

DR. ALVIN'S PUBLICATIONS

DASHBOARDING WITH EXCEL

DR. ALVIN ANG



1 | PAGE

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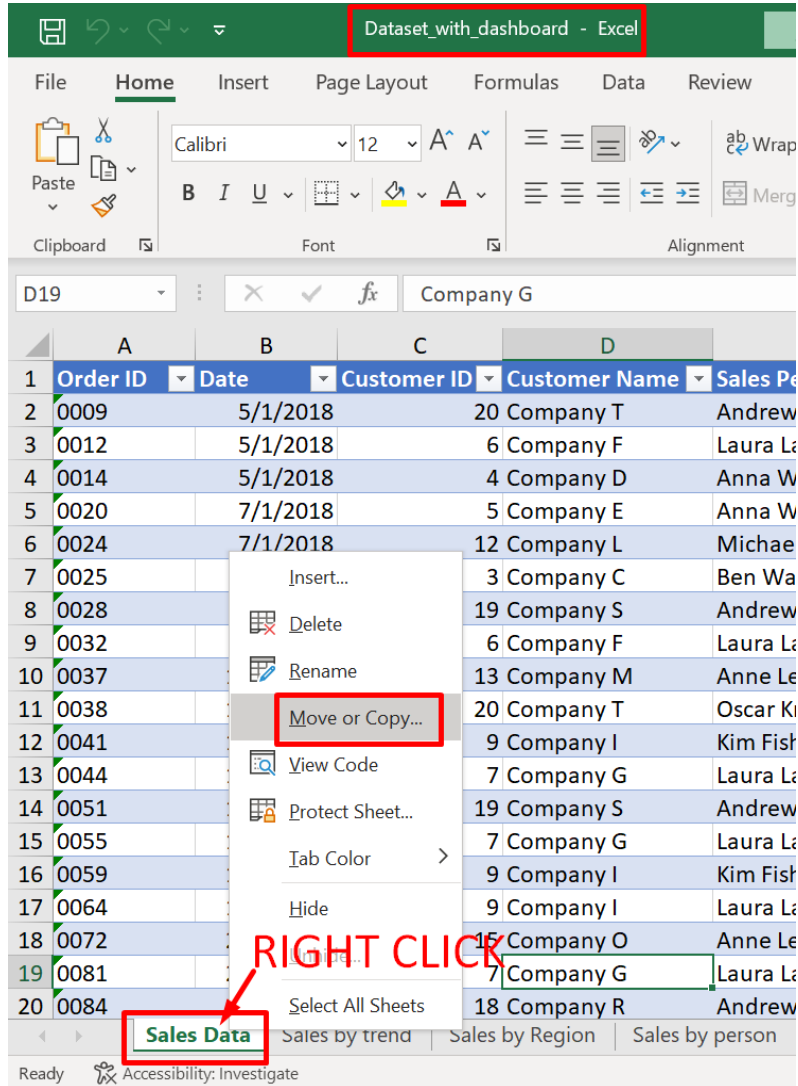
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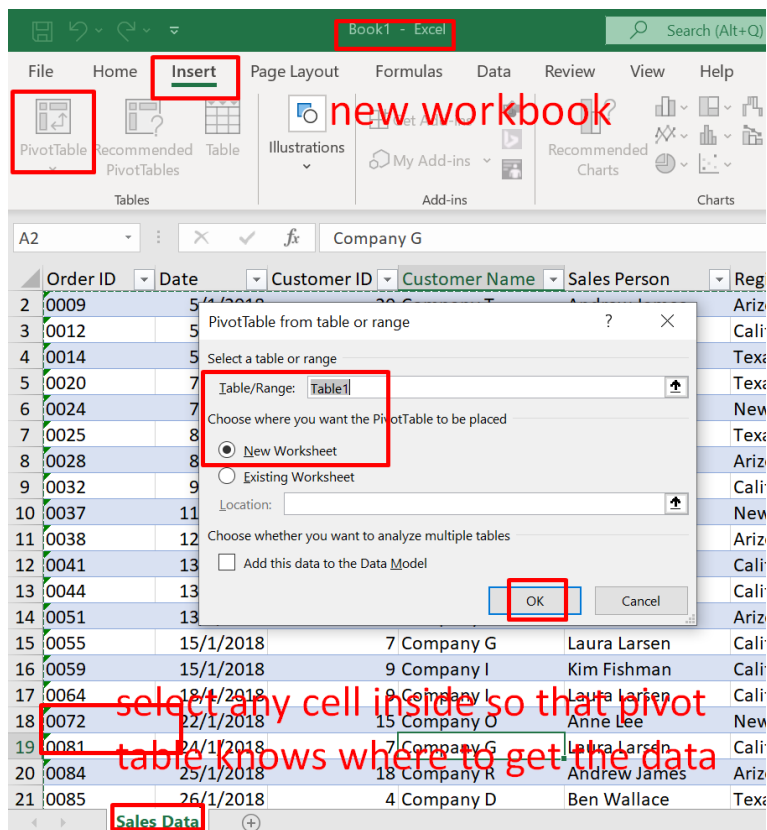
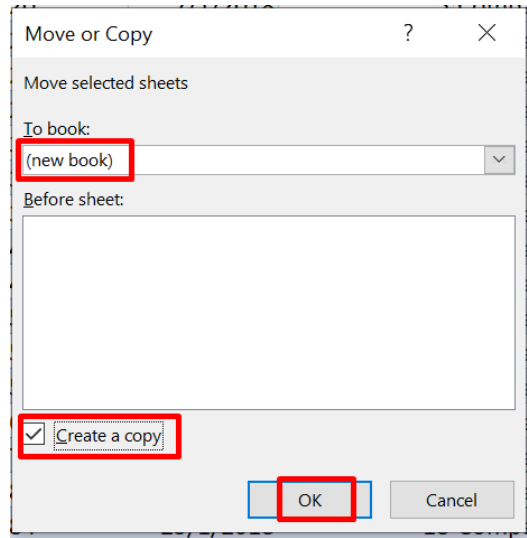
I. FAST TRACKING I

A. GETTING THE DATASET

File: <https://www.alvinang.sg/s/preview.gif>

Open this Excel Spreadsheet: https://www.alvinang.sg/s/Dataset_with_dashboard.xlsx





B. 1 – MONTHLY SALES

The screenshot shows an Excel spreadsheet with a PivotTable and the PivotTable Fields task pane. The PivotTable is located in the range A3:C28 and is titled 'Sum of Revenue'. The data is organized by year (2018 and 2019) and then by month (Jan to Dec). The 'Grand Total' for 2018 is 1158151 and for 2019 is 870440, with a combined total of 2028591. The PivotTable Fields task pane is open on the right, showing the following configuration:

- Choose fields to add to report: Revenue, Quarters, Years
- Filters: (Empty)
- Columns: (Empty)
- Rows: Years, Date
- Values: Sum of Revenue

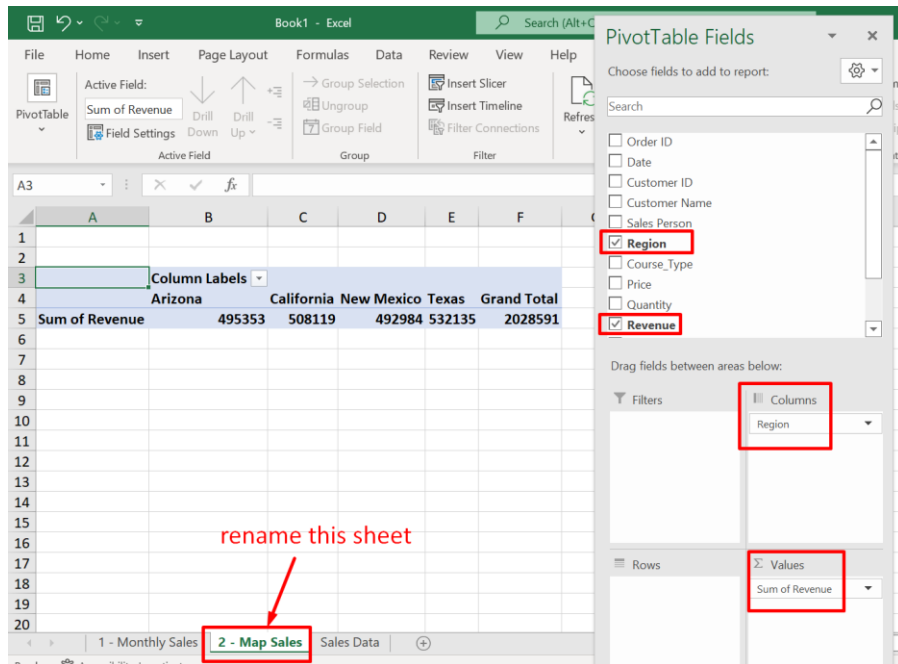
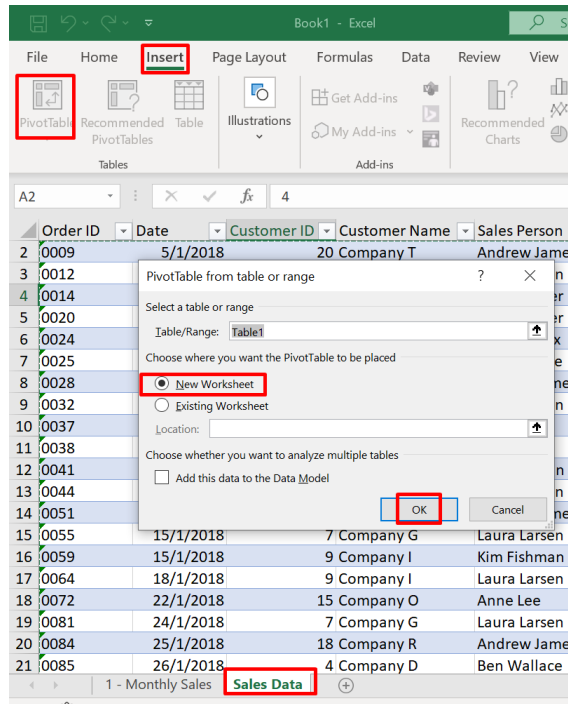
Row Labels	Sum of Revenue
2018	1158151
Jan	92759
Feb	93096
Mar	103309
Apr	93392
May	118523
Jun	105113
Jul	86694
Aug	96143
Sep	89459
Oct	88891
Nov	99699
Dec	91073
2019	870440
Jan	84293
Feb	106033
Mar	127074
Apr	92400
May	91637
Jun	88012
Jul	71980
Aug	88838
Sep	82758
Oct	37415
Grand Total	2028591

The screenshot shows the Microsoft Excel interface with the following elements highlighted:

- Insert Tab:** The 'Insert' tab is selected in the ribbon.
- Tours Button:** A red box highlights the 'Tours' button in the 'Charts' group of the 'Insert' tab.
- Line Chart Type:** In the 'Insert Chart' dialog box, the 'Line' chart type is selected and highlighted with a red box. A red arrow points to the 'Line' icon in the 'All Charts' section with the text "select anywhere inside".
- Sheet Name:** The sheet name '1 - Monthly Sales' is highlighted with a red box. A red arrow points to it with the text "rename this sheet".

Row Labels	Sum of Revenue
2018	1158151
Jan	92759
Feb	93096
Mar	103309
Apr	93392
May	118523
Jun	105113
Jul	86694
Aug	96143
Sep	89459
Oct	88891
Nov	99699
Dec	91073
2019	870440
Jan	84293
Feb	106033
Mar	127074
Apr	92400
May	91637
Jun	88012
Jul	71980
Aug	88838
Sep	82758
Oct	37415
Grand Total	2028591

C. 2 – MAP SALES



CTRL + C COPY

	A	B	C	D	E	F
1						
2						
3		Column Labels				
4		Arizona	California	New Mexico	Texas	Grand Total
5	Sum of Revenue	495353	508119	492984	532135	2028591
6						
7						
8		Arizona	California	New Mexico	Texas	
9	Sum of Revenue	495353	508119	492984	532135	
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						

PASTE HERE

(Ctrl)

1 - Monthly Sales 2 - Map Sales Sales Data

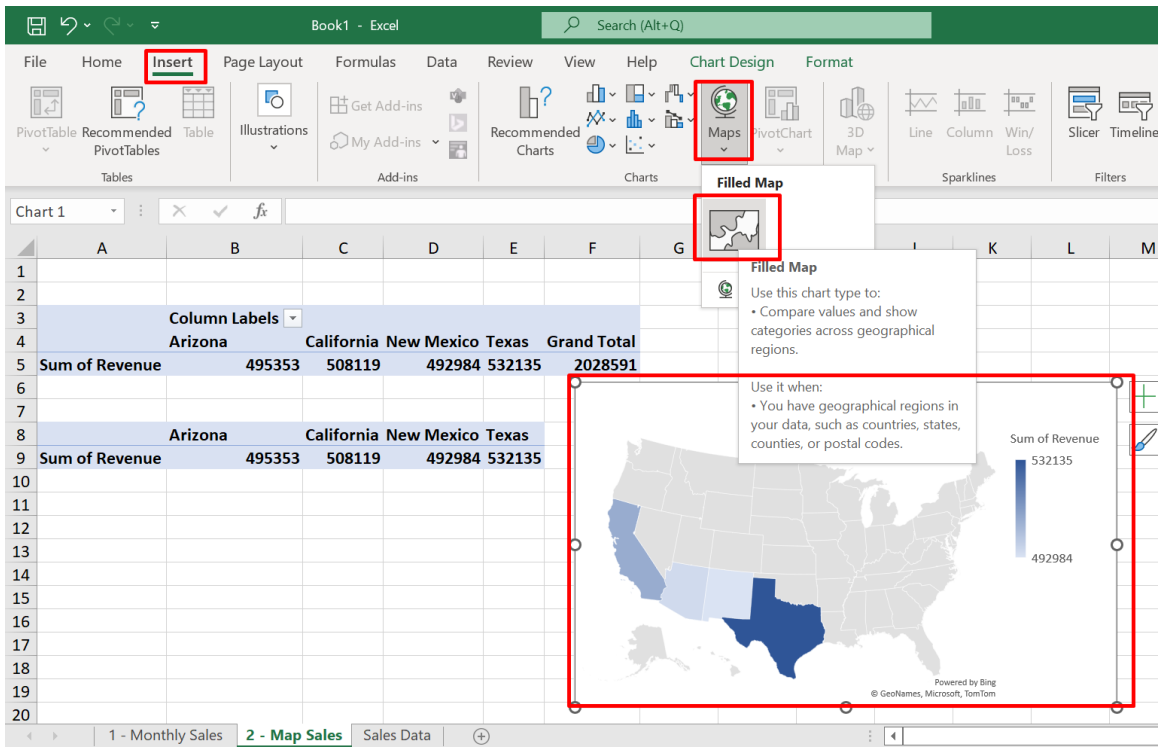
B9 =GETPIVOTDATA("Revenue", \$A\$3, "Region", "Arizona")

	A	B	C	D	E	F	G
1							
2							
3		Column Labels					
4		Arizona	California	New Mexico	Texas	Grand Total	
5	Sum of Revenue	495353	508119	492984	532135	2028591	
6							
7							
8		Arizona	California	New Mexico	Texas		
9	Sum of Revenue	495353	508119	492984	532135		
10							

=GETPIVOTDATA("Revenue", \$A\$3, "Region", "Arizona")

E9	=GETPIVOTDATA("Revenue", \$A\$3, "Region", "Texas")					
	A	B	C	D	E	F
1						
2						
3	Column Labels					
4	Arizona	California	New Mexico	Texas	Grand Total	
5	Sum of Revenue	495353	508119	492984	532135	2028591
6						
7						
8	Arizona	California	New Mexico	Texas		
9	Sum of Revenue	495353	508119	492984	532135	
10						

=GETPIVOTDATA("Revenue", \$A\$3, "Region", "Texas")



D. 3 – EMPLOYEE SALES

The screenshot displays the Microsoft Excel interface. The 'Insert' tab is selected in the ribbon. In the 'Tables' group, the 'PivotTable' icon is highlighted with a red box. A dialog box titled 'PivotTable from table or range' is open, also highlighted with a red box. The dialog box contains the following options:

- Select a table or range: Table/Range: Table1
- Choose where you want the PivotTable to be placed:
 - New Worksheet
 - Existing Worksheet
- Location: (empty text box)
- Choose whether you want to analyze multiple tables:
 - Add this data to the Data Model

The background data table is as follows:

	Order ID	Date	Customer ID	Customer Name	Sales Person	Region
2	0009	5/1/2018	20	Company T	Andrew James	Arizon
3	0012	5/1/2018	6	Company F	Laura Larsen	Califor
4	0014	5/1/2018				Texas
5	0020	7/1/2018				Texas
6	0024	7/1/2018				New V
7	0025	8/1/2018				Texas
8	0028	8/1/2018				Arizon
9	0032	9/1/2018				Califor
10	0037	11/1/2018				New V
11	0038	12/1/2018				Arizon
12	0041	13/1/2018				Califor
13	0044	13/1/2018				Califor
14	0051	13/1/2018				Arizon
15	0055	15/1/2018				Califor
16	0059	15/1/2018				Califor
17	0064	18/1/2018	9	Company I	Laura Larsen	Califor
18	0072	22/1/2018	15	Company O	Anne Lee	New V
19	0081	24/1/2018	7	Company G	Laura Larsen	Califor
20	0084	25/1/2018	18	Company R	Andrew James	Arizon
21	0085	26/1/2018	4	Company D	Ben Wallace	Texas

Book1 - Excel

PivotTable Analyze Design

Active Field: Sum of Revenue

PivotTable Fields

Choose fields to add to report:

- Order ID
- Date
- Customer ID
- Customer Name
- Sales Person
- Region
- Course_Type
- Price

Drag fields between areas below:

Filters

Columns: Sales Person

Rows: Years, Date

Values: Sum of Rev...

Sum of Revenue

Row Labels	Andrew James	Anna Weber	Anne Lee	Ben Wallace	Kim Fishman	Laura Larsen	Michael Fox	Oscar Knox	Grand Total
2018	138437	141614	127145	135455	126344	176838	155111	157207	1158151
2019	105244	134764	114049	120302	105444	99493	96679	94465	870440
Grand Total	243681	276378	241194	255757	231788	276331	251790	251672	2028591

rename this sheet

3 - Employee Sales

Book1 - Excel

PivotTable Analyze Design

Active Field: Sum of Revenue

PivotChart

Insert Chart

Column

Clustered Column

Sum of Revenue

Row Labels	Andrew James	Anna Weber	Anne Lee	Ben Wallace	Kim Fishman	Laura Larsen	Michael Fox
2018	138437	141614	127145	135455	126344	176838	155111
2019	105244	134764	114049	120302	105444	99493	96679

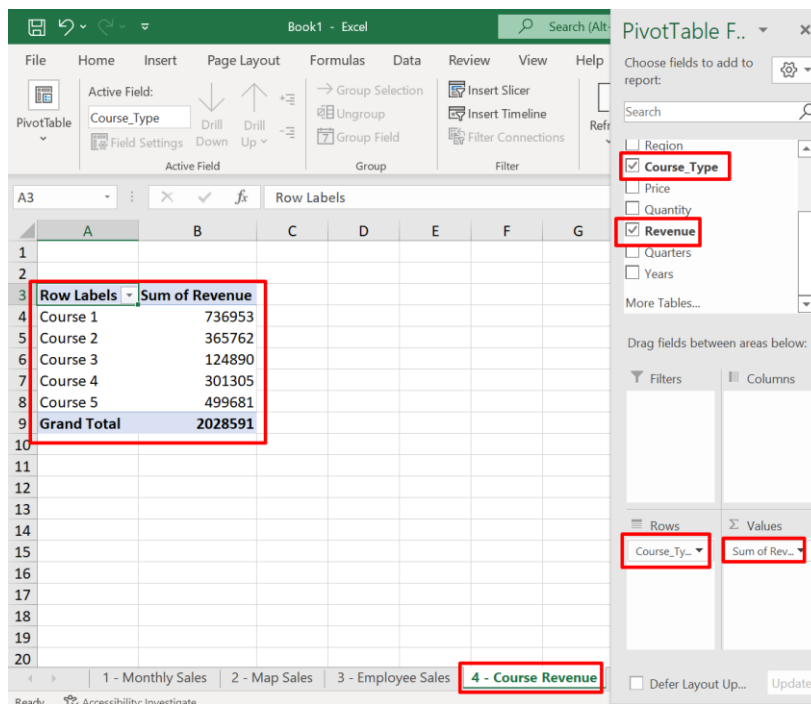
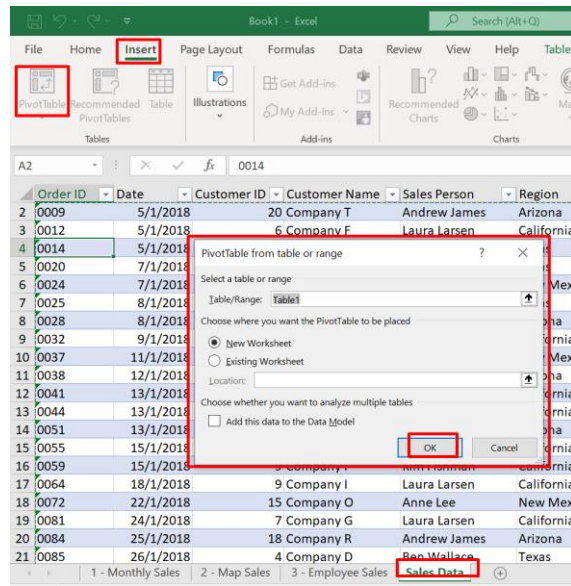
Sum of Revenue

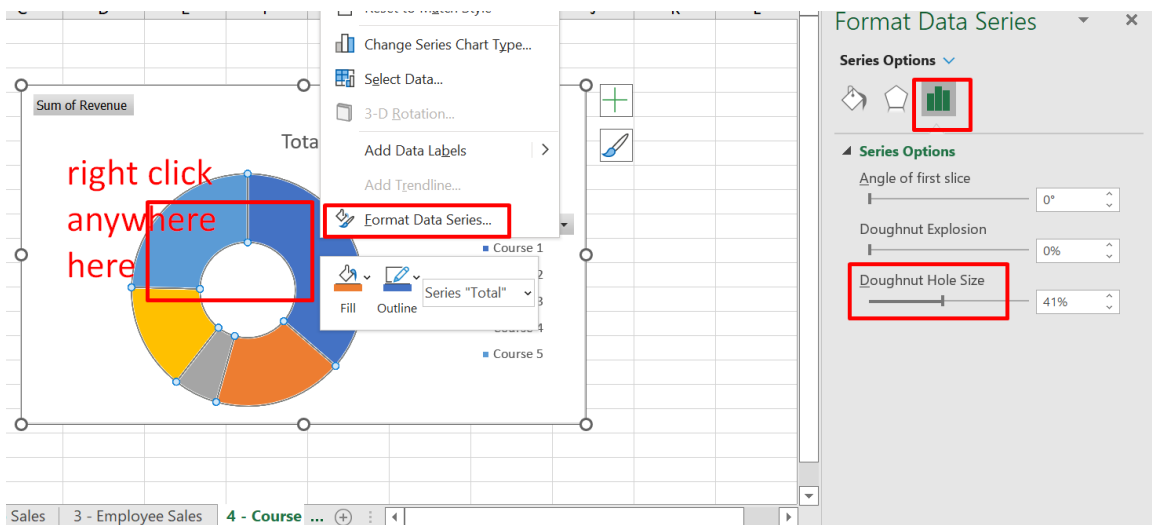
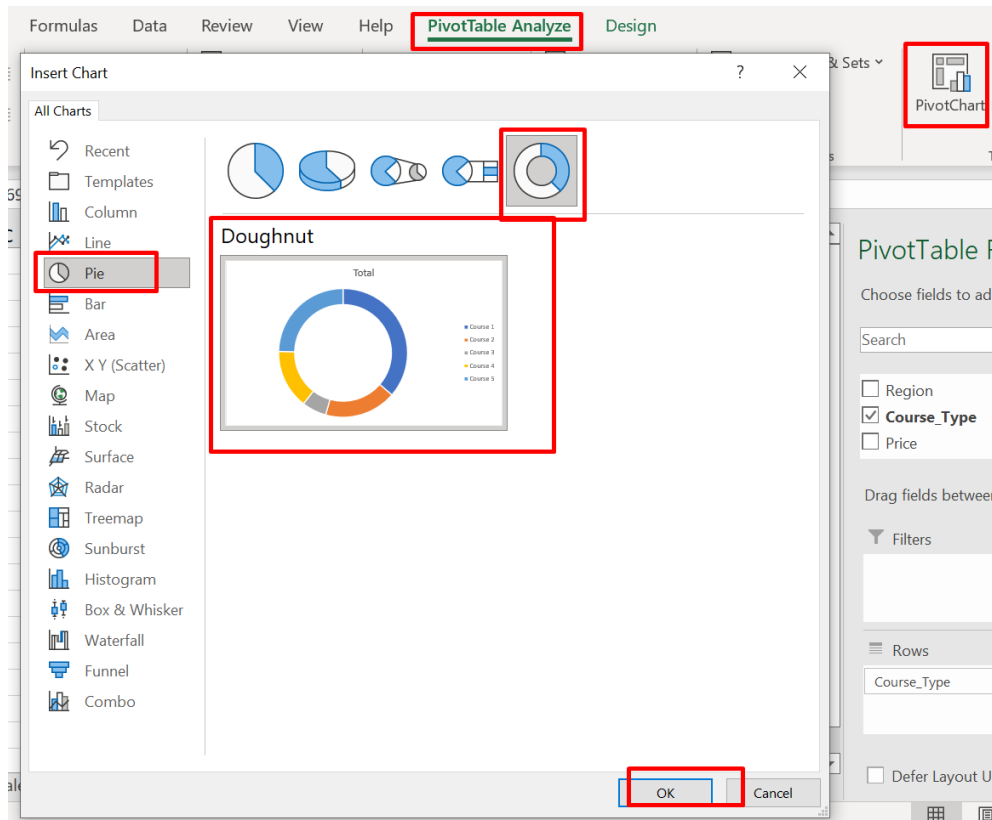
Years: Date

Sales Person

- Andrew James
- Anna Weber
- Anne Lee
- Ben Wallace
- Kim Fishman
- Laura Larsen
- Michael Fox

E. 4 – COURSE REVENUE





F. 5 – REVENUE FROM COMPANIES

The screenshot shows the Excel interface with the 'Insert' tab selected. The 'PivotTable' icon is highlighted. A dialog box titled 'PivotTable from table or range' is open, showing the following configuration:

- Table/Range: **Sales Data**
- Choose where you want the PivotTable to be placed:
 - New Worksheet
 - Existing Worksheet
- Location: (empty)
- Choose whether you want to analyze multiple tables:
 - Add this data to the Data Model

The 'OK' button is highlighted.

The screenshot shows the PivotTable Fields task pane on the right side of the Excel window. The following fields are selected for the report:

- Customer Name
- Sales Person
- Region
- Course_Type
- Price
- Quantity
- Revenue
- Quarters

The PivotTable is displayed in the worksheet with the following data:

Row Labels	Sum of Revenue
Company A	98580
Company B	106107
Company C	98397
Company D	122821
Company E	106230
Company F	93104
Company G	93876
Company H	100909
Company I	111991
Company J	108239
Company K	92806
Company L	86272
Company M	115641
Company N	114447
Company O	83818
Company P	94430
Company Q	105933
Company R	89214
Company S	122085
Company T	83691
Grand Total	2028591

The PivotTable is named '5 - Revenue from Companies'.

Book1 - Excel

File Home Insert Page Layout Formulas Data Review View Help PivotTable Analyze Design

Clipboard Font Alignment Number Styles Cells

Sort Smallest to Largest
Sort Largest to Smallest
Custom Sort...
Filter
Clear
Reapply

Row Labels	Sum of Revenue
Company T	83691
Company O	83818
Company L	86272
Company R	89214
Company K	92806
Company F	93104
Company G	93876
Company P	94430
Company C	98397
Company A	98580
Company H	100909
Company Q	105933
Company B	106107
Company E	106230
Company J	108239
Company I	111991
Company N	114447
Company M	115641
Company S	122085
Company D	122821
Grand Total	2028591

5 - Revenue from Companies

Book1 - Excel

File Home Insert Page Layout Formulas Data Review View Help PivotTable Analyze Design

Active Field: Sum of Revenue
Field Settings
Active Field Group

Group Selection
Insert Slicer
Insert Timeline
Filter Connections

Refresh Change Data
Source

Clear
Select
Move PivotTable

Fields, Items, & Sets
OLAP Tools
Relationships

PivotChart
Recommended PivotTables

Field List
Buttons
Field Headers

Sum of Revenue
89214

Sum of Revenue

Customer Name

Company S
Company N
Company J
Company B
Company H
Company C
Company G
Company K
Company L
Company T

0 50000 100000 150000

Insert Chart

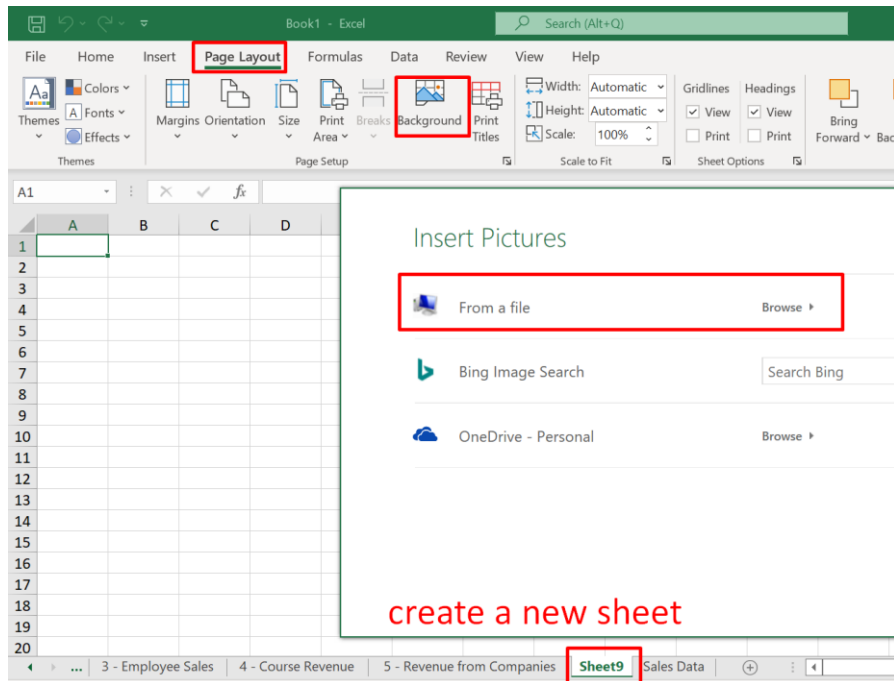
All Charts

Recent
Templates
Column
Line
Pie
Bar
Area
X Y (Scatter)
Map
Stock
Surface
Radar
Treemap
Sunburst
Histogram
Box & Whisker
Waterfall

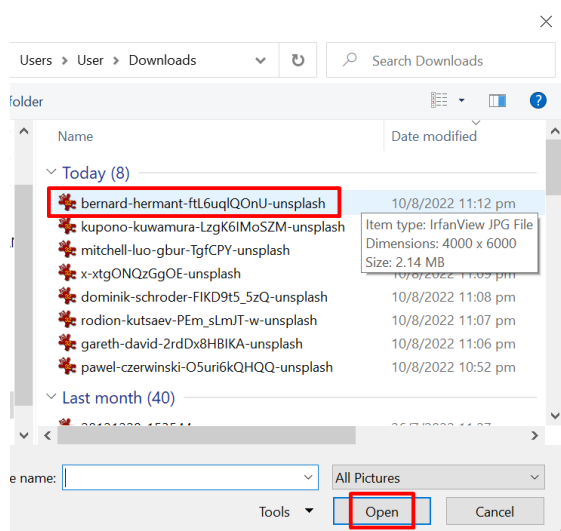
Row Labels	Sum of Revenue
Company S	83691
Company N	83818
Company J	86272
Company B	89214
Company H	92806
Company C	93104
Company G	93876
Company K	94430
Company L	98397
Company T	98580
Company I	100909
Company M	105933
Company S	106107
Company D	106230
Grand Total	2028591

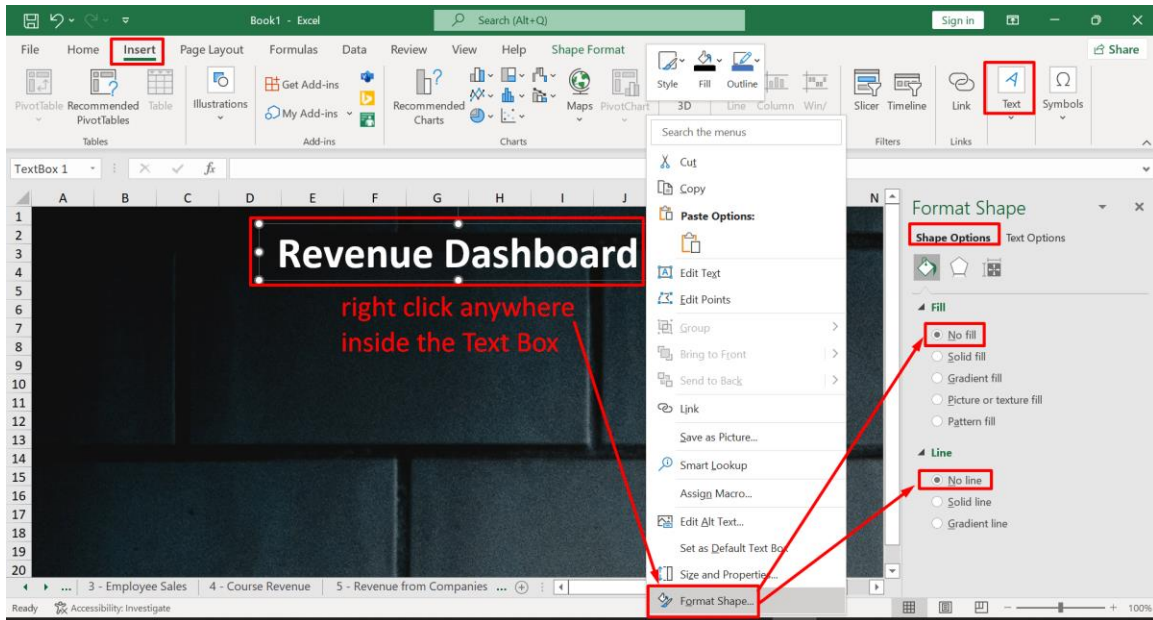
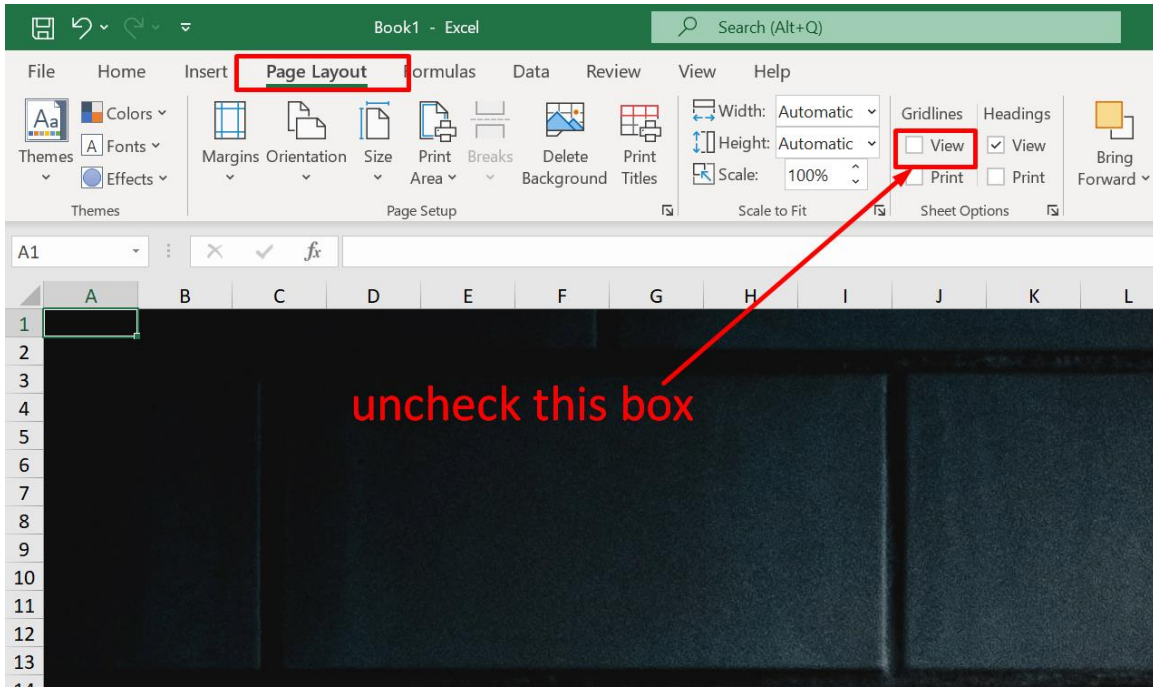
4 - Course Revenue 5 - Revenue from Companies

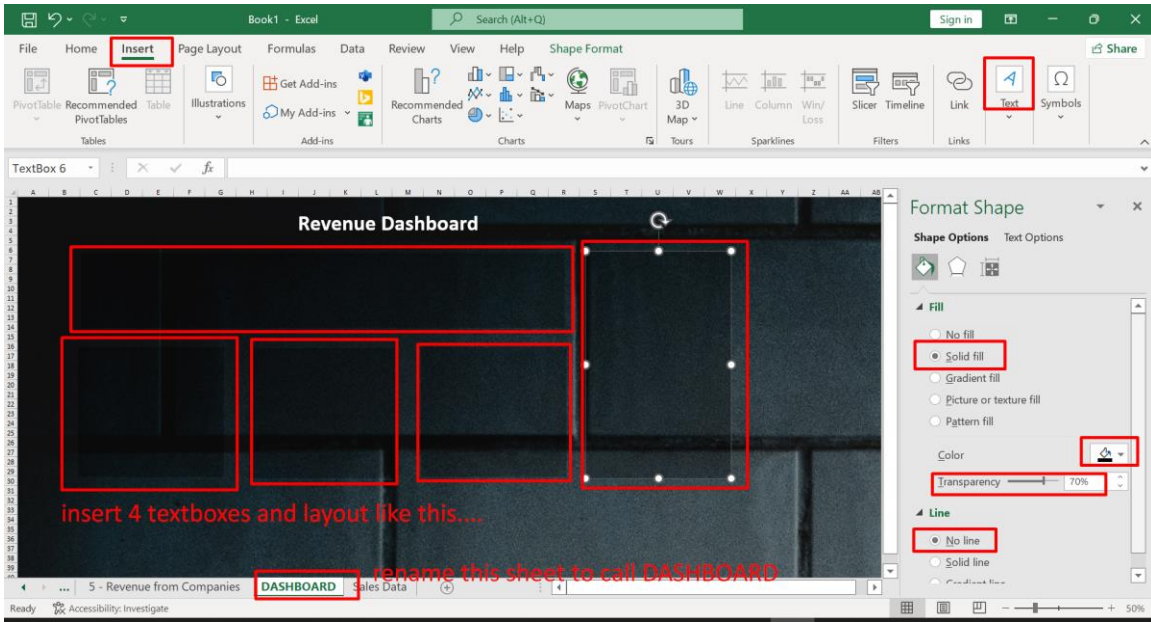
G. CREATING THE DASHBOARD



Go here to download the picture: <https://unsplash.com/photos/ftL6uqlQOnU>







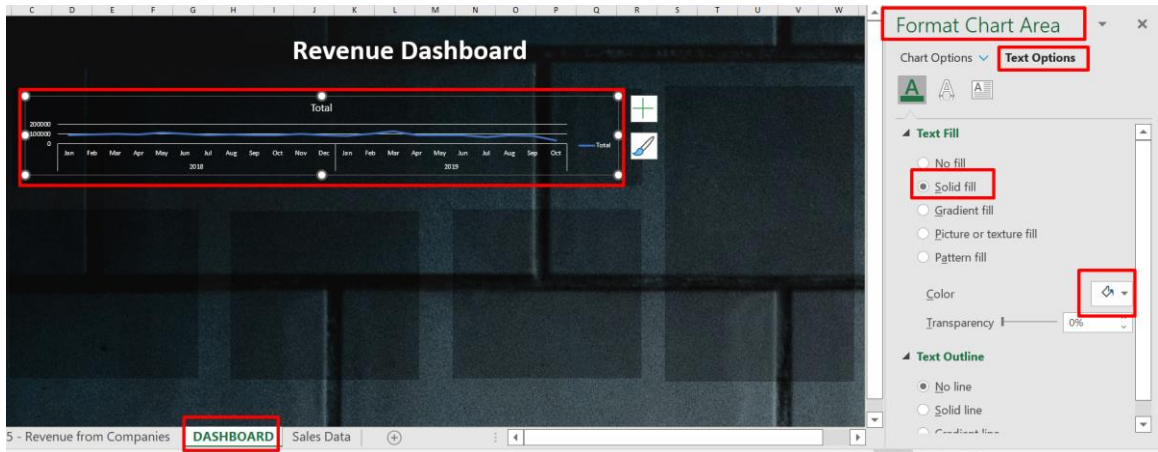
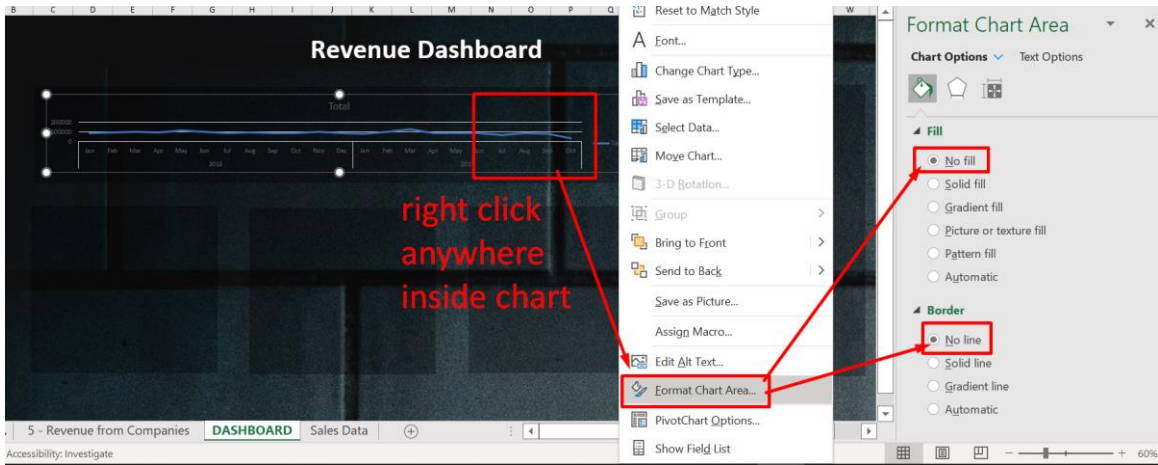
1. PASTING THE MONTHLY SALES

right click, COPY this chart

	A	B	C	D	E	F	G	H	I	J
1										
2										
3		Sum of Revenue								
4	2018	1158151								
5	Jan	92759								
6	Feb	93096								
7	Mar	103309								
8	Apr	93392								
9	May	118523								
10	Jun	105113								
11	Jul	86694								
12	Aug	96143								
13	Sep	89459								
14	Oct	88891								
15	Nov	99699								
16	Dec	91073								
17	2019	870440								
18	Jan	84293								
19	Feb	106033								
20	Mar	127074								

right click here

paste and adjust until it fits the first GRAY textbox





2. PASTING THE MAP SALES

right click... COPY

Column Labels	Arizona	California	New Mexico	Texas	Grand Total
	495353	508119	492984	532135	2028591

2 - Map Sales

delete away the chart title

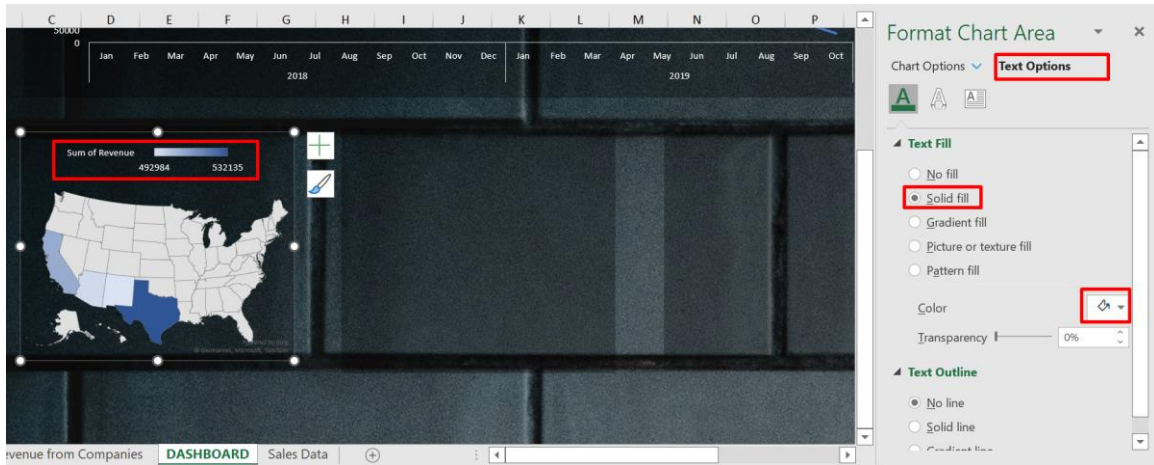
paste the map into the 2nd box

Chart Options

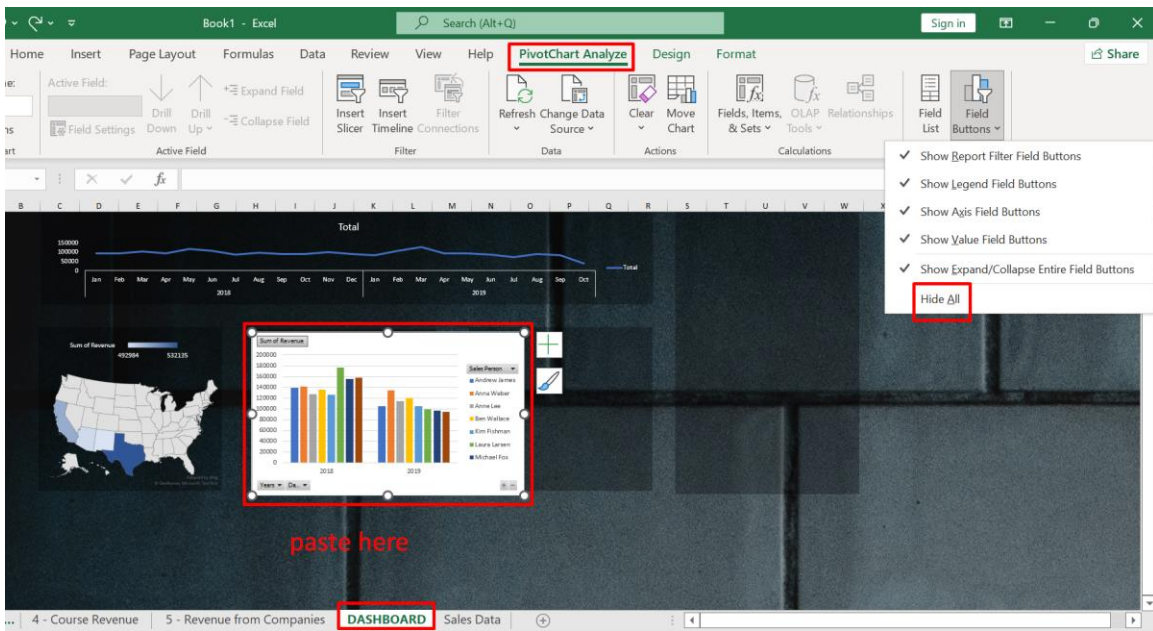
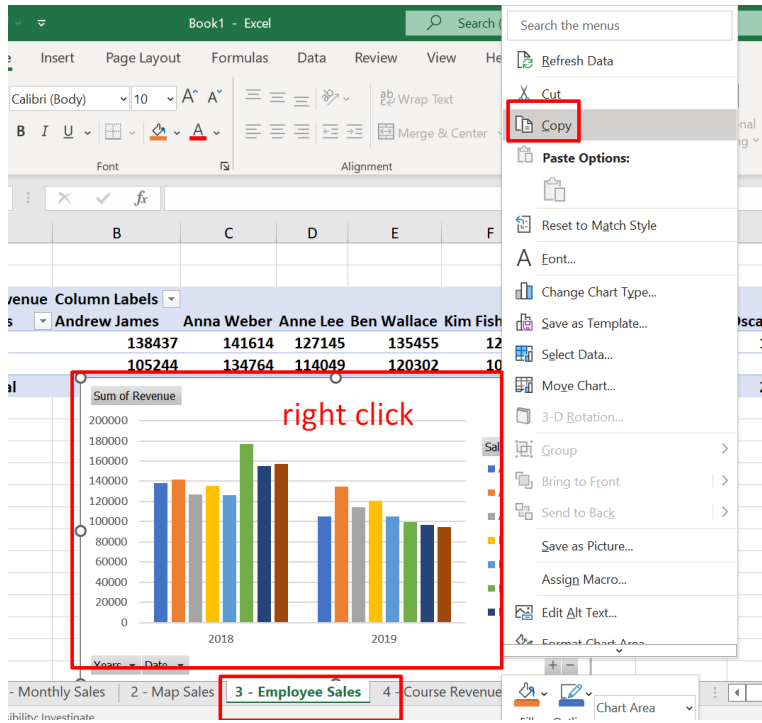
- No fill
- Solid fill
- Gradient fill
- Picture or texture fill
- Pattern fill
- Automatic

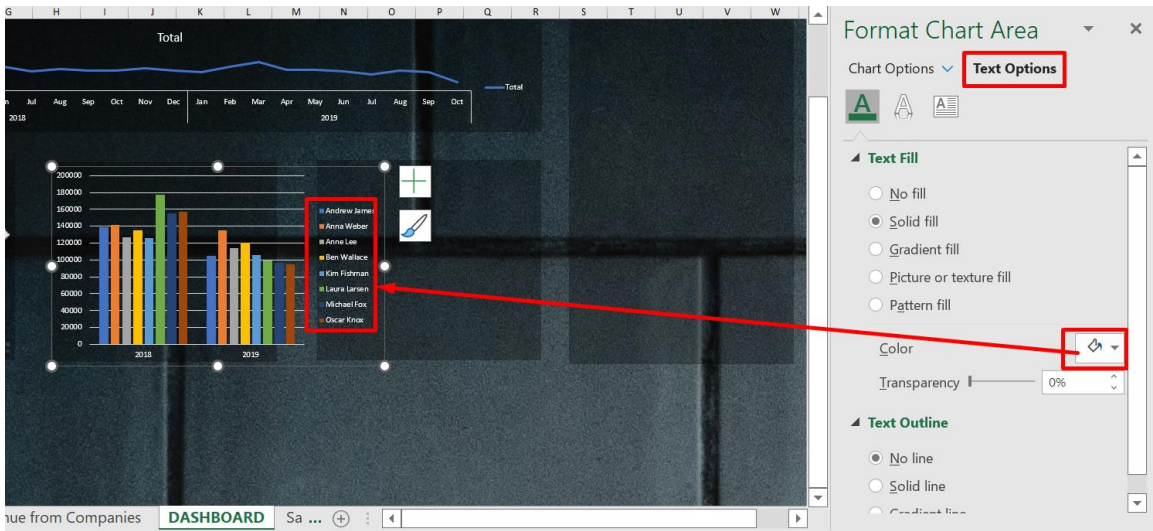
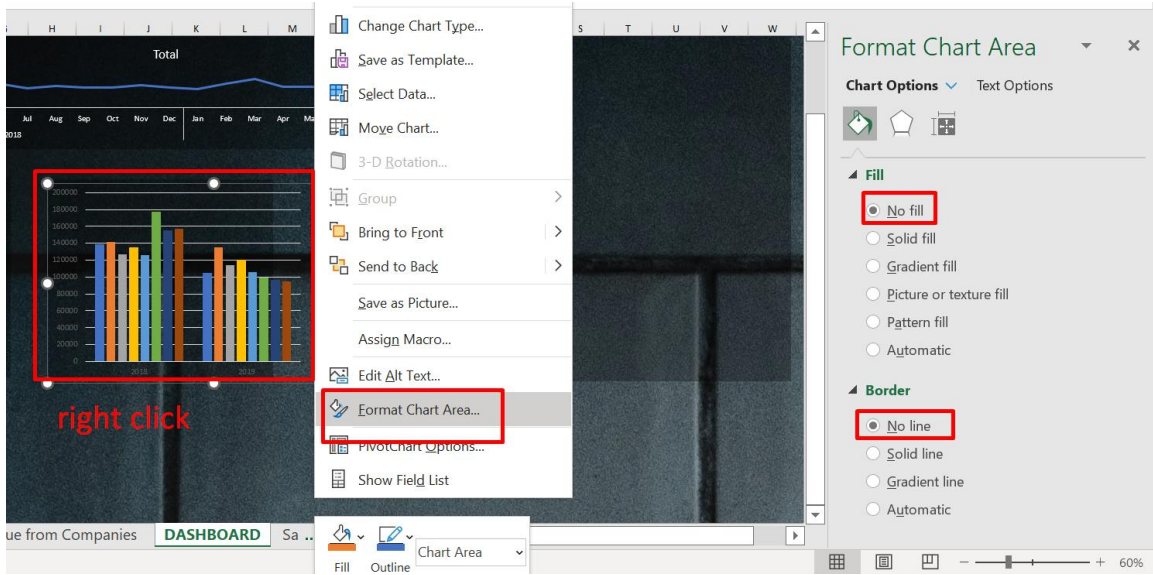
Border

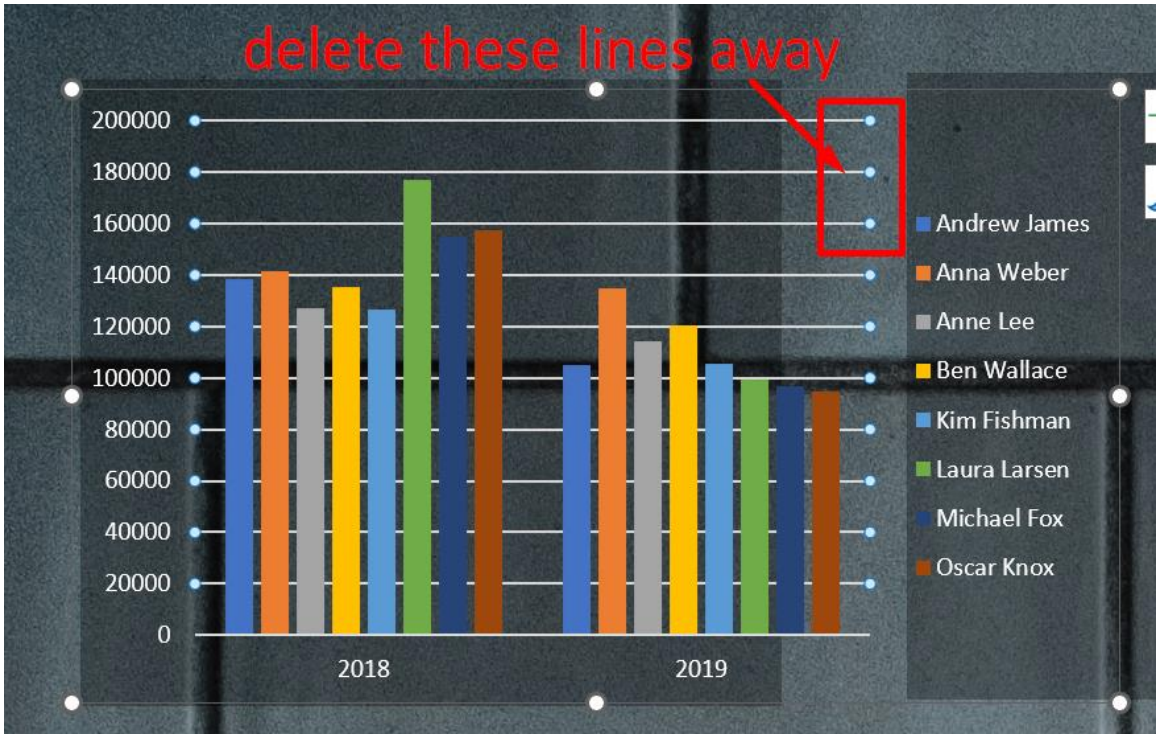
- No line
- Solid line
- Gradient line
- Automatic



3. PASTING EMPLOYEE SALES







4. PASTING COURSE REVENUE

The screenshot shows an Excel spreadsheet with a donut chart. The chart is titled 'Total' and is located in the range C3:H17. The chart is divided into five segments: a large blue segment (approximately 45%), a smaller blue segment (approximately 25%), a yellow segment (approximately 15%), an orange segment (approximately 10%), and a grey segment (approximately 5%). The chart is surrounded by a red border. To the right of the chart, a context menu is open, showing options such as 'Cut', 'Copy', 'Paste Options', 'Reset to Match Style', 'Font...', 'Change Chart Type...', 'Save as Template...', 'Select Data...', 'Move Chart...', '3-D Rotation...', 'Group', 'Bring to Front', 'Send to Back', 'Save as Picture...', 'Assign Macro...', 'Edit Alt Text...', and 'Format Chart Area'. The 'Copy' option is highlighted with a red box. The spreadsheet data is as follows:

	B	C	D	E	F	G	H
1							
2							
3	Sum of Revenue						
4	736953						
5	365762						
6	124890						
7	301305						
8	499681						
9	2028591						
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							

The status bar at the bottom of the spreadsheet shows '4 - Course Revenue' selected, with other tabs visible: '5 - Revenue from Companies', 'DASHBOARD', and 'Sa...'. The status bar also displays 'Ready' and 'Accessibility: Investigate'.

Search (Alt+Q) Sign in

View View Help **PivotChart Analyze** Design Format Share

Insert Filter Refresh Change Data Clear Move Chart Fields, Items, & Sets OLAP Relationships Field List **Field Buttons**

Filter Data Actions Calculations

Dashboard

Sum of Revenue

right click

- ✓ Show Report Filter Field Buttons
- ✓ Show Legend Field Buttons
- ✓ Show Axis Field Buttons
- ✓ Show Value Field Buttons
- ✓ Show Expand/Collapse Entire Field Buttons
- Hide All**

Fill

- No fill**
- Solid fill
- Gradient fill
- Picture or texture fill
- Pattern fill
- Automatic

Border

- No line**
- Solid line
- Gradient line
- Automatic

delete this Total away

Horizontal (Category) Axis

Format Chart Title

Title Options **Text Options**

Text Fill

- No fill
- Solid fill**
- Gradient fill
- Picture or texture fill
- Pattern fill

Color **Color**

Transparency 0%

5. PASTING REVENUE FROM COMPANIES

right click

Copy

5 - Revenue from Companies

PivotChart Analyze

Field Buttons

- ✓ Show Report Filter Field Buttons
- ✓ Show Legend Field Buttons
- ✓ Show Axis Field Buttons
- ✓ Show Value Field Buttons
- ✓ Show Expand/Collapse Entire Field Buttons
- Hide All

Fill

- No fill
- Solid fill
- Gradient fill
- Picture or texture fill
- Pattern fill
- Automatic

Border

- No line
- Solid line
- Gradient line
- Automatic

right click

delete this total away

delete these white lines away


Horizontal (Category) Axis

Format Chart Area

Chart Options **Text Options**

Text Fill

- No fill
- Solid fill
- Gradient fill
- Picture or texture fill
- Pattern fill

Color 

Transparency 0%

Text Outline

- No line
- Solid line
- Gradient line

H. ADDING SLICERS

select any chart and click insert

Revenue Dashboard

Insert Slicers

- Order ID
- Date
- Customer ID
- Customer Name
- Sales Person
- Region
- Course_Type
- Price
- Quantity
- Revenue
- Quarters
- Years

OK Cancel

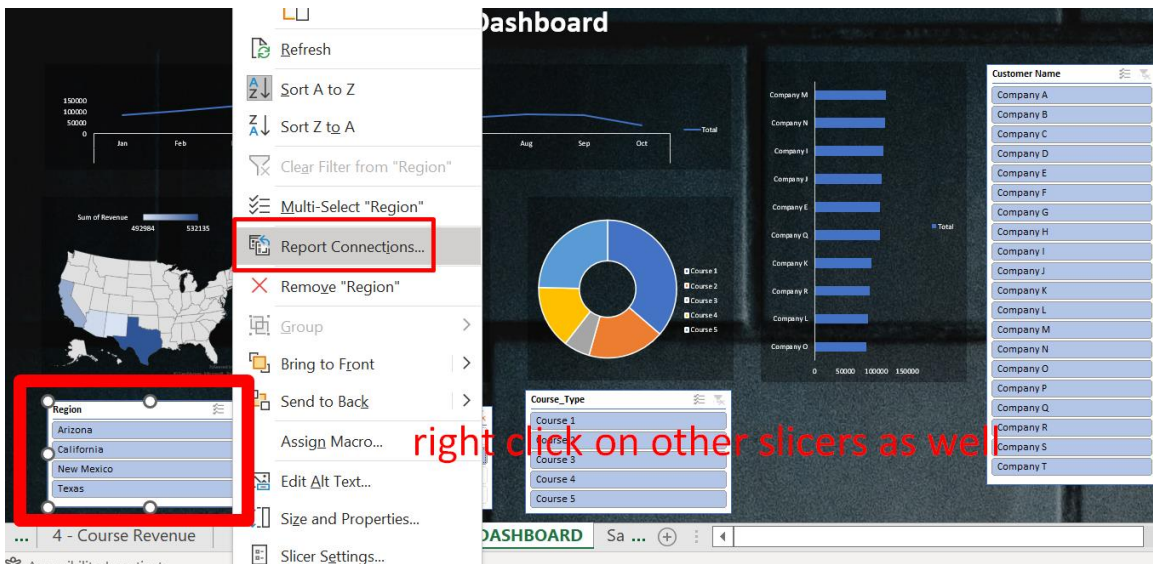
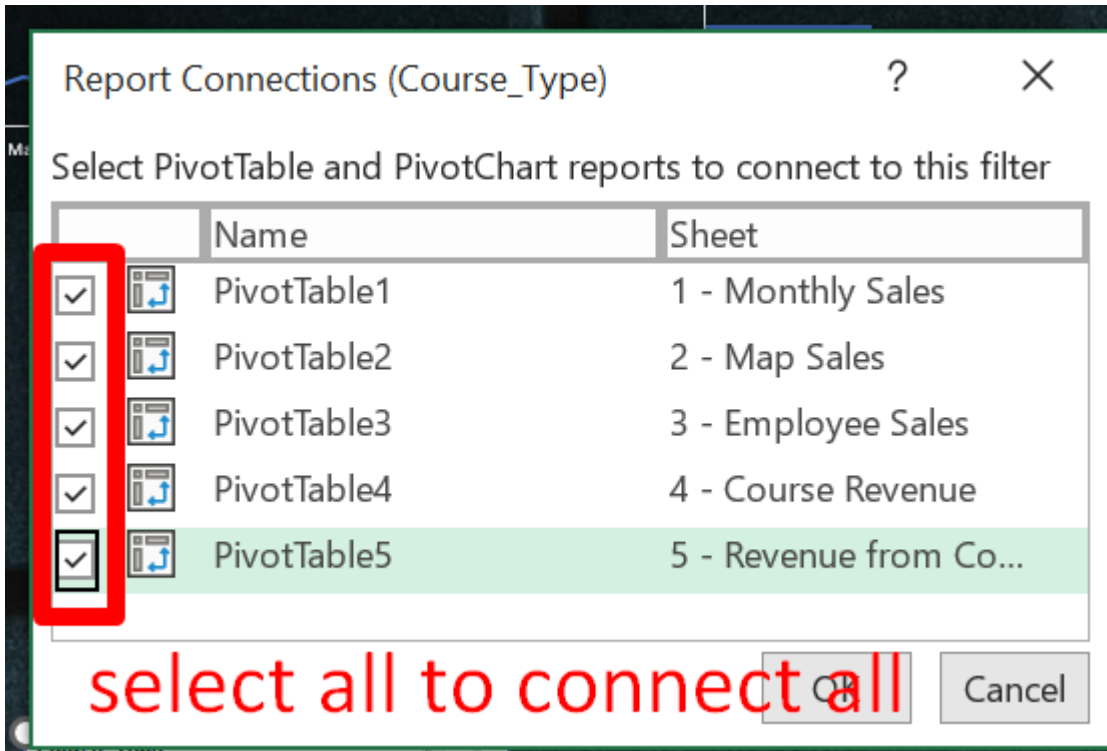
Revenue Dashboard

Report Connections...

place your slicers around and right click any slicer

Format Slicer

- Position and Layout
- Size
- Properties



The screenshot shows a Power BI dashboard with several visualizations and slicers. A dialog box titled "Report Connections (Region)" is open, allowing the user to select PivotTable and PivotChart reports to connect to the "Region" filter. The dialog lists five PivotTables: PivotTable1 (1 - Monthly Sales), PivotTable2 (2 - Map Sales), PivotTable3 (3 - Employee Sales), PivotTable4 (4 - Course Revenue), and PivotTable5 (5 - Revenue from Co...). The "Region" slicer is currently set to "Arizona". The "Years" slicer is set to "2018". The "Customer Name" slicer is set to "Company A".

Report Connections (Region)

Select PivotTable and PivotChart reports to connect to this filter

Name	Sheet
<input checked="" type="checkbox"/> PivotTable1	1 - Monthly Sales
<input checked="" type="checkbox"/> PivotTable2	2 - Map Sales
<input checked="" type="checkbox"/> PivotTable3	3 - Employee Sales
<input checked="" type="checkbox"/> PivotTable4	4 - Course Revenue
<input checked="" type="checkbox"/> PivotTable5	5 - Revenue from Co...

OK Cancel

Region

- Arizona
- California
- New Mexico
- Texas

Years

- 2018
- 2019
- <1/1/2018
- >17/10/2019

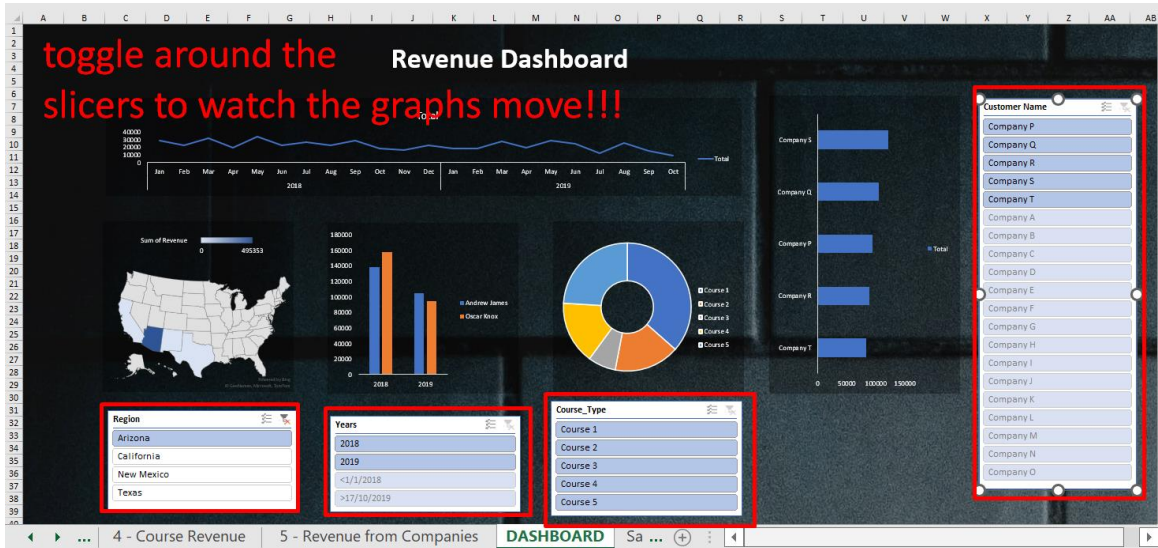
Customer Name

- Company A
- Company B
- Company C
- Company D
- Company E
- Company F
- Company G
- Company H
- Company I
- Company J
- Company K
- Company L
- Company M
- Company N
- Company O
- Company P
- Company Q
- Company R
- Company S
- Company T

keep doing this and repeat for all other slicers!!!

4 - Course Revenue | 5 - Revenue from Companies | DASHBOARD | Sa ...

I. CONCLUSION



II. FAST TRACKING II

<https://www.alvinang.sg/s/Olympic-Medals.xlsx>

A. INSERTING 3 TABLES

you see that it automatically select the table range for you

select anywhere inside the table

Discipline	DisciplineID	SportID
Rowing	D46	S32
Short Track S.	D50	S36
Everling	D24	S16
Polo	D43	S29
Archery	D2	S2
Wrestling Free.	D69	S47
Alpine Skiing	D1	S37
Shooting	D49	S35
Water polo	D67	S1
Cycling Road	D20	S15
Cricket	D16	S12
Freestyle Ski.	D71	S37
Volleyball	D65	S44
Football	D28	S18
Bobsleigh	D12	S9
Dressage	D23	S16
Basque Pelota	D8	S7
Handball	D30	S21
Table Tennis	D58	S39
Luge	D38	S27

select anywhere inside the data and press CTRL + T

Sport	SportID
Aquatics	S1
Archery	S2
Athletics	S3
Badminton	S4
Baseball	S5
Basketball	S6
Basque Pelota	S7
Biathlon	S8
Bobsleigh	S9
Boxing	S10
Canoe / Kayak	S11
Cricket	S12
Croquet	S13
Curling	S14
Cycling	S15
Equestrian	S16
Fencing	S17
Football	S18
Golf	S19
Gymnastics	S20

Olympic Medals - Excel

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

Tables PivotTable Recommended PivotTables Illustrations Add-ins My Add-ins Recommended Charts Charts Maps PivotChart 3D Map Line Column Win/Loss Slicer Timeline

Where is the data for your table?
 \$A\$1:\$M\$32592
 My table has headers
 OK Cancel

select anywhere inside the table

Edition	Season	AthleteID	Athlete	NOC_CountryRegion	Gender	Event_gender	Spo
3/1/1980	Winter	A30684		URS	Men	M	Skii
1/1/1976	Winter	A30460		FRG	Men	M	Skii
1/1/1996	Summer	A24842	SZALAY HORVATHNE, Gyoengyi		Women	W	Fe
1/1/2008	Summer	A5317	DE ROEVER, Lisanne		Women	W	Hoc
1/1/2008	Summer	A23819	SNOWS LL, Emma		Women	W	Tri
1/1/2000	Summer	A13280	KOTOVA, Tatyana		Women	W	Ath
1/1/1992	Summer	A14203	LAWANSON, Ruth Modupe		Women	W	Voll
1/1/1972	Summer	A943	ATWOOD, Susanne Jean		Women	W	Aqu
1/1/1992	Summer	A25451	THOMPSON, lenny		Women	W	Aqu
1/1/1908	Summer	A3600	CARLBERG, G. Vilhelm	SWE	Men	M	Gyn
1/1/1920	Summer	A8928	GRISOT, Eugène	FRA	Men	M	Arcl
2/1/1900	Summer	A8010	GARNIER, René	FRA	Men	M	Foo
1/1/1988	Summer	A27368	WANG, Hee-Kyung	KOR	Women	W	Arcl
1/1/2000	Summer	A6980	FAWCETT, Joy	USA	Women	W	Foo
1/1/1996	Summer	A2684	BOTSFORD, Beth	USA	Women	W	Aqu
1/1/1924	Summer	A24800	SYLVAN, C. Torsten L.	SWE	Men	X	Equ
1/1/1920	Summer	A27719	WESTERGREN, Carl	SWE	Men	M	Wre
2/1/1900	Summer	A26536	VAN HEUCKELUM	BEL	Men	M	Foo
1/1/1988	Summer	A17573	MUKHAMEDYAROV, Nail	URS	Men	M	We
1/1/2004	Summer	A4303	CLAY, Bryan	USA	Men	M	Ath

Disciplines Sports **Medals**

Olympic Medals - Excel

File Home Insert Page Layout **Formulas** Data Review View Developer Help Table Design

Name Manager

Name	Value	Refers To	Scope	Comment
Disciplines		='Rowing';D46';S32'	=Disciplines!\$A\$2:\$C\$...	Workbook
Medals		='3/1/1980';'Winter';'	=Medals!\$A\$2:\$M\$32...	Workbook
Sports		='Aquatics';'S1';'Arche...	=Sports!\$A\$2:\$B\$48	Workbook

edit these 3 table names to follow the tab names EXACTLY

Discipline	DisciplineID	SportID
Rowing	D46	S32
Short Track S.	D50	S36
Eventing	D24	S16
Polo	D42	S29
Archery	D2	S2
Wrestling Free.	D69	S47
Alpine Skiing	D1	S37
Shooting	D49	S35
Water polo	D67	S1
Cycling Road	D20	S15
Cricket	D16	S12
Freestyle Ski.	D71	S37
Volleyball	D65	S44
Football	D28	S18
Bobsleigh	D12	S9
Dressage	D23	S16
Basque Pelota	D8	S7
Handball	D30	S21
Table Tennis	D58	S39
Luge	D38	S27

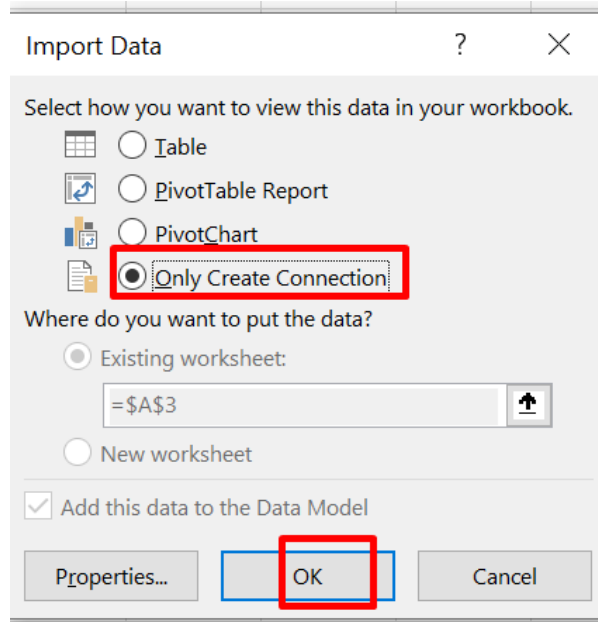
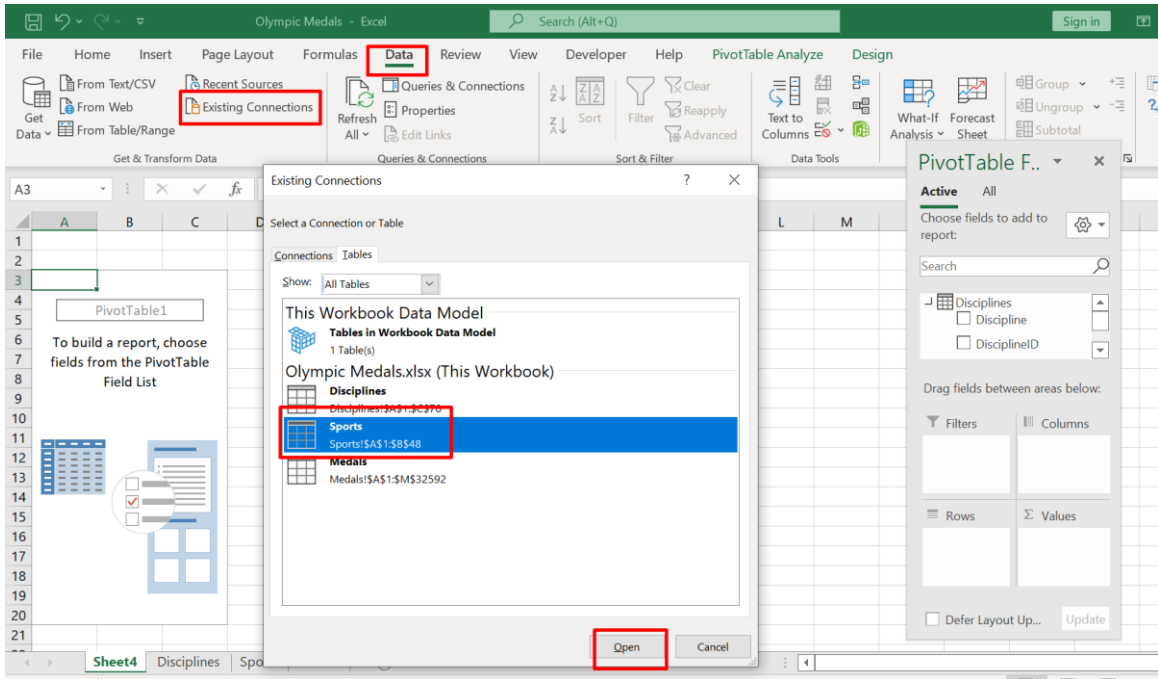
Disciplines Sports **Medals**

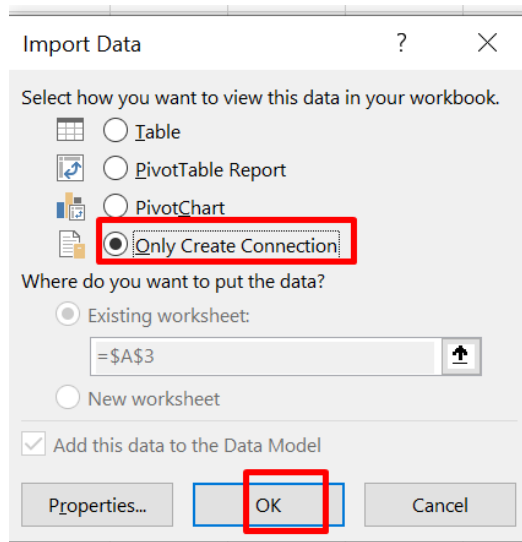
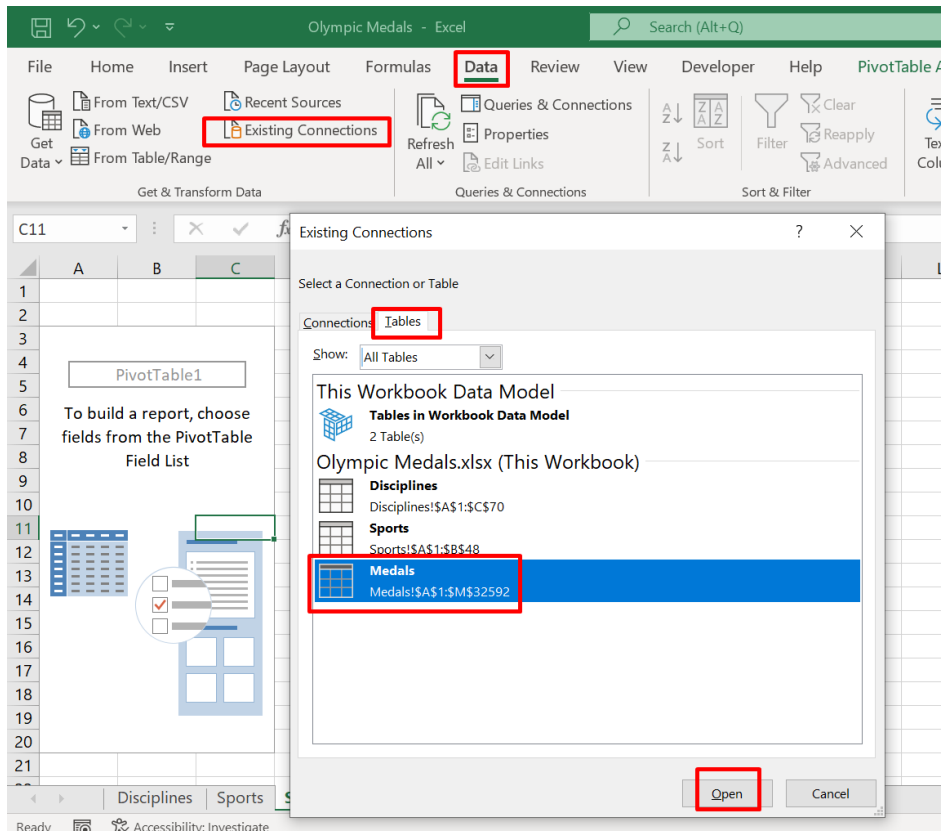
B. ESTABLISHING CONNECTIONS BETWEEN TABLES

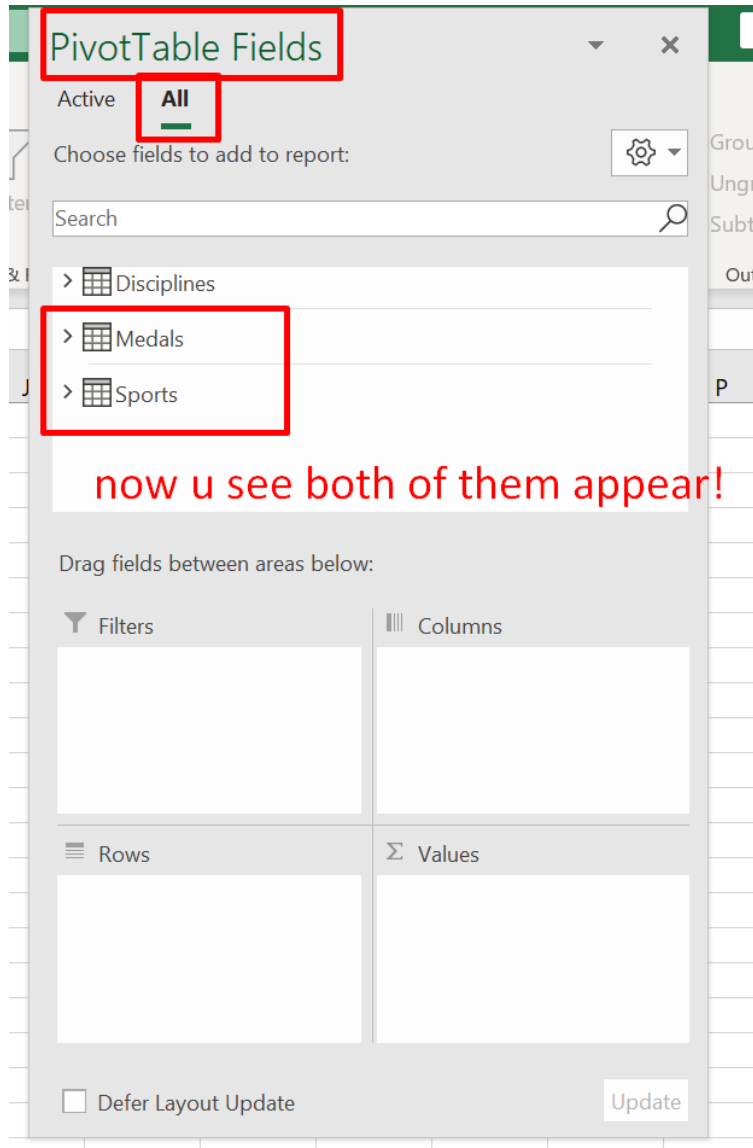
The screenshot shows the Microsoft Excel interface with the 'Data' tab selected in the ribbon. The 'Existing Connections' button is highlighted with a red box. A red arrow points from this button to the 'Existing Connections' dialog box. In the dialog box, the 'Tables' tab is selected, and the 'Disciplines' table is highlighted. The 'Open' button at the bottom right of the dialog box is also highlighted with a red box.

Disciplines	DisciplineID	SportID
Rowing	D46	S32
Short Track S.	D50	S36
Eventing	D24	S16
Polo	D42	S29
Archery	D2	S2
Wrestling Free.	D69	S47
Alpine Skiing	D1	S37
Shooting	D49	S35
Water polo	D67	S1
Cycling Road	D20	S15
Cricket	D16	S12
Freestyle Ski.	D71	S37
Volleyball	D65	S44
Football	D28	S18
Bobsleigh	D12	S9
Dressage	D23	S16
Basque Pelota	D8	S7
Handball	D30	S21
Table Tennis	D58	S39
Luge	D38	S27

The screenshot shows the 'Import Data' dialog box. The 'PivotTable Report' radio button is selected and highlighted with a red box. The 'New worksheet' radio button is also selected and highlighted with a red box. The 'OK' button at the bottom right is highlighted with a red box.







C. SELECTING PIVOT TABLE FIELDS

Relationships between tables may be needed. Auto-Detect... CREATE...

Search

Athlete
 NOC_CountryRegion

Drag fields between areas below:

Filters Columns

Rows

Discipline Count of NOC_CountryRegion

Defer Layout Update Update

Row Labels	Count of NOC_CountryRegion
Alpine Skiing	32591
Archery	32591
Artistic G.	32591
Athletics	32591
Badminton	32591
Baseball	32591
Basketball	32591
Basque Pelota	32591
Beach volley.	32591
Biathlon	32591
BMX	32591
Bobsleigh	32591
Boxing	32591
Canoe / Kayak F	32591
Canoe / Kayak S	32591
Cricket	32591
Croquet	32591
Cross Country S	32591

u see that the values are wrong because relationships between the sheets have not been established yet

Sheet1

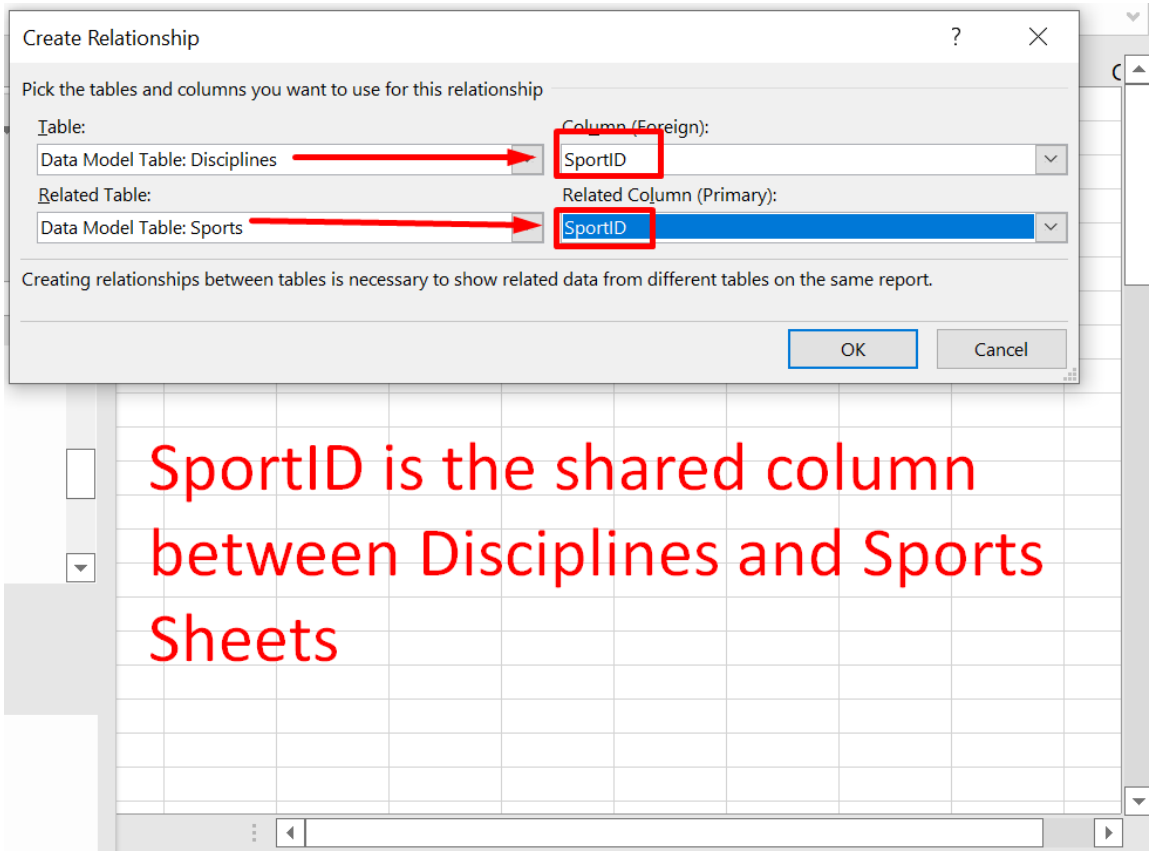
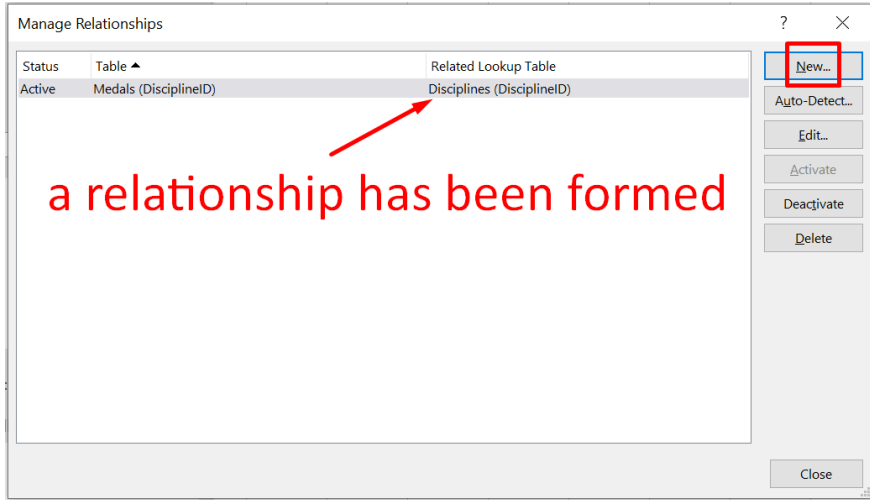
D. ESTABLISHING RELATIONSHIPS BETWEEN SHEETS

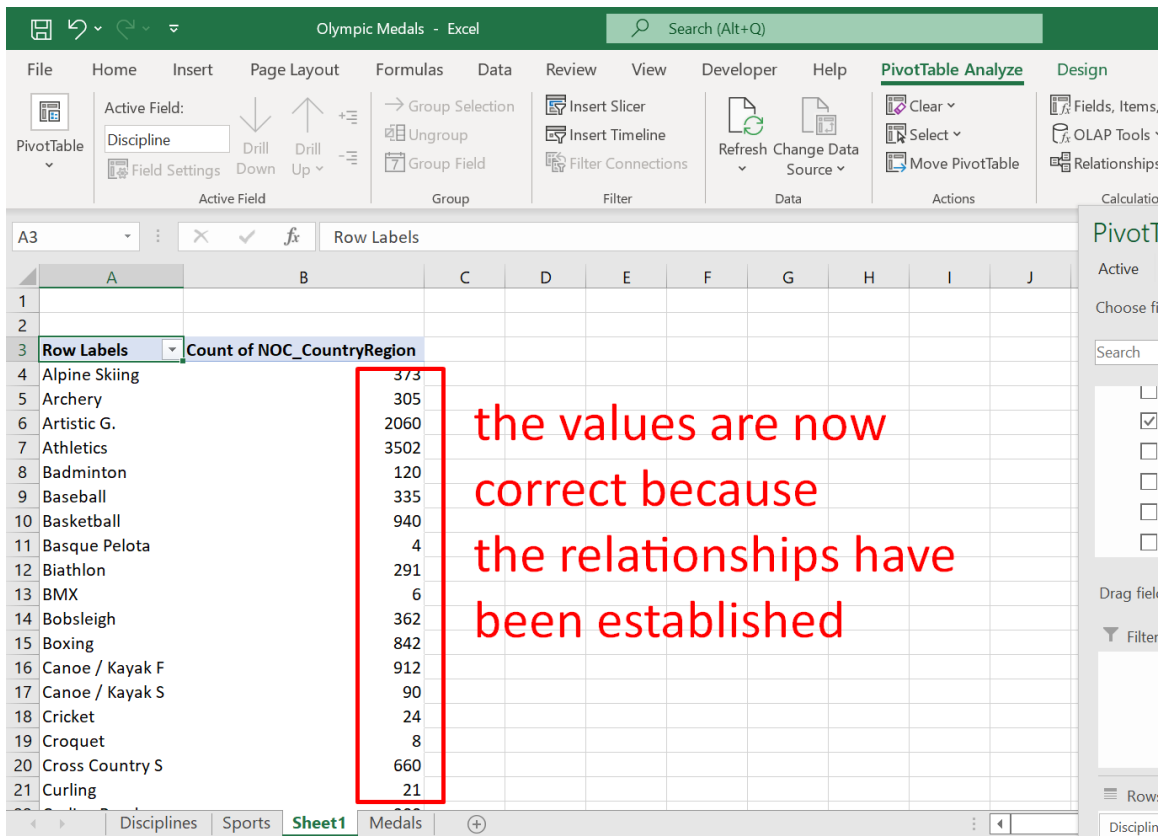
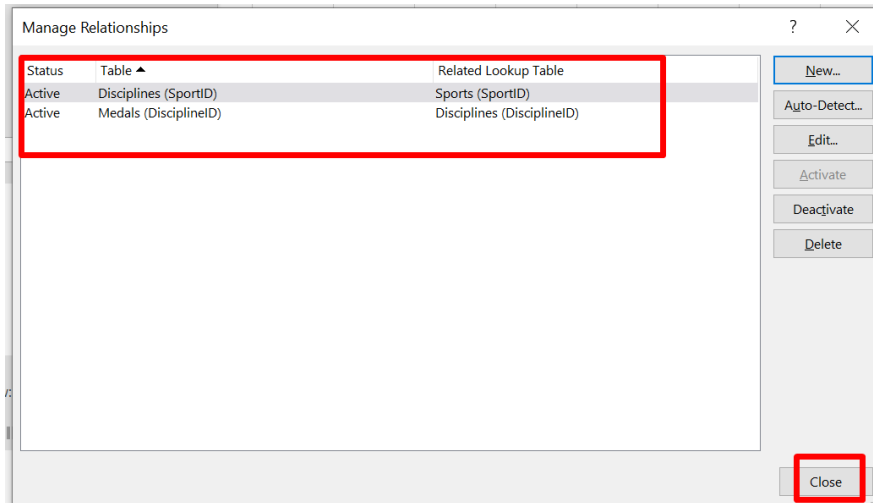
u see that excel automatically can create a relationship for you... but we will not choose this option....

we will decide on the relationship ourselves

DisciplineID is the shared column for Medals and Disciplines Sheets

Thus is their relationship





E. FILTERING OUT ONLY SELECTED SPORTS

The screenshot shows an Excel PivotTable with the following data:

Count of Medal	Column Labels	AHO	ALG	ANZ	ARG	ARM	AUS	AUT	AZE	BAH
Alpine Skiing								1	102	
Archery								2		
Artistic G.										
Athletics		6	1	5			79	7		
Badminton										
Baseball								24		
Basketball					24			48		
Basque Pelota										
Biathlon										1
BMX										
Bobsleigh										13
Boxing		6	1	2						4
Canoe / Kayak F										
Canoe / Kayak S								3		2
Cricket										
Croquet										
Cross Country S										5

The PivotTable Fields task pane shows the following configuration:

- Filters:** Medal, NOC_CountryRegion
- Columns:** NOC_CountryRegion
- Rows:** Discipline
- Values:** Count of Medal

The screenshot shows an Excel PivotTable with the following data:

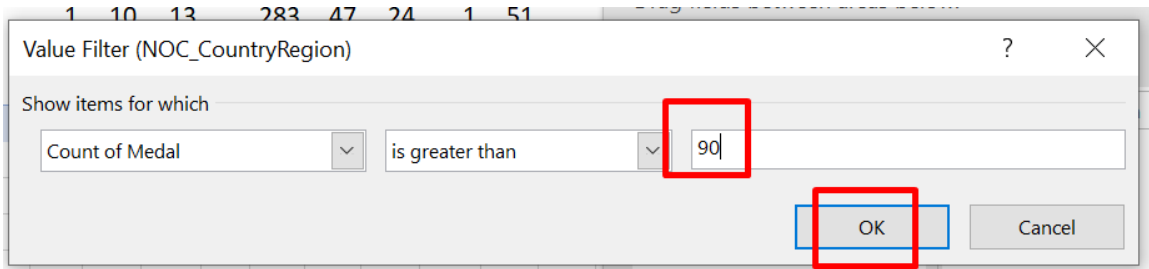
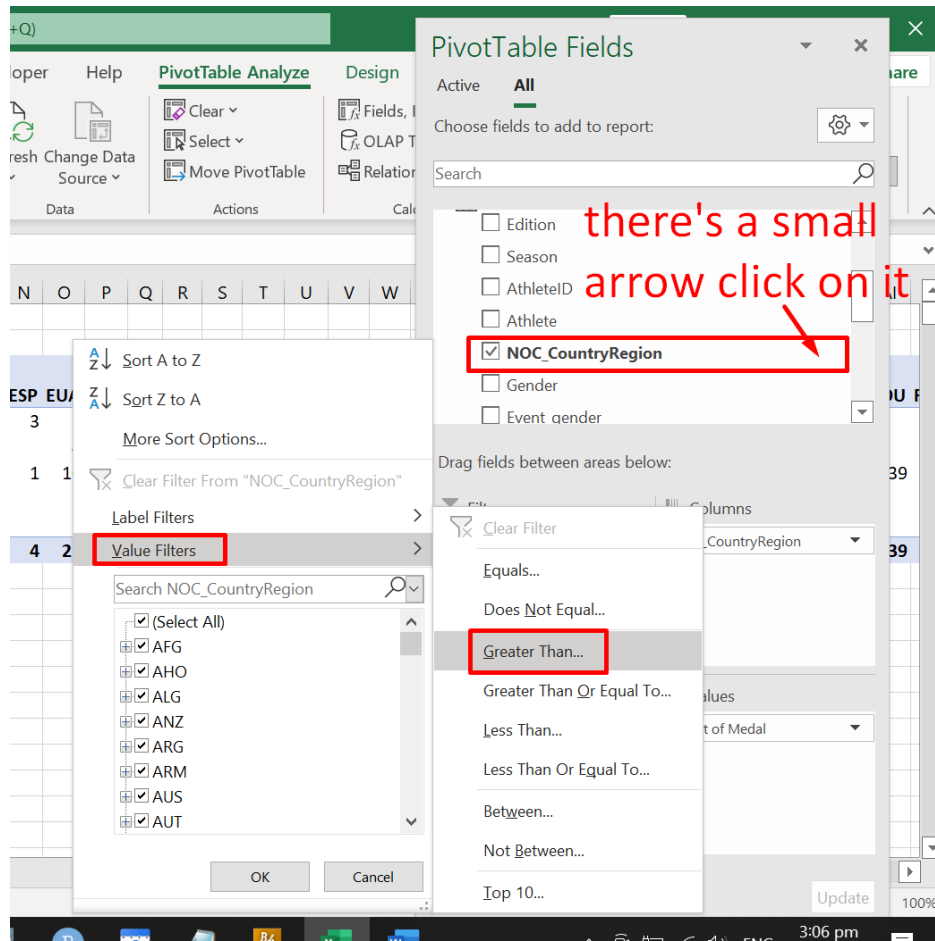
	BUL	CAN	CHN	CUB	DEN	EGY	ESP	EUA	EUN	FIN	FRA	FRG	G
Archery			15				3		4	6	46		
Diving	11	60			2	2		4	3		1		
Fencing		19	24		5		1	10	13		283	47	
Figure skating		28	7					5	9	4	18	3	
Speed skating	3	43	19					2	1	24		3	
Grand Total	3	82	120	24	7	2	4	21	30	34	348	53	

The filter dialog box shows the following disciplines:

- (Select All)
- Alpine Skiing
- Archery
- Artistic G.
- Athletics
- Badminton
- Baseball
- Basketball
- Basque Pelota

Red text on the right side of the image reads: "select only Archery, Diving, Fencing, Fig Skating and Speed Skating".

F. FILTERING OUT > 90 MEDALS ONLY



G. CREATING SLICERS

PivotTable Analyze ribbon: **Insert Slicer** (highlighted)

Insert Slicers dialog box: **Discipline**, **Gender**, **Medal** (checked)

PivotTable Data:

Row Labels	BEL	CHN	FRA	GER	HUN	ITA	NED	RUS	URS	USA	Grand Total
Archery		51	15	46	6	12	9	1	7	52	199
Diving		60	1	24		9		24	14	131	263
Fencing		44	19	283	51	226	328	24	41	145	1209
Figure skating		3	7	18	11	12	2	3	29	42	178
Speed skating		1	19		34		7	75	8	60	277
Grand Total		99	120	348	126	238	358	111	103	268	2126

Slicer Settings: Discipline, Gender, Medal

Annotation: select anywhere inside (pointing to the '24' cell)

PivotTable Slicers: Discipline, Gender, Medal, Season

Context Menu: Group (highlighted)

Annotation: CTRL select then RIGHT CLICK to GROUP

H. CREATING A TIMELINE SLICER

we see that in the Medals sheet, this is the only timeline column that is available

Edition	Season	AthleteID	Athlete	NOC
3/1/1980	Winter	A30684		URS
1/1/1976	Winter	A30460		FRG
1/1/1996	Summer	A24842	SZALAY HORVATH, Gyongyi	HUN
1/1/2008	Summer	A5317	DE ROEVER, Lisanne	NED
1/1/2008	Summer	A23819	SNOWSILL, Emma	AUS
1/1/2000	Summer	A13280	CHYCKA, Tatyana	RUS
1/1/1992	Summer	A14203	LAWANSON, Ruth Modupe	USA
1/1/1972	Summer	A943	ATWOOD, Susanne Jean	USA
1/1/1992	Summer	A25451	THOMPSON, Jenny	USA
1/1/1908	Summer	A3600	CARLBERG, G. Vilhelm	SWE
1/1/1920	Summer	A8928	GRISOT, Eugène G.	FRA
2/1/1900	Summer	A8010	GARNIER, René	FRA
1/1/1988	Summer	A27368	WANG, Hee-Kyung	KOR
1/1/2000	Summer	A6980	FAWCETT, Joy	USA
1/1/1996	Summer	A2684	BOTSFORD, Beth	USA
1/1/1924	Summer	A24800	SYLVAN, C. Torsten L.	SWE
1/1/1920	Summer	A27719	WESTERGREN, Carl	SWE
2/1/1900	Summer	A26536	VAN HEUCKELUM	BEL
1/1/1988	Summer	A17573	MUKHAMEDYAROV, Nail	URS
1/1/2004	Summer	A4303	CLAY, Bryan	USA

select anywhere inside

taken from the Medals Edition column

The screenshot shows the Excel PivotTable Analyze ribbon with the 'Insert Timeline' button highlighted. Below it, the 'Insert Timelines' dialog box is open, showing a list of data sources. The 'Edition' source is selected, and the 'MONTHS' time period is chosen. The background shows a PivotTable with 'Count of Medal' as the value field and 'Discipline', 'Gender', 'Medal', and 'Season' as filters. The 'Edition' filter is currently set to '2008'.

Olympic Medals - Excel

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

Timeline Caption: **Timeline** Report Connections

Timeline Styles Arrange

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
7	Fencing		44	19	283	51	226	328	24	41	145	48	1209							
8	Figure skating		3	7	18	11	12	2	3	29	42	51	178							
9	Speed skating		1	19	34		7	75	8	60	73	277								
10	Grand Total		99	120	348	126	238	358	111	103	268	355	2126							

Discipline: Alpine Skiing, Archery, Artistic G., Athletics, Badminton, Baseball, Basketball, Basque Pelota

Gender: Both, Men, Women

Medal: Bronze, Gold, Silver

Season: Summer, Winter

Timeline: All Periods, YEARS, 2003, 2004, 2005, 2006, 2007, 2008

u may wish to right click and group all the slicers together neater if you want

change this to years

Disciplines Sports **Sheet1** Medals

I. CHECK THE SLICER CONNECTIONS

select this Timeline slicer, then Report Connections.. u see that excel automatically connects it to PivotTable 1 (PivotTable 1 refers to this table)

Count of Medal	Column Labels	CHN	FRA	GER	HUN	ITA	NED	RUS	URS	USA	Grand Total
Archery		51	15	46	6	12	9	1	7	52	199
Diving		60	1	24		9		24	14	131	263
Fencing		44	19	283	51	226	328	24	41	145	48
Figure skating		3	7	18	11	12	2	3	29	42	51
Speed skating		1	19	34		7	75	8	60	73	277
Grand Total		99	120	348	126	238	358	111	103	268	355

likewise for any other slicer you wish to check its connection...

Count of Medal	Column Labels	CHN	FRA	GER	HUN	ITA	NED	RUS	URS	USA	Grand Total
Archery		51	15	46	6	12	9	1	7	52	199
Diving		60	1	24		9		24	14	131	263
Fencing		44	19	283	51	226	328	24	41	145	48
Figure skating		3	7	18	11	12	2	3	29	42	51
Speed skating		1	19	34		7	75	8	60	73	277
Grand Total		99	120	348	126	238	358	111	103	268	355

J. CREATING OUR FIRST PIVOT CHART

The screenshot shows the Excel interface with the PivotTable Fields task pane on the right. The PivotTable is set up with 'Medal' as the Row Labels and 'Country' as the Column Labels. The PivotChart task pane is open, showing a 'Clustered Column' chart. Red boxes highlight the 'PivotTable Analyze' tab, the 'PivotChart' button, and the 'Clustered Column' chart type. A red arrow points to the PivotTable data with the text 'select anywhere inside'.

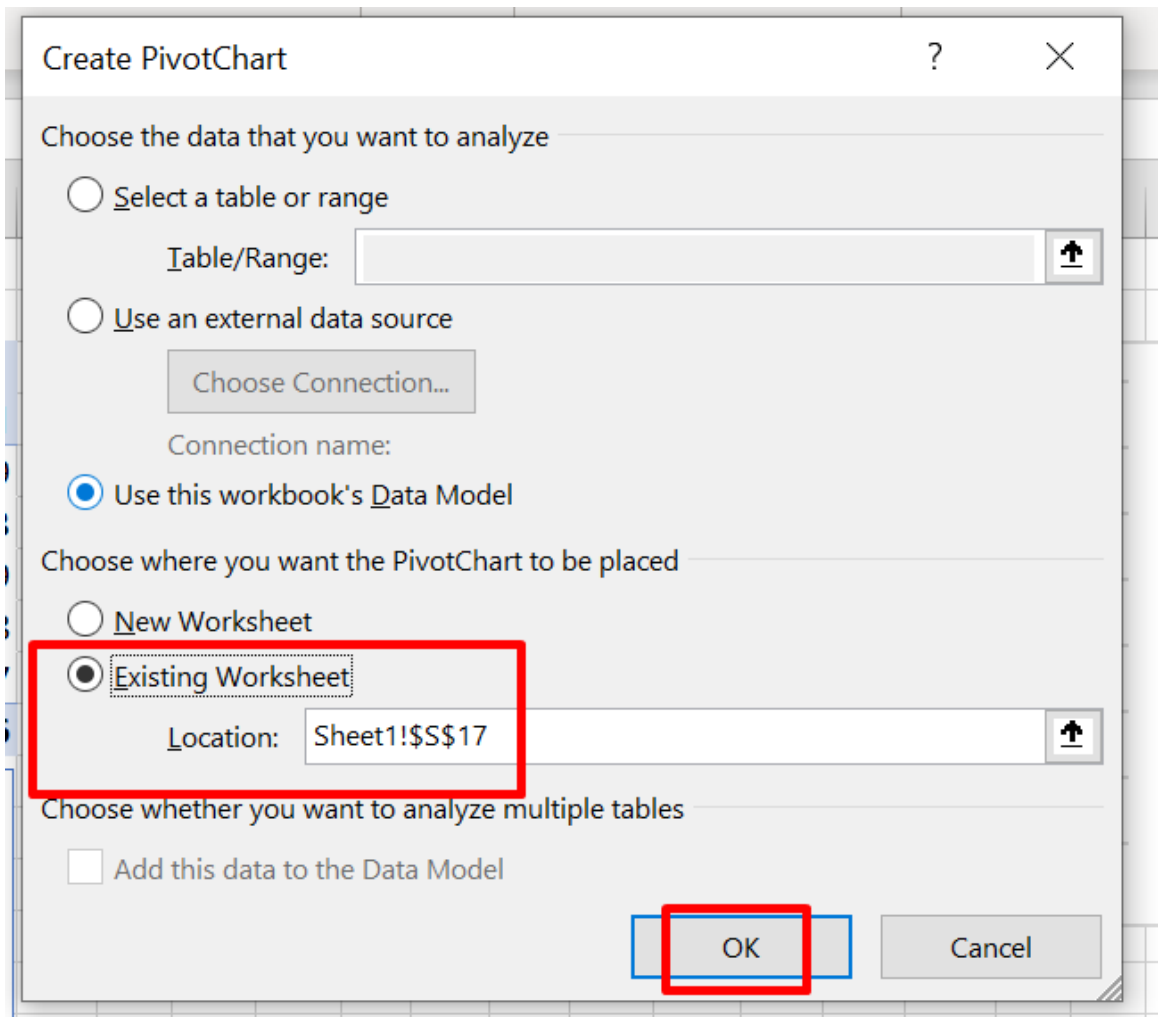
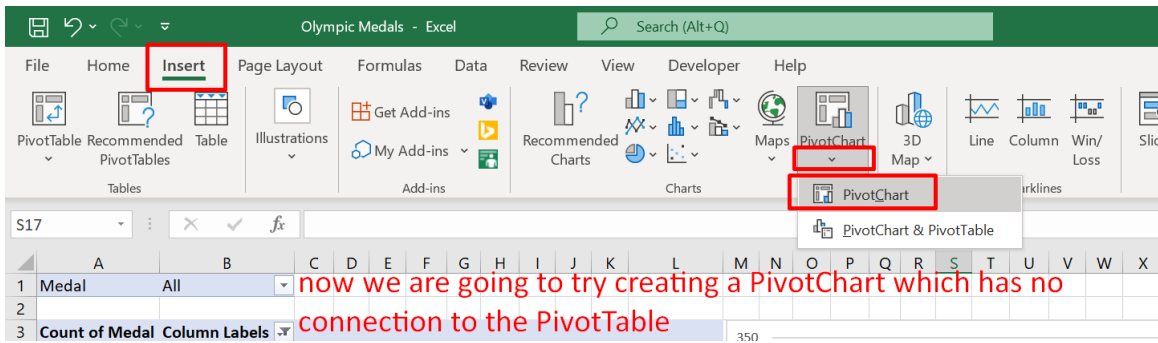
Row Labels	CHN	FRA	GER	HUN	ITA	NED	RUS	URS	USA	Grand Total	
Archery	51	15	46	6	12	9	1	7	52	199	
Diving	60	1	24	9	24	14	131			263	
Fencing	44	19	283	51	226	328	24	1	145	48	209
Figure skating	3	7	18	11	12	2	3	29	42	51	178
Speed skating	1	19	34	7	75	8	60	73			277
Grand Total	99	120	348	126	238	358	111	103	268	355	2126

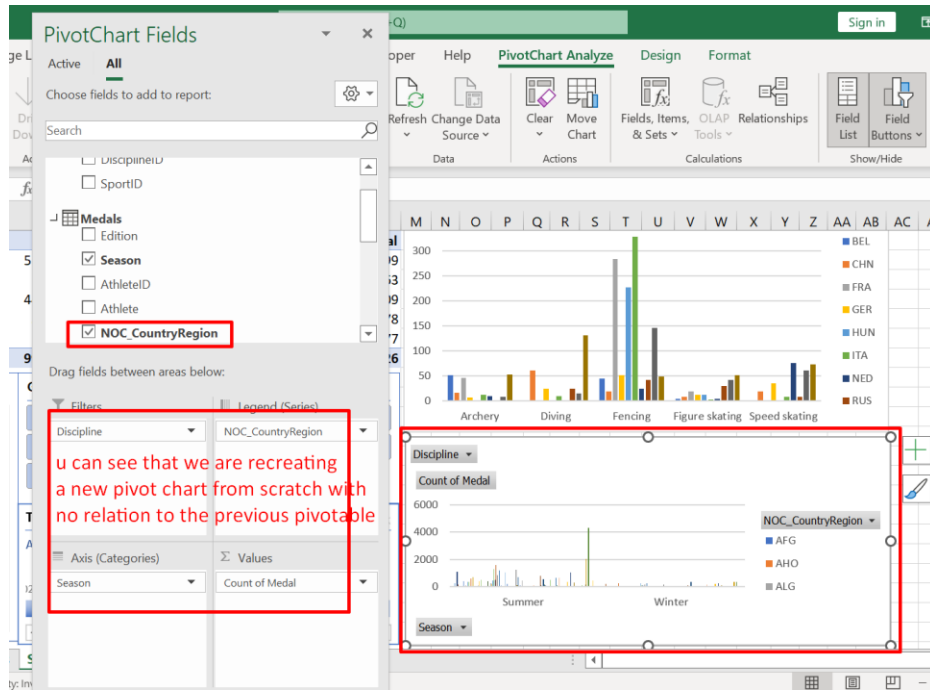
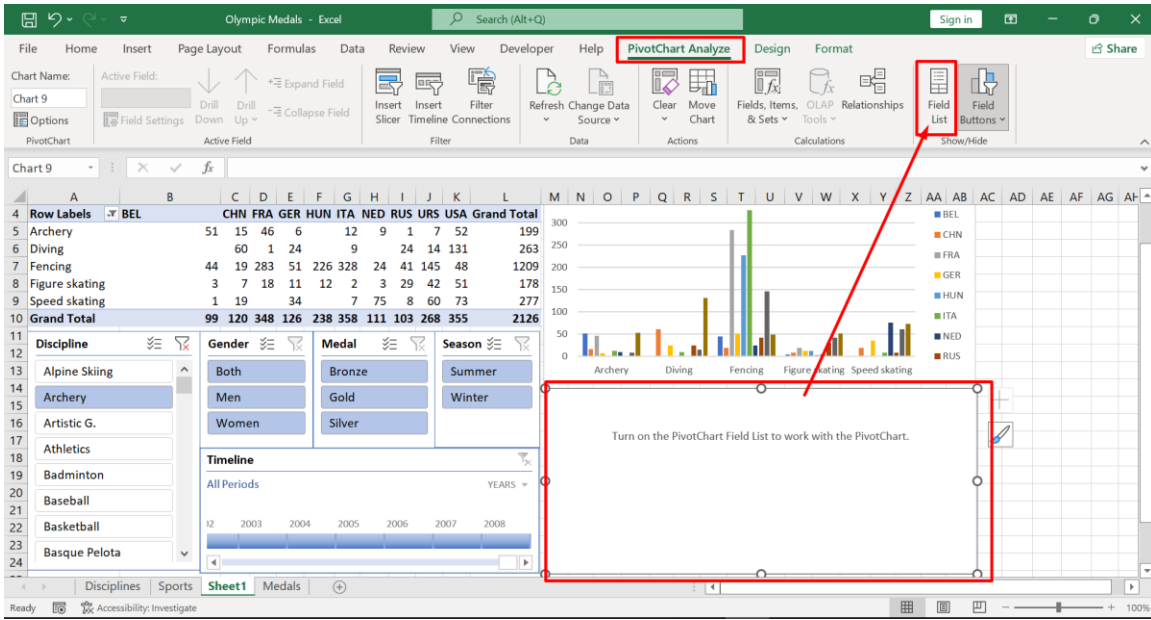
The screenshot shows the PivotChart task pane with the 'Field List' dropdown menu open. The 'Hide All' option is selected, which hides all field buttons on the chart. A red box highlights the 'Field List' dropdown and the 'Hide All' option. A red arrow points to the chart area.

Chart Name	Active Field
Chart 8	

- Show Report Filter Field Buttons
- Show Legend Field Buttons
- Show Axis Field Buttons
- Show Value Field Buttons
- Show Expand/Collapse Entire Field Buttons
- Hide All

K. CREATING A NEW, SEPARATE, UNLINKED PIVOT CHART





The image shows the PivotChart Fields task pane on the right and the Value Filters dialog box on the left. The PivotChart Fields pane has a search bar and a list of fields. The 'Medals' section is expanded, showing 'Season' checked and 'NOC_CountryRegion' selected. A red box highlights 'NOC_CountryRegion' with a red arrow pointing to a small downward arrow next to it. A red text annotation says 'small arrow here click on it'. Below the field list, a 'Greater Than...' filter is selected and highlighted with a red box. The Value Filters dialog box is open, showing 'Count of Medal' and 'is greater than' selected, with the value '90' entered in the text box and highlighted with a red box. The 'OK' button is also highlighted with a red box.

The image shows the 'Value Filter (NOC_CountryRegion)' dialog box. It has a title bar with a question mark and a close button. The main area contains the text 'Show items for which' followed by a dropdown menu showing 'Count of Medal', the text 'is greater than', another dropdown menu, and a text box containing the number '90'. The 'OK' button is highlighted with a red box.

Search (Alt+Q) Sign in

Developer Help **PivotChart Analyze** Design Format Share

Refresh Change Data Clear Move Fields, Items, OLAP Relationships Field Field Buttons

Data Actions Calculations

Field List Field Buttons

- ✓ Show Report Filter Field Buttons
- ✓ Show Legend Field Buttons
- ✓ Show Axis Field Buttons
- ✓ Show Value Field Buttons
- ✓ Show Expand/Collapse Entire Field Buttons
- ✓ Hide All

Grand Total
199
263
1209
178
277
2126

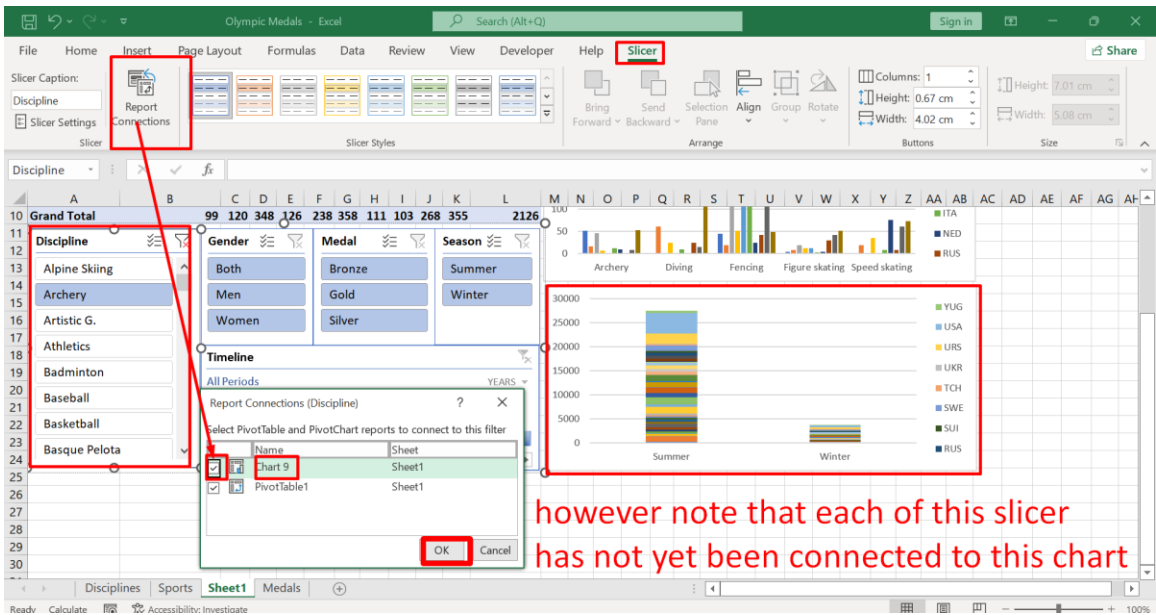
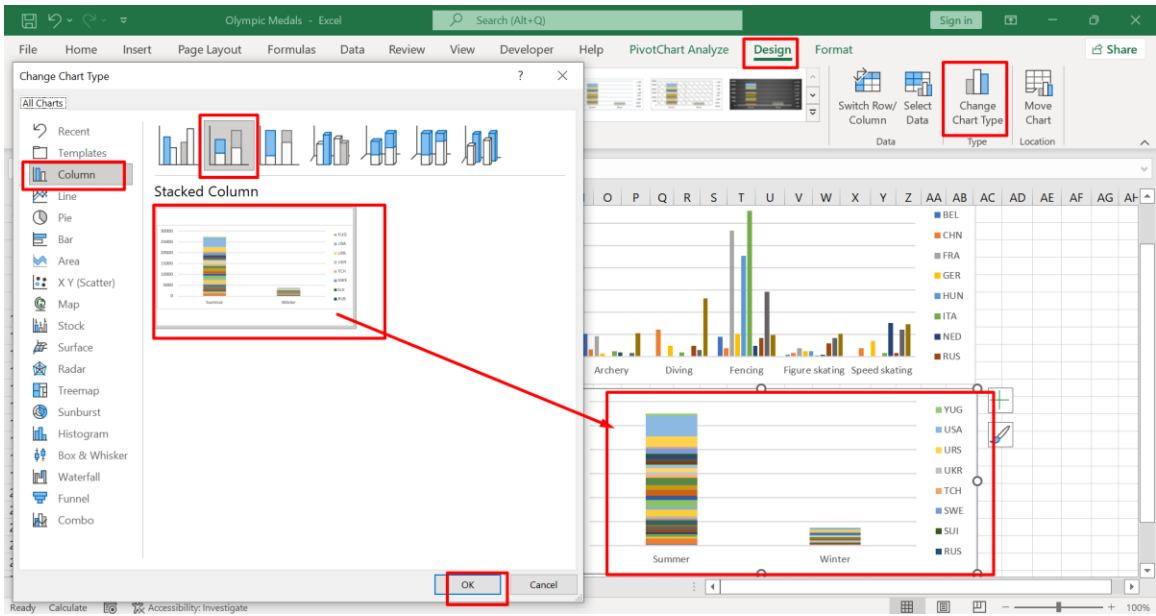
Archery Diving Fencing Figure skating Speed skating

ITA NED RUS

5000
4500
4000
3500
3000
2500
2000
1500
1000
500
0

Summer Winter

ARG AUS AUT BEL BLR BRA BUL CAN



Olympic Medals - Excel

File Home Insert Page Layout Formulas Data Review View Developer Help **Timeline** Share

Timeline Caption Report Connections

Timeline Timeline Styles Arrange Size Show

Grand Total 99 120 348 126 238 358 111 103 268 355 2126

Discipline Gender Medal Season

Alpine Skiing Both Bronze Summer

Archery Men Gold Winter

Artistic G. Women Silver

Athletics

Badminton

Baseball

Basketball

Basque Pelota

Report Connections (Timeline)

Select PivotTable and PivotChart reports to connect to this filter

Name	Sheet
<input checked="" type="checkbox"/> Chart 9	Sheet1
<input checked="" type="checkbox"/> PivotTable1	Sheet1

OK Cancel

repeat the same steps for every other slicer.. connecting the chart

L. COMPLETING THE DASHBOARD

u may remove these if you wish (nicer)

u may delete these lines away if you wish (nicer)

u can now click around the slicer and watch the charts move!

COMPLETED

Count of Medal	Column Labels	CHN	FRA	GER	HUN	ITA	NED	RUS	URS	USA	Grand Total	
Archery	BEL	51	15	46	6	12	9	1	7	52	199	
Diving		60	1	24		9		24	14	131	263	
Fencing		44	19	283	51	226	328	24	41	145	1209	
Figure skating		3	7	18	11	12	2	3	29	42	178	
Speed skating		1	19	34				7	75	8	60	73
Grand Total		99	120	348	126	238	358	111	103	268	355	2126

III. USING A SLICER TO ANIMATE A BAR CHART

A. GETTING THE DATASET

<https://www.alvinang.sg/s/PP.xlsx>

B. INSERTING A PIVOT TABLE

The screenshot shows the Microsoft Excel interface. The 'Insert' tab is active, and the 'PivotTable' icon is highlighted with a red box. The 'PivotTable from table or range' dialog box is open, showing the 'Table/Range' field set to 'DeptExpenses2' and the 'New Worksheet' option selected. The 'OK' button is also highlighted with a red box. The spreadsheet data is visible in the background.

Year	Quarter	Month	Department	Expenses
2015	1	January	Housekeeping	\$ 37,301
2015	1	January	Furnishings	\$ 75,640
2015	1	January	Maintenance	\$ 57,545
2015	1	January	Public Areas	\$ 43,287
2015	1	February	Housekeeping	\$ 62,013
2015	1	February	Furnishings	\$ 58,960
2015	1	February	Maintenance	\$ 55,261
2015	1	February	Public Areas	\$ 75,780
2015	1	March	Housekeeping	\$ 69,559
2015	1	March	Furnishings	\$ 59,510
2015	1	March	Maintenance	\$ 79,962
2015	1	March	Public Areas	\$ 41,821
2015	2	April	Housekeeping	\$ 52,165
2015	2	April	Furnishings	\$ 40,110

C. INSERTING A PIVOT CHART

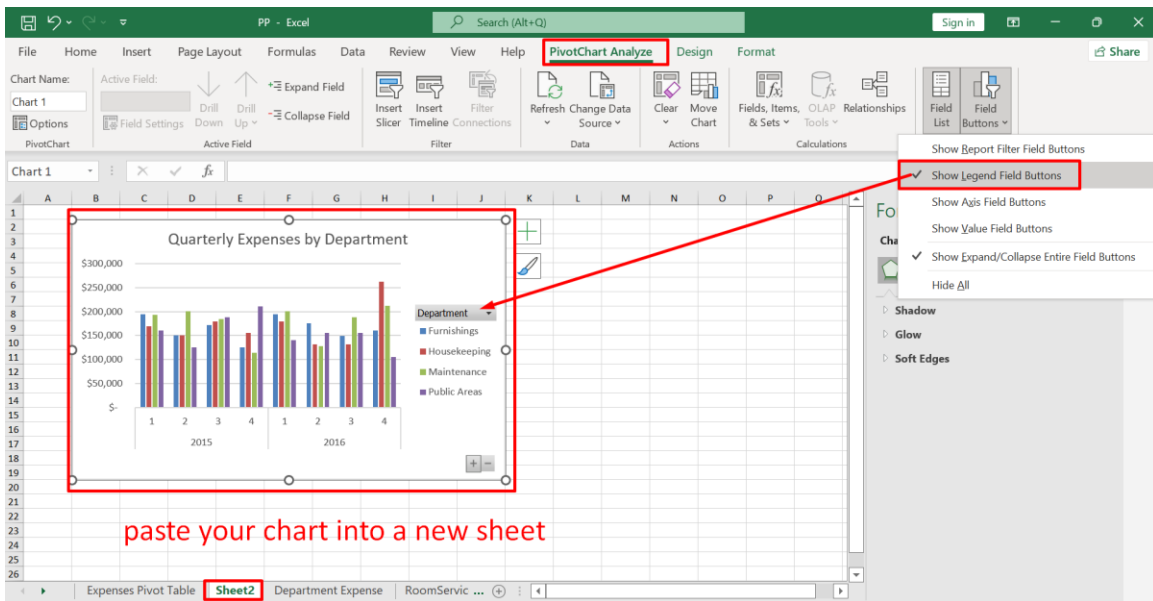
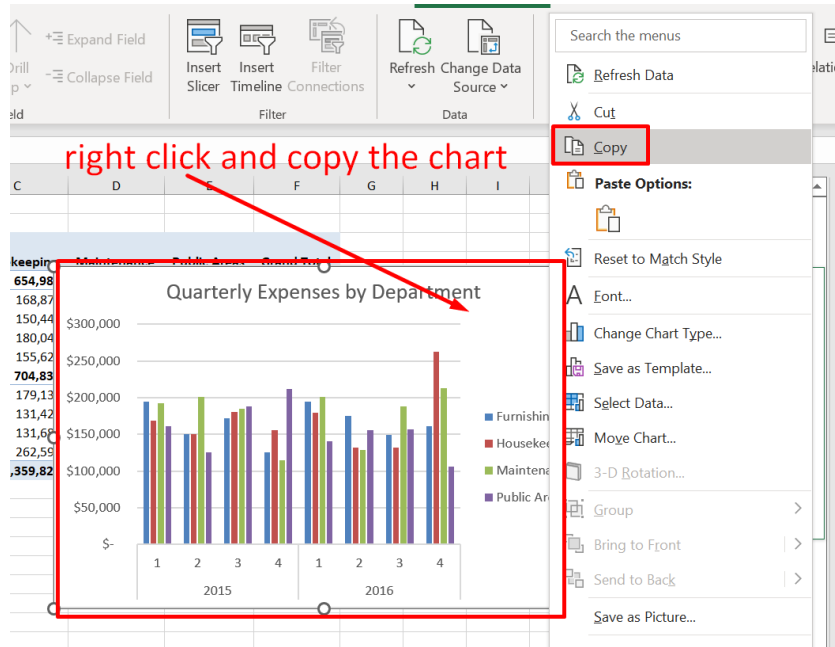
select anywhere inside here to insert pivot chart

Sum of Expenses	Furnishings	Housekeeping	Maintenance	Public Areas	Grand Total
2,015	641,615	654,987	692,523	685,078	2,675,103
\$ 1	\$ 194,110	\$ 168,873	\$ 189,768	\$ 166,888	\$ 716,639
\$ 2	\$ 150,340	\$ 150,444	\$ 130,120	\$ 130,400	\$ 561,304
\$ 3	\$ 150,340	\$ 150,444	\$ 130,120	\$ 130,400	\$ 561,304
\$ 4	\$ 150,340	\$ 150,444	\$ 130,120	\$ 130,400	\$ 561,304
Grand Total	\$ 1,221,630	\$ 1,221,630	\$ 1,221,630	\$ 1,221,630	\$ 4,896,520

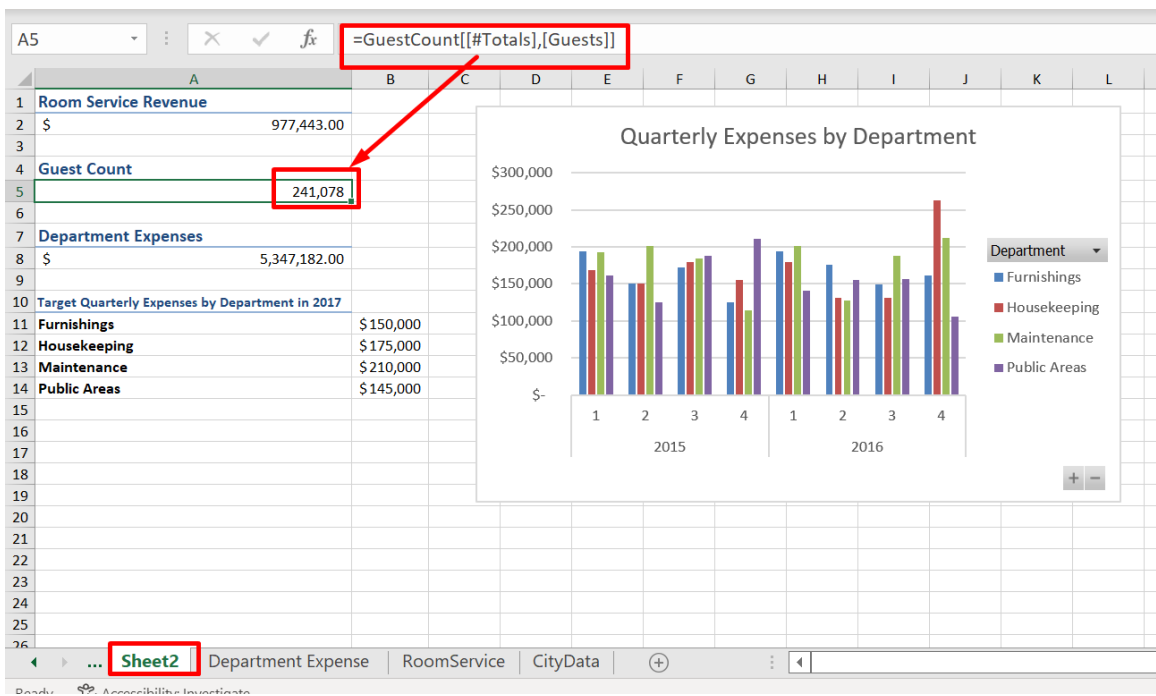
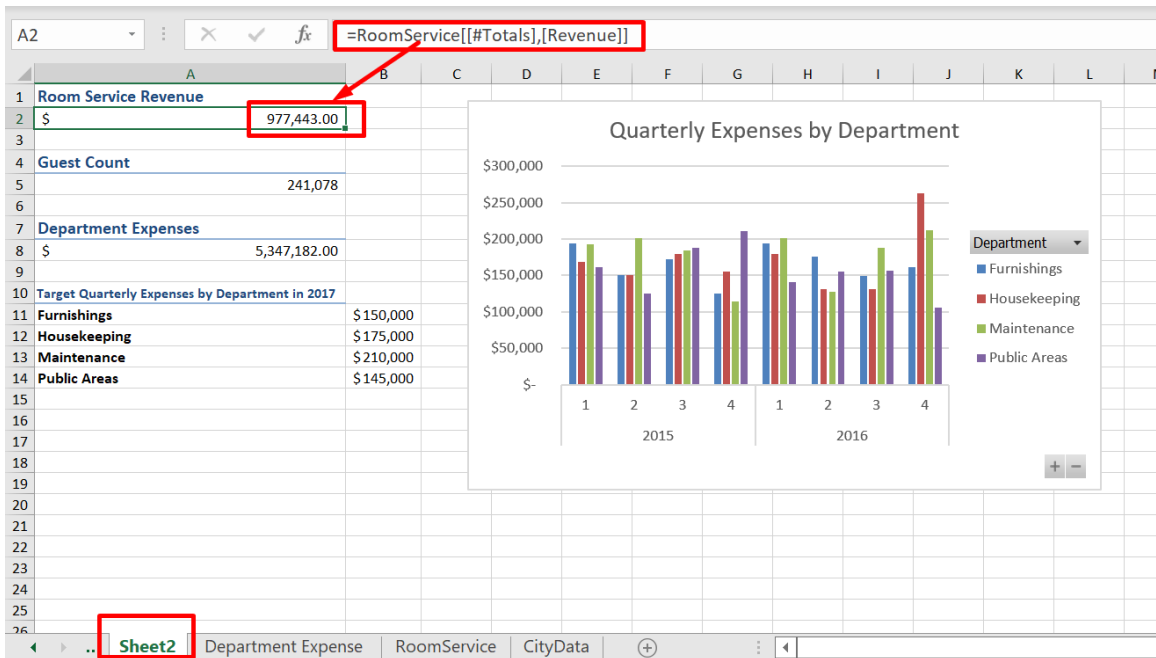
Quarterly Expenses by Department

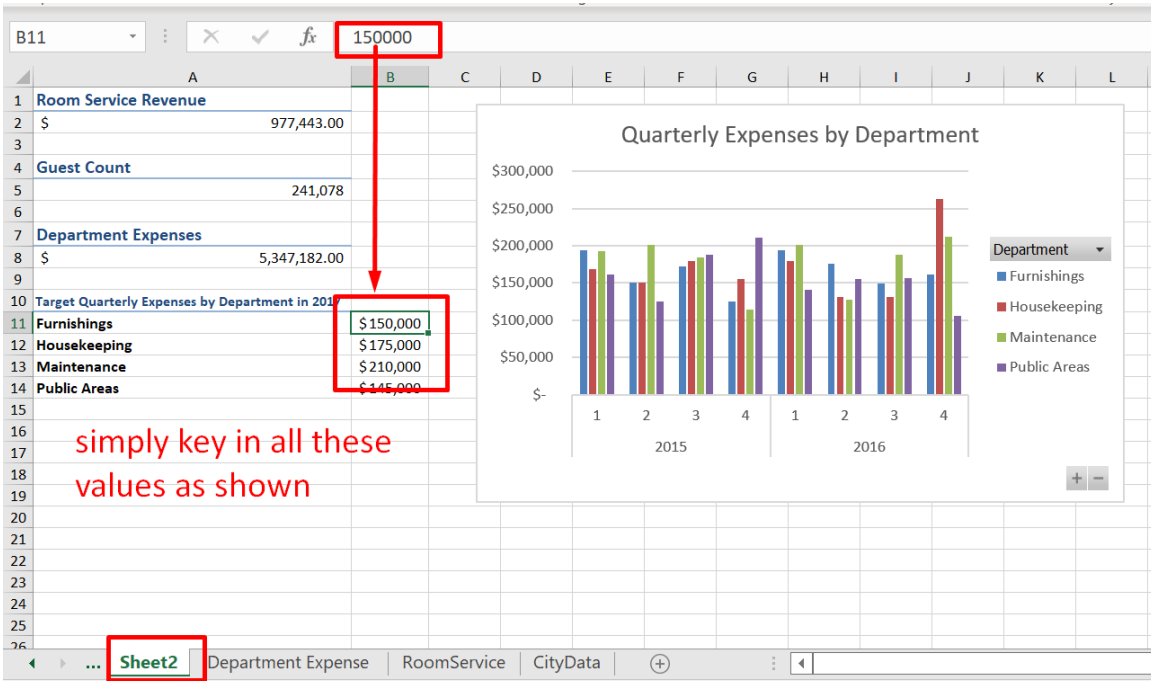
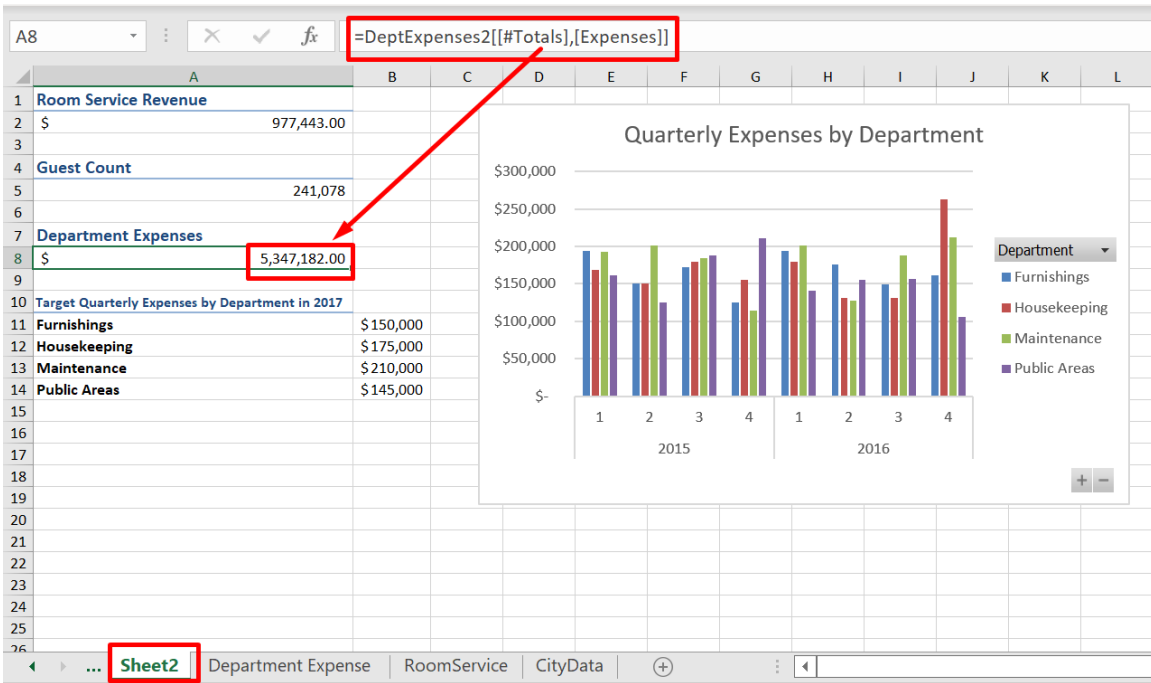
- Show Report Filter Field Buttons
- Show Legend Field Buttons
- Show Axis Field Buttons
- Show Value Field Buttons
- Show Expand/Collapse Entire Field Buttons
- Hide All

- Chart Title
- Axes
- Axis Titles
- Data Labels
- Data Table
- Error Bars
- Gridlines
- Legend
- Trendline



D. CREATING A SUMMARY





E. INSERTING A SLICER

select the chart to be able to insert slicer

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

play around with the slicer to watch change

Year	Quarter	Expenses
2015	1	~190,000
	2	~150,000
	3	~170,000
	4	~130,000
2016	1	~190,000
	2	~170,000
	3	~150,000
	4	~160,000

F. REMOVING GRIDLINES AND HEADINGS

The screenshot shows the Microsoft Excel interface. The ribbon is set to the 'View' tab, and the 'Gridlines' and 'Headings' checkboxes are highlighted with a red box. The spreadsheet content includes:

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

The bar chart, titled 'Quarterly Expenses by Department', shows quarterly expenses for 2015 and 2016. The Y-axis represents expense amounts from \$0 to \$300,000. The X-axis shows quarters 1 through 4 for both years. The legend includes: Furnishings (blue), Housekeeping (red), Maintenance (green), and Public Areas (purple).

The bottom status bar shows the active sheet is 'Sheet2'.

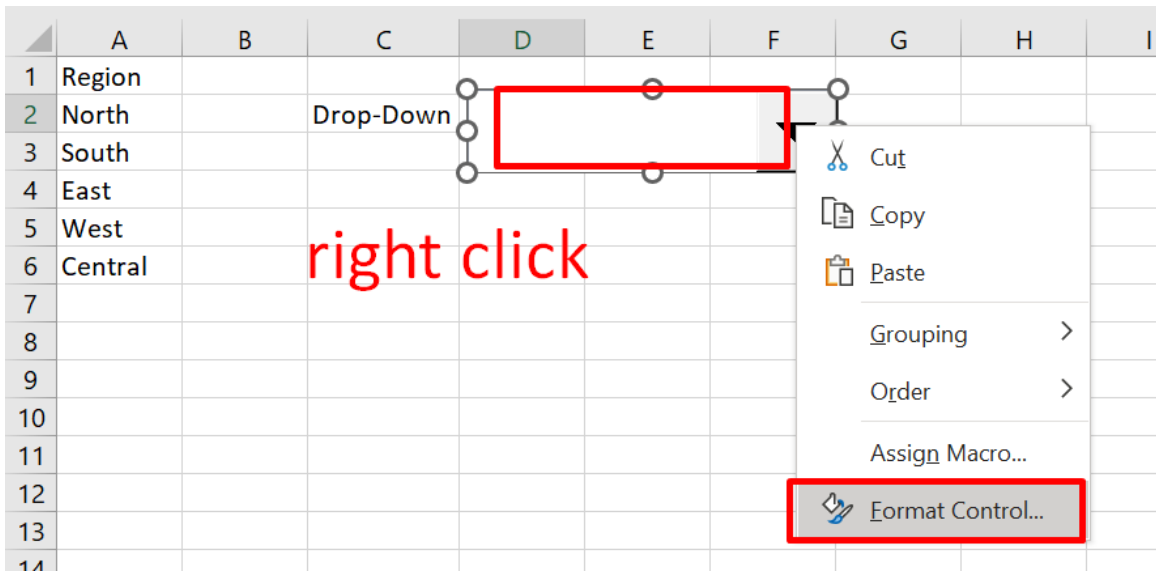
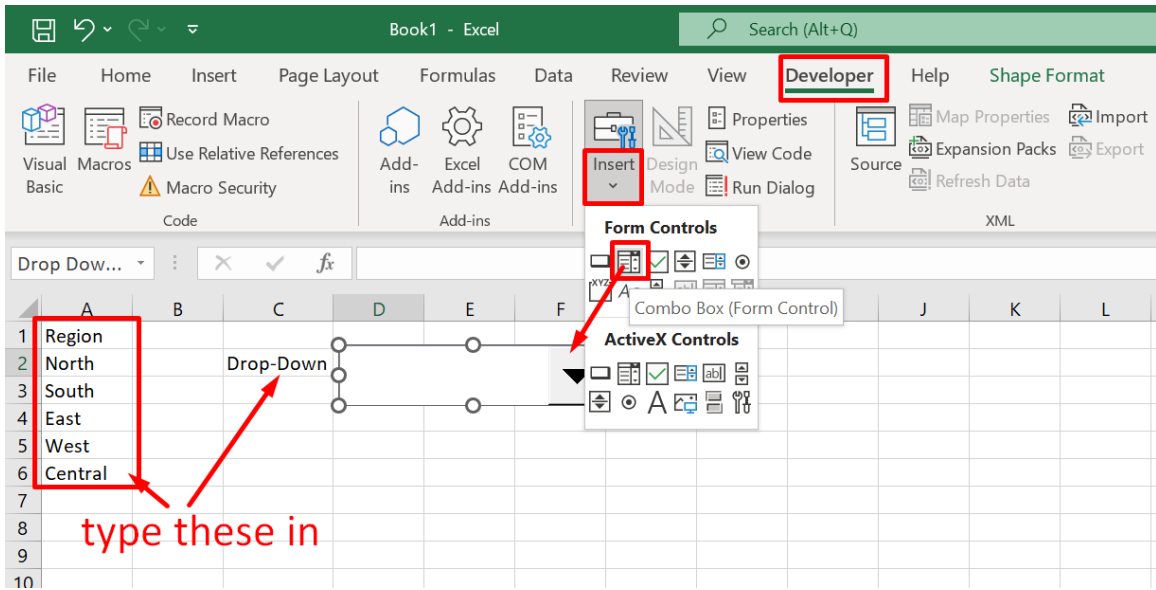
IV. FORM CONTROLS

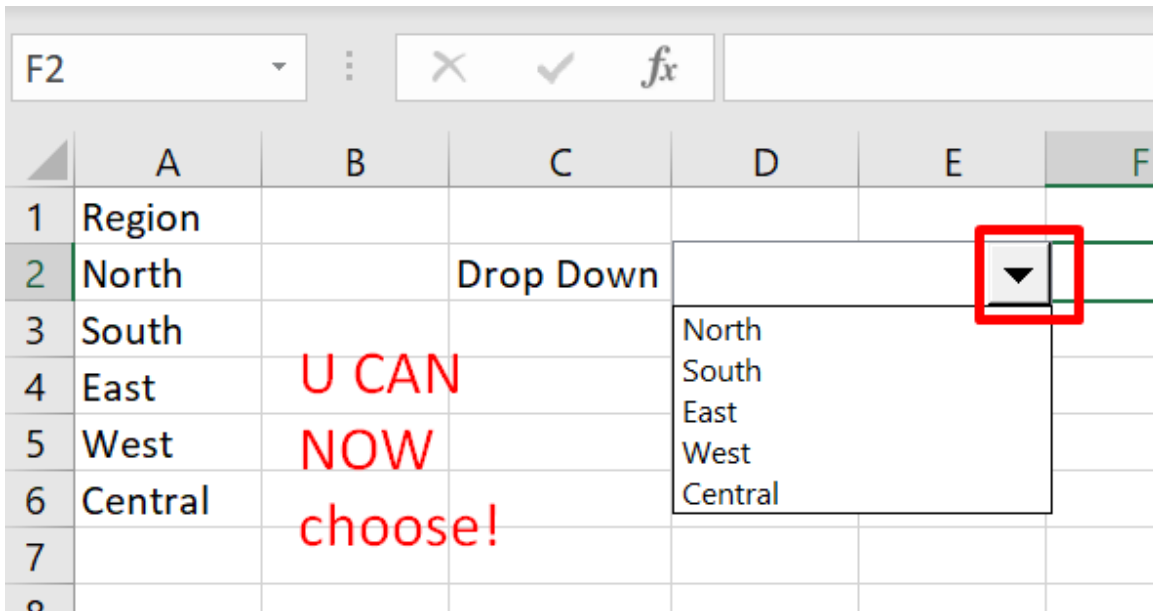
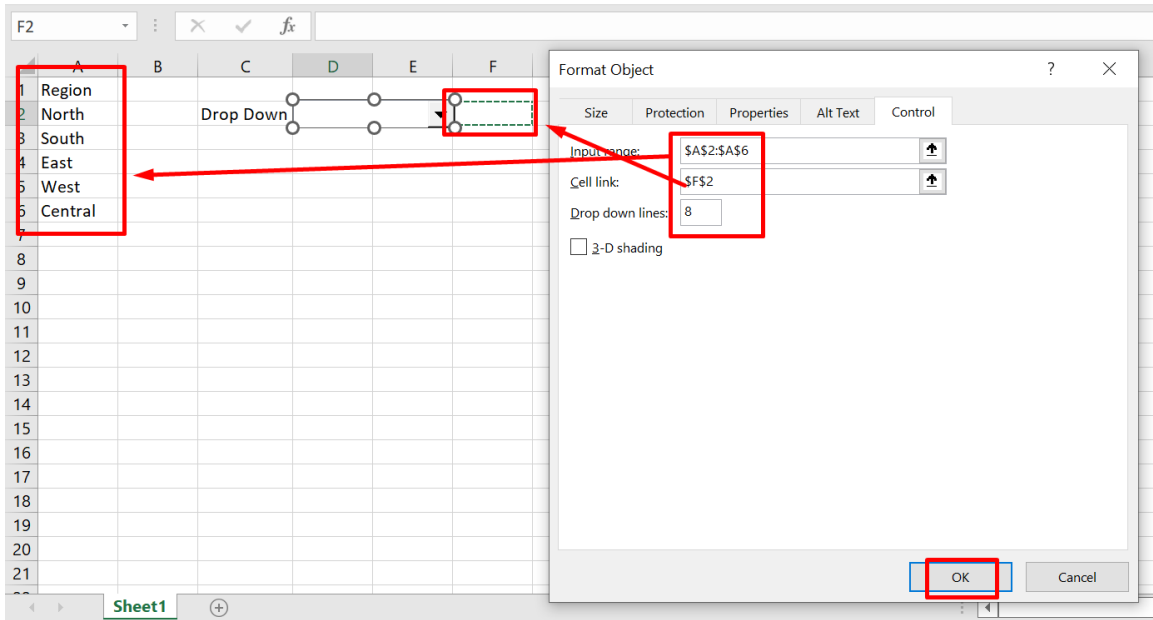
The image shows the Microsoft Excel Developer ribbon. The 'Developer' tab is highlighted with a red box. Below it, the 'Insert' group is also highlighted with a red box. Within the 'Insert' group, the 'Form Controls' section is highlighted with a red box, and the 'ActiveX Controls' section is also highlighted with a red box. A red arrow points from the 'ActiveX Controls' section to the text below. The text 'we will only use these Form Controls' is written in red, and 'we avoid the use of ActiveX Controls because its complicated' is also written in red.

we will only use these Form Controls

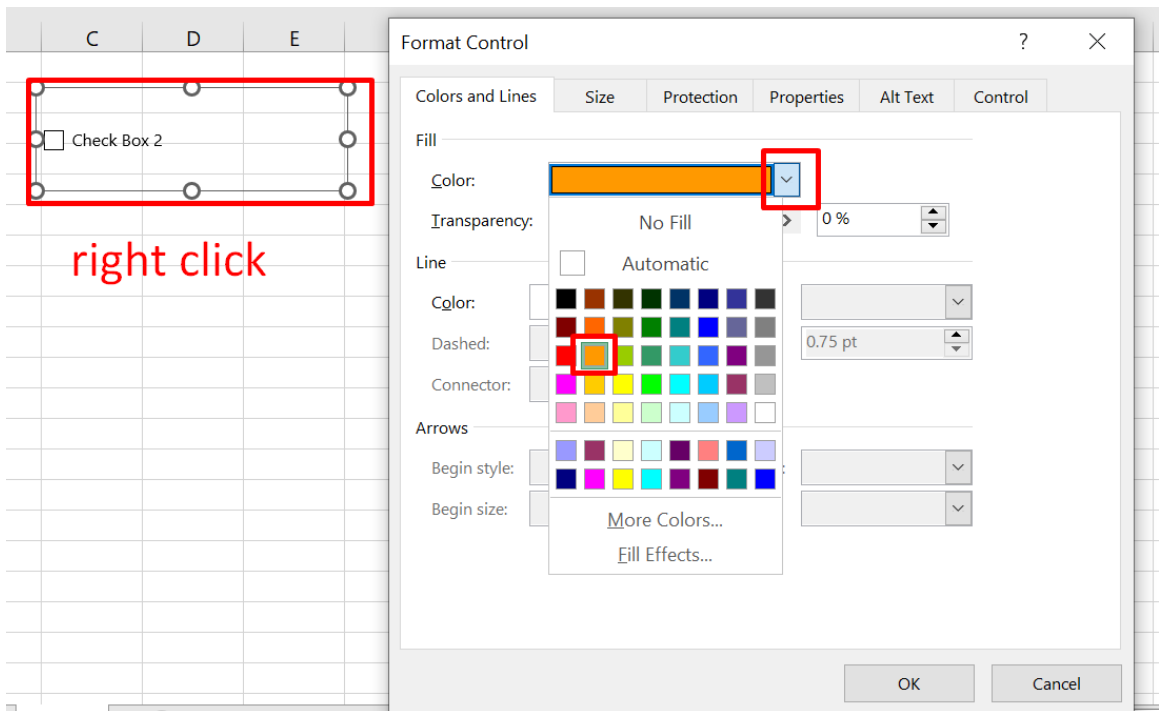
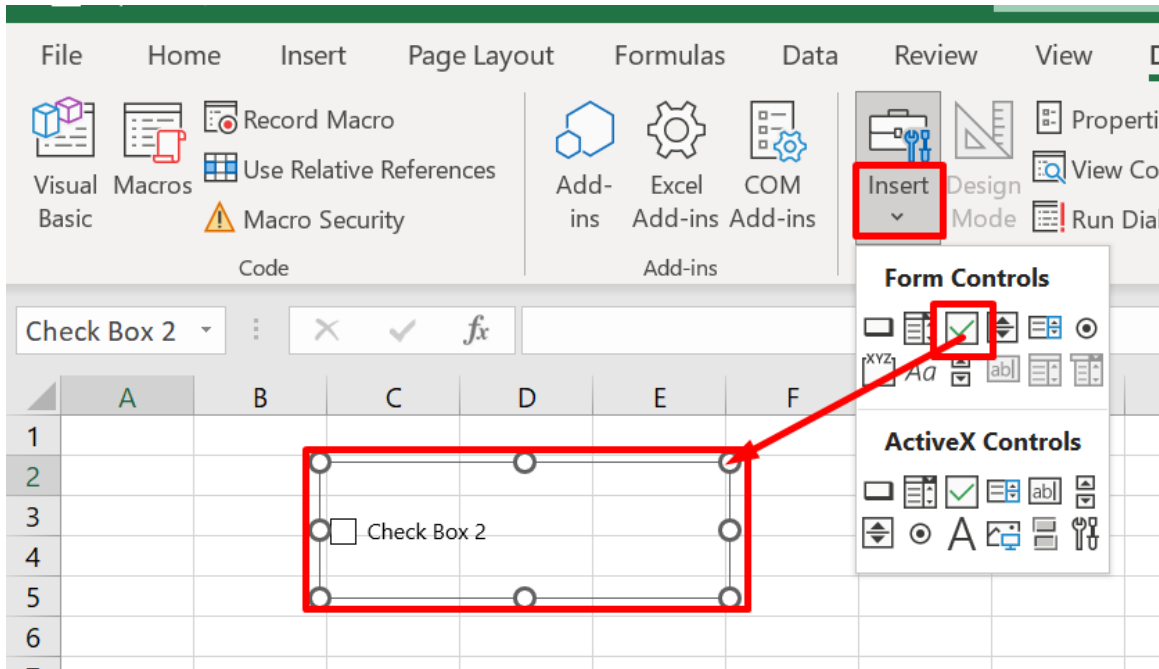
we avoid the use of ActiveX Controls because its complicated

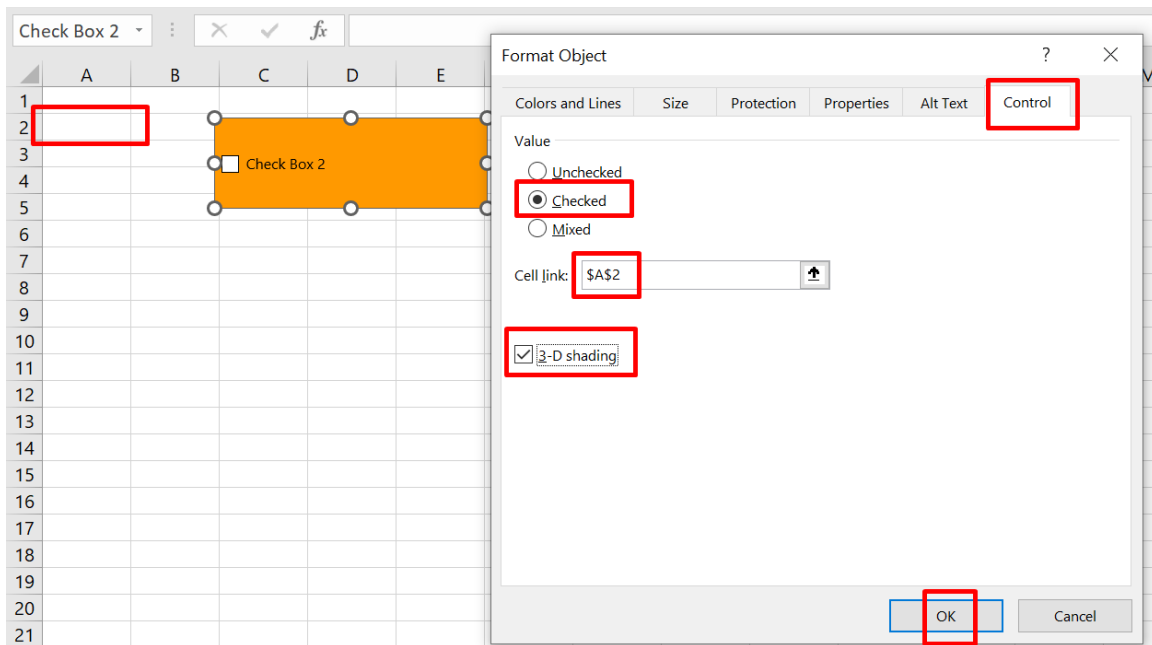
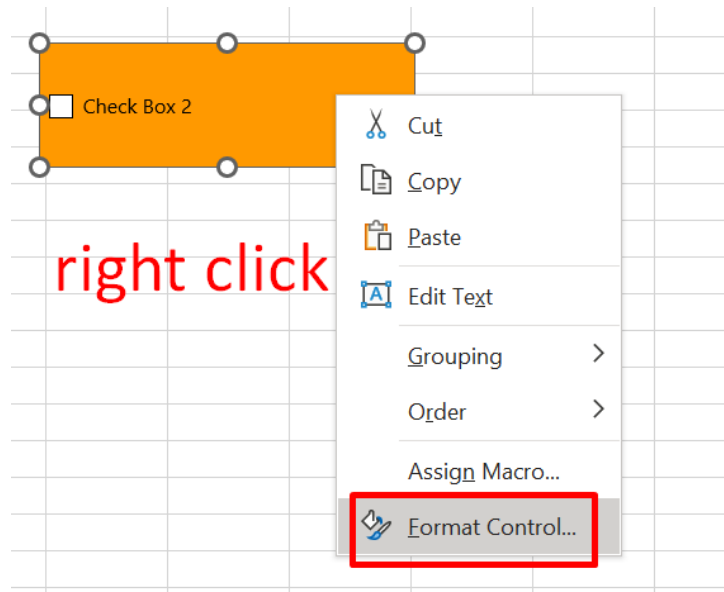
A. DROP DOWN LIST





B. CHECK BOX

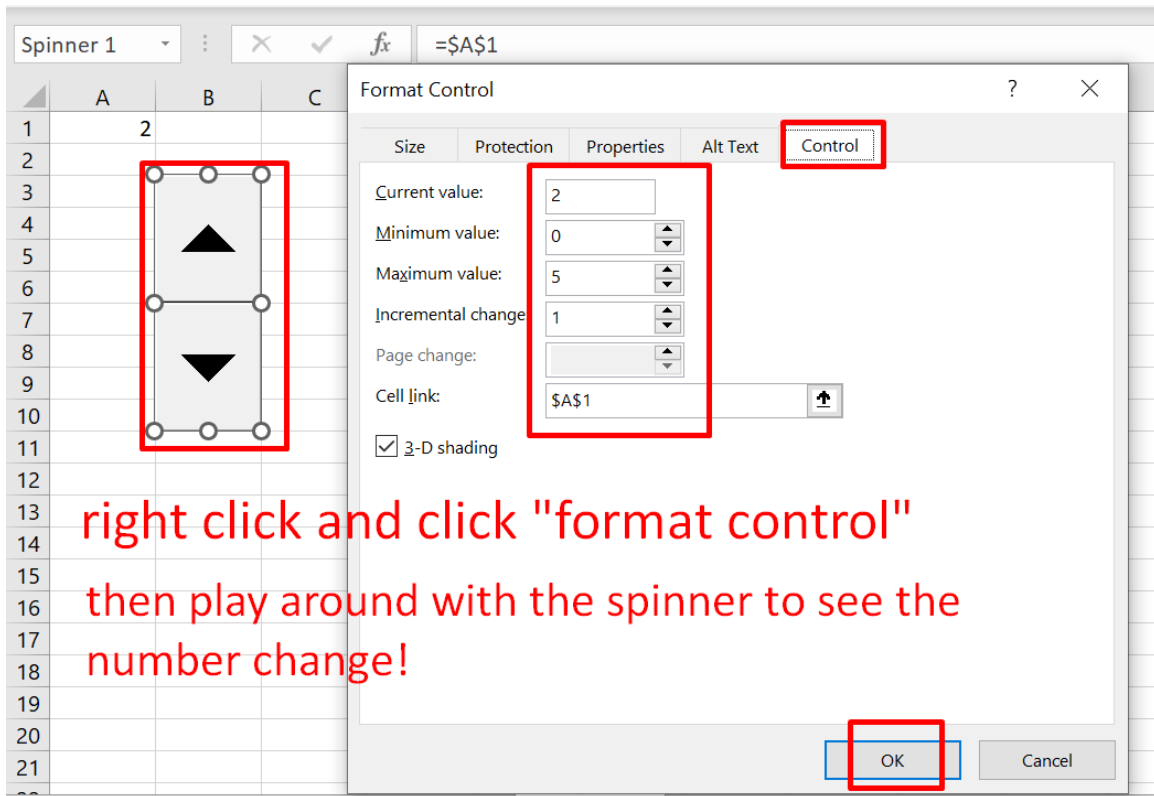
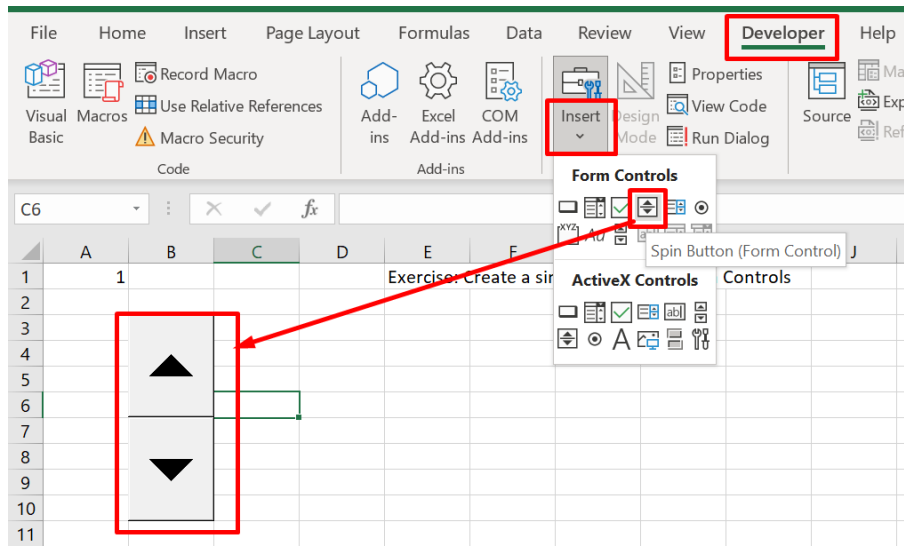




	A	B	C	D	E	F	G	H
1								
2	TRUE							
3			<input checked="" type="checkbox"/> Check Box 2					
4								
5								
6								
7								
8								
9								
10								
11								

if its ticked, it will be true
else, unticked will be false

C. SPIN BUTTON



D. LIST BOX

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

Visual Basic Macros Use Relative References Macro Security Code

Add-ins Excel Add-ins COM Add-ins

Insert Design Mode

Form Controls

ActiveX Controls

List Box (Form Control)

Exercise: (

ActiveX Controls

ct via Form Controls

List 1
List 2
List 3

List 1
List 2
List 3
List 4
List 5

type this in

List Box 1

Format Control

Size Protection Properties Alt Text **Control**

Input range:

Cell link:

Selection type

Single

Multi

Extend

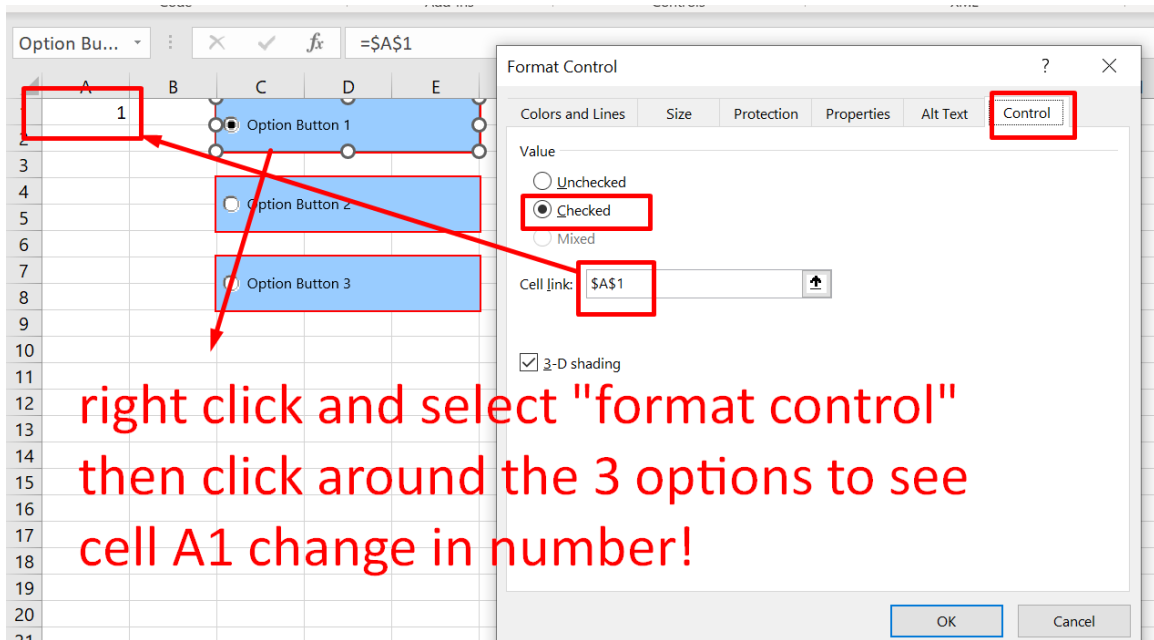
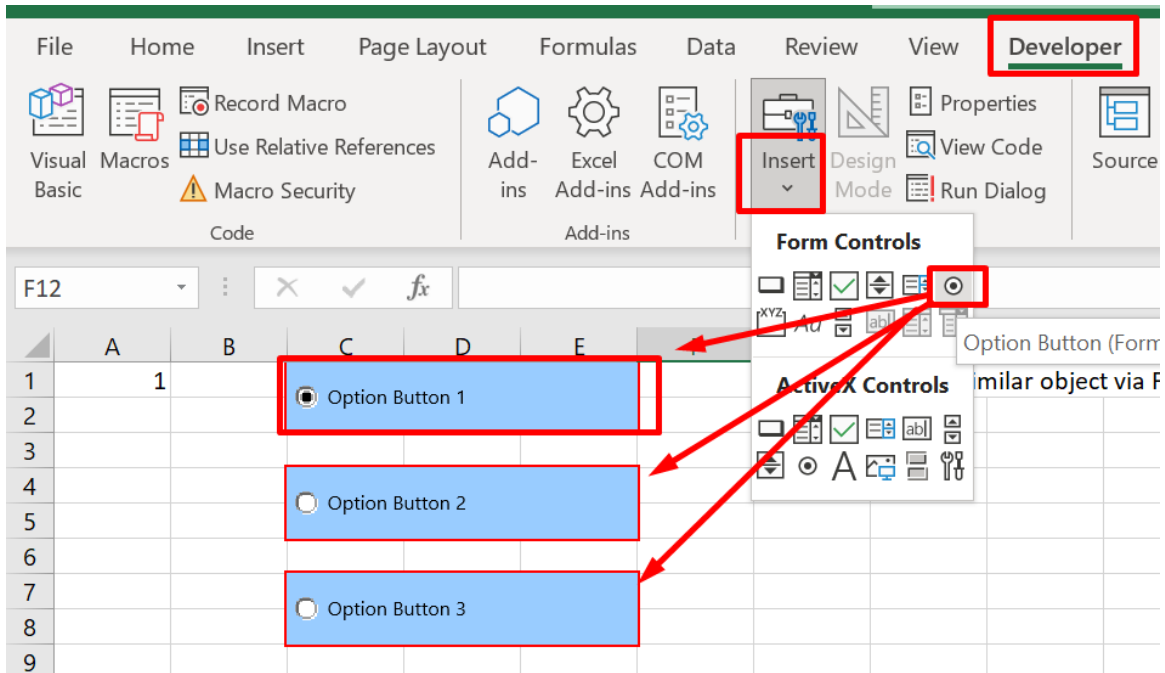
3-D shading

OK Cancel

right click
then select
"format control"

The list works now!!!

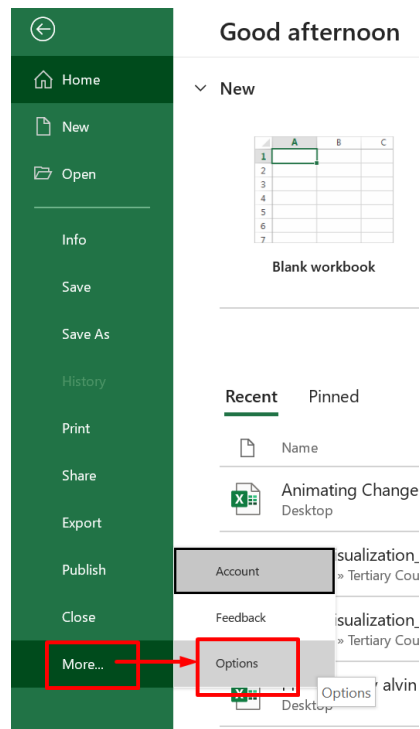
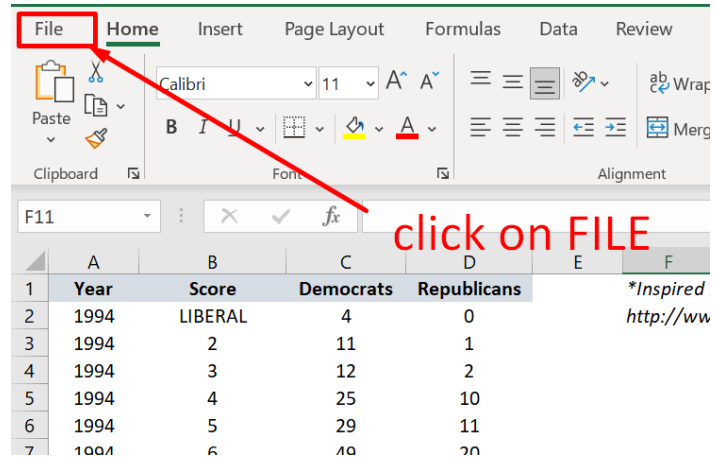
E. OPTION BUTTON

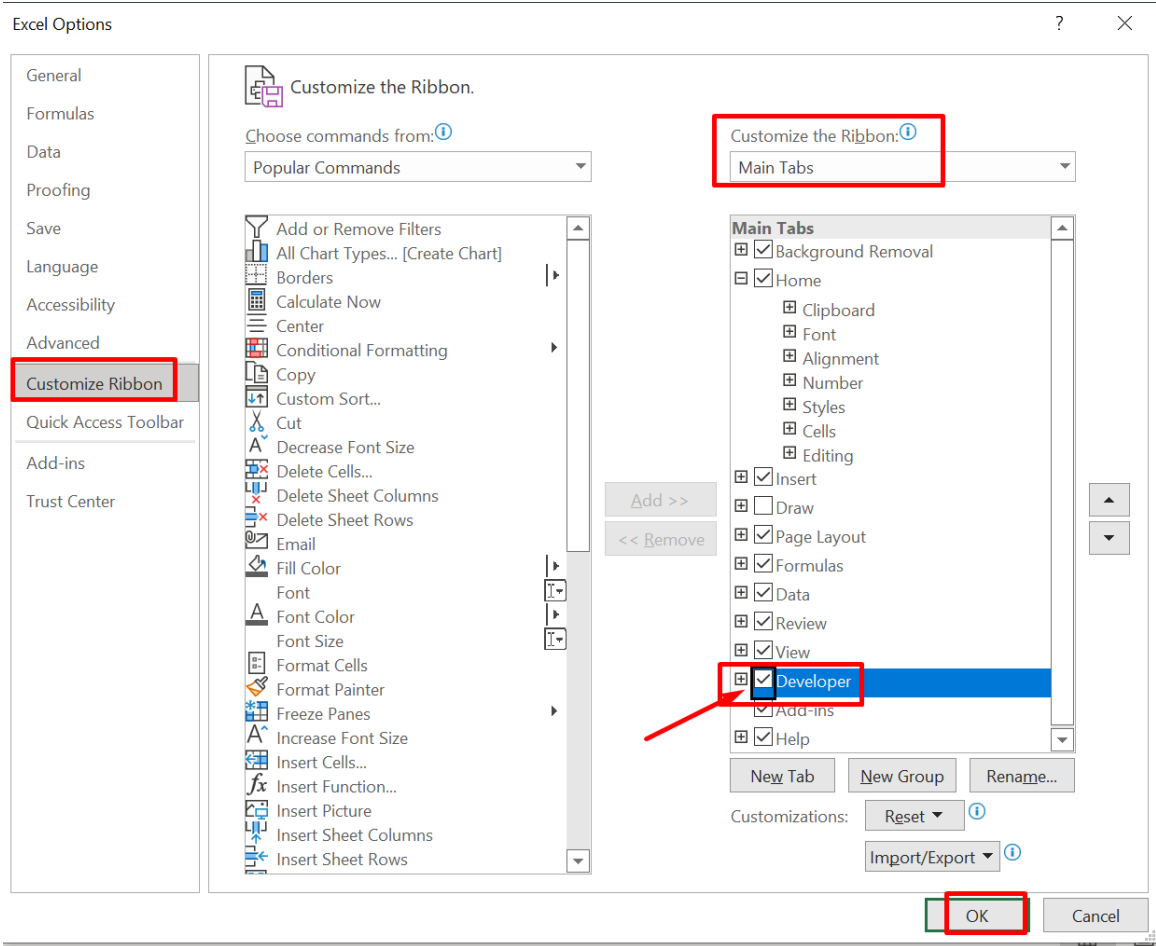


V. USING FORM CONTROL TO ANIMATE AN AREA CHART

<https://www.alvinang.sg/s/Animating-Changes-Over-Time.xlsx>

A. GETTING THE DEVELOPER TAB





B. INSERTING THE FORM CONTROL

Spinner 2

	A	B	C	D	E
1	Year	Score	Democrats	Republicans	
2	1994	LIBERAL	4	0	
3	1994	2	11	1	
4	1994	3	12	2	
5	1994	4	25	10	
6	1994	5	29	11	
7	1994	6	49	20	
8	1994	7	53	23	
9	1994	8	63	37	

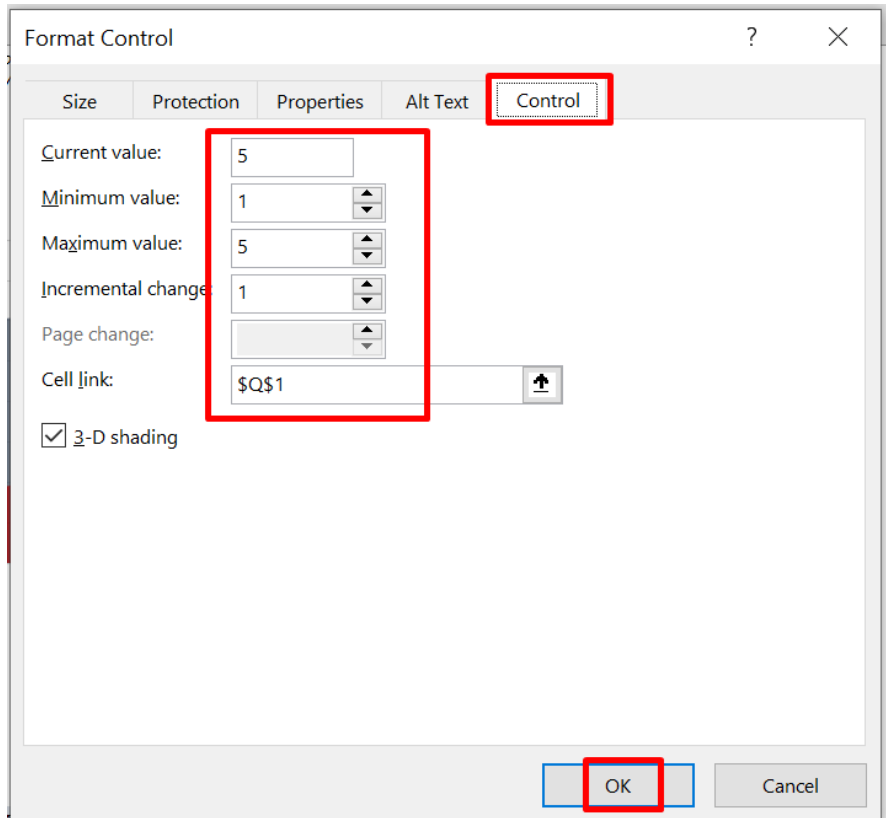
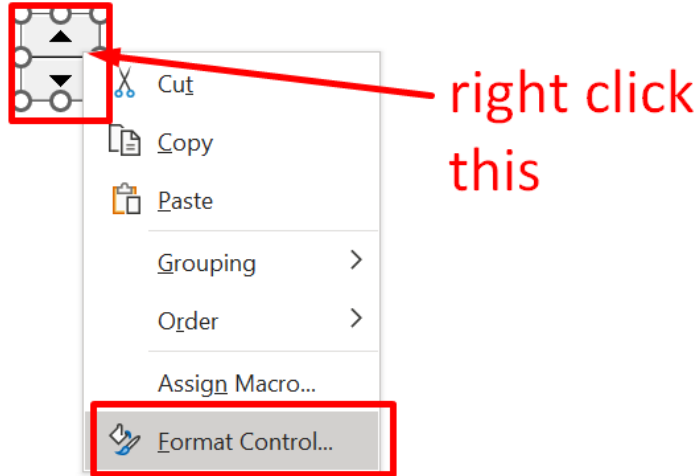
Spinner 2

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
1	Year	Score	Democrats	Republicans	*Inspired by Pew Research Center Political Polarization Study http://www.people-press.org/2014/06/12/section-1-growing-ideological-consistency/#interactive															
2	1994	LIBERAL	4	0																
3	1994	2	11	1																
4	1994	3	12	2																
5	1994	4	25	10																
6	1994	5	29	11																
7	1994	6	49	20																
8	1994	7	53	23																
9	1994	8	63	37																
10	1994	9	67	40																
11	1994	10	70	54																
12	1994	MIXED	69	58																
13	1994	12	68	60																
14	1994	13	58	65																
15	1994	14	50	65																
16	1994	15	34	64																
17	1994	16	31	60																
18	1994	17	16	46																
19	1994	18	14	43																
20	1994	19	7	36																
21	1994	20	4	30																
22	1994	CONSERVATIVE	1	10																
23	1999	LIBERAL	9	2																
24	1999	2	20	3																
25	1999	3	23	4																
26	1999	4	38	16																
27	1999	5	45	19																

Select Year: type this in

right click this first in order to drag it around

type this in



`=VLOOKUP(Q1,R1:S5,2,0)`

D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
0	publicans	*Inspired by Pew Research Center Political Polarization Study												1	1994	
1		http://www.people-press.org/2014/06/12/section-1-growing-ideological-consistency/#interactive												2	1999	
2														3	2004	
10	Select Year	1994												4	2011	
11														5	2014	
20																
23																
37																
40																
44																

click this to watch it move

`=VLOOKUP(Q1,R1:S5,2,0)`

C. EXTRACTING A USEFUL TABLE

Q9 fx = $\$G\5

Year	Score	Democrats	Republicans
1994	LIBERAL	4	0
1994	2	11	1
1994	3	12	2
1994	4	25	10
1994	5	29	11
1994	6	49	20
1994	7	53	23
1994	8	63	37
1994	9	67	40
1994	10	70	54
1994	MIXED	69	58
1994	12	68	60
1994	13	58	65
1994	14	50	65
1994	15	34	64
1994	16	31	60
1994	17	16	46
1994	18	14	43
1994	19	7	36
1994	20	4	30
1994	CONSERVATIVE	1	10
1999	LIBERAL	9	2
1999	2	20	3
1999	3	23	4
1999	4	38	16
1999	5	45	19
1999	6	58	30
1999	7	61	36
1999	8	69	56
1999	9	72	57

Inspired by Pew Research Center Political Polarization Study
<http://www.people-press.org/2014/06/12/section-1-growing-ideological-consistency/#interactive>

Select Year: 1994

copy paste this here

copy paste this here

these green cells are locked at \$G\$5

Animating Changes Over Time

S9 fx =SUMIFS(\$C:\$C,\$A:\$A,\$Q9,\$B:\$B,\$R9)

Year	Score	Democrats	Republicans
1994	LIBERAL	4	0
1994	2	11	1
1994	3	12	2
1994	4	25	10
1994	5	29	11
1994	6	49	20
1994	7	53	23
1994	8	63	37
1994	9	67	40
1994	10	70	54
1994	MIXED	69	58
1994	12	68	60
1994	13	58	65
1994	14	50	65
1994	15	34	64
1994	16	31	60
1994	17	16	46
1994	18	14	43
1994	19	7	36
1994	20	4	30
1994	CONSERVATIVE	1	10
1999	LIBERAL	9	2
1999	2	20	3
1999	3	23	4
1999	4	38	16
1999	5	45	19
1999	6	58	30
1999	7	61	36
1999	8	69	56
1999	9	72	57

Inspired by Pew Research Center Political Polarization Study
<http://www.people-press.org/2014/06/12/section-1-growing-ideological-consistency/#interactive>

Select Year: 1994

Year	Score	Democrats	Republicans
1994	LIBERAL	4	0
1994	2	11	1
1994	3	12	2
1994	4	25	10
1994	5	29	11
1994	6	49	20
1994	7	53	23
1994	8	63	37
1994	9	67	40
1994	10	70	54
1994	MIXED	69	58
1994	12	68	60
1994	13	58	65
1994	14	50	65
1994	15	34	64
1994	16	31	60
1994	17	16	46
1994	18	14	43
1994	19	7	36
1994	20	4	30
1994	CONSERVATIVE	1	10

Animating Changes Over Time

=SUMIFS(\$C:\$C,\$A:\$A,\$Q9,\$B:\$B,\$R9)

T9 fx =SUMIFS(\$D:\$D,\$A:\$A,\$Q9,\$B:\$B,\$R9)

Year	Score	Democrats	Republicans
1994	LIBERAL	4	0
1994	2	11	1
1994	3	12	2
1994	4	25	10
1994	5	29	11
1994	6	49	20
1994	7	53	23
1994	8	63	37
1994	9	67	40
1994	10	70	54
1994	MIXED	69	58
1994	12	68	60
1994	13	58	65
1994	14	50	65
1994	15	34	64
1994	16	31	60
1994	17	16	46
1994	18	14	43
1994	19	7	36
1994	20	4	30
1994	CONSERVATIVE	1	10
1999	LIBERAL	9	2
1999	2	20	3
1999	3	23	4
1999	4	38	16
1999	5	45	19
1999	6	58	30
1999	7	61	36
1999	8	69	56
1999	9	72	57

Inspired by Pew Research Center Political Polarization Study
<http://www.people-press.org/2014/06/12/section-1-growing-ideological-consistency/#!/year/1994>

Select Year: 1994

Year	Score	Democrats	Republicans
1994	LIBERAL	4	0
1994	2	11	1
1994	3	12	2
1994	4	25	10
1994	5	29	11
1994	6	49	20
1994	7	53	23
1994	8	63	37
1994	9	67	40
1994	10	70	54
1994	MIXED	69	58
1994	12	68	60
1994	13	58	65
1994	14	50	65
1994	15	34	64
1994	16	31	60
1994	17	16	46
1994	18	14	43
1994	19	7	36
1994	20	4	30
1994	CONSERVATIVE	1	10

Animating Changes Over Time

double click this to drag all the values down

=SUMIFS(\$D:\$D,\$A:\$A,\$Q9,\$B:\$B,\$R9)

D. INSERTING AN AREA CHART

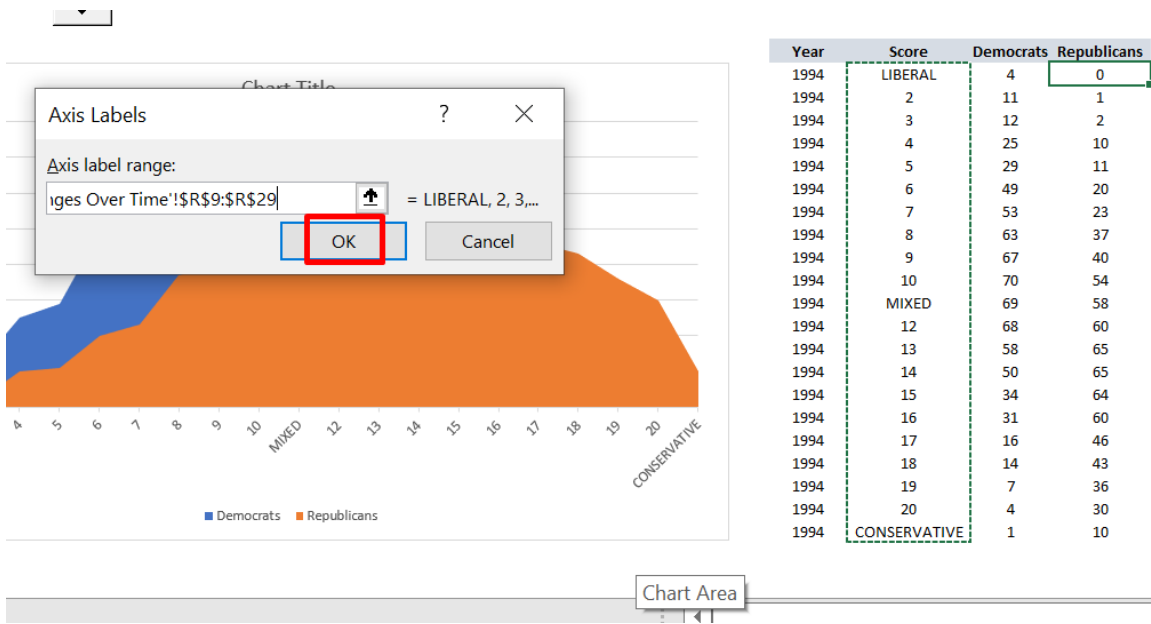
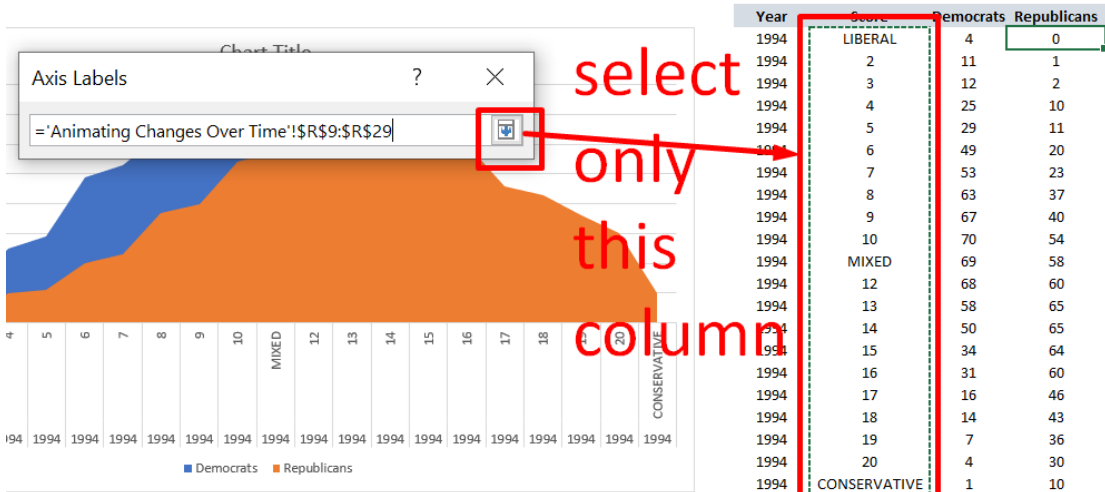
click anywhere inside to begin inserting chart

Year	Score	Democrats	Republicans
1994	LIBERAL	4	9
1994	2	11	1
1994	3	12	2
1994	4	25	10
1994	5	29	11
1994	6	49	20
1994	7	53	23
1994	8	63	37
1994	9	67	40
1994	10	70	54
1994	MIXED	69	58
1994	12	68	60
1994	13	58	65
1994	14	50	65
1994	15	34	64
1994	16	31	60
1994	17	16	46
1994	18	14	43
1994	19	7	36
1994	20	4	30
1994	CONSERVATIVE	1	10

select anywhere inside this chart

we want to remove this years

Year	Score	Democrats	Republicans
1994	LIBERAL	4	9
1994	2	11	1
1994	3	12	2
1994	4	25	10
1994	5	29	11
1994	6	49	20
1994	7	53	23
1994	8	63	37
1994	9	67	40
1994	10	70	54
1994	MIXED	69	58
1994	12	68	60
1994	13	58	65
1994	14	50	65
1994	15	34	64
1994	16	31	60
1994	17	16	46
1994	18	14	43
1994	19	7	36
1994	20	4	30
1994	CONSERVATIVE	1	10



Animating Changes Over Time - Excel

Chart Styles

Chart Title

Select Year: 1994

in order to rotate this axis words, just drag and shift the diagram

Horizontal (Category) Axis Labels

Legend Entries (Series)

- Democrats
- Republicans

Horizontal (Category) Axis Labels

- LIBERAL
- 2
- 3
- 4
- 5

OK

Cancel

Chart data range: ='Animating Changes Over Time'!\$R\$8:\$T\$29

Switch Row/Column

Hidden and Empty Cells

1994	LIBERAL	4	0
1994	2	11	1
1994	3	12	2
1994	4	25	10
1994	5	29	11
1994	6	49	20
1994	7	53	23
1994	8	63	37
1994	9	67	40
1994	10	70	54
1994	MIXED	69	58
1994	12	68	60
1994	13	58	65
1994	14	50	65
1994	15	34	64
1994	16	31	60
1994	17	16	46
1994	18	14	43
1994	19	7	36
1994	20	4	30
1994	CONSERVATIVE	1	10

=SERIES('Animating Changes Over Time'!\$T\$8,'Animating Changes Over Time'!\$R\$9:\$R\$29,'Animating Changes Over Time'!\$T\$9:\$T\$29,2)

Format Data Series

Series Options

Fill

- No fill
- Solid fill**
- Gradient fill
- Picture or texture fill
- Pattern fill
- Automatic

Color

Transparency 50%

Border

delete this away

right click anywhere inside the chart

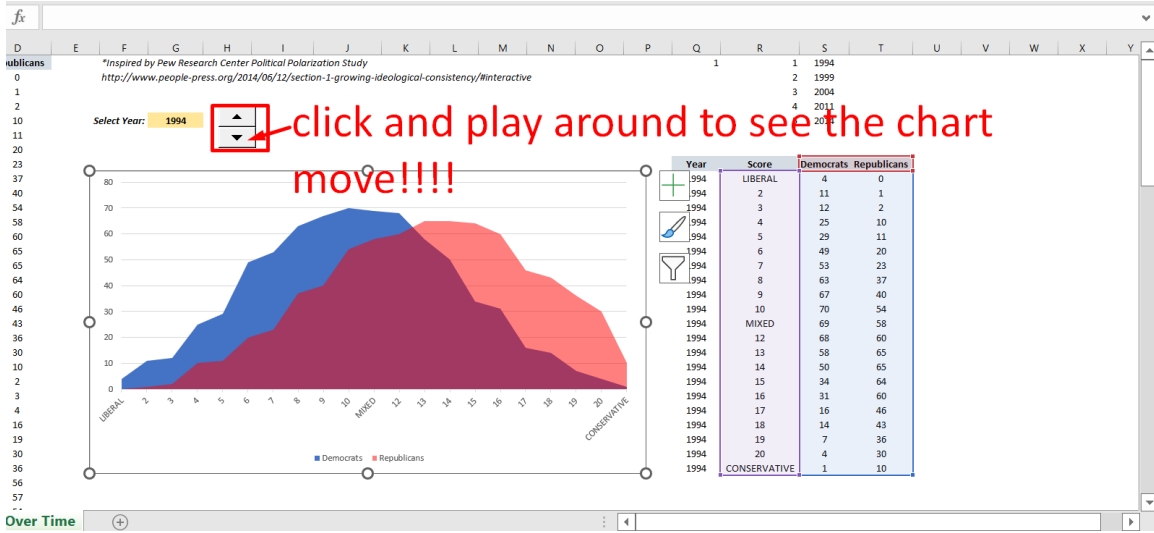
Chart Title

Format Data Series...

Series "Republi"

Fill

Outline



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.