

Chapter-12 Creating a Stacked Bar Chart in Power BI

A **Stacked Bar Chart** in Power BI is used to represent the composition of multiple categories in a single bar. It is ideal for showing part-to-whole relationships within a category, where each bar represents a total and the individual segments within the bar represent different subcategories.

When to Use a Stacked Bar Chart

1. **Visualizing Part-to-Whole Relationships**
 - Show how different components (subcategories) contribute to the total.
 2. **Comparing Categories with Multiple Subcategories**
 - Compare multiple categories and see how different subcomponents vary across them.
 3. **Highlighting Trends Across Multiple Groups**
 - Display changes in the composition of data over time or across different categories.
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Types of Stacked Bar Charts in Power BI

1. **Stacked Bar Chart**
 - Each bar is divided into segments representing different subcategories.
 2. **100% Stacked Bar Chart**
 - Each bar represents 100% of the total, with segments showing the percentage contribution of each subcategory.
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Steps to Create a Stacked Bar Chart in Power BI

1. **Import or Load Data**
 - Load your dataset into Power BI.
2. **Navigate to Report View**
 - Go to the **Report** view to create your visualizations.
3. **Add a Stacked Bar Chart**
 - In the **Visualizations** pane, select the **Stacked Bar Chart** icon.
4. **Assign Data Fields**
 - Drag and drop fields from the Fields pane into the chart's data slots:
 - **Axis:** Add the field that represents the categories (e.g., **Region, Product**).

- **Legend:** Add the field that represents the subcategories (e.g., **Year, Product Type**).
- **Values:** Add the numeric field that will be divided into segments (e.g., **Sales, Revenue**).

5. Customize the Chart

- Use the **Format** pane to adjust the chart's appearance:
 - **Data Colors:** Change the colors of the segments to make them distinguishable.
 - **X-Axis and Y-Axis:** Customize axis titles, labels, and scales.
 - **Data Labels:** Display data labels on each segment to show values.
 - **Title:** Update the chart title for clarity.

6. Filter and Interact

- Use slicers, filters, or cross-filtering to refine the data displayed in the chart.
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Example: Analyzing Sales by Region and Product Type

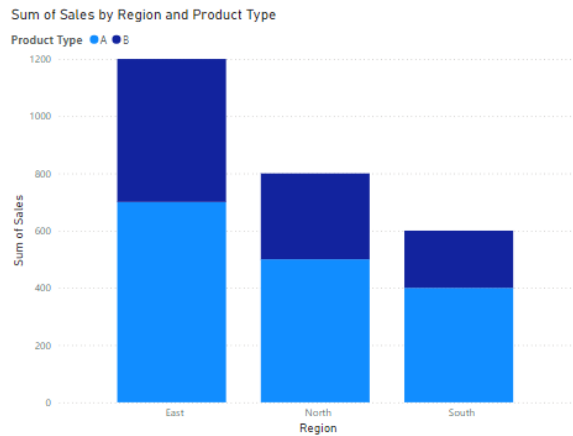
Dataset:

Region	Product Type	Sales
North	A	500
South	A	400
North	B	300
South	B	200
East	A	700
East	B	500

Steps:

1. Add a **Stacked Bar Chart** to the report canvas.
2. Drag **Region** to the **Axis** field.
3. Drag **Product Type** to the **Legend** field.
4. Drag **Sales** to the **Values** field.
5. Format the chart:
 - Assign different colors to **Product Type A** and **Product Type B**.
 - Enable **Data Labels** to display the sales values on each segment.

Result:

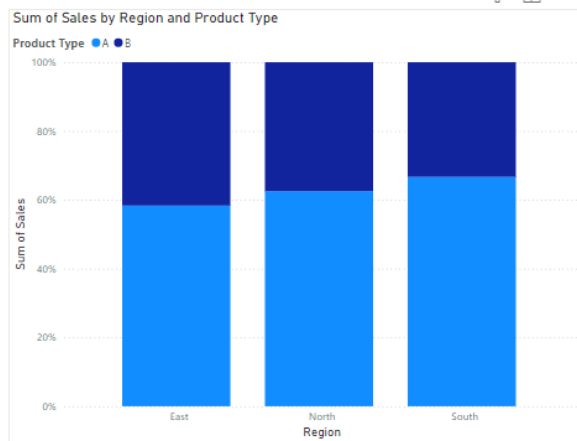


- A stacked bar chart where each bar represents a region, and the segments show the sales for **Product Type A** and **Product Type B**. The length of the bar shows total sales for the region, with segments indicating the contribution of each product type.
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Best Practices for Stacked Bar Charts

1. **Limit the Number of Subcategories**
 - Too many segments in a bar can lead to a cluttered chart. Aim for 3–4 subcategories for clarity.
 2. **Use Distinct Colors**
 - Use contrasting colors for each segment to make them easily distinguishable.
 3. **Label Segments Clearly**
 - Add data labels to each segment to make the chart self-explanatory.
 4. **Use 100% Stacked Bar Charts for Proportions**
 - If you want to show the relative percentage contribution of each subcategory, use a **100% stacked bar chart**.
 5. **Sort Data**
 - Sort the data based on the total value of the bars or the individual segment to make comparisons easier.
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Advanced: Using 100% Stacked Bar Charts



If you want to compare the percentage distribution of segments across categories, use the **100% Stacked Bar Chart**:

1. Select the **100% Stacked Bar Chart** from the Visualizations pane.
2. Follow the same steps as for the regular stacked bar chart.
3. The chart will automatically normalize the values, showing each bar as 100% with the individual segment proportions.