The aim of this exercise is to create the followng pivot table:

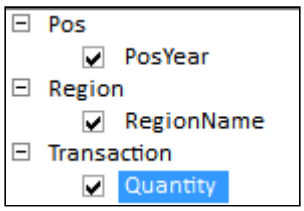
	Column							
	2009				2010			2011
Row Labels	Qty	All regions	Proportion		Qty	All regions	Proportion	Qty
East Anglia	1906	76,707	2.48 %		1772	75,956	2.33 %	
East Midlands	4548	76,707	5.93 %		4650	75,956	6.12 %	1
London	7946	76,707	10.36 %		7563	75,956	9.96 %	
North	5758	76,707	7.51 %		6088	75,956	8.02 %	1
North West	13826	76,707	18.02 %		13739	75,956	18.09 %	
South East	19875	76,707	25.91 %		19652	75,956	25.87 %	1
South West	5722	76,707	7.46 %		5751	75,956	7.57 %	
West Midlands	8105	76,707	10.57 %		8126	75,956	10.70 %	3
Yorkshire & Humberside	9021	76,707	11.76 %		8615	75,956	11.34 %	2

For each region, compare it's sales per year against total sales across all regions.

As always, further explanations follows!

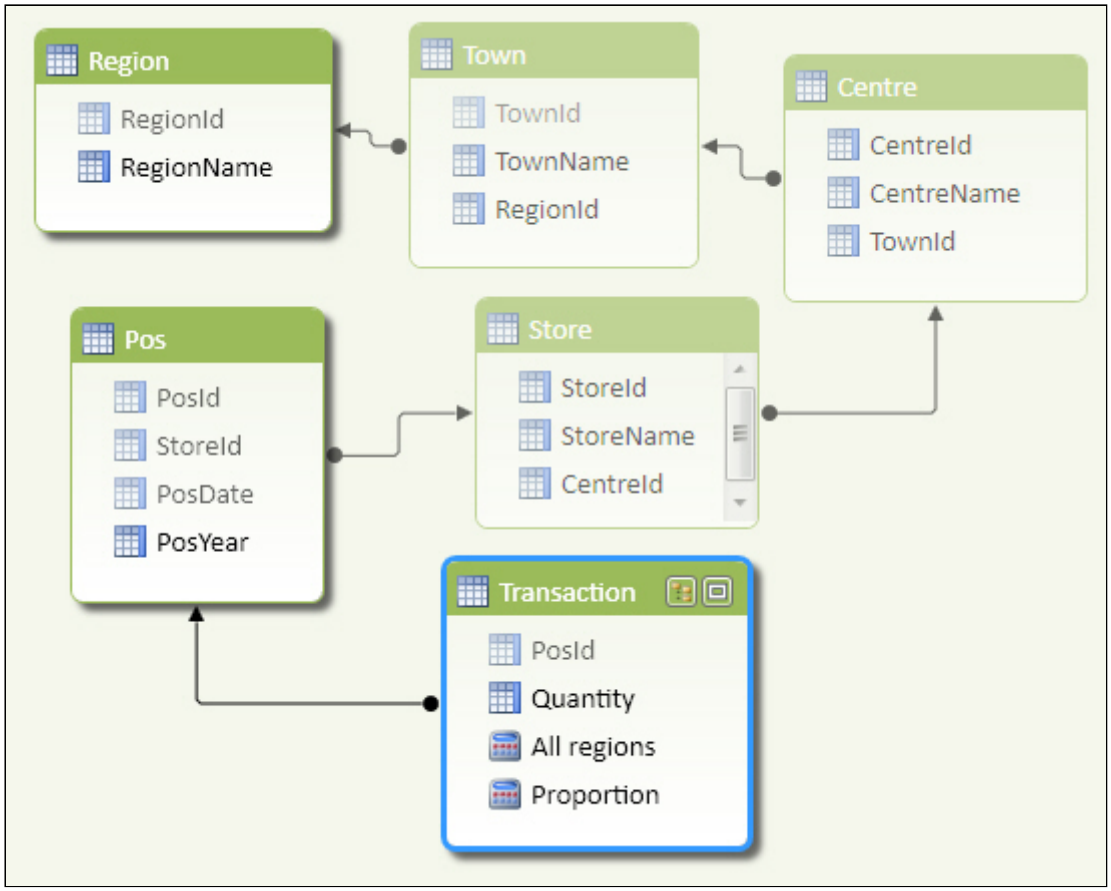
To start, if you haven't already done so run the script in the above folder to generate the **MAM** database (not for commercial use or copying).

The PowerPivot field list you'll need for this is as follows:



It doesn't have to be this neat, but these will be the fields you'll need.

Here are the relationships that you'll need:



You'll need the regions table, the transactions table, and all the tables between them.

Once you've got the basic pivot table working, add two measures:

Measure	What it calculates
All regions	The total quantity of transactions, but for all regions (see hint below).
Proportion	The total quantity of sales for this cell (ie for this filter context), divided by the total quantiy of transactions for all regions.

> *The syntax you'll need is* ***=CALCULATE(SUM(something),ALL(some column)****.*

Save this workbook as **Regional proportions**, then close it down.