

## Excel #11: Creating a PivotTable

PivotTables are usually created using data imported from a database. However, they can be based on data from another worksheet.

In generic terms, a PivotTable is a cube browser for Online Application Processing (OLAP).

You have data that consists of a fact that is related to multiple variables or dimensions. The browser enables you to examine the fact in terms of subtotals (or averages, counts, or any other aggregating function). The PivotTable enables users to look at subtotals based on any combination of the dimensions. It also makes it easy to set filters and select subsets of the data.

Open the spreadsheet for this exercise.

It contains sales data extracted via a query from the Rolling Thunder Bicycle company sales. The fact element consists of the SalePrice of the bicycle. The database has many possible dimensions, but the query simplifies the list to ModelType, SaleState, Employee who completed the sale, the month the order was placed, and the Year the sale was placed. Dates are commonly represented by a hierarchy (year, quarter, month, and day). This hierarchy provides a natural drill-down and roll-up environment, to compute subtotals and reveal details. Other natural hierarchies exist (such as location), and you can create your own hierarchies or groups based on the type of data.

Switch to a new worksheet.

Select Insert/Tables/PivotTable from the main menu.

Keep the options to pull the data from Excel and create a PivotTable and click Next.

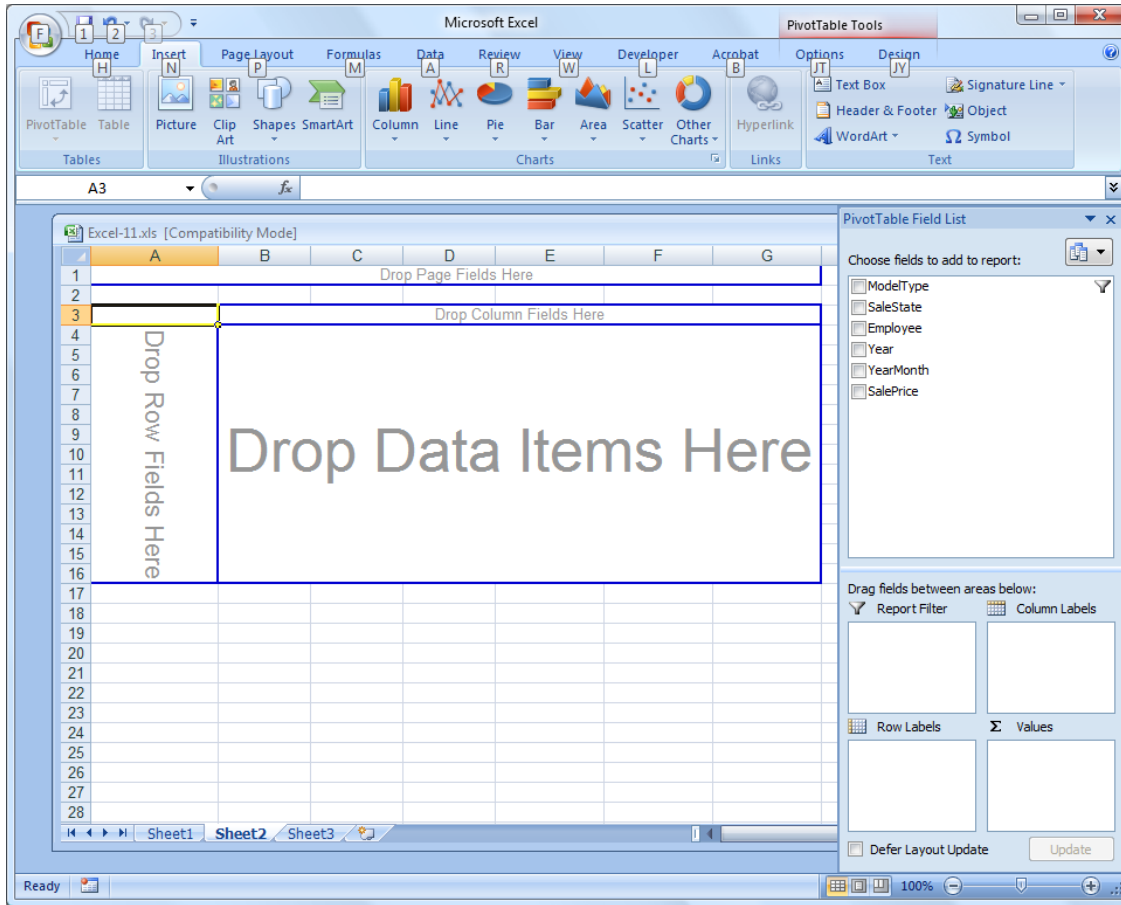
Click the selection button to choose the Range.

Select the first worksheet tab and select all of the data.

Press the Enter key.

Click Next.

Accept the default location on the second sheet for the PivotTable and click Finish.



Drag the SaleState to the area marked “Drop Row Fields Here,” or into the Row list.  
 Drag the ModelType column to the area marked “Drop Column Fields Here.”  
 Drag the Year and then the YearMonth column on top of the SaleState data.  
 Drag the SalePrice column and drop it onto the area marked “Drop Data Items Here.”

With the PivotTable created, you, or a manager, can drag columns to new locations, drill down to see details, or rollup data to see only the subtotals.

Select the SaleState column by clicking on the grey-background label.  
 Click the rollup icon (minus sign) in the PivotTable toolbar (or right click and choose the Group options).  
 Repeat the process for the YearMonth column.  
 Click the drop-down arrow for the ModelType column and deselect the Hybrid, Track, and Tour model types.

Standard Excel methods work, such as formatting.  
 Select all of the sales data in the table and format it with zero decimal places.

Microsoft Excel - PivotTable Tools

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PivotTable Table Picture Clip Art Shapes SmartArt Column Line Pie Bar Area Scatter Other Charts Hyperlink Text Box Header & Footer WordArt Signature Object Symbol

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Excel-11.xls [Compatibility Mode]

Drop Page Fields Here							
Sum of SaleF							
Year	YearMonth	SaleState	Mountain	Mountain full	Race	Road	Grand Total
1994			559,020		928,984	486,774	1,974,777
1995			567,940		294,390	1,074,490	1,936,820
1996			1,469,870		1,374,850	361,020	3,205,740
1997			783,820	1,826,320	1,851,160	894,040	5,355,340
1998			1,366,180	2,712,310	683,090	1,562,180	6,323,760
1999			3,138,210	2,792,330	1,998,490	1,816,790	9,745,820
2000			1,657,070	1,611,920	671,200	600,180	4,540,370
2001			1,221,870	1,399,290	936,430	876,740	4,434,330
2002			1,523,740	2,507,560	1,581,050	1,645,770	7,258,120
2003			2,241,600	3,675,790	1,585,560	2,593,660	10,096,610
2004			1,028,440	4,305,410	2,873,980	3,149,630	11,357,460
2005			1,169,810	4,772,652	3,041,120	3,359,500	12,343,082
2006			1,145,170	4,540,316	2,981,600	3,257,030	11,924,116
2007				5,600			5,600
Grand Total			17,872,740	30,149,497	20,801,904	21,677,804	90,501,945

PivotTable Field List

Choose fields to add to report:

- ModelType
- SaleState
- Employee
- Year
- YearMonth
- SalePrice

Drag fields between areas below:

Report Filter: ModelType

Column Labels: ModelType

Row Labels: Year, YearMonth, SaleState

Values: Sum of SalePr...

Defer Layout Update Update

It can be difficult to work with many dimensions at one time. Hence, it is useful to put extra dimension columns on the page. Users can still drag them onto the table, or use the columns to set filters and display limited data.