

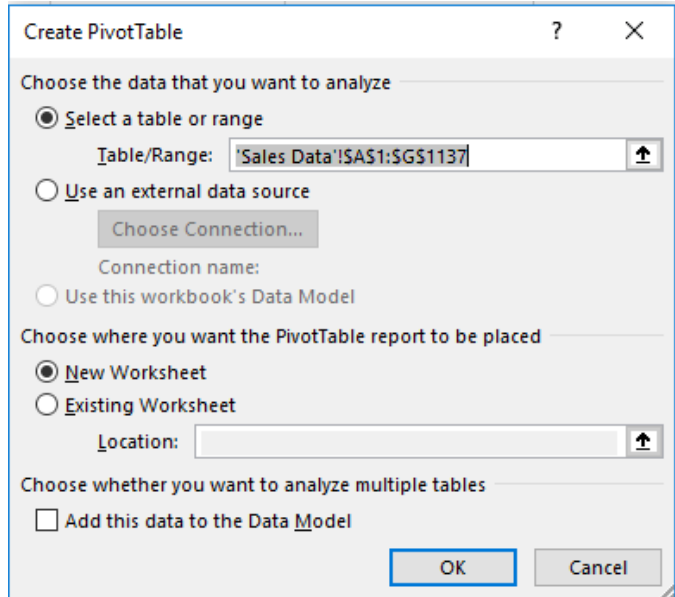
Pivot Tables in Excel

Mike Thomas

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Create a Pivot Table

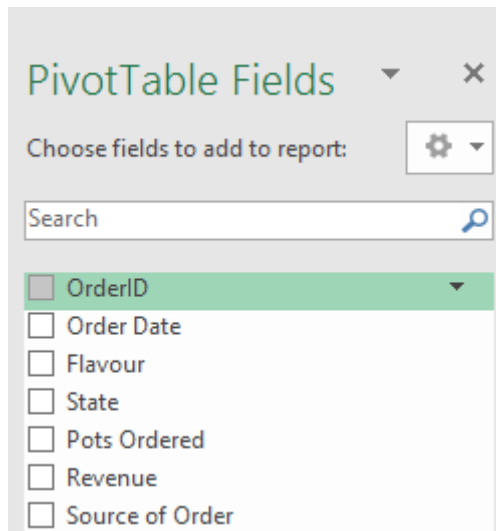
- Select a single cell in the source data



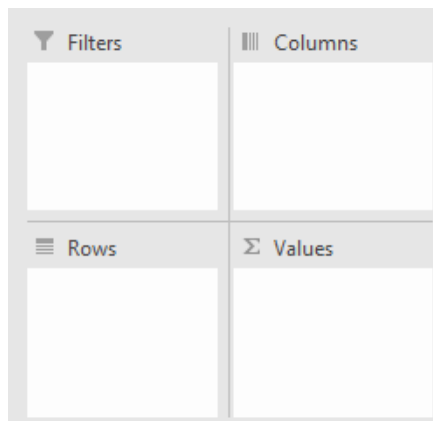
- From the **Insert** tab select **Pivot Table**
- Select the location for the Pivot Table. If selecting Existing Worksheet, click into the **Location** box and select a cell on an existing worksheet
- Click **OK**

Add Column/Row Headings and Values

- On the right-hand side of the screen is the Pivot Table Fields Panel
- The top part contains a list of headings from the source data



- Drag the appropriate fields to the appropriate sections (Row, Column, Values) in the lower part of the Panel



Select a Different Summary Operator

- Right click any of the numbers in the column containing the numbers to be changed (in the screenshot below total (Sum) Revenue is being changed to Average)
- Select **Summarize Values By**
- Select the appropriate summary operator

Row Labels	Sum of Revenue
Banana	27811.44
Chocolate	1505
Mint Chocolate	1895
Peach	13554.76
Pecan	3225
Strawberry	1814
Toffee	3175
Vanilla	3814
Grand Total	19567

Display Numbers as a Percentage of the Total

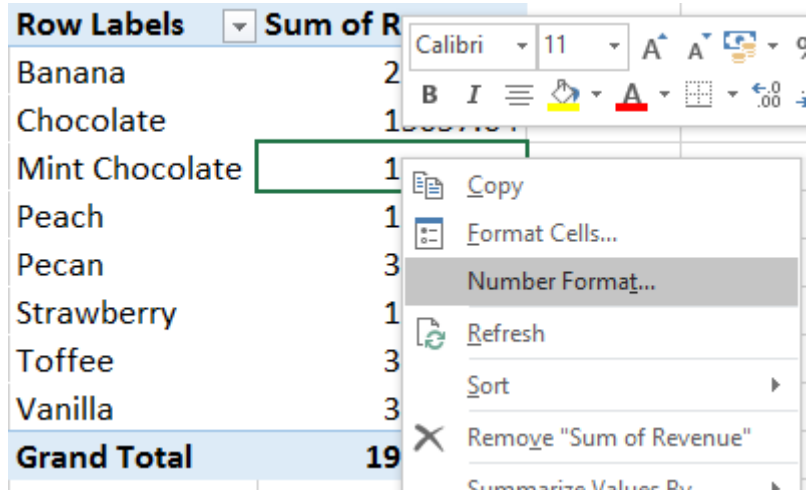
- Right click any of the numbers in the column containing the numbers to be changed
- Select **Show Values As**
- Select **% of Grand Total** (or any other desired option)

Peach	13554.76			
Pecan	32			
Strawberry	18			
Toffee	31			
Vanilla	38			
Grand Total	195			

Note: to display the original numbers and the percentages, drag a second instance of the column into the values section in the Pivot Table Fields Panel

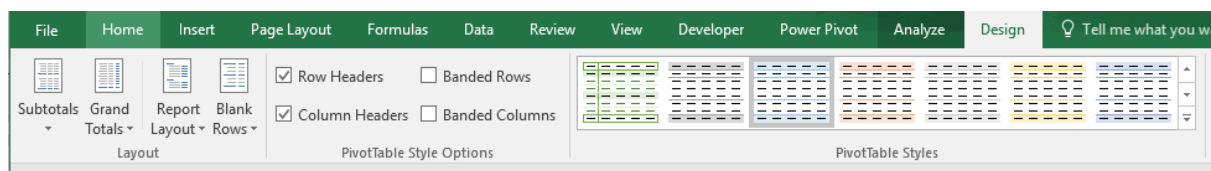
Format Numbers

- Right click any of the numbers in the column to be formatted
- Select **Number Format**
- Select the appropriate formatting options (e.g. currency)



Layout and Appearance

- To change a column heading, simply type the desired wording into the cell. If the word you type already exists as a column heading, a message will appear. Either use a different word or type a space after the word to differentiate it.
- Use the **Design** tab on the Ribbon to control the layout of the pivot table



- Display or hide grand totals and subtotals
- Insert blank rows between items
- Show or hide repeating headings
- Select a Style for the pivot table

Prevent Column Widths Adjusting

- Click the Analyze tab (Options in Excel 2007/2010)
- Click Options on the left hand side of the Ribbon
- In the Layout and Format tab remove the tick from "Autofit column widths on update"

Sort a Pivot Table

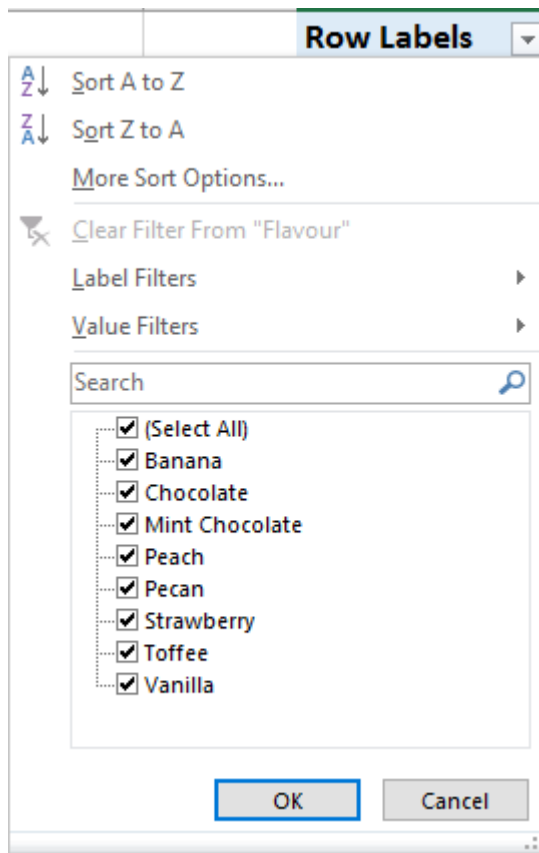
- Click the dropdown arrow in the top left most cell of the Pivot Table

D	E
Row Labels ▼	Sum of Revenue
Banana	27811.44
Chocolate	15057.04

- Select **More Sort Options**
- Select **Ascending** or **Descending**
- Select the field to be used as the sort

Apply a Filter (to a Row/Column/Value)

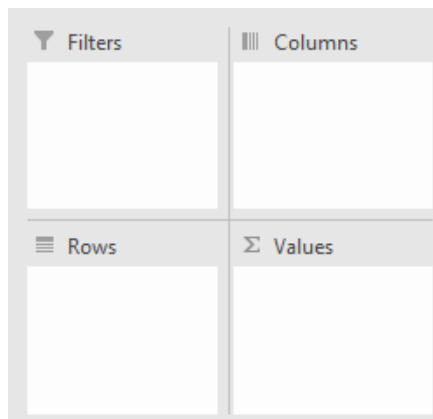
- Click the dropdown arrow in the top left most cell of the Pivot Table



- Remove the ticks from the appropriate checkboxes or use the Value Filters / Label Filters options on the menu

Add a Filter

- Drag a field from the Fields List to the Filters section



- A Filter section is added to the pivot table – above the headings
- Use the drop-down arrow to set a filter

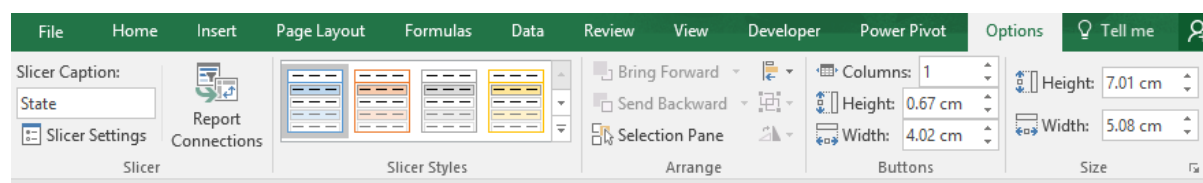
State	(All)
Row Labels	Sum of Revenue
Banana	27811.44
Chocolate	15057.04
Mint Chocolate	18951.84

Drill Down

- Double clicking on a number in a pivot table inserts a new sheet containing just the data that was used to generate the number double clicked on

Slicers

- Select a cell in the pivot table that the slicer is to be based on
- Click the **Analyze** tab (**Options** tab in Excel 2007/2010)
- Click **Insert Slicer**
- Select the field(s) that the Slicer(s) is/are to be based on



- Attach the Slicer to another pivot table: Use the **Report Connections** button
- Change the Slicer colour: Use the **Slicer Styles**
- Display the Slicer buttons in multiple columns: Use the **Columns** box
- Lock Slicer: Right click the Slicer > **Size & Properties** > **Position and Layout**

Data Source of a Pivot Table

- To change the data source of a pivot table, from the **Analyze** tab (Options in Excel 2007/2010), click the **Change Data Source** button
- If the source of your data is in an Excel list, it is recommended that you convert the list into a Table by selecting a cell in the list and pressing **CTRL+T** (or selecting **Insert > Table**)

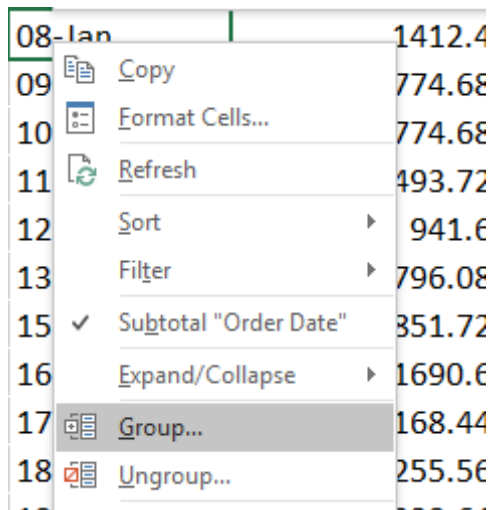
Refresh / Update

When the underlying source data is updated, the pivot table must be updated (refreshed). This does not happen automatically.

- From the **Analyze** tab (Options in Excel 2007/2010), click the **Refresh** button
- NOTE: The **Refresh All** button updates all pivot tables in the file that share the same data source as the current pivot table (the current pivot table being the one that the cursor is in)

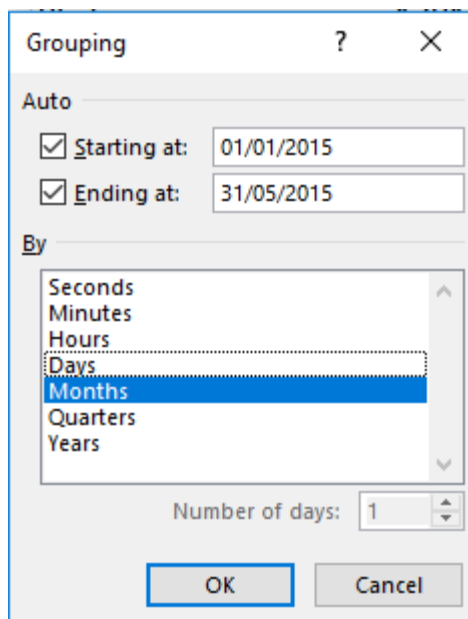
Group by Month or Quarter

- Ensure the field containing the date has been added to the Row or Column section
- Right click on one of the cells containing a date



08-Jan	1412.4
09	774.68
10	774.68
11	493.72
12	941.€
13	796.08
15	351.72
16	1690.€
17	168.44
18	255.5€

- Click **Group...**



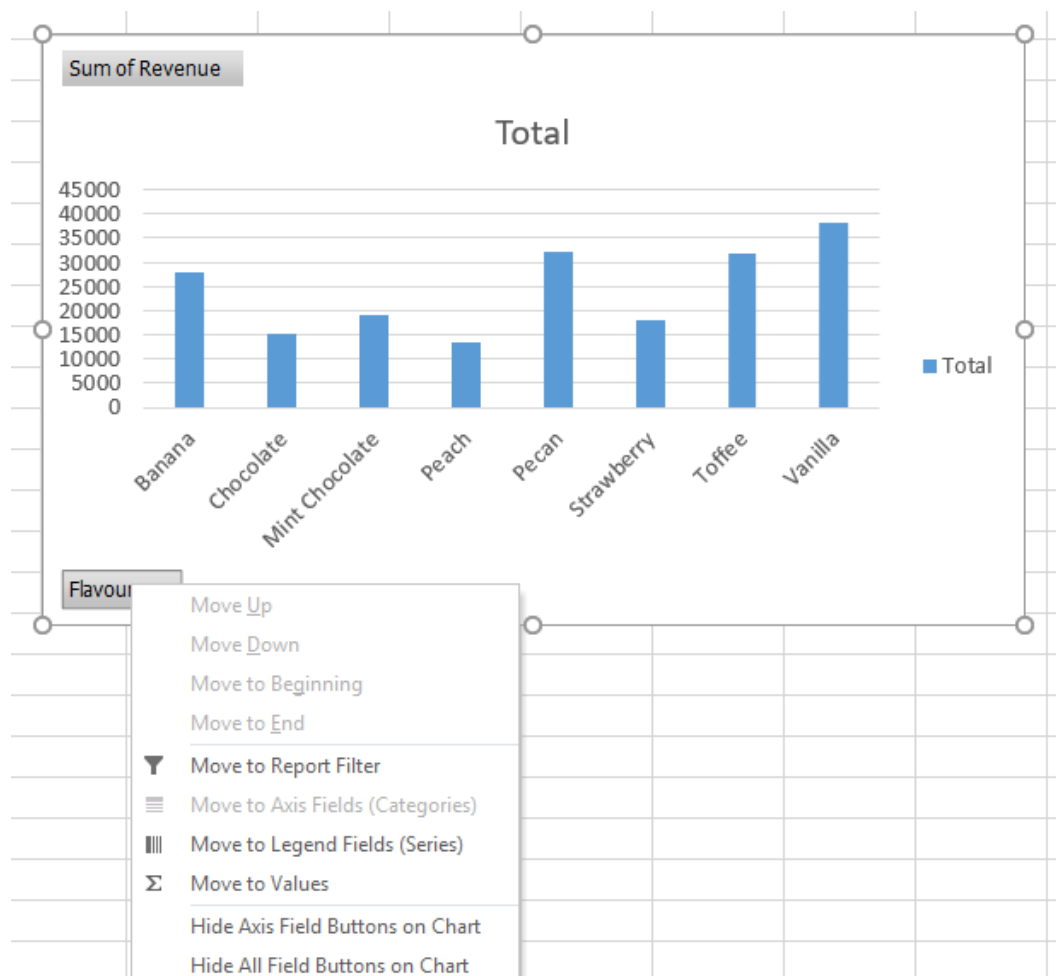
- Leave the **By** list set to Months (or select another option)
- Click **OK**

NOTES:

- To group by Quarter and Month, select both items
- To group by weeks, select **Days** and set **Number of Days** to 7

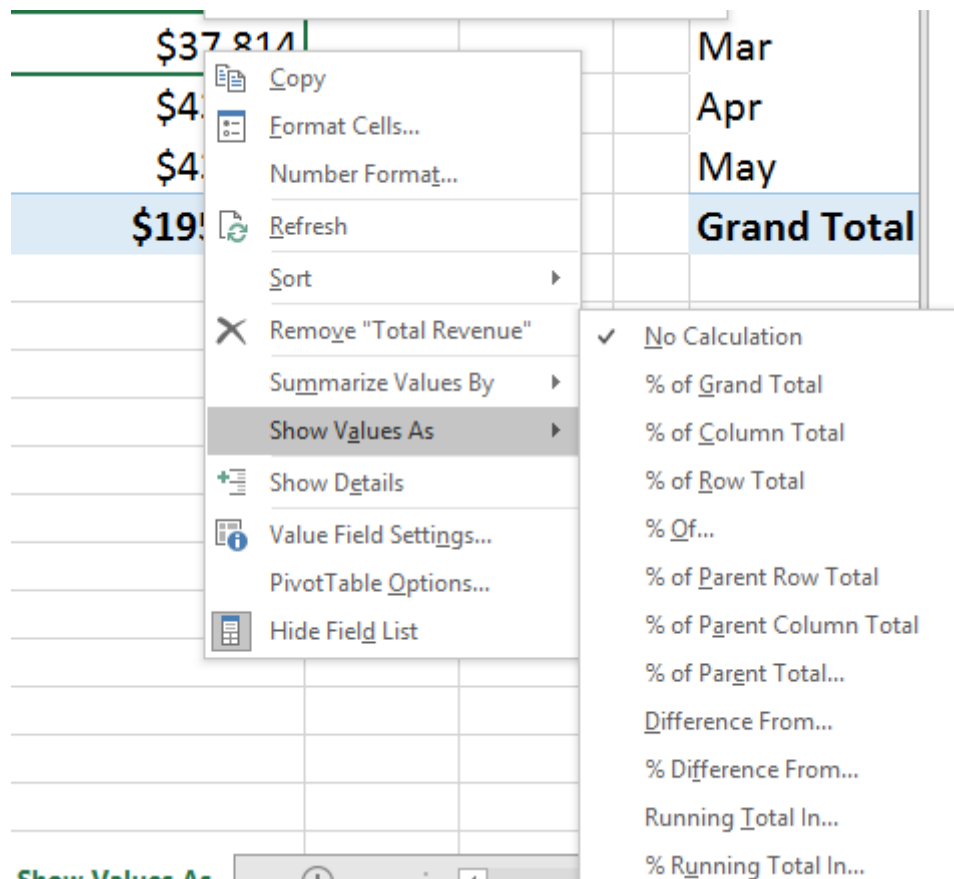
Create a Pivot Chart

- Select a cell inside the Pivot Table that will be the source of the chart
- From the **Analyze** tab (Options in Excel 2007/2010) select **PivotChart**
- Select the type of chart required and click **OK**
- Titles and other elements can be added to the chart via the **Add Chart Element** button on the **PivotChart Tools Design** tab
- To remove the buttons from the chart, **right click** on the button and select **Hide**

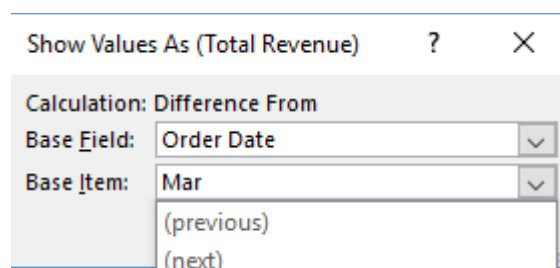


Display Numbers as a Difference

- Right click any of the numbers in the column containing the numbers to be changed
- Select **Show Values As**
- Select **Difference From** (or % Difference From)



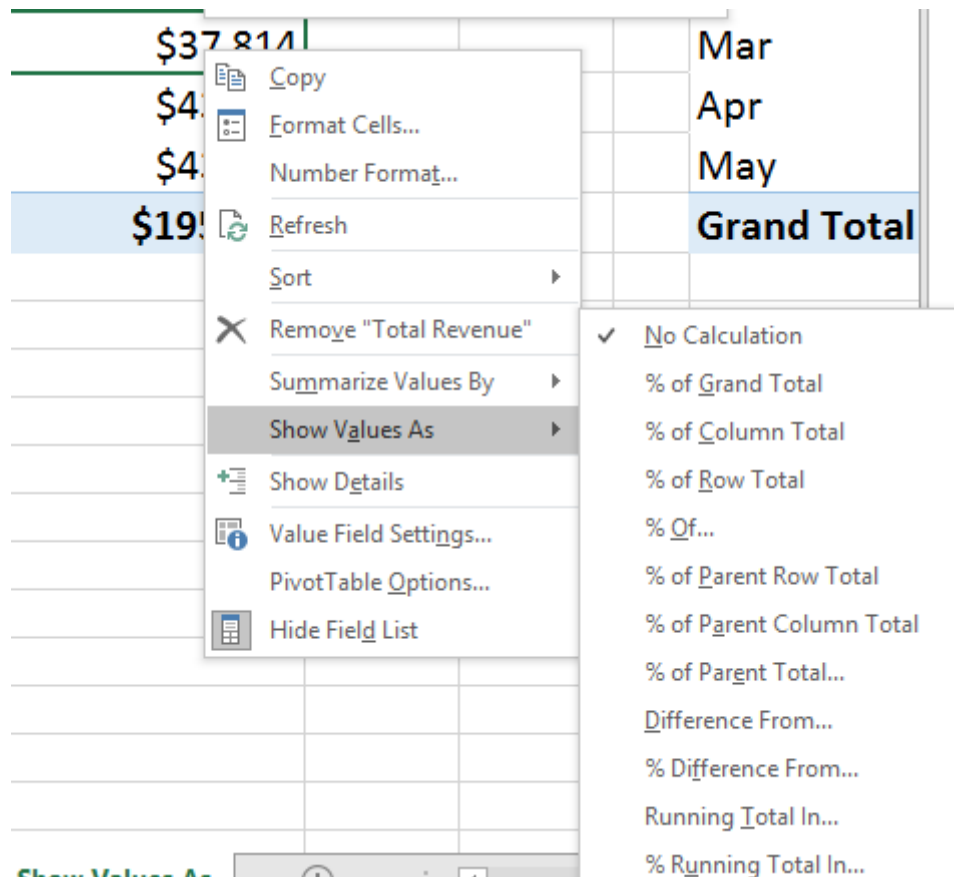
Note: to display the original numbers as well, drag a second instance of the column into the values section in the Pivot Table Fields Panel



- Select the appropriate values from the Base Field and Base Item dropdowns

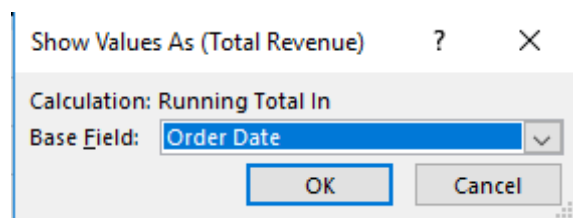
Display a Running Total

- Right click any of the numbers in the column containing the numbers to be changed
- Select **Show Values As**
- Select **Running Total in**



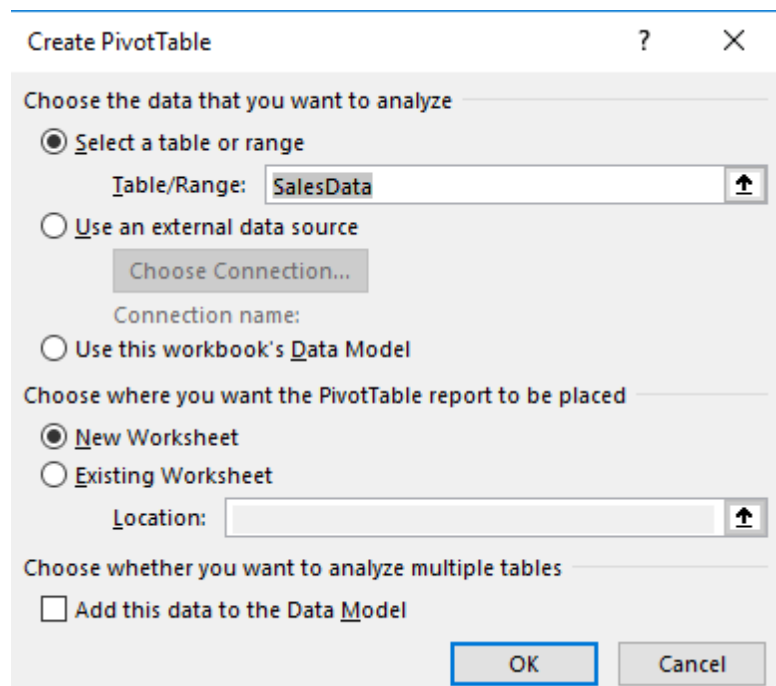
Note: to display the original numbers as well, drag a second instance of the column into the values section in the Pivot Table Fields Panel

- Select the appropriate value from the Base Field dropdown

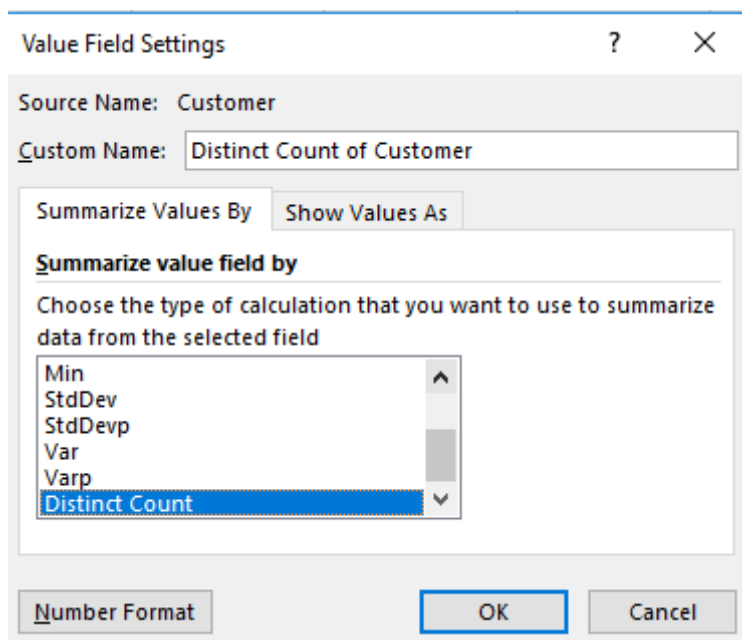


Display a Unique Count (2013 and 2016)

- Ensure that when the pivot table is created, the **Add to Data Model** box is ticked



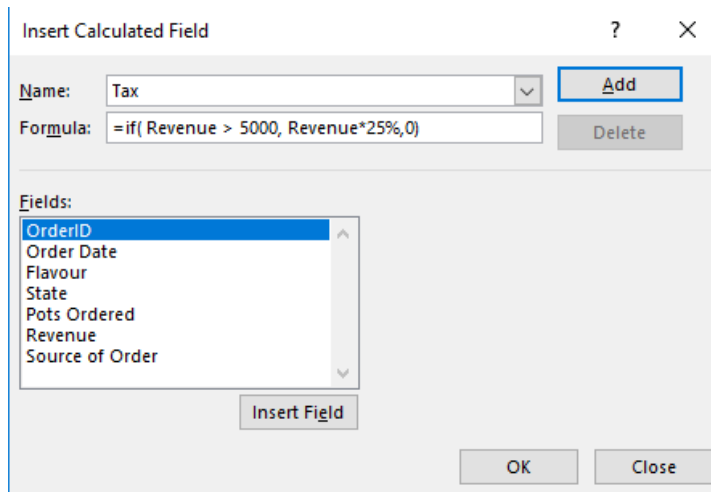
- Right click one of the numbers in the Count column of the pivot table
- Select **Summarize Values By**
- Select **More Options**



- Scroll down the list of Summary operators and select **Distinct Count**

Adding a Calculated Field

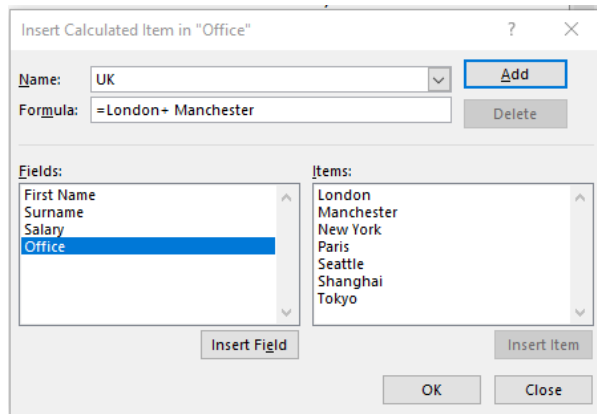
- Click the Analyze tab (Options tab in Excel 2007/2010)
- Click **Fields, Items and Sets**
- Click **Calculated Field**



- Type a name for the new field
- Type the appropriate formula for the field
- Click **OK**

Adding a Calculated Item

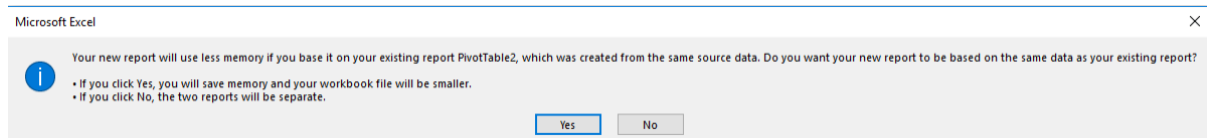
- Select a cell in the column to be grouped/calculated
- Click the Analyze tab (**Options** tab in Excel 2007/2010)
- Click **Fields, Items and Sets**
- Click **Calculated Item**



- Type a name for the new field
- Type the appropriate formula for the field using the appropriate field values
- Click **OK**

Create a Pivot Table Based on a Separate Cache

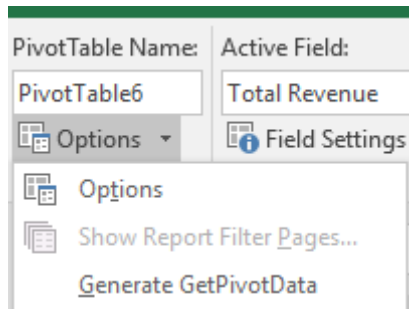
- Place cursor in a blank cell
- Press **ALT+D**
- Press **P**
- Click **Microsoft Office Excel list or database**, and then click **Next**
- Select the range of data (or Table) on which you want to base the new PivotTable report, and then click **Next**



- When the PivotTable and PivotChart Wizard displays a message asking if you want to share the data cache, click **No**
- Select a location for the new PivotTable report, and then click **Finish**

GetPivotData

- Switch on and off by clicking **Generate GetPivotData** on the **Options** button on the **Analyze** tab (**Options** tab in Excel 2007/2010)



When enabled, clicking on a cell within a pivot table whilst creating a formula, generates a GETPIVOTDATA function to reference the cell

About Mike Thomas

Mike Thomas is a subject matter expert in a range of technologies, although his primary focus and passion is Excel and Power BI.

In a career spanning 30+ years, he has delivered thousands of training courses on a wide variety of technology-related topics.

In 2012 Mike founded theexceltrainer.co.uk where he hosts written and video-based Excel and Power BI tutorials. He also runs a YouTube Channel and has recorded several video-based training courses for other organisations.

Mike is a Fellow of The Learning and Performance Institute and has worked with and for many global and UK-based companies and organizations across a diverse range of sectors.

In addition to training, he also designs and develops Microsoft Office-based solutions that automate key business tasks and processes.

Away from the Microsoft world, Mike is co-host of the [MacBites](#) podcast and a co-presenter of [MacBites After Hours](#), a live technology show hosted on YouTube.

Connect with Mike via the links below

- [YouTube](#)
- [The Excel Trainer Website](#)
- [LinkedIn](#)