

Chapter-14 Conditional Formatting in Power BI Data Charts

Conditional formatting in Power BI allows you to apply formatting rules (such as color changes, data bars, or font styles) based on the values in your data. This enhances your charts and tables, making it easier to highlight trends, outliers, or specific data points that are important for analysis. Conditional formatting can be applied to both **visuals** (like charts) and **tables**.

When to Use Conditional Formatting

1. **Highlighting Key Values**
 - Use it to emphasize high, low, or average values in your data.
 2. **Displaying Trends**
 - Show variations in data over time, like profits, sales growth, etc., by using colors.
 3. **Making Outliers Stand Out**
 - Quickly draw attention to outliers in your dataset (e.g., unusually high or low values).
 4. **Improving Data Readability**
 - Conditional formatting makes charts more intuitive by assigning meaning to different values through colors or patterns.
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Types of Conditional Formatting in Power BI

1. **Color Scales**
 - Color changes based on the values, using a gradient of colors (e.g., from red to green).
 2. **Data Bars**
 - Show a bar in each data point to visually represent its magnitude.
 3. **Font Color & Background Color**
 - Change the font or background color based on data values (e.g., red text for negative numbers).
 4. **Icons**
 - Use icons (e.g., arrows, traffic lights) to represent values, such as showing up/down for growth or decline.
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Steps to Apply Conditional Formatting in Power BI

Conditional Formatting for Bar or Column Charts

1. **Add a Chart**
 - Create your chart (e.g., bar chart, column chart) by dragging fields into the chart.
2. **Select the Chart**
 - Click on the chart to select it.
3. **Go to the Format Pane**
 - Open the **Format** pane by clicking the paint roller icon in the Visualizations pane.
4. **Apply Conditional Formatting**
 - Expand the **Data colors** section.
 - Click on the **Advanced controls** button (three dots or the dropdown icon).
 - Choose the field on which to apply conditional formatting.
5. **Choose Formatting Type**
 - You can apply one of the following:
 - **Color Scale:** Choose a color gradient (e.g., from light green to dark red) to show high and low values.
 - **Rules:** Set custom rules to assign specific colors based on thresholds (e.g., sales > \$1000 = green, sales < \$500 = red).
6. **Customize the Formatting**
 - For color scales, set the **minimum** and **maximum** values.
 - For rules, set the conditions under which specific colors will apply.

Conditional Formatting for Tables

1. **Create a Table**
 - Add a **Table** visual to your report and assign your fields.
 2. **Apply Conditional Formatting**
 - Select the table and go to the **Format** pane.
 - Under **Conditional formatting**, select the field to apply formatting.
 - Choose from **Background color**, **Font color**, **Data bars**, or **Icons**.
 3. **Choose Formatting Rules**
 - For **Background color** or **Font color**, select a **Color scale** or **Rules**.
 - For **Data bars**, you can specify how the bars should appear in the table (e.g., by value).
 - For **Icons**, select icons based on value thresholds (e.g., green check for positive numbers, red cross for negative).
 4. **Apply and Adjust**
 - Customize the formatting as required to reflect meaningful patterns in the data.
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Example 1: Conditional Formatting for a Column Chart

Scenario:

You want to apply conditional formatting to a **Sales** column chart to make higher sales values appear green and lower sales values appear red.

1. Create a **Clustered Column Chart** with **Sales** on the Y-axis and **Product Category** on the X-axis.
2. In the **Format** pane, click on **Data colors**.
3. Click on **Advanced controls** and select **Color scale**.
4. Set the **Minimum value** to red and **Maximum value** to green.
5. Set the scale range for the **Sales** values (e.g., 0 to 100,000).

This will color the bars in the chart, with the red color representing low sales and green indicating high sales.

Example 2: Conditional Formatting in a Table

Scenario:

You want to apply conditional formatting to a **Profit** field in a table to highlight positive profits in green and negative profits in red.

1. Add a **Table** visual with **Region**, **Product**, **Sales**, and **Profit** fields.
2. Go to the **Format** pane, under **Conditional formatting**.
3. Choose **Profit** and click on **Background color**.
4. Set the formatting type to **Color scale**.
5. Set the **Minimum value** to red (for negative profit) and **Maximum value** to green (for positive profit).
6. You can also apply **Font color** or use **Icons** to show arrows indicating profit trends.

This will make positive profit values appear in green and negative profit values in red, making it easy to visually identify regions with good or poor performance.
