



PHOENICIA UNIVERSITY

# Conditional Formatting

*Turning Raw Numbers Into Instant Visual Insight*

A hands-on lesson on rules, formulas, and visual cues that highlight what matters

## 2 Seeing Data at a Glance

*“Conditional formatting turns ten thousand rows into a picture you can read in five seconds.”*

— A common analyst's rule of thumb

- Changes a cell's fill, font, or icon automatically based on its value or a formula — no manual coloring.
- Updates instantly whenever the underlying data changes; the formatting never goes stale.
- Works on a single cell, a column, or an entire table at once.

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cells you ever recolor by hand once a rule is set

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Excel re-checks every rule each time the sheet recalculates, so the highlights are always current.

## 3 Where to Find It

*Every rule starts in the same place on the ribbon — only the dialog changes shape.*

### The Ribbon Path

- Select the range you want to format first — rules apply only to the selection.
- Home tab → Conditional Formatting, in the Styles group.
- Choose a built-in style, or open Manage Rules to see everything applied to a sheet.
- New Rule opens the full dialog, including the “Use a formula” option.

### Inside the New Rule Dialog

- A rule-type list at the top: six categories, from Highlight Cells Rules to Use a Formula.
- The Format button opens the same Format Cells dialog used everywhere else in Excel.
- “Applies to” shows — and lets you edit — the exact range the rule affects.
- Manage Rules lets you reorder rules and tick “Stop If True.”

# 4

## Six Rule Types at a Glance

*Every conditional format you'll ever build starts from one of these six categories.*

### Highlight Cells Rules

*Greater Than · Text Contains · Duplicate Values*

Flag cells that meet a simple, named condition.

### Top/Bottom Rules

*Top 10 Items · Above Average*

Spot the extremes in a range without sorting the data.

### Data Bars

*Gradient Fill · Solid Fill*

Turn a number into an in-cell bar chart.

### Color Scales

*2-Color Scale · 3-Color Scale*

Shade a whole range from low to high at a glance.

### Icon Sets

*Arrows · Traffic Lights · Flags*

Mark status with a small symbol — no extra column.

### Use a Formula

*Any custom logical test*

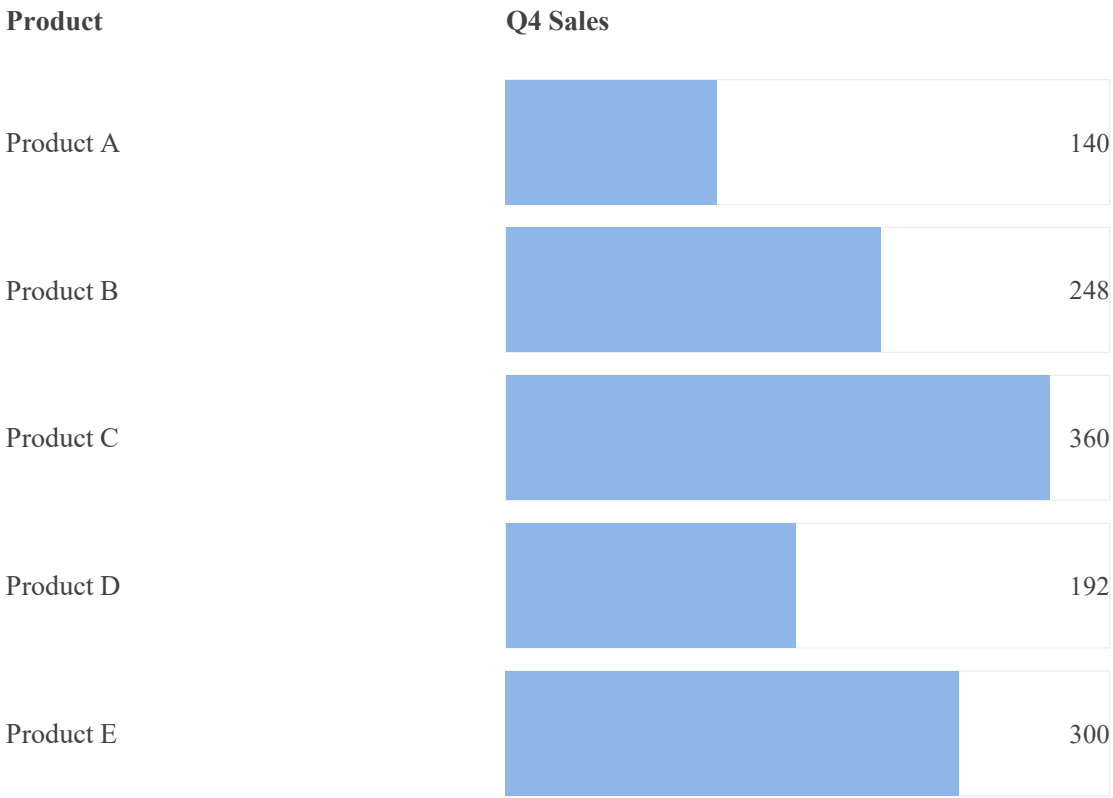
Format based on any condition Excel can evaluate.

# 5 Data Bars in Action

Concrete example: comparing quarterly sales across five products.

## Applying Data Bars

- Select the Q4 Sales column, e.g. B2:B6.
- Home → Conditional Formatting → Data Bars → choose a gradient or solid fill.
- Excel scales each bar between the column's own minimum and maximum — no formula required.
- A longer bar means a higher value; the number stays fully readable underneath it.



## 6 Color Scales in Action

*Concrete example: a heat map of exam scores across a class.*

### Applying a 3-Color Scale

- Select the Score column.
- Home → Conditional Formatting → Color Scales → Red-Yellow-Green.
- Excel assigns red to the lowest score, green to the highest, and blends every value in between.
- Great for spotting struggling students, slow-moving inventory, or underperforming regions in one glance.

| Student | Score |
|---------|-------|
| Amir    | 58    |
| Dana    | 74    |
| Layla   | 91    |
| Karim   | 66    |
| Noor    | 85    |
| Sami    | 47    |

# 7 Icon Sets in Action

Concrete example: flagging project status without an extra status column.

## Applying an Icon Set

- Select the % Complete column.
- Home → Conditional Formatting → Icon Sets → 3 Traffic Lights.
- Set custom thresholds, e.g. green  $\geq 80\%$ , yellow  $\geq 40\%$ , red below.
- The icon sits beside the number, so the value and the flag are never out of sync.

| Project           | % Complete                                                                                |
|-------------------|-------------------------------------------------------------------------------------------|
| Website Redesign  |  92%   |
| Mobile App Beta   |  55%   |
| Data Migration    |  28%   |
| Vendor Onboarding |  78%  |
| API Integration   |  41% |

## 8

## Custom Formula Rules

*Any test that returns TRUE or FALSE can drive a format — this is the most flexible rule type.*

### Must-Know Formula Patterns

**= \$C2 < TODAY ()**

*flags overdue dates anywhere in a row.*

**= COUNTIF (\$A\$2 : \$A\$20 , A2) > 1**

*flags duplicate entries in a list.*

**= AND (\$B2 = "Closed" , \$C2 > 30)**

*combines two conditions with AND.*

**= MOD (ROW () , 2) = 0**

*shades every other row for readability.*

**= \$C2 < TODAY ()**

One formula-based rule flags every overdue row across the whole table — instantly, and forever.

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It replaces the overdue-date column, the duplicate-flag column, and the manual weekly review — all at once.

## 9 Rules Behind the Rules

*A few mechanics decide how competing rules behave when more than one could apply.*

6

built-in rule categories,  
plus formulas, in New Rule

1st

matching rule wins when  
“Stop If True” is checked

✓

Stop If True halts lower-  
priority rules from firing

\$

dollar signs lock a reference  
so it won't shift down a column

### Typical workflow

- Open Manage Rules to see every rule applied to the current selection, in priority order.
- Drag rules up or down the list — Excel applies them top to bottom.
- Tick Stop If True on a rule to prevent lower rules from overriding its format.

## 10

## Case Study: Flagging Risk in a Sales Pipeline

*A sales team tracked 300 open deals in one shared sheet, but reps only noticed a stalled deal when a manager asked about it directly. Three conditional formatting rules turned the sheet into an early-warning system.*

**68%**

faster average time to flag a stalled deal after the rules were added

### Three changes made the difference:

- A formula rule, =TODAY()-\$E2>14, highlighted any deal untouched for two weeks.
- A 3-color scale on the Deal Value column showed where the biggest money sat.
- A red/yellow/green icon set on Stage Confidence flagged at-risk deals right beside the number.

### Outcome

Reps started re-engaging stalled deals the same day they turned red, instead of waiting for the weekly pipeline review. Two deals that had gone quiet for a month were caught and saved before quarter-end.

# 11

## Common Mistakes and How to Avoid Them

*A few habits cause most of the confusion people run into with conditional formatting.*

### The Mistake

- Referencing the wrong cell in a formula rule, so it doesn't shift down the column correctly.
- Applying a color scale to a range with one huge outlier, which washes out every other cell.
- Stacking rules that fight each other without checking “Stop If True.”
- Forgetting formatting still exists after deleting the data it was based on.

### The Fix

- Select the whole range first, then write the formula relative to its top-left cell.
- Exclude or cap the outlier, or switch to a 2-color scale with a manual midpoint.
- Open Manage Rules, reorder rules by priority, and tick Stop If True where needed.
- Use Manage Rules → Clear Rules to remove formatting cleanly along with the data.

# 12 Building Toward Mastery

## Practice on Real Data

Rebuild a report you already track — grades, expenses, deals — using rules instead of manual colors.

## Learn One Rule Type a Week

Add data bars this week, color scales next, icon sets after. Small, testable additions beat memorizing all six at once.

## Read the Formula Bar

When a rule looks wrong, open Manage Rules and check exactly which cell the formula references.

## Use Tables, Not Ranges

Format an Excel Table (Ctrl+T) and every new row you add inherits the conditional formatting automatically.

# Key Takeaways

- Conditional formatting changes a cell's look automatically based on its value or a formula — never manually.
- Six rule types — Highlight Cells, Top/Bottom, Data Bars, Color Scales, Icon Sets, and formulas — cover nearly every real-world case.
- Formula-based rules are the most flexible: any test that returns TRUE or FALSE can drive a format.
- Manage Rules controls order, conflicts, and Stop If True — most “broken” formatting is really a rule-order problem.