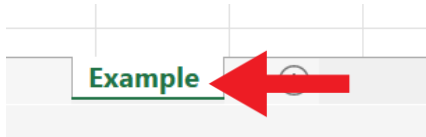
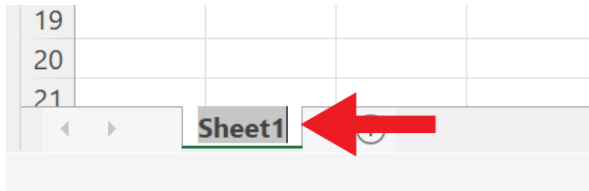



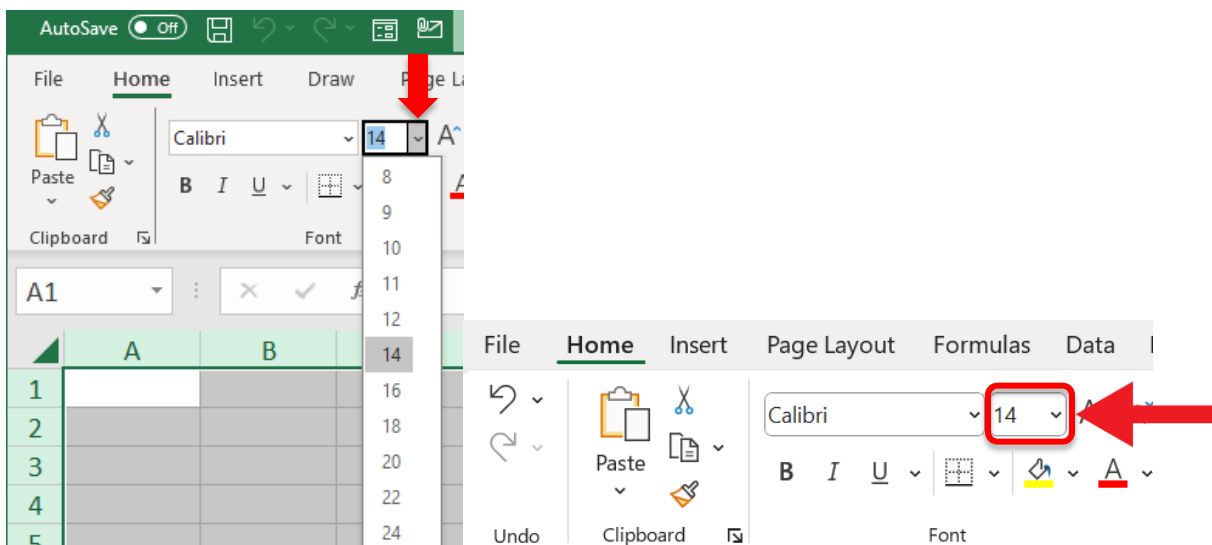
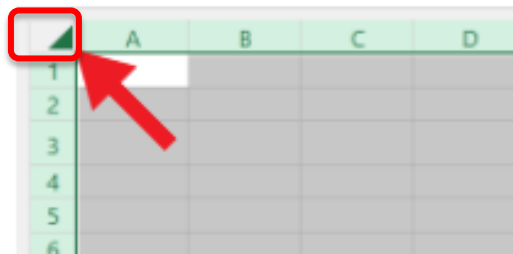
## How to make a Blood Pressure Tracker using Excel

In this project, you will make an Excel Spreadsheet that you can use to track your blood pressure and compare your readings to your blood pressure goal.

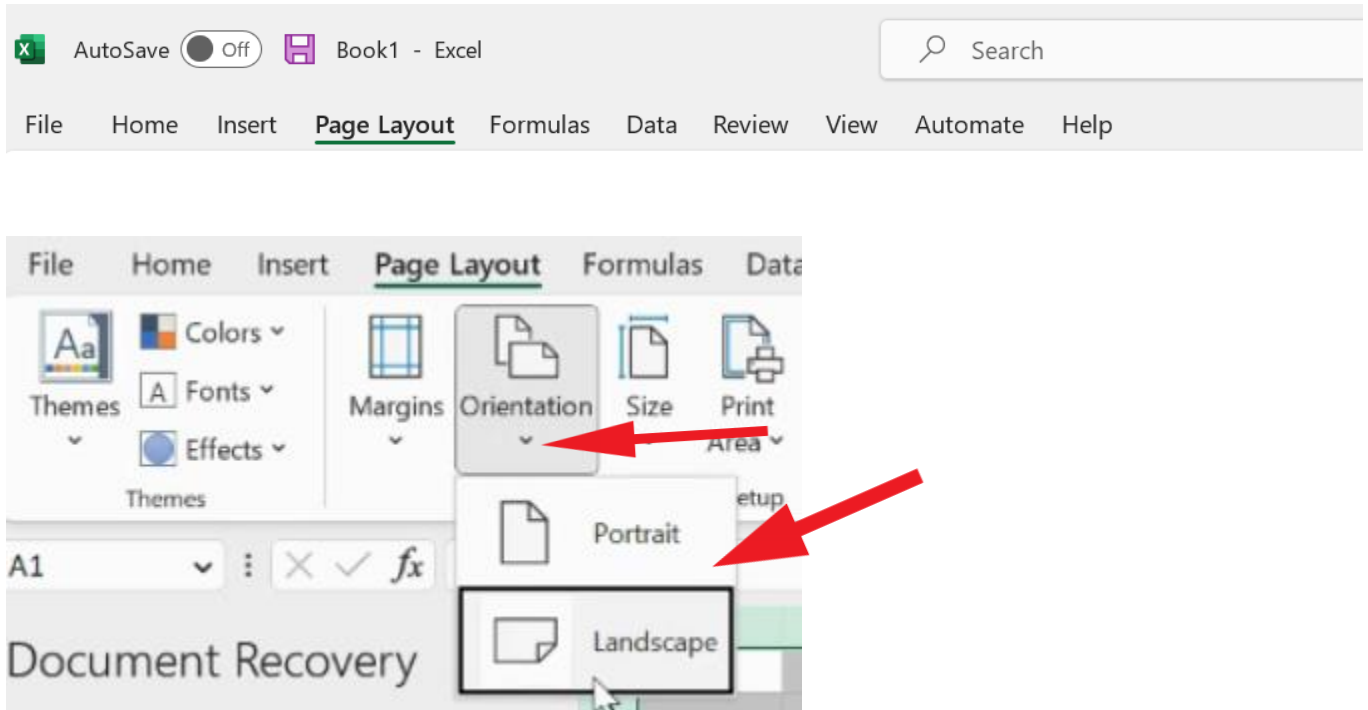
**Step 1 – Open a blank workbook in Excel, double-click on the "Sheet 1" tab at the bottom of the worksheet and type "Example".**



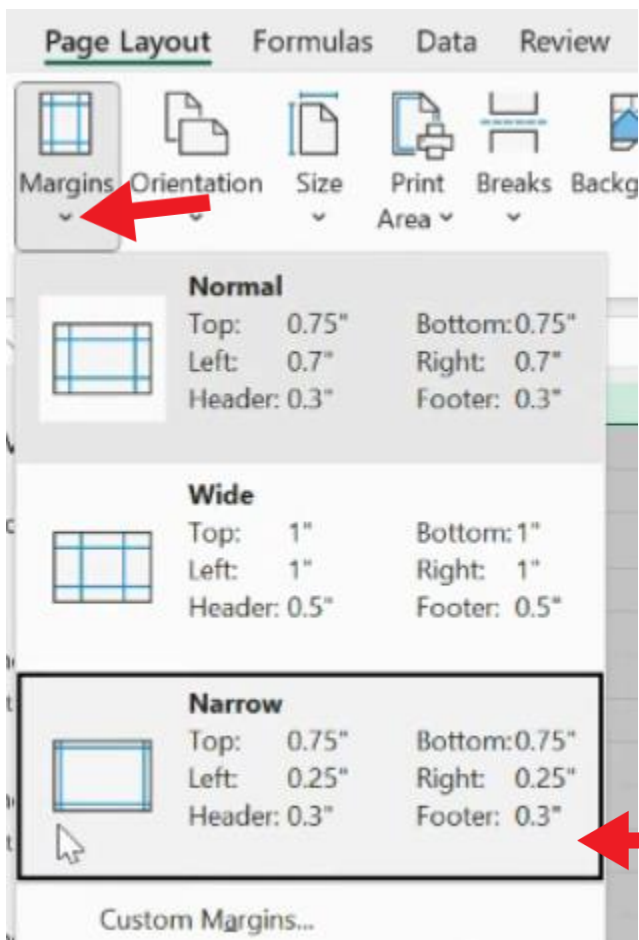
**Step 2 - Click on the "Example" tab. Next, click the Select All button  in the upper left corner of the spreadsheet. This will select all the cells in the spreadsheet. Change the font size to 14 by using the drop-down arrow to select font 14 or just type 14 in the font size box as shown below.**



**STEP 3 – Click on Page Layout, then click on Orientation, and choose Landscape.**



**Next, click on Margins, then Click on Narrow.**



**STEP 4 -** In cell A1, type "Daily Systolic Goal". In cell A2, type "Daily Diastolic Goal" Apply Bold **B** to the text. In cell B1, type "139". In cell B2, type "80".

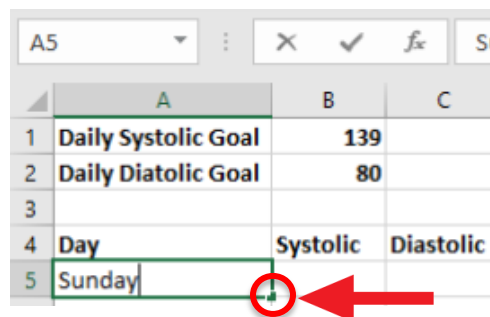
### Daily Systolic Goal

	A	B	C	D
1	<b>Daily Systolic Goal</b>	139		
2	<b>Daily Diastolic Goal</b>	80		

**STEP 5 –** Next, start a table with columns for the Day of the week, Systolic, Diastolic, Systolic Goal, and Diastolic Goal as shown below.

	A	B	C	D	E	F
1	<b>Daily Systolic Goal</b>		139			
2	<b>Daily Diastolic Goal</b>		80			
3						
4	<b>Day</b>	<b>Systolic</b>	<b>Diastolic</b>	<b>Daily Systolic Goal</b>	<b>Daily Diastolic Goal</b>	

Type "Sunday" in cell A5. The Fill Handle is a small square in the bottom right corner of the green box in cell A5. When the cursor changes to a thin cross, left-click and drag the Fill Handle down to cell A11. This will populate the rest of the days of the week



	A	B	C	D	E
1	<b>Daily Systolic Goal</b>		139		
2	<b>Daily Diastolic Goal</b>		80		
3					
4	<b>Day</b>	<b>Systolic</b>	<b>Diastolic</b>	<b>Daily Systolic Goal</b>	<b>Daily Diastolic Goal</b>
5	Sunday				
6	Monday				
7	Tuesday				
8	Wednesday				
9	Thursday				
10	Friday				
11	Saturday				

**STEP 6 - Populate the table with example values for Systolic and Diastolic blood pressures for each day as shown below. Center-align the values.**

Day	Systolic	Diastolic
Sunday	138	
Monday	141	
Tuesday	125	
Wednesday	137	
Thursday	145	
Friday	131	
Saturday	148	

Day	Systolic	Diastolic
Sunday	138	76
Monday	141	62
Tuesday	125	72
Wednesday	137	70
Thursday	145	84
Friday	131	77
Saturday	148	85

**Step 7-1:**

In the first cell under "Systolic Goal" (Cell D5), type in the formula `=B$1` and press Enter. `B$1` is an absolute cell reference. Using this absolute cell reference in a formula ensures that the value in cell B1 will always be used whenever we copy the formula to another cell.

SUM    X    ✓    fx    `=B$1`

	A	B	C	D	E
1	Daily Systolic Goal	139			
2	Daily Diatolic Goal	80			
3					
4	Day	Systolic	Diastolic	Systolic Goal	Diastolic Goal
5	Sunday	138	76	<code>=B\$1</code> ←	
6	Monday	141	62		
7	Tuesday	125	72		
8	Wednesday	137	70		
9	Thursday	145	84		
10	Friday	131	77		
11	Saturday	148	85		

	A	B	C	D	E
1	Daily Systolic Goal	139			
2	Daily Diatolic Goal	80			
3					
4	Day	Systolic	Diastolic	Systolic Goal	Diastolic Goal
5	Sunday	138	76	139	
6	Monday	141	62		
7	Tuesday	125	72		
8	Wednesday	137	70		
9	Thursday	145	84		
10	Friday	131	77		
11	Saturday	148	85		

**Step 7-2: Click on cell D5 to select it. Move your cursor to the small square at the bottom-right corner of the selected cell (this is called the Fill Handle). Click and hold the left mouse button on the Fill Handle. While holding the mouse button, drag the cursor downwards to copy the formula to cells D6, D7, and so on till D11. Release the mouse button.**

The screenshot shows the Excel ribbon with the 'Insert' tab selected. The formula bar displays the formula  $=\$B\$1$ . The spreadsheet data is as follows:

	A	B	C	D	E	F
1	Daily Systolic Goal	139				
2	Daily Diatolic Goal	80				
3						
4	Day	Systolic	Diastolic	Systolic Goal	Diastolic Goal	
5	Sunday	138	76	139		
6	Monday	141	62			
7	Tuesday	125	72			
8	Wednesday	137	70			
9	Thursday	145	84			
10	Friday	131	77			
11	Saturday	148	85			
12						

The screenshot shows the result of the drag operation. The formula bar still displays  $=\$B\$1$ . The spreadsheet data is now as follows:

	A	B	C	D	E
1	Daily Systolic Goal	139			
2	Daily Diatolic Goal	80			
3					
4	Day	Systolic	Diastolic	Systolic Goal	Diastolic Goal
5	Sunday	138	76	139	
6	Monday	141	62	139	
7	Tuesday	125	72	139	
8	Wednesday	137	70	139	
9	Thursday	145	84	139	
10	Friday	131	77	139	
11	Saturday	148	85	139	
12					

**Step 7-3: In the first cell under "Diastolic Goal" (E5), type in the absolute cell reference =B\$2 and press Enter.**

The screenshot shows the Excel ribbon with the 'Insert' tab selected. The formula bar contains the text `=B$2`. Below the ribbon, the spreadsheet grid is visible. Row 1 contains 'Daily Systolic Goal' in column A and '139' in column B. Row 2 contains 'Daily Diatolic Goal' in column A and '80' in column B. Row 4 contains headers: 'Day' in A, 'Systolic' in B, 'Diastolic' in C, 'Systolic Goal' in D, and 'Diastolic Goal' in E. Row 5 contains 'Sunday' in A, '138' in B, '76' in C, '139' in D, and `=B$2` in E. A red arrow points to cell E5.

	A	B	C	D	E	F
1	Daily Systolic Goal	139				
2	Daily Diatolic Goal	80				
3						
4	Day	Systolic	Diastolic	Systolic Goal	Diastolic Goal	
5	Sunday	138	76	139	=B\$2	
6	Monday	141	62	139		
7	Tuesday	125	72	139		
8	Wednesday	137	70	139		
9	Thursday	145	84	139		
10	Friday	131	77	139		
11	Saturday	148	85	139		
12						

The screenshot shows the same Excel spreadsheet as above, but now the formula `=B$2` has been entered into cell E5, and the value '80' is displayed. The formula bar is empty, and the cell E5 is highlighted with a green border.


	A	B	C	D	E	F	G	H	I
1	Daily Systolic Goal	139							
2	Daily Diatolic Goal	80							
3									
4	Day	Systolic	Diastolic	Systolic Goal	Diastolic Goal				
5	Sunday	138	76	139	80				
6	Monday	141	62	139					
7	Tuesday	125	72	139					
8	Wednesday	137	70	139					
9	Thursday	145	84	139					
10	Friday	131	77	139					
11	Saturday	148	85	139					
12									

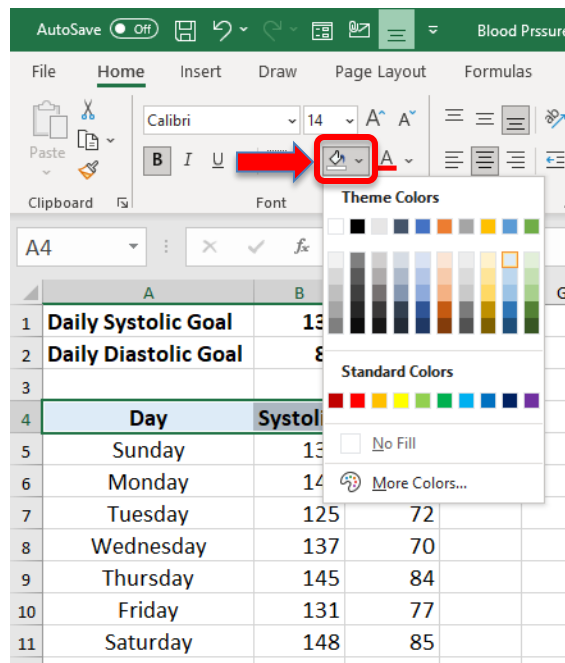
### Step 7-4:

Click on cell E5 to select it. Follow the same Fill Handle process as in Step 7-2: click and hold the left mouse button on the Fill Handle, drag the cursor downwards to copy the formula to cells E6, E7, and so on till E11, then release the mouse button.

After correctly following these steps, you should see the "Systolic Goal" and "Diastolic Goal" values correctly copied down the respective columns for each day.

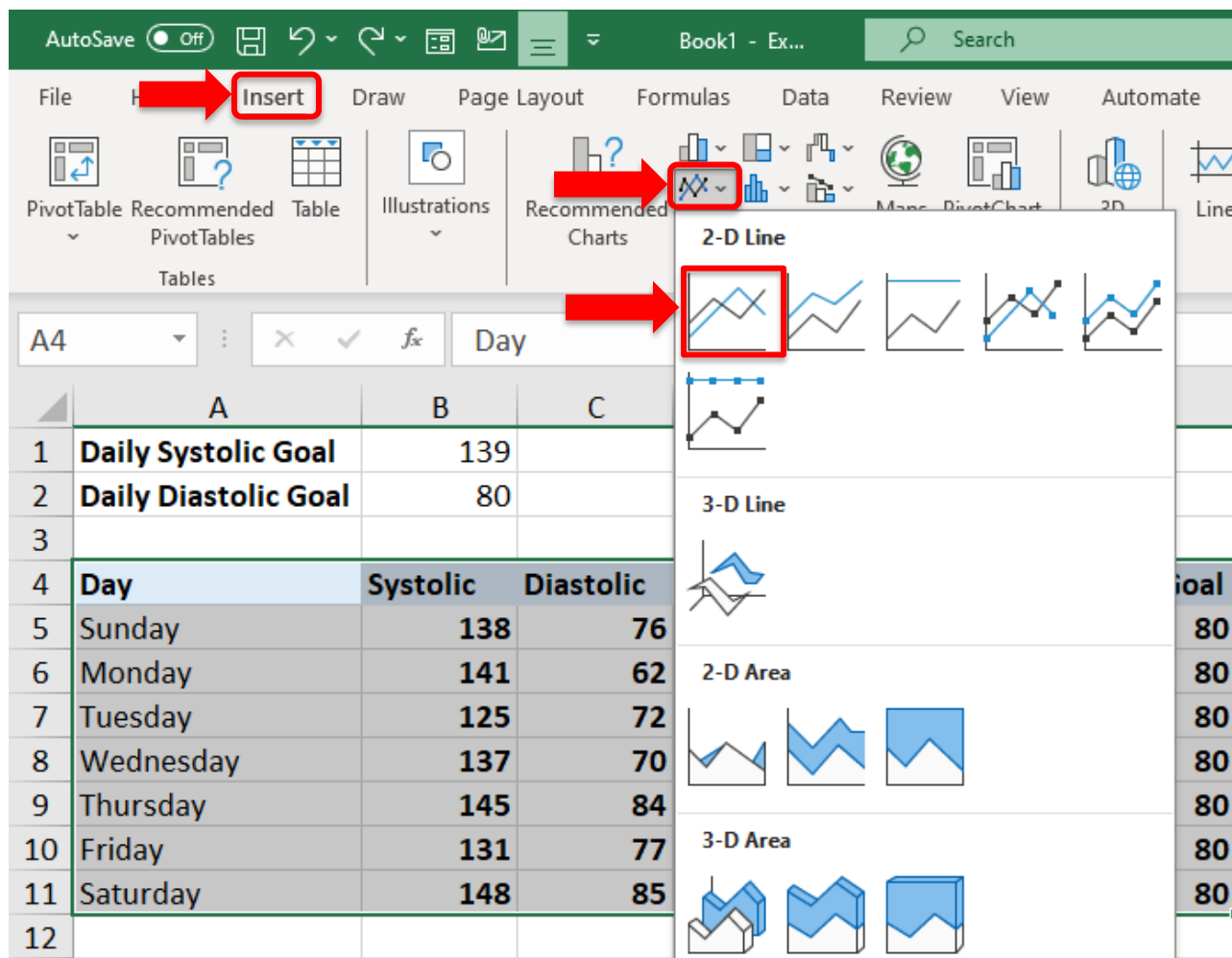
	A	B	C	D	E	F	G	H
1	Daily Systolic Goal	139						
2	Daily Diastolic Goal	80						
3								
4	Day	Systolic	Diastolic	Systolic Goal	Diastolic Goal			
5	Sunday	138	76	139	80			
6	Monday	141	62	139	80			
7	Tuesday	125	72	139	80			
8	Wednesday	137	70	139	80			
9	Thursday	145	84	139	80			
10	Friday	131	77	139	80			
11	Saturday	148	85	139	80			
12								

**STEP 7.5:** Highlight cells A4 through E4, click on the Fill Color icon  and select a color for those cells, as shown below.

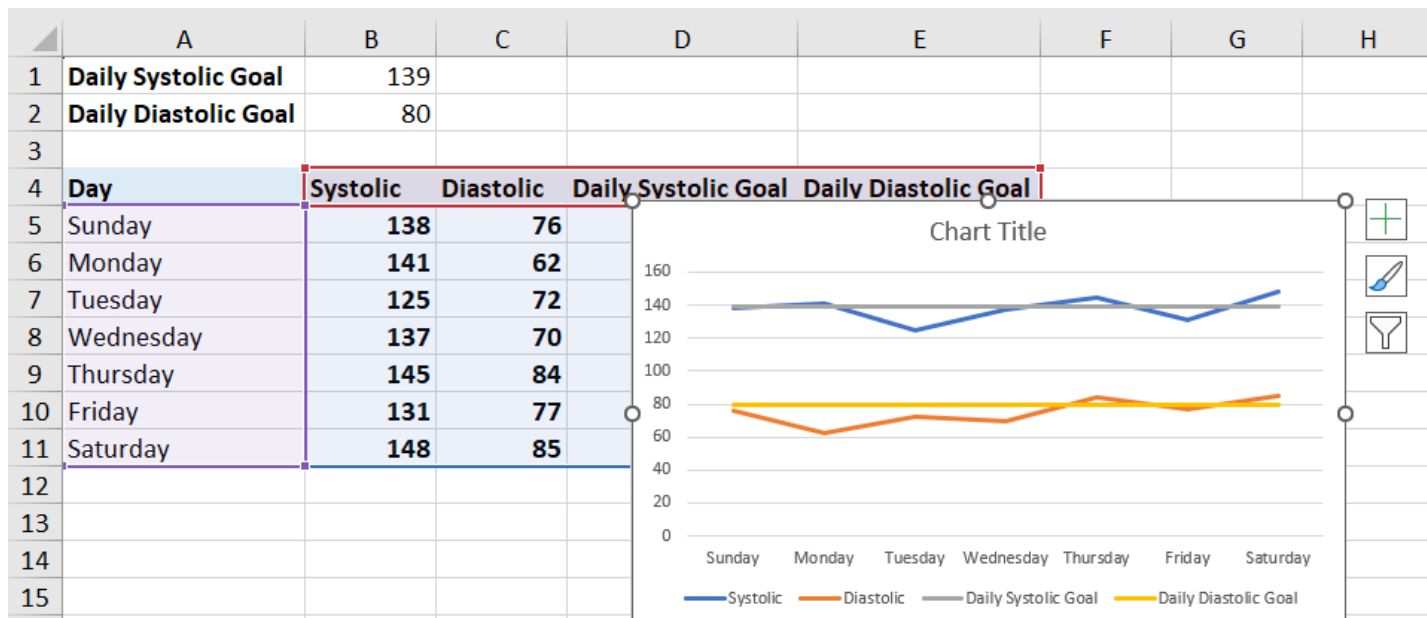


**Step 8-1: Highlight all the column headers and the data you've entered in your table, including the days, systolic values, and diastolic values. Click on the "Insert" tab in Excel's ribbon.**

Click on the  icon in the Charts group and select the 1st chart in 2-D Line as shown below.

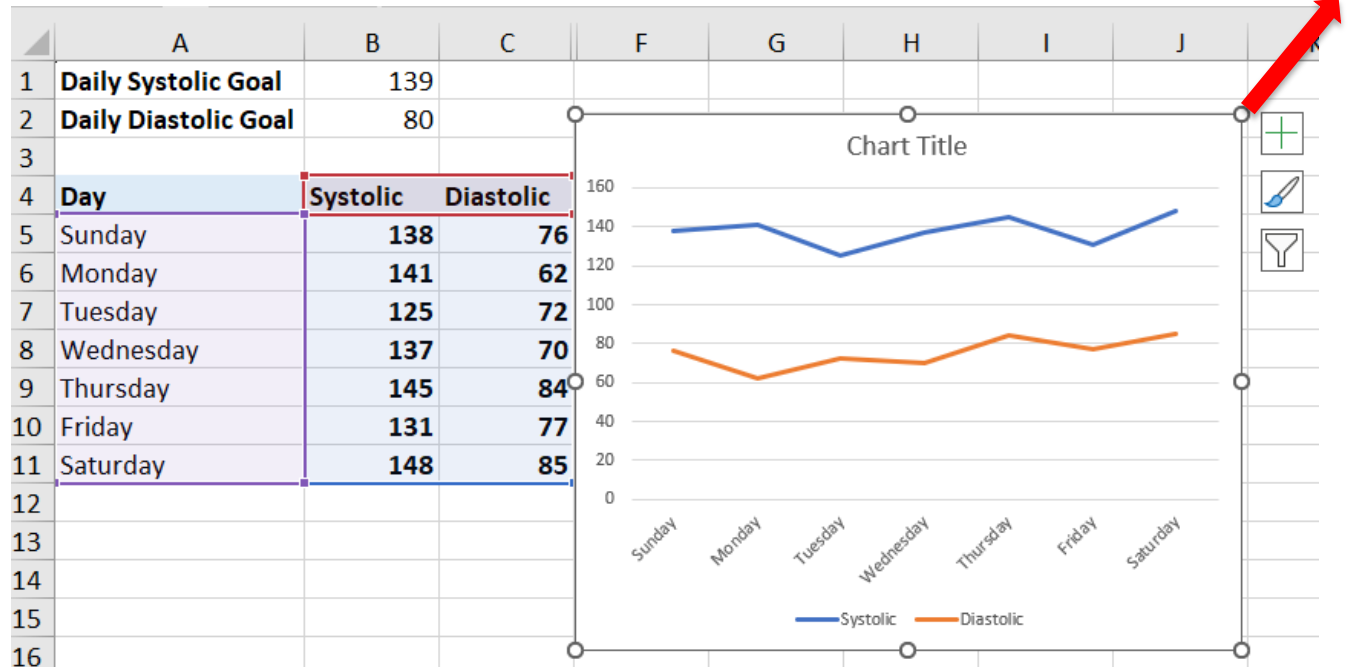


	A	B	C
1	<b>Daily Systolic Goal</b>	139	
2	<b>Daily Diastolic Goal</b>	80	
3			
4	<b>Day</b>	<b>Systolic</b>	<b>Diastolic</b>
5	Sunday	138	76
6	Monday	141	62
7	Tuesday	125	72
8	Wednesday	137	70
9	Thursday	145	84
10	Friday	131	77
11	Saturday	148	85
12			



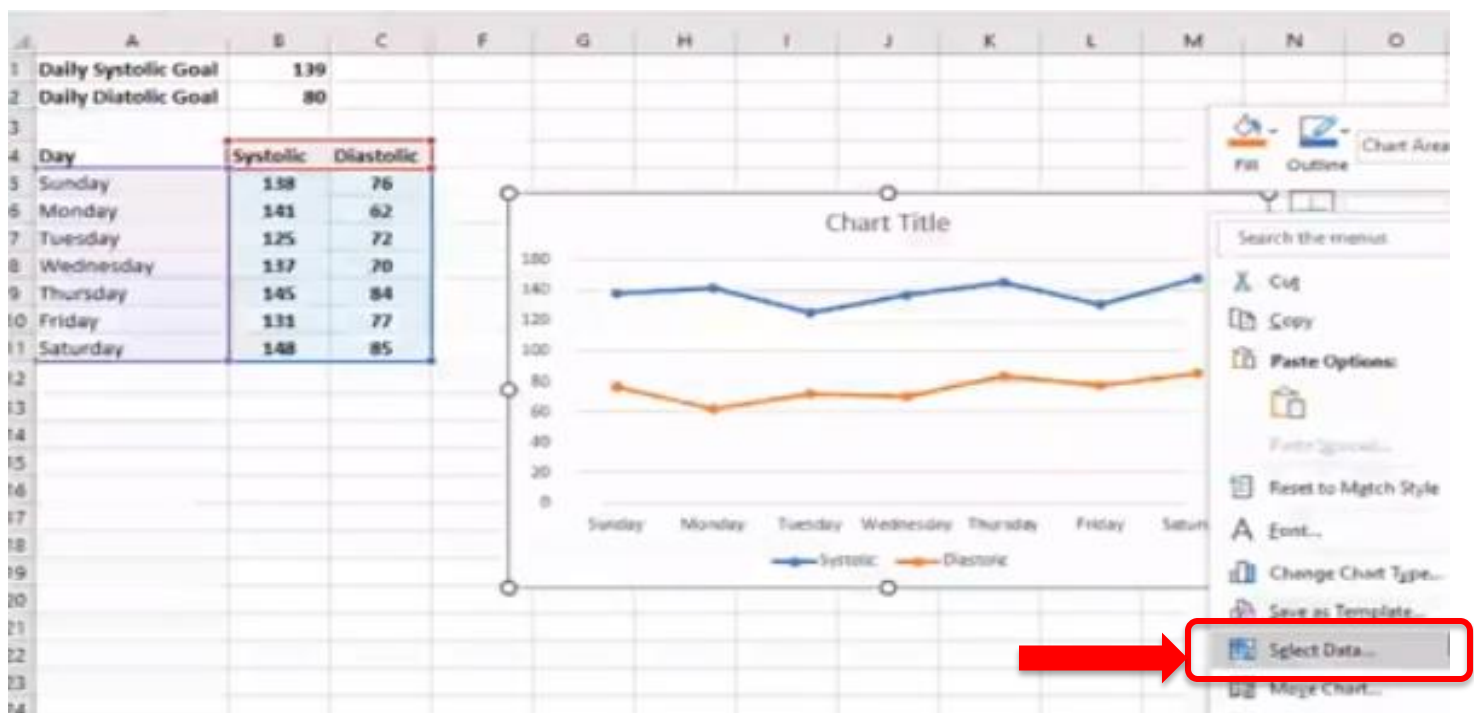
**Step 8-2:** To make more space for your chart, right-click on column D header and choose "Hide." Repeat the same for column E. Click on the graph and increase the size of the graph by dragging the dot at the top corner.

You will now have a line chart with the days on the x-axis and blood pressure values on the y-axis.

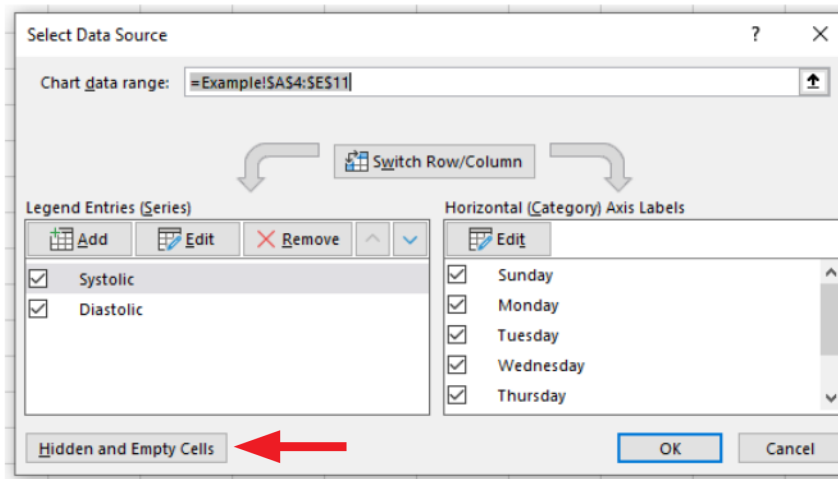


**STEP 8-3** Right-click on the chart itself to bring up the chart menu.

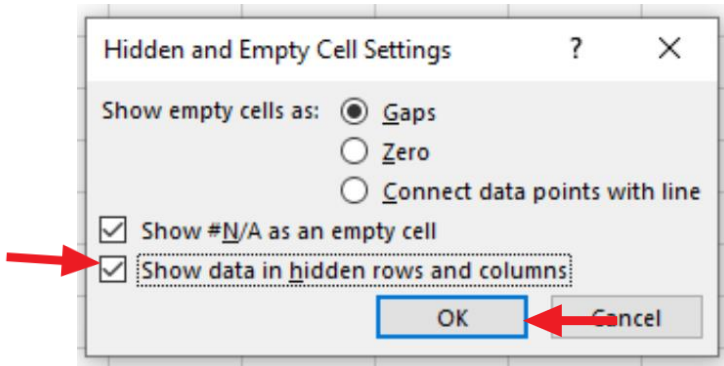
Click on "Select Data" from the menu.



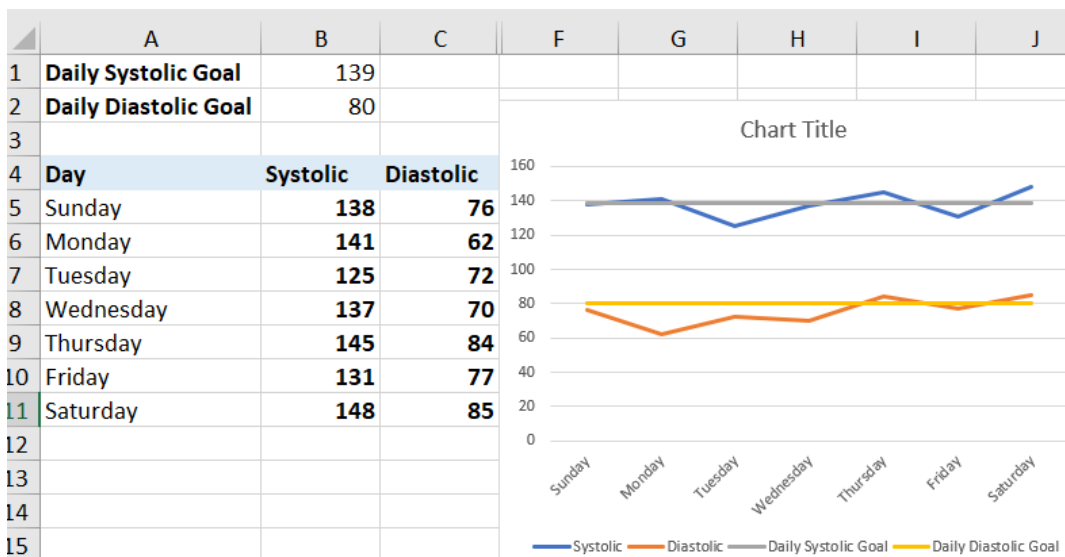
**Step 8-4: In the "Select Data Source" window that opens, click on the "Hidden and Empty Cells" button.**



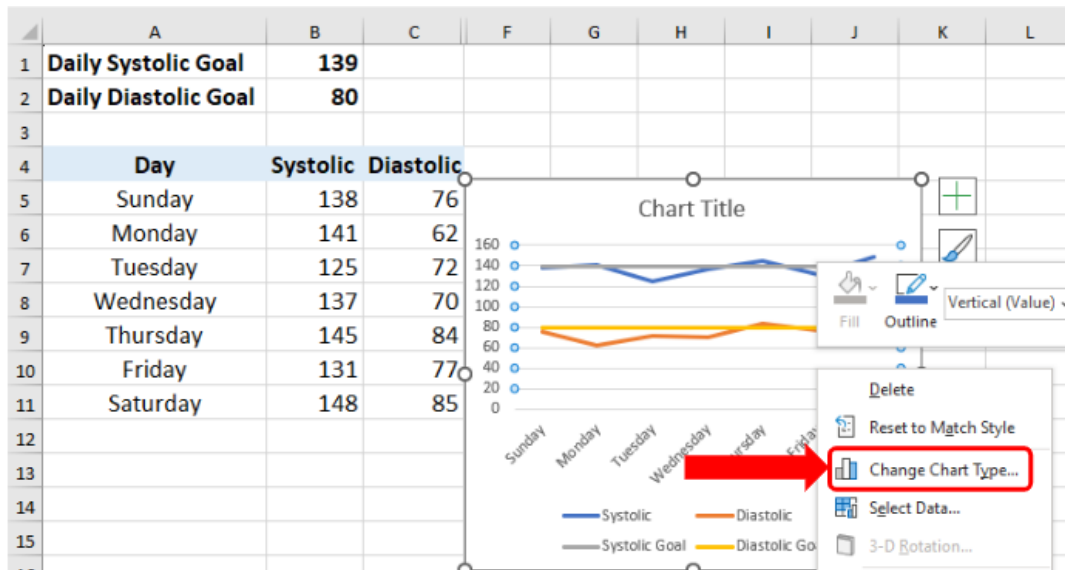
**In the "Hidden and Empty Cells" dialog box that opens, you will see options for how to treat hidden and empty cells in your data. Choose the option "Show data in hidden rows and columns." Click "OK" to apply the changes.**



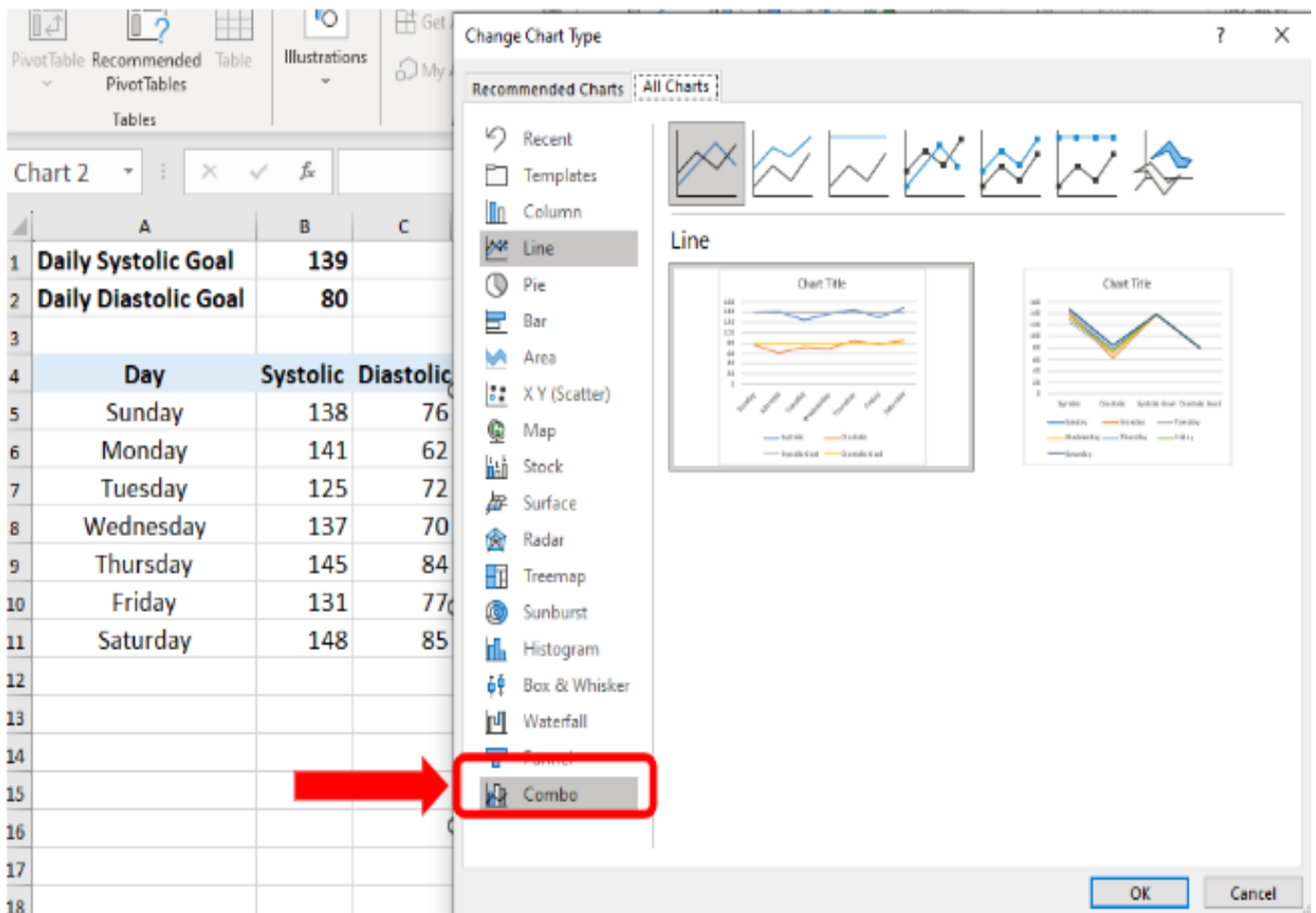
**Now your line chart has been adjusted to account for the hidden columns (D and E) and should accurately represent the systolic and diastolic blood pressure values and goals.**



**Step 9-1: Right-click on the chart, click on Change Chart Type as shown below.**



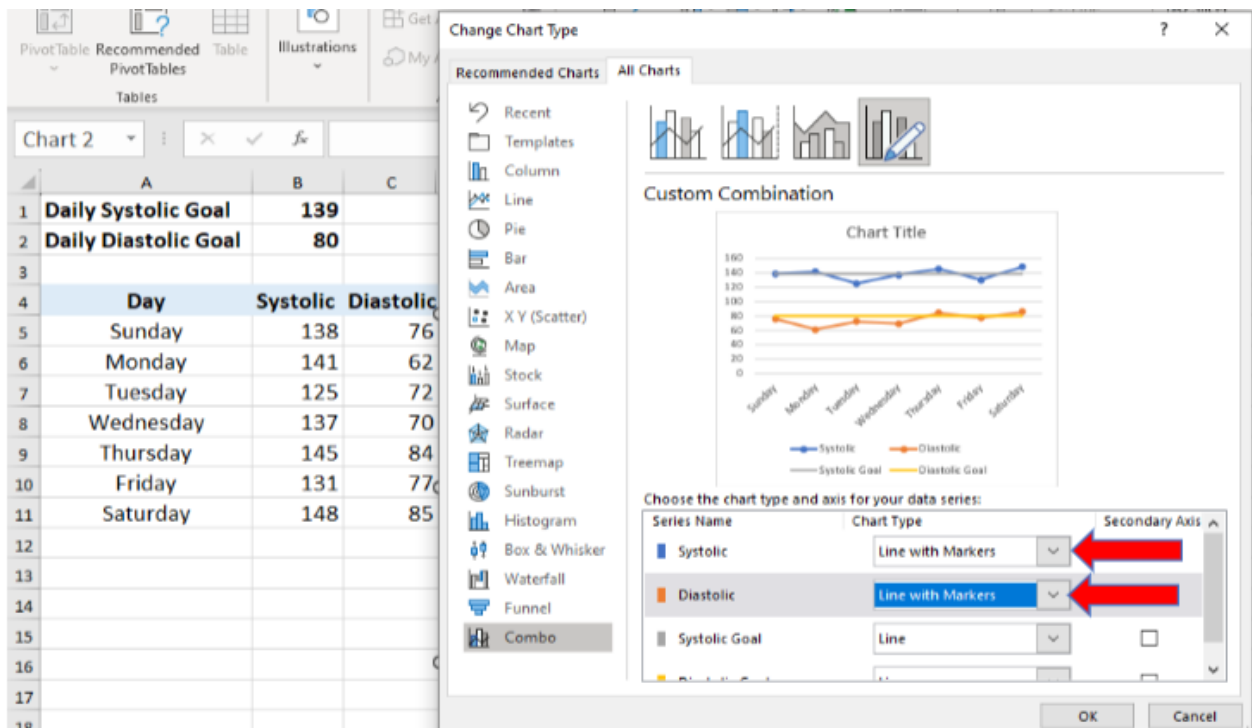
**Step 9-2: Next, click Combo as shown below.**



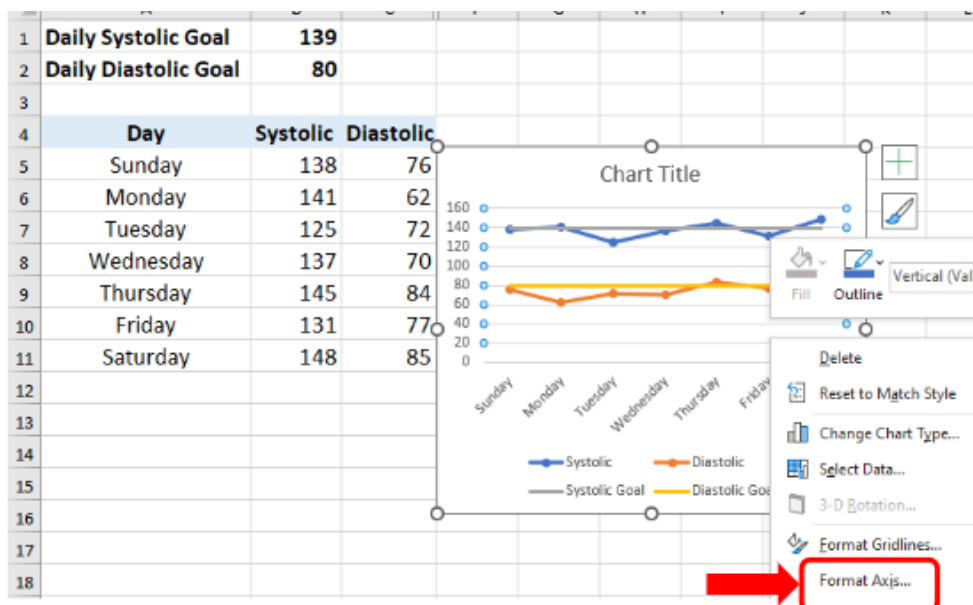
**Step 9-3:** After you click on the Combo button, The Custom Combination window will open. In that window, use the drop-down menus next to Systolic and Diastolic to select Line with Markers, as shown below then click OK.

This will add dots to the data points for Systolic and Diastolic on the charts. These dots correspond to the data points for each day.

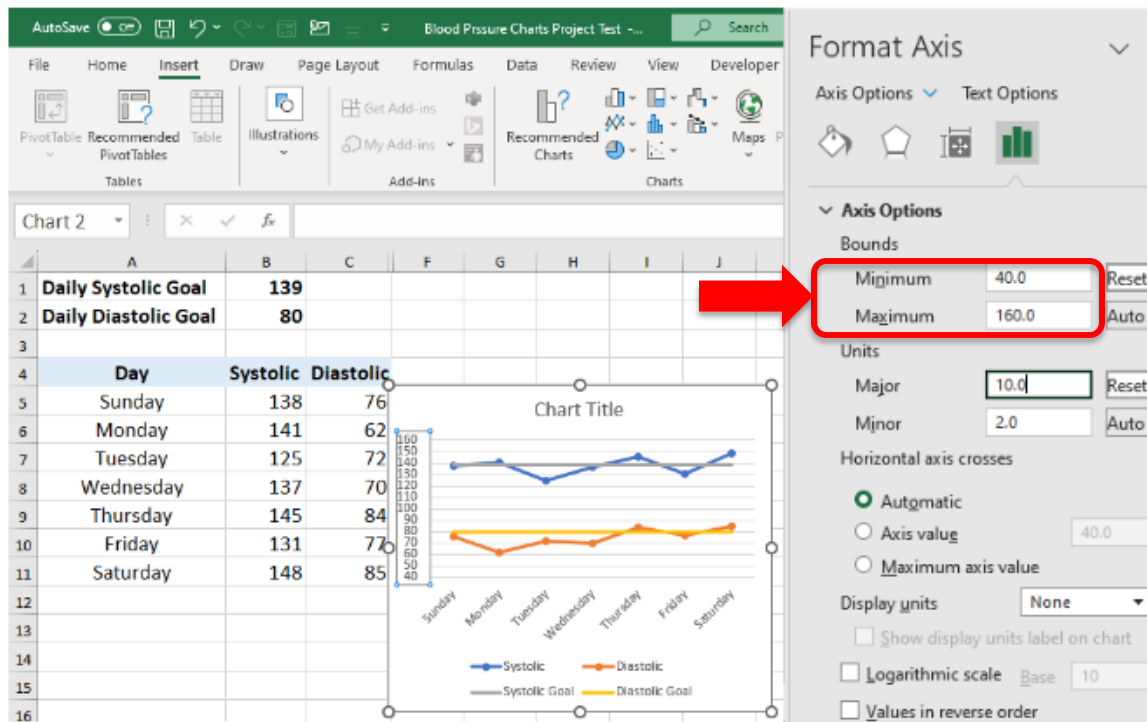
The Systolic Goal and Diastolic Goal are represented by straight lines with no dots.



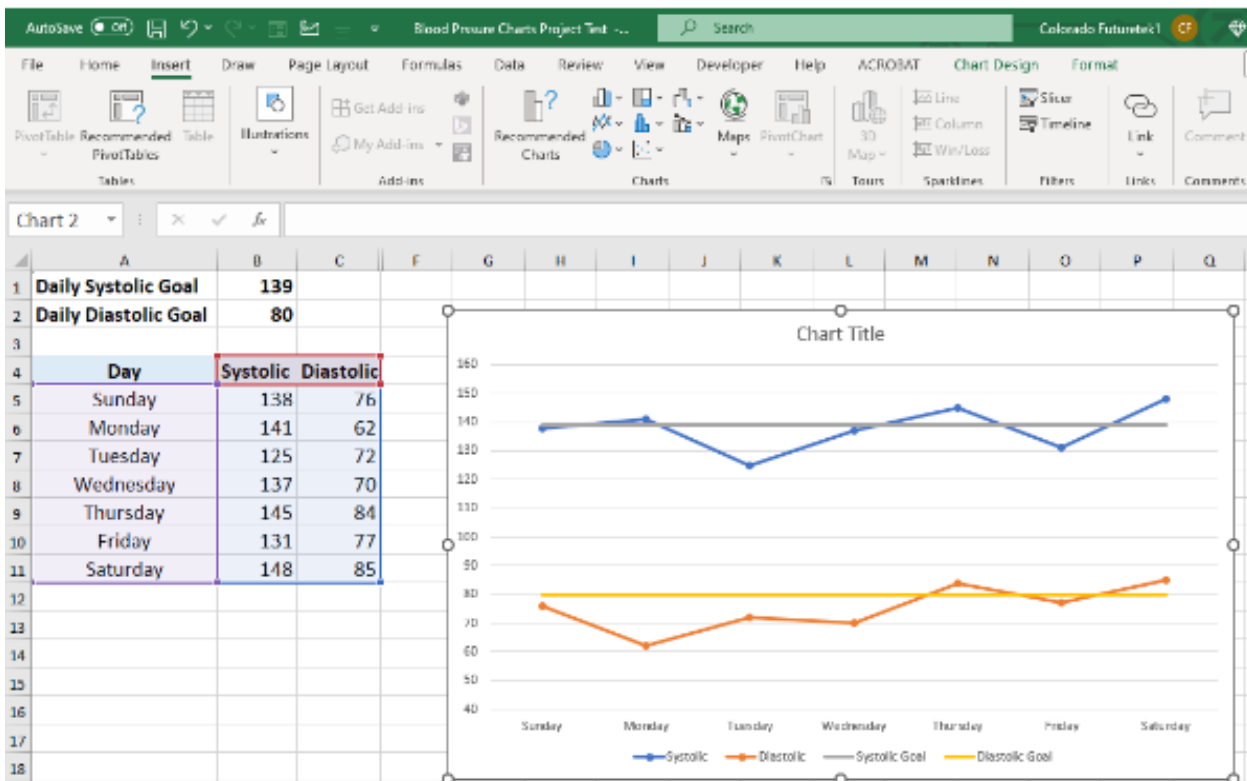
**STEP 10:** Next, we will adjust the axis labels, chart title, and other formatting elements to make the chart clear and informative. Right-click on the chart, then click on Format Axis.



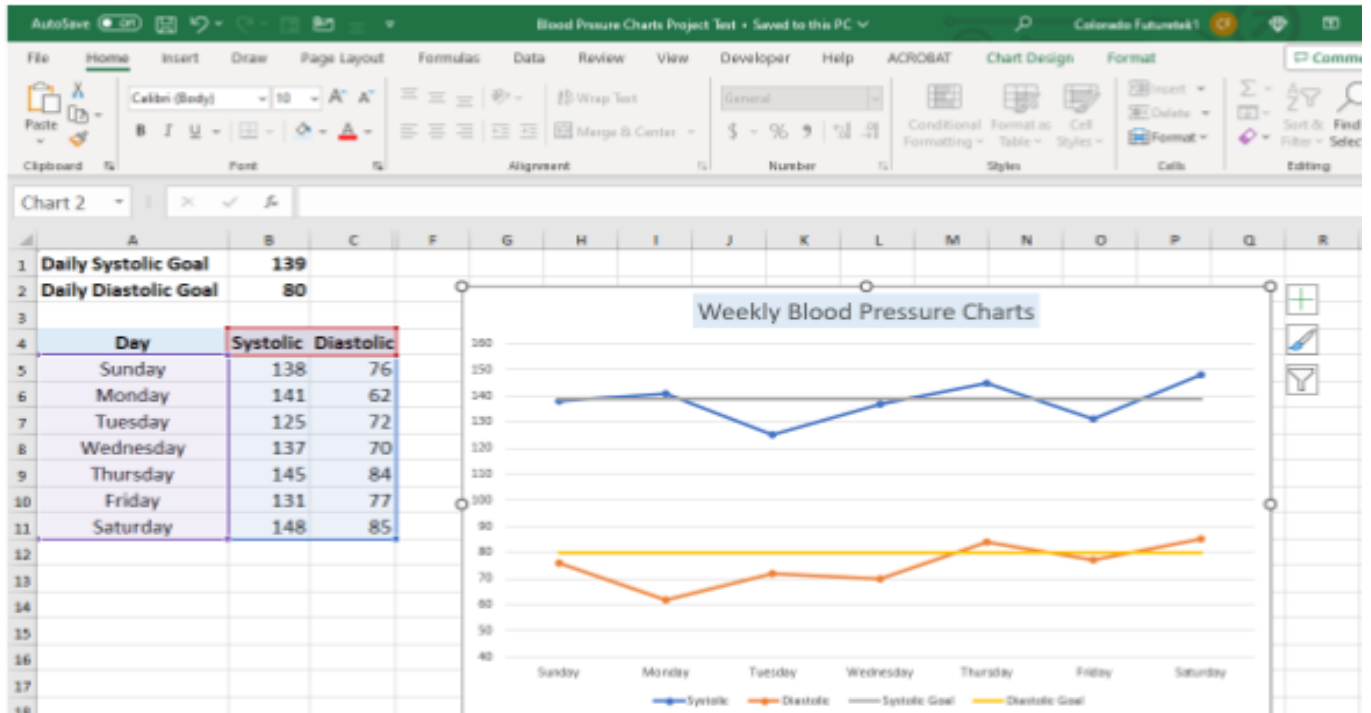
Next, type in 40 for Minimum Bounds, and type in 10 for Major Units as shown below.



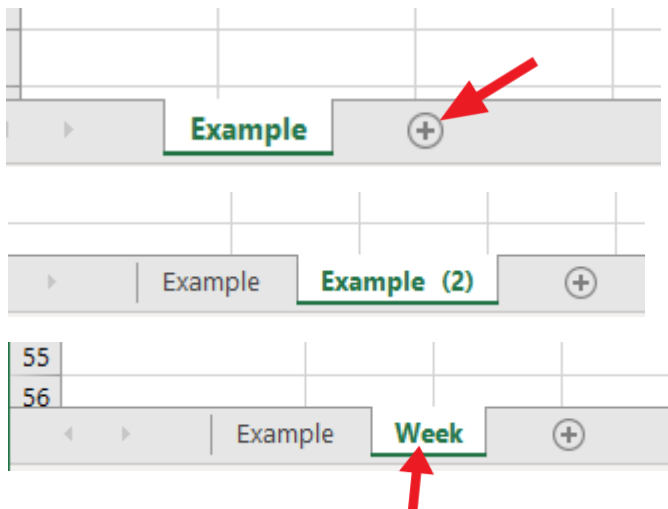
**STEP 11:** Click on the dot at the top right corner of the chart, hold the left mouse button down and drag it away from the center of the chart to increase the size of the chart as shown below. If you need to shrink the size of the chart, drag the corner toward the center of the chart. Next, click inside the chart, hold the left mouse button down and drag it to move the chart to the position shown below.



**STEP 12: Click on the Chart Title and type in Weekly Blood Pressure Charts. Add a background color to the title as shown below (use the method from STEP 7.5).**



**STEP 13: Next, Click and hold on the Example Worksheet tab while also holding the Ctrl key down on your computer keyboard, and drag the mouse over to point at the + sign and release. This creates a new tab labeled Example (2). Double-click on this new tab and rename it Week.**



**The new Week spreadsheet should be an exact copy of the Example spreadsheet.**

14) Click on the Week tab, which will move you from the Example spreadsheet to the Week spreadsheet. While on the Week spreadsheet, select all the cells in the table under Systolic and Diastolic. Right click in this selection and click on Clear Contents. This will clear all the values in those two columns.

The screenshot shows the Microsoft Excel interface. The ribbon is set to 'Home'. The spreadsheet contains a table with the following data:

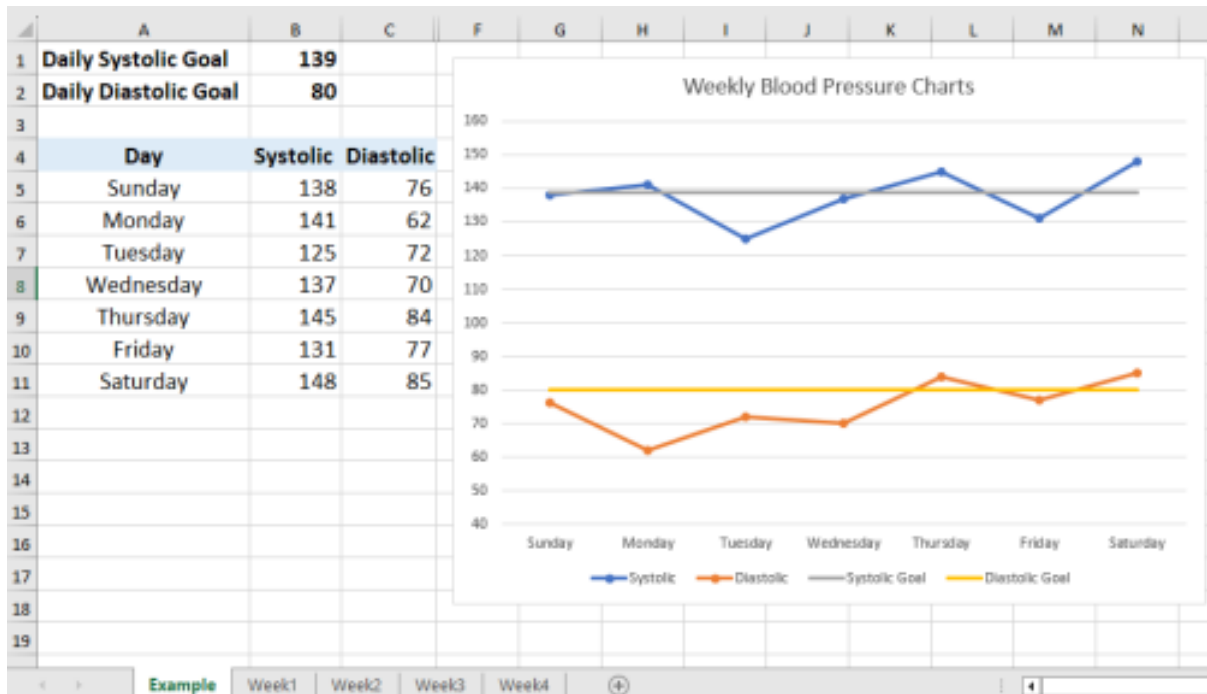
Day	Systolic	Diastolic
Sunday	138	
Monday	141	
Tuesday	125	
Wednesday	137	
Thursday	145	
Friday	131	
Saturday	148	

A right-click context menu is open over the table, with the 'Clear Contents' option highlighted by a red arrow. Another red arrow points to the 'Week' tab at the bottom of the spreadsheet.

**STEP 15:** Click and hold on the Week Worksheet tab while also holding the Ctrl key down, and drag the mouse over to point at the + sign and release. This copies the Week spreadsheet to a new tab labelled Week (2). Repeat this process to create tabs for Week (3) and Week (4) as shown below.



**16)** The Example worksheet will remain as shown below.



**STEP 17:** The four Week worksheets are now ready for you to enter your daily blood pressure readings as in the Week (2) spreadsheet shown below.

