

DR. ALVIN'S PUBLICATIONS

DATA VISUALIZATION WITH EXCEL

DR. ALVIN ANG



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II. CHANGING COLOR SCHEMES

A. USING HEX CODE

Go to <https://colorbrewer2.org/>

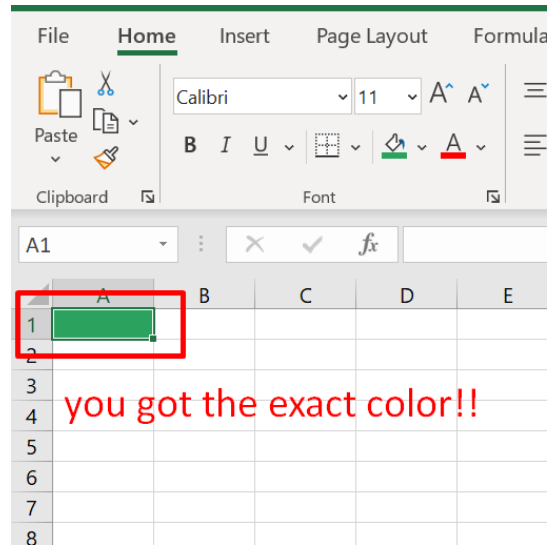
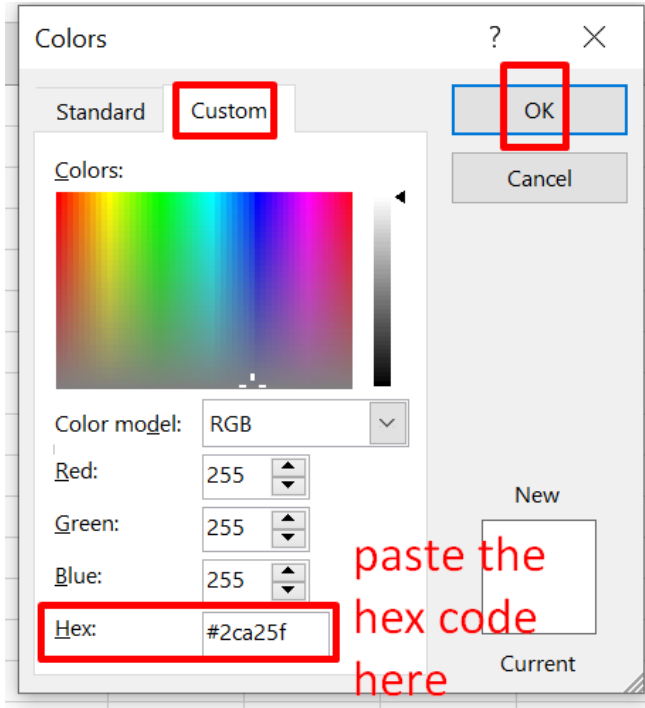
let's say u really liked this color scheme...

and you really wanted to choose this particular color...

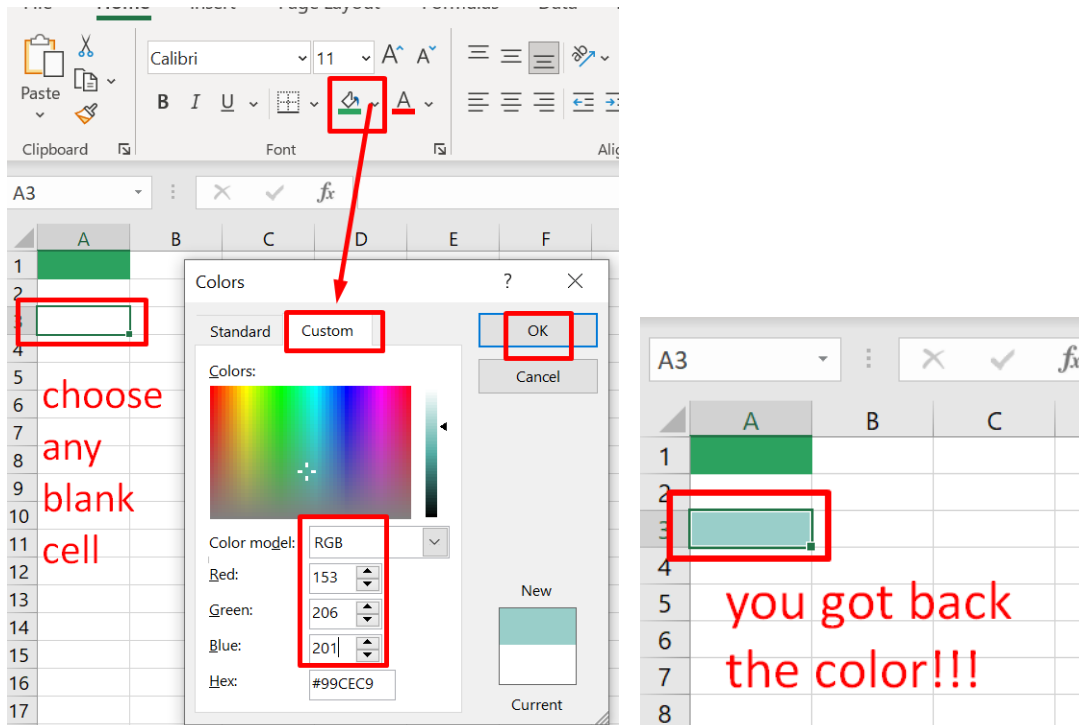
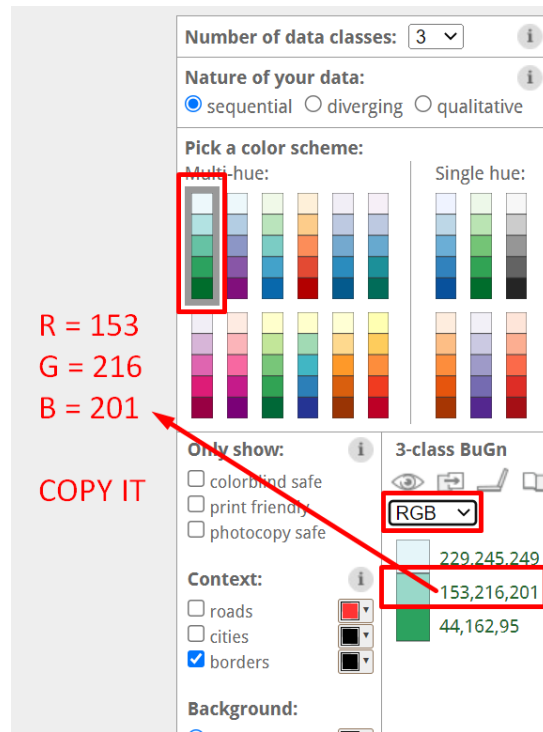
copy the code !!!!!!!

Go to Any Blank Excel Worksheet....

select any blank cell and choose "more colors" to customize the color



B. USING RGB



III. HIDING STUFF

A. HIDING GRIDLINES

The image shows the Microsoft Excel ribbon with the 'View' tab selected. The 'View' tab is highlighted with a red box. Within the 'View' tab, the 'Gridlines' checkbox is checked and highlighted with a red box. Below the ribbon, the Excel grid is visible, with a red box around the text 'remove the gridlines' in the center of the grid.

File Home Insert Page Layout Formulas Data Review **View** Help

Normal Page Break Preview Page Layout Views Custom Views Ruler Formula Bar Gridlines Headings Show Zoom 100% Zoom to Selection New Window Arrange All Freeze Panes

A1

	A	B	C	D	E	F	G	H	I	J
1										
2										
3										
4										
5										
6										

remove the gridlines

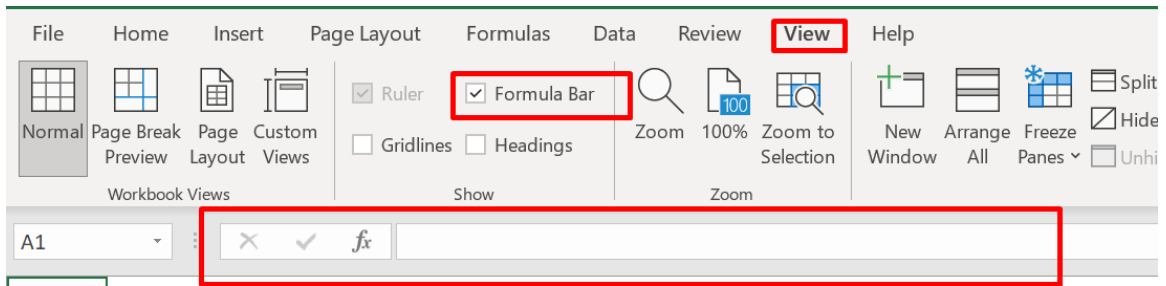
B. HIDING HEADINGS

The screenshot shows the Microsoft Excel ribbon with the **View** tab selected. The **Headings** checkbox is checked and highlighted with a red box. Below the ribbon, the spreadsheet grid shows columns A through L, with a red box highlighting the column headers. The text "remove the HHeadings" is written in red below the grid.

	A	B	C	D	E	F	G	H	I	J	K	L
1												
2												
3												
4												
5												

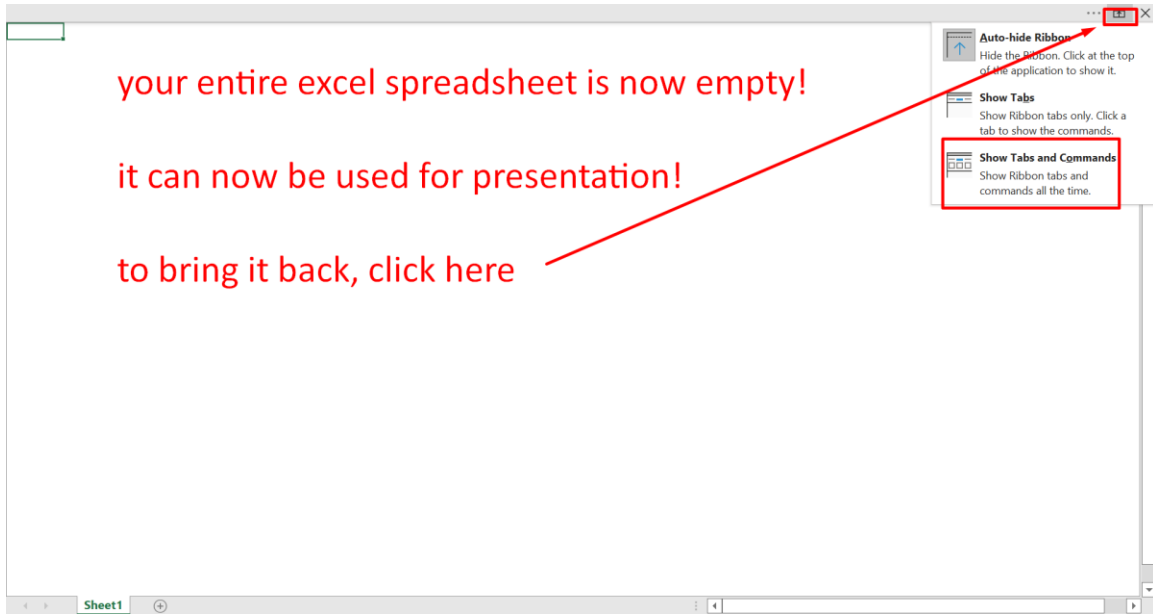
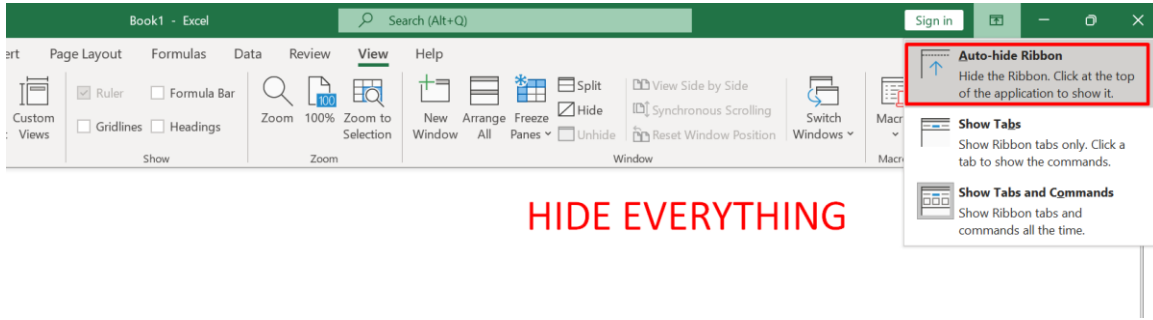
remove the HHeadings

C. HIDING FORMULA BAR



hiding the formula bar

D. HIDING TABS AND COMMANDS



E. HIDING ROWS AND COLUMNS

<https://www.alvinang.sg/s/Hiding-Rows-and-Columns.xlsx>

1. HIDING ROWS

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17

Room Service Revenue
\$ 977,443.00

Guest Count
241,078

Department Expenses
\$ 5,347,182.00

Target Quarterly Expenses by Department in 2017

Furnishings	\$150,000
Housekeeping	\$175,000
Maintenance	\$210,000
Public Areas	\$145,000

this appears

select these few rows

1 2 3 4 5 6 7 8 9 10 16 17 18 19 20 21 22

Room Service Revenue
\$ 977,443.00

Guest Count
241,078

Department Expenses
\$ 5,347,182.00

toggle with these to make the rows disappear / appear!

2. HIDING COLUMNS

select these 2 columns and Group them

you can make them appear / disappear using these to toggle

	A	B	C	D	E	F	G	H	I	J	K	L	M
1													
2													
3			Room Service Revenue										
4			\$	977,443.00									
5			Guest Count										
6			241,078										
7													
8			Department Expenses										
9			\$	5,347,182.00									
10													
11			Target Quarterly Expenses by Department in 2017										
12			Furnishings										
13			Housekeeping										
14			Maintenance										
15			Public Areas										
16													
17													
18													

everything can be hidden!

you can reset and ungroup them if you wish

	A	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
1																
2																
3																
4																
5																
6																
7																
8																
9																
10																
16																
17																

3. USING HIDE

of course
you may also have
the option of
right clicking
and Hiding
like this

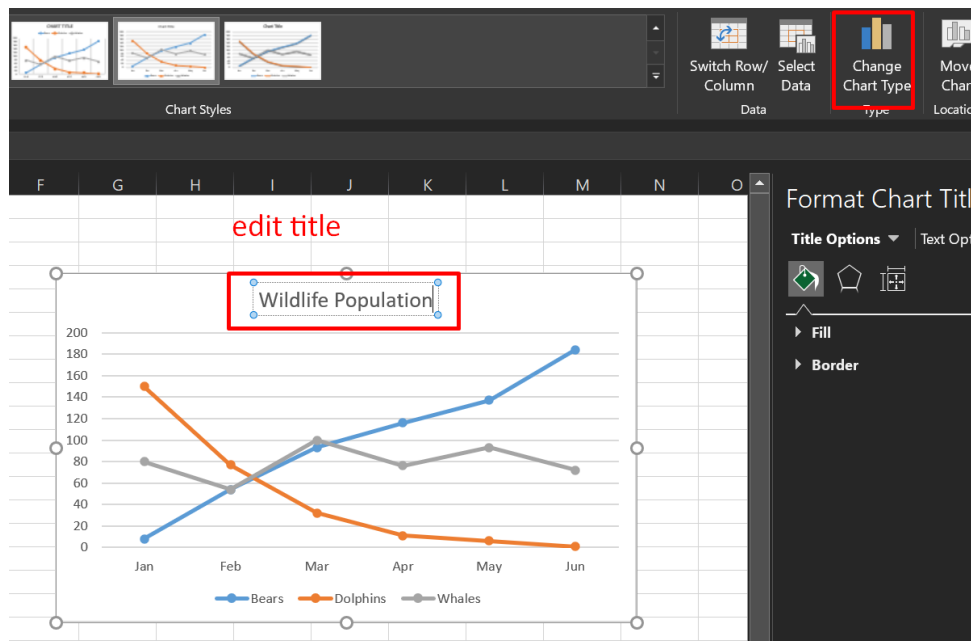
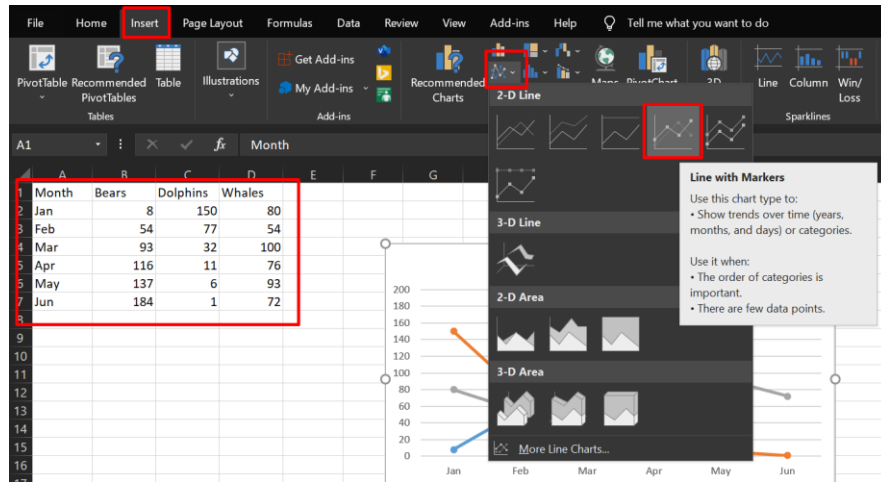
	A	B	C	D
1				
2		Room Service Revenue		
3		443.00		
4				
5		Guest Count		
6		241,078		
7				
8				
9		5,347,182.00		
10				
11		Department in 2017		
12			\$150,000	
13			\$175,000	
14			\$210,000	
15			\$145,000	

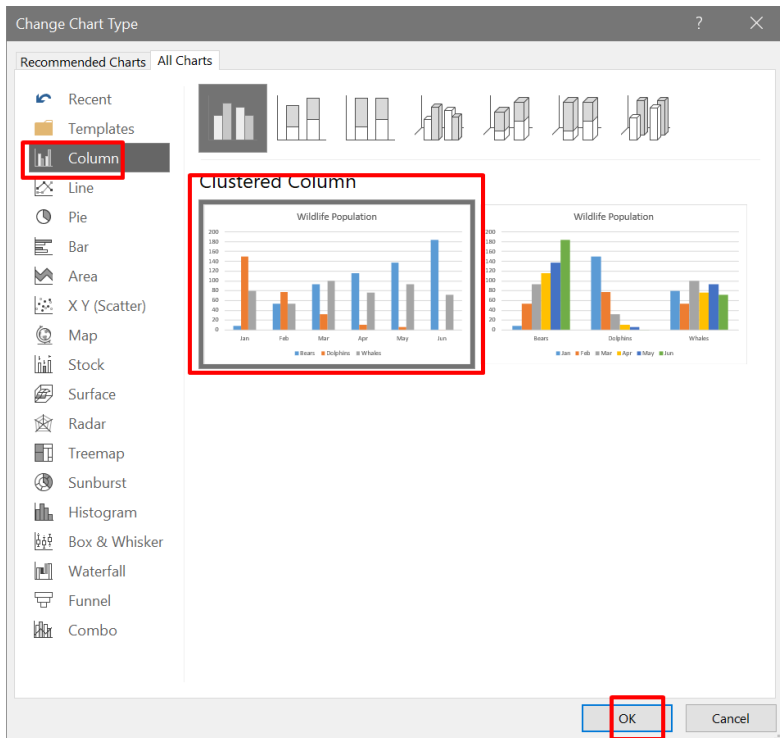
but if you have many rows, you might miss it out,
because its completely hidden....
u still can undo by right click --> Unhide

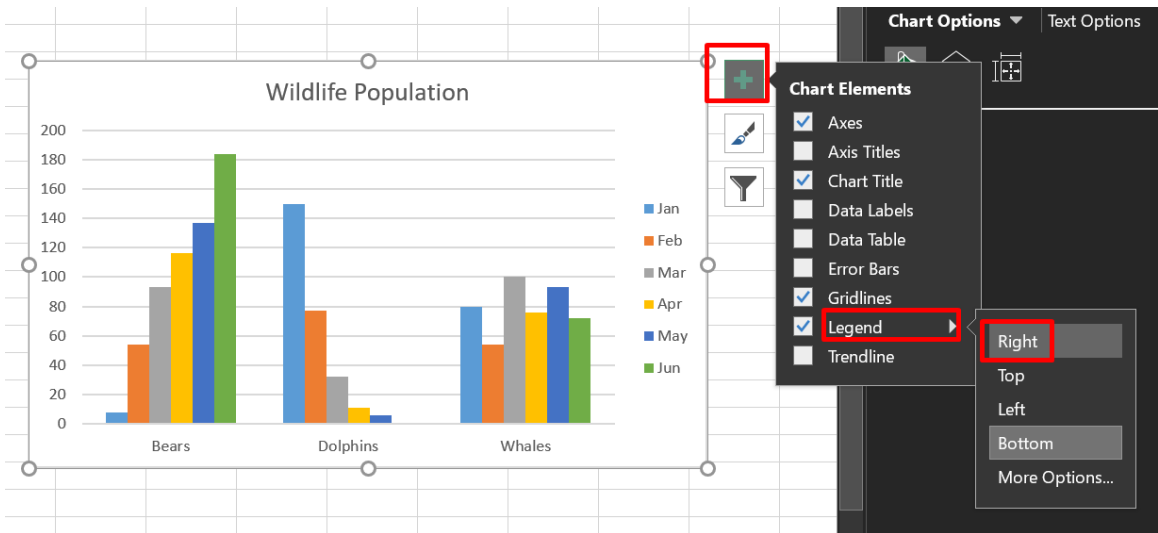
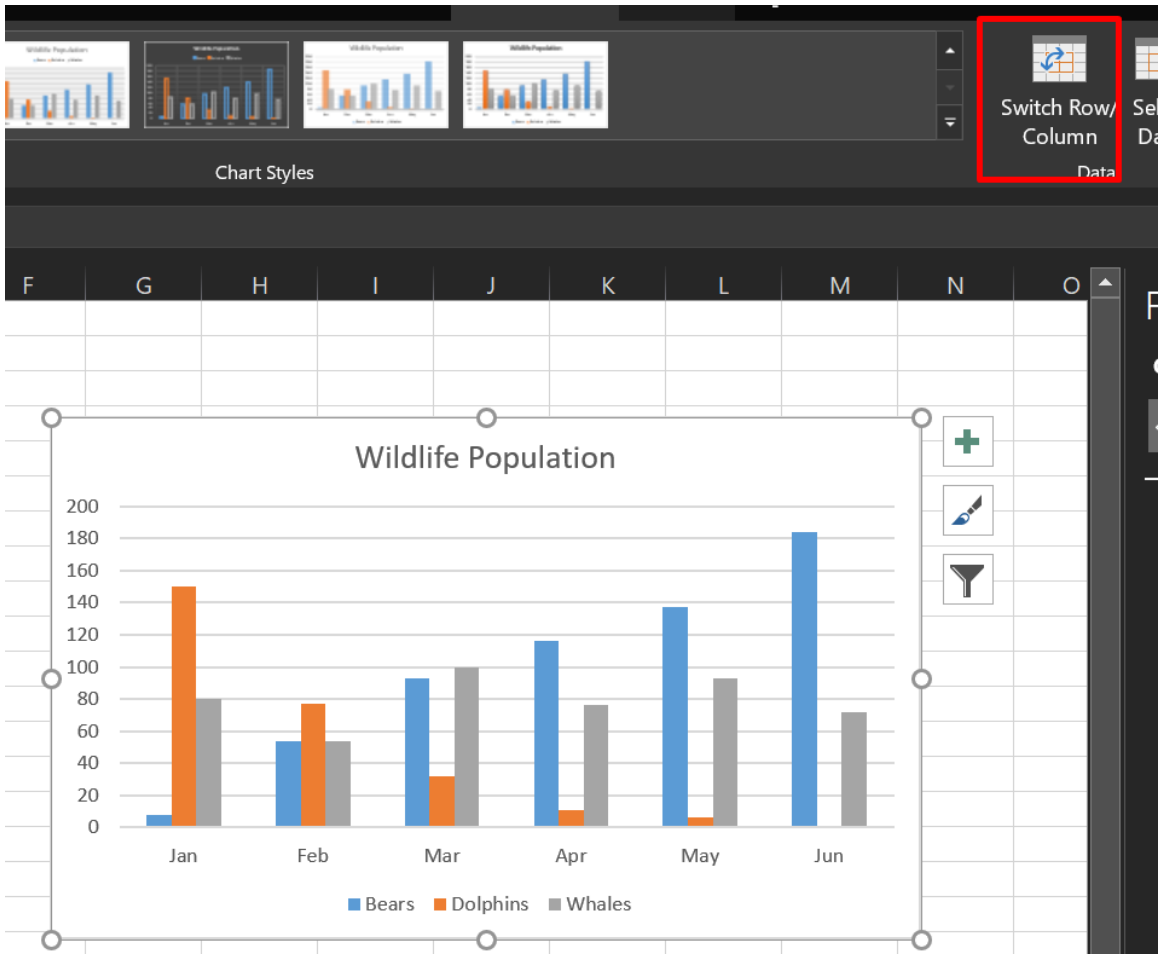
	A	B	C	D	E	F
1						
10						
11		Target Quarterly Expenses by Department in 2017				
12		Furnishings	\$150,000			
13		Housekeeping	\$175,000			
14		Maintenance	\$210,000			
15		Public Areas	\$145,000			

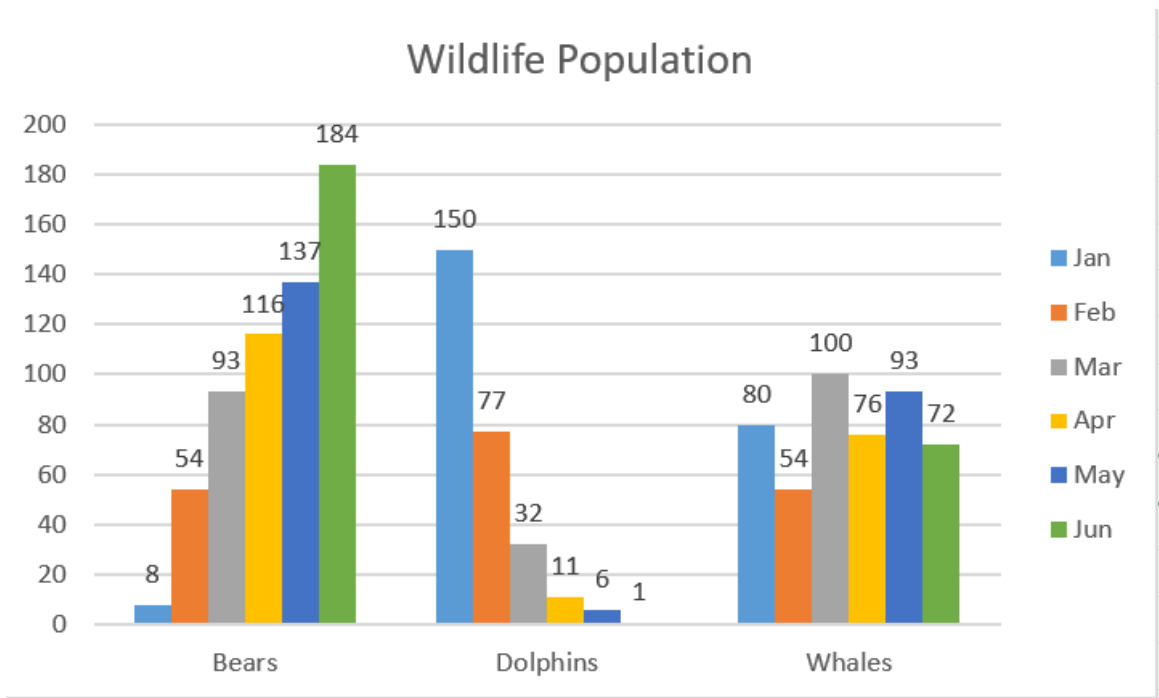
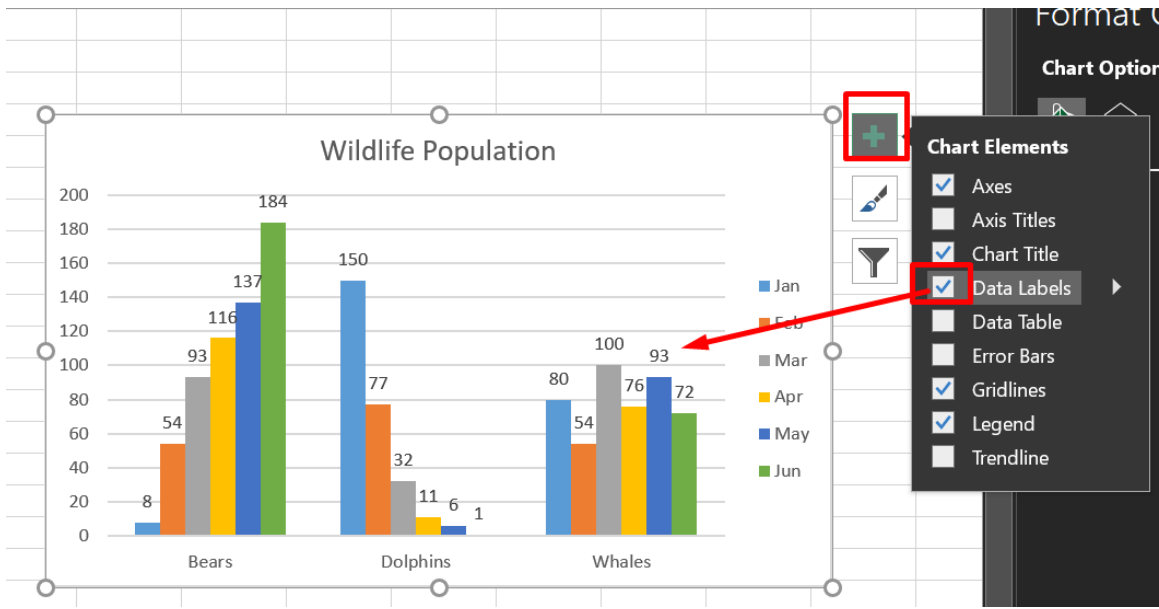
IV. CHARTS

File: <https://www.alvinang.sg/s/charts.xlsx>



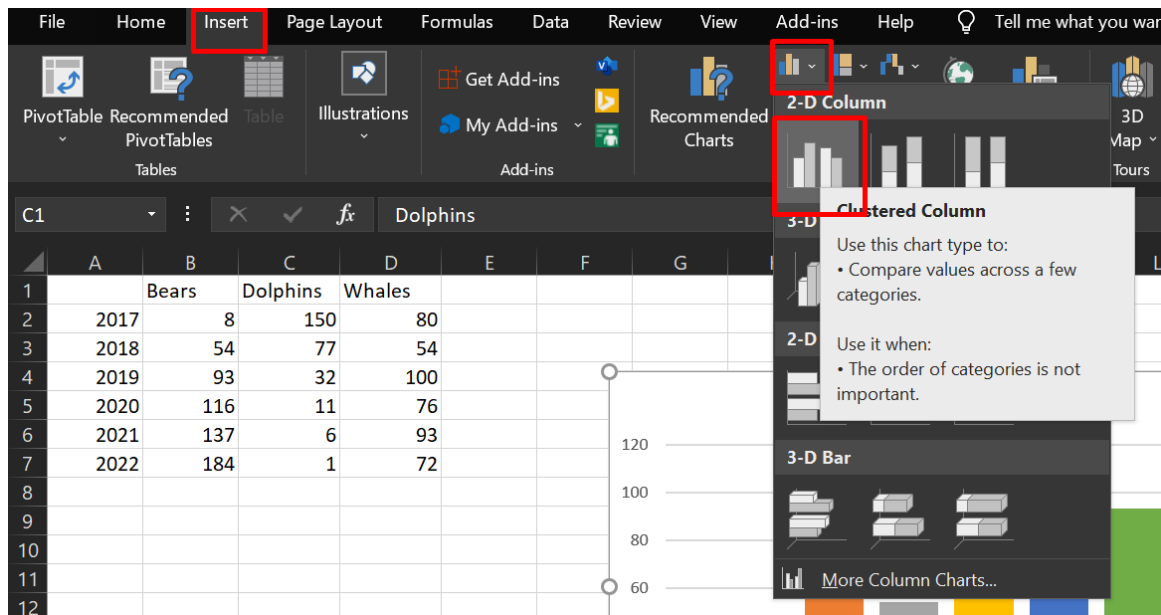
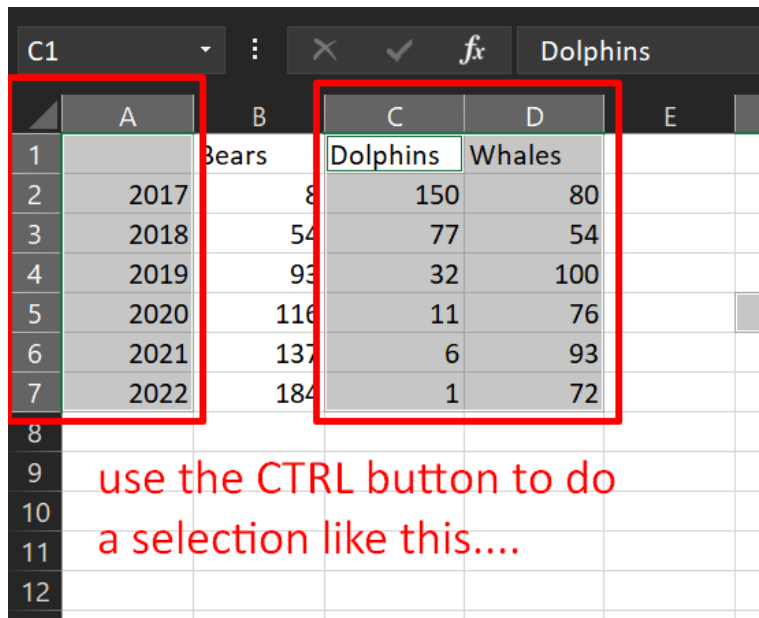


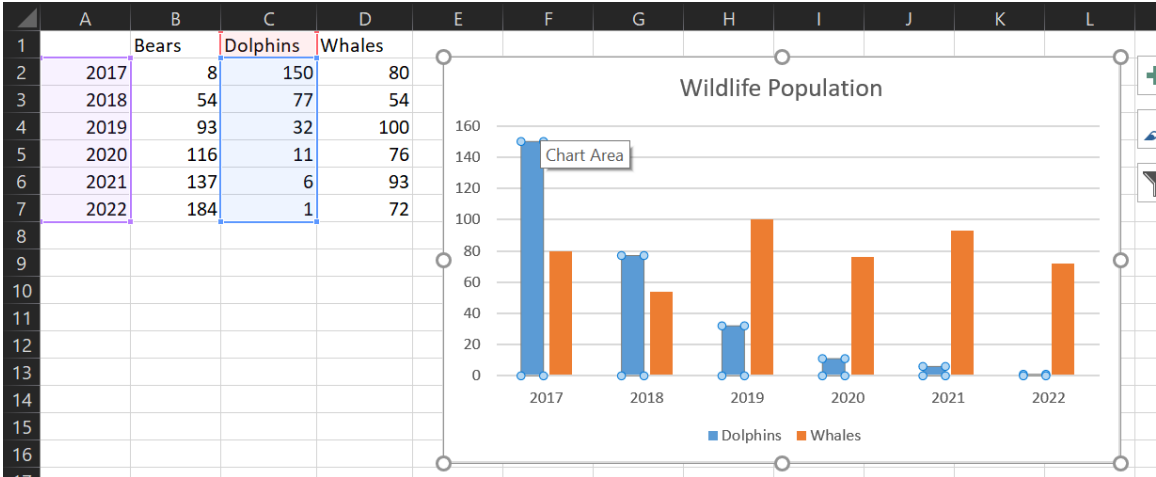




A. COLUMN CHART

File: <https://www.alvinang.sg/s/column-chart.xlsx>





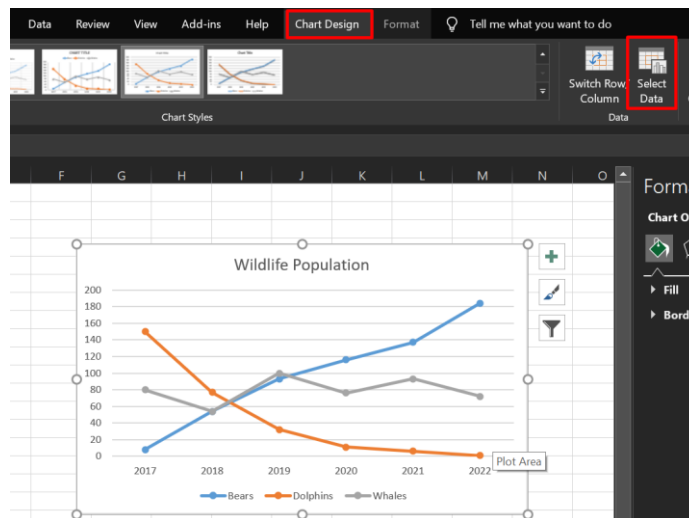
B. LINE CHART

File: <https://www.alvinang.sg/s/line-chart.xlsx>

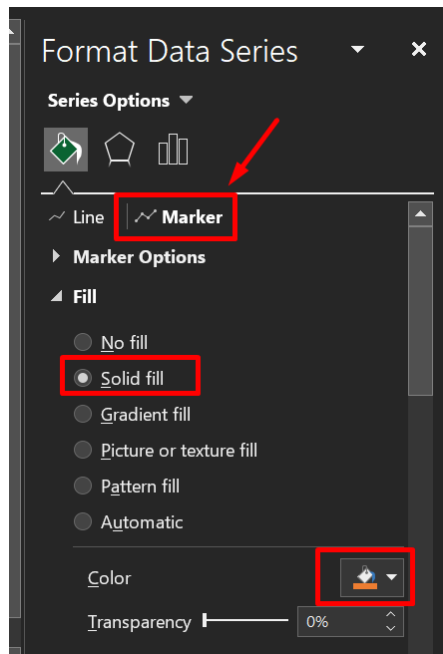
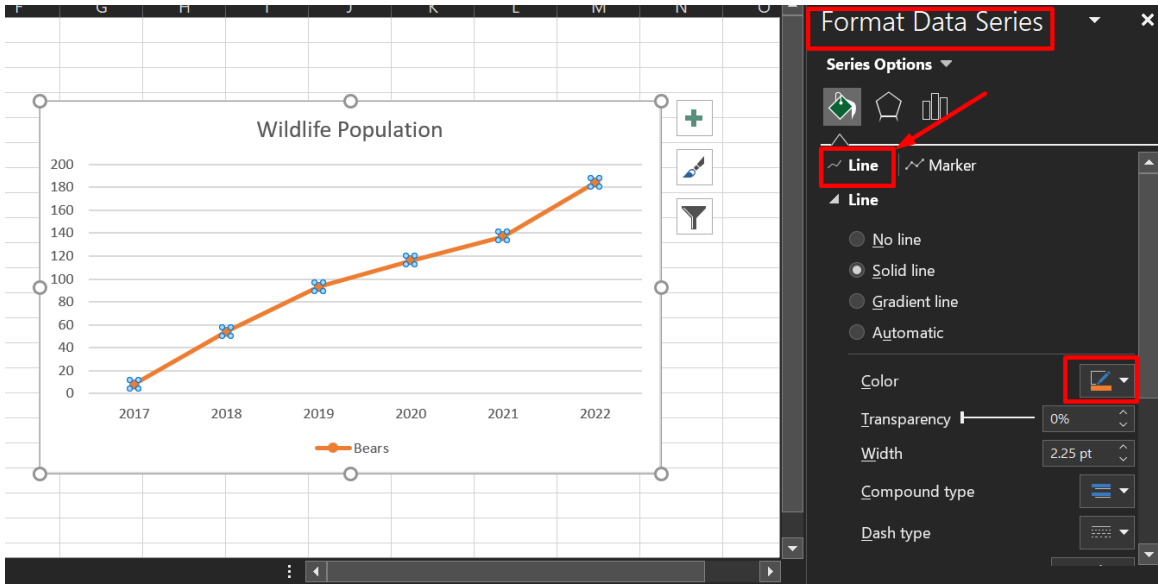
The screenshot shows the Microsoft Excel interface with the **Insert** tab selected. The **2-D Line** chart options are expanded, and the **Line with Markers** option is highlighted. A tooltip for this option is displayed, providing instructions on when to use this chart type.

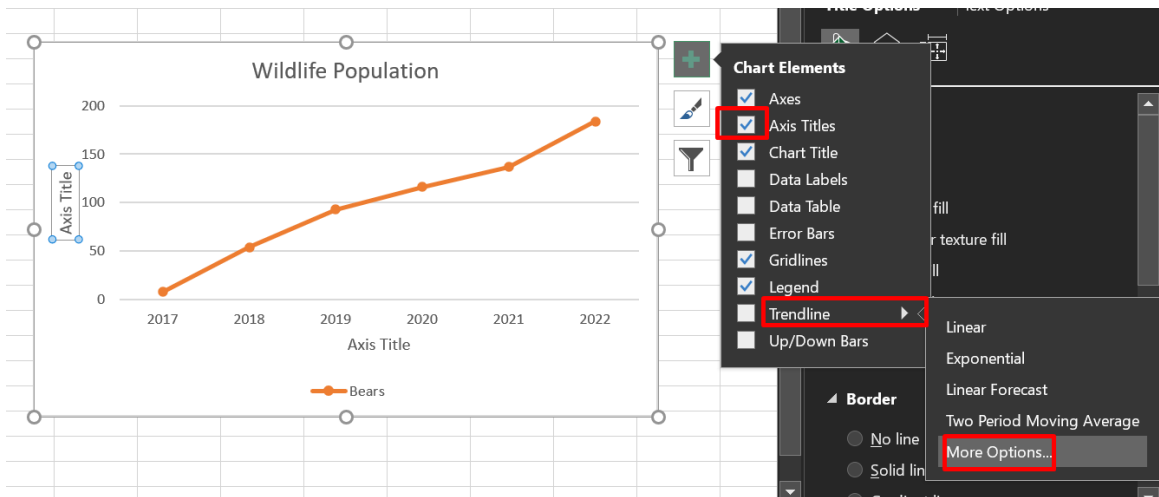
	A	B	C	D
1		Bears	Dolphins	Whales
2	2017	8	150	80
3	2018	54	77	54
4	2019	93	32	100
5	2020	116	11	76
6	2021	137	6	93
7	2022	184	1	72

Line with Markers
 Use this chart type to:
 • Show trends over time (years, months, and days) or categories.
 Use it when:
 • The order of categories is important.
 • There are few data points.



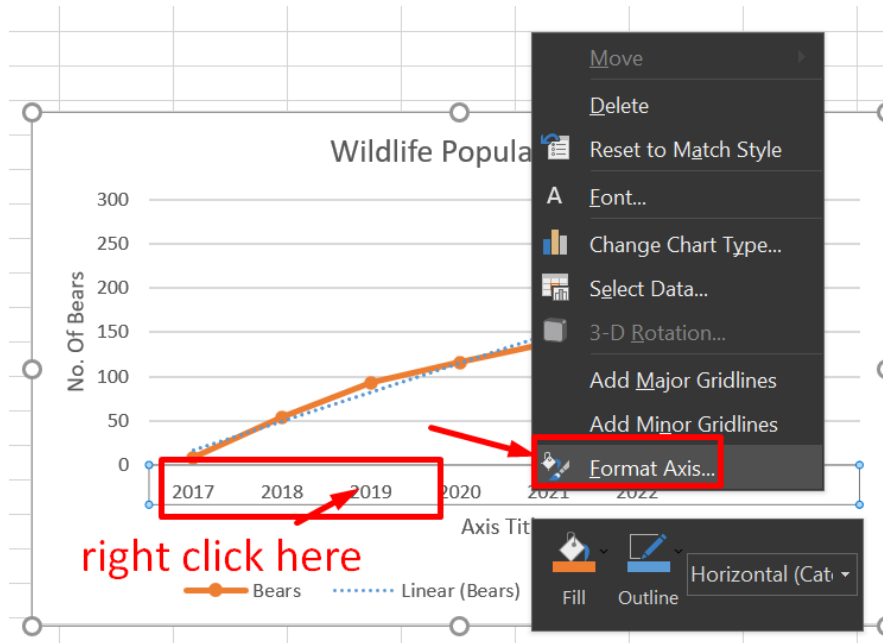
The screenshot shows the **Select Data Source** dialog box. The **Chart data range** is set to **=Sheet1!\$A\$1:\$D\$7**. The **Legend Entries (Series)** section shows three entries: **Bears** (checked), **Dolphins** (unchecked), and **Whales** (unchecked). The **Horizontal (Category) Axis Labels** section shows the years 2017, 2018, 2019, 2020, and 2021, all of which are checked. The **OK** button is highlighted.





The 'Format Trendline' task pane shows the following settings:

- Trendline Options:** Linear (selected)
- Trendline Name:** Automatic (selected), Linear (Bears)
- Forecast:** Forward (selected), 2 periods



Format Axis

Axis Options Text Options

Axis Options

Axis Type

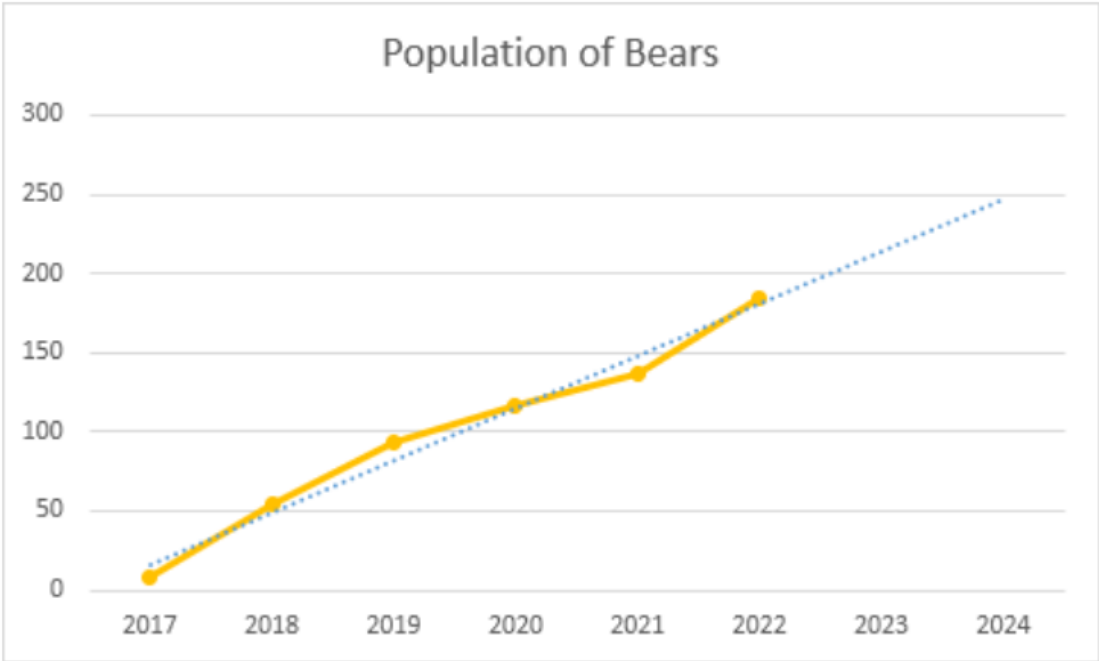
Automatically select based on data
 Text axis
 Date axis

Bounds

Minimum 7/9/1905 Auto

Maximum 7/16/1905 Auto

Units



C. PIE CHART

File: <https://www.alvinang.sg/s/line-chart.xlsx>

1. PIE CHART 1

select only this 2 rows

	Bears	Dolphins	Whales
2017	8	150	80
2018	54	77	54
2019	93	32	100
2020	116	11	76
2021	137	6	93
2022	184	1	72

Use this chart type to:

- Show proportions of a whole.

Use it when:

- Numbers equal 100%.
- The chart contains only a few pie slices (many slices make the angles hard to estimate).

More Pie Charts...

■ Bears ■ Dolphins ■ Whales

drag this portion out....

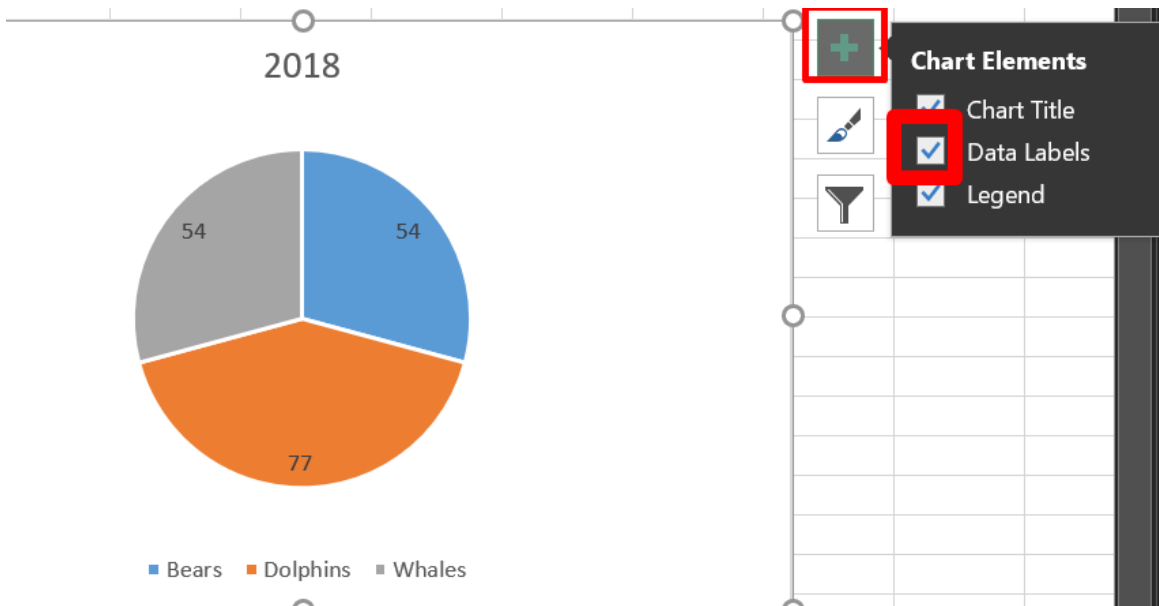
Series "2017" Point "Whales"
Value: 80 (34%)

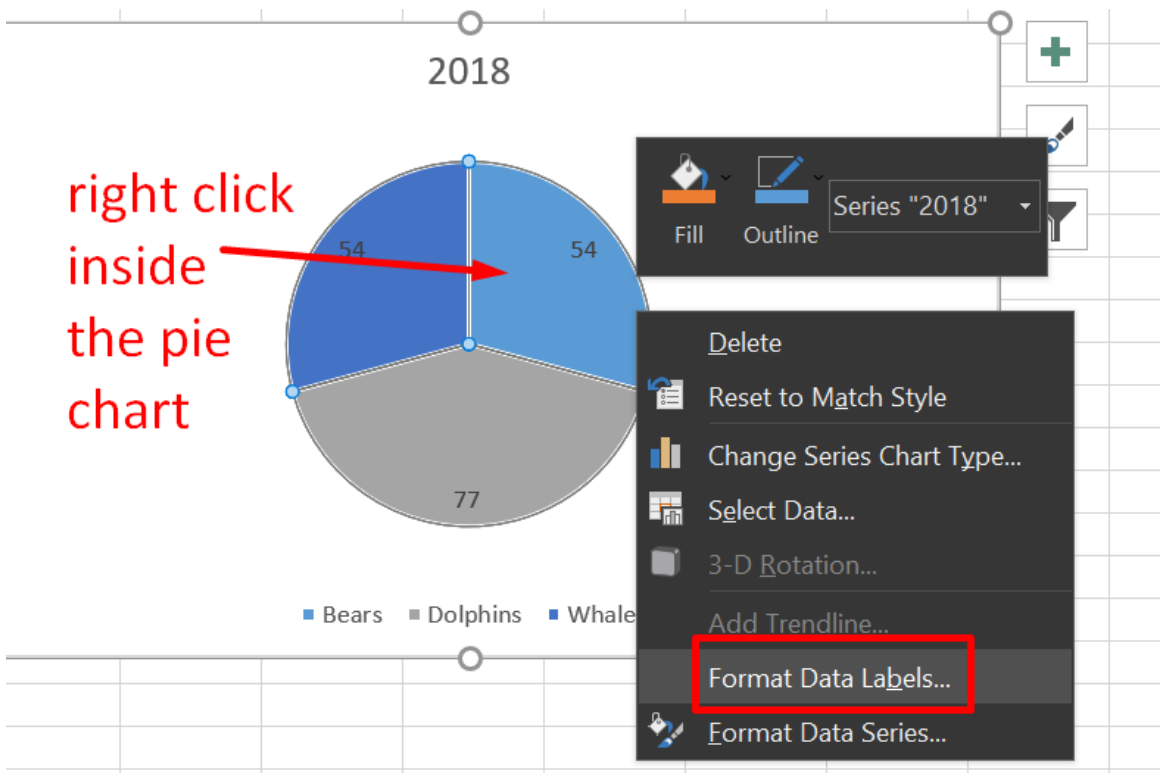
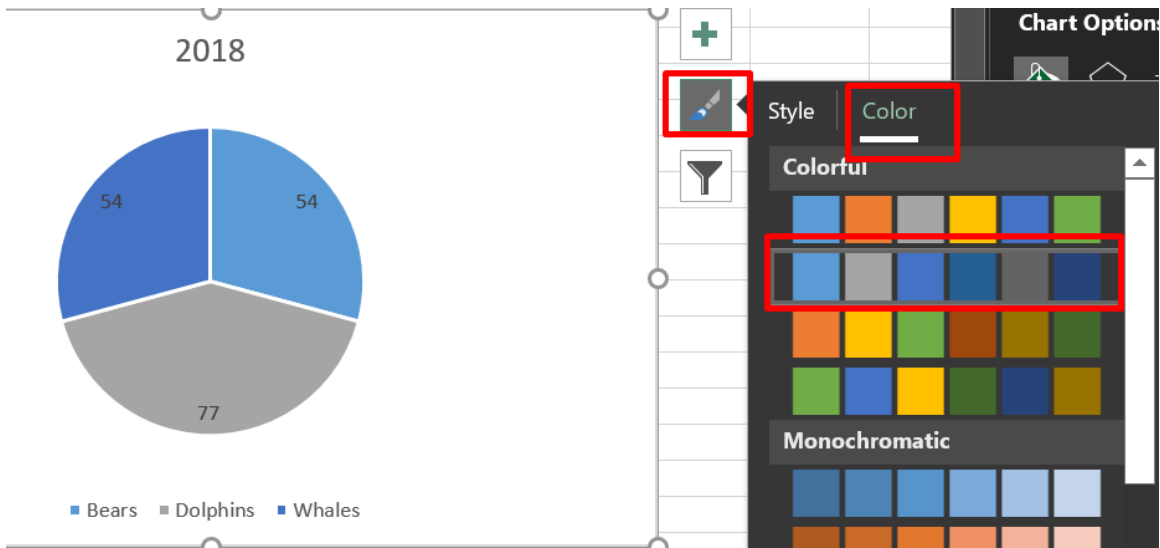
■ Bears ■ Dolphins ■ Whales

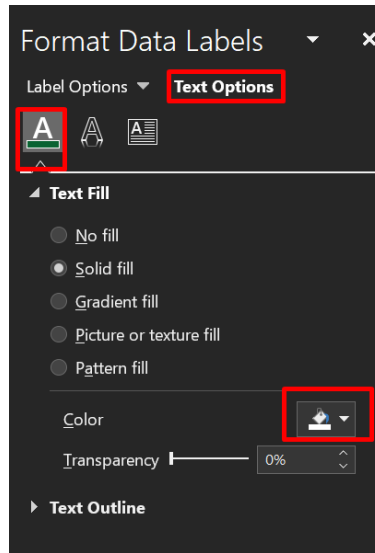
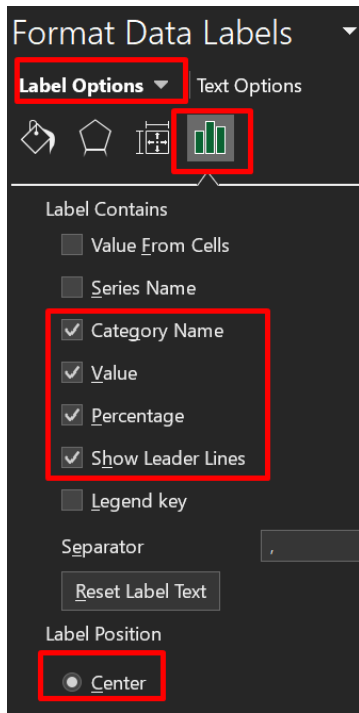
2. PIE CHART 2

hold down
ctrl and
select this
2 rows

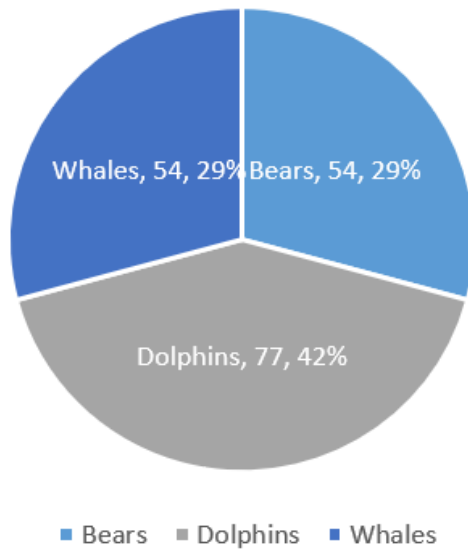
	A	B	C	D
1		Bears	Dolphins	Whales
2	2017	8	150	80
3	2018	54	77	54
4	2019	93	32	100
5	2020	116	11	76
6	2021	137	6	93
7	2022	184	1	72
8				
9				
10				





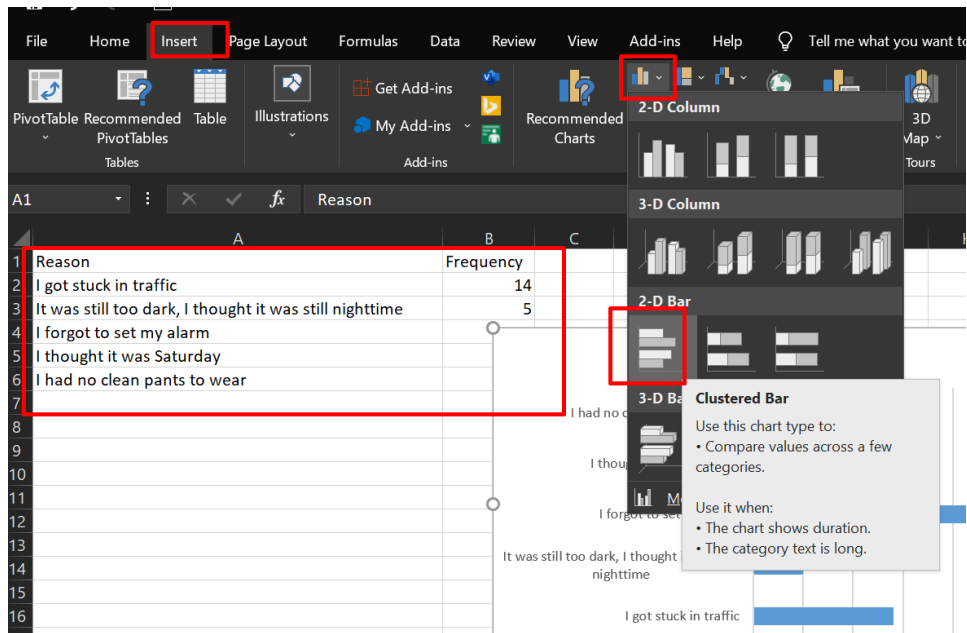


Wildlife Population in 2018



D. BAR CHART

File: <https://www.alvinang.sg/s/bar-chart.xlsx>

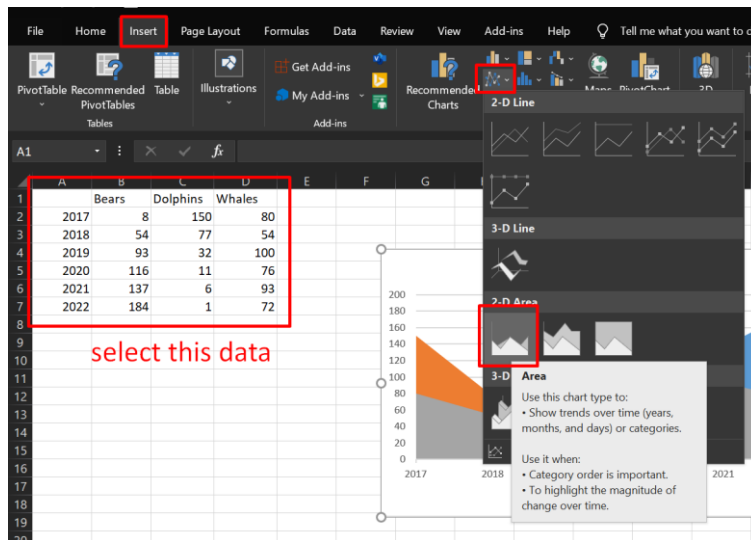


Frequency

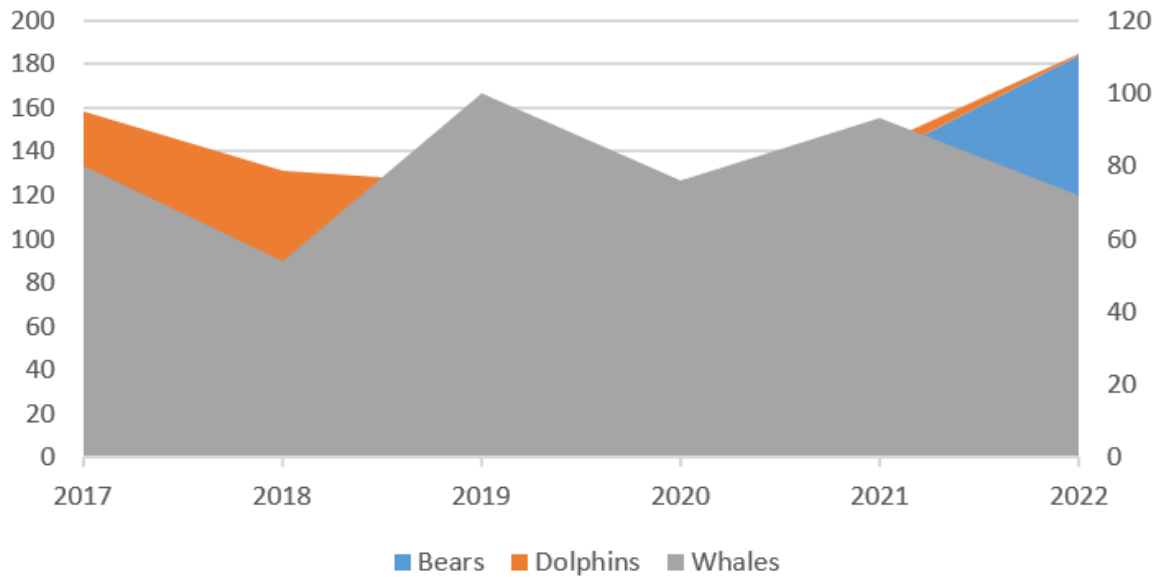


E. AREA CHART

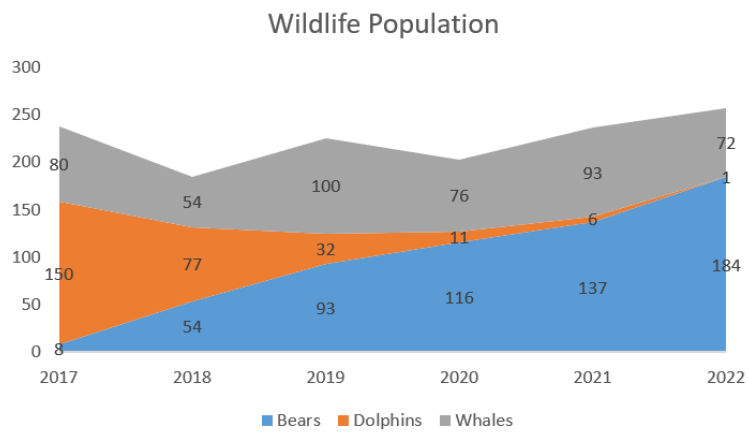
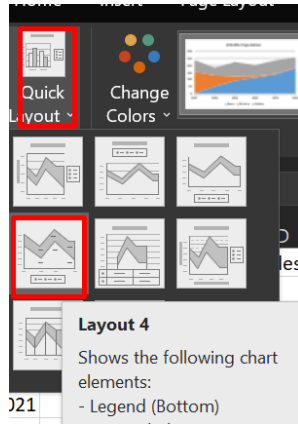
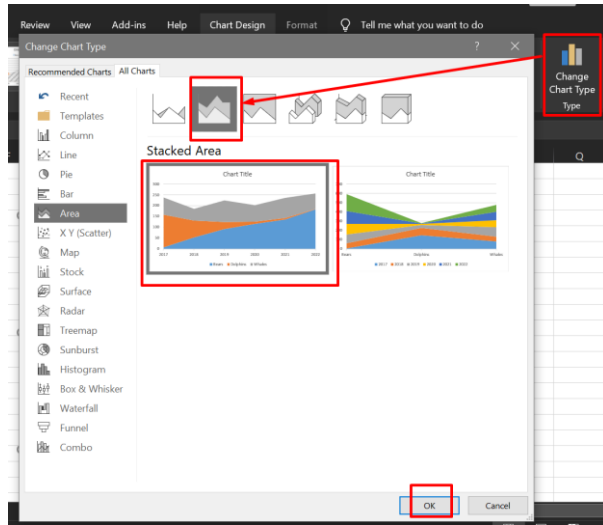
File: <https://www.alvinang.sg/s/line-chart.xlsx>



Wildlife Population



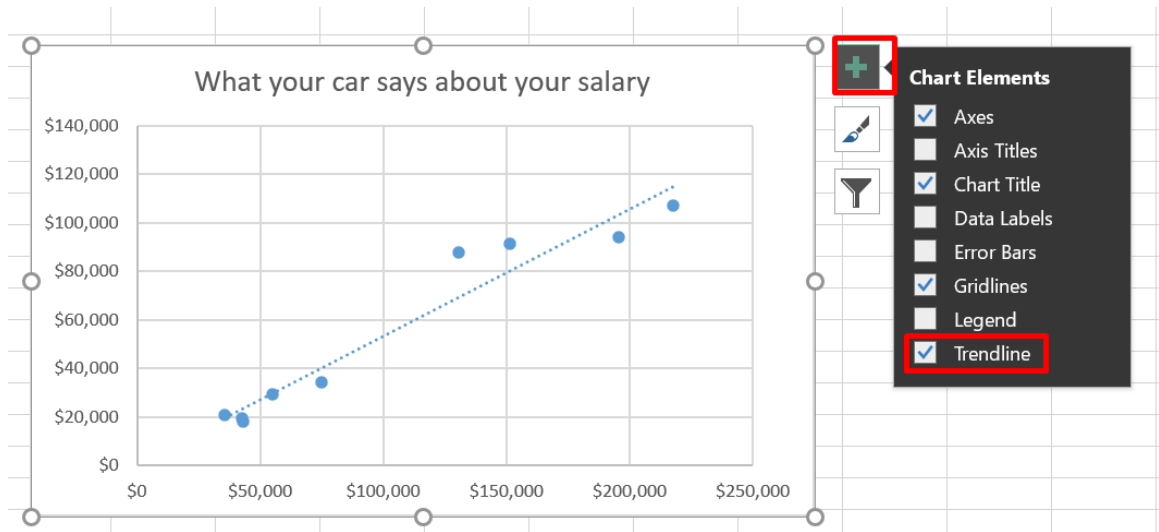
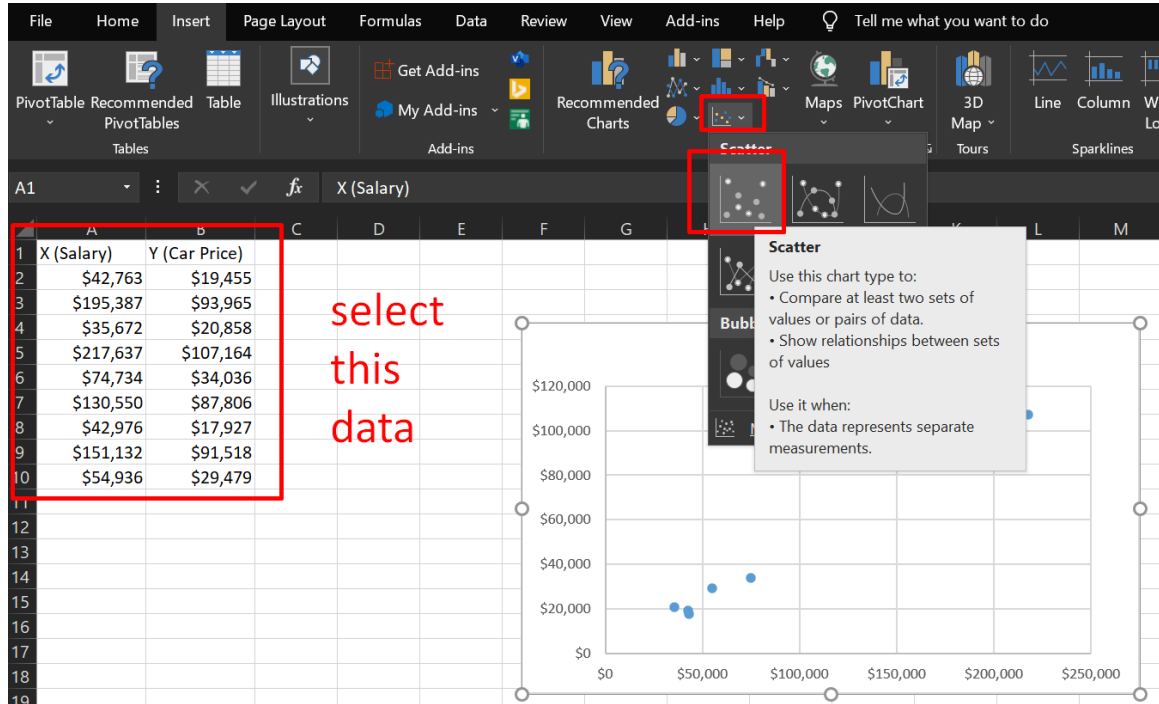
As can be seen, there's overlap. Thus, we will change it.



F. SCATTER PLOT

File: <https://www.alvinang.sg/s/scatter-plot.xlsx>

1. TRENDLINE



2. STRAIGHT LINES

<https://www.alvinang.sg/s/scatter-plot.xlsx>

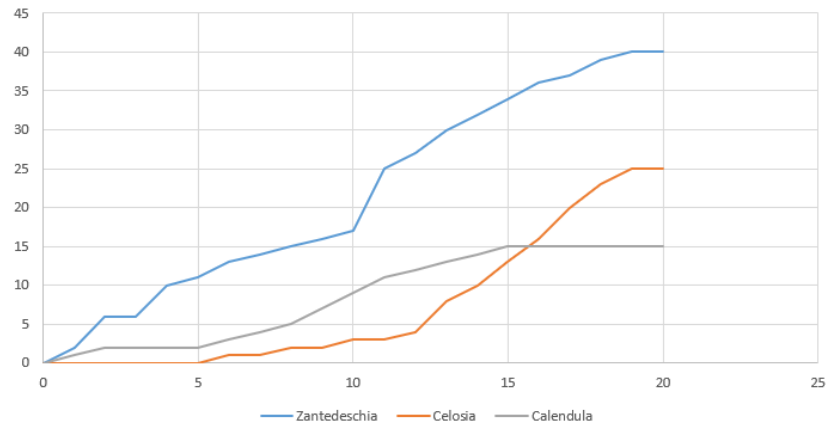
select this...

Period	Zantedeschia	Celosia	Calendula
0	0	0	0
1	2	0	1
2	6	0	2
3	6	0	2
4	10	0	2
5	11	0	2
6	13	1	3
7	14	1	4
8	15	2	5
9	16	2	7
10	17	3	9
11	25	3	11
12	27	4	12
13	30	8	13
14	32	10	14
15	34	13	15
16	36	16	15
17	37	20	15
18	39	23	15
19	40	25	15
20	40	25	15

Scatter with Straight Lines
Use this chart type to:
• Compare at least two sets of values or pairs of data.

Use it when:
• There are many data points.
• The data represents separate measurements.

Plant Growth

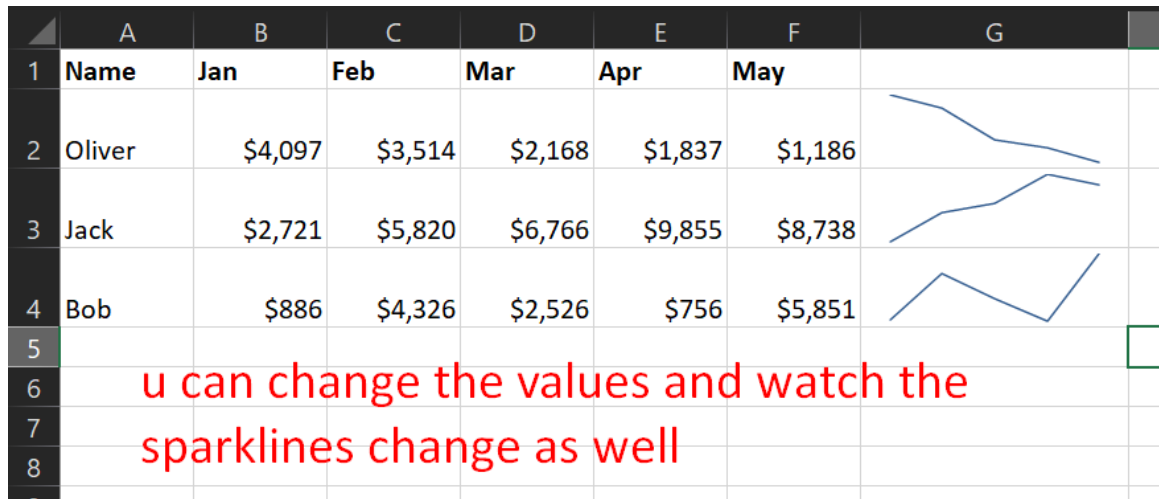


G. SPARKLINES

File: <https://www.alvinang.sg/s/sparklines.xlsx>

1. DRAW SPARKLINES

select this
G2 to G4 first



2. CUSTOMIZING SPARKLINES

The screenshot shows the Excel ribbon with the 'Sparkline' tab selected. The 'High Point' and 'Low Point' checkboxes are checked and highlighted with a red box. The 'Sparkline Tools' ribbon is also visible, showing various sparkline styles. A red box highlights the sparkline chart in cell G2, with a red arrow pointing to it and the text 'start by selecting any sparkline first...'. The data table is as follows:

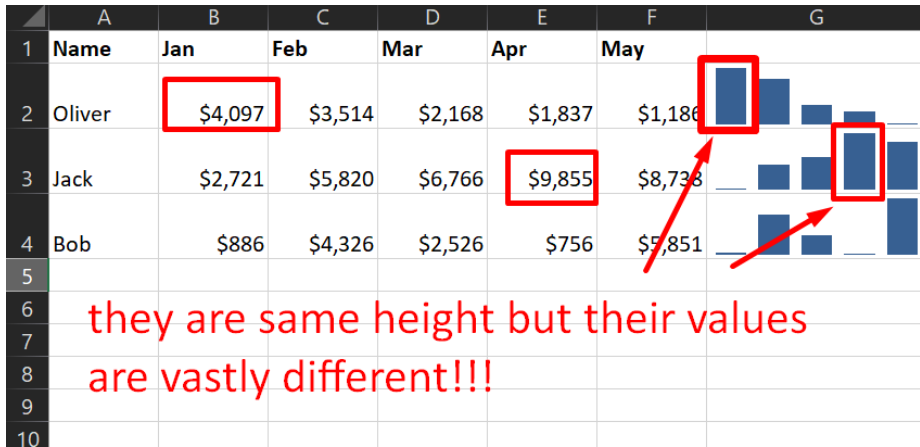
	Name	Jan	Feb	Mar	Apr	May
2	Oliver	\$4,097	\$3,514	\$2,168	\$1,837	\$1,186
3	Jack	\$2,721	\$5,820	\$6,766	\$9,855	\$8,738
4	Bob	\$886	\$4,326	\$2,526	\$756	\$5,851

High points and Low points are shown.

3. COMPARE SPARKLINES

The screenshot shows the Excel ribbon with the 'Insert' tab selected. The 'Sparklines' group is highlighted with a red box. The 'Create Sparklines' dialog box is open, showing the 'Data Range' as B2:F4 and the 'Location Range' as \$G\$2:\$G\$4. The 'OK' button is highlighted with a red box. A red box highlights the cells B2:F4 in the spreadsheet, with a red arrow pointing to it and the text 'select the cells here first'. The data table is as follows:

	Name	Jan	Feb	Mar	Apr	May
2	Oliver	\$4,097	\$3,514	\$2,168	\$1,837	\$1,186
3	Jack	\$2,721	\$5,820	\$6,766	\$9,855	\$8,738
4	Bob	\$886	\$4,326	\$2,526	\$756	\$5,851



Review View Add-ins Help **Sparkline** Tell me what you want to do

Sparkline Color Marker Color

Axis

Horizontal Axis Options

- General Axis Type
- Date Axis Type...
- Show Axis
- Plot Data Right-to-Left

Vertical Axis Minimum Value Options

- Automatic for Each Sparkline
- Same for All Sparklines
- Custom Value...

Vertical Axis Maximum Value Options

- Automatic for Each Sparkline
- Same for All Sparklines
- Custom Value...

you will see the height change...

start with selecting any sparkline....

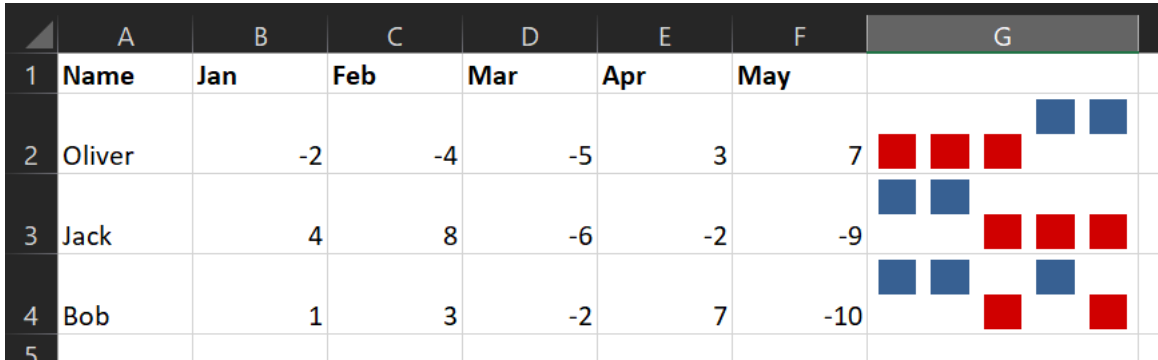


4. WIN / LOSS SPARKLINES

The screenshot shows the Excel ribbon with the 'Win/Loss' icon in the Sparklines group highlighted. A red arrow points from this icon to the 'Create Sparklines' dialog box. The dialog box has the following fields:

- Choose the data that you want:
Data Range: B2:F4
- Choose where you want the sparklines to be placed:
Location Range: \$G\$2:\$G\$4
- Buttons: OK, Cancel

Below the dialog box, the text "select this cells first" is written in red.



H. COMBO CHART

File: <https://www.alvinang.sg/s/combo-chart.xlsx>

select all first

Month	Rainy Days	Profit
Jan	12	\$3,574
Feb	11	\$4,708
Mar	10	\$5,332
Apr	9	\$6,693
May	8	\$8,843
Jun	6	\$12,347
Jul	4	\$15,180
Aug	6	\$11,198
Sep	7	\$9,739
Oct	8	\$9,846
Nov	10	\$6,620
Dec	11	\$5,085

Custom Combination

Chart Title

14
12
10
8
6
4
2
0

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec

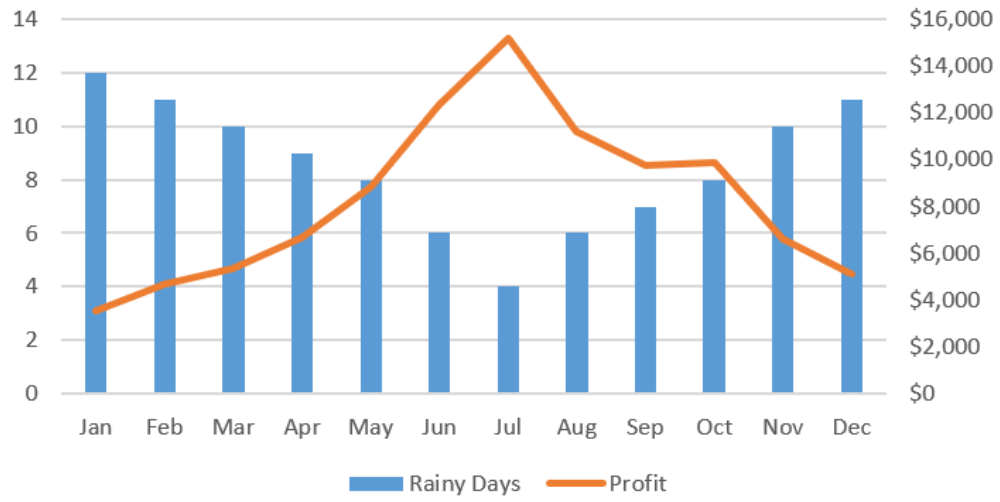
— Rainy Days — Profit

Choose the chart type and axis for your data series:

Series Name	Chart Type	Secondary Axis
Rainy Days	Clustered Column	<input type="checkbox"/>
Profit	Line	<input checked="" type="checkbox"/>

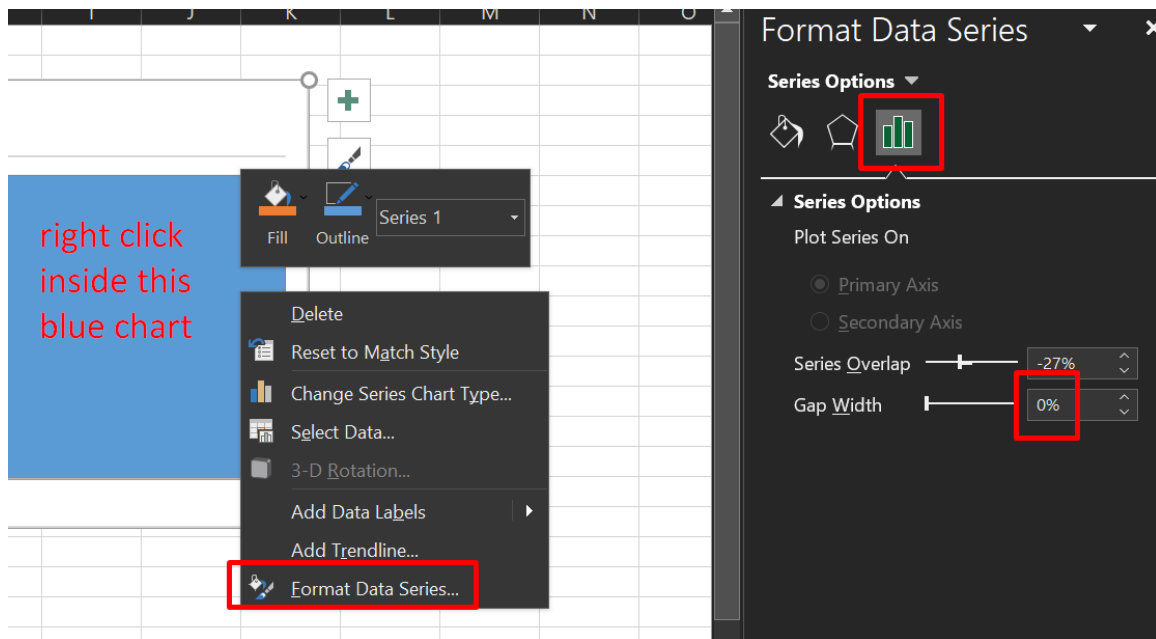
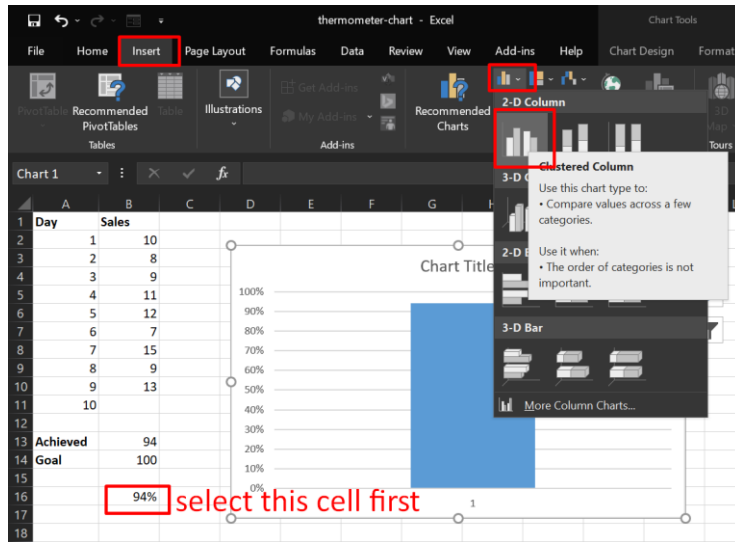
OK Cancel

Newrock Funland

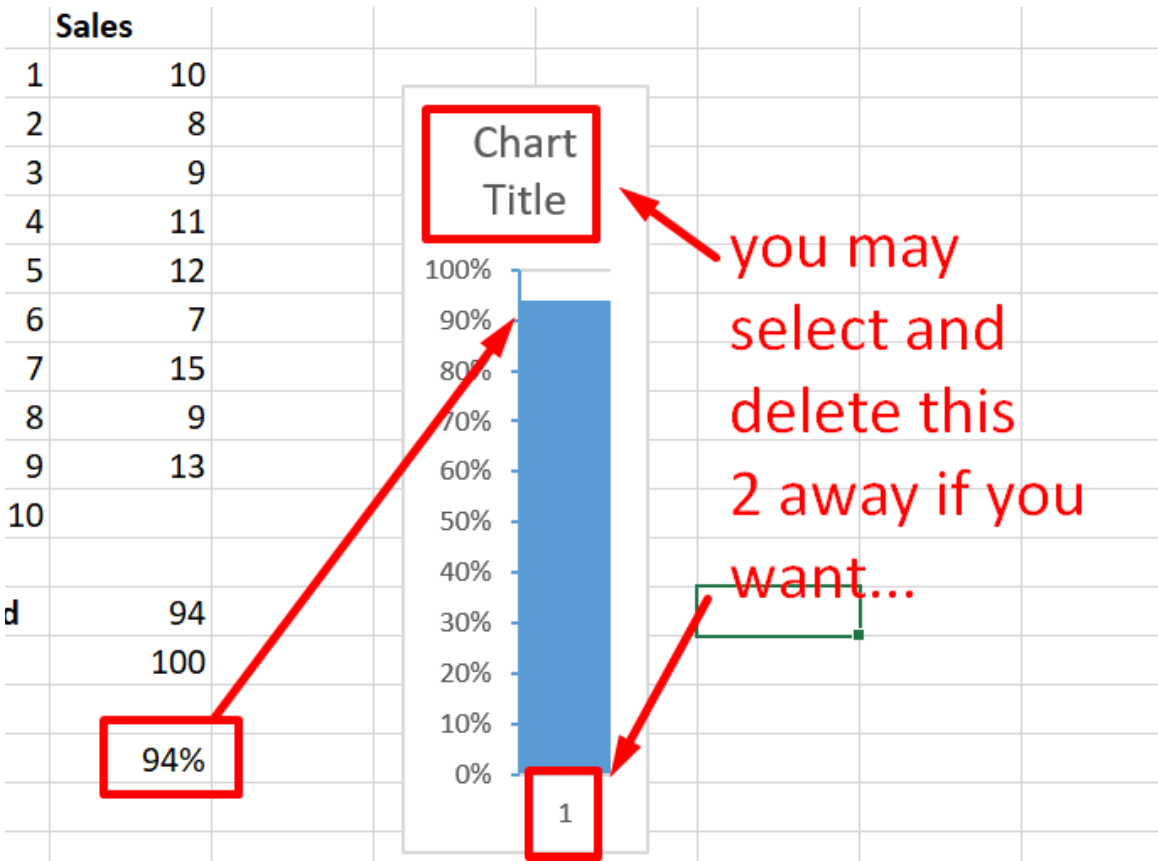


I. THERMOMETER CHART

File: <https://www.alvinang.sg/s/thermometer-chart.xlsx>

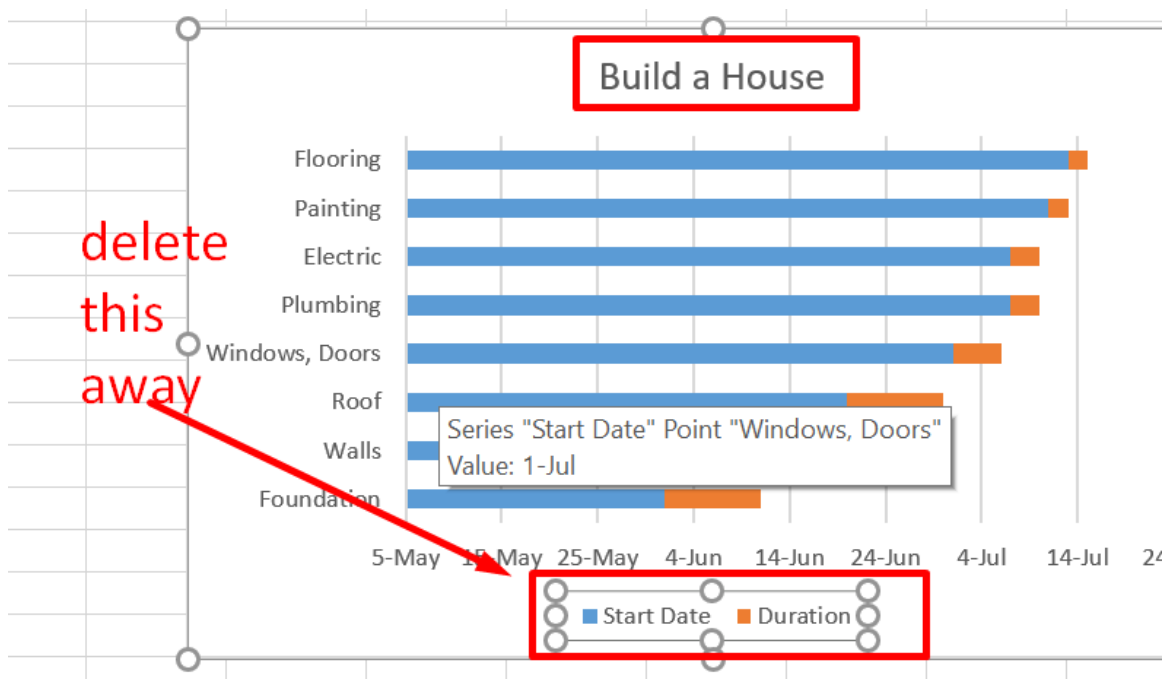
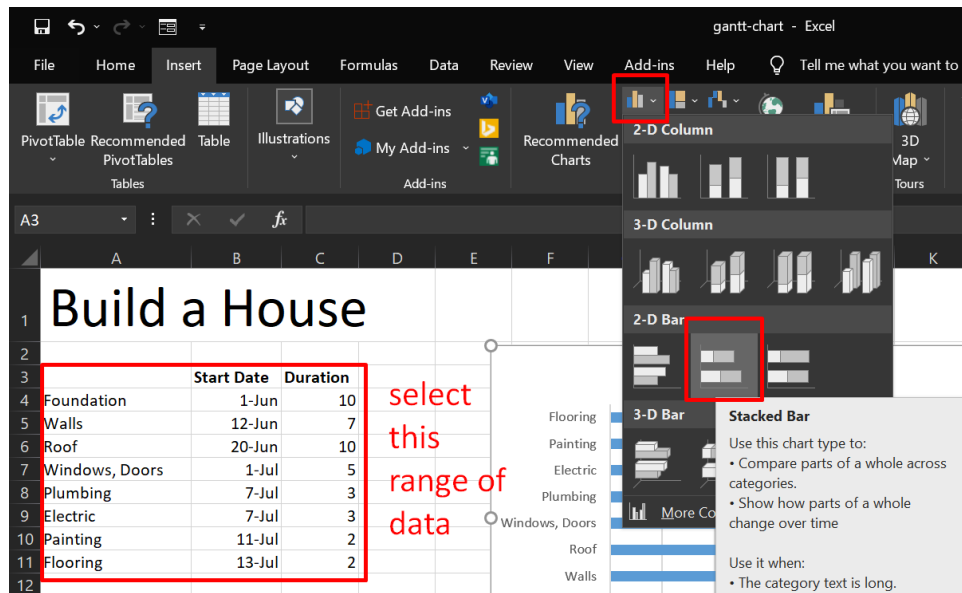


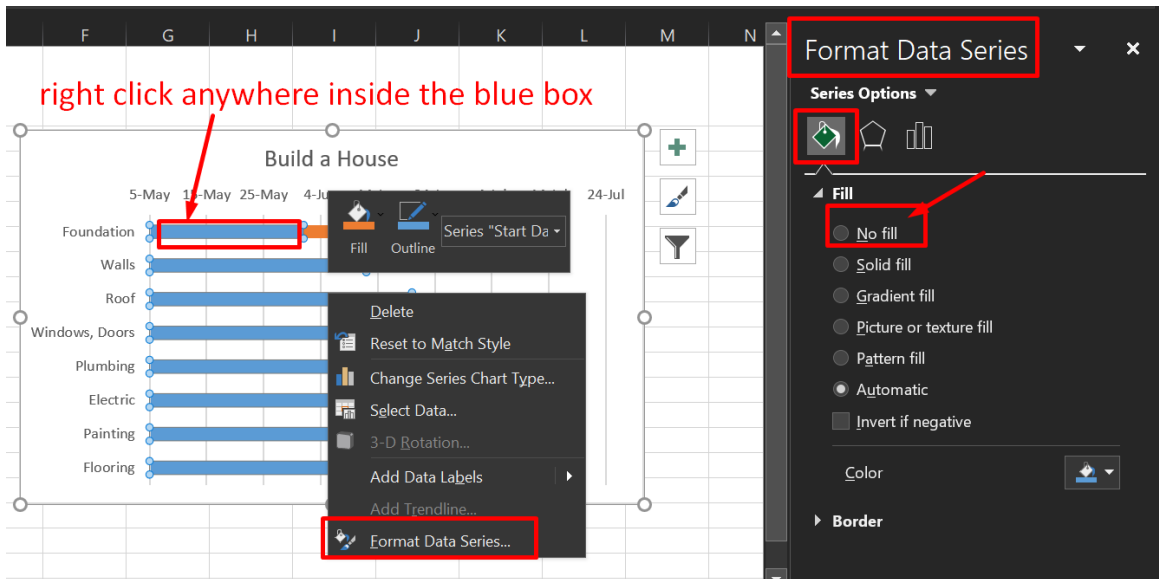
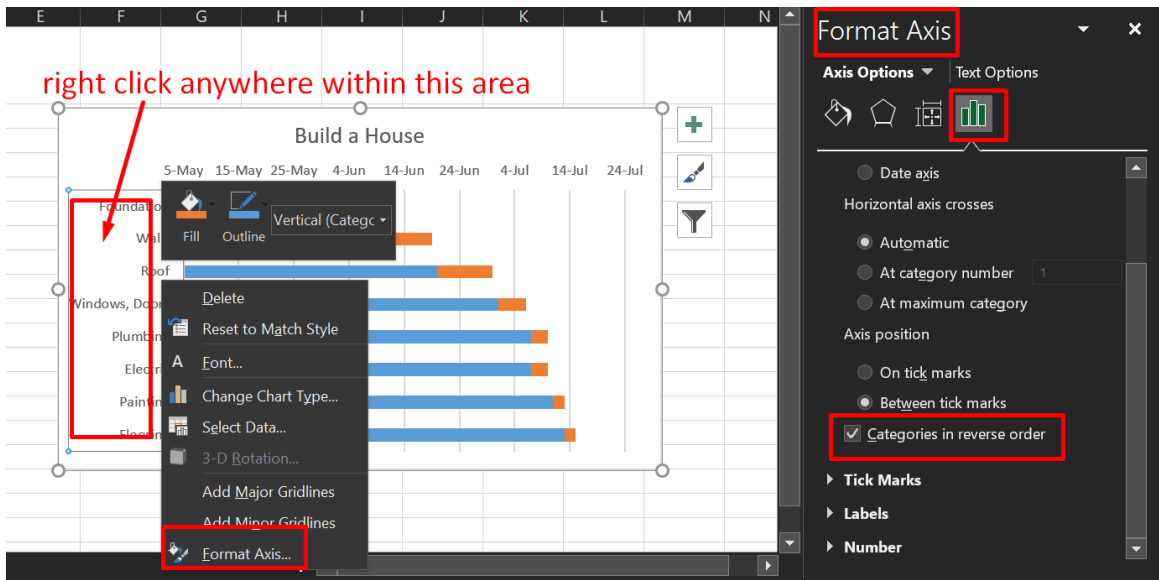
right click inside the % column...

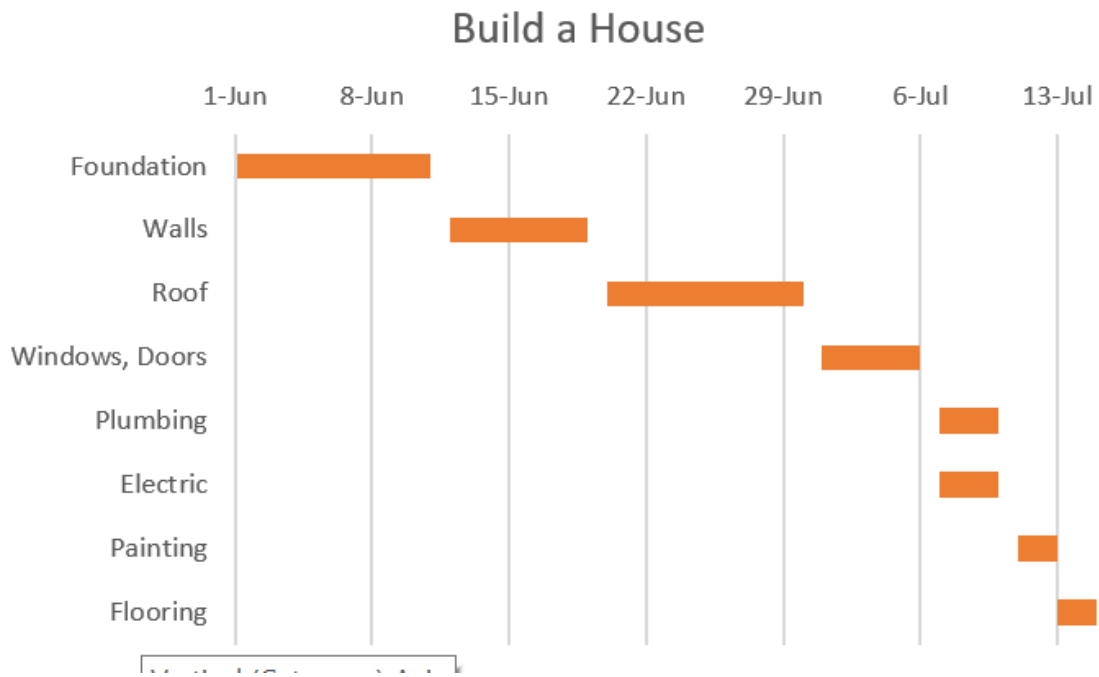
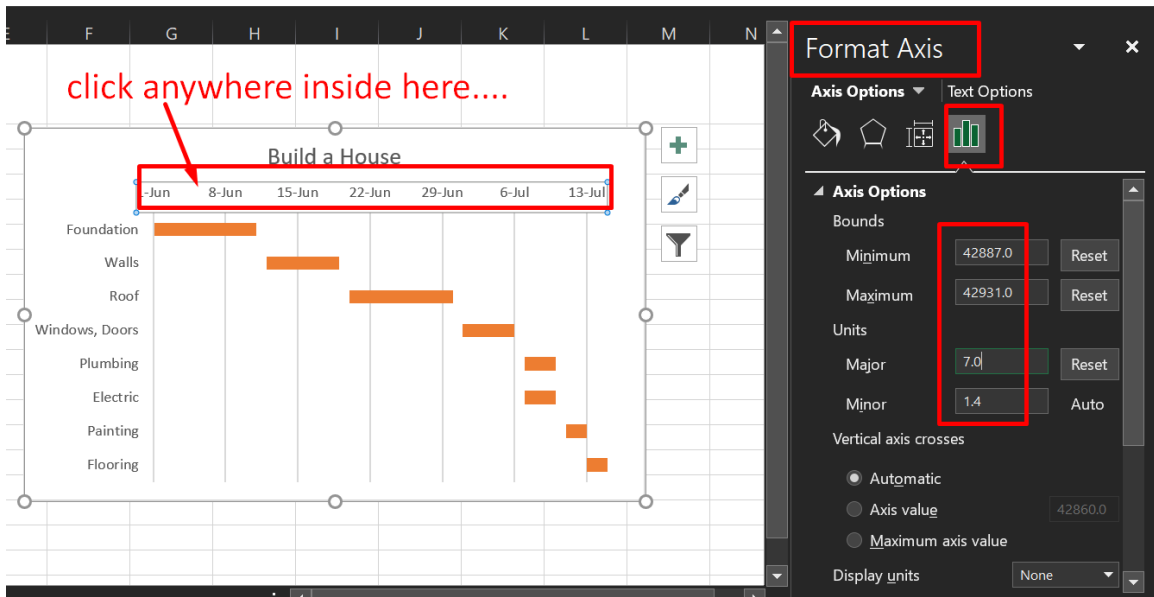


J. GANTT CHART

File: <https://www.alvinang.sg/s/gantt-chart.xlsx>



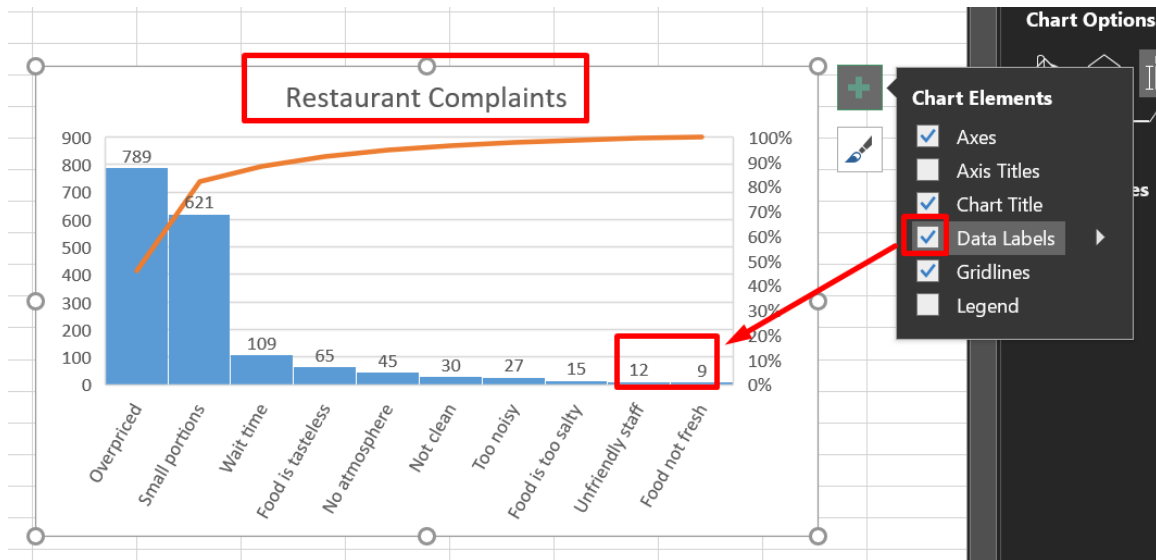
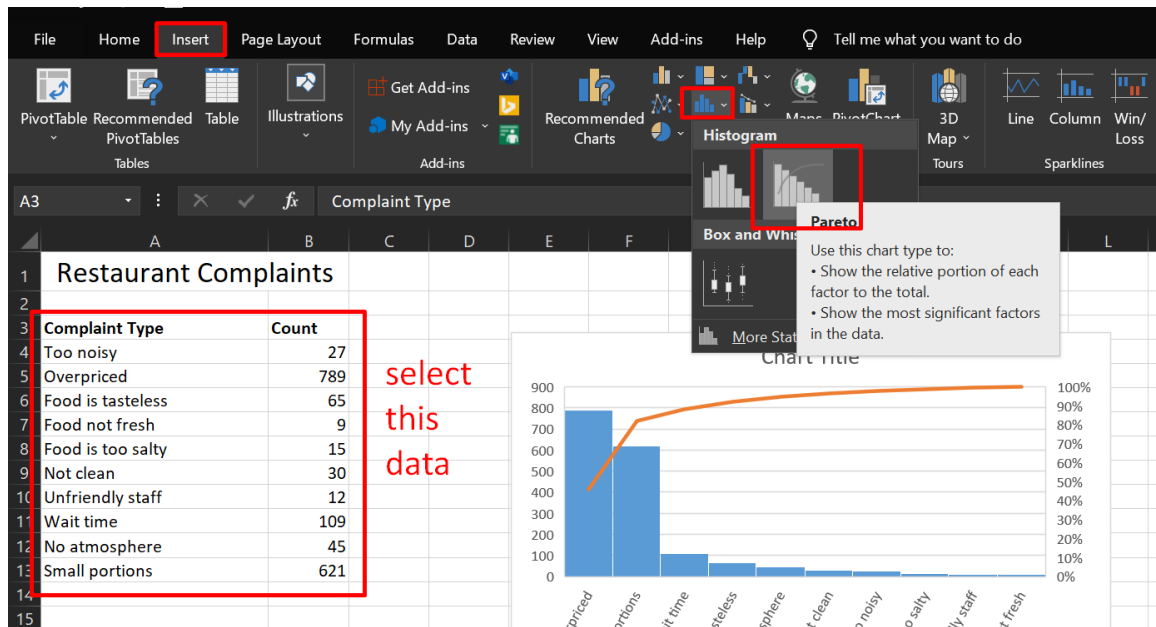




Gantt Chart completed.... Electric and Plumbing can be done simultaneously.

K. PARETO CHART

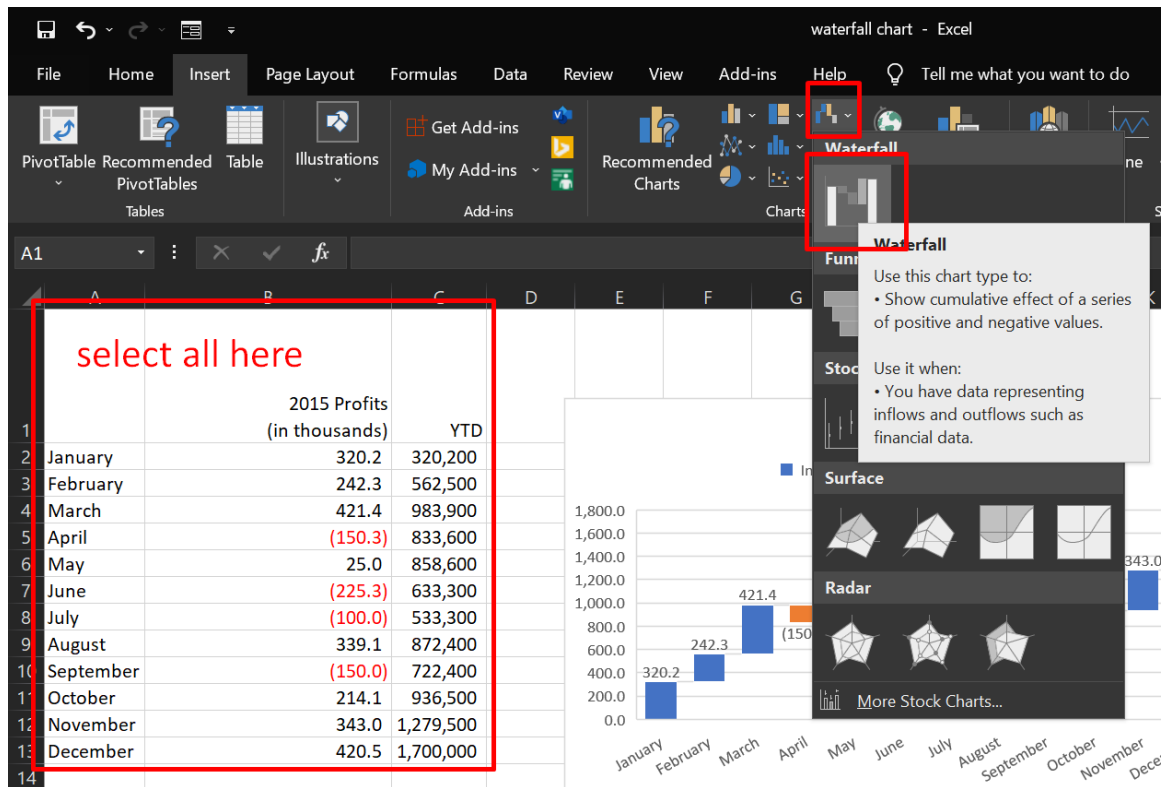
File: <https://www.alvinang.sg/s/pareto-chart.xlsx>



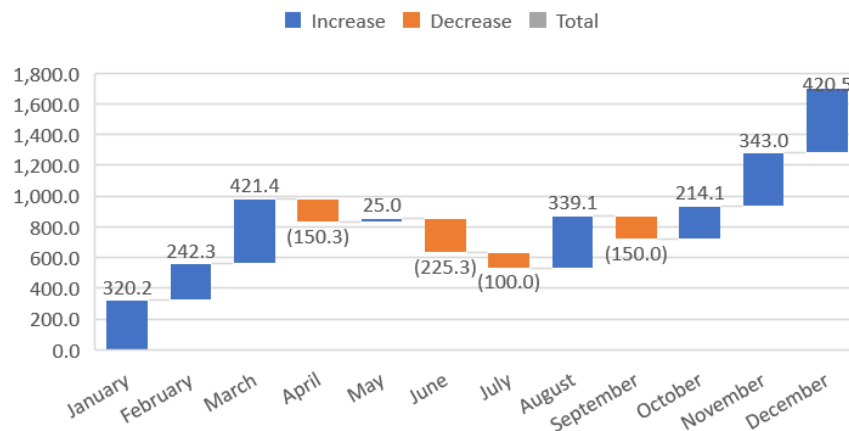
The orange line shows that 80% (789+621) of the complaints come from only 20% of the complain types (Overpriced and Small Portions).

L. WATERFALL CHART

File: <https://www.alvinang.sg/s/waterfall-chart.xlsx>



2015 Profits



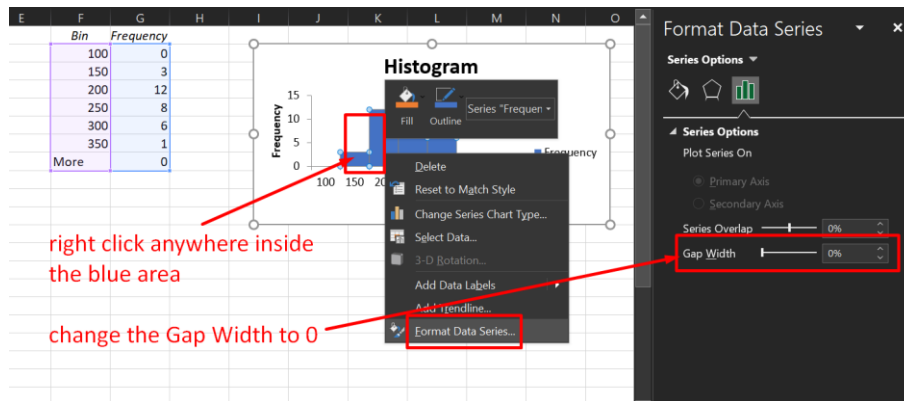
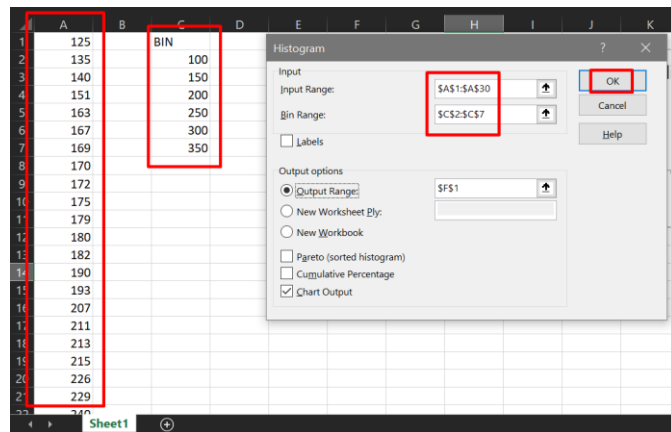
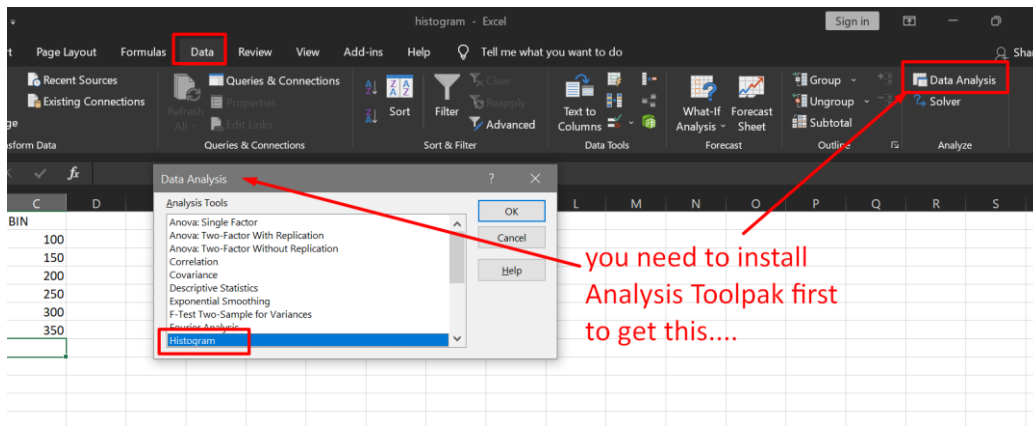
M. SUNBURST CHART

Refer here:

<https://dr-alvin-ang.medium.com/creating-a-sunburst-chart-in-excel-for-visualizing-work-activities-8184b1853da2>

O. HISTOGRAM

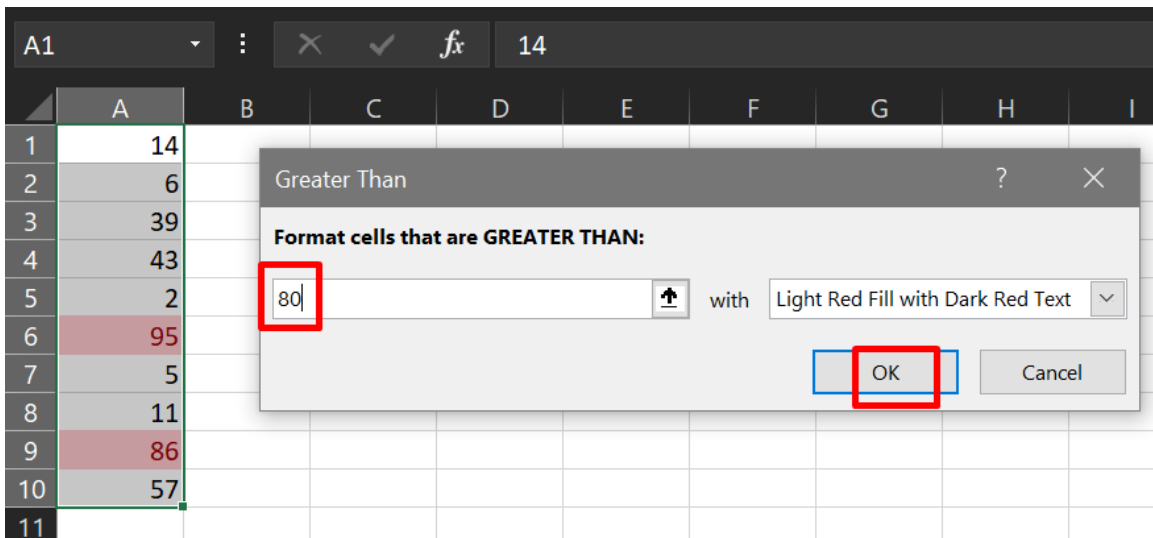
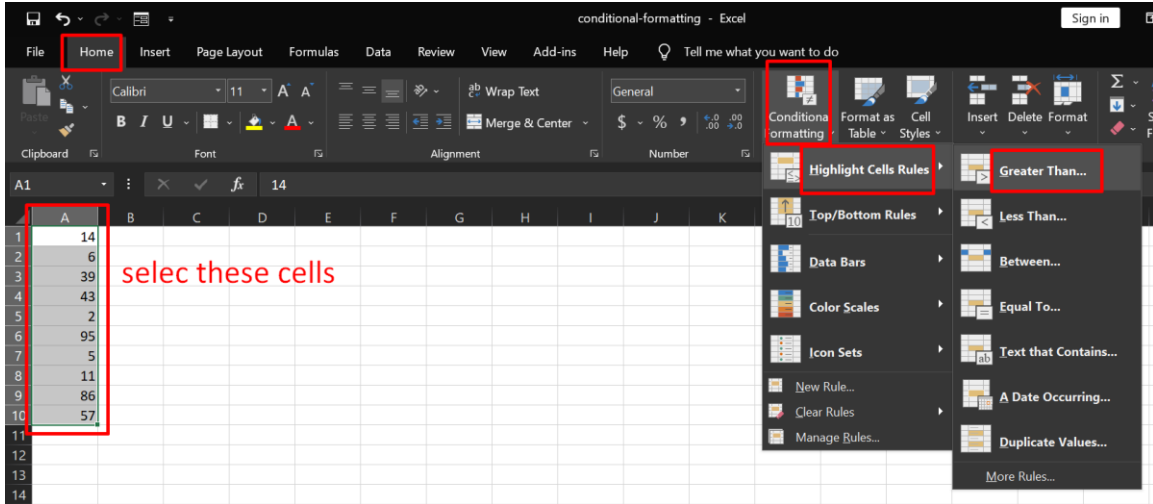
File: <https://www.alvinang.sg/s/histogram.xlsx>



II. CONDITIONAL FORMATTING

File: <https://www.alvinang.sg/s/conditional-formatting.xlsx>

A. HIGHLIGHT CELL RULES



	A	B	C	D	E
1	81				
2	6				
3	39				
4	43				
5	2				
6	95				
7	5				
8	11				
9	86				
10	57				
11					

change the value of cell A1 to 81

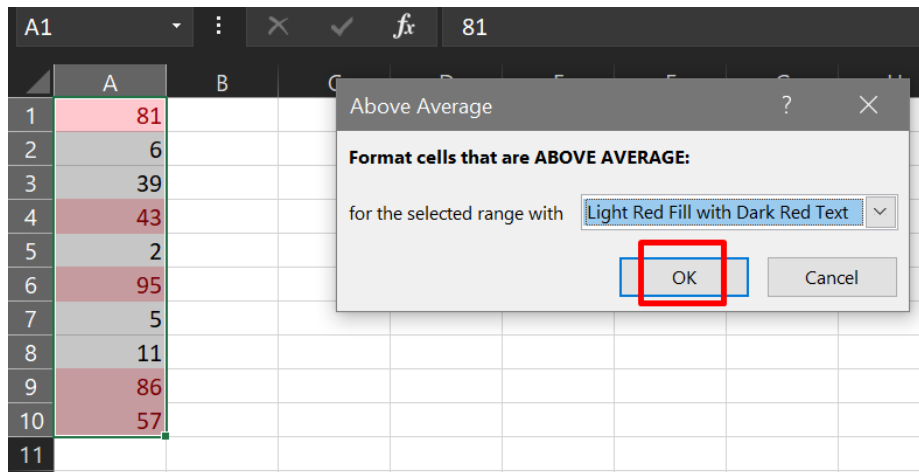
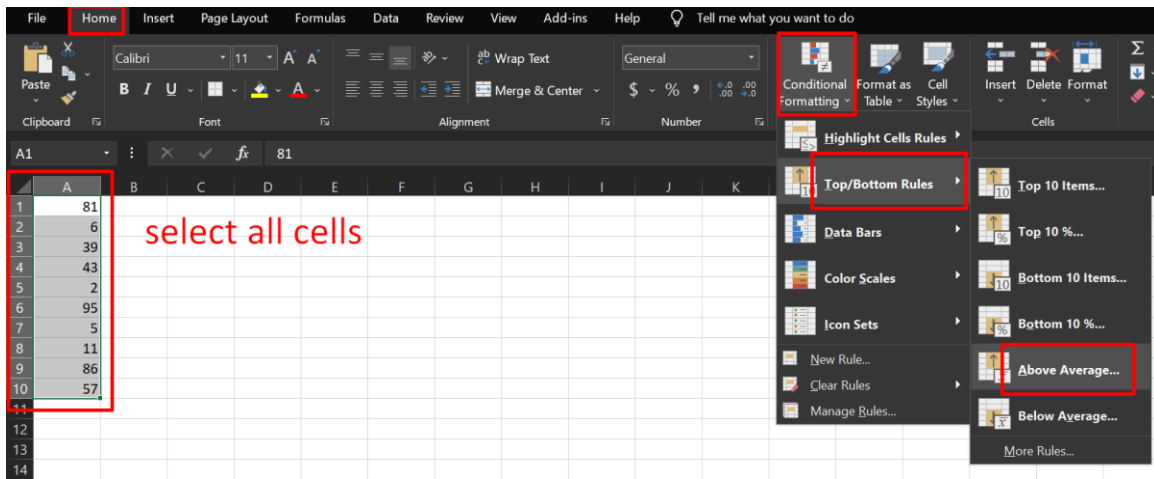
and see the color change

B. CLEAR RULES

select all these cells

C. TOP / BOTTOM

File: <https://www.alvinang.sg/s/conditional-formatting.xlsx>



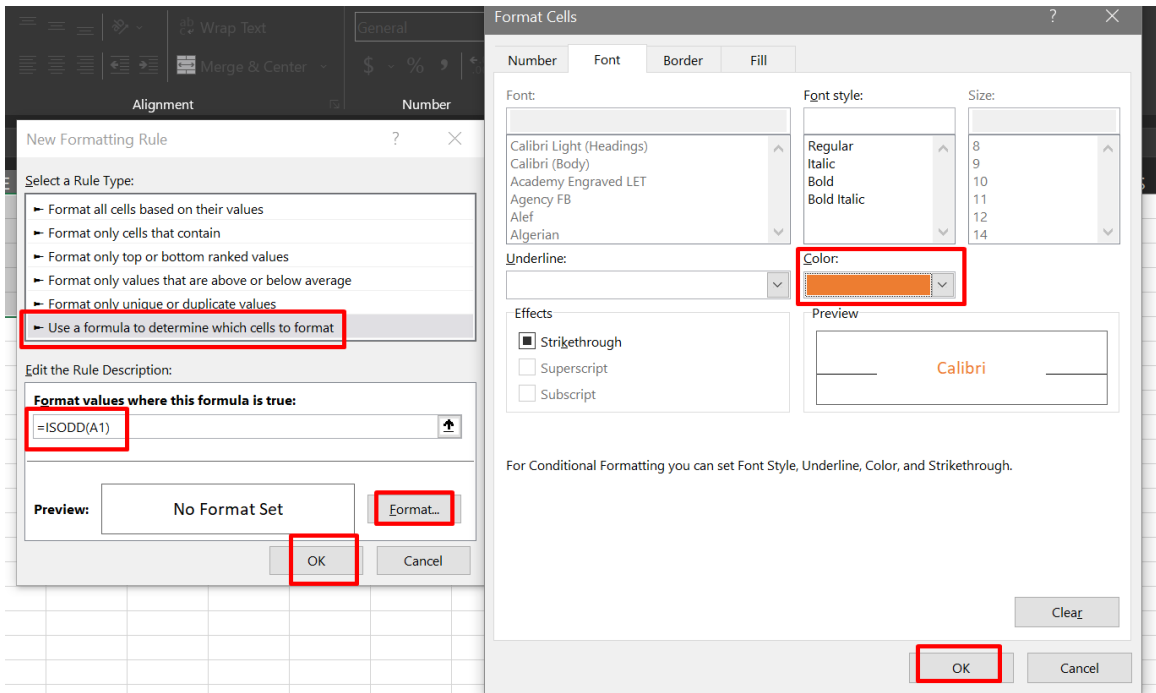
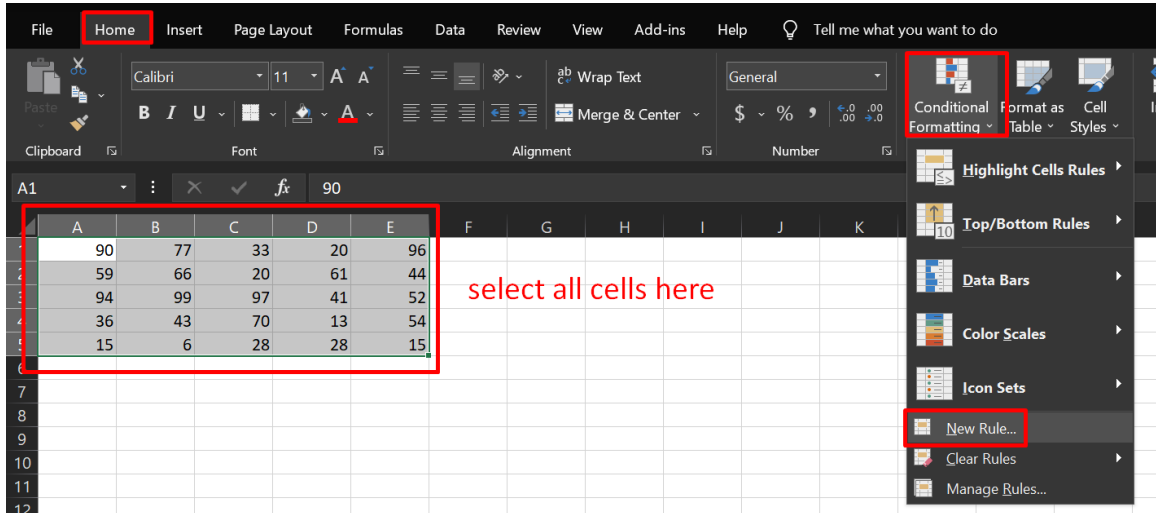
	A	B	C
1	81		
2	6		
3	39		
4	43		
5	2		
6	95		
7	5		
8	11		
9	86		
10	57		

final display

D. WITH FORMULAS

File: <https://www.alvinang.sg/s/conditional-formatting.xlsx>

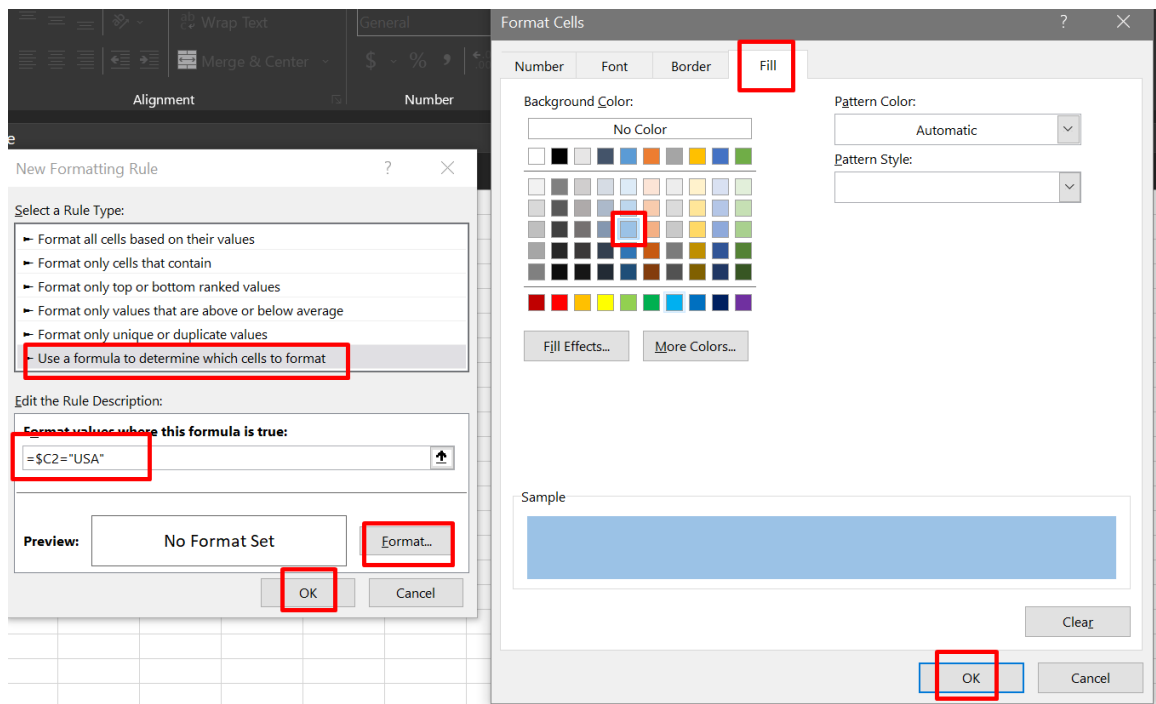
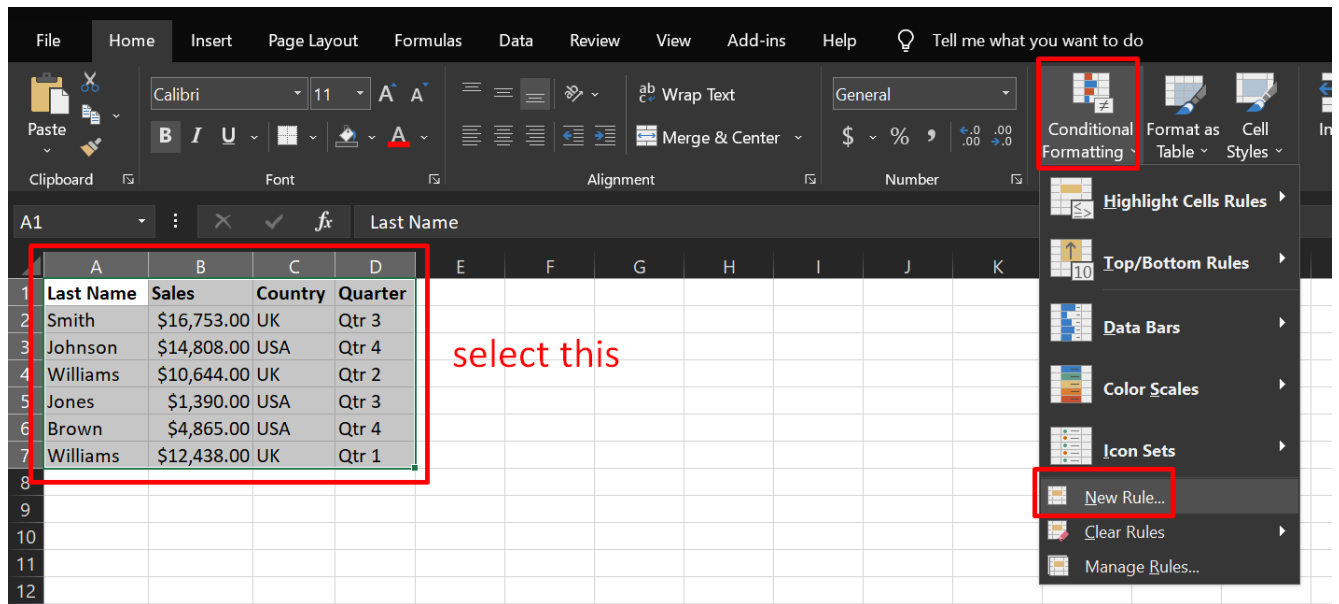
1. FORMULA 1



	A	B	C	D	E	F
1	90	77	33	20	96	
2	59	66	20	61	44	
3	94	99	97	41	52	
4	36	43	70	13	54	
5	15	6	28	28	15	
6						
7	all odd numbers are highlighted					
8						

2. FORMULA 2

File: <https://www.alvinang.sg/s/conditional-formatting.xlsx>



	A	B	C	D
1	Last Name	Sales	Country	Quarter
2	Smith	\$16,753.00	UK	Qtr 3
3	Johnson	\$14,808.00	USA	Qtr 4
4	Williams	\$10,644.00	UK	Qtr 2
5	Jones	\$1,390.00	USA	Qtr 3
6	Brown	\$4,865.00	USA	Qtr 4
7	Williams	\$12,438.00	UK	Qtr 1
8				
9				

(not sure why its not showing all USA...)

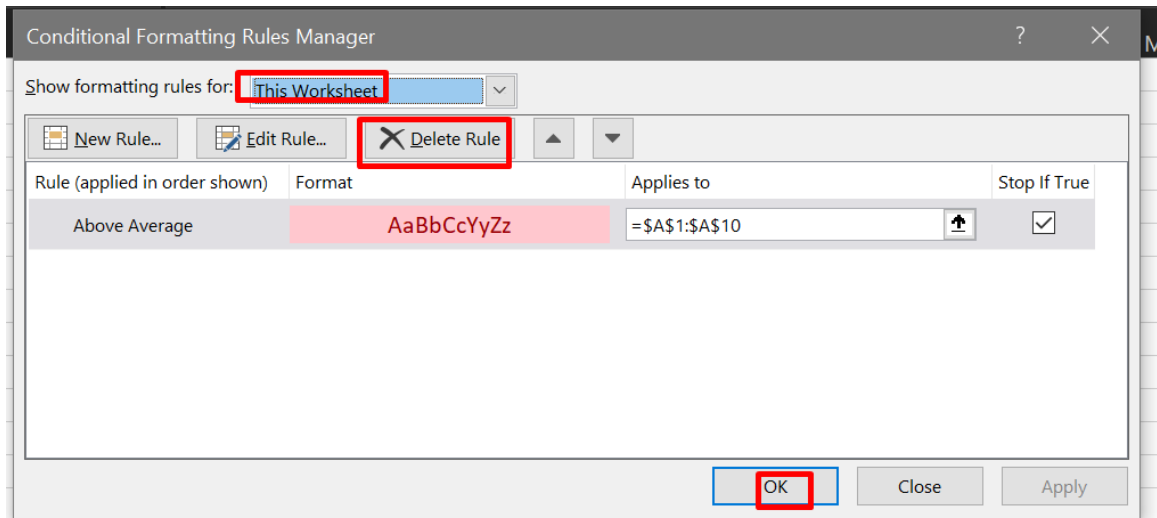
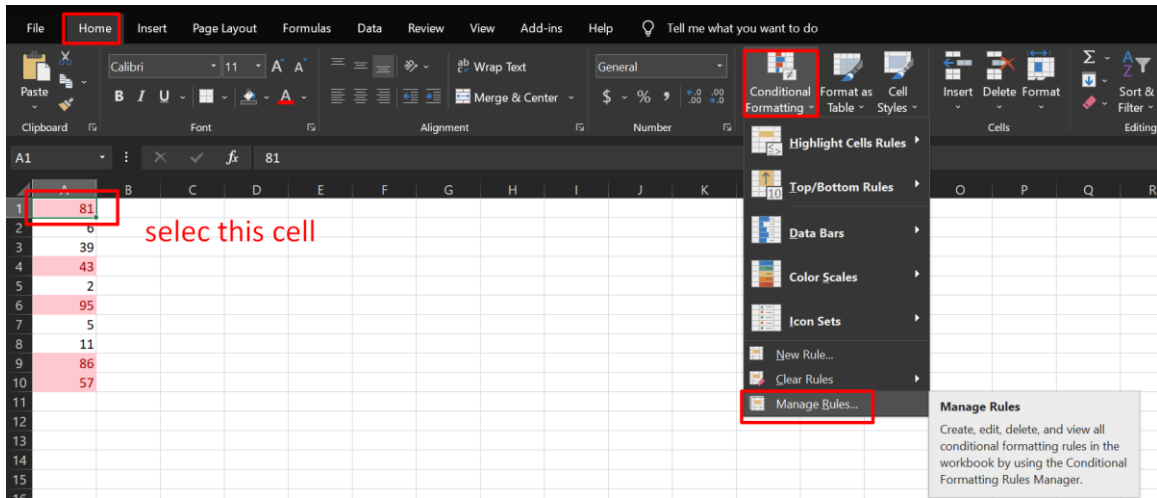
E. CLEAR CONDITIONAL FORMATTING

The screenshot shows the Microsoft Excel interface with the 'Conditional Formatting' task pane open on the right. The 'Clear Rules' option is selected, and a sub-menu is displayed with the following options:

- Clear Rules from Selected Cells (highlighted with a red box)
- Clear Rules from Entire Sheet (highlighted with a red box)
- Clear Rules from This Table
- Clear Rules from This PivotTable

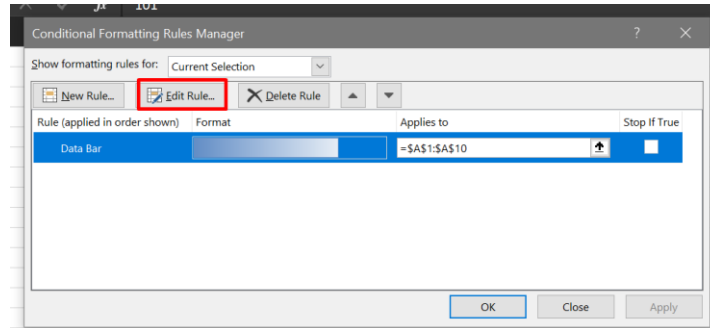
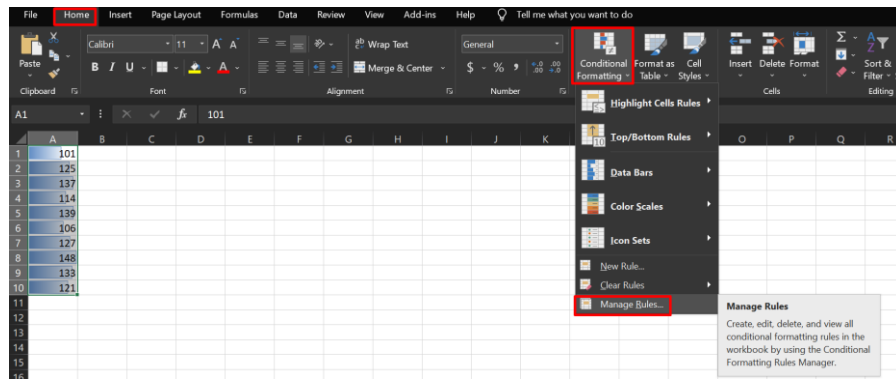
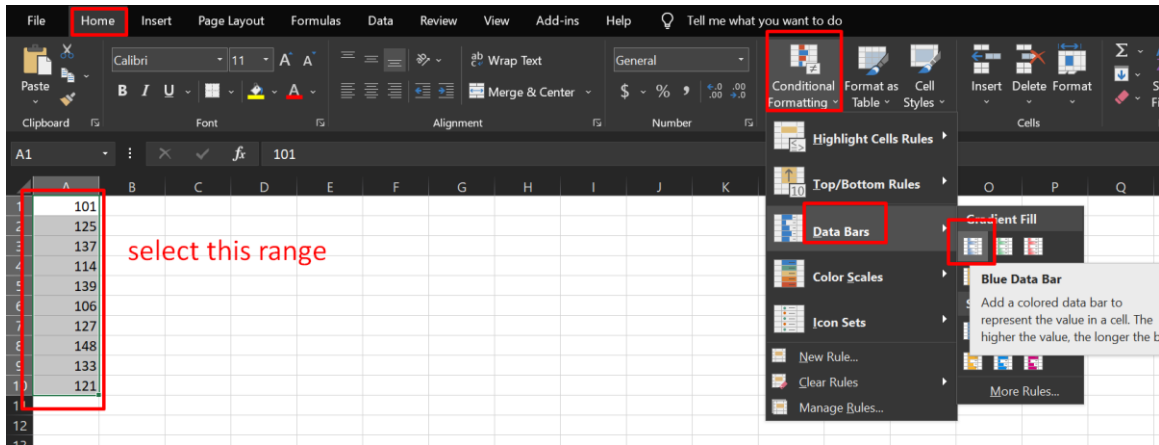
F. MANAGING RULES

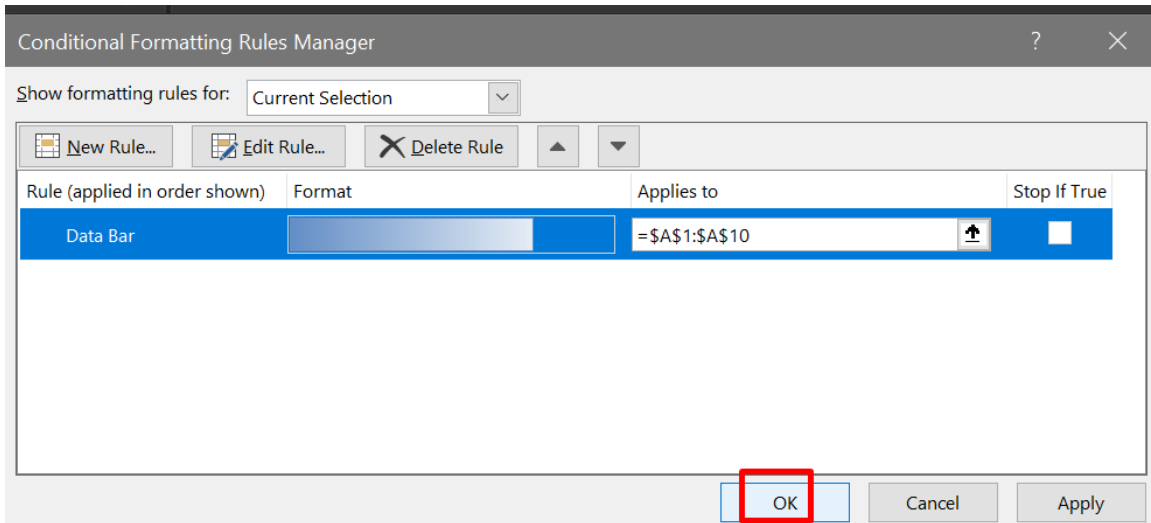
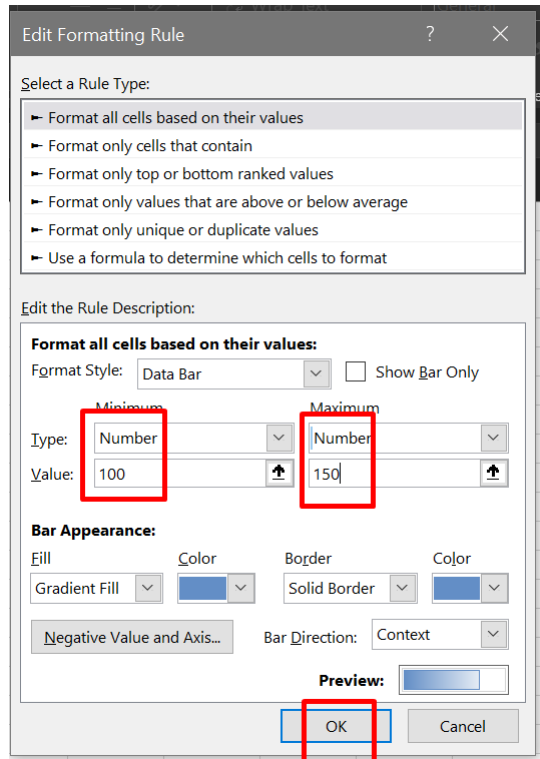
File: <https://www.alvinang.sg/s/conditional-formatting.xlsx>



G. DATA BARS

File: <https://www.alvinang.sg/s/data-bars.xlsx>





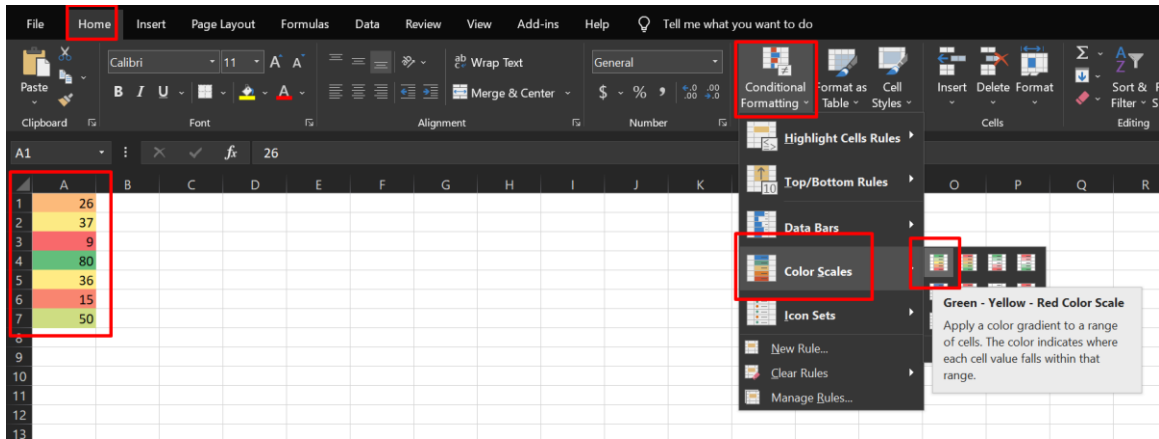
	A	B	C	D
1	101			
2	125			
3	137			
4	114			
5	139			
6	106			
7	127			
8	148			
9	133			
10	121			
11				

100 no bar

150 max bar

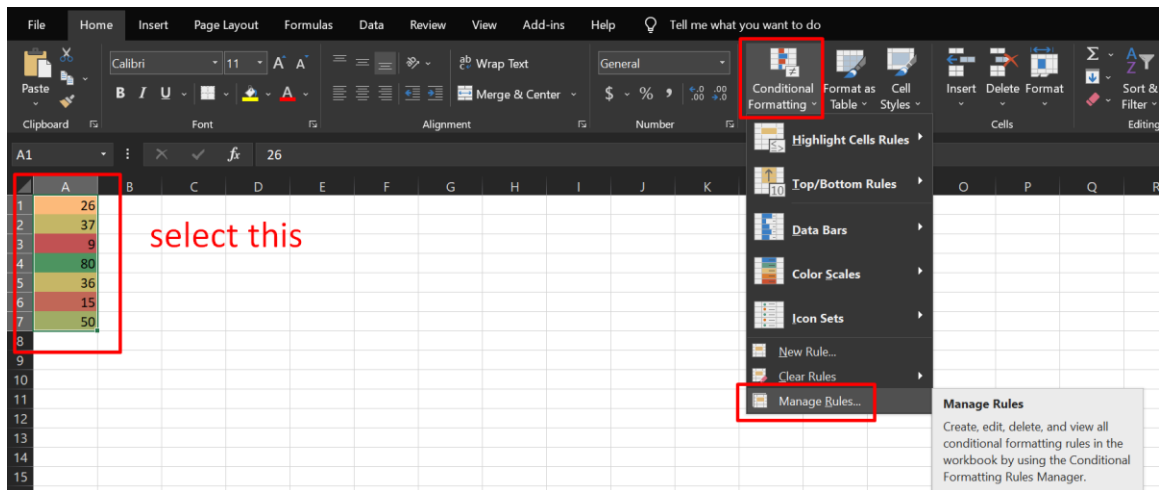
H. COLOR SCALES

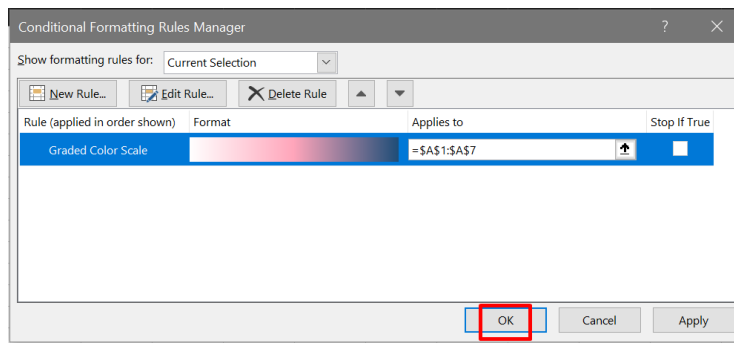
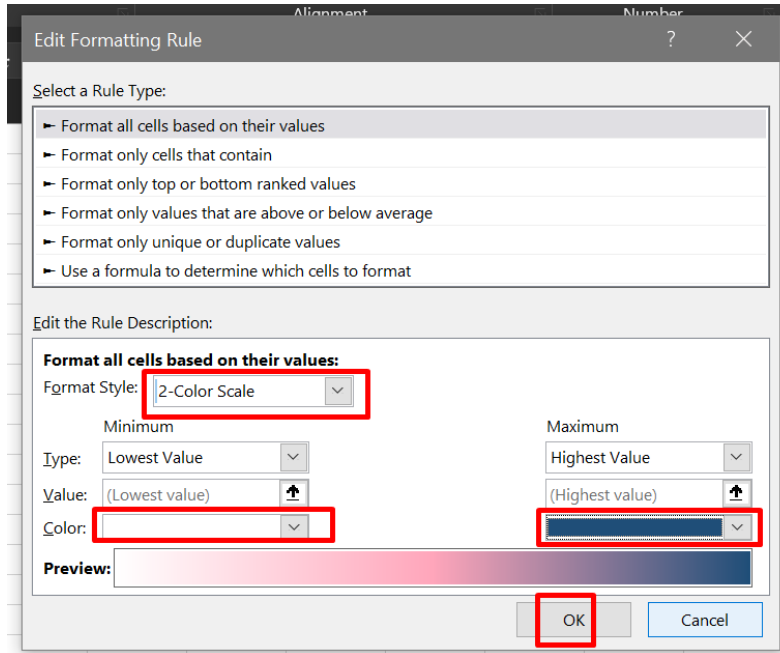
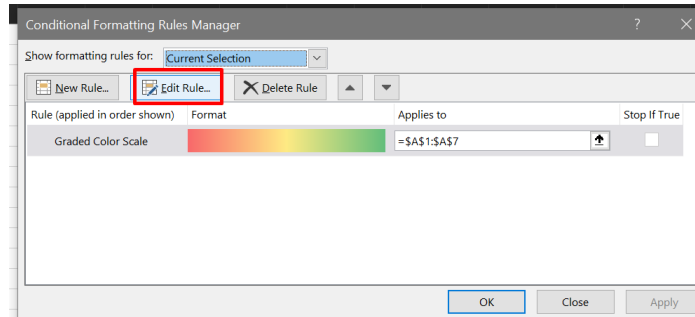
File: <https://www.alvinang.sg/s/color-scales.xlsx>



	A	B	C
1	26		
2	37		
3	9		
4	80		
5	36		
6	15		
7	50		
8			
9			

we want to further customize this





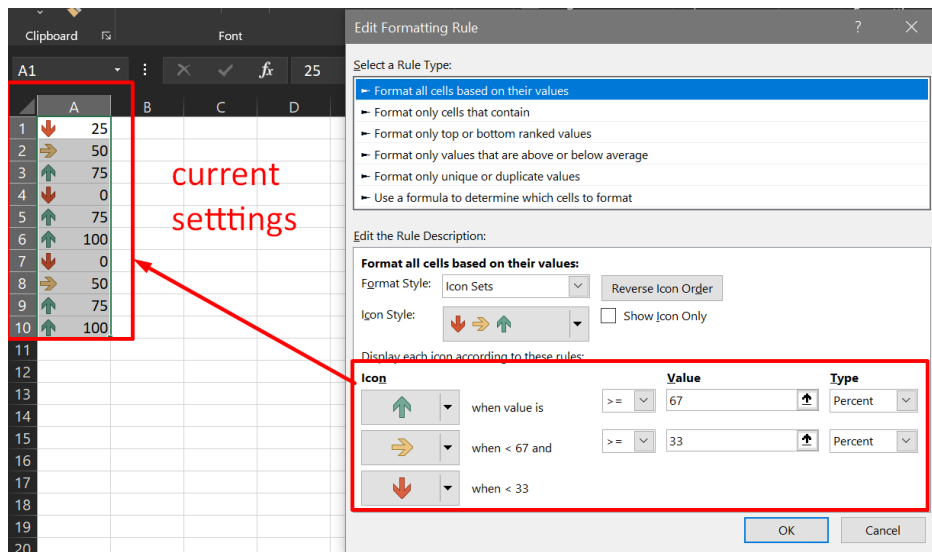
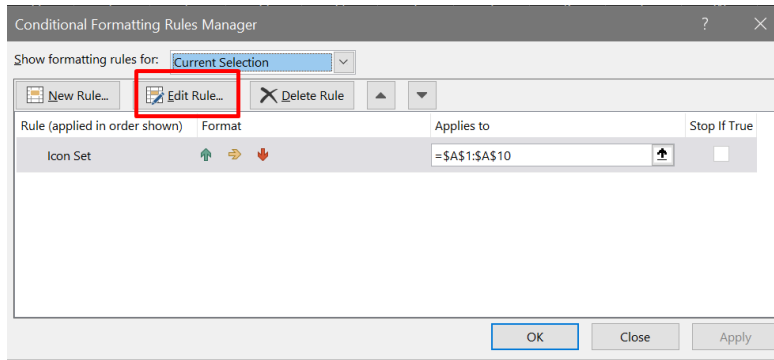
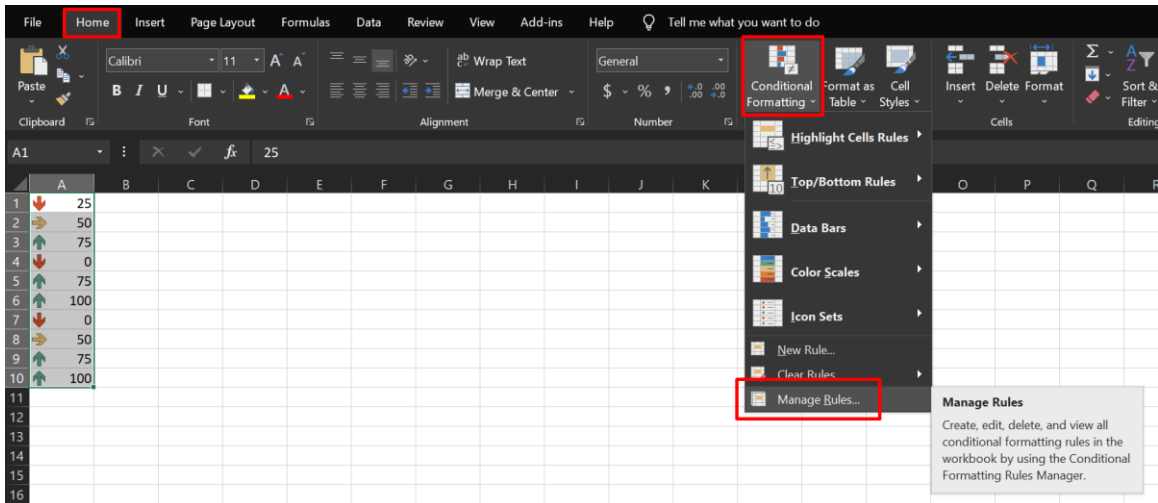
	A	B	C
1	26		
2	37	END	
3	9		
4	80	RESULT	
5	36		
6	15		
7	50		
8			
9			

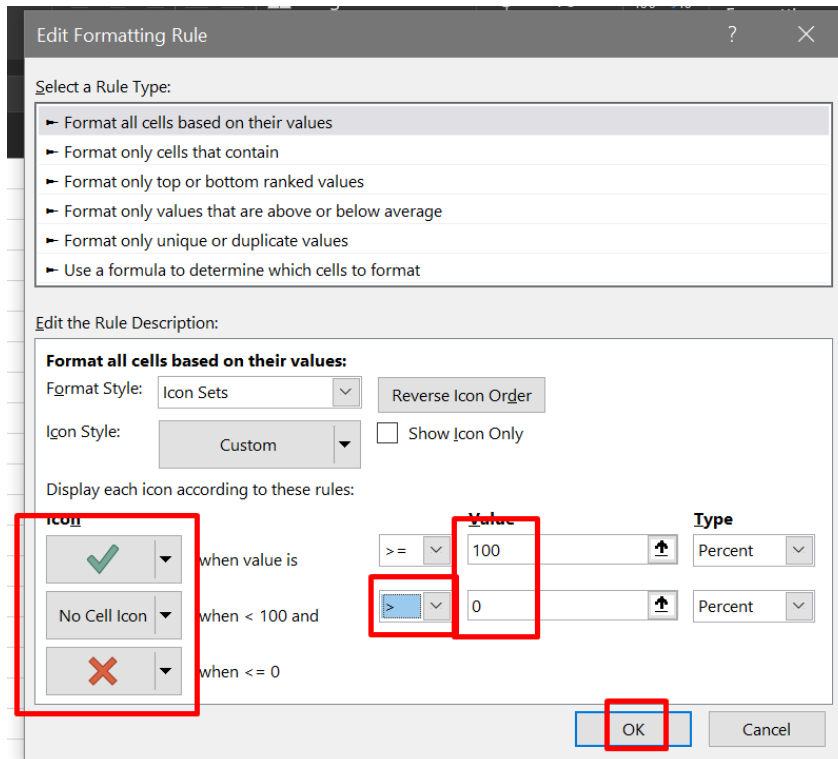
I. ICON SETS

File: <https://www.alvinang.sg/s/icon-sets.xlsx>

select this range of data

Row	Value	Icon
1	25	Down Arrow
2	50	Right Arrow
3	75	Up Arrow
4	0	Down Arrow
5	75	Up Arrow
6	100	Up Arrow
7	0	Down Arrow
8	50	Right Arrow
9	75	Up Arrow
10	100	Up Arrow



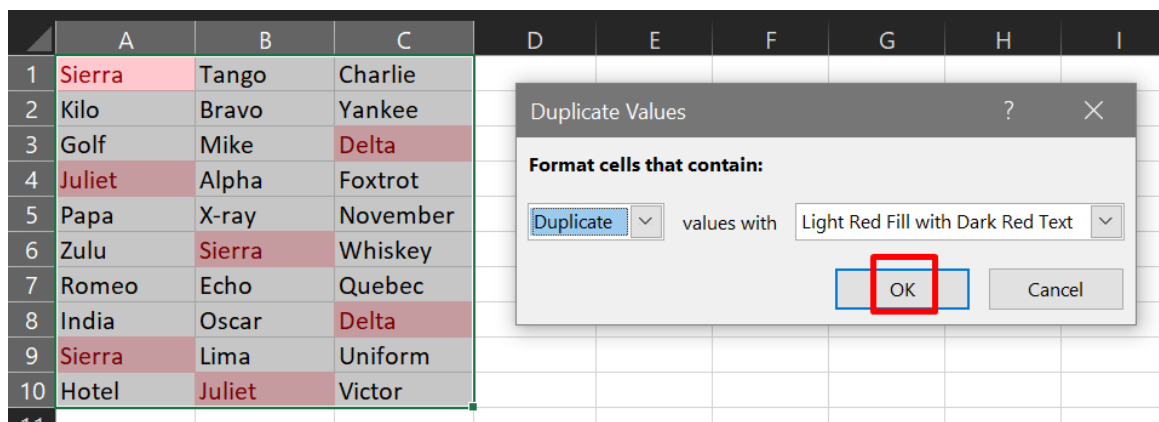
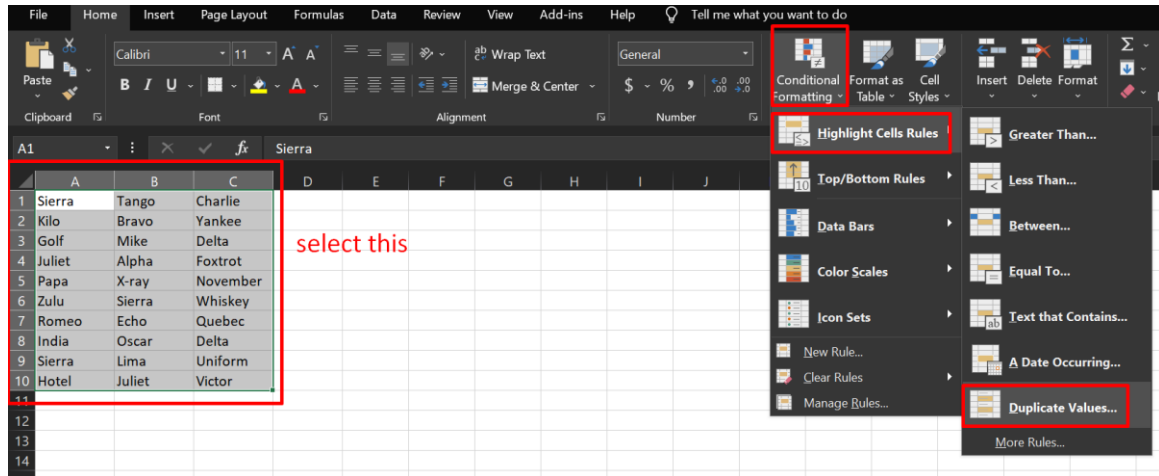


	A	
1	25	
2	50	
3	75	
4	0	Red X
5	75	
6	100	Green Checkmark
7	0	Red X
8	50	
9	75	
10	100	Green Checkmark
11		

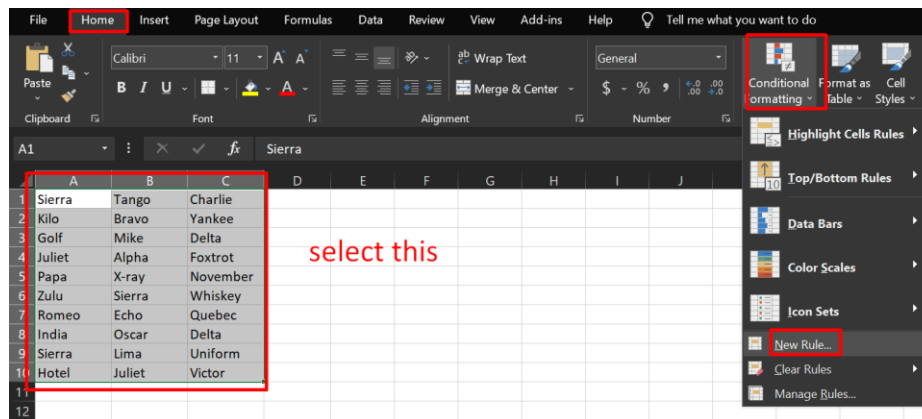
J. FIND DUPLICATES

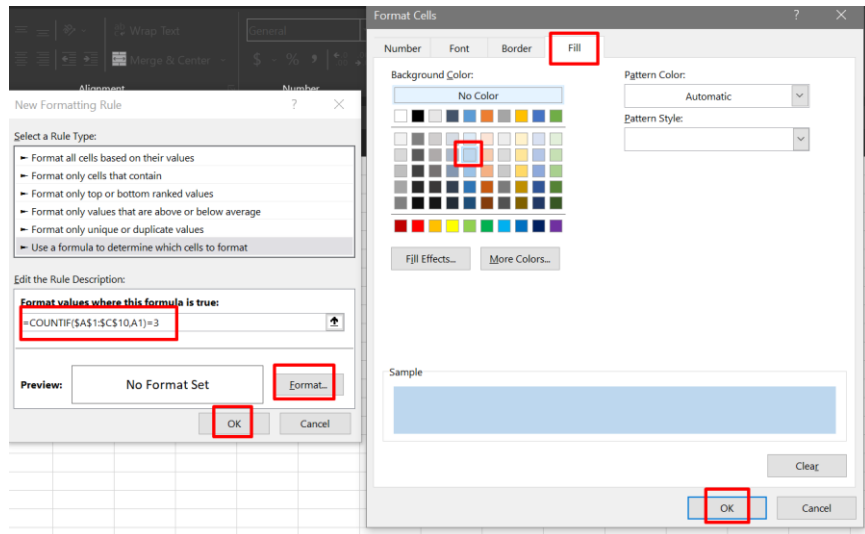
1. DUPLICATE VALUES

File: <https://www.alvinang.sg/s/find-duplicates.xlsx>



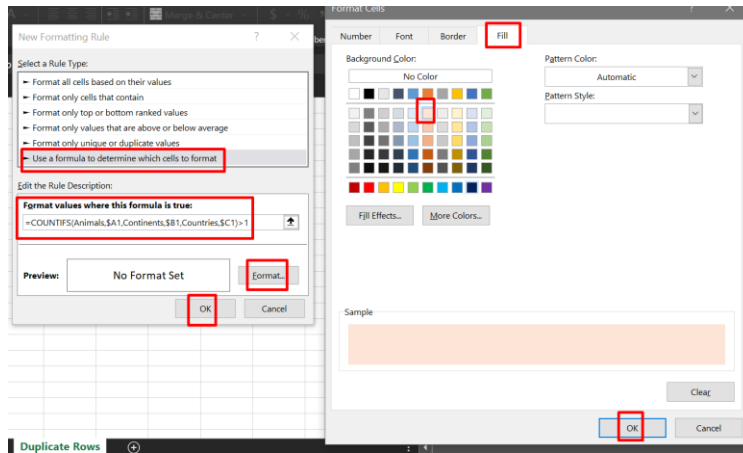
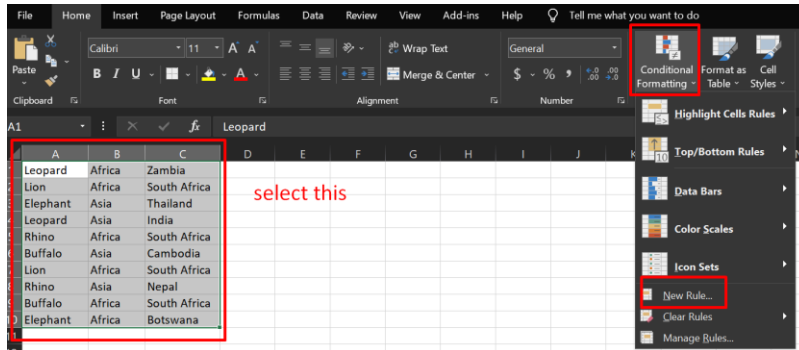
2. TRIPPLICATES





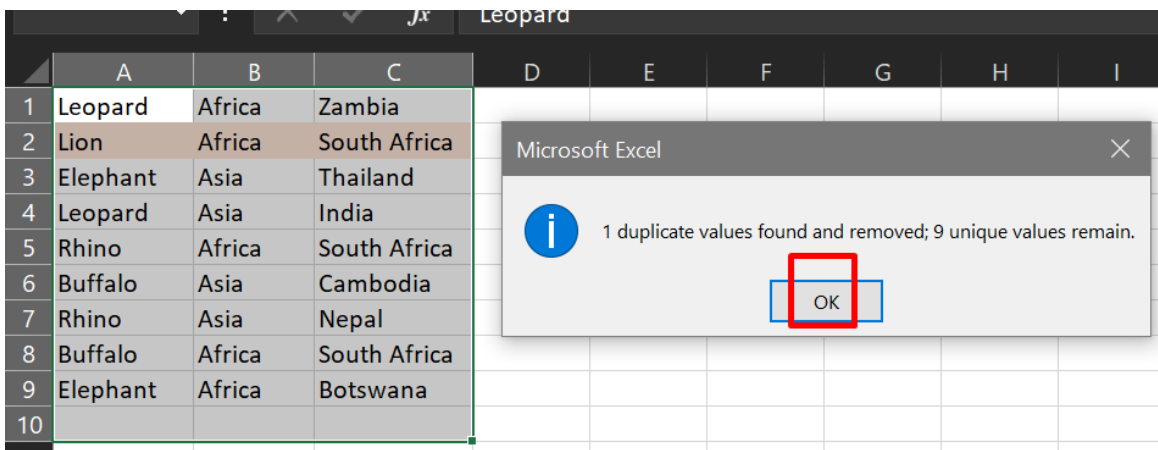
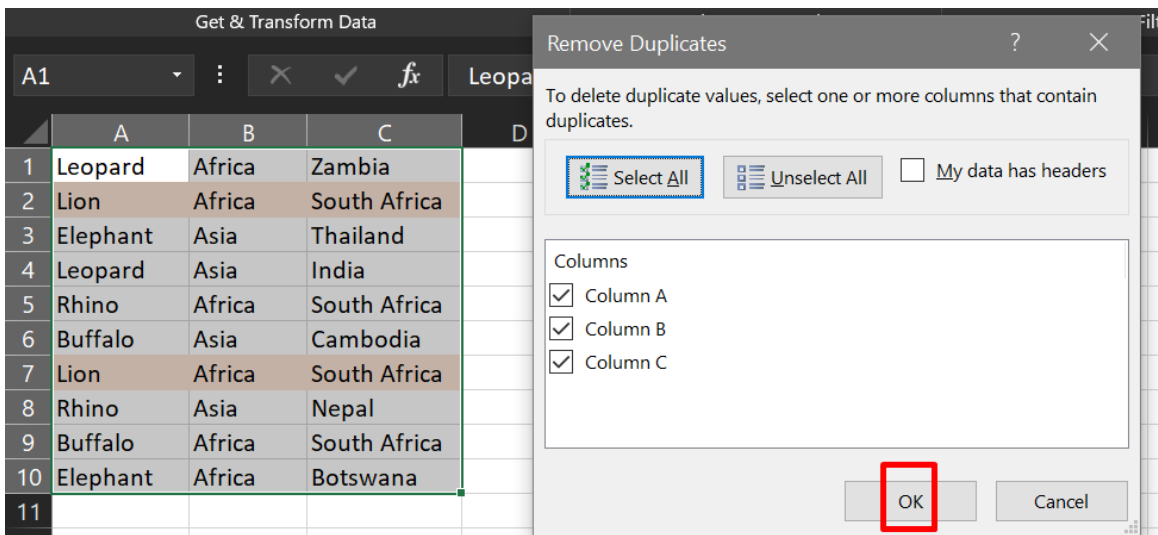
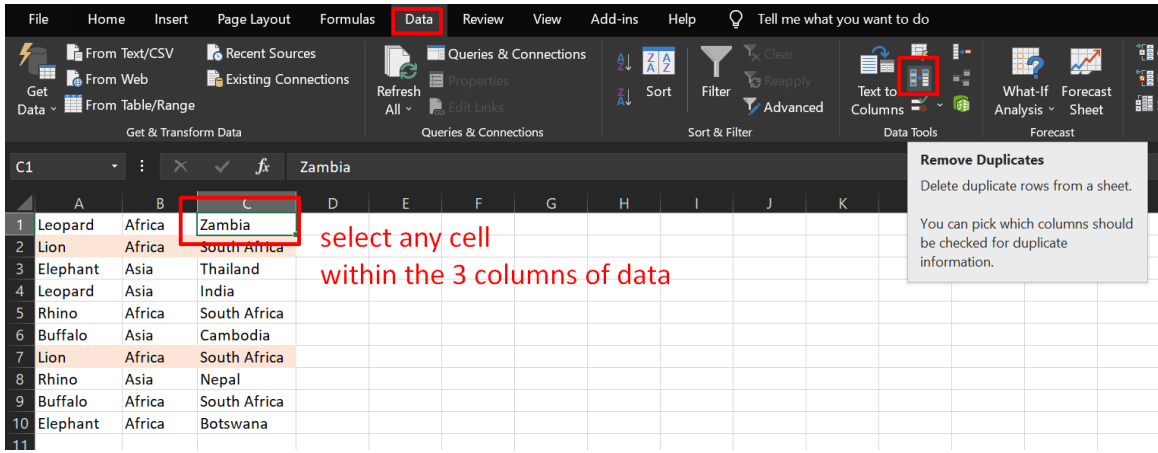
	A	B	C
1	Sierra	Tango	Charlie
2	Kilo	Bravo	Yankee
3	Golf	Mike	Delta
4	Juliet	Alpha	Foxtrot
5	Papa	X-ray	November
6	Zulu	Sierra	Whiskey
7	Romeo	Echo	Quebec
8	India	Oscar	Delta
9	Sierra	Lima	Uniform
10	Hotel	Juliet	Victor
11			
12	triplicate names		

3. DUPLICATE ROWS



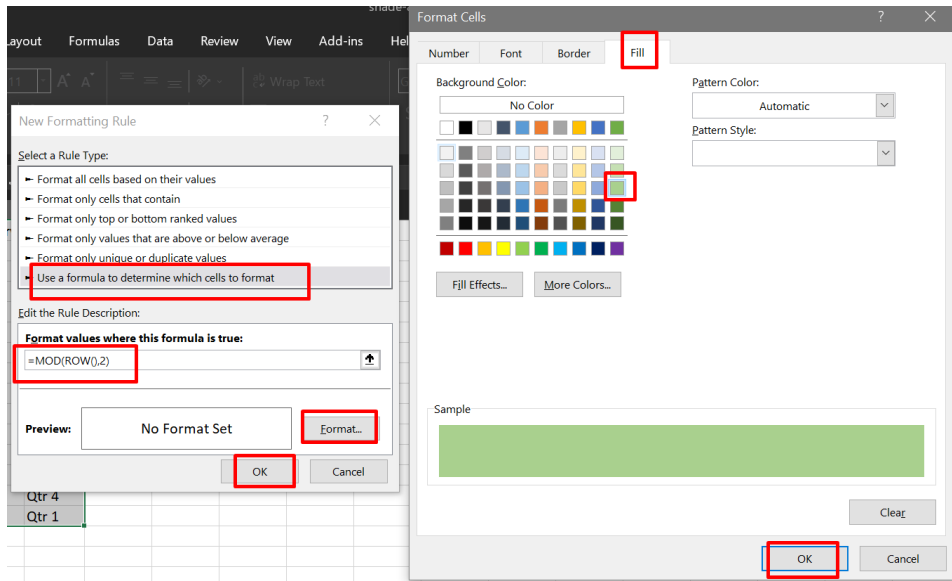
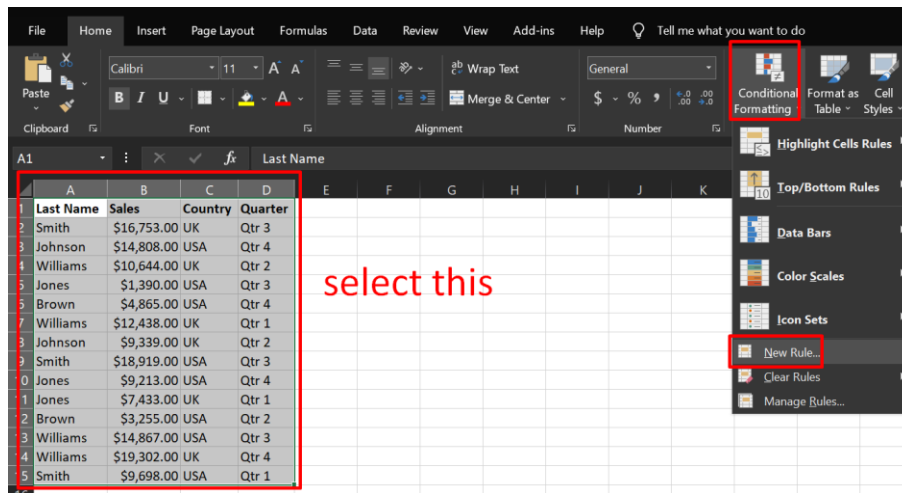
=COUNTIFS(Animals,\$A1,Continents,\$B1,Countries,\$C1)>1

	A	B	C
1	Leopard	Africa	Zambia
2	Lion	Africa	South Africa
3	Elephant	Asia	Thailand
4	Leopard	Asia	India
5	Rhino	Africa	South Africa
6	Buffalo	Asia	Cambodia
7	Lion	Africa	South Africa
8	Rhino	Asia	Nepal
9	Buffalo	Africa	South Africa
10	Elephant	Africa	Botswana
11			



K. SHADE ALTERNATE ROWS

File: <https://www.alvinang.sg/s/shade-alternate-rows.xlsx>



`=MOD(ROW(),2)`

	A	B	C	D	E
1	Last Name	Sales	Country	Quarter	
2	Smith	\$16,753.00	UK	Qtr 3	
3	Johnson	\$14,808.00	USA	Qtr 4	
4	Williams	\$10,644.00	UK	Qtr 2	
5	Jones	\$1,390.00	USA	Qtr 3	
6	Brown	\$4,865.00	USA	Qtr 4	
7	Williams	\$12,438.00	UK	Qtr 1	
8	Johnson	\$9,339.00	UK	Qtr 2	
9	Smith	\$18,919.00	USA	Qtr 3	
10	Jones	\$9,213.00	USA	Qtr 4	
11	Jones	\$7,433.00	UK	Qtr 1	
12	Brown	\$3,255.00	USA	Qtr 2	
13	Williams	\$14,867.00	USA	Qtr 3	
14	Williams	\$19,302.00	UK	Qtr 4	
15	Smith	\$9,698.00	USA	Qtr 1	
16					

L. HEAT MAP

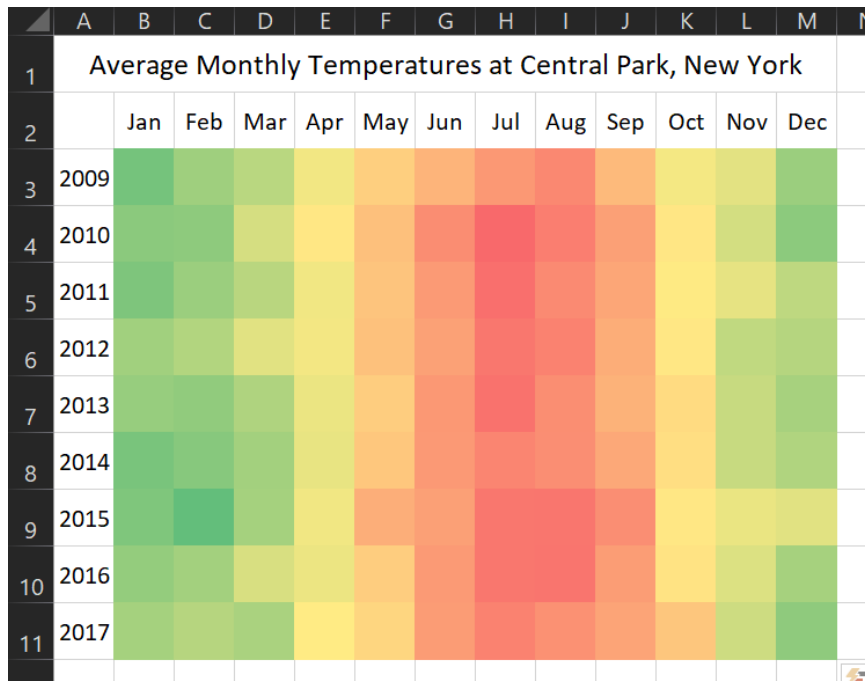
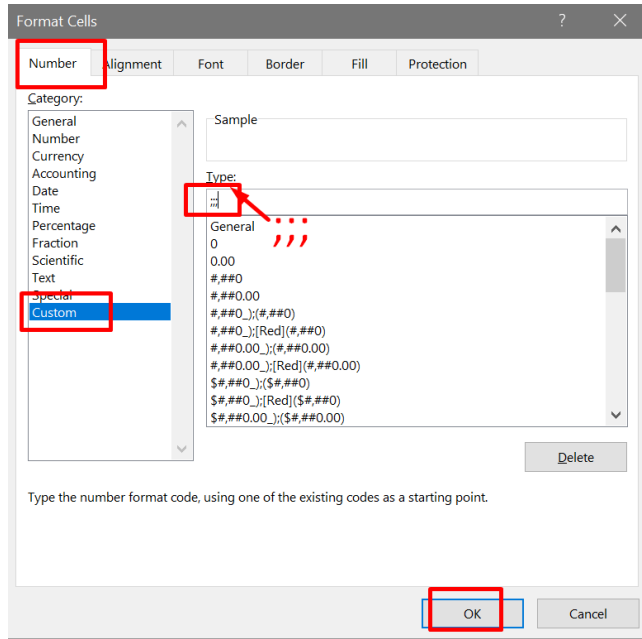
File: <https://www.alvinang.sg/s/heat-map.xlsx>

select B3 to M11 only!!!

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2009	27.9	36.7	42.4	54.5	62.5	67.5	72.7	75.7	66.3	55	51.2	35.9
2010	32.5	33.1	48.2	57.9	65.3	74.7	81.3	77.4	71.1	58.1	47.9	32.8
2011	29.7	36	42.3	54.3	64.5	72.3	80.2	75.3	70	57.1	51.9	43.3
2012	37.3	40.9	50.9	54.8	65.1	71	78.8	76.7	68.8	58	43.9	41.5
2013	35.1	33.9	40.1	53	62.8	72.7	79.8	74.6	67.9	60.2	45.3	38.5
2014	28.6	31.6	37.7	52.3	64	72.5	76.1	74.5	69.7	59.6	45.3	40.5
2015	29.9	23.9	38.1	54.3	68.5	71.2	78.8	79	74.5	58	52.8	50.8
2016	34.5	37.7	48.9	53.3	62.8	72.3	78.7	79.2	71.8	58.8	49.8	38.3
2017	38	41.6	39.2	57.2	61.1	72	76.8	74	70.5	64.1	46.6	33.4

right click anywhere only B3 to M11!!!

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2009	27.9	36.7	42.4	54.5	62.5	67.5	72.7	75.7	66.3	55	51.2	35.9
2010	32.5	33.1	48.2	57.9	65.3	74.7	81.3	77.4	71.1	58.1	47.9	32.8
2011	29.7	36	42.3	54.3	64.5	72.3	80.2	75.3	70	57.1	51.9	43.3
2012	37.3	40.9	50.9	54.8	65.1	71	78.8	76.7	68.8	58	43.9	41.5
2013	35.1	33.9	40.1	53	62.8	72.7	79.8	74.6	67.9	60.2	45.3	38.5
2014	28.6	31.6	37.7	52.3	64	72.5	76.1	74.5	69.7	59.6	45.3	40.5
2015	29.9	23.9	38.1	54.3	68.5	71.2	78.8	79	74.5	58	52.8	50.8
2016	34.5	37.7	48.9	53.3	62.8	72.3	78.7	79.2	71.8	58.8	49.8	38.3
2017	38	41.6	39.2	57.2	61.1	72	76.8	74	70.5	64.1	46.6	33.4



III. PIVOT TABLES

File: <https://www.alvinang.sg/s/pivot-table.xlsx>

A. INSERT PIVOT TABLE

The screenshot shows the Microsoft Excel interface with the 'Insert' tab selected. The 'PivotTable' icon in the 'Tables' group is highlighted with a red box. The 'PivotTable from table or range' dialog box is open, showing the 'Table/Range' field with the value '=Sheet1 (2)!\$A\$1:\$F\$214' highlighted in red. Red arrows point from text annotations to the 'Table/Range' field and the 'OK' button.

select anywhere inside the data....

the data automatically gets selected....

Order ID	Product	Category	Amount	Date	Country
1	Carrots	Vegetables	\$4,270	1/6/2016	United States
2	Broccoli	Vegetables	\$8,239	1/7/2016	United Kingdom
3	Banana	Fruit	\$617	1/8/2016	United States
4	Banana	Fruit	\$8,384	1/10/2016	Canada
5	Beans	Vegetables	\$2,626	1/10/2016	Germany
6	Orange	Fruit	\$3,610	1/11/2016	United States
7	Broccoli	Vegetables	\$9,062	1/11/2016	Australia
8	Banana	Fruit	\$6,906	1/16/2016	New Zealand
9	Apple	Fruit	\$2,417	1/16/2016	France
10	Apple	Fruit	\$7,431	1/16/2016	Canada
11	Banana	Fruit	\$8,250	1/16/2016	Germany
12	Broccoli	Vegetables	\$7,012	1/18/2016	United States
13	Carrots	Vegetables	\$1,903	1/20/2016	Germany
14	Broccoli	Vegetables	\$2,824	1/22/2016	Canada
15	Apple	Fruit	\$6,946	1/24/2016	France
16	Banana	Fruit	\$2,320	1/27/2016	United Kingdom
17	Banana	Fruit	\$2,116	1/28/2016	United States
18	Banana	Fruit	\$1,135	1/30/2016	United Kingdom
19	Broccoli	Vegetables	\$3,595	1/30/2016	United Kingdom
20	Apple	Fruit	\$1,161	2/2/2016	United States
21	Orange	Fruit	\$2,256	2/4/2016	France

File Home Insert Page Layout Formulas Data Review View Add-ins Help PivotTable Analyze Design Tell me what you want to do Share

PivotTable Product Active Field: Product Drill Down Drill Up Field Settings Active Field Group Selection Group Group Field Group Filter Insert Slicer Insert Timeline Refresh Change Data Source Data Clear Select Move PivotTable Actions Fields, Items, & Sets OLAP Tools Relationships Calculations PivotChart Recommended PivotTables Tools Field List +/- Buttons Field Headers Show

A3 Row Labels

Country	(All)
Row Labels	Sum of Amount
Apple	191257
Banana	340295
Beans	57281
Broccoli	142439
Carrots	136945
Mango	57079
Orange	104438
Grand Total	1029734

this is shown

drag here

a new worksheet has been created

Sheet1 Sheet1 (2)

PivotTable Fields

Choose fields to add to report:

Search

- Order ID
- Product
- Category
- Amount
- Date
- Country

Drag fields between areas below:

Filters: Country

Columns: Product, Sum of Amount

Defer Layout Update Update

B. SORT PIVOT TABLE

File: <https://www.alvinang.sg/s/pivot-table.xlsx>

right click anywhere here inside

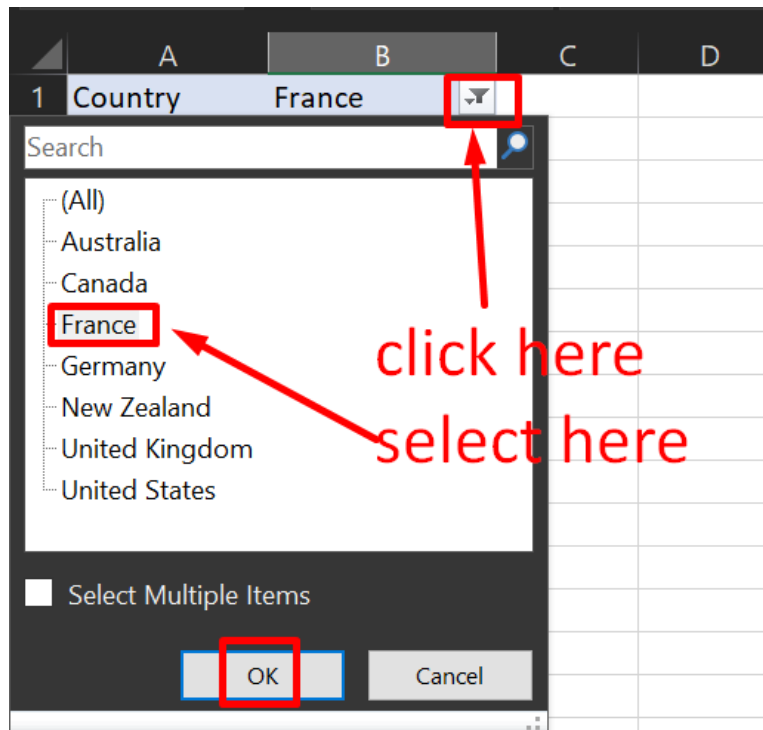
Country	(All)
Apple	191257
Banana	340295
Beans	57281
Broccoli	142439
Carrots	136945
Mango	57079
Grand Total	1029734

Country	(All)
Banana	340295
Apple	191257
Broccoli	142439
Carrots	136945
Orange	104438
Beans	57281
Mango	57079
Grand Total	1029734

this is shown

C. FILTER PIVOT TABLE

File: <https://www.alvinang.sg/s/pivot-table.xlsx>



	A	B	C	D
1	Country	France		
2				
3	Row Labels	Sum of Amount		
4	Apple	80193	this	
5	Banana	36094	is	
6	Carrots	9104	shown	
7	Mango	7388		
8	Broccoli	5341		
9	Orange	2256		
10	Beans	680		
11	Grand Total	141056		

D. VALUE FIELD SETTINGS

File: <https://www.alvinang.sg/s/pivot-table.xlsx>

right click anywhere inside here

Value Field Settings

Source Name: Amount

Custom Name: Count of Amount

Summarize Values By: Show Values As

Summarize value field by

Choose the type of calculation that you want to use to summarize data from the selected field

Count

OK

	A	B
1	Country	France
2		
3	Row Labels	Count of Amount
4	Apple	16
5	Banana	7
6	Carrots	1
7	Mango	1
8	Orange	1
9	Beans	1
10	Broccoli	1
11	Grand Total	28

E. PIVOT CHART

File: <https://www.alvinang.sg/s/pivot-table.xlsx>

go back to the original worksheet

click anywhere inside here

we create a new pivot table

Order ID	Product	Category	Amount	Date	Country
1	Carrots	Vegetables	\$4,270	1/6/2016	United States
2	Broccoli	Vegetables	\$8,239	1/7/2016	United Kingdom
3	Banana	Fruit	\$617	1/8/2016	United States
4	Banana	Fruit	\$8,384	1/10/2016	Canada
5	Beans	Vegetables	\$2,626	1/10/2016	Germany
6	Orange	Fruit	\$3,610	1/11/2016	United States
7	Broccoli	Vegetables	\$9,062	1/11/2016	Australia
8	Banana	Fruit	\$6,906	1/16/2016	New Zealand
9	Apple	Fruit	\$2,417	1/16/2016	France
10	Apple	Fruit	\$7,431	1/16/2016	Canada
11	Banana	Fruit	\$8,250	1/16/2016	Germany
12	Broccoli	Vegetables	\$7,012	1/18/2016	United States
13	Carrots	Vegetables	\$1,903	1/20/2016	Germany
14	Broccoli	Vegetables	\$2,824	1/22/2016	Canada
15	Apple	Fruit	\$6,946	1/24/2016	France
16	Banana	Fruit	\$2,320	1/27/2016	United Kingdom
17	Banana	Fruit	\$2,116	1/28/2016	United States
18	Banana	Fruit	\$1,135	1/30/2016	United Kingdom
19	Broccoli	Vegetables	\$3,595	1/30/2016	United Kingdom
20	Apple	Fruit	\$1,161	2/2/2016	United States
21	Orange	Fruit	\$2,256	2/4/2016	France

PivotTable Fields

Choose fields to add to report:

- Order ID
- Product
- Category
- Amount
- Date
- Country

Drag fields between areas below:

Filters: Category

Columns: Product

Rows: Country

Values: Sum of Amount

Sum of Amount	Column Labels	Banana	Beans	Broccoli	Carrots	Mango	Orange	Grand Total	
Row Labels	Apple								
Australia		20634	52721	14433	17953	8106	9186	8680	131713
Canada		24867	33775	12407	3767	19929	94745	94745	
France		80193	36094	680	5341	9104	7388	2256	141056
Germany		9082	39686	29905	37197	21636	8775	8887	155168
New Zealand		10332	40050	4390				12010	66782
United Kingdom		17534	42908	5100	38436	41815	5600	21744	173137
United States		28615	95061	7163	26715	56284	22363	30932	267133
Grand Total		191257	340295	57281	142439	136945	57079	104438	1029734

Microsoft Excel - pivot+table - Excel

PivotTable Tools: Analyze, Design

File Home Insert Page Layout Formulas Data Review View Add-ins Help

Active Field: Sum of Amount

PivotTable: Field Settings, Drill Down, Drill Up, Refresh, Change Data Source, Move PivotTable

PivotChart: Recommended PivotTables, Field List, +/- Buttons, Field Headers

Sum of Amount

Category (All)	Apple	Banana	Beans	Broccoli	Carrots	Mango	Orange	Grand Total
Australia	20634	52721	14433	17953	8106	9186	8680	131713
Canada	24867	33775		12407		3767	19929	94745
France	80193	36094	680	5341	9104	7388	2256	141056
Germany	9082	39686	29905	37197	21636	8775	8887	155168
New Zealand	10332	40050		4390			12010	66782
United Kingdom	17534	42908	5100	38436	41815	5600	21744	173137
United States	28615	95061	7163	26715	56284	22363	30932	267133
Grand Total	191257	340295	57281	142439	136945	57079	104438	1029734

PivotChart: Insert a PivotChart tied to the data in this PivotTable.

Choose fields to add to report:

- Order ID
- Product
- Category
- Amount
- Date
- Country

Drag fields between areas below:

Filters: Category

Columns: Product

Insert Chart

All Charts

Recent

Templates

Column

Line

Pie

Bar

Area

X Y (Scatter)

Map

Stock

Surface

Radar

Treemap

Sunburst

Histogram

Box & Whisker

Waterfall

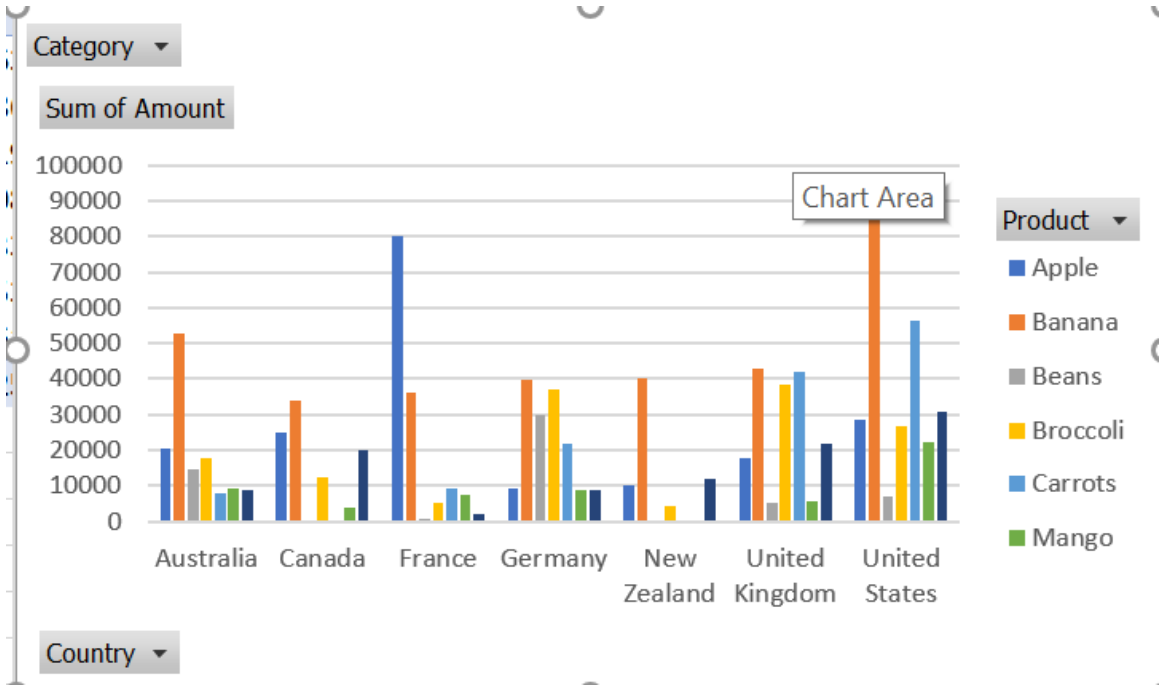
Funnel

Combo

Clustered Column

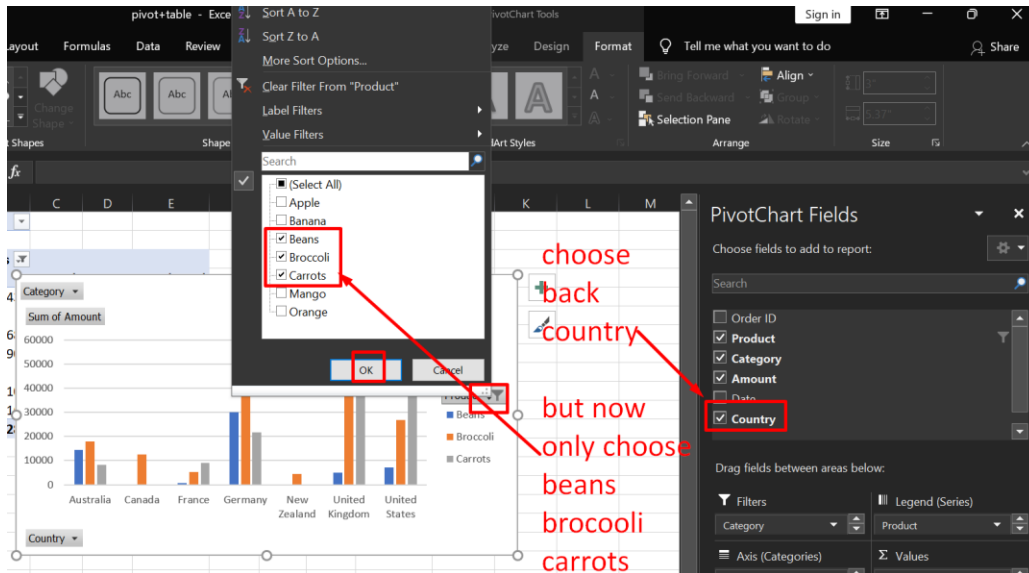
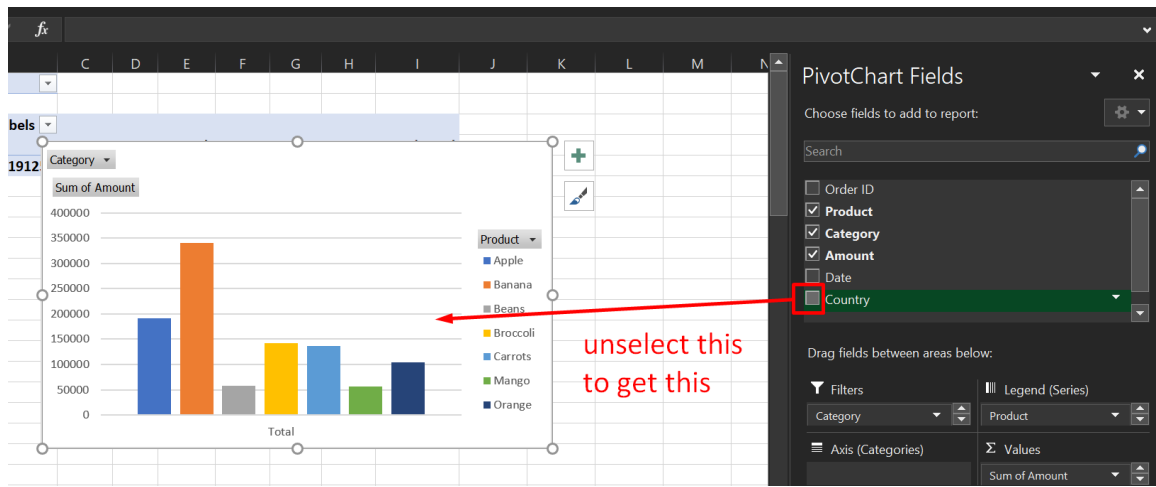
OK

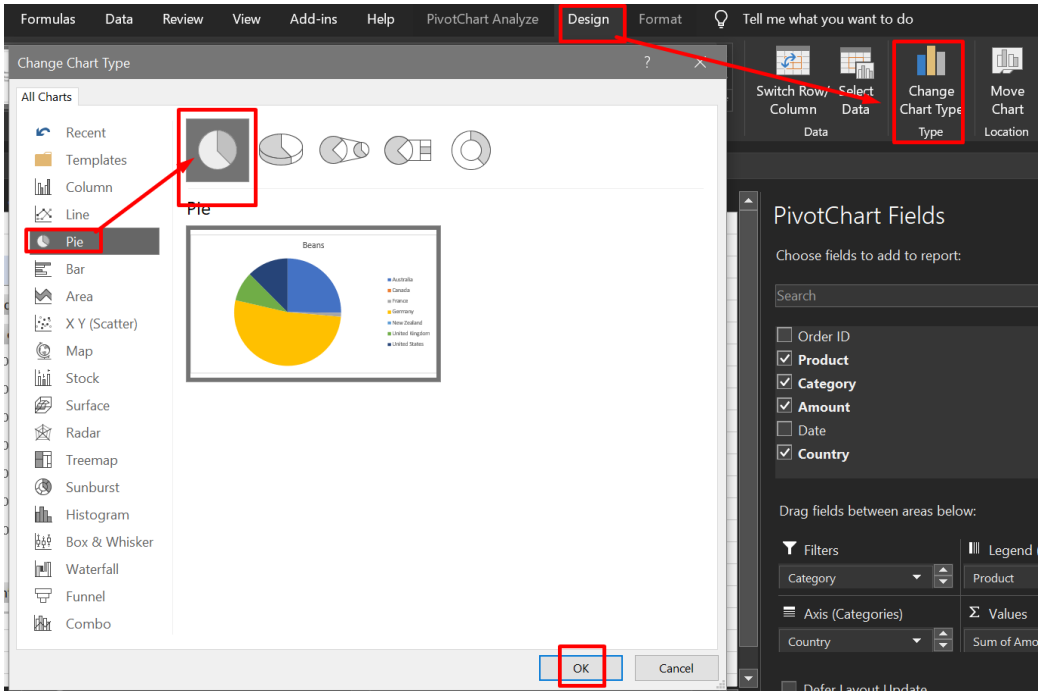
Cancel



F. FILTER PIVOT CHART

File: <https://www.alvinang.sg/s/pivot-table.xlsx>

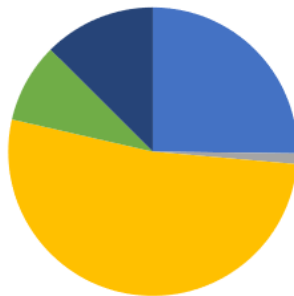




Category ▾

Sum of Amount

Beans



Country ▾

- Australia
- Canada
- France
- Germany
- New Zealand

Product ▾

G. FREQUENCY DISTRIBUTION

File: <https://www.alvinang.sg/s/pivot-table.xlsx>

select anywhere inside the data....

the data automatically gets selected....

Order ID	Product	Category	Amount	Date	Country
1	Carrots	Vegetables	\$4,270	1/6/2016	United States
2	Broccoli	Vegetables	\$8,239	1/7/2016	United Kingdom
3	Banana	Fruit	\$617	1/8/2016	United States
4	Banana	Fruit	\$8,384	1/10/2016	Canada
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19	Broccoli	Vegetables	\$3,595	1/30/2016	United Kingdom
20	Apple	Fruit	\$1,161	2/2/2016	United States
21	Orange	Fruit	\$2,256	2/4/2016	France

Row Labels

Row Labels	Sum of Amount
\$107	107
\$135	135
\$136	136
\$220	220
\$235	235
\$277	277
\$284	284
\$330	330
\$339	339
\$352	352
\$424	424
\$474	474
\$521	521
\$592	592
\$607	607
\$617	617
\$680	680
\$682	682
\$707	707

PivotTable Fields

Choose fields to add to report:

- Category
- Amount
- Date
- Country

More Tables...

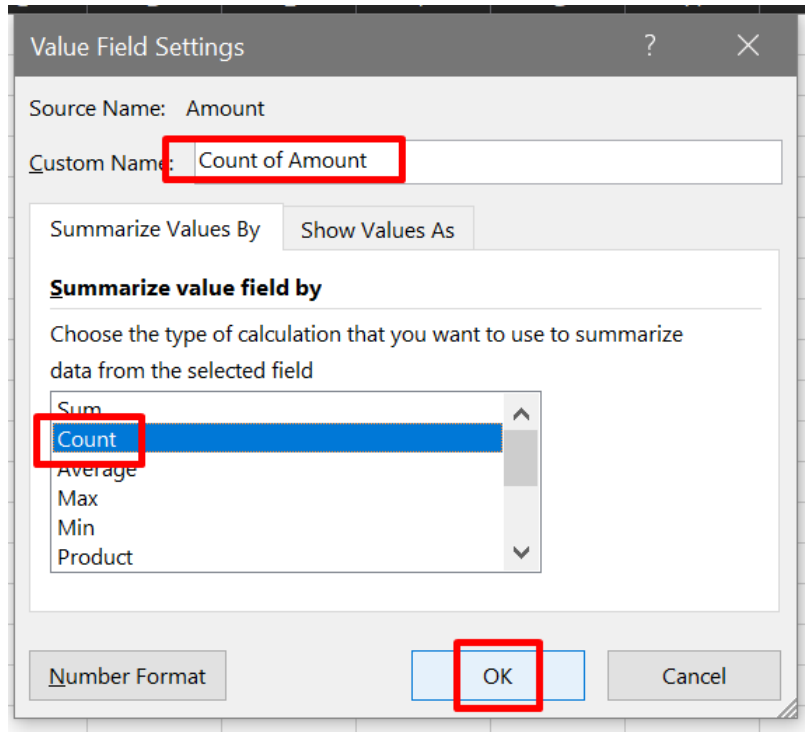
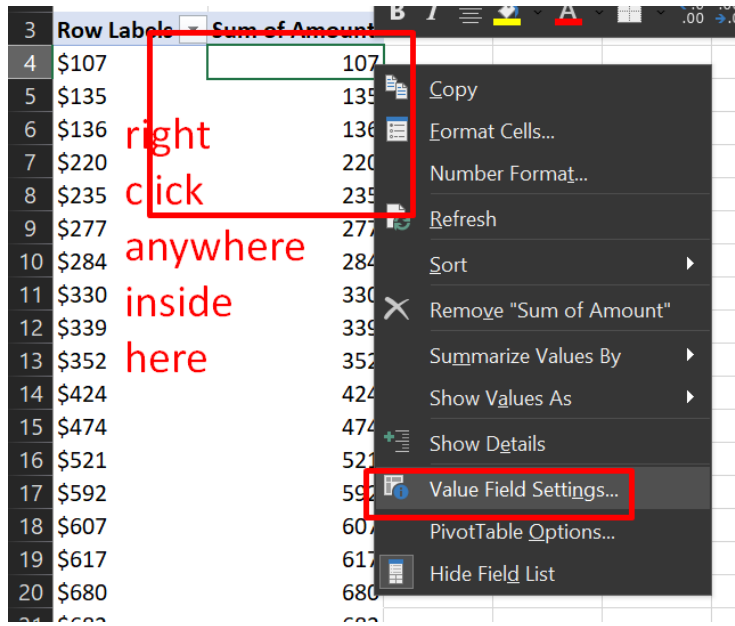
Drag fields between areas below:

Filters: [Empty]

Columns: [Empty]

Rows: Amount

Values: Sum of Amount



Subtotal "Amount"
Expand/Collapse
Group...
Ungroup...
Move
Remove "Amount"
Field Settings...
PivotTable Options...
Hide Field List

Calibri 11 \$ %
B I

1
1
1
1
1
1
1
1
1
1

right click
anywhere inside
here

Grouping ? X

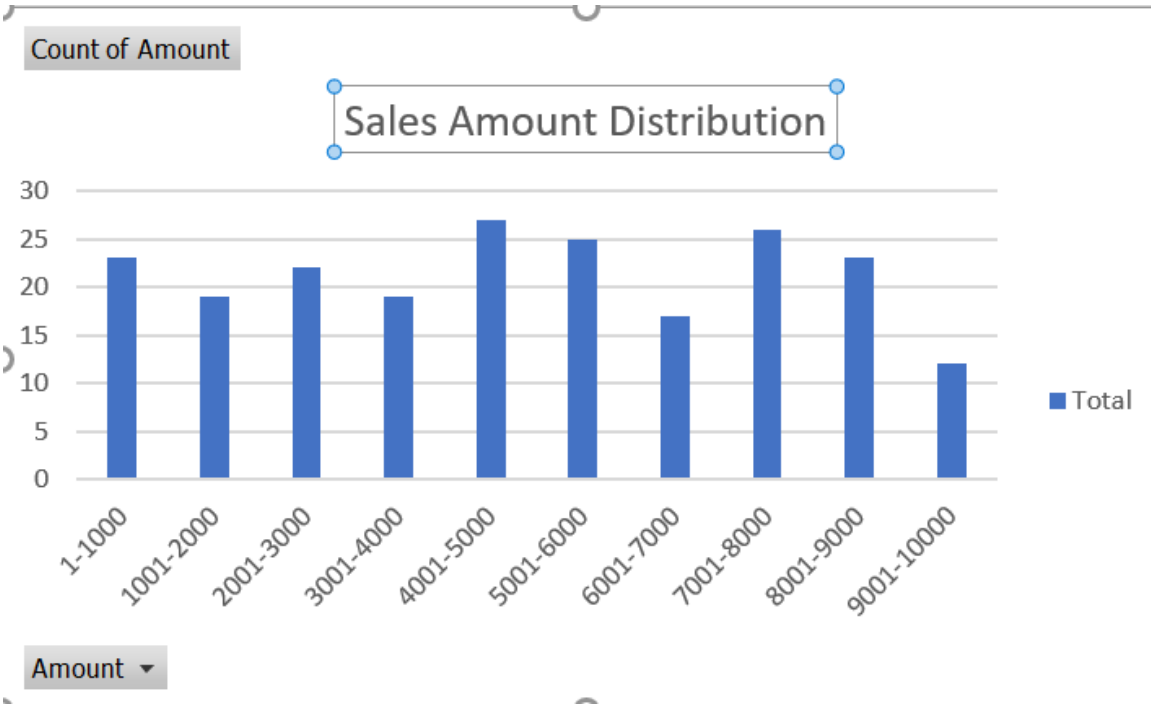
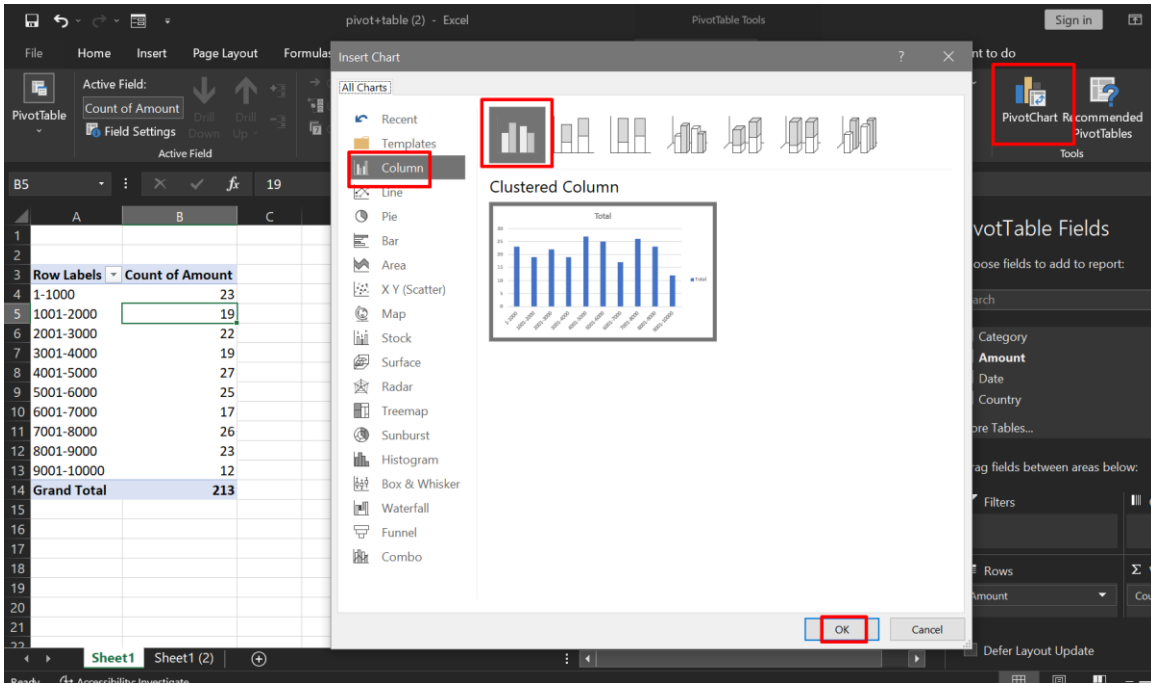
Auto

Starting at: 1

Ending at: 10000

By: 1000

OK Cancel



ABOUT DR ALVIN ANG



Dr. Alvin Ang earned his Ph.D., Masters and Bachelor degrees from NTU, Singapore. He is a scientist, entrepreneur, as well as a personal/business advisor. More about him at www.AlvinAng.sg.