

How can I create side-by-side boxplots in Excel?

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To create side-by-side boxplots in Excel, one can use the built-in chart feature. This can be done by selecting the data for each category that needs to be compared and then creating a boxplot chart. The boxplots can then be rearranged side by side by adjusting the chart layout and design options. Additionally, one can also use the pivot chart feature to create side-by-side boxplots by organizing the data in a pivot table and then creating a chart from it. This allows for easy comparison between different categories and their respective data distributions. Overall, creating side-by-side boxplots in Excel is a simple process that can be achieved using the available charting and data organization tools.

Create Side-by-Side Boxplots in Excel

A (sometimes called a box-and-whisker plot) is a plot that shows the five-number summary of a dataset, which includes the following values:

Minimum First Quartile Median Third Quartile Maximum

Using these five values, we can create a boxplot to gain a solid understanding of the distribution of values in a given dataset.

We can also compare two or more boxplots to quickly visualize the differences between two or more datasets.

The following step-by-step example shows how to create side-by-side boxplots in Excel.

Step 1: Enter the Data

First, let's enter the values for three datasets in Excel:

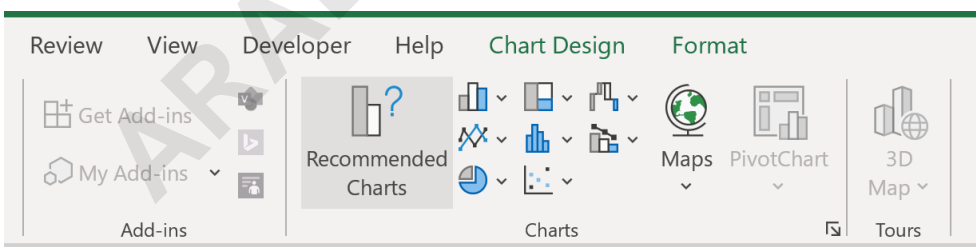
	A	B	C	D	E	F	G
1	Dataset 1	Dataset 2	Dataset 3				
2	4	9	13				
3	5	10	14				
4	5	11	14				
5	6	11	15				
6	7	11	15				
7	12	12	16				
8	13	13	17				
9	14	13	19				
10	14	14	22				
11	15	14	23				
12	16	15	23				
13	17	15	24				
14	17	16	26				
15	19	17	27				
16	20	18	29				
17	24	19	29				
18	25	22	30				
19	25	22	30				
20	28	22	31				
21	29	23	33				
22							
23							
24							
25							

Step 2: Create the Side-by-Side Boxplots

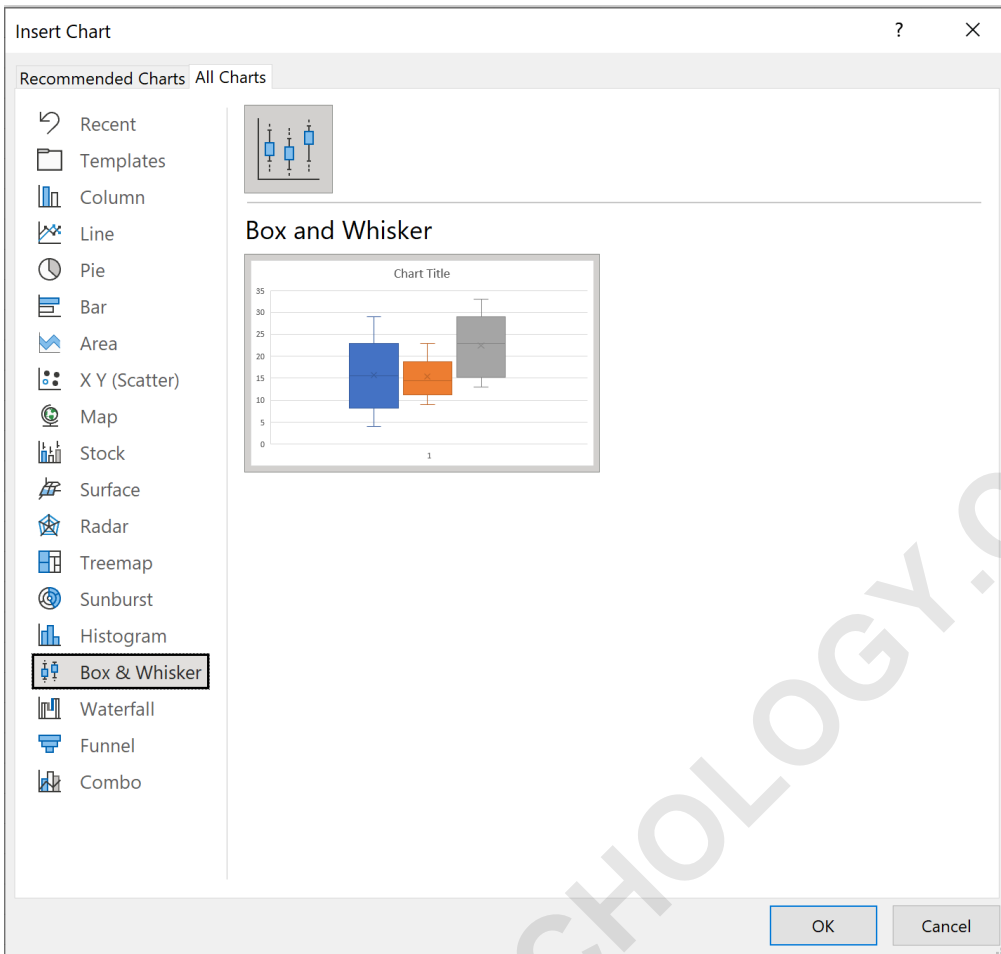
Next, highlight cells A1:C21.

	A	B	C	D	E	F	G	H
1	Dataset 1	Dataset 2	Dataset 3					
2	4	9	13					
3	5	10	14					
4	5	11	14					
5	6	11	15					
6	7	11	15					
7	12	12	16					
8	13	13	17					
9	14	13	19					
10	14	14	22					
11	15	14	23					
12	16	15	23					
13	17	15	24					
14	17	16	26					
15	19	17	27					
16	20	18	29					
17	24	19	29					
18	25	22	30					
19	25	22	30					
20	28	22	31					
21	29	23	33					
22								
23								
24								
25								
26								

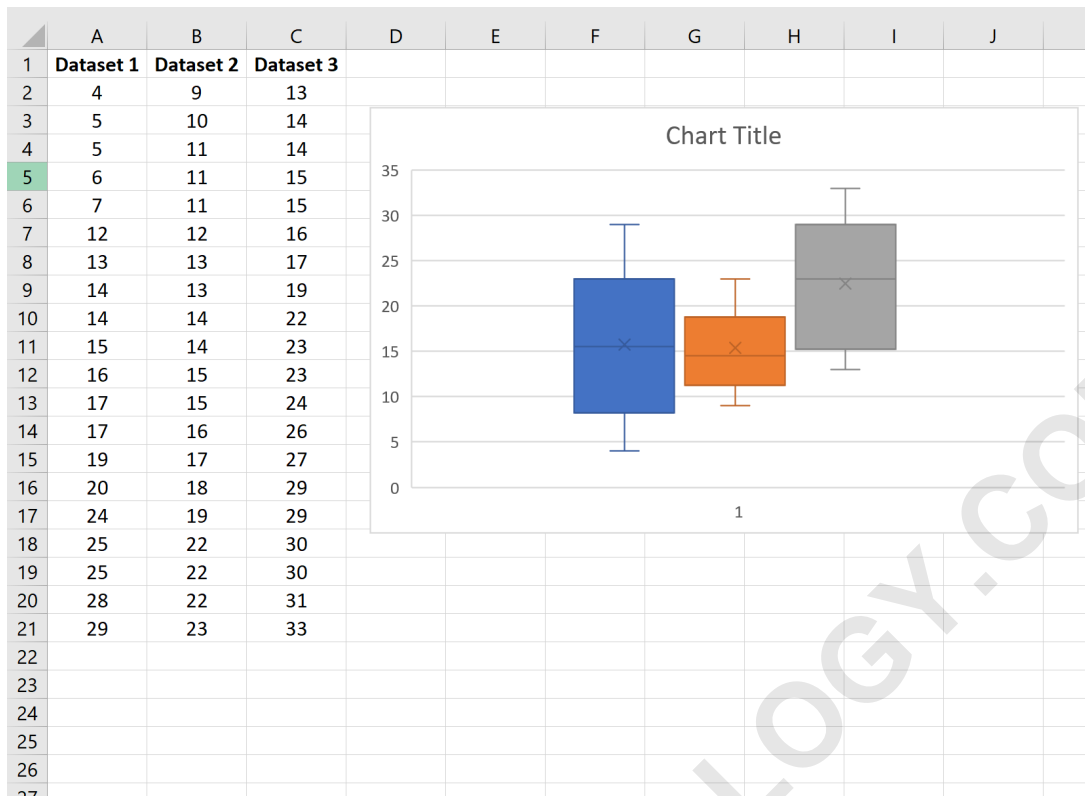
Next, click the Insert tab along the top ribbon. Then click Recommended Charts.



Next, click All Charts and then click Box & Whisker. Then click OK.



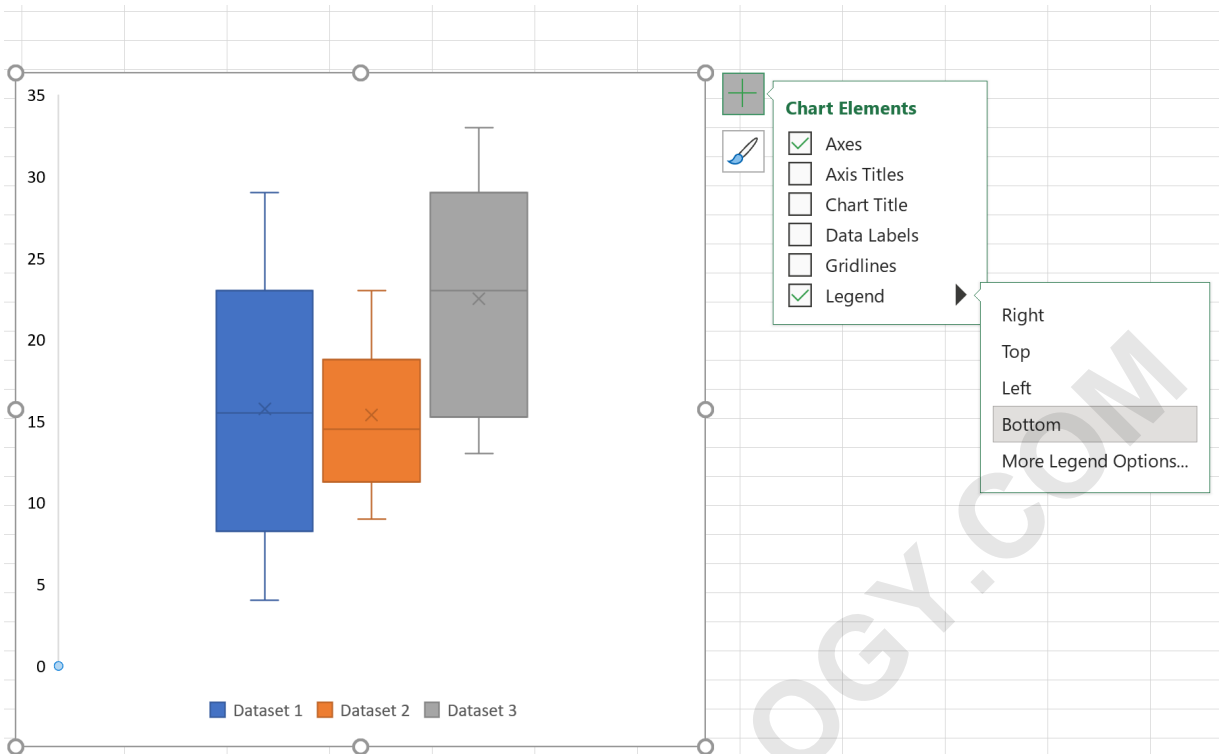
The following side-by-side boxplots will automatically appear:



Step 3: Customize the Plot

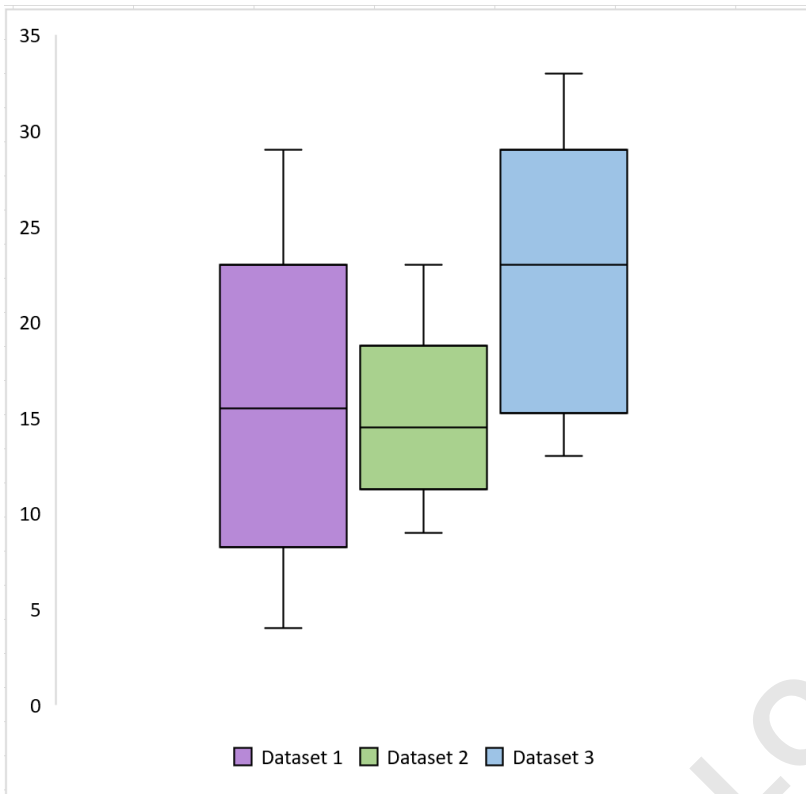
Next, click the gridlines in the background of the plot and then click delete.

Then click the green plus "+" sign in the top right corner of the plot. Then check the box next to Legend and select Bottom as the position:



Lastly, feel free to click on any of the individual boxplots and change the colors to anything that you'd like.

Here's what our final side-by-side boxplots look like:



We can make the following observations from the boxplots:

Dataset 1 has the highest variance (since it's the longest boxplot) Dataset 2 has the lowest variance (since it's the shortest boxplot) Dataset 3 has the highest median value (as indicated by the horizontal bar in the middle of the box)