



**UNIVERSIDAD PRIVADA DE TACNA**

**FACULTAD DE INGENIERIA**

**Escuela Profesional de Ingeniería de Sistemas**

**INFORME DE LABORATORIO N° 03**  
**“CREANDO UN REPORTE INTERACTIVO EN POWER BI”**

Curso: Inteligencia de Negocios

Docente: Ing. Patrick Cuadros Quiroga

**Garcia Salazar, Briset Celia**

**(2018062496)**

**Tacna – Perú**  
**2022**



## **PRACTICA DE LABORATORIO N° 03**

### **TEMA: CREANDO UN REPORTE INTERACTIVO EN POWER BI**

#### **1. REQUERIMIENTOS**

- ✓ **Conocimientos**  
Para el desarrollo de esta práctica se requerirá de los siguientes conocimientos básicos:
  - Conocimientos básicos de administración de base de datos Microsoft SQL Server.
  - Conocimientos básicos de SQL.
- ✓ **Software**  
Asimismo, se necesita los siguientes aplicativos:
  - Microsoft SQL Server 2016 o superior
  - Base de datos AdventureWorksLT2016 o superior
  - Tener los archivos de recursos del laboratorio.
  - Power BI Desktop.
  - Tener una cuenta Microsoft registrada en el Portal de Power Bi

#### **2. CONSIDERACIONES INICIALES**

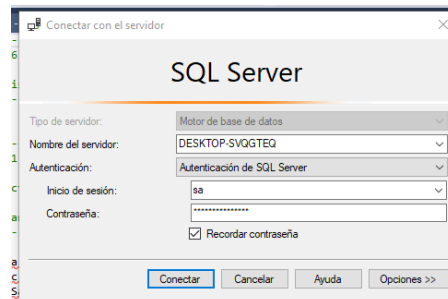
- ✓ Generar una carpeta o directorio Power BI en un lugar accesible para guardar los resultados de la práctica.

#### **3. DESARROLLO**

##### **Ejercicio 1: Conectando a Power BI a datos**

##### **Tarea 1: Conectar a datos existentes**

1. Abrir SQL Server Management Studio, y conectar a la instancia de base de datos **(local)** utilizando autenticación de Windows.



2. En el menú Archivo (**File**), en el submenú Abrir (**Open**), hacer click en **Project/Solution**, y buscar el archivo **Project.ssmssln**.
3. En el Explorador de Soluciones, expandir Consultas (**Queries**), y luego hacer doble click en el archivo **Lab Exercise 1.sql**.

```

-- Lab 00
-- Exercise 1

-- Task 1
-- Connect to AdventureWorksLT Azure SQL Database from Power BI.
-- Copy and paste the following query into the Query textbox.

SELECT a.CustomerID, a.CompanyName, a.NameStyle, a.Title, a.Firstname, a.Lastname, a.SalesPerson,
       c.AddressLine1, c.AddressLine2, c.City, c.StateProvince, c.CountryRegion, c.PostalCode
FROM SalesLT.Customer AS a
INNER JOIN SalesLT.CustomerAddress AS b ON a.CustomerID = b.CustomerID
WHERE b.AddressType = 'Main Office'

-- Task 2
-- Connect to AdventureWorksLT Azure SQL Database from Power BI.
-- Copy and paste the following query into the Query textbox.

SELECT b.CustomerID, a.SalesOrderID, a.SalesOrderDetailID, b.RevisionNumber, b.SalesOrderNumber,

```

4. Abrir **Power BI Desktop**.
5. En la ventana Power BI Desktop, hacer click en Obtener Datos (**Get Data**).
6. En el cuadro Obtener Datos, click base de datos **Microsoft SQL**, y entonces click en Conectar
7. En la ventana base de datos Server database, En **Servidor**, escribir (**local**).
8. En **Base de Datos (opcional)**, tipear **AdventureWorksLT**.
9. Expandir el cuadro **Opciones Avanzadas**. Copiar el script **Task 1** del archivo **Lab Exercise 1.sql**. y pegar la consulta en Power BI, en el cuadro sentencia SQL. Luego presionar OK.
10. En la ventana de vista preliminar click en Cargar.

**Base de datos SQL Server**

Servidor

Base de datos (opcional)

Modo Conectividad de datos ☒ Importar ☐ DirectQuery

Opciones avanzadas

Tiempo de espera del comando en minutos (opcional)

Instrucción SQL (opcional, requiere una base de datos)

```

FROM SalesLT.Customer AS a
INNER JOIN SalesLT.CustomerAddress AS b ON a.CustomerID = b.CustomerID
WHERE b.AddressType = 'Main Office'

```

☒ Incluir columnas de relación

☐ Navegar usando la jerarquía completa

☐ Habilitar la compatibilidad con la conmutación por error de SQL Server

Aceptar Cancelar

**DESKTOP-SVQGTEQ: AdventureWorksLT2016**

CustomerID	CompanyName	NameStyle	Title	Firstname	Lastname	SalesPerson	AddressLine1
29485	Professional Sales and Service	FALSE	Ms.	Catherine	Abel	adventure-works/jinda3	57251 Serene Blvd
29486	Riders Company	FALSE	Ms.	Kim	Abercrombie	adventure-works/jillan0	Tanger Factory
29488	Area Bike Accessories	FALSE	Ms.	Frances	Adams	adventure-works/juha0	6900 Sisk Road
29490	Bicycle Accessories and Kits	FALSE	Ms.	Margaret	Smith	adventure-works/david8	Lewiston Mall
29492	Valley Bicycle Specialists	FALSE	Mr.	Jay	Adams	adventure-works/jillan0	Blue Ridge Mall
29494	Vinyl and Plastic Goods Corporation	FALSE	Mr.	Samuel	Agcaoli	adventure-works/jose1	No. 25800-130 King Street
29496	Fun Toys and Bikes	FALSE	Mr.	Robert	Ahlering	adventure-works/juha0	6500 East Grant Road
29497	Great Bikes	FALSE	Mr.	François	Ferrier	adventure-works/david8	Eastridge Mall
29499	Valley Toy Store	FALSE	Ms.	Amy	Alberts	adventure-works/jose1	252851 Rowan Place
29502	Major Sport Suppliers	FALSE	Mr.	Paul	Alcorn	adventure-works/david8	White Mountain Mall
29503	Family's Favorite Bike Shop	FALSE	Mr.	Gregory	Alderson	adventure-works/jarrett1	25981 College Street
29505	Imported and Domestic Cycles	FALSE	Ms.	Michelle	Alexander	adventure-works/jinda3	22589 West Craig Road
29506	Systematic Sales	FALSE	Mr.	Sean	Jacobson	adventure-works/juha0	2551 East Warner Road
29508	Mountain Toy Store	FALSE	Mr.	Marvin	Allen	adventure-works/jillan0	First Colony Mall
29510	Designated Distributors	FALSE	Mr.	Cecil	Allison	adventure-works/jose1	254 Colomade Road
29512	Bold Bike Accessories	FALSE	Mr.	Oscar	Alpuerto	adventure-works/jinda3	Rocky Mountain Pines Ou
29515	Serious Cycles	FALSE	Ms.	Maxwell	Amland	adventure-works/jarrett1	Suite 99520 255 - 510th A
29517	Novelty Bikes	FALSE	Ms.	Ramona	Antrim	adventure-works/michael9	998 Forest Road
29521	Brightwork Company	FALSE	Mr.	Tom	Johnston	adventure-works/juha0	Beis Factory Outlet
29522	Retail Services	FALSE	Mr.	Thomas	Armstrong	adventure-works/jinda3	Fox Hills

Los datos de la vista previa se han truncado debido a límites de tamaño.

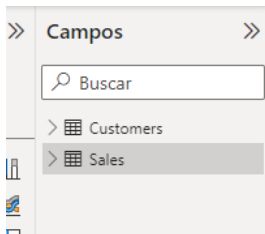
Cargar Transformar datos Cancelar

11. En Power BI Desktop, click **Obtener Datos** y luego click en Mas.
12. Repetir los pasos del 6 al 10, utilizando el script **Task 2**.
13. De regreso en el reporte. Guardar el archivo como **AdventureWorksLT Sales.pbix**.

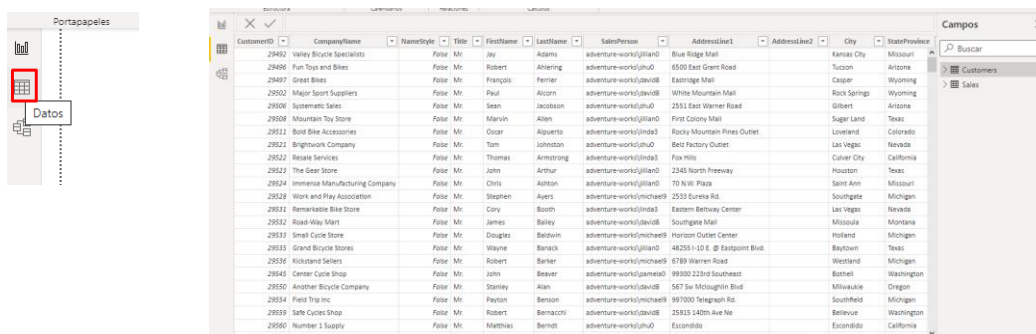


## Tarea 2: Graficar Datos

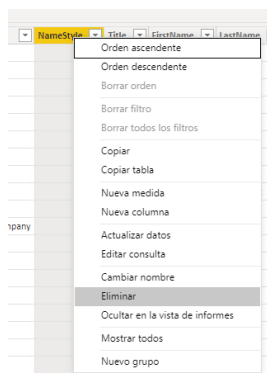
1. En el panel Campos (Fields), click derecho sobre Query1, Renombrar, tipear Customers y presionar Enter.
2. Para el Query2, hacer lo mismo del paso 1 y colocar el nombre Sales.



3. Expandir ambas tablas para ver todas las filas.
4. En la barra de navegación, click Datos (Data).



5. In the Fields pane, click the Customers table, if it is not already selected.
6. Right-click the NameStyle column, and click Delete.

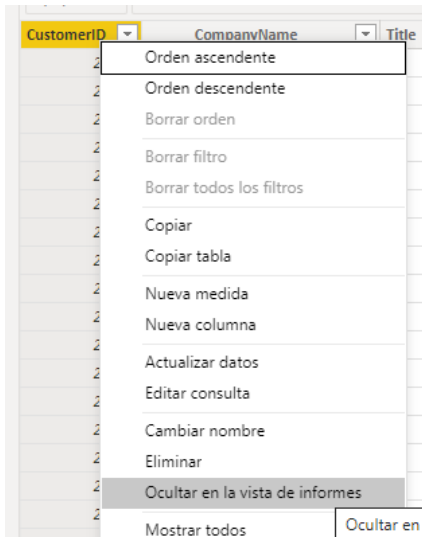


7. In the Delete Column dialog box, click Delete.

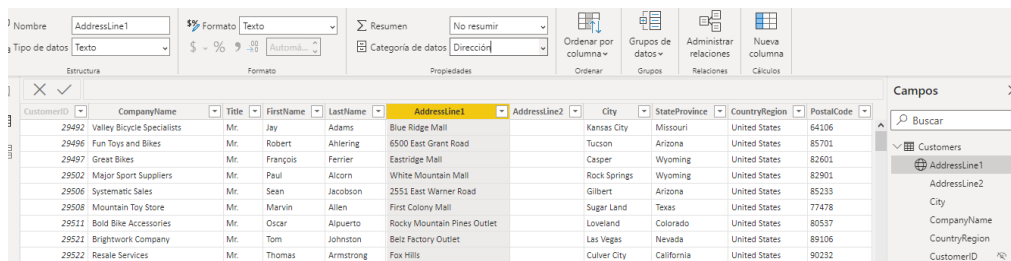
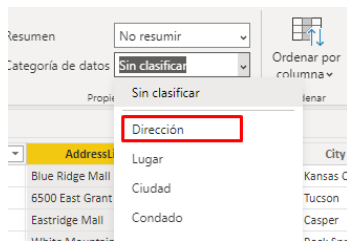
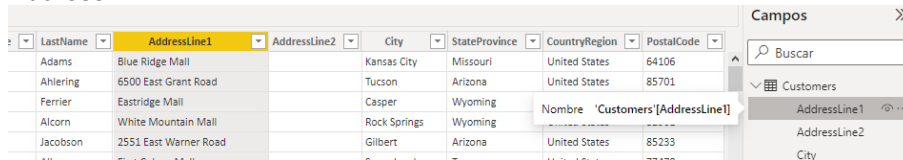
CustomerID	CompanyName	Title	FirstName	LastName	SalesPerson	AddressLine1	AddressLine2	City	StateProvince	CountryRegion
29492	Valley Bicycle Specialists	Mr.	Jay	Adams	adventure-works\jilland	Blue Ridge Mall		Kansas City	Missouri	United States
29496	Fun Toys and Bikes	Mr.	Robert	Albright	adventure-works\luo	6500 East Grant Road		Tucson	Arizona	United States
29497	Great Bikes	Mr.	François	Ferrier	adventure-works\dayid8	Eastridge Mall		Casper	Wyoming	United States
29502	Major Sport Suppliers	Mr.	Paul	Alcorn	adventure-works\dayid8	White Mountain Mall		Rock Springs	Wyoming	United States
29506	Systematic Sales	Mr.	Sean	Jacobson	adventure-works\luo	2551 East Warner Road		Gilbert	Arizona	United States
29508	Mountain Toy Store	Mr.	Marvin	Allen	adventure-works\jilland	First Colony Mall		Sugar Land	Texas	United States
29512	Bold Bike Accessories	Mr.	Oscar	Alquerto	adventure-works\linda3	Rocky Mountain Pines Outlet		Loveland	Colorado	United States
29521	Brighthouse Company	Mr.	Tom	Johnston	adventure-works\luo	Beiz Factory Outlet		Las Vegas	Nevada	United States
29522	Resale Services	Mr.	Thomas	Armstrong	adventure-works\linda3	Fox Hills		Culver City	California	United States
29523	The Gear Store	Mr.	John	Arthur	adventure-works\jilland	2345 North Freeway		Houston	Texas	United States
29524	Immense Manufacturing Company	Mr.	Chris	Ashton	adventure-works\jilland	70 N.W. Plaza		Saint Ann	Missouri	United States
29528	Work and Play Association	Mr.	Stephen	Ayers	adventure-works\michael9	2533 Eureka Rd.		Southgate	Michigan	United States
29531	Remarkable Bike Store	Mr.	Cory	Booth	adventure-works\linda3	Eastern Gateway Center		Las Vegas	Nevada	United States
29532	Road-Way Mart	Mr.	James	Bailey	adventure-works\dayid8	Southgate Mall		Missoula	Montana	United States
29533	Small Cycle Store	Mr.	Douglas	Baldwin	adventure-works\michael9	Horizon Outlet Center		Holland	Michigan	United States
29533	Grand Bicycle Stores	Mr.	Wayne	Barack	adventure-works\jilland	48293 I-10 E. @ Eastpoint Blvd.		Baytown	Texas	United States
29536	Kickstand Sellers	Mr.	Robert	Barner	adventure-works\michael9	5789 Warren Road		Westland	Michigan	United States
29545	Center Capital Shop	Mr.	John	Beaver	adventure-works\gamead	89390 223rd Southwest		Bethel	Washington	United States
29550	Another Bicycle Company	Mr.	Stanley	Alan	adventure-works\dayid8	567 So. McLaughlin Blvd.		Milwaukie	Oregon	United States
29554	Pedal Trip Inc.	Mr.	Payton	Benson	adventure-works\michael9	99700 Telegraph Rd.		Southfield	Michigan	United States
29559	Safe Cycles Shop	Mr.	Robert	Bernacchi	adventure-works\luo	25923 140th Ave. Ne		Bellevue	Washington	United States
29560	Number 1 Supply	Mr.	Matthew	Berndt	adventure-works\luo	Escondido		Escondido	California	United States

8. Repetir el paso 6 y 7 para la columna SalesPerson.

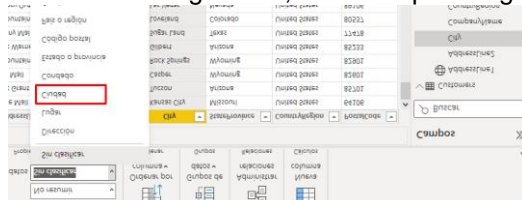
- Right-click the CustomerID column, and then click Hide in Report View.



- Click the AddressLine1 column header.
- On the Modeling ribbon, in the Properties group, click Data Category: Uncategorized, and then click Address.



- Click the City column header.
- On the Modeling ribbon, in the Properties group, click Data Category: Uncategorized, and then click City.



14. Click the StateProvince column header.

15. On the Modeling ribbon, in the Properties group, click Data Category: Uncategorized, and then click State or Province.

16. Click en el encabezado de columna CountryRegion.

17. On the Modeling ribbon, in the Properties group, click Data Category: Uncategorized, and then click Country/Region.

18. Click en el encabezado de columna PostalCode.

19. On the Modeling ribbon, in the Properties group, click Data Category: Uncategorized, and then click Postal Code.

20. On the Modeling ribbon, in the Calculations group, click New Column, and then in the formula bar, type the following expression and press Enter:

FullAddress = Customers[AddressLine1] & ", " & Customers[City] & ", " &  
Customers[StateProvince] & ", " & Customers[CountryRegion] & ", " &  
Customers[PostalCode]



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Ordenar	Grupos	Relaciones	Cálculos
[Province] & ", " & Customers[CountryRegion] & ", " & Customers			
EntryRegion	PostalCode	FullAddress	
ted States	64106	Blue Ridge Mall, Kansas City, Missouri, United States, 64106	
ted States	85701	8500 East Grant Road, Tucson, Arizona, United States, 85701	
ted States	82601	Eastridge Mall, Casper, Wyoming, United States, 82601	
ted States	82901	White Mountain Mall, Rock Springs, Wyoming, United States, 82901	
ted States	85233	2551 East Warner Road, Gilbert, Arizona, United States, 85233	
ted States	77478	First Colony Mall, Sugar Land, Texas, United States, 77478	
ted States	80537	Rocky Mountain Pines Outlet, Loveland, Colorado, United States, 80537	
ted States	89106	Beir Factory Outlet, Las Vegas, Nevada, United States, 89106	
ted States	90232	Fox Hills, Culver City, California, United States, 90232	
ted States	77003	2345 North Freeway, Houston, Texas, United States, 77003	
ted States	63074	70 N.W. Plaza, Saint Ann, Missouri, United States, 63074	

21. In the Fields pane, click Sales.
22. Right-click the RevisionNumber column, and click Delete.
23. In the Delete Column dialog box, click Delete.

ID	Revisión	Orden ascendente	Category	SubCategory	ProductID	Product	OrderQty	ListPrice	Acciones	
110562		Orden descendente	sonents	Road Frames	836	ML Road Frame-W - Yellow, 48	1	594.8		Buscar
110563		Orden descendente	sonents	Road Frames	822	ML Road Frame-W - Yellow, 38	1	594.8		
110567		Borrar orden	sonents	Brakes	907	Rear Brakes	2	106.1		Sales
110620		Borrar filtro	sonents	Mountain Bikes	990	Mountain-500 Black, 42	1	539.9		CustomerID
110621		Borrar todos los filtros	sonents	Mountain Frames	926	LL Mountain Frame - Black, 48	2	249.7		DueDate
110622		Copiar	sonents	Mountain Frames	743	HL Mountain Frame - Black, 42	2	1349.1		ListPrice
110626		Copiar tabla	sonents	Pedals	937	HL Mountain Pedal	2	80.9		MainCategory
110628			sonents	Mountain Bikes	985	Mountain-500 Silver, 42	2	564.9		OrderDate
110632		Nueva medida	sonents	Mountain Bikes	992	Mountain-500 Black, 48	2	539.9		OrderQty
110640		Nueva columna	sonents	Handbells	810	HL Mountain Handbells	2	120.2		Product
110642		Actualizar datos	sonents	Mountain Frames	925	LL Mountain Frame - Black, 44	2	249.7		ProductID
110644		Editar consulta	sonents	Hydration Packs	880	Hydration Pack - 70 oz.	2	54.9		RevisionNumber
110659		Cambiar nombre	sonents	Touring Bikes	954	Touring-1000 Yellow, 46	2	2384.0		SalesOrderDetailID
110678		Eliminar	sonents	Touring Bikes	978	Touring-3000 Blue, 44	2	742.3		SalesOrderID
110679			sonents	Touring Bikes	955	Touring-1000 Yellow, 50	2	2384.0		
110680		Ocultar en la vista	sonents	Brakes	948	Front Brakes	2	106.1		

24. Realizar el paso 23 y 34 para la columna SalesOrderNumber.

SalesOrderNumber	MainCategory	SubCategory
62 SOT1774	Orden ascendente	yes
63 SOT1774	Orden descendente	yes
67 SOT1776	Borrar orden	yes
20 SOT1780	Borrar filtro	Blik
21 SOT1780	Borrar todos los filtros	Fre
22 SOT1780	Copiar	Fre
26 SOT1780	Copiar tabla	Blik
28 SOT1780	Nueva medida	Blik
40 SOT1780	Nueva columna	rs
42 SOT1780	Actualizar datos	Fre
44 SOT1780	Editar consulta	Pai
69 SOT1782	Cambiar nombre	kes
78 SOT1782	Eliminar	kes
79 SOT1782	Ocultar en la vista de informes	kes

25. Right-click the CustomerID column, and then click Hide in Report View.

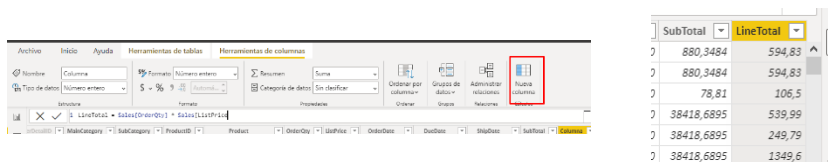
CustomerID	SalesOrderID	SalesOrderDetailID	MainCategory
29847	71774	110562	Components
29847	71774	110563	Components
30072	71776	110567	Components
30113	71780	110620	Bikes
30113	71780	110621	Components
30113	71780	110622	Components
30113	71780	110626	Components
30113	71780	110628	Bikes
30113	71780	110631	Bikes
30113	71780	110640	Components

26. Realizar el paso 26 para las columnas SalesOrderID y SalesOrderDetailID.

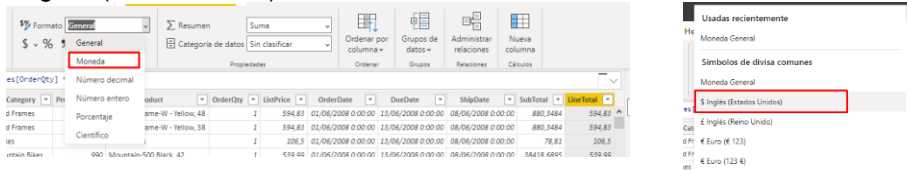
CustomerID	SalesOrderID	SalesOrderDetailID	MainCategory
29847	71774	110562	Components
29847	71774	110563	Components
30072	71776	110567	Components
30113	71780	110620	Bikes
30113	71780	110621	Components
30113	71780	110622	Components
30113	71780	110626	Components
30113	71780	110628	Bikes
30113	71780	110631	Bikes
30113	71780	110640	Components

27. On the Modeling ribbon, in the Calculations group, click New Column, and then in the formula bar, type the following expression and press Enter:

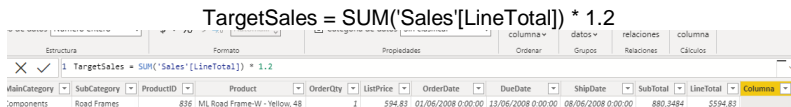
$$\text{LineTotal} = \text{Sales}[\text{OrderQty}] * \text{Sales}[\text{ListPrice}]$$



28. Click the LineTotal column header.
29. On the Modeling ribbon, in the Formatting group, click Format: General, point to Currency, and then click \$ English (United States).



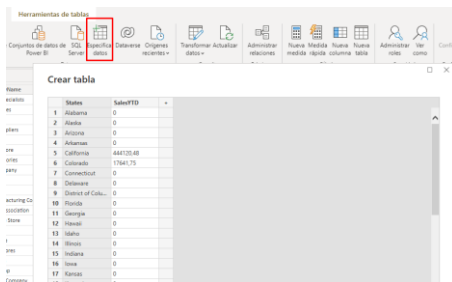
30. On the Modeling ribbon, in the Calculations group, click New Measure, and then in the formula bar, type the following expression and press Enter.



31. Click Save, and then leave Power BI Desktop open for the next task.

## Tarea 3: Combinar Data

1. In File Explorer, and then open the States.xlsx file.
2. In the States worksheet, select all of the values in the two columns, and then press Ctrl+C.
3. In Power BI Desktop, on the Home ribbon, click Enter Data.
4. In the Create Table dialog box, click in the table, and then press Ctrl+V. Power BI detects that the first row is a column header.



5. In the Name box, type Sales by State, and then click Load.



6. On the Home ribbon, click Get Data, and then click Web.
7. In the From Web dialog box, in the URL box, type [http://en.wikipedia.org/wiki/List\\_of\\_U.S.\\_state\\_abbreviations](http://en.wikipedia.org/wiki/List_of_U.S._state_abbreviations), and then click OK.



De web

☒ Básico ☐ Uso avanzado

Dirección URL

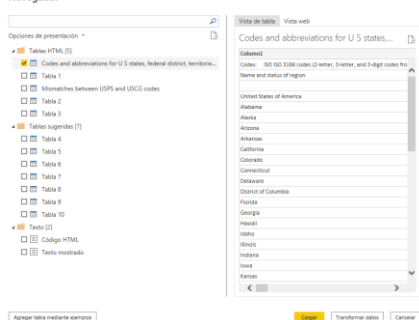
[http://en.wikipedia.org/wiki/List\\_of\\_U.S.\\_state\\_abbreviations](http://en.wikipedia.org/wiki/List_of_U.S._state_abbreviations)

Aceptar

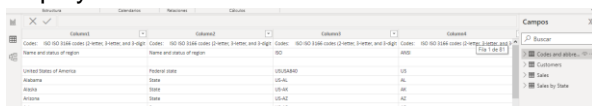
Cancelar

- In the **Navigator** dialog box, select **Codes and abbreviations for U.S. states, territories and other regions**, and then click **Load**.

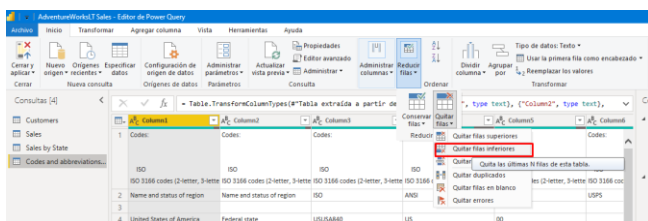
Navegador



- In the **Fields** pane, click **Codes and abbreviations for U.S. states, territories and other regions** to display the data. The table has 26 rows at the bottom that are not needed.



- On the **Home** ribbon, in the **External Data** group, click **Edit Queries**, then click **Edit Queries**.
- In Query Editor, in the **Queries** pane, click **Codes and abbreviations for U.S. states, territories and other regions**.
- On the **Home** ribbon, click **Reduce Rows**, click **Remove Rows**, and then click **Remove Bottom Rows**.



- In the **Remove Bottom Rows** dialog box, in the **Number of rows** box, type **26**, and then click **OK**.

Quitar filas inferiores

Especifique cuántas filas desea quitar de la parte inferior.

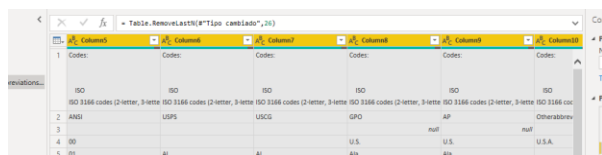
Número de filas

26

Aceptar

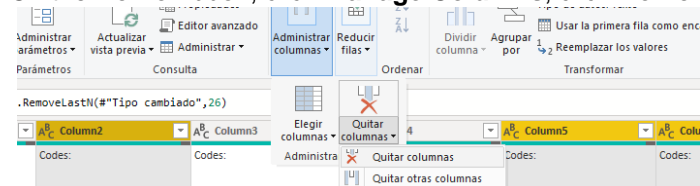
Cancelar

- Click the **ANSI2** column header, and then hold down the Ctrl key while selecting all of the columns to the right. This selects multiple rows.

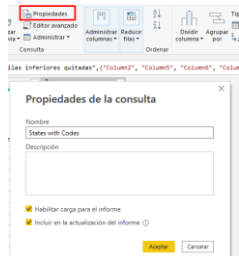


Columna	Columna	Columna	Columna	Columna	Columna
1	Codes:	Codes:	Codes:	Codes:	Codes:
2	ISO	ISO	ISO	ISO	ISO
3	ANSI	USPS	USCS	GPO	AP
4	ISO	AL	AL	U.S.	U.S.
5	OS	AL	AL	Ala	Ala

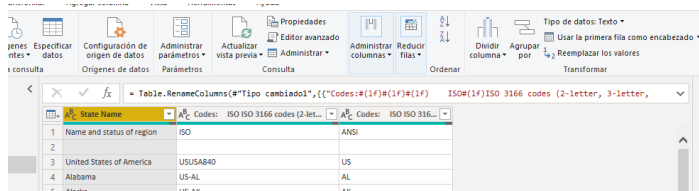
- Still holding down Ctrl, click the **Name and status of region2** and **Header** columns to include this in the selection.
- On the **Home** ribbon, click **Manage Columns**, click **Remove Columns**, and then click **Remove Columns**.



- In the **Query Settings** pane, under **Properties**, in the **Name** box, type **States with Codes**, and then press Enter.



- On the **Home** ribbon, in the **Transform** group, click **Use First Row as Headers**.
- Right-click the **United States of America** column header, click **Rename**, type **State Name**, and then press Enter.

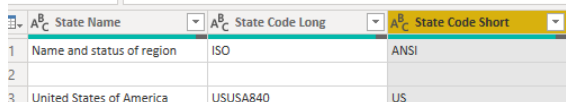


Propiedades, Editor avanzado, Administrar, Reducir filas, Dividir columna, Agrupar por, Usar la primera fila como encabezado, Reemplazar los valores, Transformar.

Table.RenameColumns("#Tipo cambiado",{"Codes:=(1f)#(1f)#(1f) ISO(1f)ISO 3166 codes (2-letter, 3-letter, 4-letter)"})

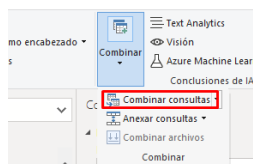
Columna	Columna	Columna	Columna
1	Name and status of region	ISO	ANSI
2	United States of America	USUSA840	US
3	Alabama	US-AL	AL
4	Alaska	US-AK	AK

- Right-click the **US USA 840** column header, click **Rename**, type **State Code Long**, and then press Enter.
- Right-click the **US** column header, click **Rename**, type **State Code Short**, and then press Enter.



Columna	Columna	Columna
1	State Name	State Code Long
2	Name and status of region	ANSI
3	United States of America	USUSA840

- In the **Queries** pane, click **Sales by State**.
- On the **Home** ribbon, click **Combine**, and then click **Merge Queries**.



- In the **Merge** dialog box, in the **Sales by State** table, click the **States** column.
- In the list, click **States with Codes**, click the **State Name** column, and then click **OK**. The new column is added to the table and contains the merged **States with Codes** table.

**Combinar**

Seleccione una tabla y las columnas coincidentes para crear una tabla combinada.

Sales by State

States	SalesYTD
Alabama	0
Alaska	0
Arizona	0
Arkansas	0
California	448232.48

States with Codes

State Name	State Code Long	State Code Short
Name and status of region	ISO	ANSI
United States of America	USUSABND	US
Alabama	US-AL	AL
Alaska	US-AK	AK

Tipo de combinación

Externa (selección de todas las de la primera, coincidencias...)

☐ Usar las coincidencias aproximadas para comparar la combinación.

1 Opciones de coincidencia aproximada

☒ La selección coincide con 51 de 51 filas de la primera tabla.

Aceptar Cancelar

26. In the column header, click the **Expand** icon, clear **(Select All Columns)**, select **State Code Short**, and then click **OK**. The column now shows just the state codes.

1.2 SalesYTD States with Codes

Buscar columnas para expandir

Expandir ☒ Agregar ☐

(Seleccionar todas las columnas)

☐ State Name

☐ State Code Long

☒ State Code Short

☒ Usar el nombre de columna original como prefijo

Aceptar Cancelar

27. Right-click the column, click **Rename**, type **State Code**, and then press Enter.

1.2 SalesYTD State Code

0 AL

28. On the **File** menu, click **Close & Apply**.

29. In the **Fields** pane, right-click **States with Codes**, and then click **Hide in Report View**.

Right-click context menu for States with Codes:

- Nueva medida
- Nueva columna
- Nueva medida rápida
- Actualizar datos
- Editar consulta
- Administrar relaciones
- Actualización incremental
- Administrar agregaciones
- Copiar tabla
- Cambiar nombre
- Eliminar del modelo
- Ocultar en la vista de informes
- Mostrar todo
- Ocultar en la vista de informes

## Ejercicio 2: Construyendo Reportes en Power BI

### Tarea 1: Crear un Gráfico

- En **Power BI Desktop**, en la barra derecha de navegación, hacer click en Reporte (**Report**).
- En el panel de Visualizaciones (**Visualizations**), hacer click en **Gauge**.
- Arrastrar el campo **LineTotal** de la table **Sales** a la propiedad Valor (**Value**) del objeto gauge.

Power BI Desktop interface showing the Gauge visualization. The 'Visualizations' pane on the right shows the 'Gauge' icon selected. The 'Fields' pane on the left shows 'LineTotal' from the 'Sales' table being dragged to the 'Value' property of the Gauge.

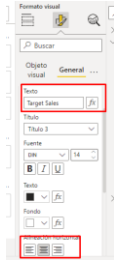
- Arrastrar la medida **TargetSales** de la table **Sales** a la propiedad Valor destino (**Target value**) del objeto gauge.

Power BI Desktop interface showing the Gauge visualization. The 'Fields' pane on the left shows 'TargetSales' from the 'Sales' table being dragged to the 'Target value' property of the Gauge.

- Hacer click **Format**, expandir **Gauge axis**, and then in the **Max** box, type **146000**.

Power BI Desktop interface showing the Gauge visualization. The 'Format' pane on the right is expanded, and the 'Gauge axis' section is visible. The 'Max' property is set to 146000.

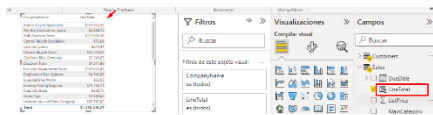
6. Expandir Título (**Title**), en el cuadro Texto de Título (**Title Text**), tipear Meta de Ventas (**Target Sales**), y luego hacer click en **Center**.



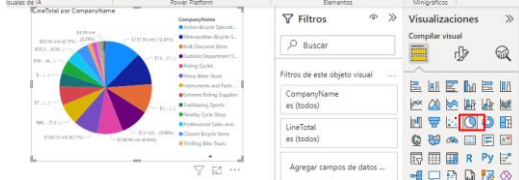
7. Click the report canvas, and then drag the **CompanyName** field from the **Customers** table onto the report. Power BI automatically creates a table.



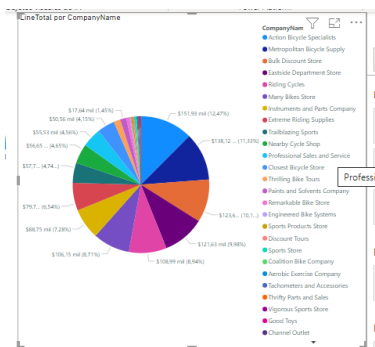
8. Arrastar the **LineTotal** field from the **Sales** table onto the report.



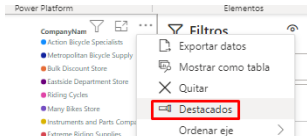
9. Make sure that the table has focus, and then in the **Visualizations** pane, click **Pie chart**.



10. Expand the chart to make all of the company names visible by using the resizer handles on the edge of the chart.



11. With the focus still on the pie chart, click **Format**, and then expand **Title**.



12. In the **Title Text** box, type **Top Selling Customers**, and then click **Center**.

Texto  
Top Selling Custome

Título  
Título 3

Fuente  
DIN  14

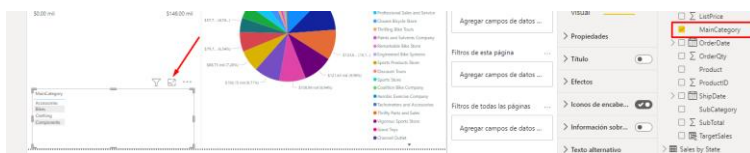
**B** *I* U

Texto

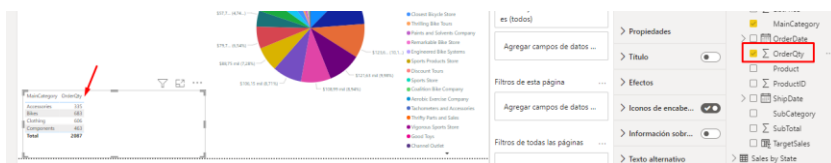
Fondo

Alineación horizontal

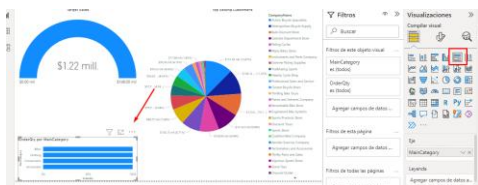
13. Arrastrar el campo **MainCategory** de la tabla **Sales** table onto the report canvas. Power BI creates a table.



14. Arrastrar el campo **OrderQty** dentro de la tabla.



15. In the **Visualizations** pane, click **Stacked bar chart**.



16. In the **Visualizations** pane, click **Fields**.

17. Drag the **OrderQty** field onto the **Color saturation** property. Notice that the colors change.



18. In the **Visualizations** pane, click **Analytics**, expand **Constant Line**, and then click **Add**.

19. In the **Value** box, type **500**.

20. Change **Color** to red, toggle **Data label** to **On**, and then change the color to **red**.

Analytics

Buscar

Linea de constante (1)

Aplicar configuración a

Agregar línea

Linea de constante

Linea

Valor

500

Color

Red

Transparencia (%)

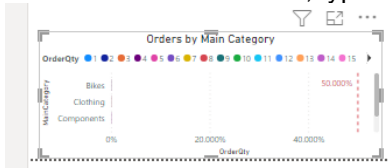
50

Estilo

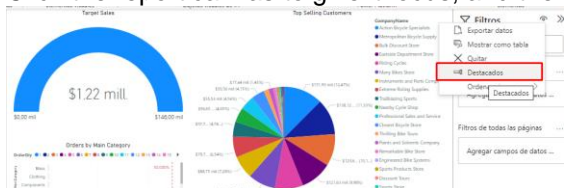
Guiones

21. In the **Visualizations** pane, click **Format**, and expand **Title**.

22. In the **Title Text** box, type **Orders by Main Category**, and then click **Center**.



23. Click the report canvas to give it focus, and then in the **Visualizations** pane, click **Donut chart**.



24. In the **Sales** table, select **MainCategory** and **LineTotal**.

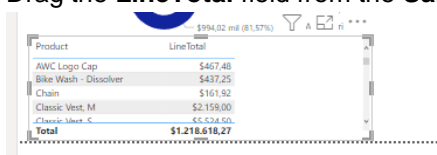


25. In the **Visualizations** pane, click **Format**, and then expand **Title**.

26. In the **Title Text** box, type **Sales by Main Category**, and then click **Center**.

27. Drag the **Product** field from the **Sales** table onto the report canvas. Power BI creates a table.

28. Drag the **LineTotal** field from the **Sales** table onto the products table chart.

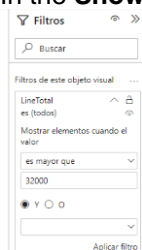


29. In the **Sales** table, select the **MainCategory** field.

30. In the **Visualizations** pane, click **Fields**.

31. In the **Filters** pane, expand **LineTotal(All)**.

32. In the **Show items when the value list**, select **is greater than**, and then in the box below, type **32000**.



33. Hacer click en Aplicar filtro (Apply filter).

Product	LineTotal	MainCategory
Mountain-200 Black, 38	\$59,669.74	Bikes
Mountain-200 Black, 42	\$61,964.73	Bikes
Mountain-200 Black, 46	\$32,129.86	Bikes
Mountain-200 Silver, 42	\$34,799.85	Bikes
Discounted 350-Watt Vellano, 40	\$34,019.90	Bikes
<b>Total</b>	<b>\$467,004.50</b>	

34. Expand **MainCategory(All)**, and then select **Bikes**.



Buscar

Filtros de este objeto visual

LineTotal  
es mayor que \$32,000...

MainCategory  
es Bikes

Tipo de filtro

Filtrado básico

Buscar

☒ Seleccionar todo

☐ Accessories 52

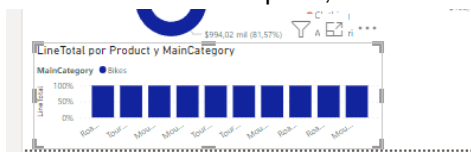
☐ Bikes 200

☐ Clothing 106

☐ Components 184

☐ Requerir selección única

35. In the **Visualizations** pane, click **Stacked column chart**.



36. In the **Visualizations** pane, click **Format**, and then expand **Title**.

37. In the **Title Text** box, type **Top 10 Selling Bikes**, and then click **Center**.



38. In the **Visualizations** pane, click **Analytics**, expand **Constant Line**, and then click **Add**.

39. In the **Value** box, type **35000**, and then set **Color** to **red**.

40. Toggle **Data label** to **On**, and then set **Color** to **red**.

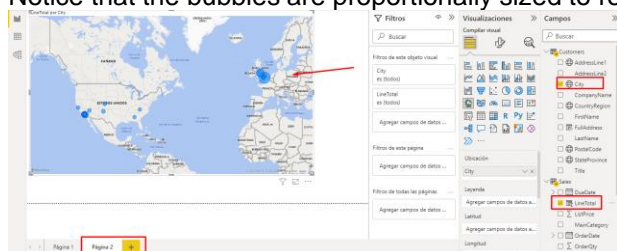
41. Expand the chart to fill the remaining space on the report canvas. If necessary, move your visuals around to make them fit.



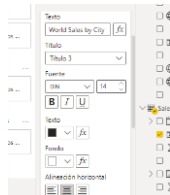
42. Click **Save**.

## Tarea 2: Crear una Visualización de Mapa

1. At the bottom of the report, click the **+** icon to add a new page.
2. In the **Fields** pane, in the **Customers** table, select the **City** field. Power BI adds a map to the report.
3. In the **Fields** pane, in the **Sales** table, select the **LineTotal** field.
4. Using the grabber tool on the right side of the chart, resize the map to show all of the bubbles.
5. Notice that the bubbles are proportionally sized to represent the data.



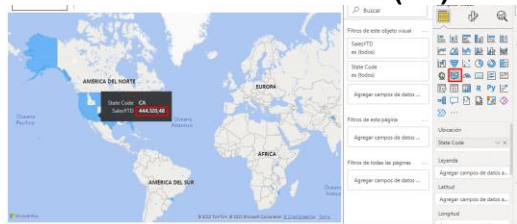
6. In the **Visualizations** pane, click **Format**, and then expand **Title**.
7. In the **Title Text** box, type **World Sales by City**, and then click **Center**.



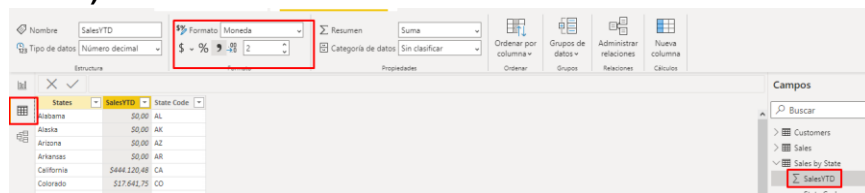
8. Click the report canvas, and then in the **Sales by State** table, select the **State Code** column. Power BI automatically adds a map.
9. In the **Sales by State** table, select the **SalesYTD** column.



10. In the **Visualizations** pane, click **Filled Map**. Using the grabber tool on the right side and at the bottom of the chart, resize the map to show all the states.
11. Notice that the sales cluster in one area.
12. Position the cursor on **California(CA)** to see the sales figure. The value has not been formatted as currency.



14. In the **Sales by State** table, click the **SalesYTD** column.
14. On the **Modeling** ribbon, select **Format:General**, click **Currency**, and then select **\$ English (United Stated)**.





15. Position the cursor on **California(CA)** on the map, and notice that the value has been formatted.



16. In the **Visualizations** pane, click **Format**, and then expand **Title**.

17. In the **Title Text** box, type **Sales by State**, and then click **Center**.



18. Click **Save**, and then leave the report open for the next exercise.

**Results:** After this exercise, you should have created a report that has chart visuals and is ready to publish to the Power BI service.

<https://github.com/fcharte/ExploraVisualizaconR>

<https://code.likeagirl.io/an%C3%A1lisis-y-visualizaci%C3%B3n-de-datos-con-pandas-matplotlib-85ee4d7b4cad>

<https://www.analyticslane.com/2018/07/20/visualizacion-de-datos-con-seaborn/>

<https://docs.microsoft.com/es-es/sql/advanced-analytics/tutorials/sqldev-py3-explore-and-visualize-the-data?view=sql-server-2017>

<https://es.r4ds.hadley.nz/visualizacion-de-datos.html>

[http://www.scielo.org.pe/scielo.php?script=sci\\_arttext&pid=S1726-46342019000100019&lng=es&nrm=iso&tlng=es](http://www.scielo.org.pe/scielo.php?script=sci_arttext&pid=S1726-46342019000100019&lng=es&nrm=iso&tlng=es)

<https://github.com/horaciochacon/Analisis-Endes-Peru>

<https://bookdown.org/martinmontaneb/CienciaDeDatos/visualizaciones-de-datos-en-r.html>