الفيزياء الطبية

المرحلة الاولى

Excel

lecture "8"

تدريسي المـاده

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Introduction:

Excel is a spreadsheet program that allows you to store, organize, and analyze information. While you may think Excel is only used by certain people to process complicated data, anyone can learn how to take advantage of the program's powerful features. Whether you're keeping a budget, organizing a training log, or creating an invoice, Excel makes it easy to work with different types of data.

Some parts of the Excel window (like the Ribbon and scroll bars) are standard in most other Microsoft programs. However, there are other features that are more specific to spreadsheets, such as the formula bar, name box, and worksheet tabs.

Worksheet views:

Excel has a variety of viewing options that change how your workbook is displayed. These views can be useful for various tasks, especially if you're planning to print the spreadsheet. To change worksheet views, locate the commands in the bottom-right corner of the Excel window and select Normal view, Page Layout view, or Page Break view.
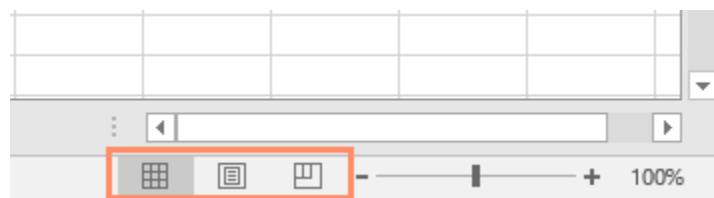

Figure 1 : getting started views

- Normal view is the default view for all worksheets in Excel.

Figure 2 : normal view

- Page Layout view displays how your worksheets will appear when printed. You can also add headers and footers in this view.

Figure 3 :page layout view

- Page Break view allows you to change the location of page breaks, which is especially helpful when printing a lot of data from Excel.
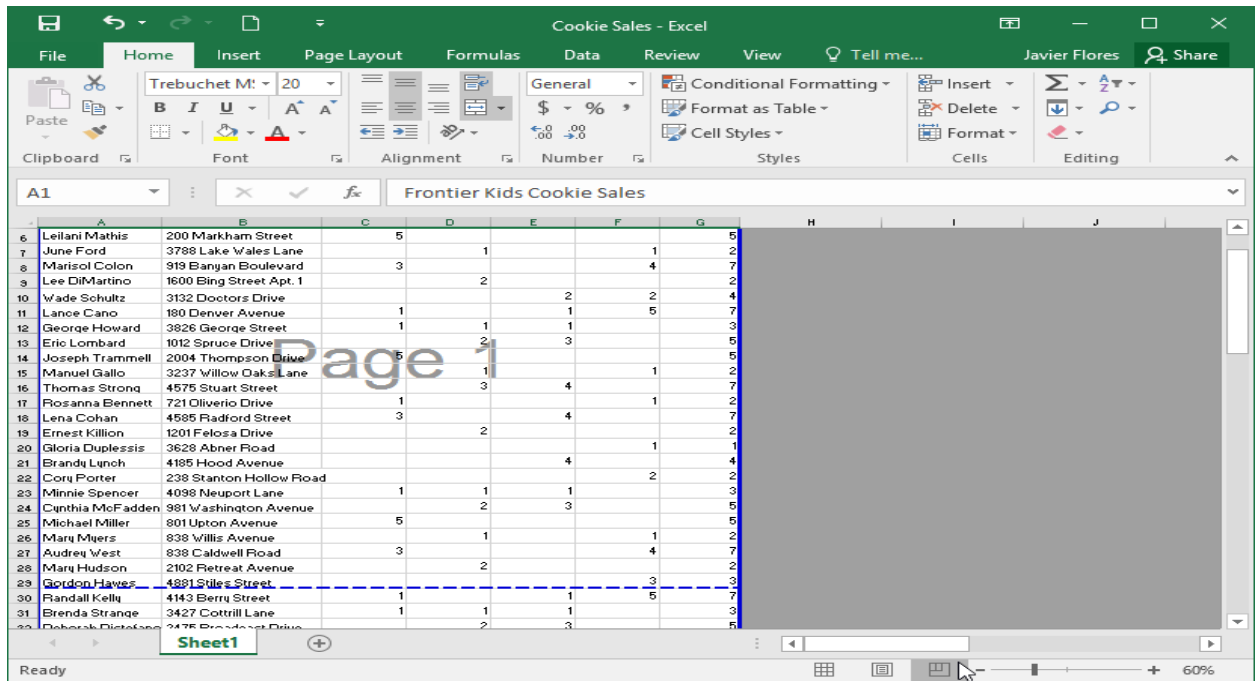
Figure 4 : page break view

Cell Basics:

Whenever you work with Excel, you'll enter information or content into cells. Cells are the basic building blocks of a worksheet. You'll need to learn the basics of cells and cell content to calculate, analyze, and organize data in Excel.

Understanding cells:

Every worksheet is made up of thousands of rectangles, which are called cells. A cell is the intersection of a row and a column. In other words, it's where a row and column meet.

Columns are identified by letters (A, B, C), while rows are identified by numbers (1, 2, 3). Each cell has its own name or cell address based on its column and row. In the example below, the selected cell intersects column C and row 5, so the cell address is C5.
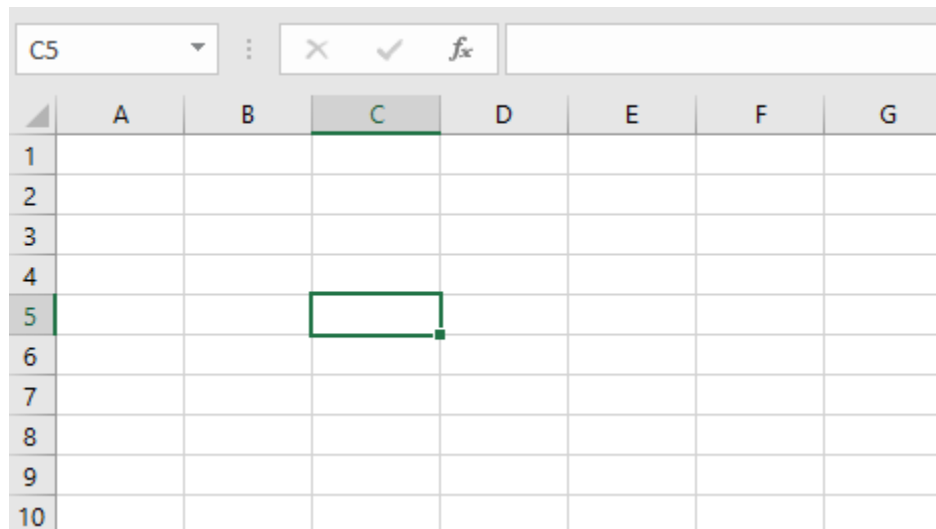

Figure 5 : intro cell

Note that the cell address also appears in the Name box in the top left corner, and that a cell's column and row headings are highlighted when the cell is selected.

You can also select multiple cells at the same time. A group of cells is known as a cell range. Rather than a single cell address, you will refer to a cell range using the cell addresses of the first and last cells in the cell range, separated by a colon. For example, a cell range that included cells A1, A2, A3, A4, and A5 would be written as A1:A5. Take a look at the different cell ranges below:
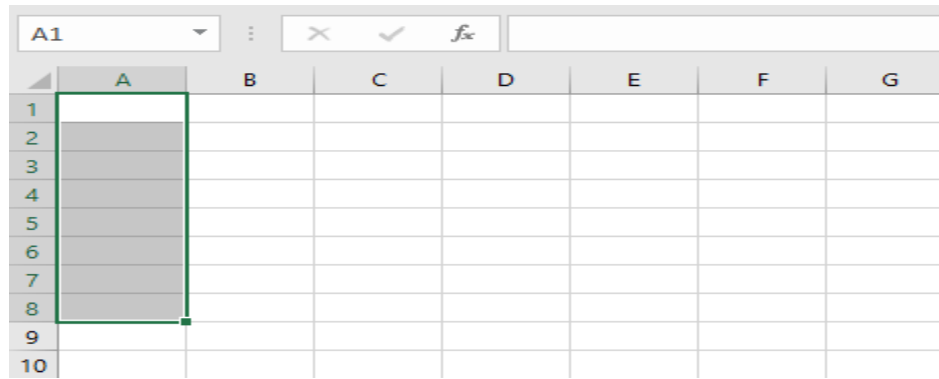
1. Cell range A1:A8

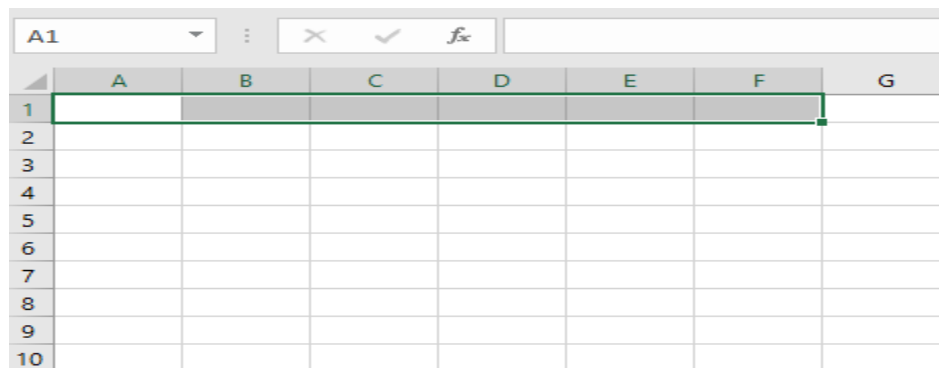**Figure 6 : cell range1**

2. Cell range A1:F1

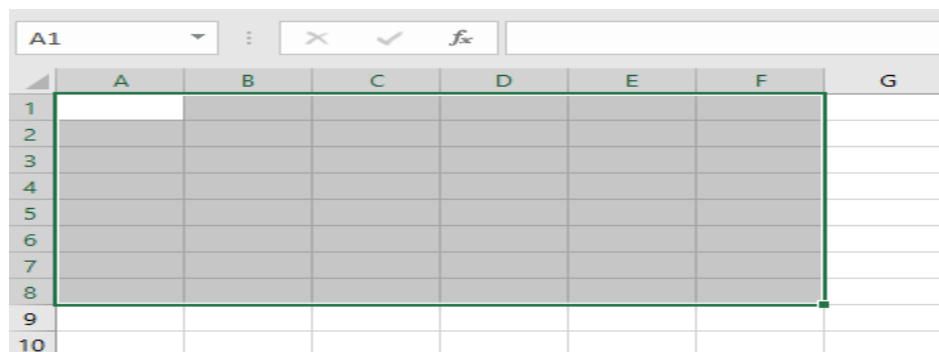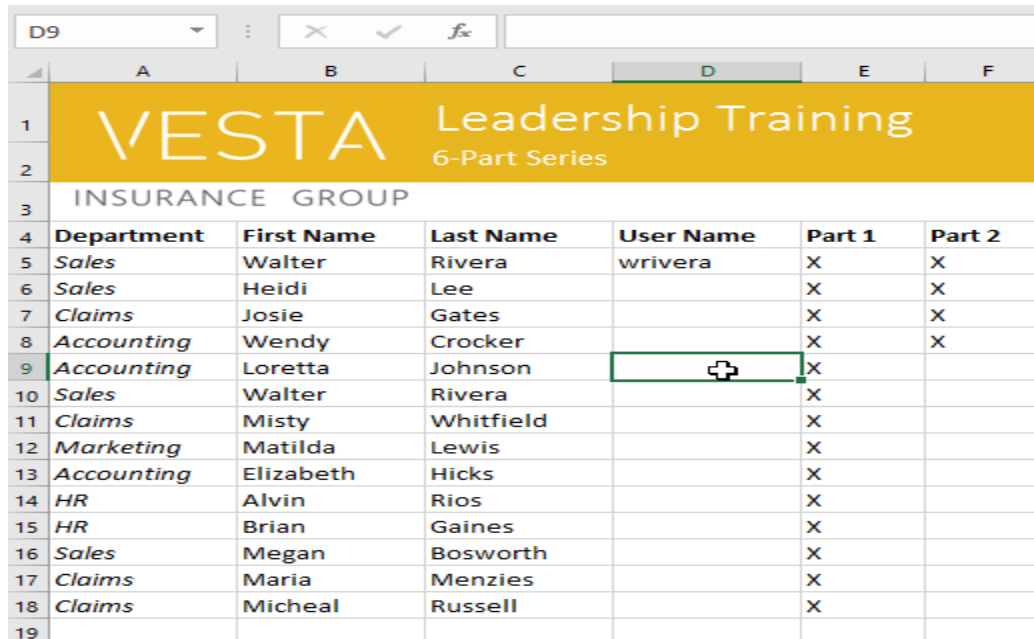**Figure 7 : cell range2**

3. Cell range A1:F8

Figure 8 : cell range3

To select a cell:

To input or edit cell content, you'll first need to select the cell.

1. Click a cell to select it.
2. A border will appear around the selected cell, and the column heading and row heading will be highlighted. The cell will remain selected until you click another cell in the worksheet.

Figure 9 : select cell

To select a cell range:

Sometimes you may want to select a larger group of cells, or a cell range.

1. Click and drag the mouse until all of the adjoining cells you want to select are highlighted.
2. Release the mouse to select the desired cell range. The cells will remain selected until you click another cell in the worksheet.

Figure 10 : select range of cells

Cell content:

Any information you enter into a spreadsheet will be stored in a cell. Each cell can contain different types of content, including text, formatting, formulas, and functions.

- Text: Cells can contain text, such as letters, numbers, and dates.
- Formatting attributes: Cells can contain formatting attributes that change the way letters, numbers, and dates are displayed. For

example, percentages can appear as 0.15 or 15%. You can even change a cell's text or background color.

- Formulas and functions: Cells can contain formulas and functions that calculate cell values.

To insert content:

1. Click a cell to select it.
2. Type something into the selected cell, then press Enter on your keyboard. The content will appear in the cell and the formula bar. You can also input and edit cell content in the formula bar.

To delete (or clear) cell content:

1. Select the cell(s) with content you want to delete.
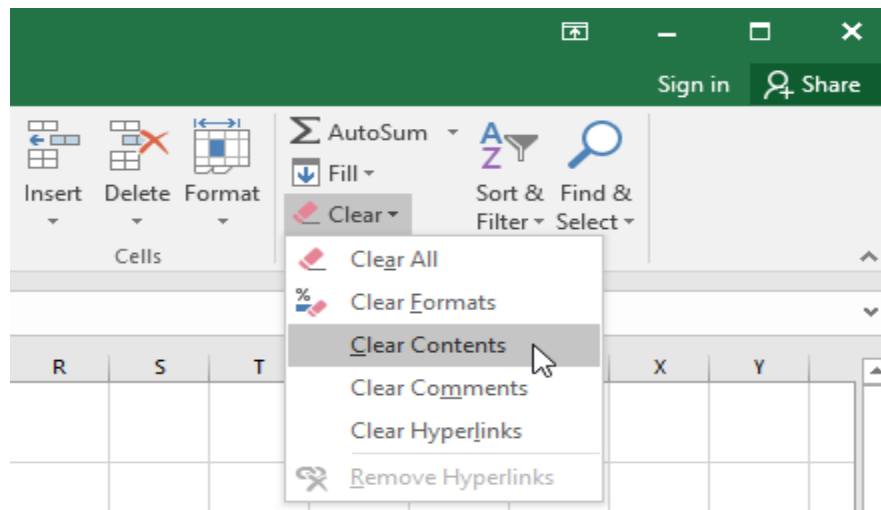2. Select the Clear command on the Home tab, then click Clear Contents.

Figure 11 : clear command

3. The cell contents will be deleted.

To delete cells:

There is an important difference between deleting the content of a cell and deleting the cell itself. If you delete the entire cell, the cells below it will shift to fill in the gaps and replace the deleted cells.

1. Select the cell(s) you want to delete.
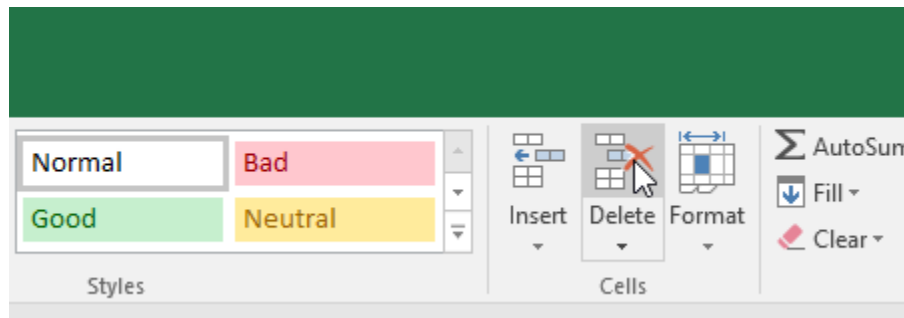2. Select the Delete command from the Home tab on the Ribbon.

Figure 12 : delete command

3. The cells below will shift up and fill in the gaps.

To copy and paste cell content:

Excel allows you to copy content that is already entered into your spreadsheet and paste this content to other cells, which can save you time and effort.

1. Excel allows you to copy content that is already entered into your spreadsheet and paste this content to other cells, which can save you time and effort.
2. Click the Copy command on the Home tab, or press Ctrl+C on your keyboard.
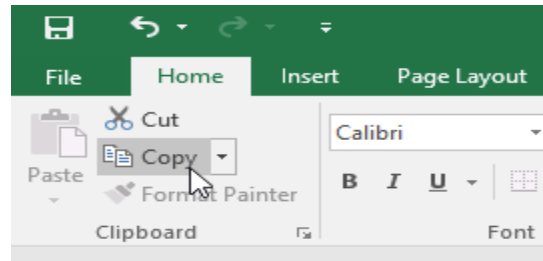
Figure 13 : copy command

3. Select the cell(s) where you want to paste the content.
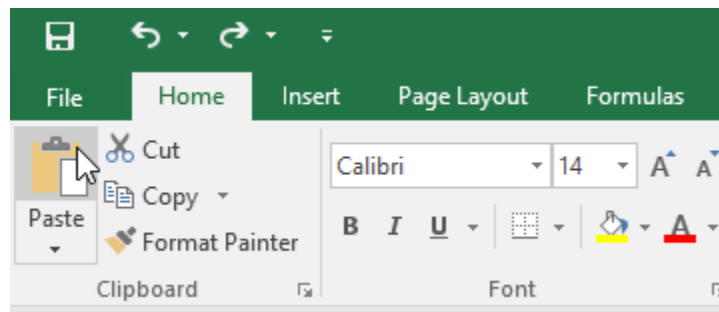4. Click the Paste command on the Home tab, or press Ctrl+V on your keyboard.

Figure 14 : Paste command

5. The content will be pasted into the selected cells.

To cut and paste cell content:

Unlike copying and pasting, which duplicates cell content, cutting allows you to move content between cells.

1. Select the cell(s) you want to cut.
2. Right click the mouse and select the Cut command. You can also use the command on the Home tab, or press Ctrl+X on your keyboard.

3. Select the cells where you want to paste the content. for example, we'll select F10:F11. The cut cells will now have a dashed box around them.
4. Right-click the mouse and select the Paste command. You can also use the command on the Home tab, or press Ctrl+V on your keyboard.
5. The cut content will be removed from the original cells and pasted into the selected cells.
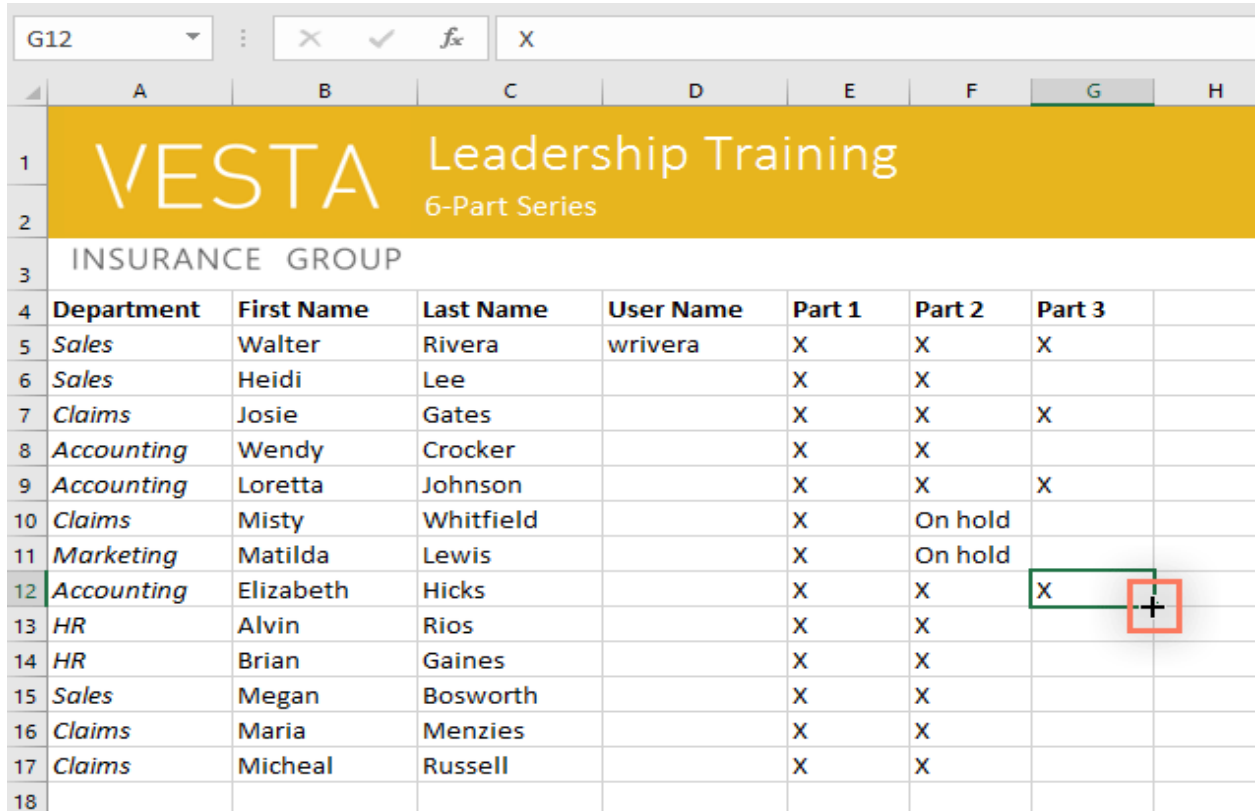
To drag and drop cells:

Instead of cutting, copying, and pasting, you can drag and drop cells to move their contents.

1. Select the cell(s) you want to move.
2. Hover the mouse over the border of the selected cell(s) until the mouse changes to a pointer with four arrows.
3. Click and drag the cells to the desired location.
4. Release the mouse. The cells will be dropped in the selected location.

To use the fill handle:

If you're copying cell content to adjacent cells in the same row or column, the fill handle is a good alternative to the copy and paste commands.

1. Select the cell(s) containing the content you want to use, then hover the mouse over the lower right corner of the cell so the fill handle appears.

	A	B	C	D	E	F	G	H
1	VESTA		Leadership Training					
2			6-Part Series					
3	INSURANCE GROUP							
4	**Department**	**First Name**	**Last Name**	**User Name**	**Part 1**	**Part 2**	**Part 3**	
5	Sales	Walter	Rivera	wrivera	X	X	X	
6	Sales	Heidi	Lee		X	X		
7	Claims	Josie	Gates		X	X	X	
8	Accounting	Wendy	Crocker		X	X		
9	Accounting	Loretta	Johnson		X	X	X	
10	Claims	Misty	Whitfield		X	On hold		
11	Marketing	Matilda	Lewis		X	On hold		
12	Accounting	Elizabeth	Hicks		X	X	X	
13	HR	Alvin	Rios		X	X		
14	HR	Brian	Gaines		X	X		
15	Sales	Megan	Bosworth		X	X		
16	Claims	Maria	Menzies		X	X		
17	Claims	Micheal	Russell		X	X		
18								

Figure 15 : fill select cell

2. Click and drag the fill handle until all of the cells you want to fill are selected.

Figure 16 : cells fill down

3. Release the mouse to fill the selected cells.

Figure 17 : fill cells done

To continue a series with the fill handle:

The fill handle can also be used to continue a series. Whenever the content of a row or column follows a sequential order, like numbers (1, 2, 3) or days (Monday, Tuesday, Wednesday), the fill handle can guess what should come next in the series. In most cases, you will need to select multiple cells before using the fill handle to help Excel determine the series order. Let's take a look at an example:

1. Select the cell range that contains the series you want to continue.
2. Click and drag the fill handle to continue the series.

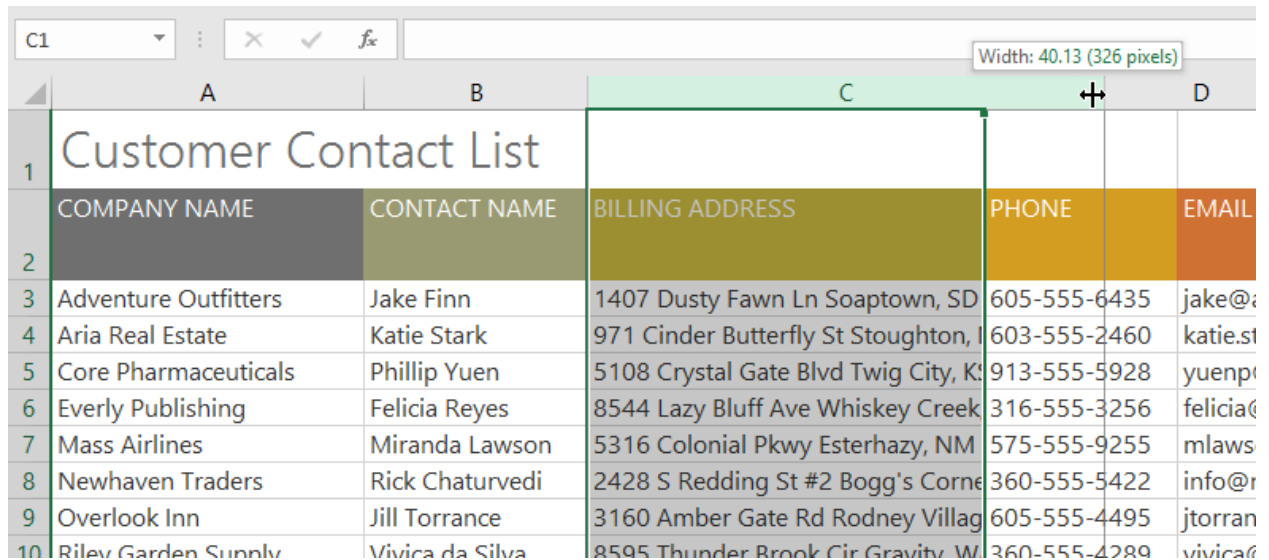**Figure 18 : cells fill series**

3. Release the mouse. If Excel understood the series, it will be continued in the selected cells.

Modifying Columns, Rows, and Cells:

every row and column of a new workbook is set to the same height and width. Excel allows you to modify column width and row height in different ways, including wrapping text and merging cells.

To modify column width:

1. Position the mouse over the column line in the column heading so the cursor becomes a double arrow.
2. Click and drag the mouse to increase or decrease the column width.
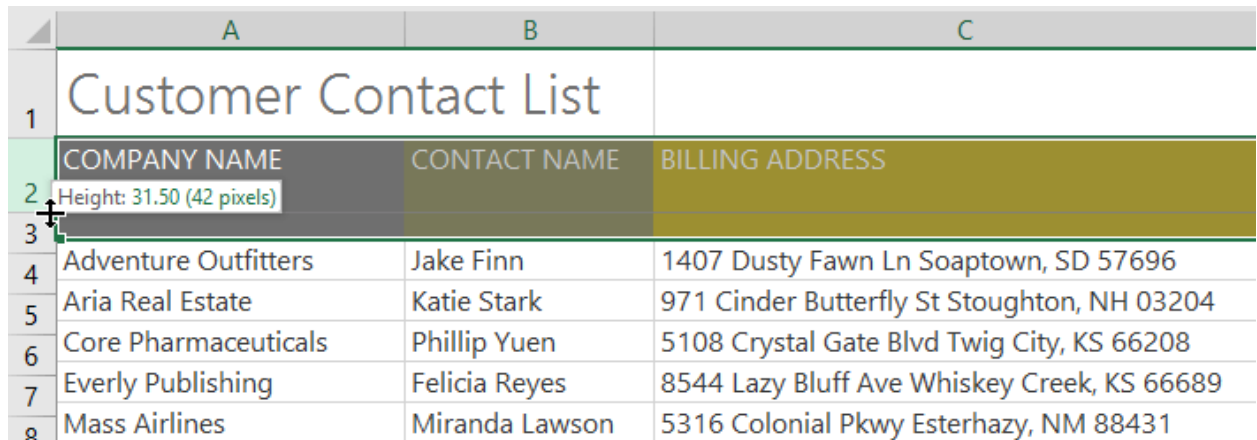

Figure 19 :columns width

3. Release the mouse. The column width will be changed.

To modify row height:

1. Position the cursor over the row line so the cursor becomes a double arrow.

2. Click and drag the mouse to increase or decrease the row height.

Figure 20 : row height

3. Release the mouse. The height of the selected row will be changed.

To modify all rows or columns:

Instead of resizing rows and columns individually, you can modify the height and width of every row and column at the same time. This method allows you to set a uniform size for every row and column in your worksheet. In our example, we will set a uniform row height.

1. Locate and click the Select All button just below the name box to select every cell in the worksheet.
2. Position the mouse over a row line so the cursor becomes a double arrow.
3. Click and drag the mouse to increase or decrease the row height, then release the mouse when you are satisfied. The row height will be changed for the entire worksheet.

Inserting and hiding:

After you've been working with a workbook for a while, you may find that you want to insert new columns or rows, delete certain rows or columns, move them to a different location in the worksheet, or even hide them.

To insert rows:

1. Select the row heading below where you want the new row to appear.
2. Click the Insert command on the Home tab.
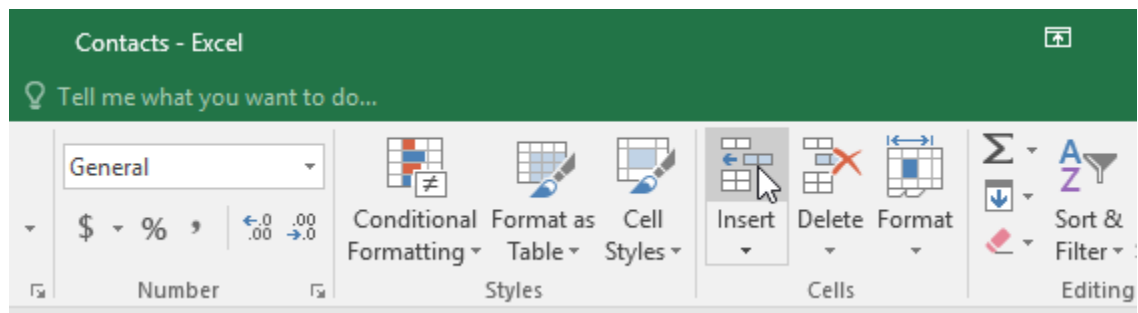

Figure 21 : insert row command

3. The new row will appear above the selected row.

To insert columns:

1. Select the column heading to the right of where you want the new column to appear.
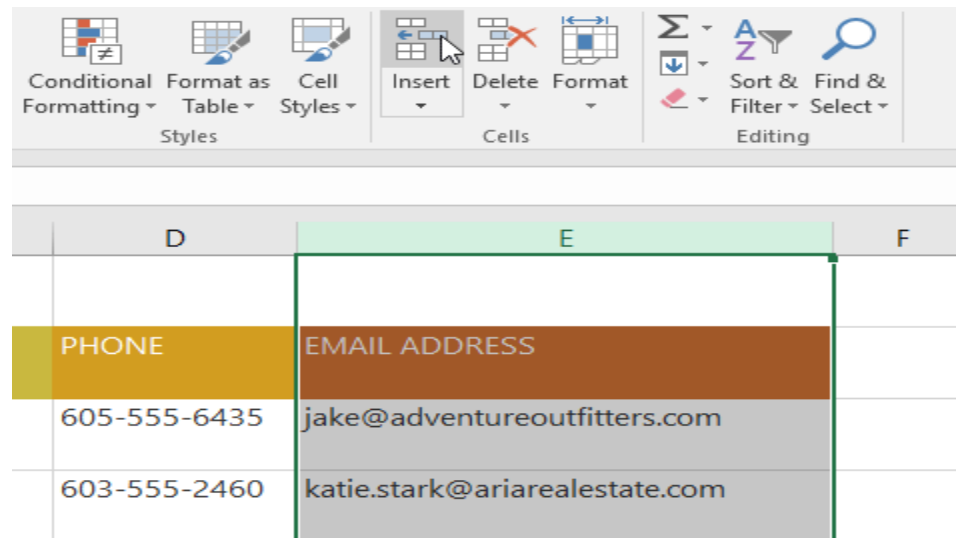2. Click the Insert command on the Home tab.

Figure 22 : insert coluams command

3. The new column will appear to the left of the selected column.

Wrapping text and merging cells:

Whenever you have too much cell content to be displayed in a single cell, you may decide to wrap the text or merge the cell rather than resize a column. Wrapping the text will automatically modify a cell's row height, allowing cell contents to be displayed on multiple lines. Merging allows you to combine a cell with adjacent empty cells to create one large cell.

To wrap text in cells:

1. Select the cells you want to wrap.
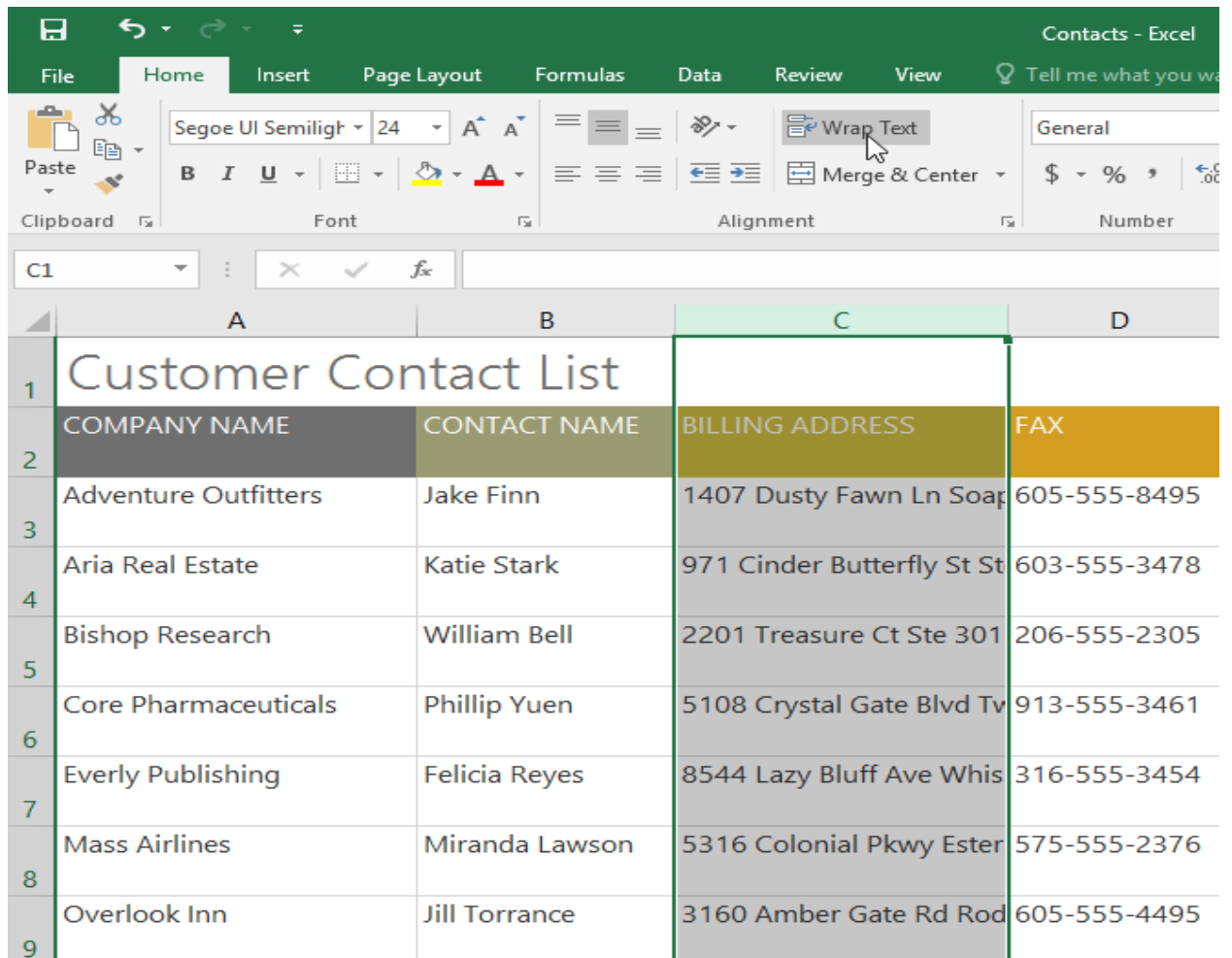2. Click the Wrap Text command on the Home tab.

Figure 23 : wrap command

3. The text in the selected cells will be wrapped.

To merge cells using the Merge & Center command:

1. Select the cell range you want to merge.
2. Click the Merge & Center command on the Home tab.
3. The selected cells will be merged, and the text will be centered.

To access additional merge options:

If you click the drop-down arrow next to the Merge & Center command on the Home tab, the Merge drop-down menu will appear.

From here, you can choose to:

- Merge & Center: This merges the selected cells into one cell and centers the text.
- Merge Across: This merges the selected cells into larger cells while keeping each row separate.
- Merge Cells: This merges the selected cells into one cell but does not center the text.
- Unmerge Cells: This unmerges selected cells.