Power BI

When building visual reports in Power BI, each chart type has unique strengths that can help convey data in specific ways. Selecting the best chart depends on the story you want to tell and the data you’re working with.

**1. Bar and Column Charts**

* **Column Chart**: Vertical bars representing categories; useful for comparing fewer categories (under 15).
* **Bar Chart**: Horizontal bars that are easier to read when categories have long labels or there are many categories.
* **Clustered Bar/Column Chart**: Side-by-side bars for each category, allowing comparison between groups.
* **Stacked Bar/Column Chart**: Bars stacked on each other, showing both individual quantities and total combined values.
* **100% Stacked Bar/Column Chart**: Normalizes data to show percentages for comparison.
* **When to Use**: Compare values among categories (e.g., sales by region, expenses by department).

**2. Pie and Donut Charts**

* **Pie Chart**: Divides a circle into slices, where each slice represents a category’s proportion relative to the whole.
* **Donut Chart**: Similar to a pie chart but with a center cut-out, providing space for a total or another metric in the center.
* **When to Use**: Only for a few categories with distinct differences; otherwise, the slices can become too small and hard to interpret.
* **Best Practice**: Avoid using too many categories and consider alternatives (e.g., bar charts) for more detailed or numerous categories.

**3. Map Visualizations**

* **Basic Map**: Plots data on geographic locations with bubble sizes reflecting metric values.
* **Filled Map**: Uses color intensity within regions (countries, states) to indicate values.
* **Shape Map**: A custom map that can highlight specific boundaries (e.g., custom sales regions).
* **Use Case**: Great for visualizing data tied to locations, such as sales by country or store performance by city.
* **Example**: Store sales by city, customer distribution by state.

**4. Table and Matrix**

* **Table**: Presents raw data in rows and columns, useful for details where exact figures are important.
* **Matrix**: Adds hierarchical categories to columns and rows, similar to pivot tables in Excel.
* **Use Case**: Best for showing detailed breakdowns and summaries.
* **Example**: Sales data by product and region, with monthly totals and subtotals.

**5. Combo Chart (Line and Column)**

* **Description**: Combines a column chart with a line chart, helping to visualize two different metrics together.
* **Use Case**: Helpful for showing both absolute values (e.g., sales) and percentage growth or target (e.g., profit margin) on the same graph.
* **Example**: Monthly revenue with sales targets represented by the line.

**6. Line Chart**

* **Description**: A line chart plots data points along a continuous line, making it ideal for time series or other sequential data.
* **Highlighting Trends**: Great for showing rising or falling trends, seasonality, and spikes over time.
* **Customizations**: You can add multiple lines to show different variables and customize with markers for specific points (e.g., peaks).
* **Example**: Monthly revenue over a year, website traffic over weeks.

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* **Example**: Monthly revenue with sales targets represented by the line.