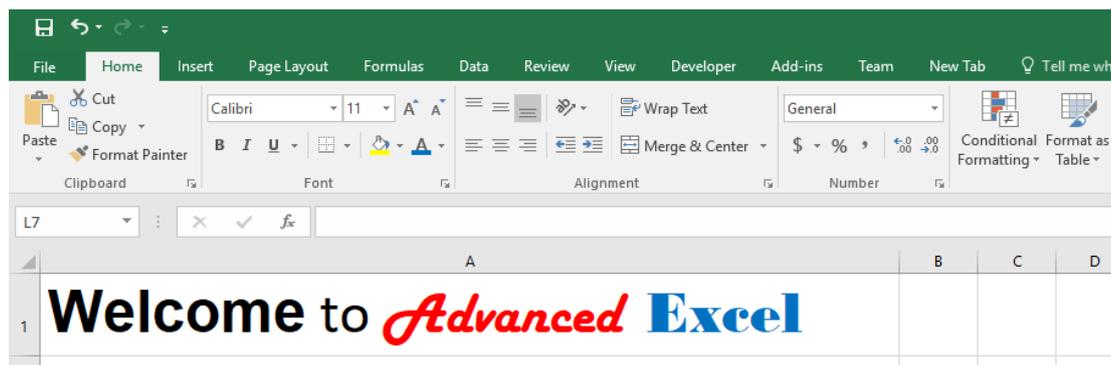


1. Worksheet Formatting Techniques

1.1 Formatting in Cells

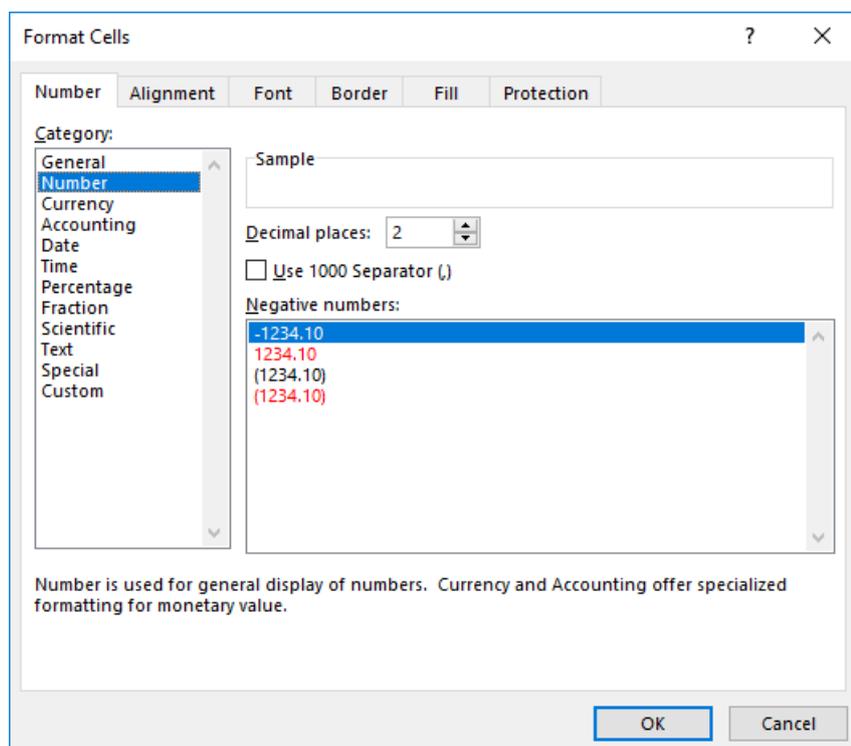
1.1.1 Formatting Individual Characters

If you select a cell and apply formats, the entire contents of the cell receive the formats. However, you can also apply formatting to individual text characters within cells (but not numeric values or formulas). Select individual characters or words, and apply the attributes you want. When you are finished, press **[Enter]** to see the results.



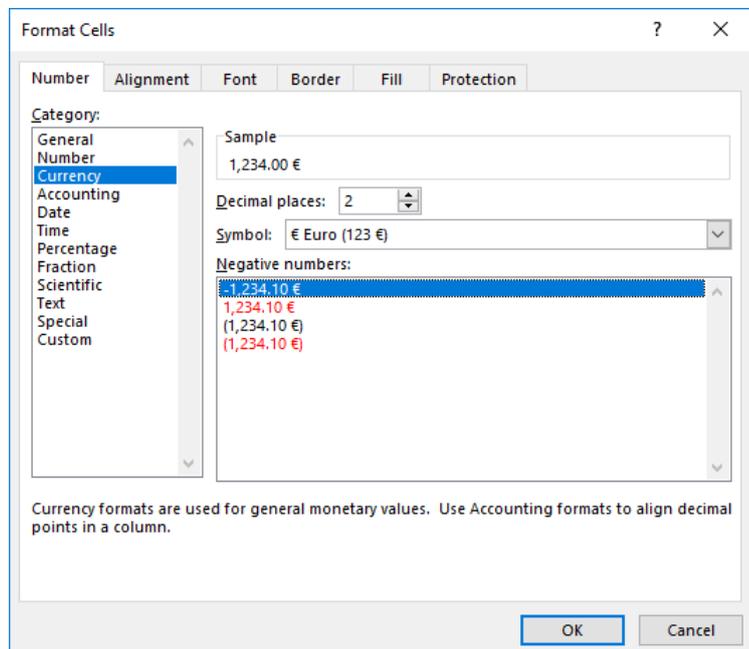
1.1.2 Formatting Numbers

The **Number** category in the **Format Cells** dialog box contains options for displaying numbers in integer, fixed-decimal, and punctuated formats. It is essentially the **General** format with additional control over displayed decimal places, thousand separators, and negative numbers. You can use this category to format any numbers that do not fall into any of the other categories.



1.1.3 Formatting Currency

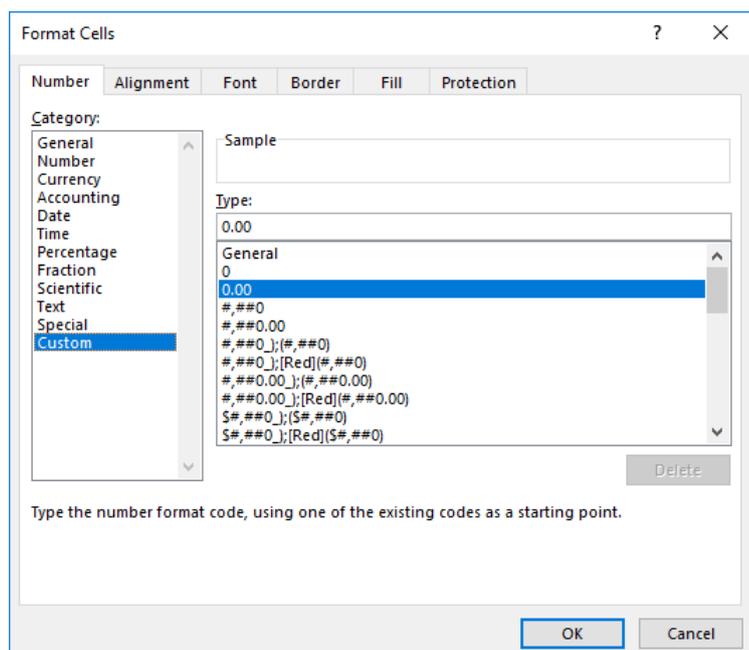
The **Currency** formats are similar to the **Number** formats except that instead of selecting the thousands separator (which accompanies all currency formats by default), you can select which currency symbol, if any, precedes (or trails) the number. Select the currency symbol in the **Symbol** drop-down list, which includes more than 250 different currency symbols from around the world.



1.2 Creating Custom Formats

1.2.1 Creating New Formats

Use the **Custom** tab in the **Format Cells** dialog box to create custom number formats using special formatting codes. Excel adds new formats to the bottom of the list of formatting codes in the **Type** list, which also includes built-in formats. To delete a custom format, select the format in the **Format Cells** dialog box and click **Delete**. However, you cannot delete built-in formats.



1.2.2 Custom Format Symbols

Symbol	Meaning
0	Digit Placeholder. This symbol ensures that a specified number of digits appear on each side of the decimal point. If a number has more digits to the right of the decimal point than the number 0s specified in the format, the number in the cell is rounded. (E.g. the value .98 is displayed as 0.980 if the format is 0.000; .98 is rounded to 1.0 if the format is 0.0)
?	Digit Placeholder. This symbol follows the same rules as the 0 placeholder, except that space is left for insignificant zeros on either side of the decimal point. This placeholder aligns numbers on the decimal points. (E.g., 1.4 and 1.45 would line up on the decimal point if both were formatted as 0.??)
#	Digit Placeholder. This symbol works like 0, except that extra zeros do not appear if the number has fewer digits on either side of the decimal point than #s specified in the format. This symbol shows Excel where to display commas or other separating symbols. (E.g. the format #,### display a comma after every 3 rd digit to the left of the decimal point)
%	Percentage Indicator. This symbol multiplies the entry by 100 and insert the % character.
.	Decimal Point. This symbol determines how many digits (0 or #) appear to the right and left of the decimal point. (E.g. if you want Excel to include commas and display at least one digit to the left of the decimal point in all cases, specify the format #,##0).
/	Fraction Format Character. This symbol displays the fractional part of a number in a non-decimal format. The number of digit placeholders that surround this character determines the accuracy of the display. (E.g. the decimal fraction 0.269 when formatted with # ?/? is displayed as 1/4, but when formatted with # ???/??? is displayed as 46/171)
,	Thousands separator. If the format contains a comma surrounded by #s, 0s, or ?s, Excel uses commas to separate hundreds from thousands, thousands from millions, and so on. (E.g. the format code #,###,###, would round 4567890 to 4,568, whereas the format code #,###,###., would round it to 5)
E- E+	Scientific Format Characters. If a format contains one 0 or # to the right of an E- or E+, Excel displays the number in scientific notation and inserts E in the displayed value. The number of 0s or #s to the right of the E determines the minimum number of digits in the exponent. Use E- to place a negative sign by negative exponents; use E+ to place a negative sign by negative exponents and a positive sign by positive exponents.
\	Literal demarcation character. Precede each character you want to display in the cell (except for : \$ - + / () and space) with a backslash. (E.g. the format code #,##0 \D;-#,##0 \C displays positive numbers followed by a D, and negative numbers followed by a C. To insert several characters, use the quotation-mark technique described in the "Text" table entry)
\$ - + / () space	Standard formatting characters. These symbols type these characters directly.
_	Underscore. This code leaves space equal to the width of the next character. Use this formatting character for alignment purposes. (E.g. _) leaves a space equal to the width of the close parenthesis)

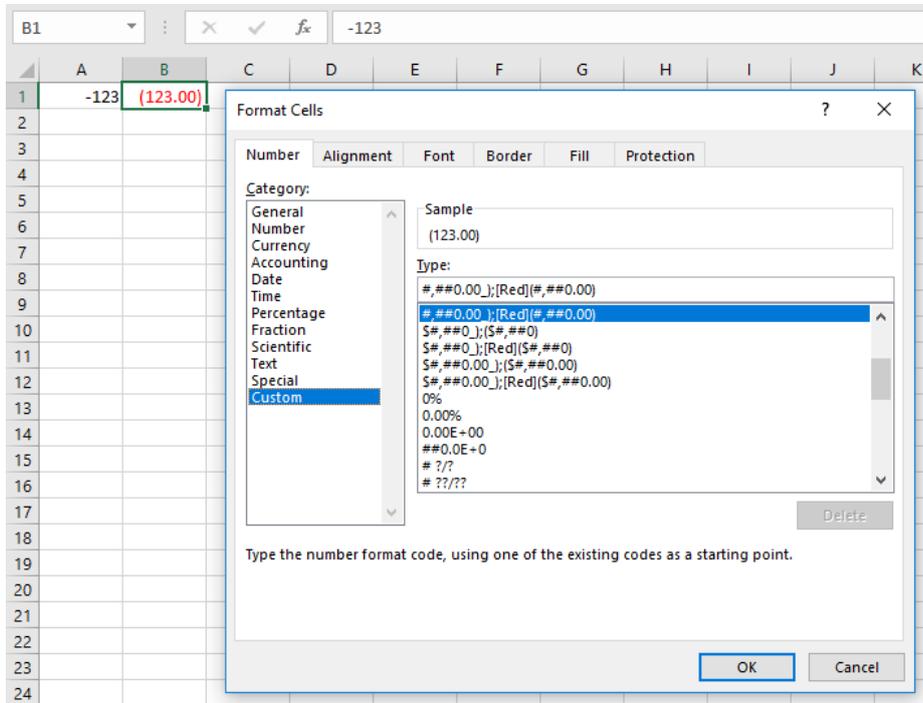
Symbol	Meaning
“Text”	Literal Character String. This formatting code works like the backslash technique except that all text can be included within one set of double quotation marks without using a separate demarcation character for each literal character.
*	Repetition Initiator. Repeats the next character in the format enough times to fill the column width. Use only one asterisk in the format.
@	Text Placeholder. If the cell contains text, this placeholder inserts that text in the format where the @ appears. (E.g. the format code “Hello” @ displays “Hello World” in a cell containing the text “World”)

1.2.3 Codes for Creating Custom Date and Time Formats

Code	Meaning
General	Number in General (serial value) format
d	Day number without leading zero (1 – 31)
dd	Day number with leading zero (01 – 31)
ddd	Day-of-week abbreviation (Sun – Sat)
dddd	Complete day-of-week name (Sunday – Saturday)
m	Month number without leading zero (1 – 12)
mm	Month number with leading zero (01 – 12)
mmm	Month name abbreviation (Jan – Dec)
mmmm	Complete month name (January – December)
yy	Last two digits of year number (00 – 99)
yyyy	Complete four-digit year number (1900 – 2078)
h	Hour without leading zero (0 – 23)
hh	Hour with leading zero (00 – 23)
m	Minute without leading zero (0 – 59)
mm	Minute with leading zero (00 – 59)
s	Second without leading zero (0 – 59)
ss	Second with leading zero (00 – 59)
s.0	Second and tenths of a second without leading zero
s.00	Second without leading zero and hundredths of a second without leading zero
ss.0	Second without leading zero and tenths of a second with leading zero
ss.00	Second and hundredths of a second with leading zero
AM/PM	Time in AM/PM notation
am/pm	Time in am/pm notation
A/P	Time in A/P notation
a/p	Time in a/p notation
[]	Brackets display the absolute elapsed time when used to enclose a time code

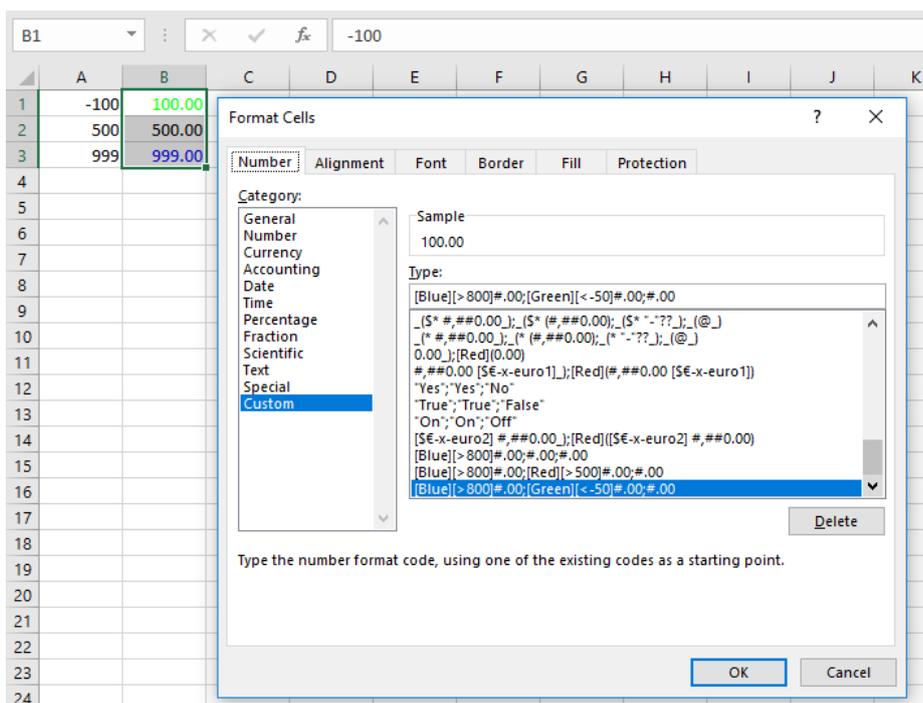
1.2.4 Adding Color to Formats

You can also use the **Number** formats to change the color of selected cell entries. You can even create formats that assign different colors to specific numeric ranges so that all values greater than or less than a specified value appear in a different color. To change the color of an entry, type the name of the new color in brackets (e.g. [BLUE]) in front of each segment of code.



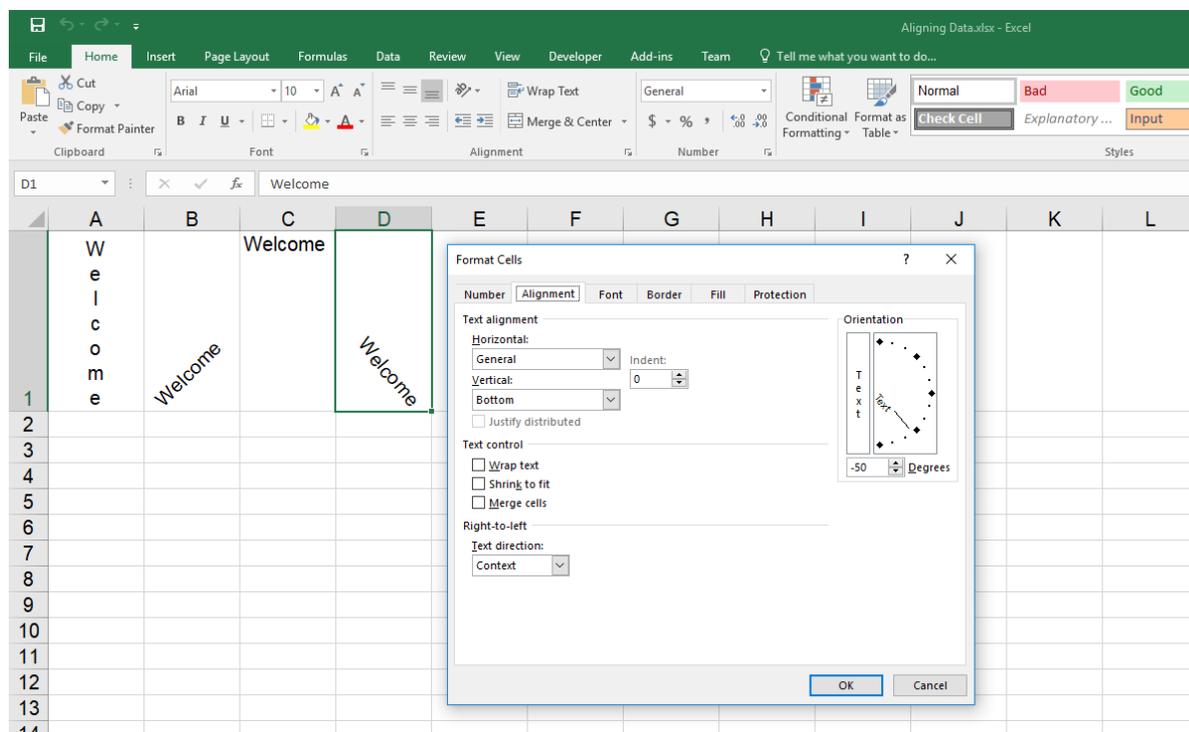
1.2.5 Using Custom Format Condition Operators

You can create custom formats that are variable by adding a condition operator (<, >, =, <=, >=, or <>) to the Excel for conditional format.



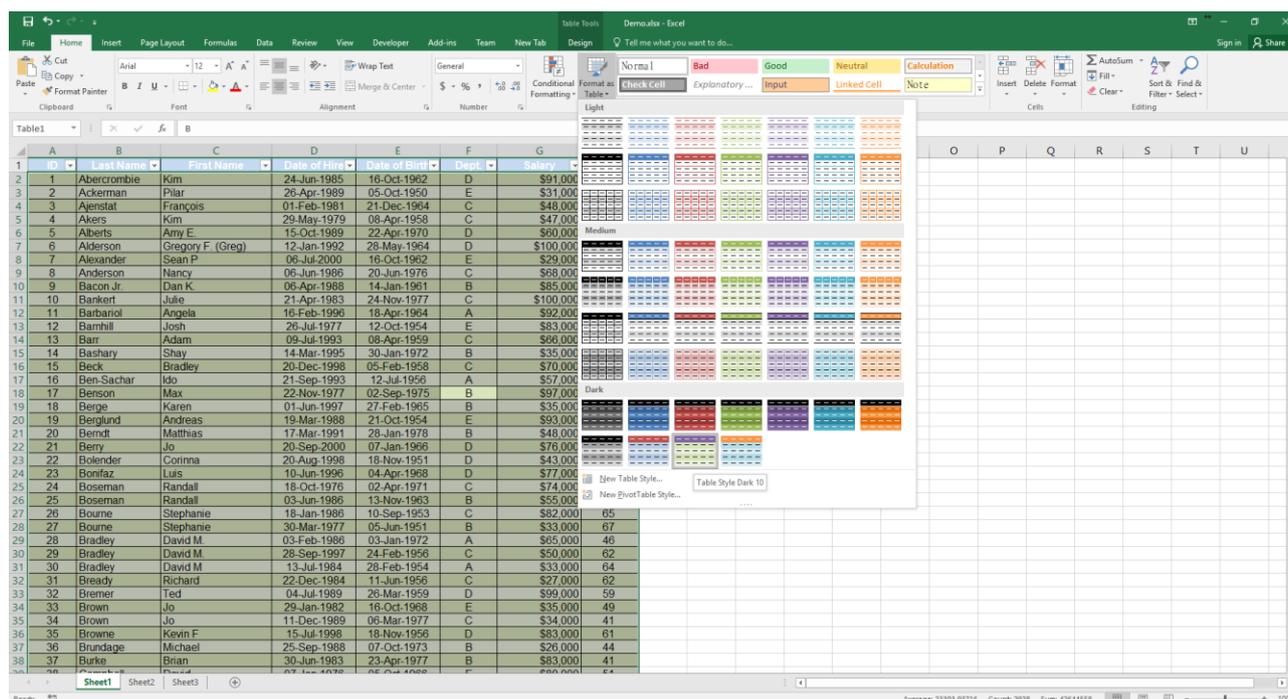
1.3 Aligning Data

The **Alignment** tab in the **Format Cells** dialog box, positions text and numbers in cells. It also contains options you can use to create multi line text labels, repeat a series of characters within one or more cells, and orient text vertically or at any angle in cells.



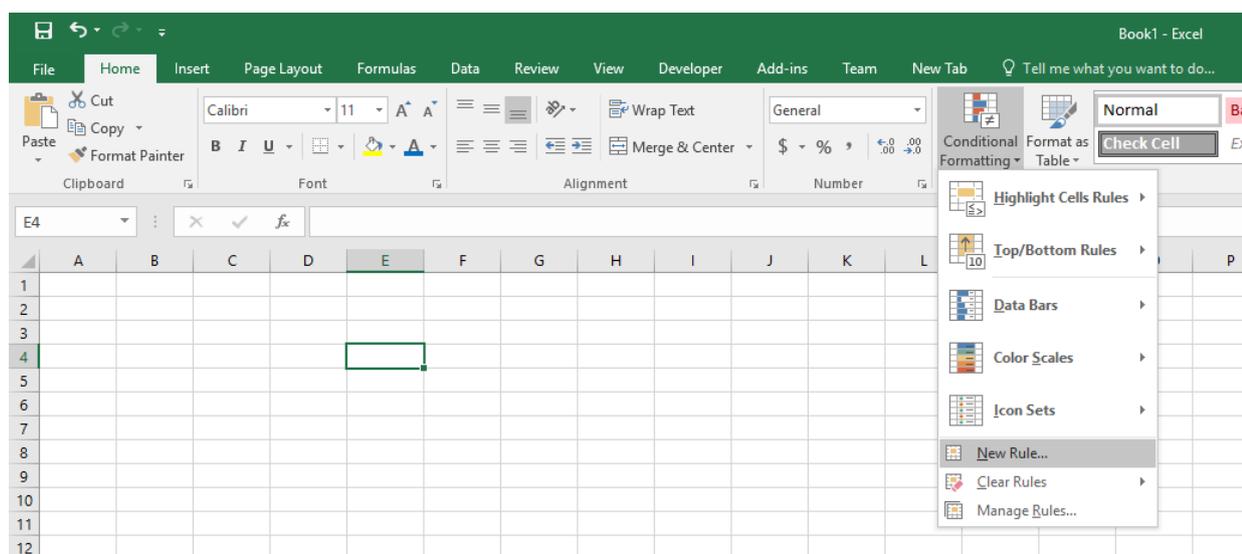
1.4 AutoFormat

Style galleries for tables, cells, and PivotTables provide a set of professional formats that can be applied quickly. You can choose from many predefined styles or create custom styles as needed. Styles replace AutoFormat as the simplest way to apply formatting to a range of cells.



1.5 Conditional Formats

Conditional formatting is a popular feature documented in many books and articles. By using conditional formatting, you can apply formatting automatically to one or more cells based on the value of the cell or the value of a formula. This feature makes it simple to highlight specific values or to identify values in a range. *For example, conditional formatting can answer questions such as "Show me the top 10 percent of all sales for North America" or "Show me just Nancy's sales for the year." It's a powerful feature because you can apply it to any Excel formula.*



1.5.1 Format all cells by using a two-color scale / three-color scale

Color scales are visual guides that help you understand data distribution and variation. A two-color / three-color scale helps you compare a range of cells by using a gradation of two / three colors. The shade of the color represents higher, (middle), or lower values. For example, in a green, yellow, and red three-color scale, you can specify that higher value cells have a green color, middle value cells have a yellow color, and lower value cells have a red color.

1. Select one or more cells in a range, table, or PivotTable report.
2. On the **Home** tab, in the Styles group, click the arrow next to **Conditional Formatting**, and then click **Color Scales**.



3. Select a two-color scale or three-color scale. The top color represents higher values, the center color represents middle values, and the bottom color represents lower values.
4. You can change the method of scoping for fields in the Values area of a PivotTable report by using the Apply formatting rule to options button.

1.5.2 Format all cells by using data bars

A data bar helps you see the value of a cell relative to other cells. The length of the data bar represents the value in the cell. A longer bar represents a higher value, and a shorter bar represents a lower value. Data bars are useful in spotting higher and lower numbers, especially with large amounts of data, such as top selling and bottom selling toys in a holiday sales report.

1.5.3 Format all cells by using an icon set

Use an icon set to annotate and classify data into three to five categories separated by a threshold value. Each icon represents a range of values. For example, in the 3 Arrows icon set, the green up arrow represents higher values, the yellow sideways arrow represents middle values, and the red down arrow represents lower values.

1.5.4 Format only cells that contain text, number, or date or time values

To more easily find specific cells within a range of cells, you can format those specific cells based on a comparison operator. For example, in an inventory worksheet sorted by categories, you can highlight the products with fewer than 10 items on hand in yellow. Or, in a retail store summary worksheet, you can identify all stores with profits greater than 10%, sales volumes less than \$100,000, and region equal to "SouthEast".

1.5.5 Format only top or bottom ranked values

You can find the highest and lowest values in a range of cells based on a cutoff value that you specify. For example, you can find the top 5 selling products in a regional report, the bottom 15% products in a customer survey, or the top 25 salaries in a department personnel analysis.

1.5.6 Format only values that are above or below average

You can find values above or below an average or standard deviation in a range of cells. For example, you can find the above average performers in an annual performance review or you can locate manufactured materials that fall below two standard deviations in a quality rating.

1.5.7 Use a formula to determine which cells to format

If your conditional formatting needs are more complex, you can use a logical formula to specify the formatting criteria. For example, you may want to compare values to a result returned by a function or evaluate data in cells outside the selected range.

1.5.8 Find cells that have conditional formats

If your worksheet has one or more cells with a conditional format, you can quickly locate them so that you can copy, change, or delete the conditional formats. You can use the Go To Special command to either find only cells with a specific conditional format or find all cells with conditional formats.