



# Working with Text in Excel 2016



## OVERALL AIM:

To teach you techniques and functions for transforming, splitting, combining, summarizing, visualizing, and organizing text.

## LESSON OBJECTIVES

At the end of the session, the participants will be able to:

- Articulate the function and purpose of Excel 2016
- Transform your text using text wrap, text direction, merge cell, alignment, indent, outdent, lower, upper, and proper functions
- Split and combine text using text to columns, concatenation, and left
- Summarize text using COUNTA, COUNTIFS, and SUMIFS functions
- Visualize text using fonts, cell styles, and conditional formatting
- Organize text using filters, text filters, sorting, custom sorts, and sort by color

## REFLECTIVE QUESTIONS

- How can I use text in Excel more effectively?
- How can I use the same data for different purposes by transforming the text?

## EXCEL 2016

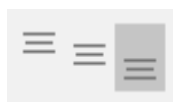
Excel is more than a spreadsheet program. With Excel, you can analyze data, perform calculations, add visualizations, and transform your data to make it more meaningful. Additionally, you can create new text from existing text to further your analysis.

## TRANSFORMING TEXT

You can transform your text using the buttons in the Alignment group and the case functions: LOWER, UPPER, and PROPER.

## Alignment Buttons

The Alignment buttons adjust your text horizontally and vertically. To begin, click the cell(s)



Vertical Alignment

Aligns the cell contents to the Top, Center, or Bottom of cell

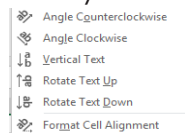


Horizontal Alignment (Justification)

Aligns the cell contents to the Left, Center, or Right of cell

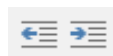
## Text Direction

The Text Direction button allows you to change the direction of your text. You have several options from which to choose.



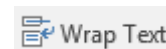
## Indent & Outdent

The Indent and Outdent buttons shift the cell contents to the left (Indent) or to the right (Outdent).



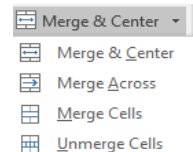
## Wrap Text

The Wrap Text feature does just what the name implies. It wraps the text in the selected cell. It is helpful when working with long lines of text.



## Merge & Center

You can use the Merge and Center feature to combine multiple cells into one cell and center the text. Additional options are available by clicking the down arrow.



## Case Functions

With the case functions, you can change your text to upper, lower, or proper case. To use, enter =Lower(B2) where B2 represents the cell containing the content to change.

Function	Before	After
=Lower(cell)	Washington, George	washington, george
=Upper(cell)	Washington, George	WASHINGTON, GEORGE
=Proper(cell)	washington, george	Washington, George

## SPLITTING TEXT

You can split text using the Text to Columns feature or the Left function. These tools can be helpful when working with names that need reformatting.

## Text to Columns

The Text to Columns feature allows you to take the contents of a column and split it into additional columns. For example, you can use this tool to split last and first names. To split last and first names,

1. Insert 2 columns to the right of the column with the names
2. Select the column containing the names
3. Click the Data tab
4. Click the Text to Columns button
5. Click Delimited and Next
6. Select the Delimiters (i.e. comma and space)
7. Select Text
8. Select Destination (Click the Cell Selector button)
9. Click Finish

### Left Function

The Left functions returns the specified number of characters counting from the left of the selected cell.

Formula: =LEFT(cell, number of characters)

Function	J2	After
=LEFT(J2, 1)	California	C
=LEFT(J2, 2)	California	Ca
=LEFT(J2, 3)	California	Cal

### COMBINING TEXT

The Concatenate function allows you to combine text. You can combine text from cells or other characters enclosed in double quotes ("").

#### Concatenate with a Space

Concatenate with a space allows you to combine text with a space between them, such as first and last names

Formula: =CONCATENATE(D2, " ",C2)

- D2 represents the cell with the first name
- C2 represents the cell with the last name
- " " represents a space between the " (double quote)

C2	D2	After
Washington	George	George Washington
Truman	Harry	Harry Truman

#### Concatenation with a Comma

Concatenate with a comma allows you to combine text with a comma and a space between them, such as last name, first name

Formula: =CONCATENATE(C2, ", ",D2)

- D2 represents the cell with the first name
- C2 represents the cell with the last name
- ", " represents a comma and space between the " (double quote)

C2	D2	After
Washington	George	Washington, George
Truman	Harry	Truman, Harry

### SUMMARIZING TEXT

You can perform calculations using cells containing text. You can even perform calculations based on a condition being met.

### COUNTA

The COUNTA function allows you to count cells containing text. It will also count any spaces or hidden characters present in a cell.

Formula: =COUNTA(Range)

- Range represents the cells, row, or column that you want to count

Example: You want to know how many people?

=COUNTA(A2:A5) results in 4

	A	B
1	Name	State
2	George	California
3	Harry	California
4	James	California
5	Theodore	California

### COUNTIFS

The COUNTIFS function allows you to count a range of cells based on the cell contents containing specific text. It will also count any spaces or hidden characters present in a cell.

Formula: =COUNTIFS(Range, Criteria)

- Range represents the cells, rows, or column that you want to count
- Criteria represent the condition to be met wrapped in "" (double quotes)

Example: You want to know how many students live in Arvin

=COUNTIFS(A2:A4, "Arvin") results in 2

	A	B
1	City	State
2	Arvin	California
3	Bakersfield	California
4	Arvin	California

### SUMIFS

The SUMIFS function allows you to add a range of cells based on the cell contents containing specific text.

Formula: =SUMIFS(Range, Evaluate, Criteria)

- Range represents the cells, rows, or column that you want to add
- Evaluate represents the cells, row, or column that you want to evaluate
- Criteria represent the condition to be met wrapped in "" (double quotes)

Example: You want to know how much students living in Arvin spend on transportation

=SUMIFS(B2:B4, A2:A4, "Arvin") results in 220

	A	B
1	City	Transportation Cost
2	Arvin	100
3	Bakersfield	20
4	Arvin	120

## VISUALIZING TEXT

### Wingdings

Wingdings is a font. You can use this font and an lower case n to represent Yes, received, attending, or whatever you like. To use change the font to Wingding.

	Before	After
George	Yes	■
Harry	No	

### Format as Table

The Format as Table allows you to format your table using one of predefined color palettes. To begin,



1. Select your data
2. Click Format as Table
3. Select a color palette

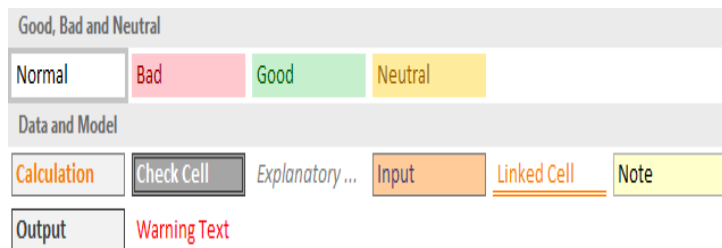


4. Check My Data has Header (optional)
5. Click OK

### Cell Styles

You can apply predefined fonts and colors to a cell, row, or column using Cell Style. To begin,

1. Select the desired range
2. Click the desired Cell Style



## ORGANIZING TEXT

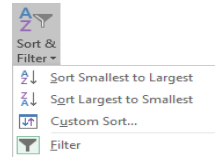
You can organize your text using filters, text filters, sorting, and custom sorting.

### FILTERS

Filters allow you to select the type information you want to see and filter the rest out.

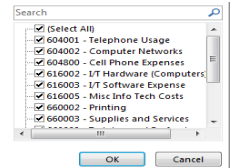
To activate filters,

1. Highlight Row 1  
(This should be the row with your data headers)
2. Click Sort & Filter
3. Click Filter



To use filters

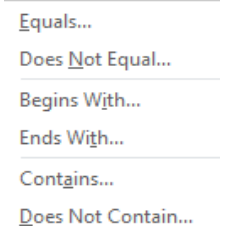
1. Click the down arrow beside the desired column heading
2. Make your selections
3. Click OK



### TEXT FILTERS

Text Filters allow you to refine your filtering selection. You can choose from several options, such as contains, begins with, etc.

1. Click the down arrow beside the desired column heading
2. Select Text Filter from the pop-up menu
3. Make a selection
4. Enter your criteria
5. Click OK

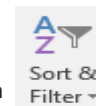


### SORTING

You can sort your information by the first column, a specific column, or multiple columns in a specified order.

Sort by first column

1. Select your data
2. Click the Sort & Filter button



Sort by specific column

1. You can sort any column by clicking the down arrow beside the desired column heading
2. Choose your sort order  
You can sort in descending, ascending, or by color

