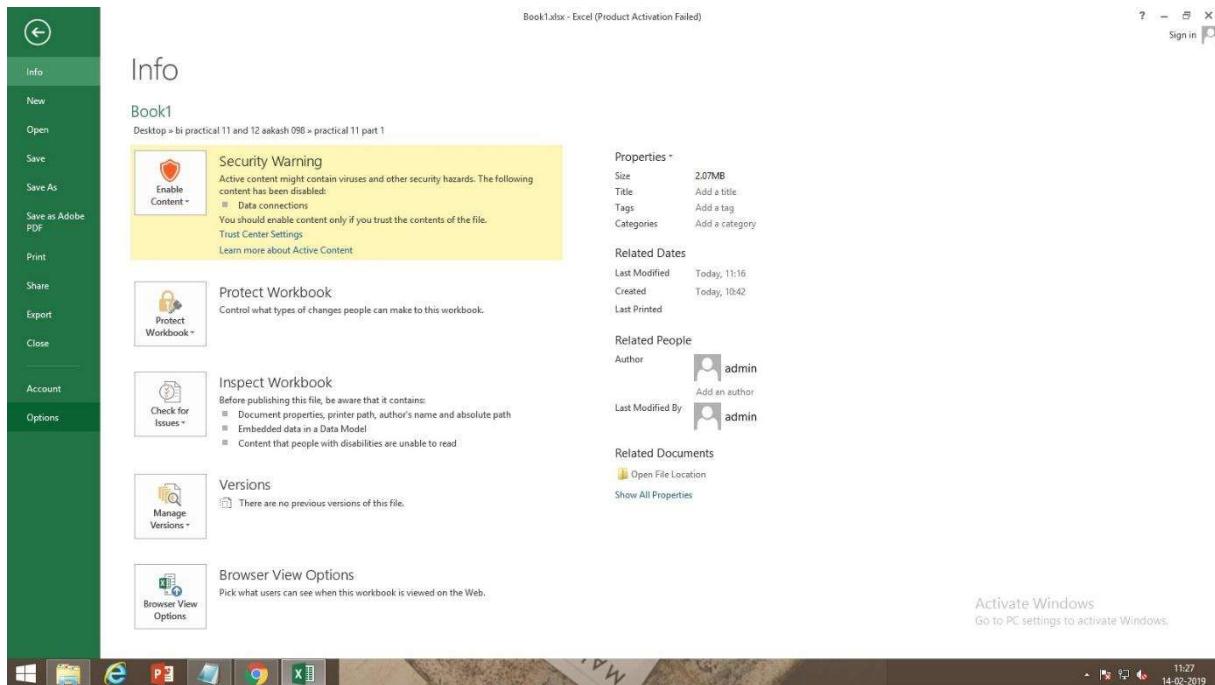


Practical 5(B): Import the cube in Microsoft Excel and create the Pivot table and Pivot Chart to perform data analysis.

Step 1: Go to FILE > Options > Add-Ins.

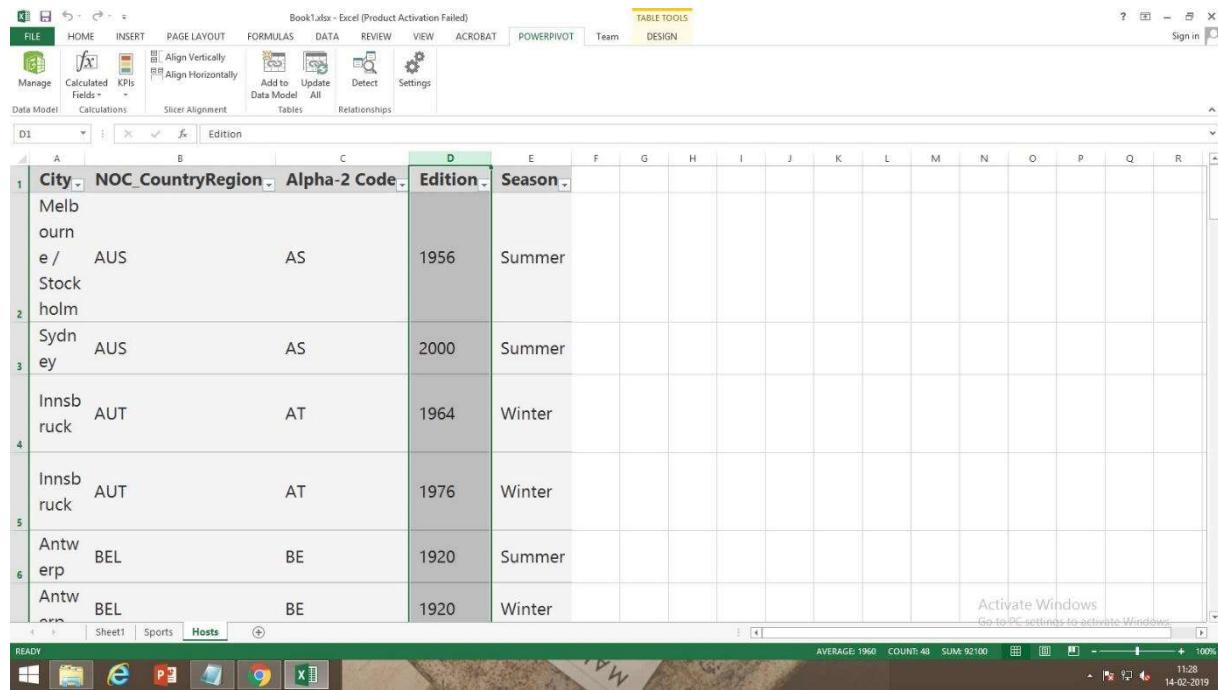


Step 2: In the Manage box near the bottom, click COM Add-ins > Go

Step 3: Check the Microsoft Office Power Pivot in Microsoft Excel 2013 box, and then click OK.

Step 4: The following data is displayed.

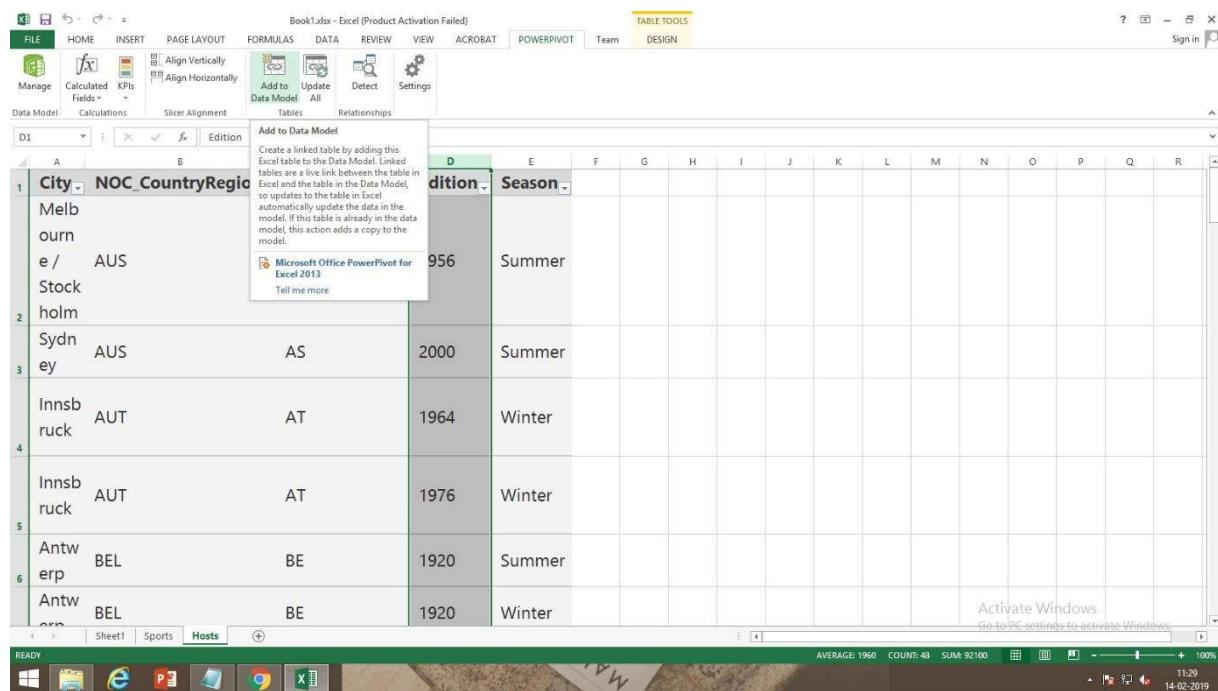
Step 5: The Excel workbook includes a table called Hosts. We imported Hosts by copying it and pasting it into Excel, then formatted the data as a table.



	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
1	City	NOC	CountryRegion	Alpha-2 Code	Edition	Season												
2	Melbourne	e / Stock	AUS	AS	1956	Summer												
3	Sydney	ey	AUS	AS	2000	Summer												
4	Innsbruck		AUT	AT	1964	Winter												
5	Innsbruck		AUT	AT	1976	Winter												
6	Antwerp	Antwerp	BEL	BE	1920	Summer												
			BEL	BE	1920	Winter												

Step 6: In Excel, click the Hosts tab to make it the active sheet.

On the ribbon, select POWER PIVOT > Tables > Add to Data Model. This step adds the Hosts table to the Data Model.



	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
1	City	NOC	CountryRegion	Edition	Season													
2	Melbourne	e / Stock	AUS	1956	Summer													
3	Sydney	ey	AUS	2000	Summer													
4	Innsbruck		AUT	1964	Winter													
5	Innsbruck		AUT	1976	Winter													
6	Antwerp	Antwerp	BEL	1920	Summer													
			BEL	1920	Winter													

Step 7: the Power Pivot window shows all the tables in the model, including Hosts. Click through a couple of tables. In Power Pivot you can view all of the data that your model contains, even if they aren't displayed in any worksheets in Excel, such as the Disciplines, Events, and Medals data below, as well as S\_Teams, W\_Teams, and Sports.

The screenshot shows the Power Pivot window for Excel, titled "PowerPivot for Excel - Book1.xlsx". The ribbon at the top has "Table Tools" selected. The main area displays a table named "Hosts" with the following data:

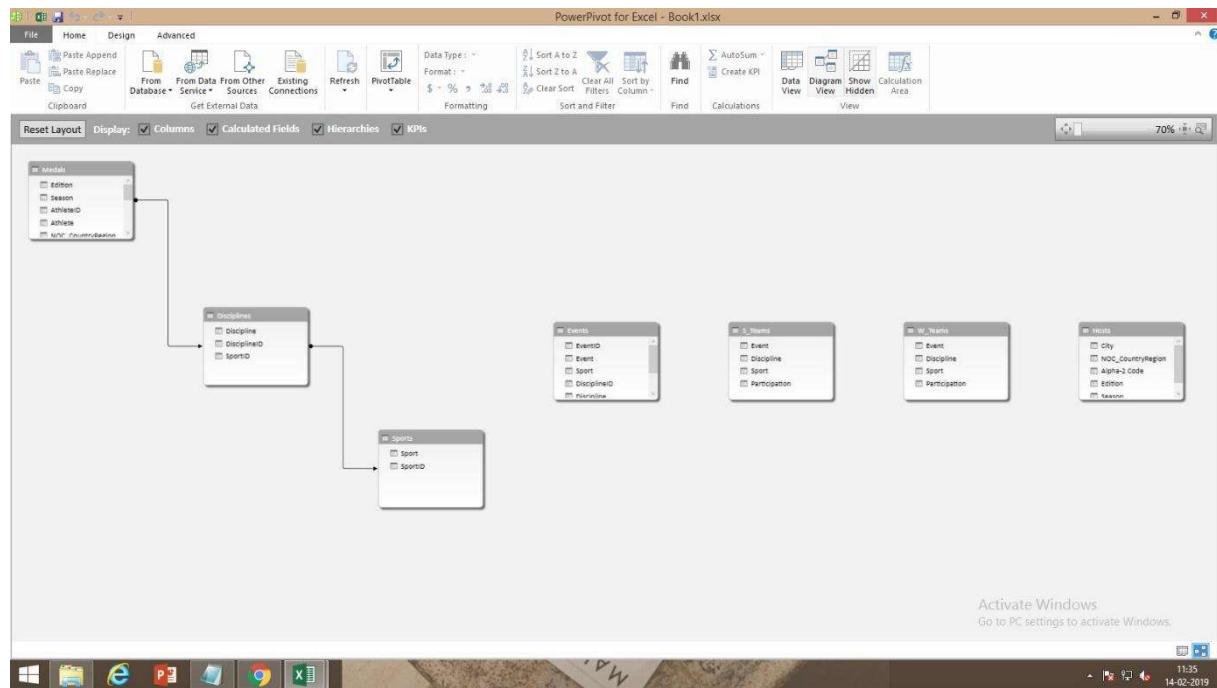
City	NOC_CountryRegion	Alpha-2 Code	Edition	Season
Melb...	AUS	AS	1956	Summer
Sydney	AUS	AS	2000	Summer
Innsbr...	AUT	AT	1964	Winter
Innsbr...	AUT	AT	1976	Winter
Antw...	BEL	BE	1920	Summer
Antw...	BEL	BE	1920	Winter
Mont...	CAN	CA	1976	Summer
Lake P...	CAN	CA	1980	Winter
Calgary	CAN	CA	1988	Winter
St. Mo...	SUI	SZ	1928	Winter
St. Mo...	SUI	SZ	1948	Winter
Beijing	CHN	CH	2008	Summer
Berlin	GER	GM	1936	Summer
Garmi...	GER	GM	1936	Winter
Barcel...	ESP	SP	1992	Summer
Helsinki	FIN	FI	1952	Summer
Paris	FRA	FR	1900	Summer
Paris	FRA	FR	1924	Summer
Cham...	FRA	FR	1924	Winter
Greno...	FRA	FR	1968	Winter
Albert...	FRA	FR	1992	Winter
London	GBR	UK	1908	Summer
London	GBR	UK	1908	Winter
London	GBR	UK	1948	Summer

Below the table, there are tabs for Disciplines, Events, Medals, S\_Teams, W\_Teams, Sports, and Hosts. The "Hosts" tab is selected. The status bar at the bottom shows "Record: 1 of 47".

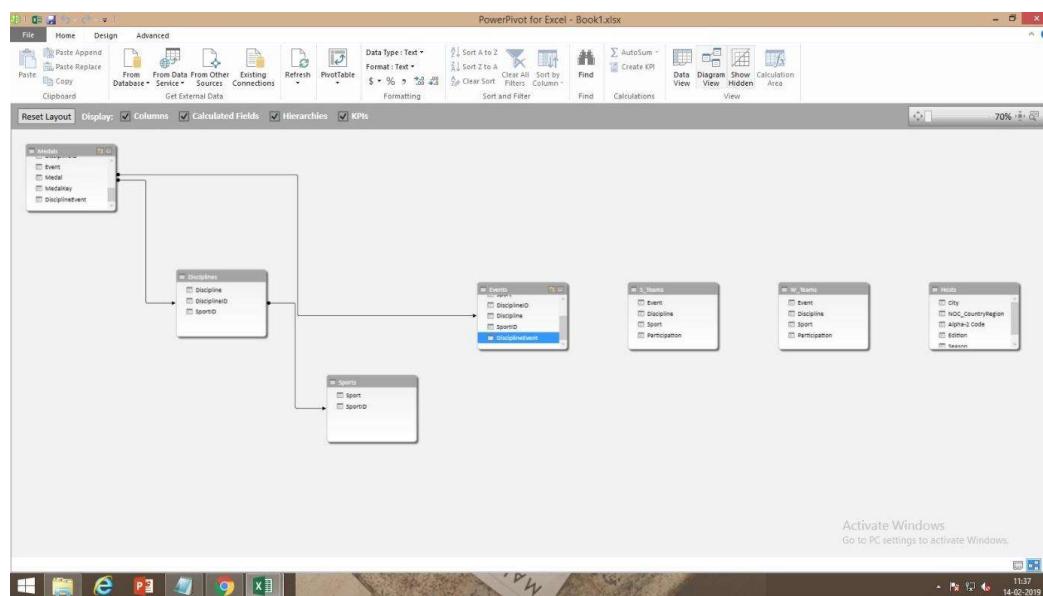
Step 8: In the Power Pivot window, in the View section, click Diagram View.

The screenshot shows the Power Pivot window for Excel, titled "PowerPivot for Excel - Book1.xlsx". The ribbon at the top has "Table Tools" selected. A callout bubble points to the "Diagram View" button in the "View" section of the ribbon. The main area displays the same "Hosts" table data as the previous screenshot. The status bar at the bottom shows "Record: 1 of 47".

Step 9: Use the slide bar to resize the diagram so that you can see all objects in the diagram. Rearrange the tables by dragging their title bar, so they're visible and positioned next to one another. Notice that four tables are unrelated to the rest of the tables: Hosts, Events, W\_Teams, and S\_Teams.

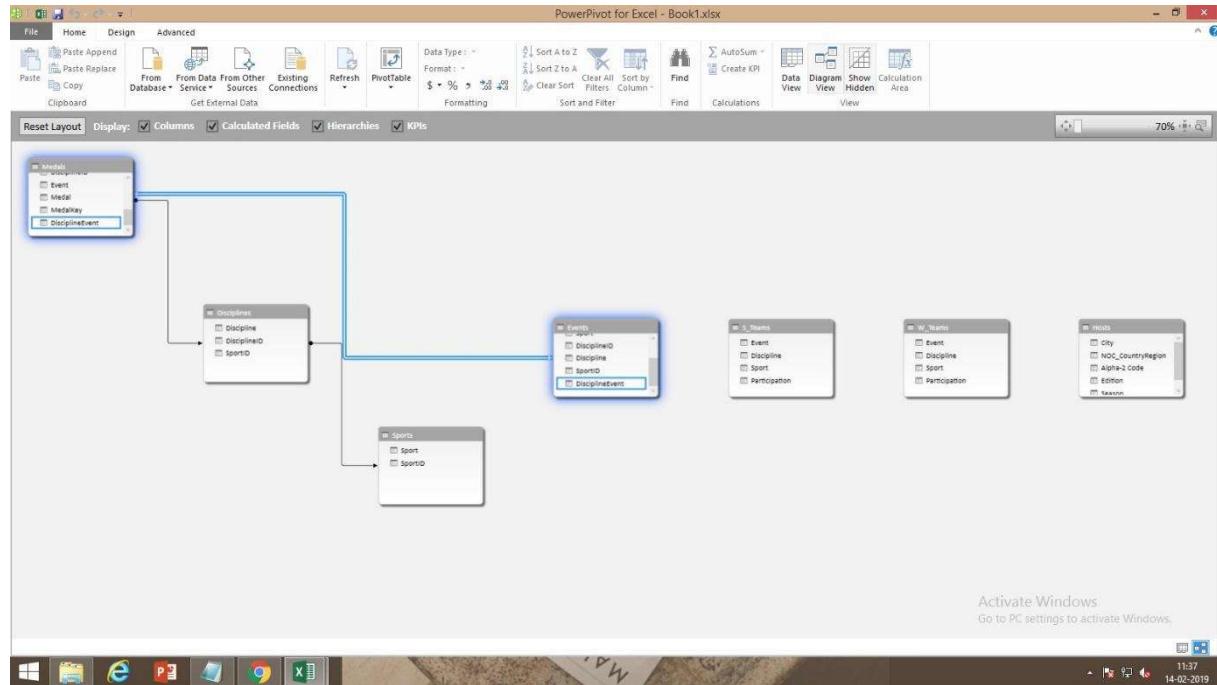


Step 10: Notice that both the Medals table and the Events table have a field called DisciplineEvent. Upon further inspection, you determine that the DisciplineEvent field in the Events table consists of unique, non-repeated values.

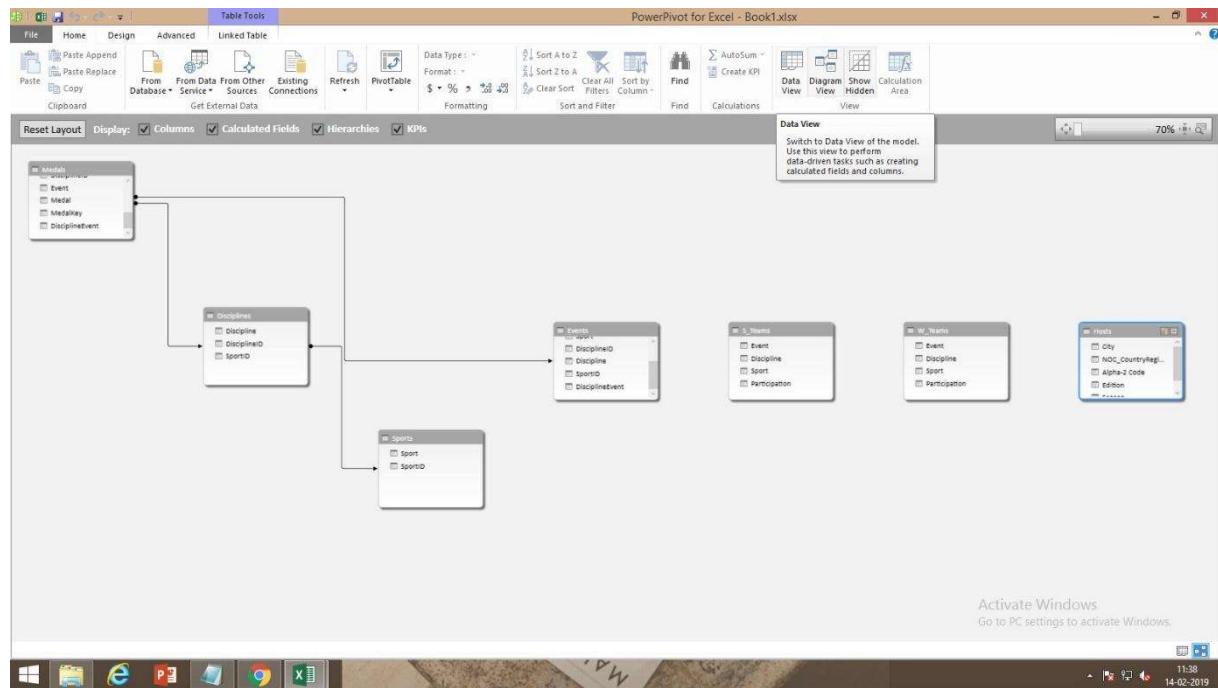


Step 11: Create a relationship between the Medals table and the Events table. While in Diagram View, drag the DisciplineEvent field from the Events table to the DisciplineEvent field in Medals. A line appears between them, indicating a relationship has been established.

Click the line that connects Events and Medals. The highlighted fields define the relationship, as shown in the following screen.



Step 12: To connect Hosts to the Data Model, we need a field with values that uniquely identify each row in the Hosts table. Then we can search our Data Model to see if that same data exists in another table. Looking in Diagram View doesn't allow us to do this. With Hosts selected, switch back to Data View.



Step 13: The following screen appears.

City	NOC_CountryRegion	Alpha-2 Code	Edition	Season	Add Column
Melb...	AUS	AS	1956	Summer	
Sydney	AUS	AS	2000	Summer	
Innsbr...	AUT	AT	1964	Winter	
Innsbr...	AUT	AT	1976	Winter	
Antwerp...	BEL	BE	1920	Summer	
Antwerp...	BEL	BE	1920	Winter	
Montreal...	CAN	CA	1976	Summer	
Lake Pl...	CAN	CA	1980	Winter	
Calgary	CAN	CA	1988	Winter	
St. Moritz	SUI	SZ	1928	Winter	
St. Moritz	SUI	SZ	1948	Winter	
Beijing	CHN	CH	2008	Summer	
Berlin	GER	GM	1936	Summer	
Garmisch...	GER	GM	1936	Winter	
Barcelona	ESP	SP	1992	Summer	
Helsinki	FIN	FI	1952	Summer	
Paris	FRA	FR	1900	Summer	
Paris	FRA	FR	1924	Summer	
Chamonix	FRA	FR	1924	Winter	
Grenoble	FRA	FR	1968	Winter	
Albertville	FRA	FR	1992	Winter	
London	GBR	UK	1908	Summer	
London	GBR	UK	1908	Winter	
London	GBR	UK	1948	Summer	

Step 14: Select the Hosts table in Power Pivot. Adjacent to the existing columns is an empty column titled Add Column. Power Pivot provides that column as a placeholder. There are many ways to add a new column to a table in Power Pivot, one of which is to simply select the empty column that has the title Add Column.

City	NOC_CountryRegion	Alpha-2 Code	Edition	Season	Add Column
Melb...	AUS	AS	1956	Summer	
Sydney	AUS	AS	2000	Summer	
Innsbr...	AUT	AT	1964	Winter	
Innsbr...	AUT	AT	1976	Winter	
Antwerp	BEL	BE	1920	Summer	
Antwerp	BEL	BE	1920	Winter	
Montreal	CAN	CA	1976	Summer	
Lake Pl...	CAN	CA	1980	Winter	
Calgary	CAN	CA	1988	Winter	
St. Mo...	SUI	SZ	1928	Winter	
St. Mo...	SUI	SZ	1948	Winter	
Beijing	CHN	CH	2008	Summer	
Berlin	GER	GM	1936	Summer	
Garmisch	GER	GM	1936	Winter	
Barcelona	ESP	SP	1992	Summer	
Helsinki	FIN	FI	1952	Summer	
Paris	FRA	FR	1900	Summer	
Paris	FRA	FR	1924	Summer	
Chamonix	FRA	FR	1924	Winter	
Grenoble	FRA	FR	1968	Winter	
Albertville	FRA	FR	1992	Winter	
London	GBR	UK	1908	Summer	
London	GBR	UK	1908	Winter	
London	GBR	UK	1948	Summer	

Step 15: In the formula bar, type the following DAX formula.  
“=CONCATENATE([Edition],[Season])”

Step 16: When you finish building the formula, press Enter to accept it. Values are populated for all the rows in the calculated column.

The screenshot shows a Microsoft Excel window titled "PowerPivot for Excel - Book1.xlsx". The ribbon is visible at the top with tabs like File, Home, Design, Advanced, and Table Tools. The "Table Tools" tab is selected. A table is displayed with columns: City, NOC\_CountryRegion, Alpha-2 Code, Edition, Season, and CalculatedColumn1. The formula in the CalculatedColumn1 column is =CONCATENATE([Edition],[Season]). The data includes various cities, countries, and editions (e.g., Melbourne, AUS, AS, 1956 Summer, 1956Summer). The status bar at the bottom shows "Record: 1 of 47" and the date "14-02-2019".

Step 17: Let's rename the calculated column to EditionID. You can rename any column by double-clicking it, or by right-clicking the column and choosing Rename Column. When completed, the Hosts table in Power Pivot looks like the following screen.

This screenshot shows the same Excel window after renaming the calculated column. The column header now reads "EditionID" instead of "CalculatedColumn1". The rest of the data and the interface remain the same, including the formula in the cells and the status bar indicating 1 of 47 records.

Step 18: Create a new column in the Medals table, like we did for Hosts. In Power Pivot select the Medals table, and click Design > Columns > Add. Notice that *Add Column* is selected.

The screenshot shows the Microsoft Excel interface with the PowerPivot ribbon at the top. The 'Medals' table is selected in the PowerPivot workspace. The 'Add Column' button is highlighted in the ribbon under the 'Design' tab. The table contains data from various editions of the Winter Olympics, including AthleteID, Athlete, NOC\_CountryRegion, Gender, Event\_gender, Sport, Discipline, Event, Medal, MedalKey, DisciplineEvent, and Edition. The 'Edition' column is currently selected.

Step 19: In the formula bar above the table, type the following DAX formula. “= YEAR([Edition])”

The screenshot shows the Microsoft Excel interface with the PowerPivot ribbon at the top. The 'Medals' table is selected in the PowerPivot workspace. A new calculated column named 'CalculatedColumn1' has been added, and the formula `=YEAR([Edition])` is visible in the formula bar. The table contains data from various editions of the Winter Olympics, including AthleteID, Athlete, NOC\_CountryRegion, Gender, Event\_gender, Sport, Discipline, Event, Medal, MedalKey, DisciplineEvent, and the newly added 'CalculatedColumn1' which contains the year of the edition. The 'Edition' column is currently selected.

Step 20: When you finish building the formula, press Enter. Values are populated for all the rows in the calculated column, based on the formula you entered. Rename the column by right-clicking CalculatedColumn1 and selecting Rename Column. Type Year, and then press Enter.

Year	Season	AthleteID	Athlete	NOC_CountryRegion	Gender	Event_gender	Sport	Discipline	Event	Medal	MedalKey	DisciplineEvent	Year	Add Column
01-01-19...	Winter	A29666		URS	Men	M	Skiing	D18	4x10km ... Gold	M10187	D18x10km relay		1956	
01-01-19...	Winter	A29667		SWE	Men	M	Skiing	D18	4x10km ... Bronze	M10188	D18x10km relay		1956	
01-01-19...	Winter	A29668		FIN	Men	M	Skiing	D18	4x10km ... Silver	M10189	D18x10km relay		1956	
01-01-19...	Winter	A29729		URS	Men	M	Skiing	D18	4x10km ... Bronze	M10319	D18x10km relay		1960	
01-01-19...	Winter	A29730		NOR	Men	M	Skiing	D18	4x10km ... Silver	M10320	D18x10km relay		1960	
01-01-19...	Winter	A29731		FIN	Men	M	Skiing	D18	4x10km ... Gold	M10321	D18x10km relay		1960	
01-01-19...	Winter	A29732		URS	Men	M	Skiing	D18	4x10km ... Bronze	M10322	D18x10km relay		1960	
01-01-19...	Winter	A29733		NOR	Men	M	Skiing	D18	4x10km ... Silver	M10323	D18x10km relay		1960	
01-01-19...	Winter	A29734		FIN	Men	M	Skiing	D18	4x10km ... Gold	M10324	D18x10km relay		1960	
01-01-19...	Winter	A29736		URS	Men	M	Skiing	D18	4x10km ... Bronze	M10326	D18x10km relay		1960	
01-01-19...	Winter	A29737		NOR	Men	M	Skiing	D18	4x10km ... Silver	M10327	D18x10km relay		1960	
01-01-19...	Winter	A29738		FIN	Men	M	Skiing	D18	4x10km ... Gold	M10328	D18x10km relay		1960	
01-01-19...	Winter	A29790		URS	Men	M	Skiing	D18	4x10km ... Bronze	M11192	D18x10km relay		1960	
01-01-19...	Winter	A29791		NOR	Men	M	Skiing	D18	4x10km ... Silver	M11193	D18x10km relay		1960	
01-01-19...	Winter	A29792		FIN	Men	M	Skiing	D18	4x10km ... Gold	M11194	D18x10km relay		1960	
01-01-19...	Winter	A29855		URS	Men	M	Skiing	D18	4x10km ... Bronze	M11326	D18x10km relay		1964	
01-01-19...	Winter	A29856		SWE	Men	M	Skiing	D18	4x10km ... Gold	M11327	D18x10km relay		1964	
01-01-19...	Winter	A29857		FIN	Men	M	Skiing	D18	4x10km ... Silver	M11328	D18x10km relay		1964	
01-01-19...	Winter	A29858		URS	Men	M	Skiing	D18	4x10km ... Bronze	M11329	D18x10km relay		1964	
01-01-19...	Winter	A29859		SWE	Men	M	Skiing	D18	4x10km ... Gold	M11330	D18x10km relay		1964	
01-01-19...	Winter	A29860		FIN	Men	M	Skiing	D18	4x10km ... Silver	M11331	D18x10km relay		1964	
01-01-19...	Winter	A29865		URS	Men	M	Skiing	D18	4x10km ... Bronze	M11336	D18x10km relay		1964	
01-01-19...	Winter	A29866		SWE	Men	M	Skiing	D18	4x10km ... Gold	M11337	D18x10km relay		1964	
01-01-19...	Winter	A29867		FIN	Men	M	Skiing	D18	4x10km ... Silver	M11338	D18x10km relay		1964	

Step 21: Create the EditionID calculated column, so select *Add Column*. In the formula bar, type the following DAX formula and press Enter. “=CONCATENATE([Year],[Season])”

Year	Season	AthleteID	Athlete	NOC_CountryRegion	Gender	Event_gender	Sport	Discipline	Event	Medal	MedalKey	DisciplineEvent	Year	EditionID	Add Col
1956	Winter	A29666		URS	Men	M	Skiing	D18	4x10km ... Gold	M10187	D18x10km relay		1956	1956Winter	CalculatedColumn1: (Select All)
1956	Winter	A29667		SWE	Men	M	Skiing	D18	4x10km ... Bronze	M10188	D18x10km relay		1956	1956Winter	
1956	Winter	A29668		FIN	Men	M	Skiing	D18	4x10km ... Silver	M10189	D18x10km relay		1956	1956Winter	
1960	Winter	A29729		URS	Men	M	Skiing	D18	4x10km ... Bronze	M10319	D18x10km relay		1960	1960Winter	
1960	Winter	A29730		NOR	Men	M	Skiing	D18	4x10km ... Silver	M10320	D18x10km relay		1960	1960Winter	
1960	Winter	A29731		FIN	Men	M	Skiing	D18	4x10km ... Gold	M10321	D18x10km relay		1960	1960Winter	
1960	Winter	A29732		URS	Men	M	Skiing	D18	4x10km ... Bronze	M10322	D18x10km relay		1960	1960Winter	
1960	Winter	A29733		NOR	Men	M	Skiing	D18	4x10km ... Silver	M10323	D18x10km relay		1960	1960Winter	
1960	Winter	A29734		FIN	Men	M	Skiing	D18	4x10km ... Gold	M10324	D18x10km relay		1960	1960Winter	
1960	Winter	A29736		URS	Men	M	Skiing	D18	4x10km ... Bronze	M10326	D18x10km relay		1960	1960Winter	
1960	Winter	A29737		NOR	Men	M	Skiing	D18	4x10km ... Silver	M10327	D18x10km relay		1960	1960Winter	
1960	Winter	A29738		FIN	Men	M	Skiing	D18	4x10km ... Gold	M10328	D18x10km relay		1960	1960Winter	
1960	Winter	A29790		URS	Men	M	Skiing	D18	4x10km ... Bronze	M11192	D18x10km relay		1960	1960Winter	
1960	Winter	A29791		NOR	Men	M	Skiing	D18	4x10km ... Silver	M11193	D18x10km relay		1960	1960Winter	
1964	Winter	A29792		FIN	Men	M	Skiing	D18	4x10km ... Gold	M11194	D18x10km relay		1964	1964Winter	
1964	Winter	A29855		URS	Men	M	Skiing	D18	4x10km ... Bronze	M11326	D18x10km relay		1964	1964Winter	
1964	Winter	A29856		SWE	Men	M	Skiing	D18	4x10km ... Gold	M11327	D18x10km relay		1964	1964Winter	
1964	Winter	A29857		FIN	Men	M	Skiing	D18	4x10km ... Silver	M11328	D18x10km relay		1964	1964Winter	
1964	Winter	A29858		URS	Men	M	Skiing	D18	4x10km ... Bronze	M11329	D18x10km relay		1964	1964Winter	
1964	Winter	A29859		SWE	Men	M	Skiing	D18	4x10km ... Gold	M11330	D18x10km relay		1964	1964Winter	
1964	Winter	A29860		FIN	Men	M	Skiing	D18	4x10km ... Silver	M11331	D18x10km relay		1964	1964Winter	
1964	Winter	A29865		URS	Men	M	Skiing	D18	4x10km ... Bronze	M11336	D18x10km relay		1964	1964Winter	
1964	Winter	A29866		SWE	Men	M	Skiing	D18	4x10km ... Gold	M11337	D18x10km relay		1964	1964Winter	
1964	Winter	A29867		FIN	Men	M	Skiing	D18	4x10km ... Silver	M11338	D18x10km relay		1964	1964Winter	

**Step 22: Sort the column in ascending order.**

The screenshot shows a Microsoft Excel window with the 'PowerPivot for Excel - Book1.xlsx' file open. The ribbon at the top has the 'Home' tab selected. A context menu is open over the 'Year' column header in the 'Medals' table. The menu path 'EditionID' is highlighted. The visible options in the menu are: Sort A to Z, Sort Z to A, Clear Sort From "EditionID", Clear Filter From "EditionID", Text Filters, (Select All), 1900Summer, 1904Summer, 1905Summer, 1908Winter, 1909Winter, 1912Summer, and 1920Summer. At the bottom right of the menu, there are 'OK' and 'Cancel' buttons.

**Step 23: The Medals table in Power Pivot now looks like the following screen.**

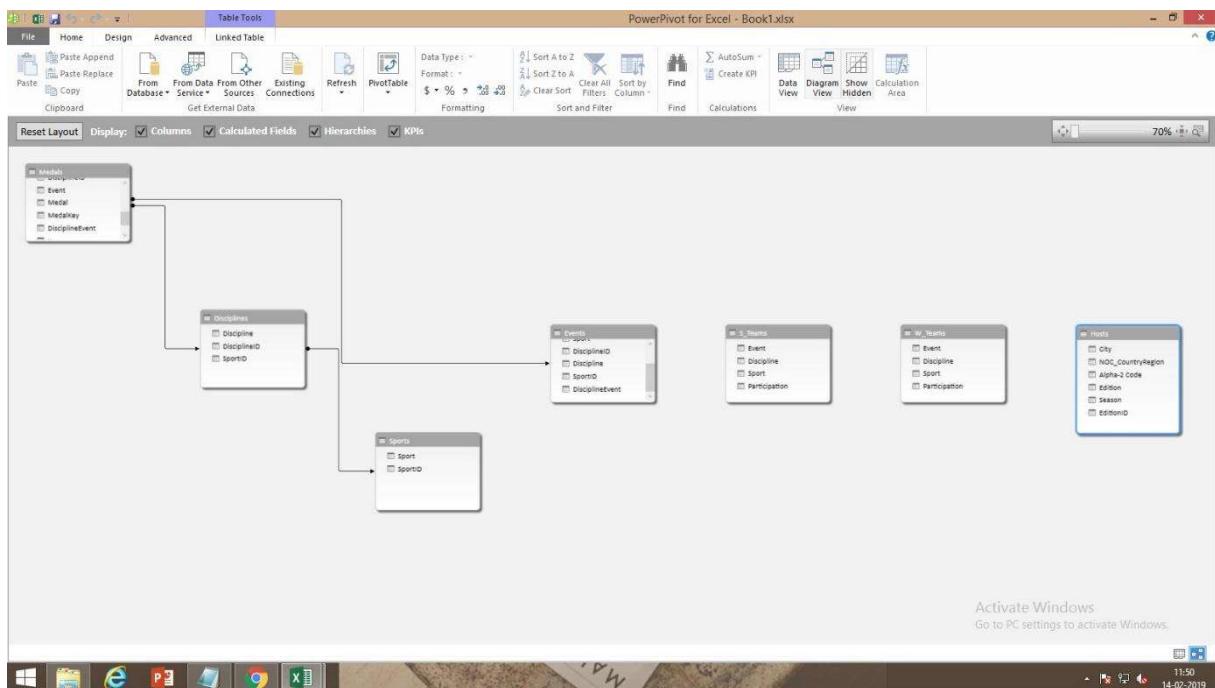
The screenshot shows the same Microsoft Excel window after sorting. The 'Medals' table is now displayed in the 'Medals' view of the PowerPivot ribbon. The 'Year' column is sorted in ascending order, showing values such as 1900, 1900Summer, 1904Summer, 1905Summer, 1908Winter, 1909Winter, 1912Summer, and 1920Summer. The rest of the data in the table remains the same, showing various athletes, sports, and medal counts for each year.

**Step 24: In the Power Pivot window, select Home > View > Diagram View from the ribbon.**

PowerPivot for Excel - Book1.xlsx

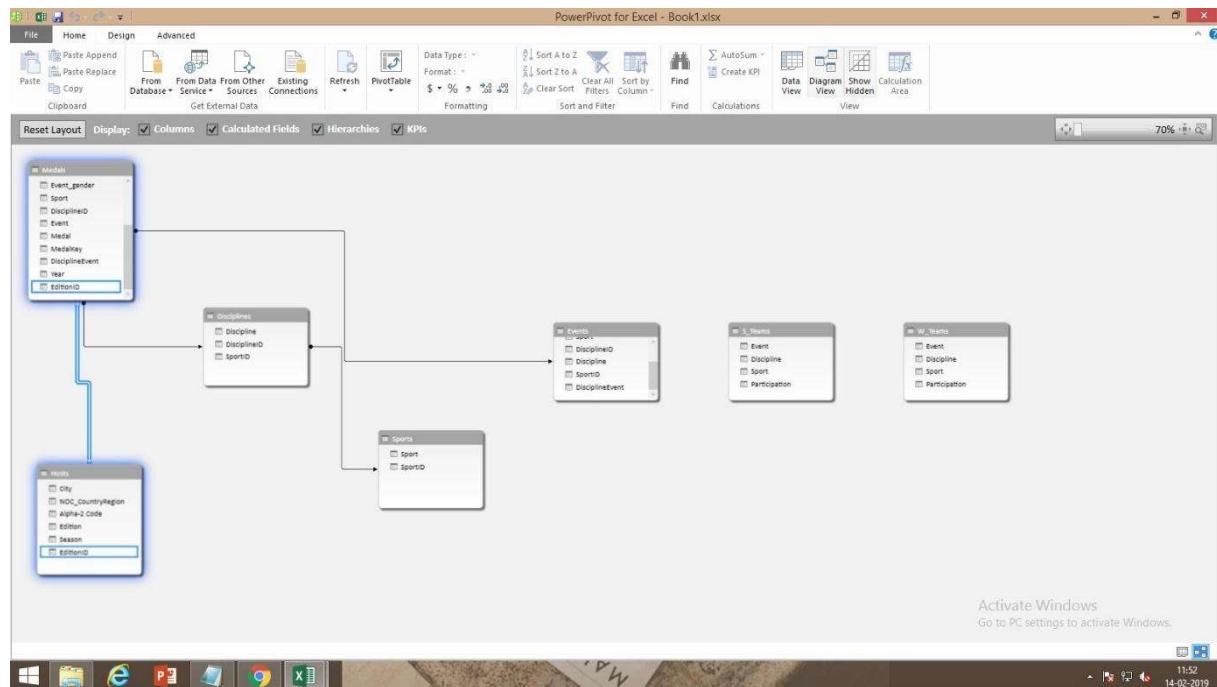
EditionID	Year	Season
Summer	A20428	PREVOST, ... ZZX
Summer	A11647	JONES, M... ZZX
Summer	A21636	ROSENBA... ZZX
Summer	A4527	COOPER, ... GBR
Summer	A4527	COOPER, ... GBR
Summer	A20428	PREVOST, ... FRA
Summer	A21636	ROSENBA... BOH
Summer	A35	ABBOTT, ... USA
Summer	A27800	WHITTIER... USA
Summer	A20402	PRATT, Da... USA
Summer	A11647	JONES, M... USA
Summer	A15626	MAHONY, ... ZZX
Summer	A5902	DOHERTY, ... ZZX
Summer	A27435	WARDEN, ... ZZX
Summer	A5906	DOHERTY, ... GBR
Summer	A5187	DE BELLEG... FRA
Summer	A7984	GARDERE, ... FRA
Summer	A25361	TRISSINO,... ITA
Summer	A25961	TRISSINO,... ITA
Summer	A26428	VAN DE P... BEL
Summer	A26558	VAN LAN... BEL
Summer	A9278	HAEGEMA... BEL
Summer	A26428	VAN DE P... BEL
Summer	A5215	DE CHAM... FRA

Step 25: Expand Hosts so you can view all of its fields.



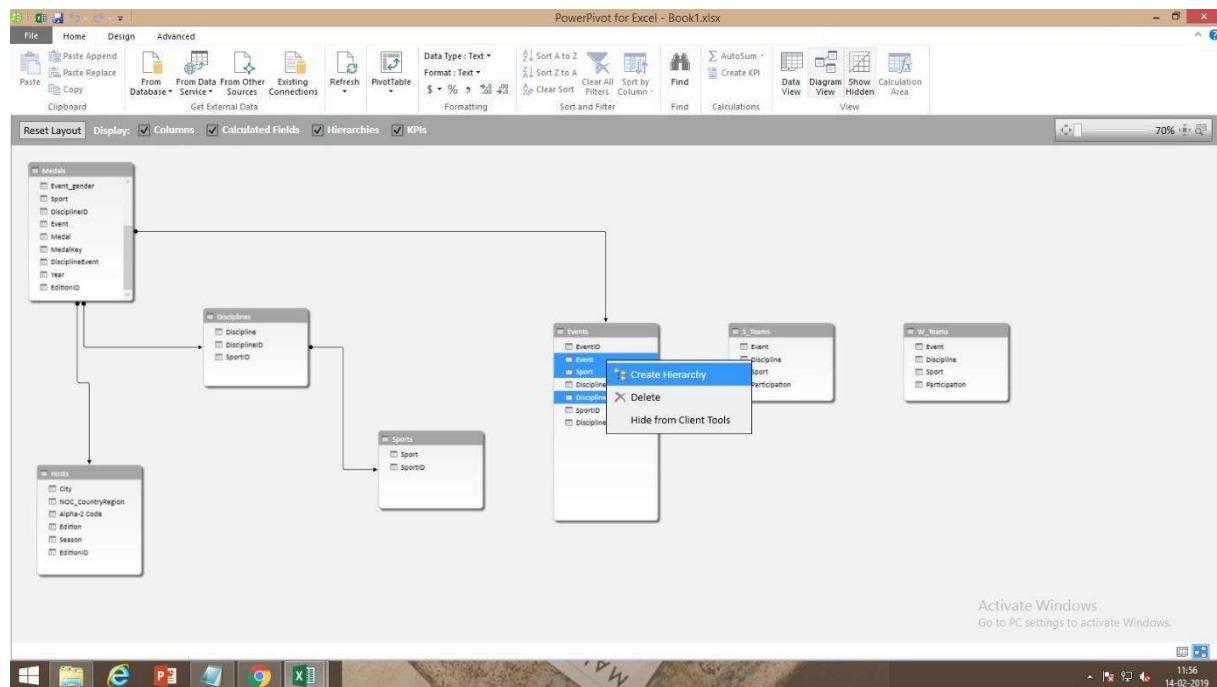
Step 26: Position the Hosts table so that it is next to Medals.

Drag the EditionID column in Medals to the EditionID column in Hosts. Power Pivot creates a relationship between the tables based on the EditionID column, and draws a line between the two columns, indicating the relationship.

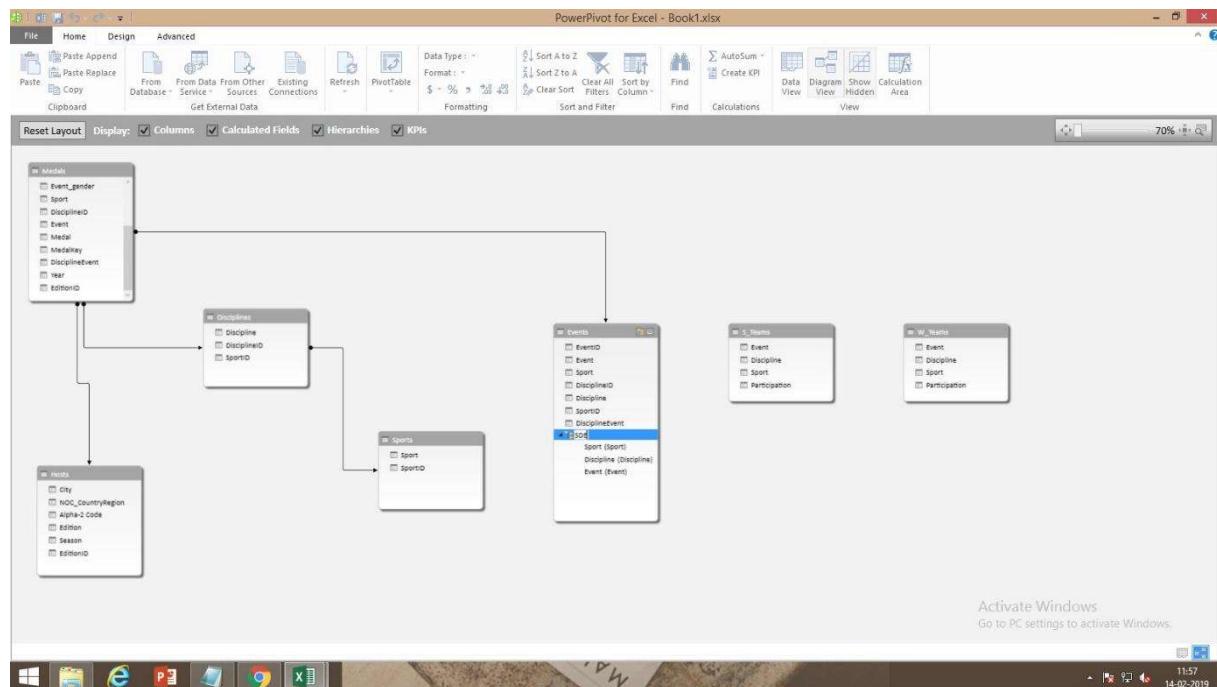


Step 27: Expand the Events table so that you can more easily see all of its fields.

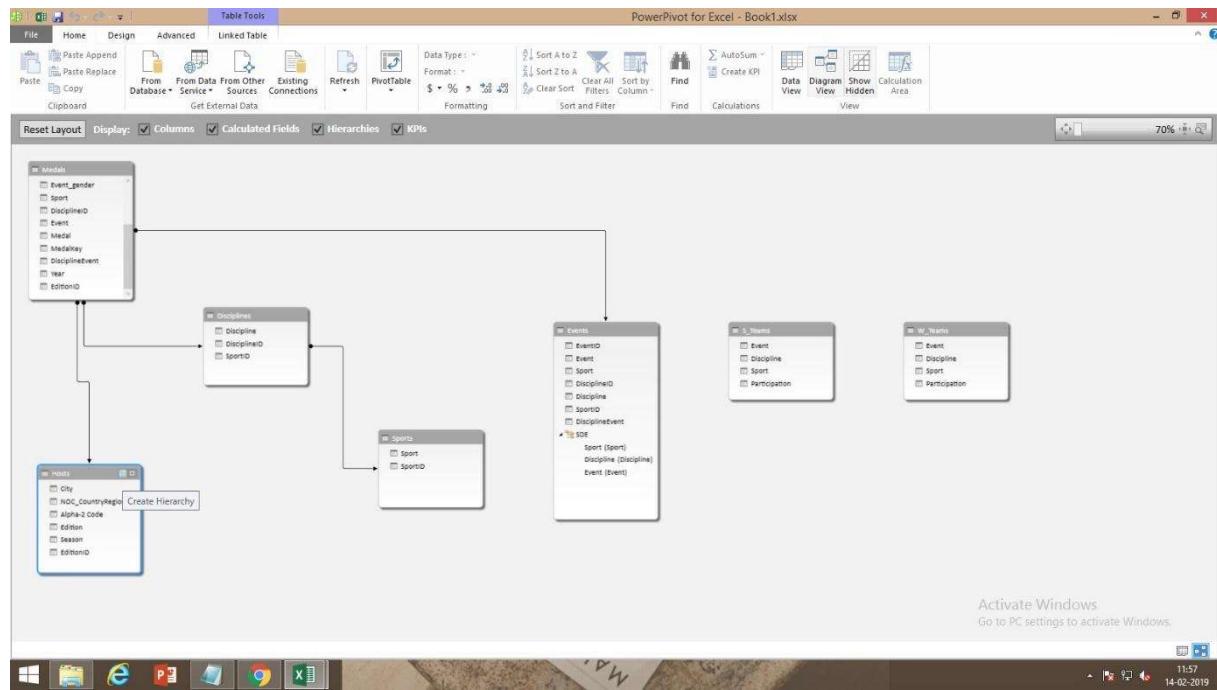
Press and hold Ctrl, and click the Sport, Discipline, and Event fields. With those three fields selected, right-click and select Create Hierarchy.



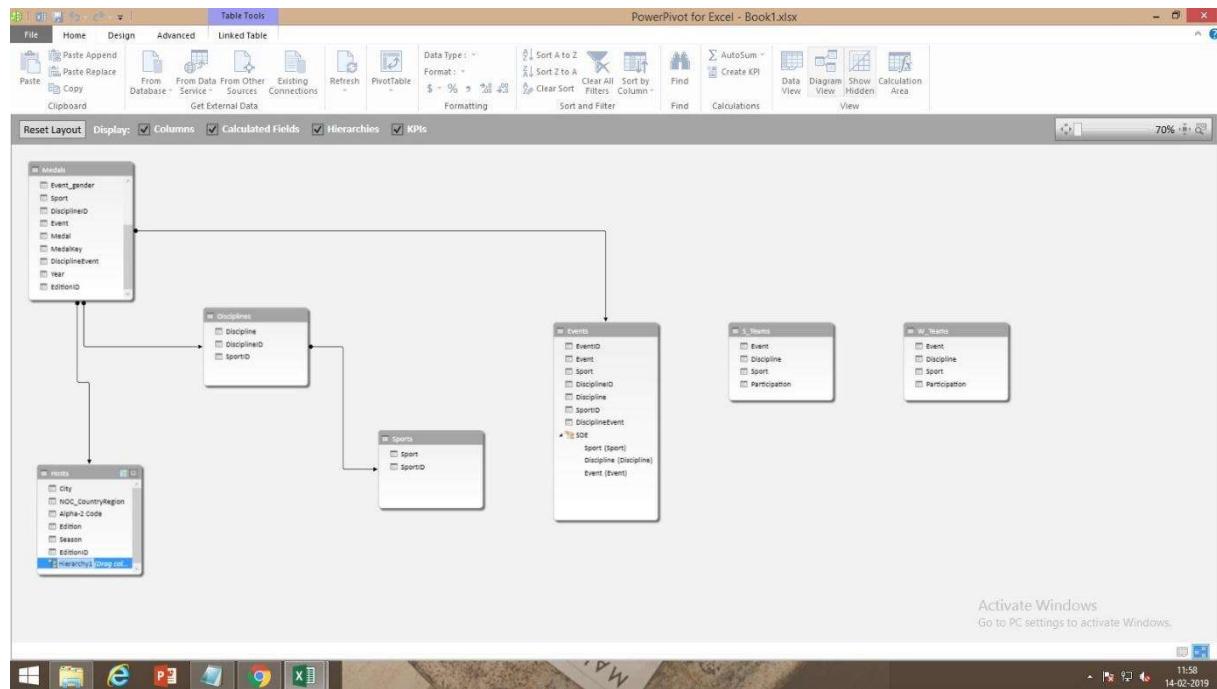
Step 28: A parent hierarchy node, Hierarchy 1, is created at the bottom of the table, and the selected columns are copied under the hierarchy as child nodes. Double-click the title, Hierarchy1, and type SDE to rename your new hierarchy.



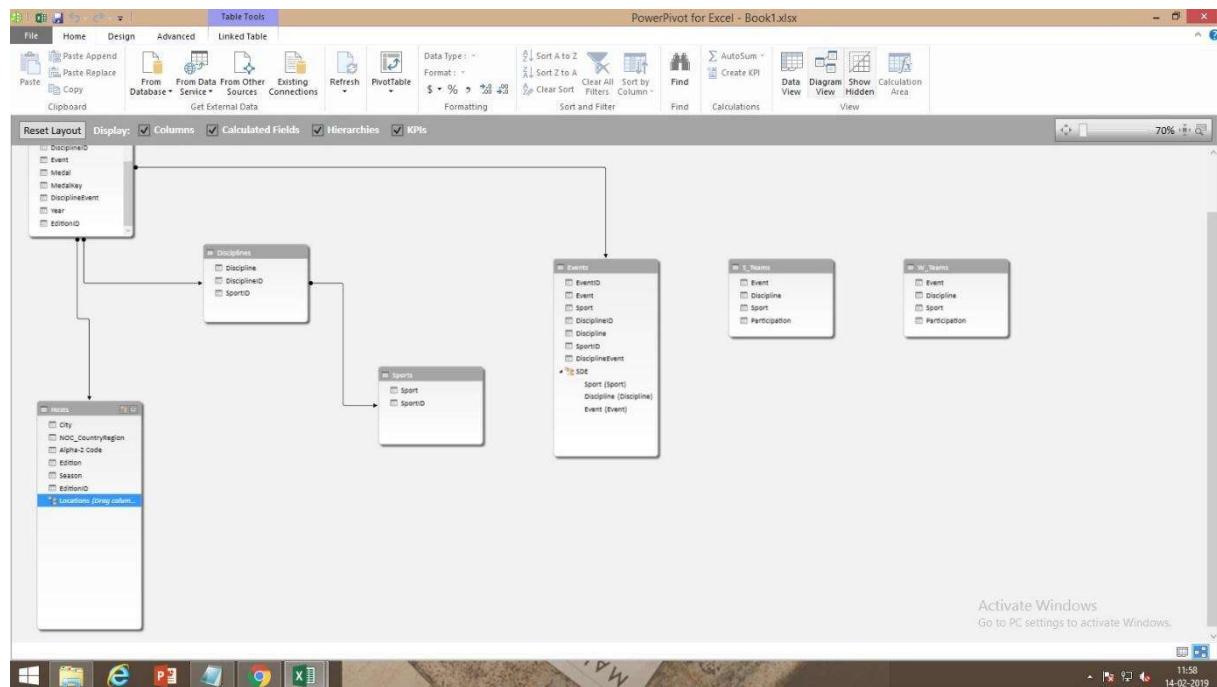
Step 29: Still in Diagram View in Power Pivot, select the Hosts table and click the Create Hierarchy button in the table header.



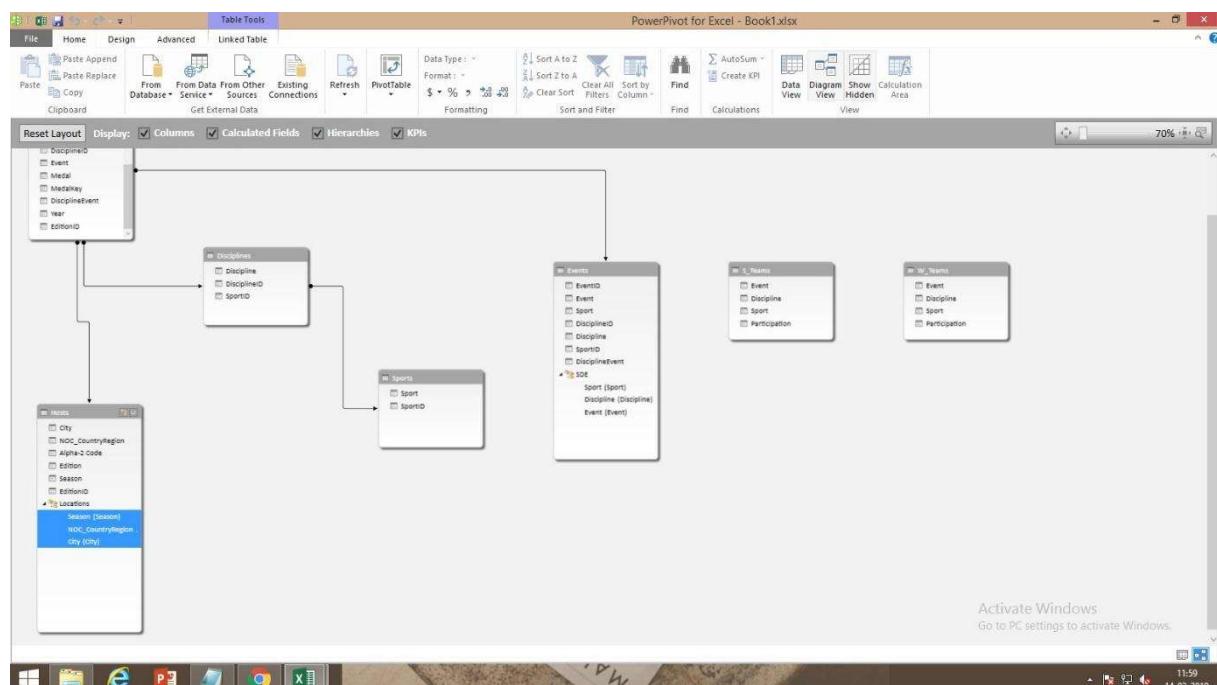
Step 30: An empty hierarchy parent node appears at the bottom of the table.



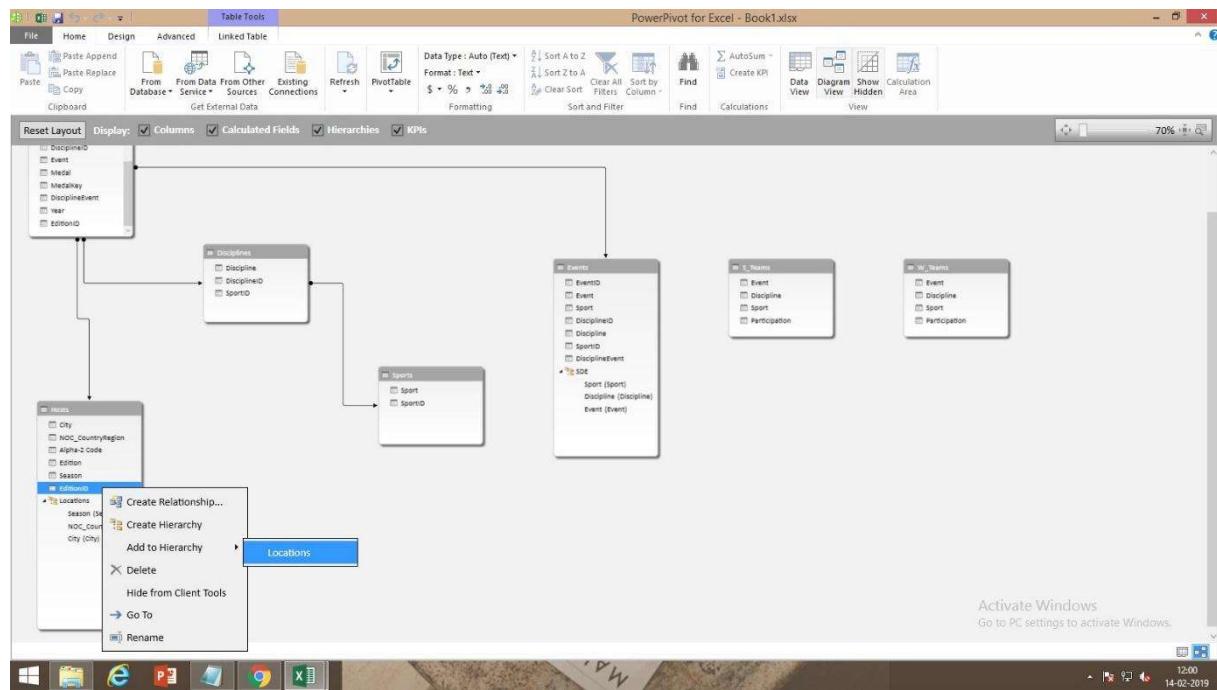
Step 31: Type Locations as the name for your new hierarchy.



Step 32: There are many ways to add columns to a hierarchy. Drag the Season, City and NOC\_CountryRegion fields onto the hierarchy name (in this case, Locations) until the hierarchy name is highlighted, then release to add them.



Step 33: Right-click EditionID and select Add to Hierarchy. Choose Locations



Step 34: Go back to Excel. In Sheet1, remove the fields from the ROWS area of PivotTable Fields.

The screenshot shows an Excel spreadsheet with a PivotTable on 'Sheet1'. The PivotTable Fields pane is open, and the 'Count of Medal' field is being moved from the Rows area to the Values area. The 'PivotTable Fields' pane shows the field being moved to the 'Values' section.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	
1	Medal	All																																	
2																																			
3	Count of Medal	Column Labels	CHN	FRA	GER	HUN	ITA	NED	RUS	URS	USA	Grand Total																							
4	Row Labels	Bel	60	1	24	9	24	14	131			263																							
5	Aquatics		60	1	24	9	24	14	131			263																							
6	Diving		60	1	24	9	24	14	131			263																							
7	Archery		51	15	46	6	12	9	1	7	52	199																							
8	Archery		51	15	46	6	12	9	1	7	52	199																							
9	Fencing		44	19	283	51	226	328	24	41	145	48	1209																						
10	Fencing		44	19	283	51	226	328	24	41	145	48	1209																						
11	Skating		4	26	18	45	12	9	78	37	102	124	455																						
12	Figure skating		3	7	18	11	12	2	3	29	42	51	178																						
13	Speed skating		1	19		34	7	75	8	60	73		277																						
14	Grand Total		99	120	348	126	238	358	111	103	268	355	2126																						

The screenshot shows a Microsoft Excel spreadsheet titled 'Book1.xlsx'. The PivotTable Fields pane is open on the right side, showing fields from the 'Disciplines' and 'Events' categories. A context menu is open over the 'Discipline' field, with the 'Remove Field' option highlighted.

Medal	All	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	
<b>Grand Total</b>		<b>99</b>	<b>120</b>	<b>348</b>	<b>126</b>	<b>238</b>	<b>358</b>	<b>111</b>	<b>103</b>	<b>268</b>	<b>355</b>	<b>2126</b>

Step 35: Remove all the fields from the COLUMNS area.

The screenshot shows the same Microsoft Excel spreadsheet and PivotTable setup as the previous image. The context menu is now displayed over the 'NOC\_Country...' field in the 'COLUMNS' section of the PivotTable Fields pane, with the 'Remove Field' option highlighted.

Medal	All	AUS	AUT	BEL	BLR	BRA	BUL	CAN	CHN	CUB	DEN	ESP	EUA	EUN	FIN	FRA	FRG	GBR	GDR	GER	GRE	HUN	IND	ITA	JAM	JPN	KOR	NED	NOR	NZL	PAK	POL	ROU	RSA	
Count of Medal		239	1079	344	420	98	372	336	827	714	395	483	379	278	266	706	1409	567	1635	985	1427	93	1058	178	1385	102	736	497	860	893	165	121	507	625	97

Step 36: The only remaining fields in the PivotTable fields are Medal in the FILTERS area, and Count of Medal in the VALUES area.

Disciplines	Events
Discipline	SDE
DisciplineID	More Fields
SportID	

Medals
Edition
Season

FILTERS	COLUMNS
Medal	

ROWS	VALUES
	Count of Medal

Step 37: From the PivotTable Fields area, drag SDE from the Events table to the ROWS area.

Disciplines	Events
Discipline	SDE
DisciplineID	More Fields
SportID	

Medals
Edition
Season
AthleteID

FILTERS	COLUMNS
Medal	

ROWS	VALUES
SDE	Count of Medal

Step 38: Then drag Locations from the Hosts table into the COLUMNS area. Just by dragging those two hierarchies, your PivotTable is populated with a lot of data, all of which is arranged in the hierarchy you defined in the previous steps.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC	AD	AE	AF			
1	Medal	All																																	
2																																			
3	Count of Medal	Column Labels																																	
4	Row Labels	Summer	* Winter	Grand Total																															
5	④ Aquatics	3545		3545																															
6	④ Archery	305		305																															
7	④ Athletics	3411		3411																															
8	④ Badminton	120		120																															
9	④ Baseball	335		335																															
10	④ Basketball	940		940																															
11	④ Basque Pelota	4		4																															
12	④ Biathlon	290		290																															
13	④ Bobsleigh	344		344																															
14	④ Boxing	842		842																															
15	④ Canoe / Kayak	1002		1002																															
16	④ Cricket	24		24																															
17	④ Croquet	8		8																															
18	④ Curling	3	18	21																															
19	④ Cycling	1003		1003																															
20	④ Equestrian	675		675																															
21	④ Fencing	1539		1539																															
22	④ Football	1387		1387																															
23	④ Golf	20		20																															
24	④ Gymnastics	2060		2060																															
25	④ Handball	886		886																															
26	④ Hockey	1325		1325																															
27	④ Ice Hockey	596		596																															
28	④ Judo	435		435																															
29	④ Lacrosse	59		59																															
30	④ Luge	139		139																															

Step 39: Let's filter that data a bit, and just see the first ten rows of events. In the PivotTable, click the arrow in Row Labels, click (Select All) to remove all selections, then click the boxes beside the first ten Sports.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC	AD	AE	AF				
1	Medal	All																																		
2																																				
3	Count of Medal	Column Labels																																		
4	Row Labels	Summer	* Winter	Grand Total																																
5	④ Aquatics	3545		3545																																
6	④ Archery	305		305																																
7	④ Athletics	3411		3411																																
8	④ Badminton	120		120																																
9	④ Baseball	335		335																																
10	④ Basketball	940		940																																
11	④ Basque Pelota	4		4																																
12	④ Biathlon	290		290																																
13	④ Bobsleigh	344		344																																
14	④ Boxing	842		842																																
15	④ Canoe / Kayak	1002		1002																																
16	④ Cricket	24		24																																
17	④ Croquet	8		8																																
18	④ Curling	3	18	21																																
19	④ Cycling	1003		1003																																
20	④ Equestrian	675		675																																
21	④ Fencing	1539		1539																																
22	④ Football	1387		1387																																
23	④ Golf	20		20																																
24	④ Gymnastics	2060		2060																																
25	④ Handball	886		886																																
26	④ Hockey	1325		1325																																
27	④ Ice Hockey	596		596																																
28	④ Judo	435		435																																
29	④ Lacrosse	59		59																																
30	④ Luge	139		139																																

Step 40: Your PivotTable now looks like the following screen.

The screenshot shows a Microsoft Excel spreadsheet titled "Book1.xlsx". The PivotTable is located in the range A1:A16. The data includes columns for Medal, Discipline, Sport, and Count of Medal. The PivotTable Fields pane on the right shows fields for Disciplines, Events, Hosts, Locations, Medals, Sports, and S\_Teams. The Filters section shows "Medal" selected under "ROWS". The Values section shows "Count of Medal" selected under "VALUES".

Medal	Count of Medal	SUMMARY	Winter	Grand Total
Aquatics	3545		3545	
Archery	305		305	
Athletics	3411		3411	
Badminton	120		120	
Baseball	335		335	
Basketball	940		940	
Basque Pelota	4		4	
Biathlon	290		290	
Bobsleigh	344		344	
Boxing	842		842	
<b>Grand Total</b>	<b>9502</b>	<b>634</b>	<b>10136</b>	

Step 41: You can expand any of those Sports in the PivotTable, when we expand the Aquatics sport, we see all of its child discipline elements and their data. When we expand the Diving discipline under Aquatics, we see its child events too, as shown in the following screen. We can do the same for Water Polo, and see that it has only one event.

The screenshot shows the same Microsoft Excel spreadsheet with the PivotTable expanded to show more detail. The "Water Polo" row under the "Sports" category is selected in the PivotTable Fields pane. The data now includes detailed information for each discipline within Water Polo, such as "plain high diving", "plunge for distance", and "synchronized diving 10m platform". The PivotTable Fields pane shows "Water Polo" selected under "ROWS".

Medal	Count of Medal	SUMMARY	Winter	Grand Total
Aquatics	3545		3545	
Diving	84		84	
plain high diving	9		9	
plunge for distance	3		3	
synchronized diving 10m platform	36		36	
synchronized diving 3m springboard	36		36	
Swimming	2428		2428	
Synchronized S.	153		153	
Water Polo	880		880	
water polo	880		880	
Archery	305		305	
Athletics	3411		3411	
Badminton	120		120	
Baseball	335		335	
Basketball	940		940	
Basque Pelota	4		4	
Biathlon	290		290	
Bobsleigh	344		344	
Boxing	842		842	
<b>Grand Total</b>	<b>9502</b>	<b>634</b>	<b>10136</b>	

Step 42: In the PivotTable Fields area, remove Locations from the COLUMNS area.

The screenshot shows a Microsoft Excel spreadsheet titled 'Book1.xlsx'. The PivotTable Fields pane is open on the right side. In the 'COLUMNS' section, the 'Locations' field is selected and has a checkmark next to it. A context menu is open over this field, with the 'Remove Field' option highlighted. The main table on the left shows medal counts for various sports.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB
1	Medal	All																										
2																												
3	<b>Count of Medal</b>		<b>Column Labels</b>																									
4	<b>Row Labels</b>		<b>Summarize by</b>																									
5	Aquatics	3545																										
6	Diving	84																										
7	plain high diving	9																										
8	plunge for distance	3																										
9	synchronized diving 10m platform	36																										
10	synchronized diving 3m springboard	36																										
11	Swimming	2428																										
12	Synchronized S.	153																										
13	Water Polo	880																										
14	water polo	880																										
15	Archery	305																										
16	Athletics	3411																										
17	Badminton	120																										
18	Baseball	335																										
19	Basketball	940																										
20	Basque Pelota	4																										
21	Blathlon	290																										
22	Bobsleigh	344																										
23	Boxing	842																										
24	<b>Grand Total</b>	<b>9502</b>	<b>634</b>	<b>10136</b>																								
25																												
26																												
27																												
28																												
29																												
30																												

Step 43: Your PivotTable will have the following screen.

The screenshot shows the same Microsoft Excel spreadsheet as the previous one, but with a different configuration. The 'COLUMNS' section in the PivotTable Fields pane is collapsed. The 'VALUES' section is expanded, showing the field 'Count of Medal' selected. A context menu is open over this field, with the 'Remove Field' option highlighted. The main table on the left shows medal counts for various sports.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB
1	Medal	All																										
2																												
3	<b>Row Labels</b>		<b>Count of Medal</b>																									
4	Aquatics	3545																										
5	Diving	84																										
6	plain high diving	9																										
7	plunge for distance	3																										
8	synchronized diving 10m platform	36																										
9	synchronized diving 3m springboard	36																										
10	Swimming	2428																										
11	Synchronized S.	153																										
12	Water Polo	880																										
13	water polo	880																										
14	Archery	305																										
15	Athletics	3411																										
16	Badminton	120																										
17	Baseball	335																										
18	Basketball	940																										
19	Basque Pelota	4																										
20	Blathlon	290																										
21	Bobsleigh	344																										
22	Boxing	842																										
23	<b>Grand Total</b>	<b>10136</b>																										
24																												
25																												
26																												
27																												
28																												
29																												
30																												

Step 44: Then remove SDE from the ROWS area. You're back to a basic PivotTable.

A screenshot of Microsoft Excel showing a PivotTable named 'Medal' in cell A13. The PivotTable Fields pane on the right shows the following structure:

- ACTIVE | ALL**
- Choose fields to add to report:**
  - Disciplines
  - Events
  - Hosts
    - Locations
    - More Fields
  - Medals
  - Sports
    - Count of Medal
- Move Up**
- Move Down**
- Move to Beginning**
- Move to End**
- Move to Report Filter**
- Move to Row Labels**
- Move to Column Labels**
- Move to Values**
- Remove Field** (highlighted in green)
- Field Settings...**

Step 45: Your PivotTable will have the following screen.

A screenshot of Microsoft Excel showing the same PivotTable setup as before, but with a different configuration. The PivotTable Fields pane now shows:

- ACTIVE | ALL**
- Choose fields to add to report:**
  - Disciplines
  - Events
  - Hosts
    - Locations
    - More Fields
  - Medals
  - Sports
  - VALUES**
    - Count of Medal

Step 46: From the Hosts table, drag Season, City, NOC\_CountryRegion, and EditionID into the COLUMNS area, and arrange them in that order, from top to bottom.

The screenshot shows a Microsoft Excel window with a PivotTable. The PivotTable Fields pane on the right has the following settings:

- ACTIVE | ALL**
- Choose fields to add to report:**
  - City
  - NOC\_CountryRegion
  - Alpha-2 Code
  - Edition
  - Season
  - EditionID
- More Fields** (Medals, Sports)
- Drag fields between areas below:**
  - FILTERS**: Medal
  - COLUMNS**: Season, City, NOC\_CountryRegion, EditionID
  - ROWS**: Count of Medal
  - VALUES**: Count of Medal

Step 47: From the Events table, drag Sport, Discipline, and Event into the ROWS area, and arrange them in that order, from top to bottom.

The screenshot shows a Microsoft Excel window with a PivotTable. The PivotTable Fields pane on the right has the following settings:

- ACTIVE | ALL**
- Choose fields to add to report:**
  - Events
  - SDE
  - More Fields
    - EventID
    - Event
    - Sport
    - DisciplineID
    - Discipline
    - SportID
    - DisciplineEvent
- Drag fields between areas below:**
  - FILTERS**: Medal
  - COLUMNS**: Season, City, NOC\_CountryRegion, EditionID
  - ROWS**: Sport, Discipline, Event
  - VALUES**: Count of Medal

## Step 48: In the PivotTable, filter Row Labels to the top ten Sports.

The screenshot shows a Microsoft Excel spreadsheet titled "Book1.xlsx". The main content is a PivotTable with the following structure:

Row Labels	Column Labels														
	Summer			Antwerp			Athens			Atlanta					
Amsterdam		NED Total		BEL		BEL Total		GRC		GRC Total		USA		USA Total	
1928Summer		1920Summer		2004Summer		2000Summer		1996Summer		1992Summer		1988Summer		1984Summer	
		75	75	75	75	75	75	75	75	75	75	75	75	75	75
Aquatics	Diving	6	6	6	6	6	6	6	6	6	6	6	6	6	6
Swimming	100m backstroke	6	6	6	6	6	6	6	6	6	6	6	6	6	6
Diving	100m butterfly	6	6	6	6	6	6	6	6	6	6	6	6	6	6
Swimming	100m breaststroke	6	6	6	6	6	6	6	6	6	6	6	6	6	6
Diving	100m individual medley	6	6	6	6	6	6	6	6	6	6	6	6	6	6
Swimming	100m freestyle	6	6	6	6	6	6	6	6	6	6	6	6	6	6
Diving	100m backstroke	6	6	6	6	6	6	6	6	6	6	6	6	6	6
Swimming	100m butterfly	6	6	6	6	6	6	6	6	6	6	6	6	6	6
Diving	100m breaststroke	6	6	6	6	6	6	6	6	6	6	6	6	6	6
Swimming	100m individual medley	6	6	6	6	6	6	6	6	6	6	6	6	6	6
Diving	200m butterfly	6	6	6	6	6	6	6	6	6	6	6	6	6	6
Swimming	200m backstroke	6	6	6	6	6	6	6	6	6	6	6	6	6	6
Diving	200m breaststroke	6	6	6	6	6	6	6	6	6	6	6	6	6	6
Swimming	200m individual medley	6	6	6	6	6	6	6	6	6	6	6	6	6	6
Diving	400m butterfly	6	6	6	6	6	6	6	6	6	6	6	6	6	6
Swimming	400m backstroke	6	6	6	6	6	6	6	6	6	6	6	6	6	6
Diving	400m breaststroke	6	6	6	6	6	6	6	6	6	6	6	6	6	6
Swimming	400m individual medley	6	6	6	6	6	6	6	6	6	6	6	6	6	6

The PivotTable Fields pane on the right shows the following fields assigned to columns and rows:

- COLUMNS: Medal, Season, City, NOC\_Cou..., EditionID
- ROWS: Sport, Discipline, Event
- VALUES: Count of Medal

## Step 49: Collapse all the rows and columns

The screenshot shows the same Microsoft Excel spreadsheet as the previous one, but with the 'Sport' column collapsed. The 'Sport' column header is now empty, and the data cells in the 'Sport' column are also empty. A tooltip is displayed over the cell containing 'Count of Medal' for the '100m breaststroke' row, indicating that the value is 'No value'.

The PivotTable structure remains the same as in Step 48, with the same data and field assignments in the PivotTable Fields pane.

Step 50: Expand Aquatics, then Diving and Water Polo . Your workbook looks like the following screen.

The screenshot shows a Microsoft Excel spreadsheet titled "Book1.xlsx - Excel (Product Activation Failed)". The PivotTable Fields pane on the right is open, showing the following fields:

- ACTIVE | ALL**
- Events**: EventID (unchecked), SDE (unchecked)
- More Fields**: Event (checked), Sport (checked), DisciplineID (unchecked), Discipline (checked), SportID (unchecked), DisciplineEvent (unchecked)
- FILTERS**: Medal (dropdown), Season (dropdown), City (dropdown), NOC\_Cou... (dropdown), EditionID (dropdown)
- ROWS**: Sport (dropdown), Discipline (dropdown), Event (dropdown)
- VALUES**: Count of Medal (dropdown)

The main PivotTable data area shows the following summary data:

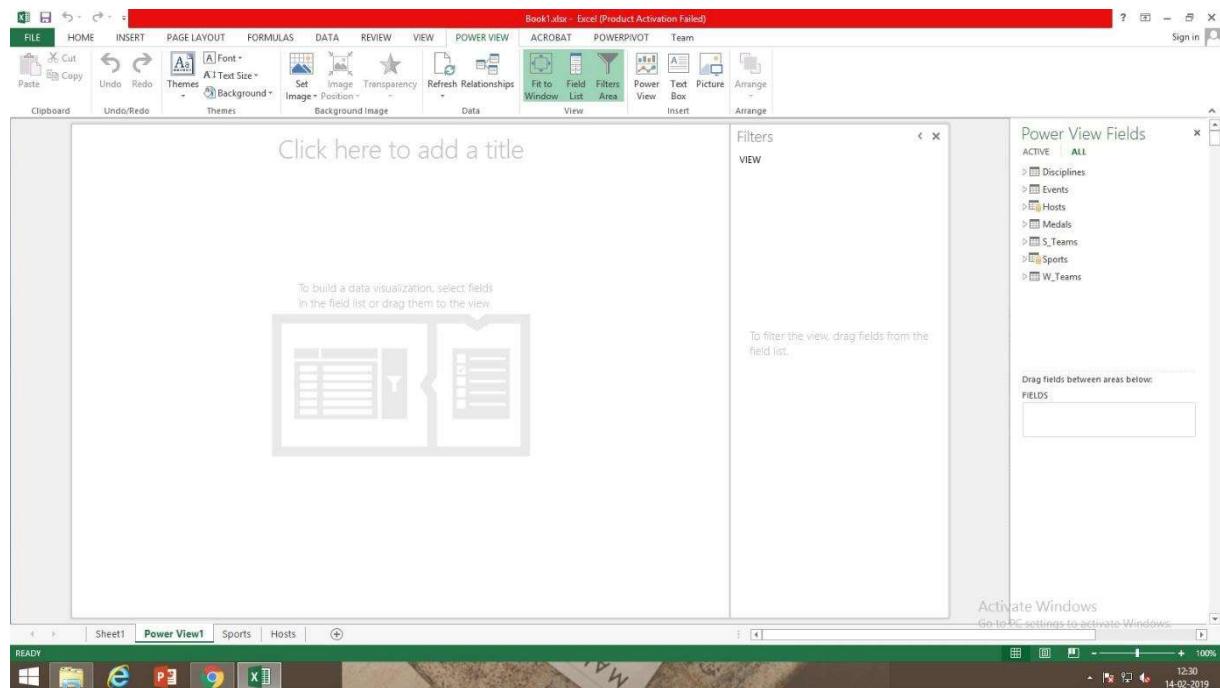
Sport	Edition	NED Total		Amsterdam Total		Antwerp		Antwerp Total		Athens		Athens Total		Atlanta		Atlanta Total	
		1928Summer	1920Summer	BEL	1920Summer	GRC	1904Summer	USA	1996Summer	USA	1904Summer	USA	1996Summer	USA	1904Summer	USA	
<b>Aquatics</b>	1928Summer	75	75	75	75	75	320	320	24	24	24	24	250	250	250	250	
	1920Summer	3	3	3	3	3	12	12	12	12	12	12	30	30	30	30	
<b>Diving</b>	1928Summer	3	3	3	3	3	78	78	78	78	78	78	39	39	39	39	
	1920Summer	12	12	12	12	12	39	39	39	39	39	39	39	39	39	39	
<b>Swimming</b>	1928Summer	51	51	51	48	48	185	185	185	185	185	185	181	181	181	181	
	1920Summer	33	33	33	30	30	30	30	30	30	30	30	30	30	30	30	
<b>Synchronized S.</b>	1928Summer	24	24	24	24	24	78	78	78	78	78	78	39	39	39	39	
	1920Summer	78	78	78	78	78	39	39	39	39	39	39	39	39	39	39	
<b>Water Polo</b>	1928Summer	24	24	24	24	24	78	78	78	78	78	78	60	60	60	60	
	1920Summer	78	78	78	78	78	60	60	60	60	60	60	60	60	60	60	
<b>Archery</b>	1928Summer	80	80	80	80	80	24	24	24	24	24	24	24	24	24	24	
	1920Summer	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	
<b>Athletics</b>	1928Summer	108	108	108	117	117	183	183	183	183	183	183	180	180	180	180	
	1920Summer	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	
<b>Badminton</b>	1928Summer	71	71	71	71	71	71	71	71	71	71	71	60	60	60	60	
	1920Summer	71	71	71	71	71	71	71	71	71	71	71	60	60	60	60	
<b>Baseball</b>	1928Summer	70	70	70	70	70	70	70	70	70	70	70	72	72	72	72	
	1920Summer	70	70	70	70	70	70	70	70	70	70	70	72	72	72	72	
<b>Basketball</b>	1928Summer	736	736	736	736	736	658	658	658	658	658	658	658	658	658	658	
	1920Summer	736	736	736	736	736	658	658	658	658	658	658	658	658	658	658	
<b>Basque Pelota</b>	1928Summer	207	207	207	296	296	296	296	296	296	296	296	296	296	296	296	
	1920Summer	207	207	207	296	296	296	296	296	296	296	296	296	296	296	296	
<b>Blitzion</b>	1928Summer	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	
	1920Summer	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	
<b>Bobsleigh</b>	1928Summer	71	71	71	71	71	71	71	71	71	71	71	60	60	60	60	
	1920Summer	71	71	71	71	71	71	71	71	71	71	71	60	60	60	60	
<b>Boxing</b>	1928Summer	44	44	44	44	44	44	44	44	44	44	44	48	48	48	48	
	1920Summer	44	44	44	44	44	44	44	44	44	44	44	48	48	48	48	
<b>Grand Total</b>		207	207	207	296	296	736	736	736	736	736	736	658	658	658	658	

Step 1: In Excel, click INSERT > Reports > Power View Reports.

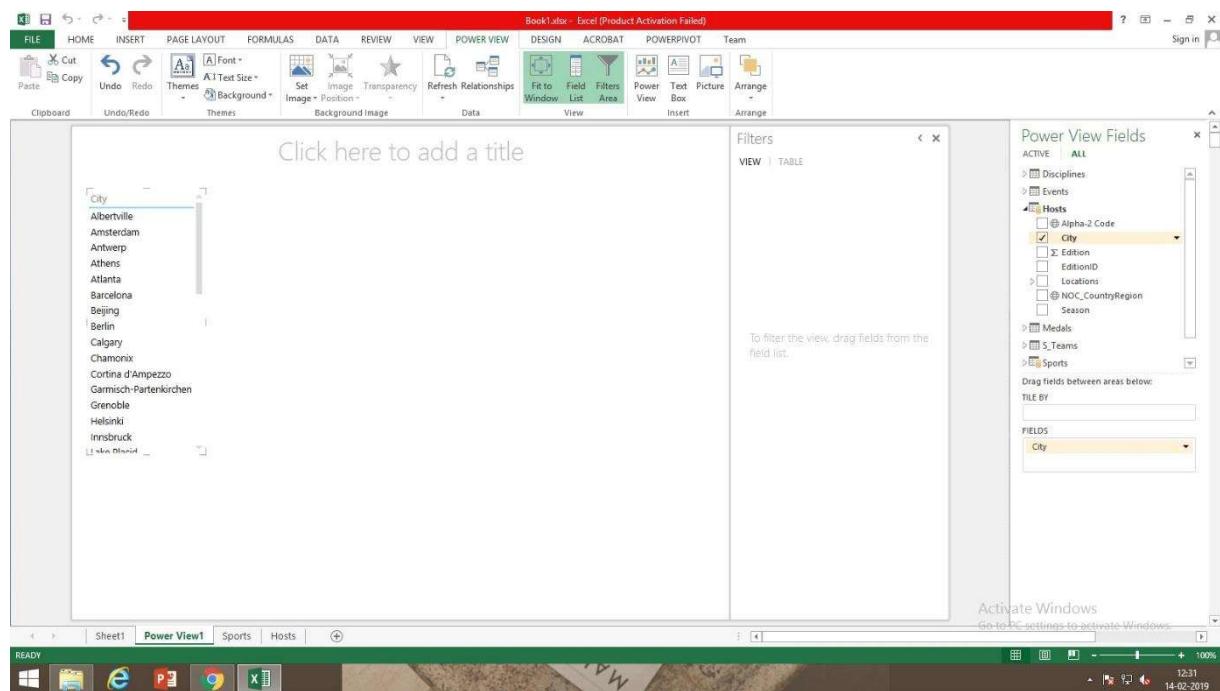
This screenshot shows a Microsoft Excel spreadsheet titled "Book1.xlsx". The main content is a PivotTable with data from the "Medal" sheet. The PivotTable Fields pane on the right lists fields such as Disciplines, Events, and Hosts. The Power View ribbon tab is selected, and a tooltip "Insert a Power View Report" is visible. The status bar at the bottom right shows the date as 14-02-2019 and the time as 12:30.

This screenshot shows the same Excel spreadsheet as above, but the Power View ribbon tab is now selected. A progress dialog box is centered over the PivotTable, displaying the message "Working on opening Power View sheet...". The status bar at the bottom right shows the date as 14-02-2019 and the time as 12:30.

Step 2: A blank Power View report appears as a sheet in the workbook.



Step 3: In the Power View Fields area, click the arrow beside Hosts to expand it, and click City.



### Step 4: Expand the Medals table.

The screenshot shows the Microsoft Excel interface with the ribbon menu at the top. The 'POWER VIEW' tab is selected. On the left, there's a list of cities: Albertville, Amsterdam, Antwerp, Athens, Atlanta, Barcelona, Beijing, Berlin, Calgary, Chamonix, Cortina d'Ampezzo, Garmisch-Partenkirchen, Grenoble, Helsinki, Innsbruck, and Lillehammer. To the right, the 'Power View Fields' pane is open, showing a list of fields under the 'ACTIVE' category. The 'Sport' field is selected and highlighted in yellow. Below it, the 'FIELDS' section shows 'City' selected. A tooltip says 'To filter this view, drag fields from the field list.'

### Step 5: Click Sport. With this, Power View lists the Sport beside the city, as shown in the following screen.

This screenshot shows the same Excel environment after selecting 'Sport'. The 'Power View Fields' pane now displays both 'City' and 'Sport' in the 'FIELDS' section. The main data grid on the left now shows pairs of city and sport names: Albertville-Biathlon, Albertville-Bobsleigh, Albertville-Ice Hockey, Albertville-Luge, Albertville-Skating, Albertville-Skiing, Amsterdam-Aquatics, Amsterdam-Athletics, Amsterdam-Boxing, Amsterdam-Cycling, Amsterdam-Equestrian, Amsterdam-Fencing, Amsterdam-Football, Amsterdam-Gymnastics, and Amsterdam-Hockey. A tooltip indicates that dragging fields from the field list will filter the view.

Step 6: Click on the dropdown arrow besides Sport and select Add to Table as Count.

The screenshot shows the Microsoft Excel ribbon with the 'POWER VIEW' tab selected. On the right, the 'Power View Fields' pane is open. In the 'ACTIVE' section, 'Sport' is checked. A dropdown menu for 'Sport' is open, showing four options: 'Add as Tile By', 'Add to Table', 'Add to Table as Count', and 'Add to View Filter'. Below this, the 'FIELDS' section lists 'City', 'Sport', and '# Count of Sport'. The main area displays a table with columns 'City', 'Sport', and 'Count of Sport', containing data for various cities and sports.

Step 7: In the FIELDS area of Power View Fields, click the arrow next to Sport and select Count (Not Blank). Now Power View is counting the sports, rather than listing them, as shown in the following screen.

This screenshot shows the same Excel environment as the previous one, but with a different selection in the 'FIELDS' section of the Power View Fields pane. The 'Sport' field is selected, and its dropdown menu is open, showing five options: 'Remove Field', 'Do Not Summarize', 'Count (Not Blank)', 'Count (Distinct)', and 'Show items with no data'. The rest of the interface remains the same, with the Power View Fields pane and the table in the center.

Step 8: You will have the following screen.

The screenshot shows a Microsoft Excel window with the ribbon at the top. The 'POWER VIEW' tab is selected. On the left, there is a table with columns 'City', 'Count of Sport', and 'Count of Sport'. The table data is as follows:

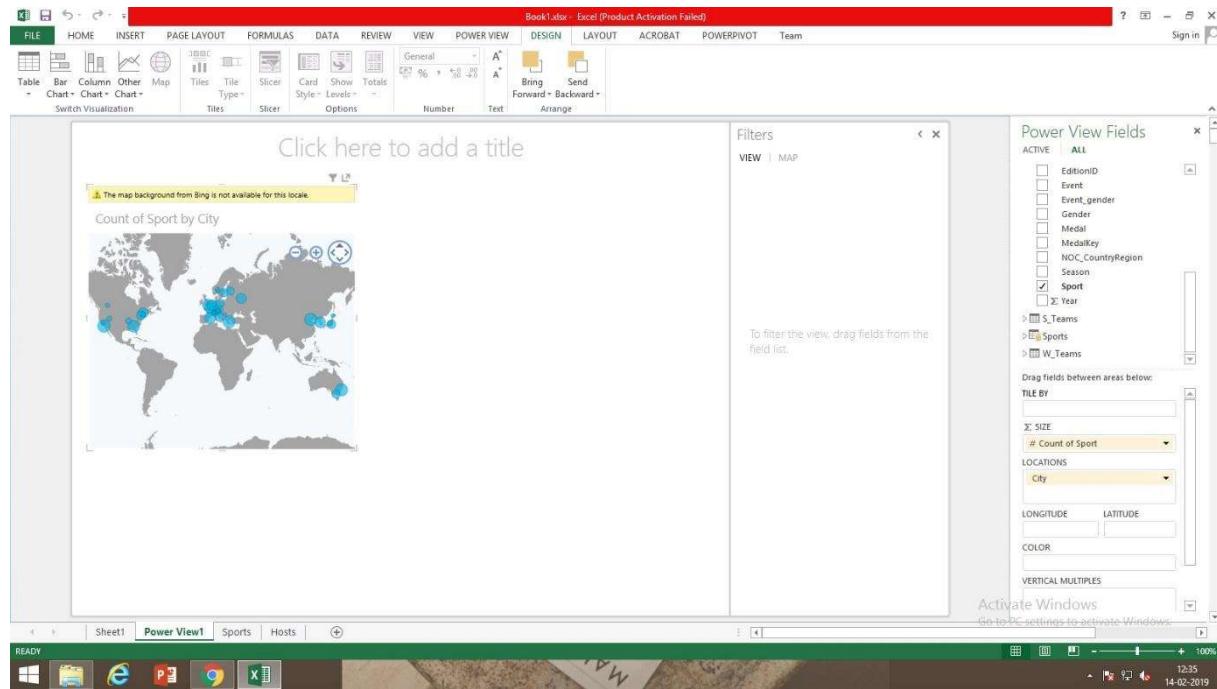
City	Count of Sport	Count of Sport
Albertville	250	250
Amsterdam	709	709
Antwerp	1,298	1,298
Athens	1,998	1,998
Atlanta	1,859	1,859
Barcelona	1,705	1,705
Beijing	2,045	2,045
Berlin	872	872
Calgary	210	210
Chamonix	76	76
Cortina d'Ampezzo	118	118
Garmisch-Partenkirchen	99	99
Grenoble	169	169
Helsinki	889	889
Innsbruck	332	332
Lillehammer	260	260

To the right of the table is a 'Power View Fields' pane. Under 'ACTIVE', 'Sport' is checked. Under 'FIELDS', 'City', '# Count of Sport', and '@ Count of Sport' are listed. A message at the bottom of the pane says, 'To filter the view, drag fields from the field list.'

Step 9: On the ribbon, select DESIGN > Switch Visualization > Map. The DESIGN tab is only available if the Power View table is selected. You may get a warning about enabling external content when you switch to the Map visualization.

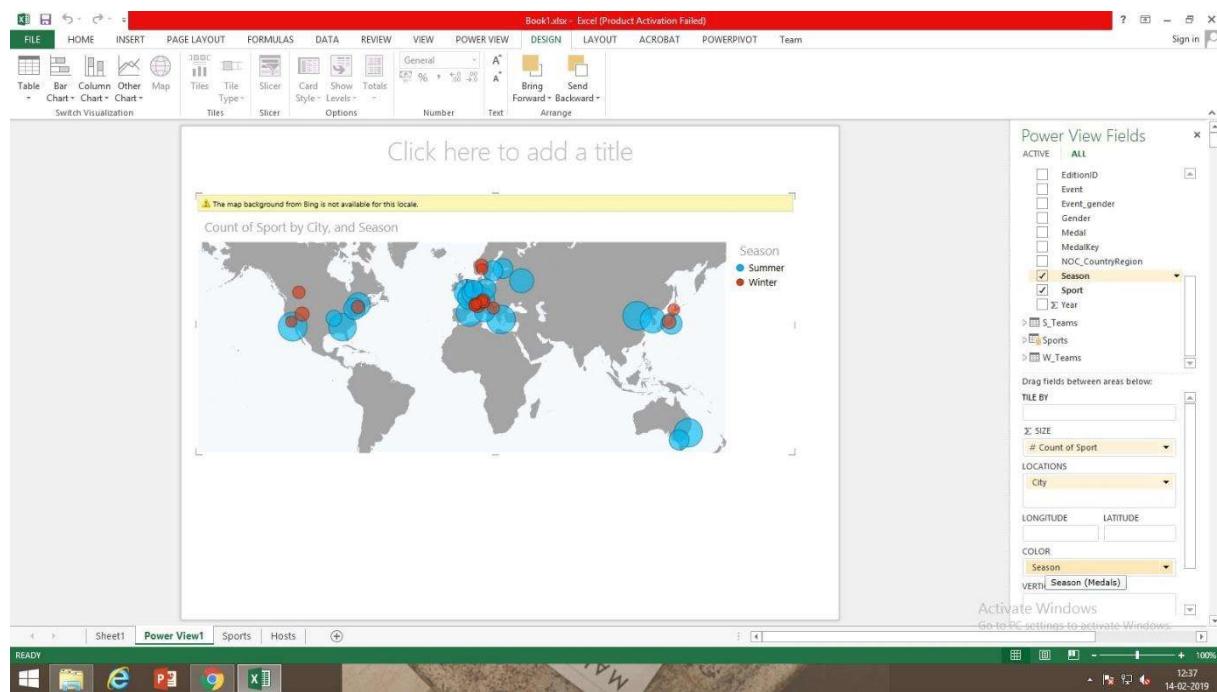
The screenshot shows the same Microsoft Excel window as before, but the 'DESIGN' tab is now selected in the ribbon. The table structure remains the same. The 'Power View Fields' pane is still present on the right, showing the same active fields and a message about filtering.

Step 10: A map replaces the table as the visualization. On the map, blue circles of varying size indicate the number of different sport events held at each Olympic Host location.

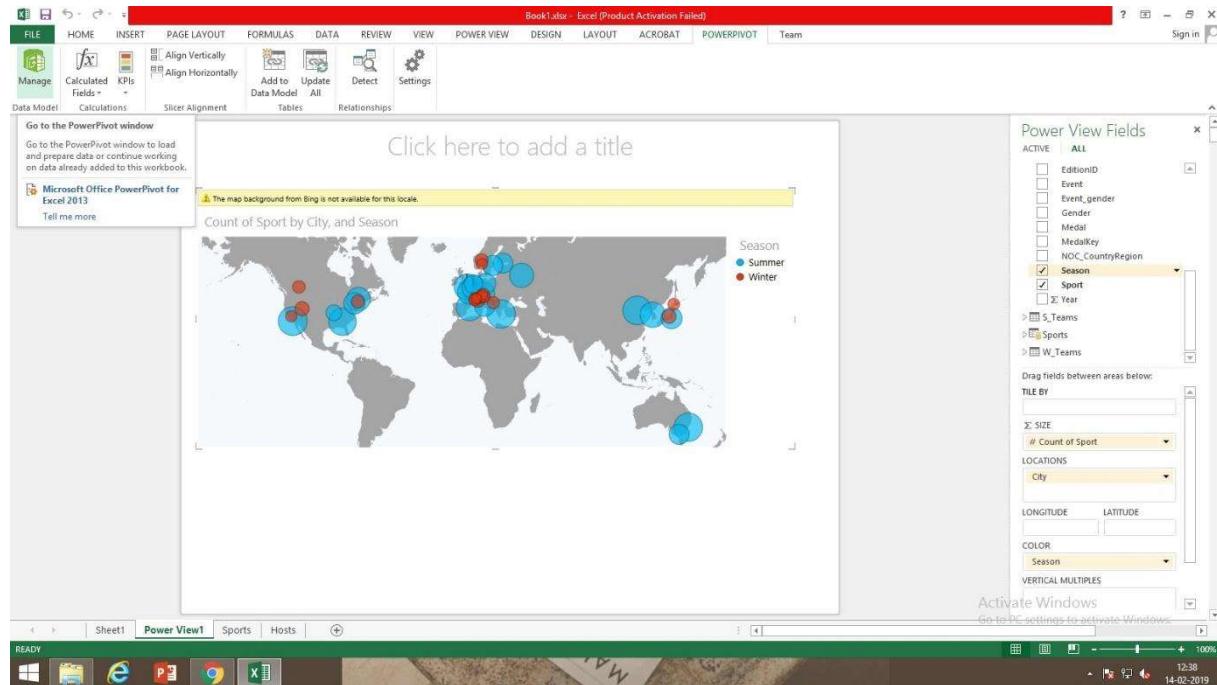


Step 11: To make the most use of the report area, let's collapse the Filters area. Click the arrow in the upper right corner of the Filters area.

In Power View Fields, expand Medals. Drag the Season field down to the COLOR area.



Step 12: In Excel, click Power Pivot > Data Model > Manage to display the Power Pivot window.



Step 13: Select the Medals table. Make sure the Calculation Area is displayed. The Calculation Area is found below the table data, and is used for creating, editing, and managing calculated fields.

Edition	Season	AthleteID	Athlete	NOC_CountryRegion	Gender	Event_gender	Sport	Discipline	Event	Medal	MedalKey	DisciplineEvent	Year	EditionID	
02-01-19...	Summer	A20428	PREVOST, ... ZZK	Women	X	Tennis	D60	mixed d...	Silver	M479	D60mixed doubles	1900	1900Summer		
02-01-19...	Summer	A11647	JONES, M...	ZZK	Women	X	Tennis	D60	mixed d...	Bronze	M482	D60mixed doubles	1900	1900Summer	
02-01-19...	Summer	A21636	ROSENBA...	ZZK	Women	X	Tennis	D60	mixed d...	Bronze	M483	D60mixed doubles	1900	1900Summer	
02-01-19...	Summer	A4527	COOPER, ... GBR	Women	X	Tennis	D60	mixed d...	Gold	M495	D60mixed doubles	1900	1900Summer		
02-01-19...	Summer	A4527	COOPER, ... GBR	Women	W	Tennis	D60	singles	Gold	M493	D60singles	1900	1900Summer		
02-01-19...	Summer	A20428	PREVOST, ... FRA	Women	W	Tennis	D60	singles	Silver	M498	D60singles	1900	1900Summer		
02-01-19...	Summer	A21636	ROSENBA... BOH	Women	W	Tennis	D60	singles	Bronze	M499	D60singles	1900	1900Summer		
02-01-19...	Summer	A35	ABBOTT, ... USA	Women	W	Golf	D29	individ...	Gold	M263	D29individual golf	1900	1900Summer		
02-01-19...	Summer	A27800	WHITTIER, ... USA	Women	W	Golf	D29	individ...	Silver	M264	D29individual golf	1900	1900Summer		
02-01-19...	Summer	A20402	PRATT, D...	USA	Women	W	Golf	D29	individ...	Bronze	M265	D29individual golf	1900	1900Summer	
02-01-19...	Summer	A11647	JONES, M...	USA	Women	W	Tennis	D60	singles	Bronze	M484	D60singles	1900	1900Summer	
02-01-19...	Summer	A15626	MAHONY, ... ZZK	Men	X	Tennis	D60	mixed d...	Silver	M478	D60mixed doubles	1900	1900Summer		
02-01-19...	Summer	A5902	DOHERTY, ... ZZK	Men	X	Tennis	D60	mixed d...	Bronze	M480	D60mixed doubles	1900	1900Summer		
02-01-19...	Summer	A27435	WARDEN, ... ZZK	Men	X	Tennis	D60	mixed d...	Bronze	M481	D60mixed doubles	1900	1900Summer		
02-01-19...	Summer	A5906	DOHERTY, ... GBR	Men	X	Tennis	D60	mixed d...	Gold	M494	D60mixed doubles	1900	1900Summer		
02-01-19...	Summer	A5187	DE BELLEG...	FRA	Men	X	Equest...	D36	long ju...	Bronze	M198	D36long jump ind...	1900	1900Summer	
02-01-19...	Summer	A7984	GARDERE, ... FRA	Men	X	Equest...	D36	high jump	Gold	M199	D36high jump	1900	1900Summer		
02-01-19...	Summer	A25961	TRISINNO, ... ITA	Men	X	Equest...	D36	high jump	Gold	M201	D36high jump	1900	1900Summer		
02-01-19...	Summer	A25961	TRISINNO, ... ITA	Men	X	Equest...	D36	long ju...	Silver	M202	D36long jump ind...	1900	1900Summer		
02-01-19...	Summer	A26428	VAN DE R...	BEL	Men	X	Equest...	D36	high jump	Bronze	M203	D36high jump	1900	1900Summer	
02-01-19...	Summer	A26558	VAN LAN...	BEL	Men	X	Equest...	D36	long ju...	Gold	M205	D36long jump ind...	1900	1900Summer	
02-01-19...	Summer	A9278	HAEGEMA...	BEL	Men	X	Equest...	D36	individ...	Gold	M200	D36individual ju...	1900	1900Summer	
02-01-19...	Summer	A26428	VAN DE R...	BEL	Men	X	Equest...	D36	individ...	Silver	M204	D36individual ju...	1900	1900Summer	
02-01-19...	Summer	A5215	DE CHAM...	FRA	Men	X	Equest...	D36	individ...	Bronze	M2147S	D36individual ju...	1900	1900Summer	

Step 14: To view the Calculation Area, select Home > View > Calculation Area, as shown in the following screen.

The screenshot shows a Microsoft Excel window titled "PowerPivot for Excel - Book1.xlsx". The ribbon at the top has the "Home" tab selected. Below the ribbon is a PivotTable containing data from the Olympic dataset. On the right side of the PivotTable, there is a vertical ribbon bar with several tabs: "AutoSum", "Sum", "Average", "Count", "Max", and "Min". The "Count" tab is currently selected. A tooltip above the ribbon bar reads: "Display the Calculation Area, which is used for creating, editing, and managing calculated fields and key performance indicators (KPIs) within the model." At the bottom of the window, there is a status bar showing the date and time: "14-02-2019 12:40".

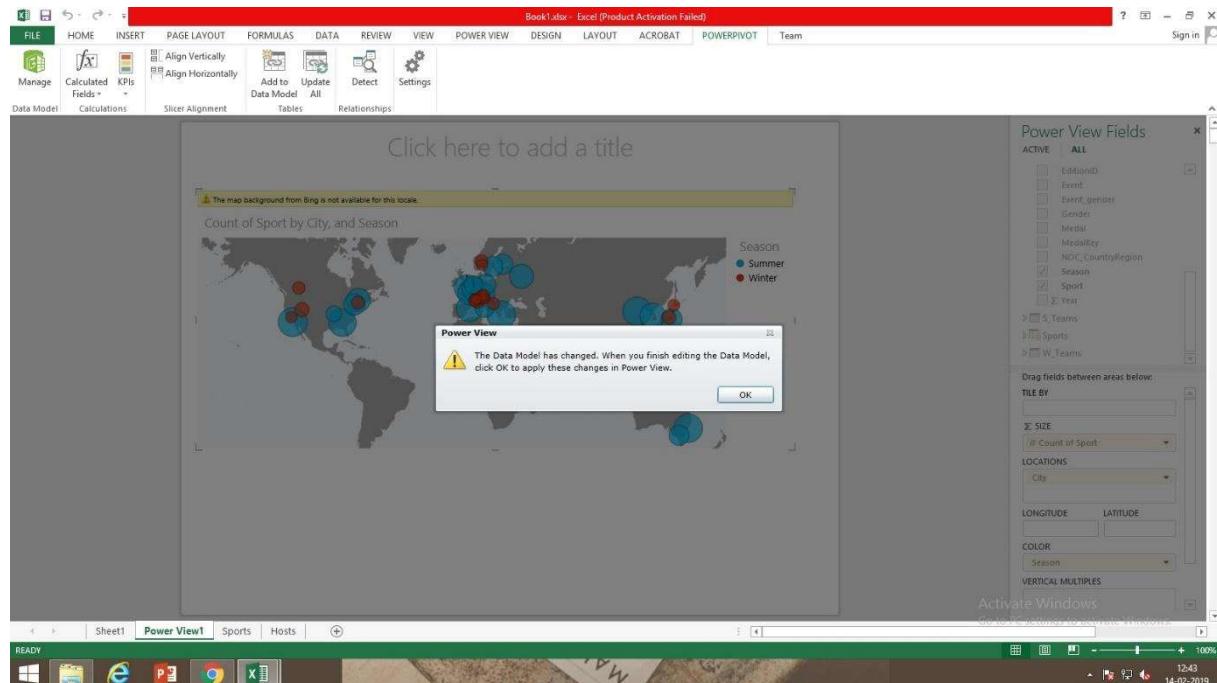
Step 15: In the Calculation Area, select the cell directly below the Edition column. From the ribbon, select AutoSum > Distinct Count.

This screenshot shows the same Excel window as the previous one, but the "Distinct Count" function has been applied to the "Edition" column. The formula `=SUM(DISTINCT([Edition]))` is visible in the formula bar. The data in the PivotTable has been updated to reflect the distinct count of values in the "Edition" column, resulting in a single value of 32,591. The rest of the PivotTable data remains the same as in the previous screenshot.

Step 16: Power Pivot creates a DAX expression for the active cell in the Calculation Area. In this case, Power Pivot automatically created the following DAX formula:  
“Distinct Count of Edition:=DISTINCTCOUNT([Edition])”.

Edition	Season	AthleteID	Athlete	NOC_CountryRegion	Gender	Event_gender	Sport	Discipline	Medal	MedalKey	DisciplineEvent	Year	EditionID
02-01-19...	Summer	A20428	PREVOST, ... ZZK	Women	X	Tennis	D60	mixed d...	Silver	M479	D60mixed doubles	1900	1900Summer
02-01-19...	Summer	A11647	JONES, M., ... ZZK	Women	X	Tennis	D60	mixed d...	Bronze	M482	D60mixed doubles	1900	1900Summer
02-01-19...	Summer	A21636	ROSENBA..., ZZK	Women	X	Tennis	D60	mixed d...	Bronze	M483	D60mixed doubles	1900	1900Summer
02-01-19...	Summer	A4527	COOPER, ... GBR	Women	X	Tennis	D60	mixed d...	Gold	M495	D60mixed doubles	1900	1900Summer
02-01-19...	Summer	A4527	COOPER, ... GBR	Women	W	Tennis	D60	singles	Gold	M493	D60singles	1900	1900Summer
02-01-19...	Summer	A20428	PREVOST, ... FRA	Women	W	Tennis	D60	singles	Silver	M498	D60singles	1900	1900Summer
02-01-19...	Summer	A21636	ROSENBA..., BOH	Women	W	Tennis	D60	singles	Bronze	M499	D60singles	1900	1900Summer
02-01-19...	Summer	A35	ABBOTT, ... USA	Women	W	Golf	D29	individ...	Gold	M263	D29individual golf	1900	1900Summer
02-01-19...	Summer	A27806	WHITTIER,... USA	Women	W	Golf	D29	individ...	Silver	M264	D29individual golf	1900	1900Summer
02-01-19...	Summer	A20402	PRATT, D., ... USA	Women	W	Golf	D29	individ...	Bronze	M265	D29individual golf	1900	1900Summer
02-01-19...	Summer	A11647	JONES, M., ... USA	Women	W	Tennis	D60	singles	Bronze	M484	D60singles	1900	1900Summer
02-01-19...	Summer	A15626	MAHONY, ... ZZK	Men	X	Tennis	D60	mixed d...	Silver	M478	D60mixed doubles	1900	1900Summer
02-01-19...	Summer	A5902	DOHERTY, ... ZZK	Men	X	Tennis	D60	mixed d...	Bronze	M480	D60mixed doubles	1900	1900Summer
02-01-19...	Summer	A27435	WARDEN, ... ZZK	Men	X	Tennis	D60	mixed d...	Bronze	M481	D60mixed doubles	1900	1900Summer
02-01-19...	Summer	A5906	DOHERTY, ... GBR	Men	X	Tennis	D60	mixed d...	Gold	M494	D60mixed doubles	1900	1900Summer
02-01-19...	Summer	A5187	DE BELLEG,... FRA	Men	X	Equestri...	D36	long ju...	Bronze	M198	D36long jump ind...	1900	1900Summer
02-01-19...	Summer	A7984	GARDERE,... FRA	Men	X	Equestri...	D36	high jump	Gold	M199	D36high jump	1900	1900Summer
02-01-19...	Summer	A25961	TRUSSINO,... ITA	Men	X	Equestri...	D36	high jump	Gold	M201	D36high jump	1900	1900Summer
02-01-19...	Summer	A2596	TRUSSINO,... ITA	Men	X	Equestri...	D36	long ju...	Silver	M202	D36long jump ind...	1900	1900Summer
02-01-19...	Summer	A26428	VAN DE P,... BEL	Men	X	Equestri...	D36	high jump	Bronze	M203	D36high jump	1900	1900Summer
02-01-19...	Summer	A26558	VAN LAN,... BEL	Men	X	Equestri...	D36	long ju...	Gold	M205	D36long jump ind...	1900	1900Summer
02-01-19...	Summer	A9278	HAEGEMAN,... BEL	Men	X	Equestri...	D36	individ...	Gold	M200	D36individual ju...	1900	1900Summer
02-01-19...	Summer	A26428	VAN DE P,... BEL	Men	X	Equestri...	D36	individ...	Silver	M204	D36individual ju...	1900	1900Summer
02-01-19...	Summer	A5215	DE CHAM,... FRA	Men	X	Equestri...	D36	individ...	Bronze	M21475	D36individual ju...	1900	1900Summer

Step 17: Save the Excel workbook. The Data Model is updated with the new calculated field. When you return to the Power View tab in Excel, a warning lets you know the Data Model has been updated



Step 18: Open the Power Pivot window. In the Calculation Area, select the cell directly below the AutoSum calculation you completed in the previous section.

Edition	Season	AthleteID	Athlete	NOC_CountryRegion	Gender	Event_gender	Sport	Discipline	MedalKey	DisciplineEvent	Year	EditionID
02-01-19...	Summer	A20428	PREVOST, ...	ZZX	Women	X	Tennis	D60	mixed d...	Silver	M479	D60mixed doubles
02-01-19...	Summer	A11647	JONES, M.,...	ZZX	Women	X	Tennis	D60	mixed d...	Bronze	M482	D60mixed doubles
02-01-19...	Summer	A21636	ROSENBA...,	ZZX	Women	X	Tennis	D60	mixed d...	Bronze	M483	D60mixed doubles
02-01-19...	Summer	A4527	COOPER, ...	GBR	Women	X	Tennis	D60	mixed d...	Gold	M495	D60mixed doubles
02-01-19...	Summer	A4527	COOPER, ...	GBR	Women	W	Tennis	D60	singles	Gold	M493	D60singles
02-01-19...	Summer	A20428	PREVOST, ...	FRA	Women	W	Tennis	D60	singles	Silver	M498	D60singles
02-01-19...	Summer	A21636	ROSENBA...,	BOH	Women	W	Tennis	D60	singles	Bronze	M499	D60singles
02-01-19...	Summer	A35	ABBOTT, ...	USA	Women	W	Golf	D29	individ...	Gold	M263	D29individual golf
02-01-19...	Summer	A27800	WHITTIER, ...	USA	Women	W	Golf	D29	individ...	Silver	M264	D29individual golf
02-01-19...	Summer	A20402	PRATT, DA...	USA	Women	W	Golf	D29	individ...	Bronze	M265	D29individual golf
02-01-19...	Summer	A11647	JONES, M.,...	USA	Women	W	Tennis	D60	singles	Bronze	M484	D60singles
02-01-19...	Summer	A15626	MAHONI, ...	ZZX	Men	X	Tennis	D60	mixed d...	Silver	M478	D60mixed doubles
02-01-19...	Summer	A5902	DOHERTY, ...	ZZX	Men	X	Tennis	D60	mixed d...	Bronze	M480	D60mixed doubles
02-01-19...	Summer	A27435	WARDEN, ...	ZZX	Men	X	Tennis	D60	mixed d...	Bronze	M481	D60mixed doubles
02-01-19...	Summer	A5906	DOHERTY, ...	GBR	Men	X	Tennis	D60	mixed d...	Gold	M494	D60mixed doubles
02-01-19...	Summer	A5187	DE BELLEG...	FRA	Men	X	Equestri...	D36	long ju...	Bronze	M198	D36long jump ind...
02-01-19...	Summer	A7984	GARDERE, ...	FRA	Men	X	Equestri...	D36	high jump	Gold	M119	D36high jump
02-01-19...	Summer	A25961	TRISSINO, ...	ITA	Men	X	Equestri...	D36	high jump	Gold	M201	D36high jump
02-01-19...	Summer	A25961	TRISSINO, ...	ITA	Men	X	Equestri...	D36	long ju...	Silver	M202	D36long jump ind...
02-01-19...	Summer	A26428	VAN DE R...	BEL	Men	X	Equestri...	D36	high jump	Bronze	M203	D36high jump
02-01-19...	Summer	A26558	VAN LAN...	BEL	Men	X	Equestri...	D36	long ju...	Gold	M205	D36long jump ind...
02-01-19...	Summer	A26428	HAEGEMA...	BEL	Men	X	Equestri...	D36	individ...	Gold	M200	D36individual ju...
02-01-19...	Summer	A26428	VAN DE R...	BEL	Men	X	Equestri...	D36	individ...	Silver	M204	D36individual ju...
02-01-19...	Summer	A5215	DE CHAM...	FRA	Men	X	Equestri...	D36	individ...	Bronze	M21475	D36individual ju...

Step 19: In the formula bar, type the following DAX formula. IntelliSense provides available commands based on what you type, and you can press Tab to select the highlighted IntelliSense option.

"Percentage of All Medals:=[Count of Medal]/CALCULATE([Count of Medal],ALL(Medals))"

Edition	Season	AthleteID	Athlete	NOC_CountryRegion	Gender	Event_gender	Sport	Discipline	MedalKey	DisciplineEvent	Year	EditionID
02-01-19...	Summer	A20428	PREVOST, ...	ZZX	Women	X	Tennis	D60	mixed d...	Silver	M479	D60mixed doubles
02-01-19...	Summer	A11647	JONES, M.,...	ZZX	Women	X	Tennis	D60	mixed d...	Bronze	M482	D60mixed doubles
02-01-19...	Summer	A21636	ROSENBA...,	ZZX	Women	X	Tennis	D60	mixed d...	Bronze	M483	D60mixed doubles
02-01-19...	Summer	A4527	COOPER, ...	GBR	Women	X	Tennis	D60	mixed d...	Gold	M495	D60mixed doubles
02-01-19...	Summer	A4527	COOPER, ...	GBR	Women	W	Tennis	D60	singles	Gold	M493	D60singles
02-01-19...	Summer	A20428	PREVOST, ...	FRA	Women	W	Tennis	D60	singles	Silver	M498	D60singles
02-01-19...	Summer	A21636	ROSENBA...,	BOH	Women	W	Tennis	D60	singles	Bronze	M499	D60singles
02-01-19...	Summer	A35	ABBOTT, ...	USA	Women	W	Golf	D29	individ...	Gold	M263	D29individual golf
02-01-19...	Summer	A27800	WHITTIER, ...	USA	Women	W	Golf	D29	individ...	Silver	M264	D29individual golf
02-01-19...	Summer	A20402	PRATT, DA...	USA	Women	W	Golf	D29	individ...	Bronze	M265	D29individual golf
02-01-19...	Summer	A11647	JONES, M.,...	USA	Women	W	Tennis	D60	singles	Bronze	M484	D60singles
02-01-19...	Summer	A15626	MAHONI, ...	ZZX	Men	X	Tennis	D60	mixed d...	Silver	M478	D60mixed doubles
02-01-19...	Summer	A5902	DOHERTY, ...	ZZX	Men	X	Tennis	D60	mixed d...	Bronze	M480	D60mixed doubles
02-01-19...	Summer	A27435	WARDEN, ...	ZZX	Men	X	Tennis	D60	mixed d...	Bronze	M481	D60mixed doubles
02-01-19...	Summer	A5906	DOHERTY, ...	GBR	Men	X	Tennis	D60	mixed d...	Gold	M494	D60mixed doubles
02-01-19...	Summer	A5187	DE BELLEG...	FRA	Men	X	Equestri...	D36	long ju...	Bronze	M198	D36long jump ind...
02-01-19...	Summer	A7984	GARDERE, ...	FRA	Men	X	Equestri...	D36	high jump	Gold	M119	D36high jump
02-01-19...	Summer	A25961	TRISSINO, ...	ITA	Men	X	Equestri...	D36	high jump	Gold	M201	D36high jump
02-01-19...	Summer	A25961	TRISSINO, ...	ITA	Men	X	Equestri...	D36	long ju...	Silver	M202	D36long jump ind...
02-01-19...	Summer	A26428	VAN DE R...	BEL	Men	X	Equestri...	D36	high jump	Bronze	M203	D36high jump
02-01-19...	Summer	A26558	VAN LAN...	BEL	Men	X	Equestri...	D36	long ju...	Gold	M205	D36long jump ind...
02-01-19...	Summer	A26428	HAEGEMA...	BEL	Men	X	Equestri...	D36	individ...	Gold	M200	D36individual ju...
02-01-19...	Summer	A26428	VAN DE R...	BEL	Men	X	Equestri...	D36	individ...	Silver	M204	D36individual ju...
02-01-19...	Summer	A5215	DE CHAM...	FRA	Men	X	Equestri...	D36	individ...	Bronze	M21475	D36individual ju...

Step 20: When you switch back to the Excel window, Excel lets you know the Data Model has been updated. In Excel, select the PivotTable in Sheet1. In PivotTable Fields, expand the Medals table. At the bottom of the fields list are the two calculated fields we just created, as shown in the following screen. Select Percentage of All Medals.

The screenshot shows a Microsoft Excel window with the ribbon menu open. The active tab is 'PIVOTTABLE TOOLS'. The main area displays a PivotTable with data for the 'Swimming' sport. The PivotTable Fields pane is open on the right side, showing the 'ACTIVE' field list. Under the 'Calculated Fields' section, there are two entries: 'Medal' and 'Percentage of All Medals'. The 'Percentage of All Medals' entry is selected, indicated by a green background and a checkmark. Other fields listed include 'Event', 'Year', 'EditionID', 'Sum of Edition', 'Distinct Count of Edition', and 'Count of Medal'. Below the field list, there are sections for 'FILTERS', 'ROWS', and 'VALUES'.

Medal	All	Count of Medal	Percentage of All Medals	Count of Medal	Percentage of All Medals	Count of Medal	Percentage of All Medals
1	All						
2	Column Labels						
3	Summer						
4	Amsterdam						
5	NED						
6	1928Summer						
7	Row Labels						
8	Aquatics	75	0.002301249	75	0.002301249	75	0.002301249
9	Diving						
10	plain high diving						
11	plunge for distance						
12	synchronized diving 10m platform						
13	synchronized diving 3m springboard						
14	Swimming	51	0.001564849	51	0.001564849	51	0.001564849
15	Synchronized S.	24	0.0007364	24	0.0007364	24	0.0007364
16	Water Polo	24	0.0007364	24	0.0007364	24	0.0007364
17	water polo						
18	Athletics	108	0.003313798	108	0.003313798	108	0.003313798
19	Archery						
20	Badminton						
21	Baseball						
22	Basketball						
23	Basque Pelota						
24	Biathlon						
25	Bobsleigh						
26	Boxing	24	0.0007364	24	0.0007364	24	0.0007364
27	Grand Total	207	0.006351447	207	0.006351447	207	0.006351447
28							
29							
30							

Step 21: In the PivotTable, the Percentage of All Medals field appears after Count of Medal. It's not formatted as a percentage, so select those fields. Once they're selected, click HOME > Number > Percentage. In the same section of the ribbon, adjust the number of decimal places to two

	Winter Count of Medal	Winter Percentage of All Medals	Total Count of Medal	Total Percentage of All Medals
ITA Percentage of All Medals				
			3545	0.10877236
			84	0.00257399
			9	0.00027615
			3	9.205E-05
			36	0.001104599
			36	0.001104599
			2428	0.07499005
			153	0.004694548
			880	0.027001319
			880	0.027001319
			305	0.009358412
			3411	0.104660796
			120	0.003681998
			335	0.010278911
			940	0.028842318
			4	0.000122733
	0.001442116	47	0.001442116	290
	0.0007364	24	0.0007364	344
	0.002178516	71	0.002178516	634
				10136
				0.311006106

Step 22: Your pivot table looks like the following screen.

	Winter Count of Medal	Winter Percentage of All Medals	Total Count of Medal	Total Percentage of All Medals
ITA Percentage of All Medals				
			3545	10.88%
			84	0.26%
			9	0.03%
			3	0.01%
			36	0.11%
			36	0.11%
			2428	7.45%
			153	0.47%
			880	
			880	
			305	
			3411	
			120	0.37%
			335	1.03%
			940	2.88%
			4	0.01%
	0.001442116	47	0.001442116	290
	0.0007364	24	0.0007364	344
	0.002178516	71	0.002178516	634
				10136
				0.311006106

Step 23: The Power Pivot window should still be available. If not, click Power Pivot > Data Model > Manage. In Power Pivot, select Home > View > Data View to make sure Data View is selected. Select the Medals table.

On the Advanced tab, click Reporting Properties > Default Field Set. A window appears that lets you specify default fields for tables created using client tools such as Power View.

Event_gender	Sport	Discipline	Event	Medal	MedalKey	DisciplineEvent	Year	EditionID
X	Tennis	D60	mixed d...	Silver	M479	D60mixed doubles	1900	1900Summer
X	Tennis	D60	mixed d...	Bronze	M482	D60mixed doubles	1900	1900Summer
women	Tennis	D60	mixed d...	Bronze	M483	D60mixed doubles	1900	1900Summer
X	Tennis	D60	mixed d...	Gold	M495	D60mixed doubles	1900	1900Summer
Women	Tennis	D60	singles	Gold	M493	D60singles	1900	1900Summer
W	Tennis	D60	singles	Silver	M498	D60singles	1900	1900Summer
W	Tennis	D60	singles	Bronze	M499	D60singles	1900	1900Summer
Women	Golf	D29	individ...	Gold	M263	D29individual golf	1900	1900Summer
W	Golf	D29	individ...	Silver	M264	D29individual golf	1900	1900Summer
Women	Golf	D29	individ...	Bronze	M265	D29individual golf	1900	1900Summer
W	Tennis	D60	singles	Bronze	M484	D60singles	1900	1900Summer
Men	Tennis	D60	mixed d...	Silver	M478	D60mixed doubles	1900	1900Summer
X	Tennis	D60	mixed d...	Bronze	M480	D60mixed doubles	1900	1900Summer
Men	Tennis	D60	mixed d...	Bronze	M481	D60mixed doubles	1900	1900Summer
X	Tennis	D60	mixed d...	Gold	M494	D60mixed doubles	1900	1900Summer
Men	Equest...	D36	long ju...	Bronze	M198	D36long jump ind...	1900	1900Summer
X	Equest...	D36	high jump	Gold	M199	D36high jump	1900	1900Summer
Men	Equest...	D36	high jump	Gold	M201	D36high jump	1900	1900Summer
X	Equest...	D36	long ju...	Silver	M202	D36long jump ind...	1900	1900Summer
Men	Equest...	D36	high jump	Bronze	M203	D36high jump	1900	1900Summer
X	Equest...	D36	long ju...	Gold	M205	D36long jump ind...	1900	1900Summer
Men	Equest...	D36	individ...	Gold	M200	D36individual ju...	1900	1900Summer
X	Equest...	D36	individ...	Silver	M204	D36individual ju...	1900	1900Summer
Men	Equest...	D36	individ...	Bronze	M21475	D36individual ju...	1900	1900Summer

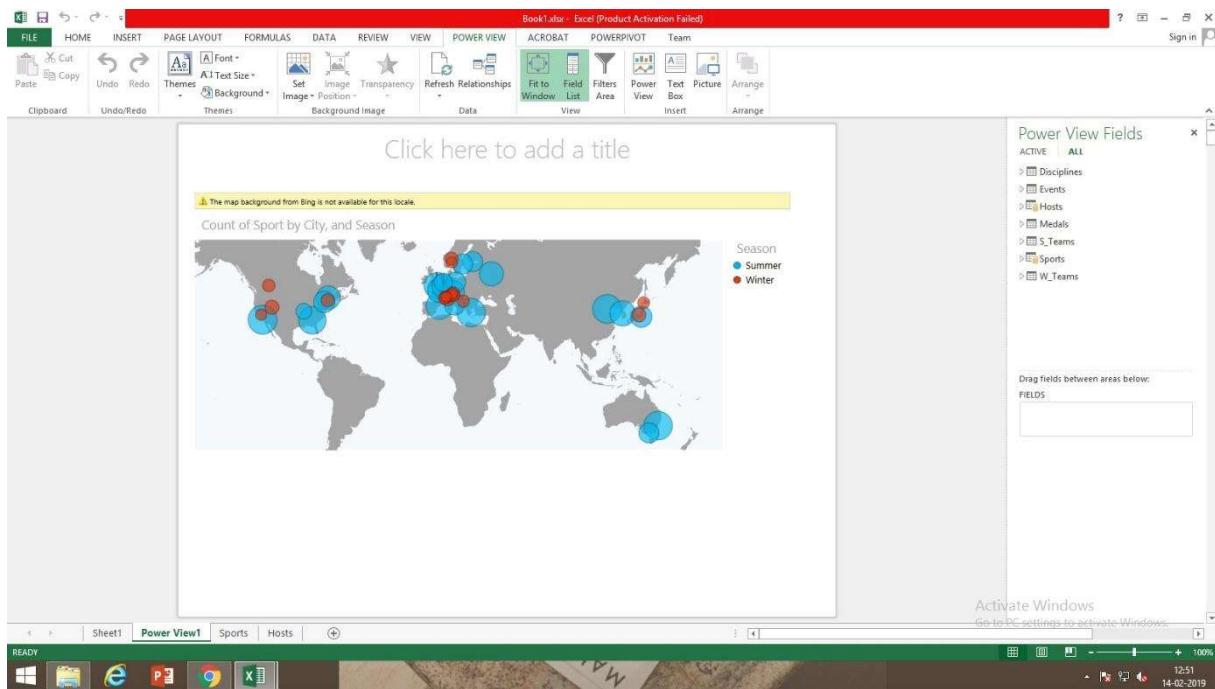
Step 24: Select Sport, Event, EditionID, Athlete, and Medal in the left pane, and click Add -> to make them the default fields. Make sure they appear in the right pane, Default fields, in the order they were listed. The Default Field Set window looks like the following screen.

The screenshot shows the PowerPivot interface for Excel. A dialog box titled "Default Field Set" is open over a table of medal data. The table has columns for Edition, Season, AthleteID, Athlete, and NOC\_CountryRegion. The dialog lists fields from the "Medals" table, including AthleteID, DisciplineEvent, Edition, Event, Event\_gender, MedalKey, NOC\_CountryRegion, Percentage of All Medals, Sport, Sum of Edition, and Year. The "Default fields, in order:" section shows AthleteID, Sport, Event, Edition, Event\_gender, and MedalKey selected. The "OK" button is highlighted.

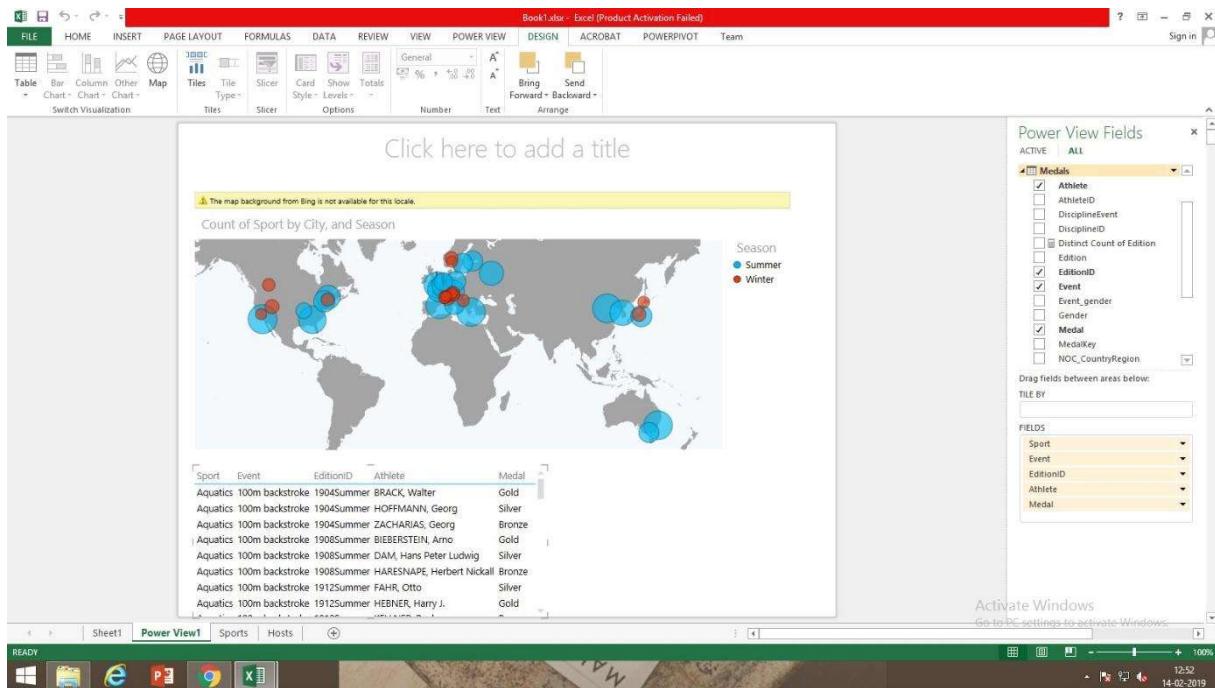
Step 25: Click OK to save the default field set for the Medals table.

This screenshot is identical to the previous one, showing the "Default Field Set" dialog for the "Medals" table. The fields listed and the order specified in the dialog are the same as in the previous step, with the "OK" button highlighted.

Step 26: To see how this works, switch to the Power View sheet in Excel.



Step 27: In the Power View Fields list, click the Medals table name. Power View creates a table and automatically adds the five default fields from the Medals table, in the order you specified, as shown in the following screen. If you accidentally click on the triangle beside Medals, the table simply expands, rather than adding a new table with default fields.



Step 28: Back in Power Pivot, with the Medals table selected, select Advanced > Reporting Properties > Table Behavior. A window appears where you can specify table behavior.

The screenshot shows the PowerPivot ribbon with the 'Table Behavior' tab selected. The main area displays a table of medal data. A tooltip for the 'Row Identifier' dropdown indicates it's used to select unique keys for rows. The 'MedalKey' field is highlighted as the current selection.

Step 29: In the Table Behavior window, the Row Identifier is the column that contains only unique keys and no blank values. You have to select a Row Identifier before making other selections in the window. Select MedalKey as the Row Identifier.

The screenshot shows the 'Table Behavior' dialog box with 'MedalKey' selected as the 'Row Identifier'. Other options like 'Event', 'Event\_gender', and 'Sport' are shown in the dropdown. The main grid shows medal data for various editions, seasons, and athletes.

Step 30: In the Keep Unique Rows section, select AthleteID. Fields you select here have row values that should be unique, and should not be aggregated when creating Pivot Tables or Power View reports.

The screenshot shows the 'Table Behavior' dialog box in the PowerPivot ribbon. The 'Row Identifier' dropdown is set to 'MedalKey'. Under 'Keep Unique Rows', 'AthleteID' is checked. The 'Default Label' and 'Default Image' dropdowns both show '[No Column Selected]'. The background displays a Power View table with columns like Edition, Season, AthleteID, Athlete, NOC\_Country, DisciplineEvent, Year, and EditionID.

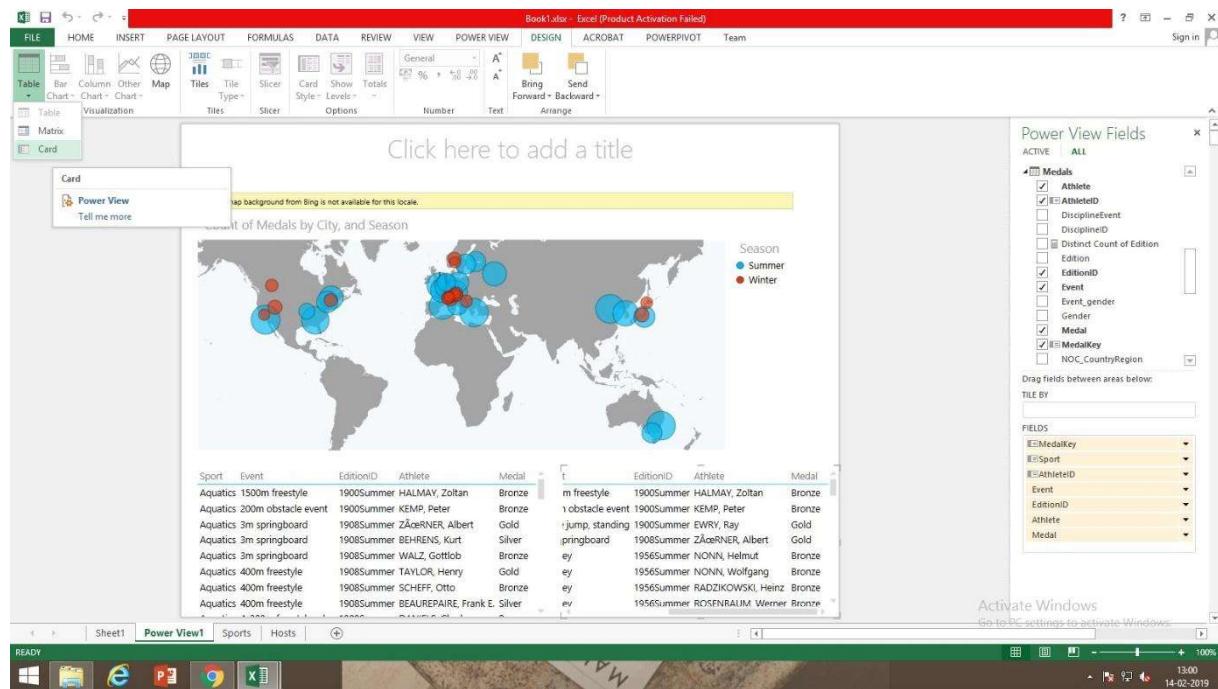
Step 31: For Default Label, select a key that should be used as a default report label. Select Sport.

For Default Image, leave the selection as [No Column Selected], since you haven't added images yet.

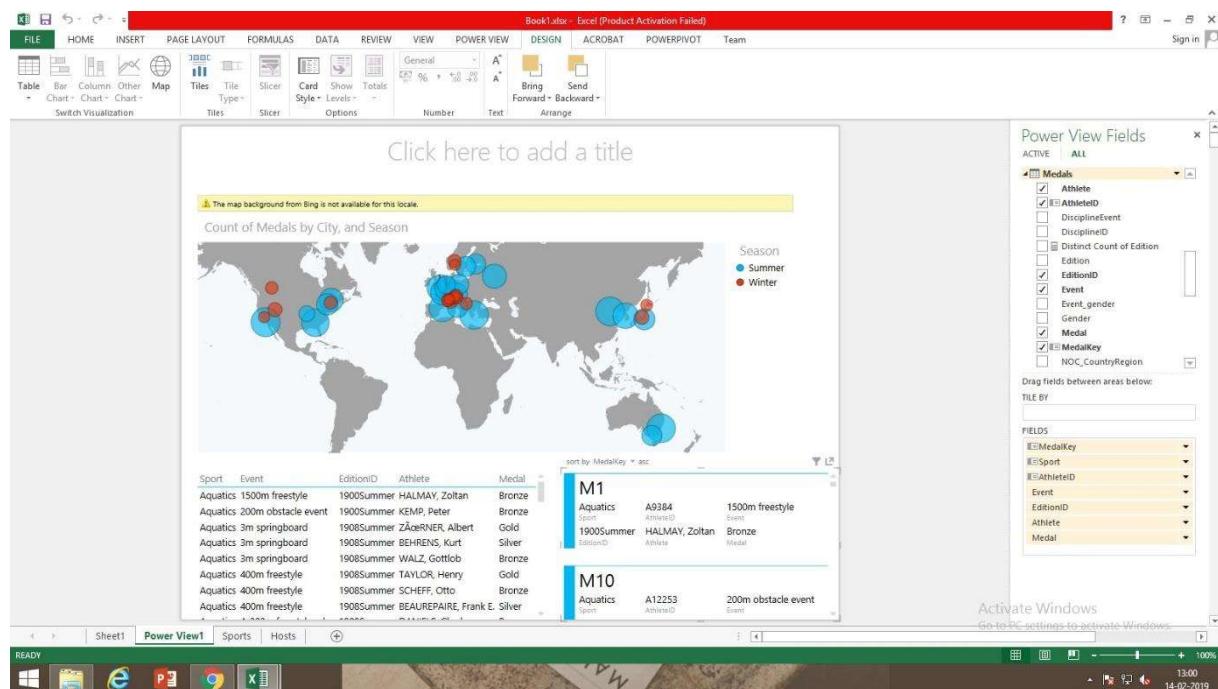
This screenshot is identical to the one above, except the 'Default Label' dropdown has been changed to 'Sport'. The rest of the dialog box and the background table are the same.

Step 32: The Table Behavior window looks like the following screen. Click OK.

On the Power View sheet in Excel, select the table you created in the previous steps. From the ribbon, select DESIGN > Table > Card.



Step 33: The table you created changes into a collection of Cards; the data is the same, but the visualization of the data has changed.



Step 34: In Power Pivot, select Hosts. Select the NOC\_CountryRegion field. From Advanced > Reporting Properties > Data Category: click the arrow and select Country/Region from the list of available data categories.

The screenshot shows the PowerPivot ribbon with the 'Table Tools' tab selected. In the 'Data Category' dropdown, 'Country/Region (Suggested)' is selected. A tooltip 'Add Column' is visible over the 'NOC\_CountryRegion' column header. The data grid displays various city and country information.

Step 35: In Medals, select the NOC\_CountryRegion column. Again, change the Data Category to Country/Region.

The screenshot shows the PowerPivot ribbon with the 'Table Tools' tab selected. In the 'Data Category' dropdown, 'Country/Region' is selected. A tooltip 'Add Column' is visible over the 'NOC\_CountryRegion' column header. The data grid displays medal information, with the 'NOC\_CountryRegion' column highlighted.

Step 36: Return to Excel, and select the Power View sheet. Expand the Medals table in Power View Fields, and notice that the NOC\_CountryRegion field now has a small globe icon beside it. The globe indicates that NOC\_CountryRegion contains a geographic location

