Chapter-14 Working with Conditional Formatting in MS Excel

Conditional Formatting in Microsoft Excel allows you to automatically apply formatting (such as colors, fonts, or icons) to cells based on their values or formulas. This feature helps visually highlight data, making it easier to analyze and interpret patterns, trends, or key information.

Here's a guide to working with **Conditional Formatting** in MS Excel:

1. Basic Steps for Applying Conditional Formatting

1. **Select the Range of Cells**:
   - Click and drag to select the range where you want to apply conditional formatting.
2. **Open Conditional Formatting**:
   - Go to the **Home** tab on the Excel ribbon.
   - In the **Styles** group, click on **Conditional Formatting**.
3. **Choose a Rule Type**:
   - You can apply a range of predefined rules or create your own custom rule.

---

2. Types of Conditional Formatting Rules

Predefined Conditional Formatting Rules

Excel offers several built-in conditional formatting rules, including:

1. **Highlight Cells Rules**:
   - **Greater Than**: Format cells with values greater than a specific number.
   - **Less Than**: Format cells with values less than a specified number.
   - **Between**: Format cells with values between two numbers.
   - **Equal To**: Format cells that are equal to a specific number or text.
   - **Text that Contains**: Format cells that contain specific text.
   - **A Date Occurring**: Format cells containing dates that are today, tomorrow, last week, next month, etc.
   - **Duplicate Values**: Highlight duplicate or unique values in a range.
2. **Top/Bottom Rules**:
   - **Top 10 Items**: Highlight the top 10 values in a range.
   - **Top 10%**: Highlight the top 10% of values.
   - **Bottom 10 Items**: Highlight the bottom 10 values in a range.
   - **Bottom 10%**: Highlight the bottom 10% of values.
   - **Above Average**: Format cells above the average value.

    - **Below Average**: Format cells below the average value.
3. **Data Bars**:
    - Data bars visually represent the values in a range with horizontal bars inside each cell. The longer the bar, the higher the value.
4. **Color Scales**:
    - Color scales apply a gradient of colors to cells. This makes it easy to see where values fall within a range. You can apply a 2-color or 3-color scale (e.g., red for low, yellow for medium, green for high values).
5. **Icon Sets**:
    - Icon sets allow you to assign different icons (such as arrows, traffic lights, or flags) based on the values of cells. This is useful for visualizing data in categories like performance (up, down, or no change).

Creating Custom Conditional Formatting with Formulas

You can create more advanced rules by using a formula. To do this:

1. **Select the cells** you want to format.
2. In the **Conditional Formatting** menu, click **New Rule**.
3. Select **Use a formula to determine which cells to format**.
4. Enter your formula in the formula box.
5. Choose the format (color, font, etc.) to apply when the condition is met.

Example formulas:

- Highlight cells greater than 100:
  `=A1>100`
- Highlight cells in a column based on a condition in another column (e.g., if the value in column B is "North"):
  `=B1="North"`

---

3. Managing and Editing Conditional Formatting

To Manage Conditional Formatting Rules:

1. Go to the **Home** tab, click **Conditional Formatting**, and select **Manage Rules**.
2. This will open the **Conditional Formatting Rules Manager**, where you can:
    - **Edit** existing rules.
    - **Delete** rules.
    - **Change the order** of rules.
    - **Apply to** specific ranges.

To Edit a Rule:

1. Open the **Conditional Formatting Rules Manager**.

2. Select the rule you want to change.
3. Click **Edit Rule** and adjust the rule's parameters, such as the condition or formatting options.

To Clear Conditional Formatting:

1. Select the cells or range where you want to remove the formatting.
2. Go to **Home > Conditional Formatting > Clear Rules**.
3. Choose one of the following:
    - **Clear Rules from Selected Cells**: Removes formatting from the selected range.
    - **Clear Rules from Entire Sheet**: Removes all conditional formatting from the sheet.

---

4. Advanced Conditional Formatting Examples

Example 1: Highlight Cells Greater Than a Value

- **Use Case**: You want to highlight cells where sales are greater than $500.
- **Steps**:
    1. Select the range of cells with sales values.
    2. Go to **Home > Conditional Formatting > Highlight Cells Rules > Greater Than**.
    3. Enter **500** in the value box.
    4. Choose a format (e.g., fill the cell with green).
    5. Click **OK**.

Example 2: Apply a 3-Color Scale

- **Use Case**: You want to visualize sales data, with red indicating low sales and green indicating high sales.
- **Steps**:
    1. Select the range of cells with sales data.
    2. Go to **Home > Conditional Formatting > Color Scales**.
    3. Choose a 3-color scale (e.g., red for low, yellow for medium, and green for high).
    4. The color will automatically adjust based on the values in the cells.

Example 3: Use Icon Sets to Represent Performance

- **Use Case**: Use traffic lights to represent performance, with red for low performance, yellow for medium, and green for high.
- **Steps**:
    1. Select the range of cells with performance data.
    2. Go to **Home > Conditional Formatting > Icon Sets > Traffic Lights**.
    3. The icons will display according to the values in the cells.

Example 4: Highlight Rows Based on Another Column's Value (using formulas)

- **Use Case**: Highlight entire rows where the value in column "B" is "North".
- **Formula**: `=B1="North"`
- **Steps**:
    1. Select the rows where you want to apply the formatting.
    2. Go to **Home > Conditional Formatting > New Rule > Use a formula to determine which cells to format**.
    3. Enter the formula `=B1="North"`.
    4. Set the desired formatting (e.g., a yellow fill color).
    5. Click **OK**.

---

5. Conditional Formatting Tips

- **Relative vs Absolute References**: When using formulas, be mindful of relative and absolute references. For example, `=A1>100` will adjust to each cell in the selected range, whereas `=$A$1>100` will always refer to cell A1.
- **Order of Rules**: Excel applies conditional formatting rules in the order they are listed in the **Rules Manager**. You can change the order to prioritize one rule over another.

Apply Formatting to a Dynamic Range: Use conditional formatting with tables or dynamic ranges, so the formatting updates automatically as new data is added.