Conditional Formatting

Use a conditional format to help you visually explore and analyze data, detect critical issues, and identify patterns and trends.

Conditional formatting makes it easy to:
- highlight interesting cells or ranges of cells,
- emphasize unusual values, and
- visualize data by using
  - data bars,
  - color scales, and
  - icon sets.

A conditional format changes the appearance of a cell range based on conditions (or criteria):
- If the condition is true, the cell range is formatted based on that condition;
- If the condition is false, the cell range is not formatted based on that condition.

Conditional Formatting breaks down into the following groups:
- Highlight Cell Rules allows you to format cells ...
  - with numeric values if:
    - a cell numeric value is greater than, less than, or equal to a specified value,
    - a cell numeric value is between two specified values
  - containing text if:
    - a cell contain a specified text string
  - with date values if:
    - a cell date value is greater than, less than, or equal to a specified value,
    - a cell date value is between two specified values
    - Remember that dates are stored as serial numbers – today's date has a serial number value than yesterday's date serial number.
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- Top/Bottom Rules allows you to format cells containing numeric values that are in the ...
  - top 10 items of a list (as measured from greatest value (top) to least value (bottom))
  - top 10 percent
  - bottom 10
  - bottom 10%
  - Above Average
  - Below Average
  - These rules can be modified to show top/bottom $X$ values or top/bottom $X$ percents where you define $X$. 
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- Data Bars, Color Scales and Icon Sets

- These allow you to add visual a variety of data visualization tools
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Changing Icon Sets’ break point values

1. To the Current Salary column, add an icon set of 4 traffic lights (Home Tab > Styles Group > Conditional Formatting > Icon Sets > Shapes > 4 Traffic Lights)
2. The data will show the highest values in Green, the lowest values in Black
3. To change the break points, go back to Conditional Formatting and this time choose “Manage Rules” at the bottom of the list (See Step 3)
4. Double click on the “Rule” – the blue strip for Icon Set to open the rule.
5. From here, on the Edit Formatting Rule dialog box, we can ...
   A. Reverse the Icon Order, or
   B. Change the break points for each color by changing the percentages or values where the break occurs
   C. Assign different icons, shapes or colors to various values
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Conditional Formatting using a formula - Example One:
On the House Sales Data worksheet use a formula to highlight the values where the owner lost money on the sale of the house (i.e. where Profit/Loss < 0)

1) Select the cells to be formatted – We’ll format the Address column values – B2:B90
2) Home Tab > Styles Group > Conditional Formatting > New Rule...
3) Choose “Use a formula to determine which cells to format” from top half of “New Formatting Rule” dialog box
4) Enter the formula =H2<0
5) Warning → DO NOT USE ABSOLUTE CELL REFERENCING!
6) Enter a format of bold text on a pale orange background
   A. Click the Format... button on the New Formatting Rule Dialog Box
   B. On the Font tab of the Format Cells dialog box choose Bold for Font Style
   C. On the Fill tab of the Format Cells dialog box choose pale orange, and then click OK to close the Format Cells dialog box
   D. Click OK to close the New Formatting Rule dialog box and apply Conditional Formatting
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Conditional Formatting using a formula - Example Two:
This time we will format the Agent column where the house sale was profitable and took 30 days or less to complete. Both conditions need to be true for the cell to be formatted, so we will use an AND formula

1) Select the cells to be formatted – those in the Agent column
2) Home Tab > Styles Group > Conditional Formatting > New Rule...
3) Choose “Use a formula to determine which cells to format” from top half of “New Formatting Rule” dialog box
4) Enter the formula =AND(H2>20000,K2<=30)
   A. =AND( → this starts our AND formula
   B. H2>20000 → this compares the value for profit/loss column to the benchmark value of $20,000
      • Do not use absolute cell referencing
      • Do not use number decorations such as dollar sign for the 20000.
   C. , → the comma divides the first logical test in the AND formula from the second logical test
   D. K2<=30 → compares Days on Market to benchmark of 30 days
5) Enter a format of italic text on a pale purple background
   A. Click the Format... button on the New Formatting Rule Dialog Box
   B. On the Font tab of the Format Cells dialog box choose Italic for Font Style
   C. On the Fill tab of the Format Cells dialog box choose pale purple, and then click OK to close the Format Cells dialog box
   D. Click OK to close the New Formatting Rule dialog box and apply Conditional Formatting