



ESCUELA POLITECNICA NACIONAL



FACULTAD DE INGENIERÍA DE SISTEMAS

ISWD433-FUNDAMENTOS DE SISTEMAS DE LA INFORMACIÓN

TÍTULO: 03. Hands-On Lab—Creating a Data Model in Power Pivot

Alumnos: Fernando Huilca Villagómez

PROFESOR: Andrés Larco

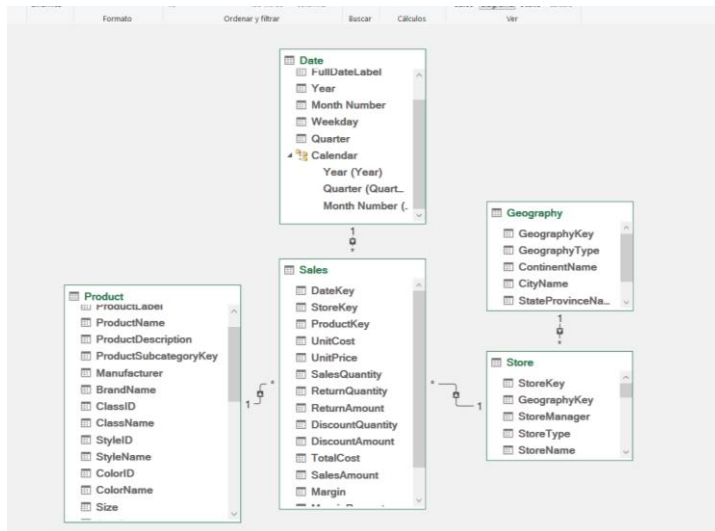


**ESCUELA POLITÉCNICA NACIONAL
FACULTAD DE INGENIERÍA DE SISTEMAS
INGENIERÍA DE SOFTWARE**

1. In the Lab Starters folder, open the LabChap4Starter.xlsx file. This file contains a data model consisting of sales data, product data, and store data.

2. View the model in the Power Pivot window using the diagram view

Diagrama Entidad Relación:



3. Switch to data view in the Power Pivot Window and select the Sales table.

4. After the SalesAmount column, click on the Add Column. In the formula bar above the table, enter the following to calculate margin:

$$=[SalesAmount] - [TotalCost]$$

5. Right click on the new column and rename it Margin.

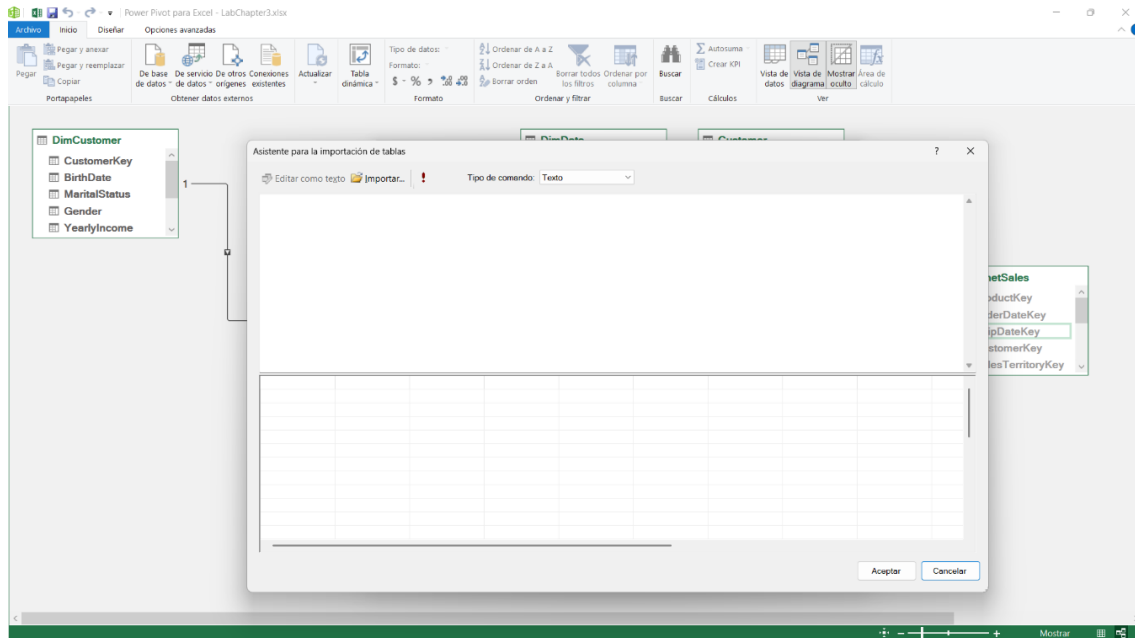
6. Repeat this procedure to create a MarginPercent column with the following formula:

$$=[Margin]/[SalesAmount]$$



ESCUELA POLITÉCNICA NACIONAL
FACULTAD DE INGENIERÍA DE SISTEMAS
INGENIERÍA DE SOFTWARE

Asignamos los valores en las columnas correspondientes



7. In the Data View window, select the Date table.

8. Use the Date functions to create a Year, Quarter, Month, Month Number, and Weekday column.

9. Using the Year, Quarter, and Month columns, create a Calendar hierarchy in the Date table.

10. In the Data View window, select the Product table.

11. Insert a Weight Label column with the following formula:

`=if(ISBLANK([Weight]),BLANK(), [Weight] & " " & [WeightUnitMeasureID])`

12. Next to ProductSubcategoryKey, create a ProductCategory column using the related function:

En pantalla se muestran los resultados obtenidos en la ejecución de las instrucciones :



ESCUELA POLITÉCNICA NACIONAL
FACULTAD DE INGENIERÍA DE SISTEMAS
INGENIERÍA DE SOFTWARE

Product...	Size	UofM Code	Product Name	List Pri...	Size	Size Ran...	Weight	Color	Category	Subcategory	Agregar columna
1			Sport-100 Helmet, Red	33.6442	NA			Red	Accessories	Helmets	
2			Sport-100 Helmet, Red	33.6442	NA			Red	Accessories	Helmets	
3			Touring Pedal	80.99	NA			Silver/...	Components	Pedals	
4			Sport-100 Helmet, Red	34.99	NA			Red	Accessories	Helmets	
5			Sport-100 Helmet, Black	33.6442	NA			Black	Accessories	Helmets	
6			Sport-100 Helmet, Black	33.6442	NA			Black	Accessories	Helmets	
7			Sport-100 Helmet, Black	34.99	NA			Black	Accessories	Helmets	
8			Sport-100 Helmet, Blue	33.6442	NA			Blue	Accessories	Helmets	
9			Sport-100 Helmet, Blue	33.6442	NA			Blue	Accessories	Helmets	
10			Sport-100 Helmet, Blue	34.99	NA			Blue	Accessories	Helmets	
11			AWC Logo Cap	8.6442	NA			Multi	Clothing	Caps	
12			AWC Logo Cap	8.6442	NA			Multi	Clothing	Caps	
13			AWC Logo Cap	8.99	NA			Multi	Clothing	Caps	
14			LL Fork	148.22	NA			NA	Components	Forks	
15			ML Fork	175.49	NA			NA	Components	Forks	
16			HL Fork	229.49	NA			NA	Components	Forks	
17			LL Headset	34.2	NA			NA	Components	Headsets	
18			ML Headset	102.29	NA			NA	Components	Headsets	
19			HL Headset	124.73	NA			NA	Components	Headsets	
20			LL Mountain Handlebars	40.4909	NA			NA	Components	Handlebars	
21			LL Mountain Handlebars	44.54	NA			NA	Components	Handlebars	
22			ML Mountain Handleb...	56.2909	NA			NA	Components	Handlebars	
23			ML Mountain Handleb...	61.92	NA			NA	Components	Handlebars	

=RELATED('ProductCategory'[ProductCategoryName])

13. Using the related function, create a ProductSubcategory column.

14. Hide the ProductCategory and ProductSubcategory tables from the client tools.

15. Switch to the Store table and create a Years Open column with the following formula.

=TRUNC(YEARFRAC([OpenDate],
If(ISBLANK([CloseDate]),TODAY(),[CloseDate])),0)

16. Create a LifetimeSales column using the following formula.

=SUMX(RELATEDTABLE(Sales),Sales[SalesAmount])

The screenshot shows the Power BI Desktop interface. On the left, the 'Modelo de datos' pane displays a table named 'Total general'. The main workspace is empty. On the right, the 'Campos de tabla dinámica' (Dynamic Fields) pane is open, showing a search bar with 'gro' entered and a message 'No hay coincidencias' (No matches found). Below the search bar, there are sections for 'Filtros' (Filters), 'Columnas' (Columns), 'Filas' (Rows), and 'Valores' (Values). The 'Filas' section shows 'SalesTerritoryKey' selected. The 'Valores' section is empty. At the bottom of the pane, there is a checkbox for 'Aplicar actualización del diseño' (Apply design update) and an 'Actualizar' (Update) button.



**ESCUELA POLITÉCNICA NACIONAL
FACULTAD DE INGENIERÍA DE SISTEMAS
INGENIERÍA DE SOFTWARE**

17. Save and close the Excel file