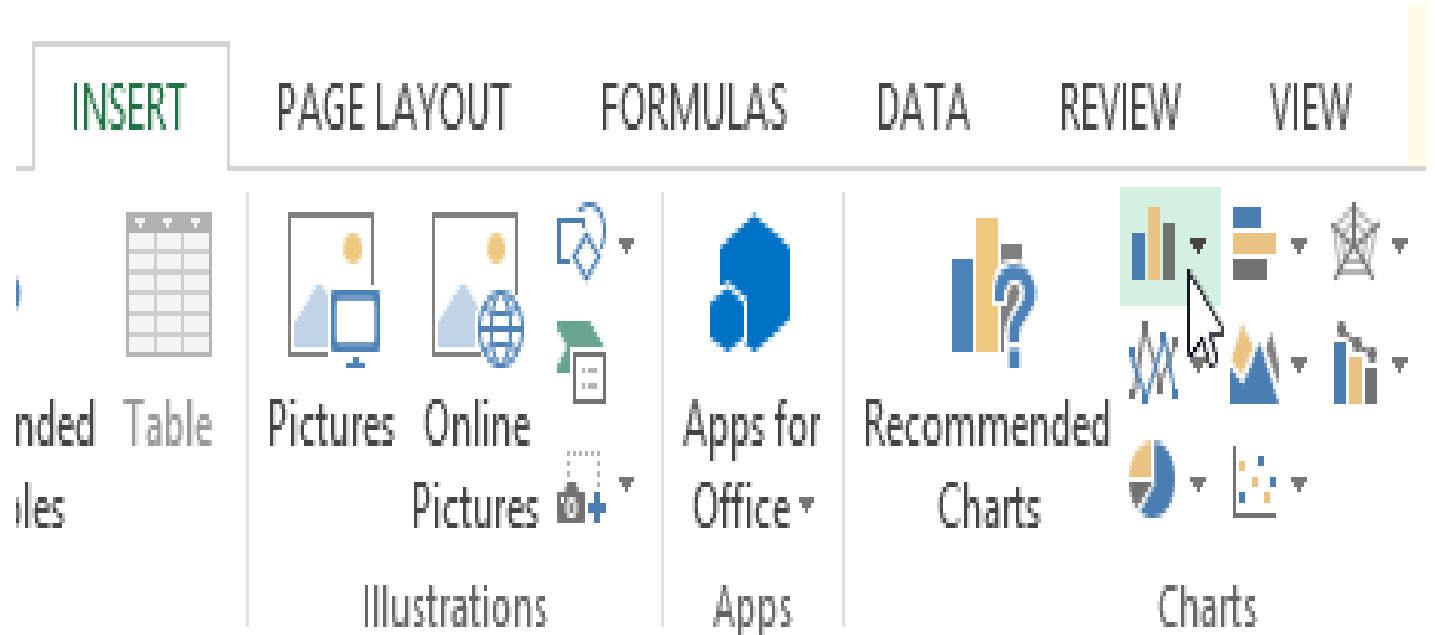


Create Microsoft Excel Charts

- ❖ Create a Chart
- ❖ Modify a Chart
- ❖ Chart Tools
- ❖ Copy a Chart to Word

Create a Chart

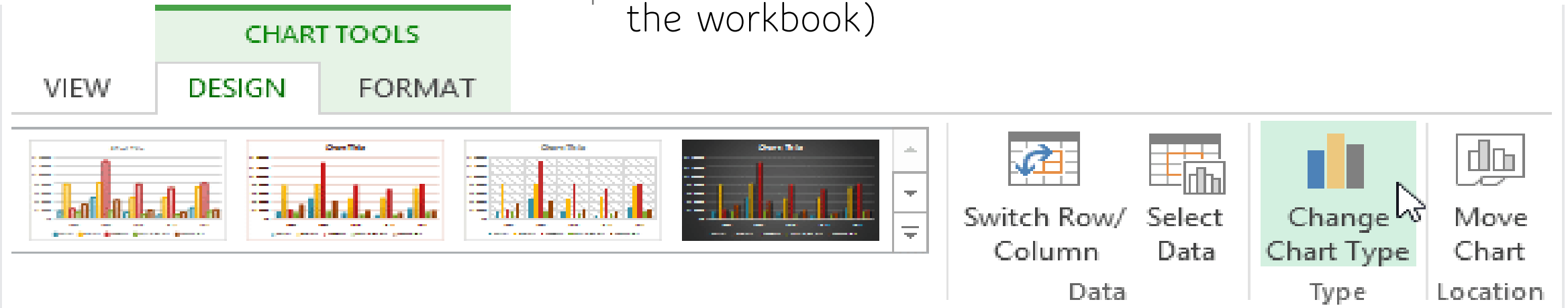
- To create a chart:
- Select the cells
- Click the **Insert** tab on the Ribbon
- Click the type of **Chart** you want to create



Modify a Chart

To move the chart:

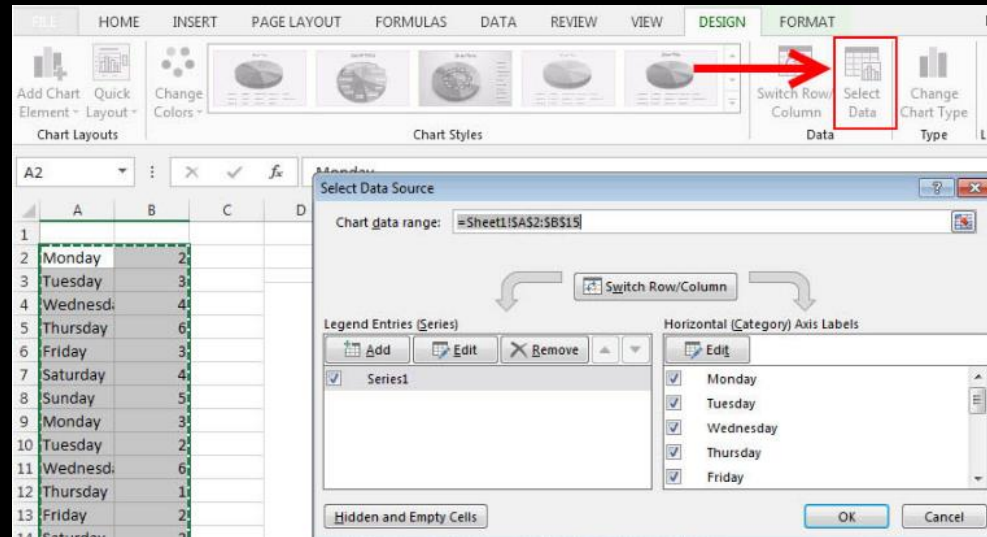
Click the **Chart** and **Drag** it another location on the same worksheet, or Click the **Move Chart** button on the **Design** tab → Choose the desired location (either a new sheet or a current sheet in the workbook)



To change the **Chart Type** of the chart:

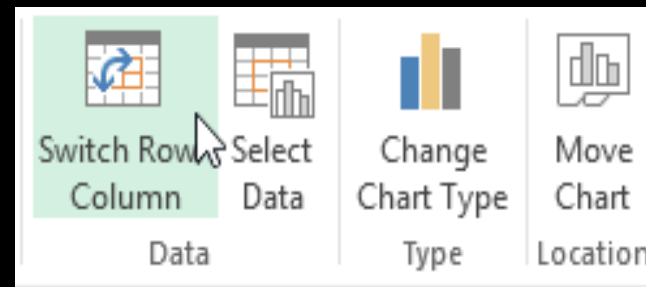
- Click the **Chart**
- Click the **Change Chart Type** button on the **Design** tab

To change the data included in the chart:
Click the **Chart**
Click the **Select Data**
button on the **Design** tab



To reverse which data are displayed in the rows and columns:

- Click the **Chart**
- Click the **Switch Row/Column** button on the **Design** tab



To modify the labels and titles:

- Click the **Add Chart Element**
- On the **Design** tab, click the **Chart Title** or the **Data Labels** button
- Change the **Title** and click **Enter**

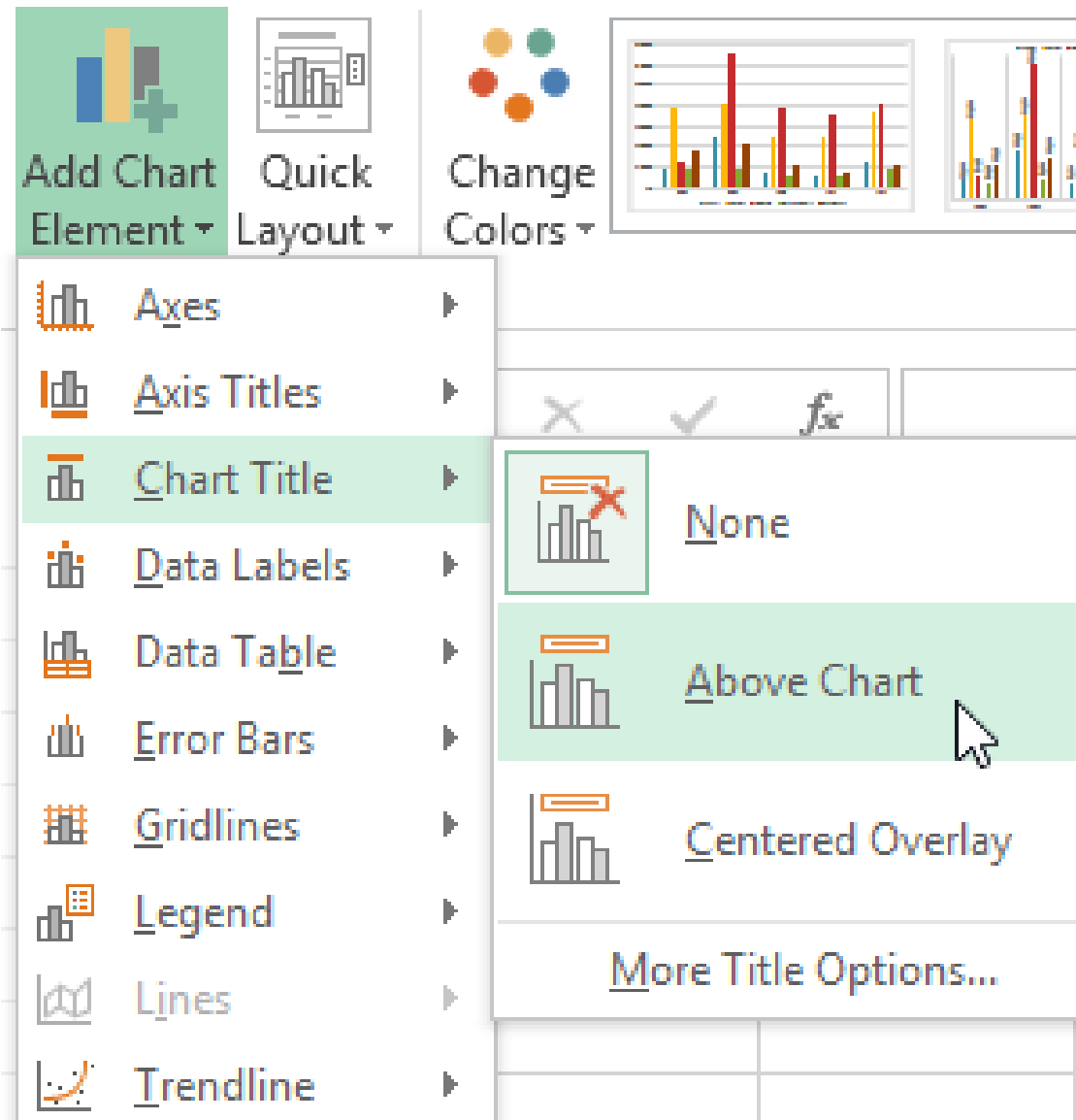




Chart Tools

The Chart Tools appear on the Ribbon when you click on the chart. The tools are located on **Design** tab/ribbon.



How do you choose an appropriate chart for data Visualisation?

Step 1: Determine the Type of Data

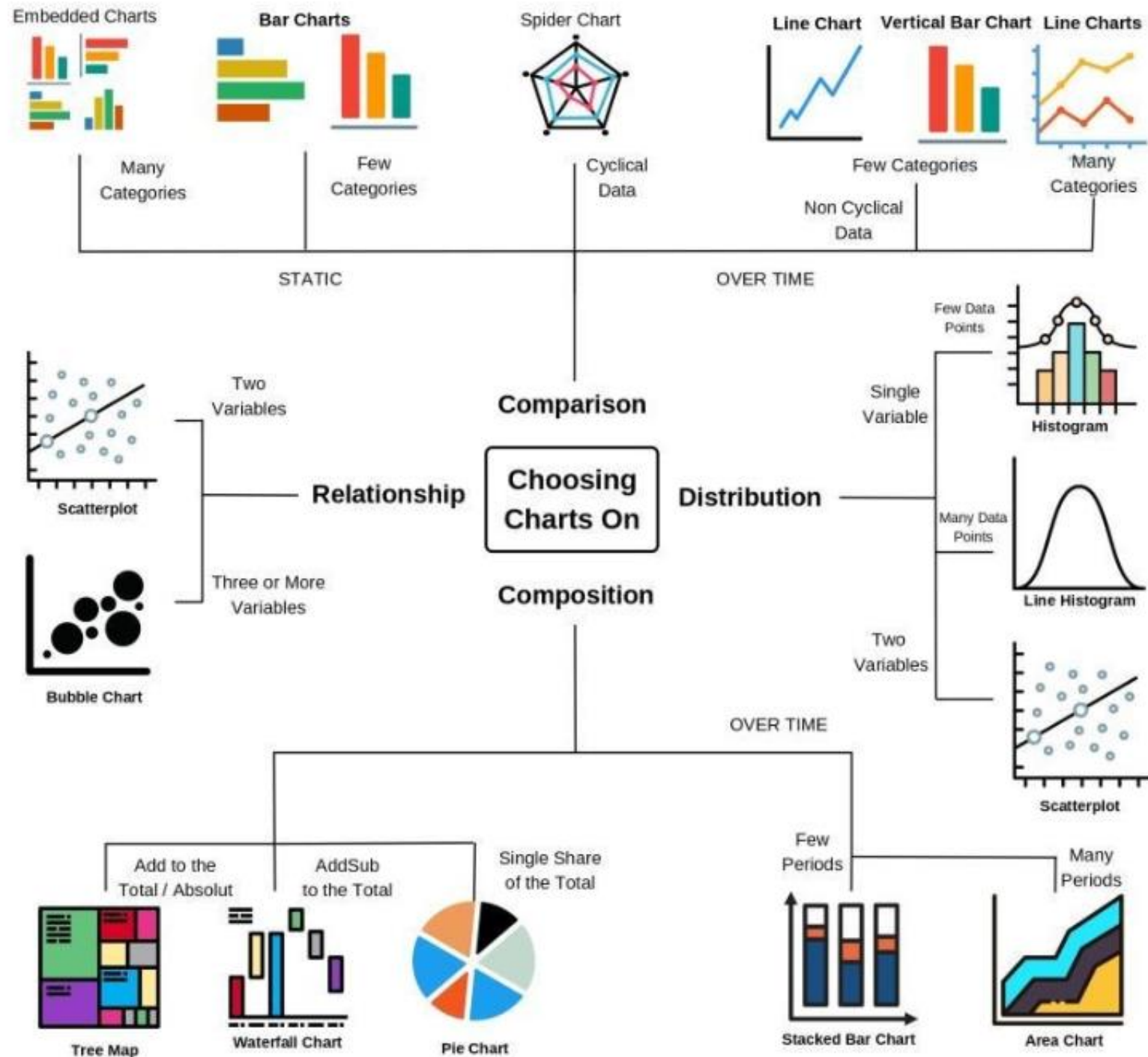
Step 2: Identify the Relationship Between Variables

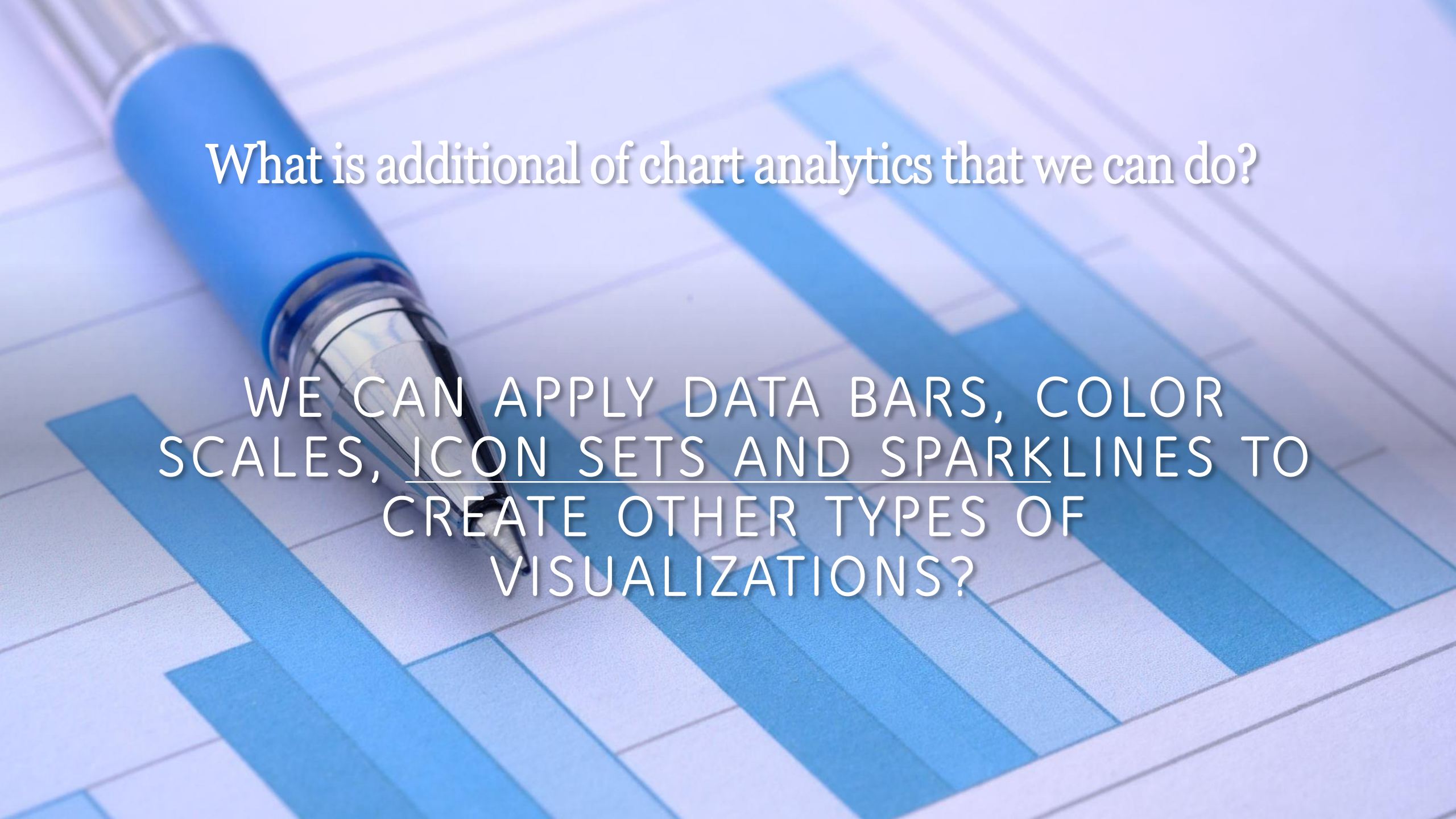
Step 3: Determine the Purpose of Visualization

Step 4: Identify the Audience

Step 5: Select the Appropriate Chart Type

Overview of Charts to Be Chosen



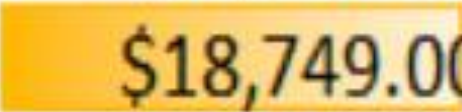
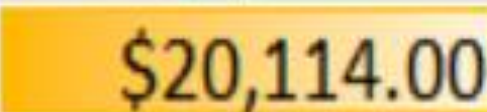
A blue pen with a silver tip is positioned diagonally across the frame, resting on a document. The document features a bar chart with several blue bars of varying heights. The background is a light blue and white grid pattern.

What is additional of chart analytics that we can do?

WE CAN APPLY DATA BARS, COLOR
SCALES, ICON SETS AND SPARKLINES TO
CREATE OTHER TYPES OF
VISUALIZATIONS?

Data Bars

Data Bars are horizontal bars added to each cell, much like a **bar graph**.

 \$3,863.00 	\$1,117.00	 \$8,237.00	 \$8,690.00
 \$9,355.00 	\$1,100.00	 \$10,185.00	 \$18,749.00
 \$6,702.00 	\$2,116.00	 \$13,452.00	 \$8,046.00
 \$4,415.00 	\$1,089.00	 \$4,404.00	 \$20,114.00

Functions of Color Scales

Color Scales change the color of each cell based on its value. Each color scale uses a two- or three-color gradient. For example, in the Green-Yellow-Red color scale, the highest values are green, the average values are yellow, and the lowest values are red.

\$3,863.00	\$1,117.00	\$8,237.00	\$8,690.00
\$9,355.00	\$1,100.00	\$10,185.00	\$18,749.00
\$6,702.00	\$2,116.00	\$13,452.00	\$8,046.00
\$4,415.00	\$1,089.00	\$4,404.00	\$20,114.00

Icon Sets Skills

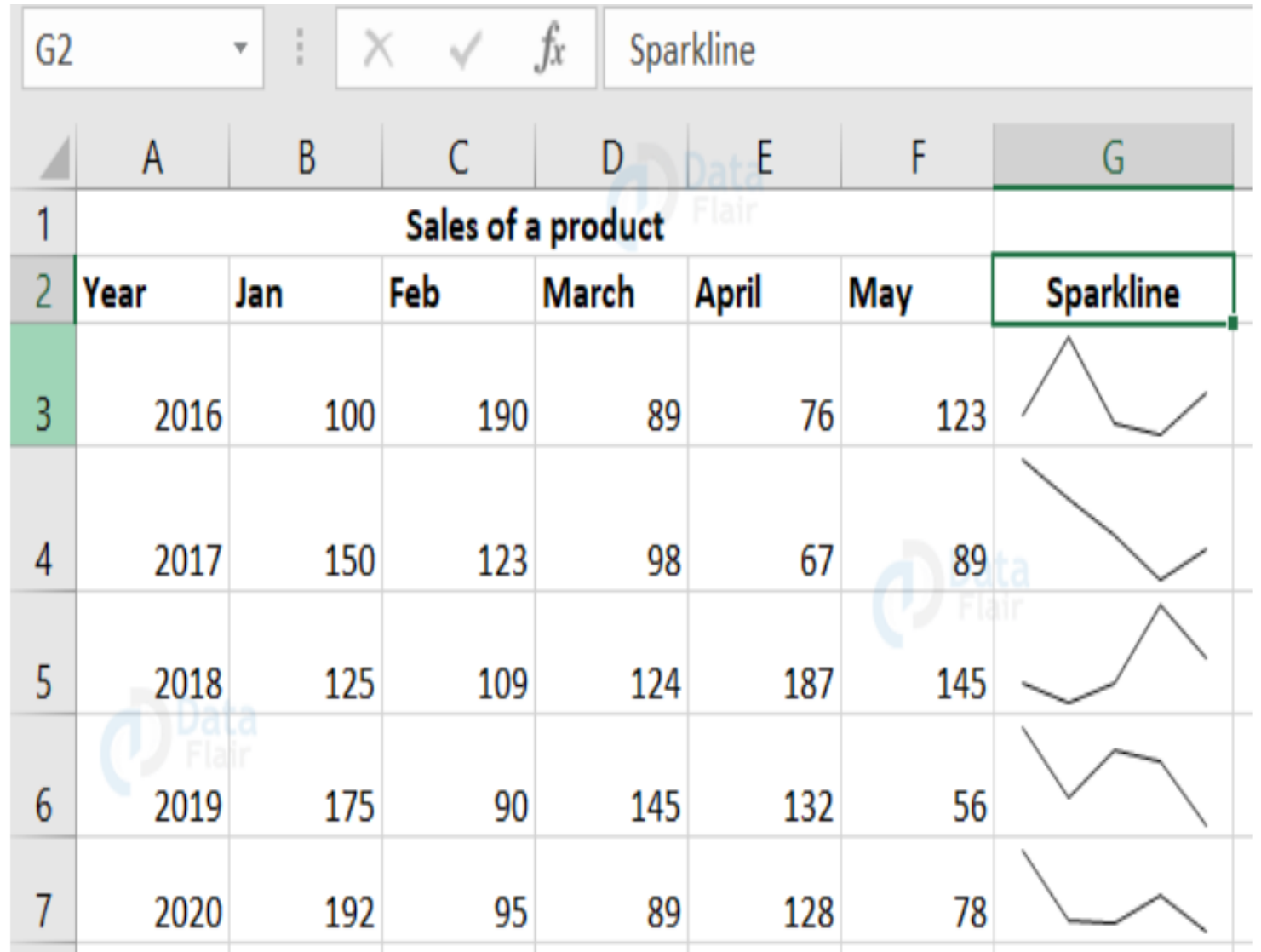
Icon Sets add a specific icon to each cell based on its value.

▼ \$3,863.00	▼ \$1,117.00	▬ \$8,237.00	▬ \$8,690.00
▬ \$9,355.00	▼ \$1,100.00	▬ \$10,185.00	▲ \$18,749.00
▼ \$6,702.00	▼ \$2,116.00	▬ \$13,452.00	▬ \$8,046.00
▼ \$4,415.00	▼ \$1,089.00	▼ \$4,404.00	▲ \$20,114.00

May2024 _HK

SPARKLINES

- ❖ Sparkline is one of the common visualization techniques used in dashboards to picture a particular portion from a huge dataset.
- ❖ In sparkline, you can quickly see the relationship of the data.





Self-Challenge

Click the **Challenge** worksheet tab in the bottom-left of the workbook.

Select cells **B3:J17**.

Let's say you're the teacher and want to easily see all of the grades that are below passing. Apply **Conditional Formatting** so it **Highlights Cells** containing values **Less Than 70** with a **light red fill**.

Now you want to see how the grades compare to each other. Under the **Conditional Formatting** tab, select the **Icon Set** called **3 Symbols (Circled)**. **Hint:** The names of the icon sets will appear when you hover over them.

How to Develop useful dashboards for communication data and information.

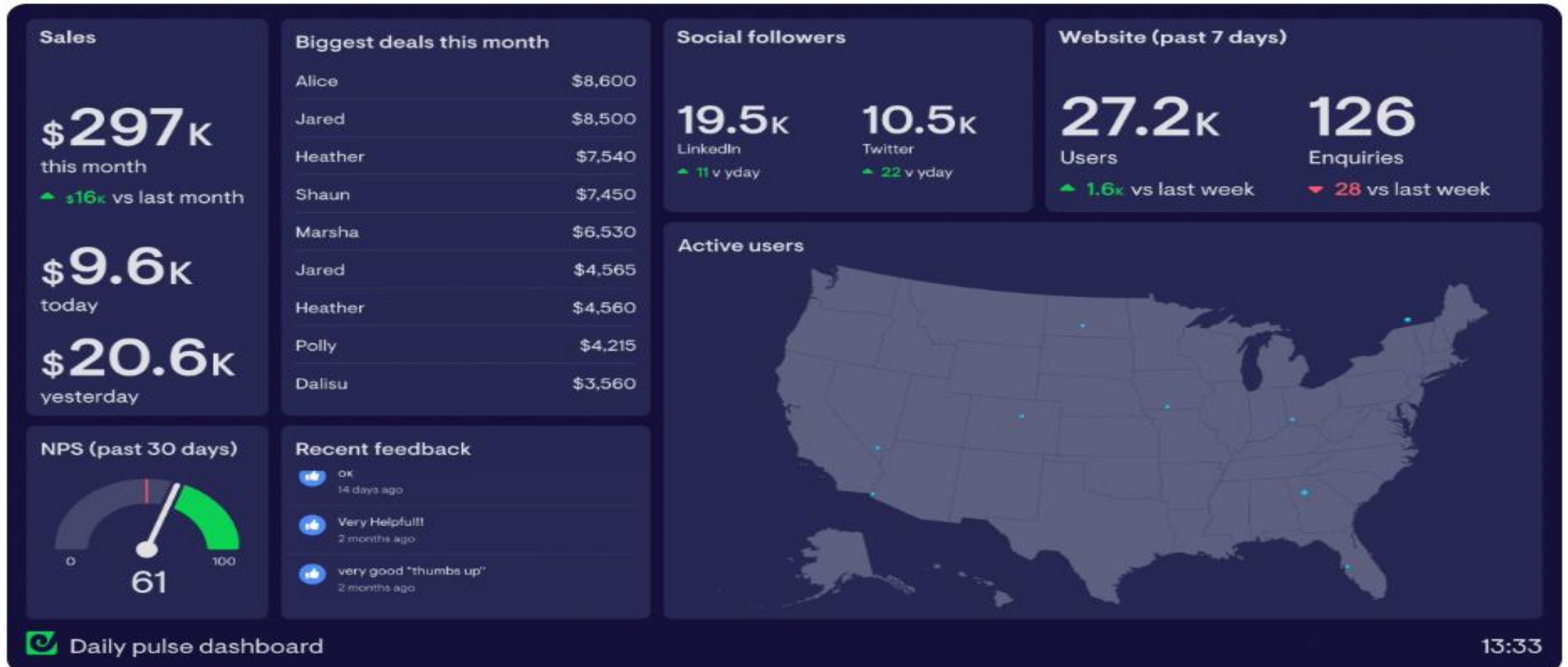
- ❖ Dashboards enable users to visualize their most important Excel data.
- ❖ Because the dashboard is live, it ensures that important information is seen before it's out of date.

Examples of an Excel dashboard

1. [Company KPI dashboard](#)
2. [Sales dashboard](#)
3. [Finance dashboard](#)

May2024 _HK

Example: Company Executive Dashboard





SALES DASHBOARD

Finance dashboard

