

## Module 6: Interactive Data Visualizations

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### Lab: Creating a Power BI Report

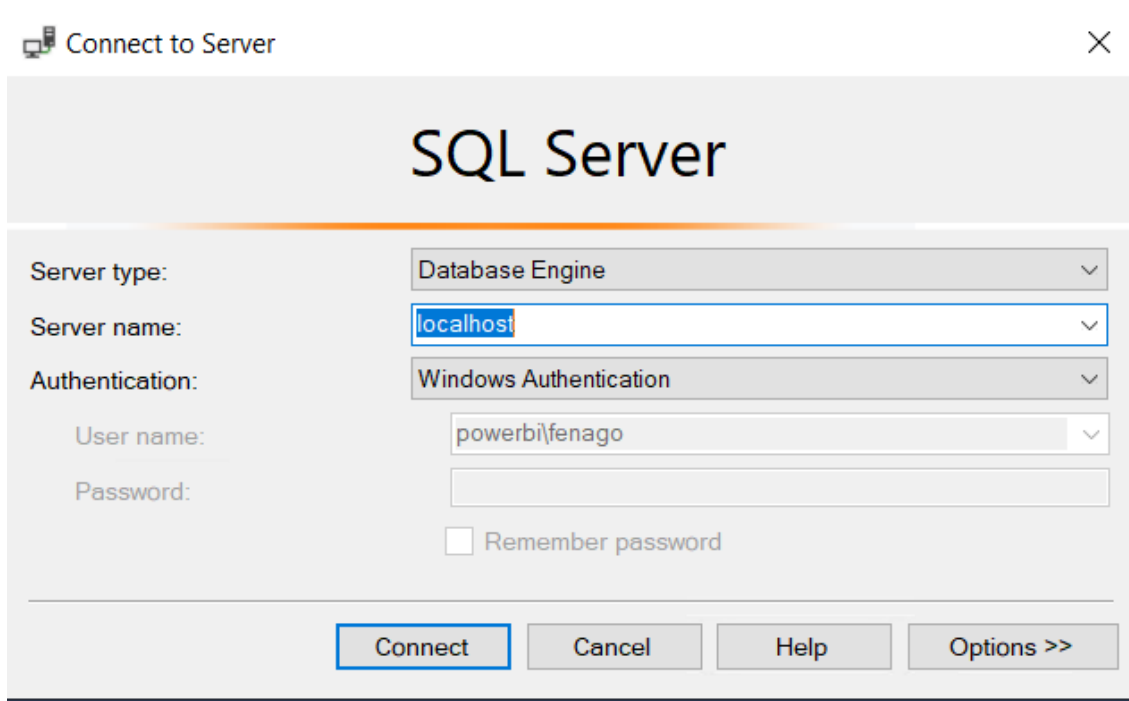
#### Exercise 1: Connecting to Power BI Data

##### Task 1: Prepare the Environment

Lab environment is already setup.

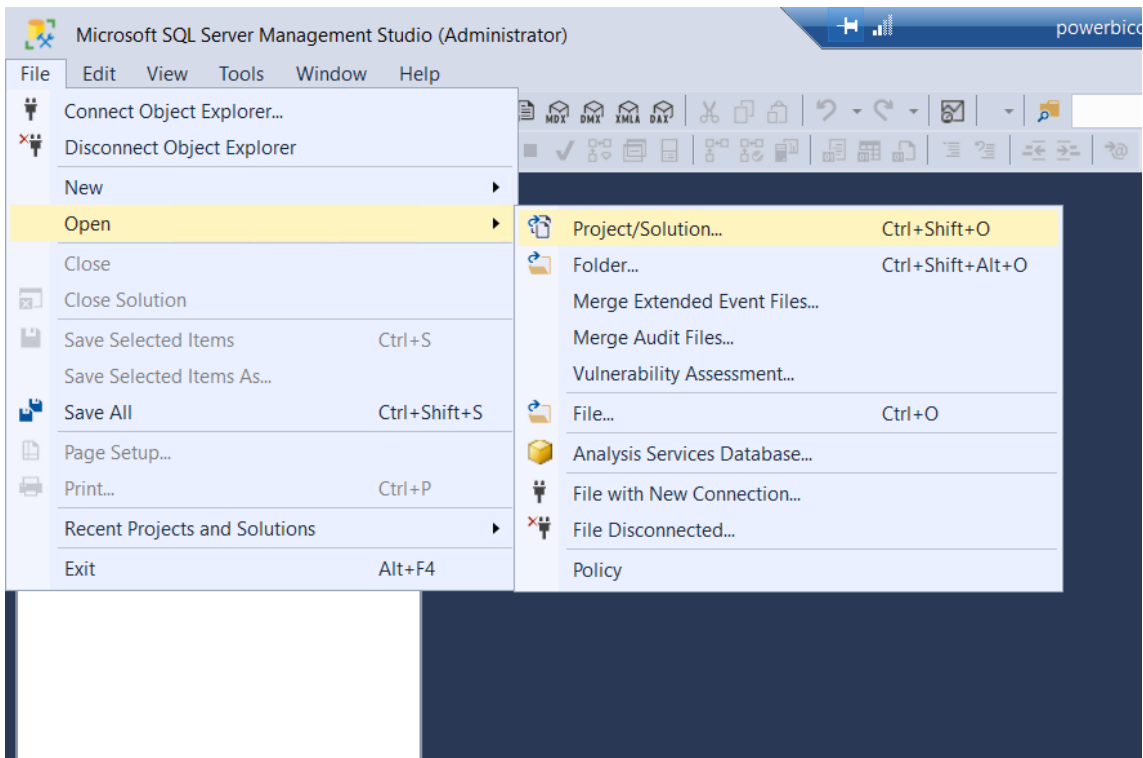
##### Task 2: Connect to Existing Data

1. On the Taskbar, click **Microsoft SQL Server Management Studio 18**.
2. In the **Connect to Server** dialog box, ensure SQL Server is set to the **localhost** database engine instance using **Windows Authentication**, and then click **Connect**.

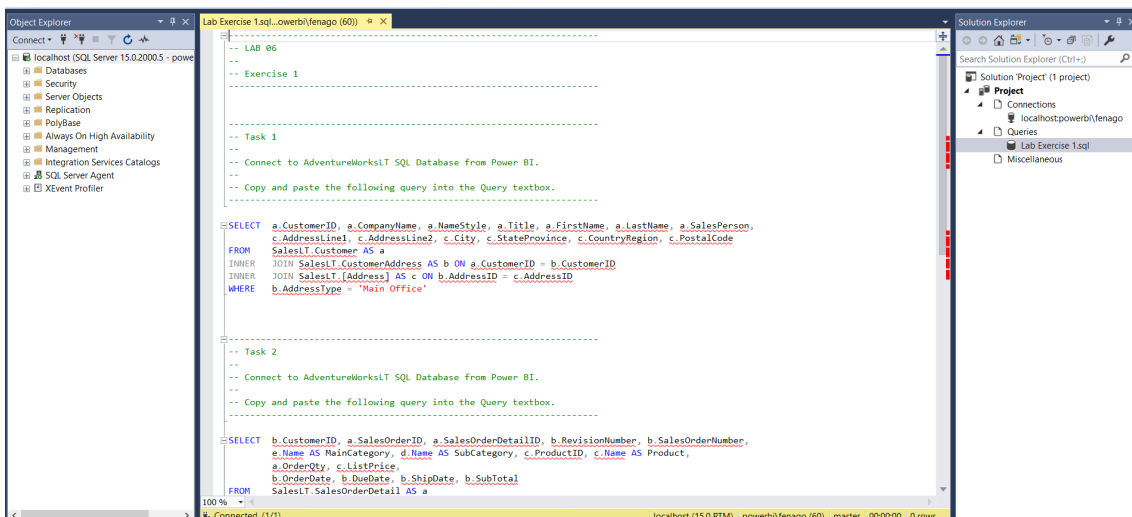


3. On the **File** menu, point to **Open**, and then click **Project/Solution**.

4. In the **Open Project** dialog box, browse to the **Desktop\power-bi-quickstart\Labfiles\Lab06\Starter\Project** folder, and then double-click **Project.ssmssl**.



5. If Solution Explorer is not visible, on the **View** menu, click **Solution Explorer**.
6. In Solution Explorer, expand **Queries**, and then double-click **Lab Exercise 1.sql**.



7. On the Taskbar, click **Power BI Desktop**.
8. To close the getting started window, at the top-right of the window, click **X**.

9. In the **Power BI Desktop** window, click **Get data**.
10. In the **Get Data** dialog box, click **SQL Server**, and then click **Connect**.
11. In the **SQL Server database** dialog box, type **localhost** in the **Server** box.
12. In the **Database (optional)** box, type **AdventureWorksLT**.
13. Expand the **Advanced options** box.
14. In SQL Server Management Studio, in the **Lab Exercise 1.sql** query, copy the query under **Task 1** to the clipboard.
15. In Power BI Desktop, in the **SQL statement (optional, requires database)** box, paste the query.

**SQL Server database**

Server ⓘ  
localhost

Database (optional)  
AdventureWorksLT

Data Connectivity mode ⓘ  
☒ Import  
☐ DirectQuery

Advanced options  
Command timeout in minutes (optional)

SQL statement (optional, requires database)  
FROM SalesLT.Customer AS a  
INNER JOIN SalesLT.CustomerAddress AS b ON a.CustomerID = b.CustomerID  
INNER JOIN SalesLT.[Address] AS c ON b.AddressID = c.AddressID  
WHERE b.AddressType = 'Main Office'


☒ Include relationship columns  
☐ Navigate using full hierarchy  
☐ Enable SQL Server Failover support

OK Cancel

16. Click **OK**
17. In the data preview window, click **Load**.

## localhost: AdventureWorksLT

CustomerID	CompanyName	NameStyle	Title	FirstName	LastName	SalesPerson	AddressLine1
29485	Professional Sales and Service	FALSE	Ms.	Catherine	Abel	adventure-works\linda3	57251 Serene Blvd
29486	Riders Company	FALSE	Ms.	Kim	Abercrombie	adventure-works\jillian0	Tanger Factory
29489	Area Bike Accessories	FALSE	Ms.	Frances	Adams	adventure-works\shu0	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\jillian0	Blue Ridge Mall
29494	Vinyl and Plastic Goods Corporation	FALSE	Mr.	Samuel	Agcaoili	adventure-works\josé1	No. 25800-130 King Street
29496	Fun Toys and Bikes	FALSE	Mr.	Robert	Ahlering	adventure-works\shu0	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\josé1	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\garrett1	25981 College Street
29505	Imported and Domestic Cycles	FALSE	Ms.	Michelle	Alexander	adventure-works\linda3	22589 West Craig Road
29506	Systematic Sales	FALSE	Mr.	Sean	Jacobson	adventure-works\shu0	2551 East Warner Road
29508	Mountain Toy Store	FALSE	Mr.	Marvin	Allen	adventure-works\jillian0	First Colony Mall
29510	Designated Distributors	FALSE	Mr.	Cecil	Allison	adventure-works\josé1	254 Colonnade Road
29511	Bold Bike Accessories	FALSE	Mr.	Oscar	Alpuerto	adventure-works\linda3	Rocky Mountain Pines Out
29515	Serious Cycles	FALSE	Mr.	Maxwell	Amland	adventure-works\garrett1	Suite 99320 255 - 510th Av
29517	Novelty Bikes	FALSE	Ms.	Ramona	Antrim	adventure-works\michael9	998 Forest Road
29521	Brightwork Company	FALSE	Mr.	Tom	Johnston	adventure-works\shu0	Belz Factory Outlet
29522	Resale Services	FALSE	Mr.	Thomas	Armstrong	adventure-works\linda3	Fox Hills

 The data in the preview has been truncated due to size limits.



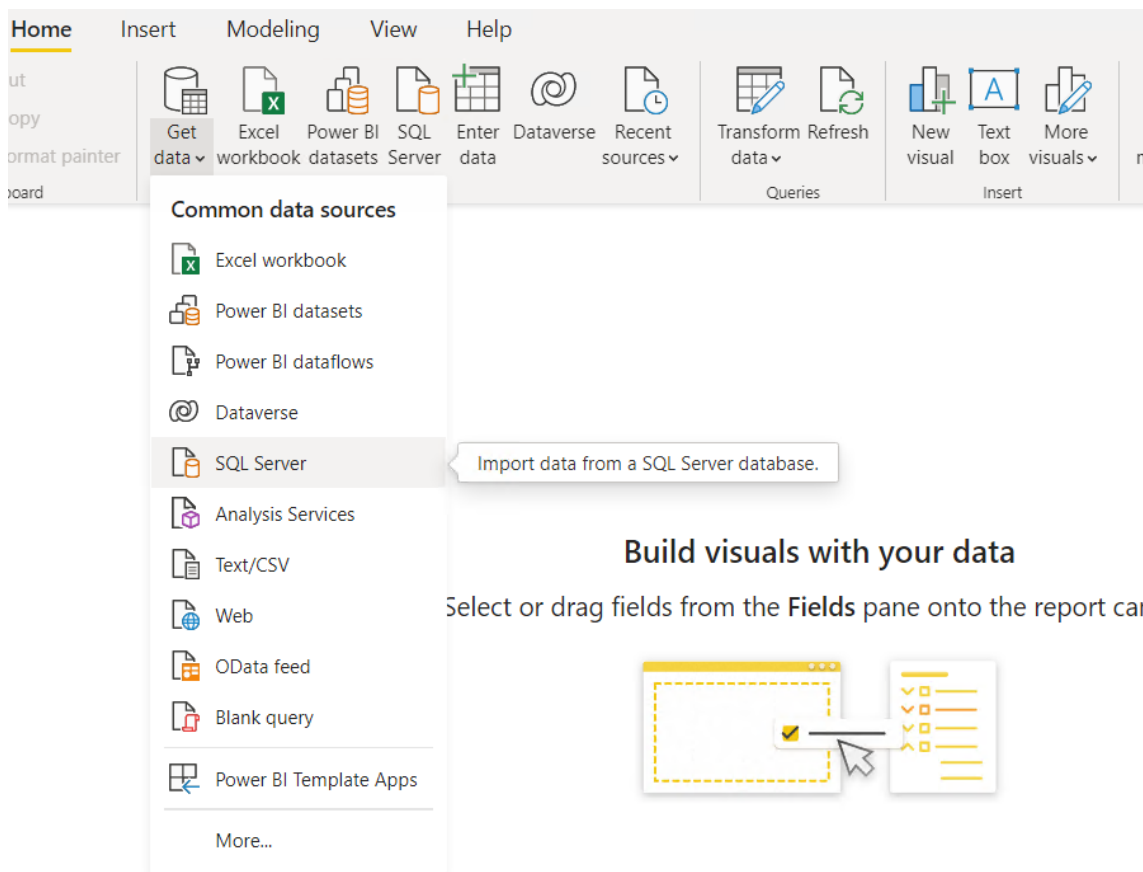
Load

Transform Data

Cancel

18. On the **Home** tab, click the **Get Data** arrow.

19. Click **SQL Server**, and then click **Connect**.

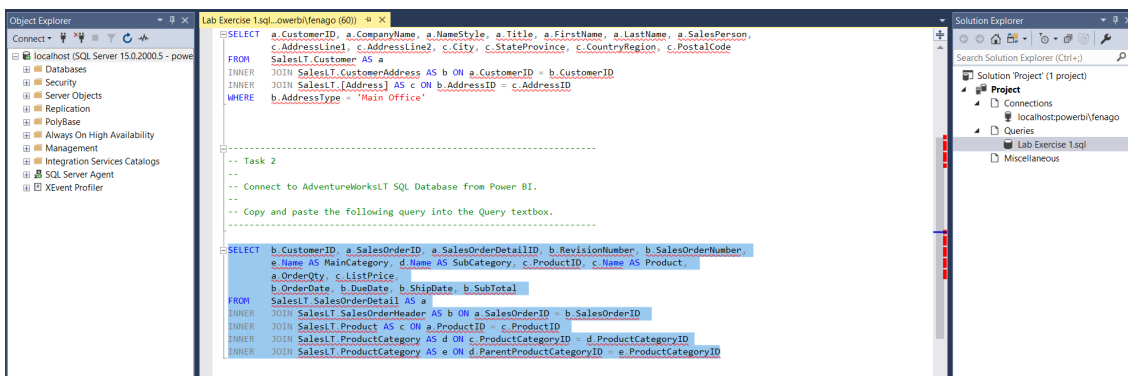


20. In the **SQL Server database** dialog box, in the **Server** box, type the URL of the server **localhost**.

21. In the **Database (optional)** box, type **AdventureWorksLT**.

22. Expand the **Advanced options** box.

23. In SQL Server Management Studio, in the **Lab Exercise 1.sql** query, copy the query under **Task 2** to the clipboard.



24. In Power BI Desktop, in the **SQL statement (optional, requires database)** box, paste the query, and then click **OK**.

SQL Server database

Server ①

localhost

Database (optional)

AdventureWorksLT

Data Connectivity mode ①

☒ Import
 ☐ DirectQuery

Advanced options

Command timeout in minutes (optional)

SQL statement (optional, requires database)

FROM SalesLT.SalesOrderDetail AS a

INNER JOIN SalesLT.SalesOrderHeader AS b ON a.SalesOrderID = b.SalesOrderID

INNER JOIN SalesLT.Product AS c ON a.ProductID = c.ProductID

INNER JOIN SalesLT.ProductCategory AS d ON c.ProductCategoryID = d.ProductCategoryID

INNER JOIN SalesLT.ProductCategory AS e ON d.ParentProductCategoryID = e.ProductCategoryID

☒ Include relationship columns
 ☐ Navigate using full hierarchy
 ☐ Enable SQL Server Failover support

OK

Cancel

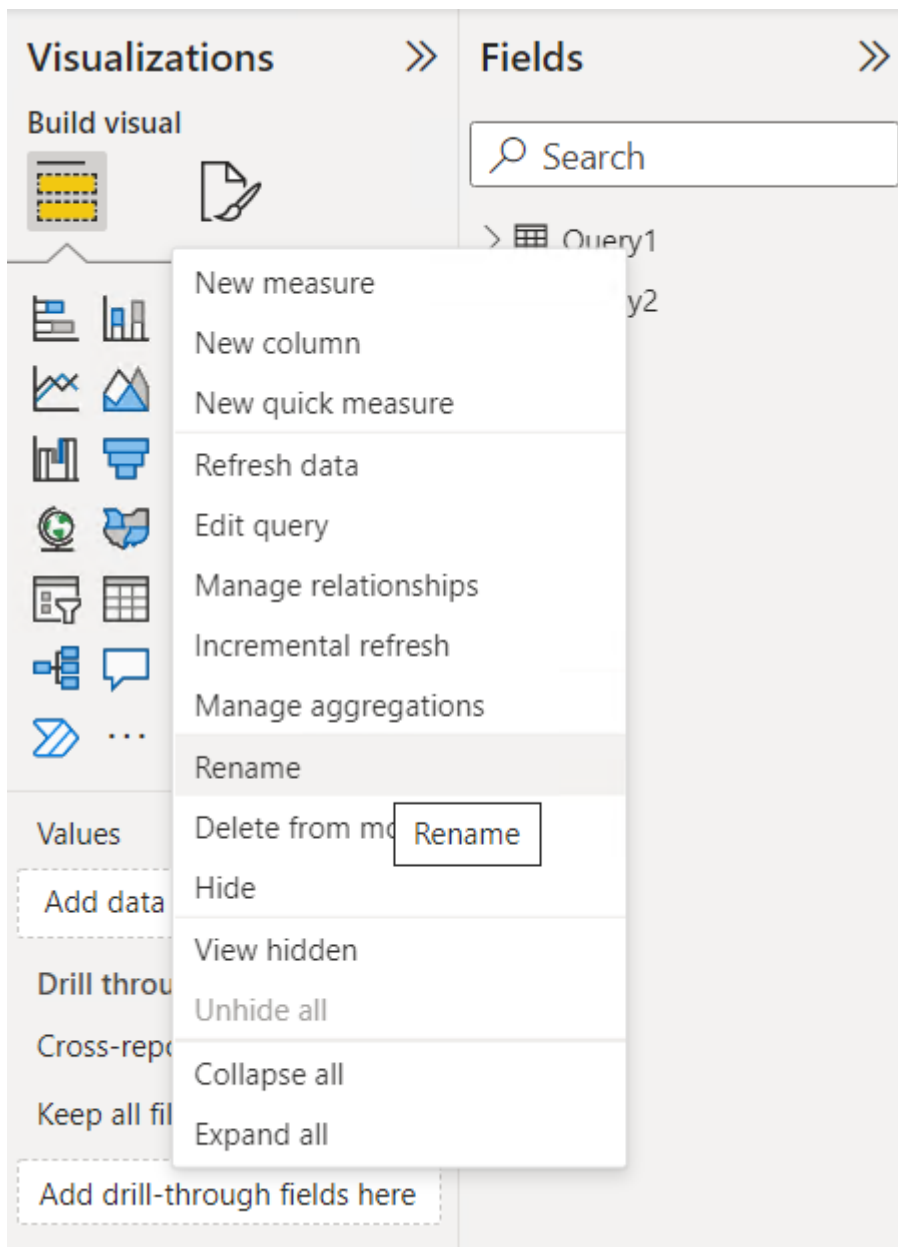
25. In the data preview window, click **Load**.

26. On the **File** menu, click **Save**.

27. In the **Save As** dialog box, navigate to **Desktop\power-bi-quickstart\Labfiles\Lab06\Starter**, in the **File name** box, type **AdventureWorksLT Sales 6.pbix**, and then click **Save**.

### Task 3: Shape Data


1. In the **FIELDS** pane, right-click **Query1**, click **Rename**, type **Customers**, and then press Enter.



2. Right-click **Query2**, click **Rename**, type **Sales**, and then press Enter.
3. Expand the two tables to display all of the fields.

**Build visuals with your data**

Select or drag fields from the **Fields** pane onto the report canvas.



**Visualizations**

Build visual

**Fields**

Search

Customers

- AddressLine1
- AddressLine2
- City
- CompanyName
- CountryRegion
- CustomerID
- FirstName
- LastName
- NameStyle
- PostalCode
- SalesPerson
- StateProvince
- Title

Values

Add data fields here

Drill through

Cross-report

Keep all filters

Add drill-through fields here

Sales

- CustomerID
- DueDate
- ListPrice
- MainCategory
- OrderDate
- OrderQty
- Product
- ProductID

- In the left navigation bar, click **Data**.
- In the **FIELDS** pane, click the **Customers** table, if it is not already selected.
- Right-click the **NameStyle** column, and click **Delete**.
- In the **Delete column** dialog box, click **Delete**.
- Right-click the **SalesPerson** column, and click **Delete**.

CustomerID	CompanyName	NameStyle	Title	FirstName	LastName	SalesPerson	Line1	AddressLine2	City	StateProvince	CountryRegion	PostalCode
29492	Valley Bicycle Specialists	False	Mr.	Jay	Adams	adventur			Kansas City	Missouri	United States	64106
29496	Fun Toys and Bikes	False	Mr.	Robert	Ahlering	adventur			Tucson	Arizona	United States	85701
29497	Great Bikes	False	Mr.	Francois	Ferrier	adventur			Casper	Wyoming	United States	82601
29502	Major Sport Suppliers	False	Mr.	Paul	Alcorn	adventur			Rock Springs	Wyoming	United States	82901
29506	Systematic Sales	False	Mr.	Sean	Jacobson	adventur			Gilbert	Arizona	United States	85233
29508	Mountain Toy Store	False	Mr.	Marvin	Allen	adventur			Sugar Land	Texas	United States	77478
29511	Bold Bike Accessories	False	Mr.	Oscar	Alpuerto	adventur			Loveland	Colorado	United States	80537
29521	Brightwork Company	False	Mr.	Tom	Johnston	adventur			Las Vegas	Nevada	United States	89106
29522	Resale Services	False	Mr.	Thomas	Armstrong	adventur			Culver City	California	United States	90232
29523	The Gear Store	False	Mr.	John	Arthur	adventur			Houston	Texas	United States	77003
29524	Immense Manufacturing Company	False	Mr.	Chris	Ashton	adventur			Saint Ann	Missouri	United States	63074
29528	Work and Play Association	False	Mr.	Stephen	Ayers	adventur			Southgate	Michigan	United States	48195
29531	Remarkable Bike Store	False	Mr.	Cory	Booth	adventur			Las Vegas	Nevada	United States	89106
29532	Road-Way Mart	False	Mr.	James	Bailey	adventur			Missoula	Montana	United States	59801
29533	Small Cycle Store	False	Mr.	Douglas	Baldwin	adventur			Holland	Michigan	United States	49423
29535	Grand Bicycle Stores	False	Mr.	Wayne	Banack	adventur			Baytown	Texas	United States	77520
29536	Kickstand Sellers	False	Mr.	Robert	Barker	adventur			Westland	Michigan	United States	48185
29543	Center Cycle Shop	False	Mr.	John	Beaver	adventur			Bothell	Washington	United States	98011
29550	Another Bicycle Company	False	Mr.	Stanley	Alan	adventur			Millwaukie	Oregon	United States	97222
29554	Field Trip Inc	False	Mr.	Payton	Benson	adventure-works\michael9	997000 Telegraph Rd.		Southfield	Michigan	United States	48034
29559	Safe Cycles Shop	False	Mr.	Robert	Bernacchi	adventure-works\david8	25915 140th Ave Ne		Bellevue	Washington	United States	98004
29560	Number 1 Supply	False	Mr.	Matthias	Berndt	adventure-works\shu0	Escondido		Escondido	California	United States	92025
29562	Golf and Cycle Store	False	Mr.	Steven	Brown	adventure-works\shu0	5500 Grossmont Center Drive		La Mesa	California	United States	91941
29563	World Bike Discount Store	False	Mr.	Jimmy	Bischoff	adventure-works\linda3	3065 Santa Margarita Parkway		Trabucco Canyon	California	United States	92679
29568	Coalition Bike Company	False	Mr.	Donald	Blanton	adventure-works\shu0	Corporate Office		El Segundo	California	United States	90245
29570	Grease and Oil Products Company	False	Mr.	Michael	Blythe	adventure-works\jillan0	9903 Highway 6 South		Houston	Texas	United States	77003
29574	Third Bike Store	False	Mr.	Randall	Boseman	adventure-works\jillan0	2500 North Stemmons Freeway		Dallas	Texas	United States	75201

- In the **Delete column** dialog box, click **Delete**.
- Right-click the **CustomerID** column, and then click **Hide in report view**.



CustomerID		CompanyName	Title	FirstName	LastName	AddressLine1
			Mr.	Jay	Adams	Blue Ridge Mall
			Mr.	Robert	Ahlering	6500 East Grant Road
			Mr.	François	Ferrier	Eastridge Mall
			Mr.	Paul	Alcorn	White Mountain Mall
			Mr.	Sean	Jacobson	2551 East Warner Road
			Mr.	Marvin	Allen	First Colony Mall
			Mr.	Oscar	Alpuerto	Rocky Mountain Pines C
			Mr.	Tom	Johnston	Belz Factory Outlet
			Mr.	Thomas	Armstrong	Fox Hills
			Mr.	John	Arthur	2345 North Freeway
		company	Mr.	Chris	Ashton	70 N.W. Plaza
			Mr.	Stephen	Ayers	2533 Eureka Rd.
			Mr.	Cory	Booth	Eastern Beltway Center
			Mr.	James	Bailey	Southgate Mall
			Mr.	Douglas	Baldwin	Horizon Outlet Center
			Mr.	Wayne	Banack	48255 I-10 E. @ Eastpoi
			Mr.	Robert	Barker	6789 Warren Road
			John	Beaver		99300 223rd Southeast
			Mr.	Stanley	Alan	567 Sw Mcloughlin Blvd
29554	Field Trip Inc		Mr.	Payton	Benson	997000 Telegraph Rd.
29559	Safe Cycles Shop		Mr.	Robert	Bernacchi	25915 140th Ave Ne
29560	Number 1 Supply		Mr.	Matthias	Berndt	Escondido
29562	Golf and Cycle Store		Mr.	Steven	Brown	5500 Grossmont Center

11. Click the **AddressLine1** column header.

12. On the **Modeling** tab, in the **Properties** group, click **Data Category: Uncategorized**, and then click **Address**.

Home		Help	Table tools	Column tools				
AddressLine1		Format	Text	Summarization	Don't summarize			
Text		\$ % -00 -00 Auto		Data category	Uncategorized	Sort by column	Data groups	Manage relationships
Structure		Formatting		Uncategorized		Sort	Groups	Relationships
								Calculations
merID	CompanyName	Title	FirstName	LastName	Address	AddressLine2	City	StateProvince
29492	Valley Bicycle Specialists	Mr.	Jay	Adams	Blue Ridge		Kansas City	Missouri
29496	Fun Toys and Bikes	Mr.	Robert	Ahlering	6500 East		Tucson	Arizona
29497	Great Bikes	Mr.	François	Ferrier	Eastridge		Casper	Wyoming
29502	Major Sport Suppliers	Mr.	Paul	Alcorn	White Mountain		Rock Springs	Wyoming
29506	Systematic Sales	Mr.	Sean	Jacobson	2551 East		Gilbert	Arizona
29508	Mountain Toy Store	Mr.	Marvin	Allen	First Colorado		Sugar Land	Texas
29511	Bold Bike Accessories	Mr.	Oscar	Alpuerto	Rocky Mountain		Loveland	Colorado
29521	Brightwork Company	Mr.	Tom	Johnston	Belz Falls		Las Vegas	Nevada
29522	Resale Services	Mr.	Thomas	Armstrong	Fox Hill		Culver City	California
29523	The Gear Store	Mr.	John	Arthur	2345 North		Houston	Texas
29524	Immense Manufacturing Company	Mr.	Chris	Ashton	70 N.W.		Saint Ann	Missouri
29528	Work and Play Association	Mr.	Stephen	Ayers	2533 East		Southgate	Michigan
29531	Remarkable Bike Store	Mr.	Cory	Booth	Eastern		Las Vegas	Nevada
29532	Road-Way Mart	Mr.	James	Bailey	Southgate		Missoula	Montana
29533	Small Cycle Store	Mr.	Douglas	Baldwin	Horizon		Holland	Michigan
29535	Grand Bicycle Stores	Mr.	Wayne	Banack	48255 I		Baytown	Texas
29536	Kickstand Sellers	Mr.	Robert	Barker	6789 Warren Road		Westland	Michigan
29545	Center Cycle Shop	Mr.	John	Beaver	99300 223rd Southeast		Bothell	Washington

13. Click the **City** column header.

14. On the **Modeling** tab, in the **Properties** group, click **Data Category: Uncategorized**, and then click **City**.

Data category		Sort by column	Data groups	Manage relationships	New column				
City		Sort	Groups	Relationships	Calculations				
Uncategorized									
Address									
Place									
City									
County									
State or Province									
Postal code									
Country									
Continent									
Latitude									
Longitude									
Web URL									
Image URL									
Barcode									
LastName	Address	AddressLine2	City	StateProvince	CountryRegion	PostalCode			
Adams	Blue Ridge		Kansas City	Missouri	United States	64106			
Ahlering	6500 East		Tucson	Arizona	United States	85701			
Ferrier	Eastridge		Casper	Wyoming	United States	82601			
Alcorn	White Mountain		Rock Springs	Wyoming	United States	82901			
Jacobson	2551 East		Gilbert	Arizona	United States	85233			
Allen	First Colorado		Sugar Land	Texas	United States	77478			
Alpuerto	Rocky Mountain		Loveland	Colorado	United States	80537			
Johnston	Belz Falls		Las Vegas	Nevada	United States	89106			
Armstrong	Fox Hill		Culver City	California	United States	90232			
Arthur	2345 North		Houston	Texas	United States	77003			
Ashton	70 N.W.		Saint Ann	Missouri	United States	63074			
Ayers	2533 East		Southgate	Michigan	United States	48195			
Booth	Eastern		Las Vegas	Nevada	United States	89106			
Bailey	Southgate		Missoula	Montana	United States	59801			
Baldwin	Horizon		Holland	Michigan	United States	49423			
Banack	48255 I		Baytown	Texas	United States	77520			
Barker	6789 Warren Road		Westland	Michigan	United States	48185			
Beaver	99300 223rd Southeast		Bothell	Washington	United States	98011			
Alan	567 Sw McLaughlin Blvd		Millwaukie	Oregon	United States	97222			

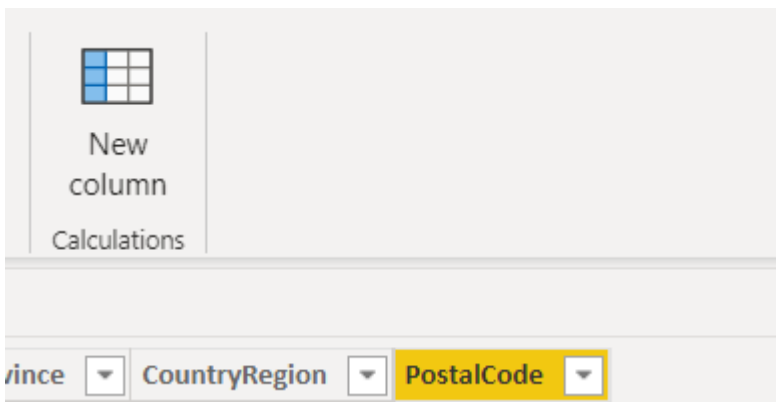
15. Click the **StateProvince** column header.

16. On the **Modeling** tab, in the **Properties** group, click **Data Category: Uncategorized**, and then click **State or Province**.

17. Click the **CountryRegion** column header.

18. On the **Modeling** tab, in the **Properties** group, click **Data Category: Uncategorized**, and then click **Country**.
19. Click the **PostalCode** column header.
20. On the **Modeling** tab, in the **Properties** group, click **Data Category: Uncategorized**, and then click **Postal Code**.
21. On the **Modeling** tab, in the **Calculations** group, click **New Column**, and then in the formula bar, type the following expression, and then press Enter:

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



Company Name	Title	FirstName	LastName	AddressLine1	AddressLine2	City	StateProvince	CountryRegion	PostalCode	FullAddress
Blue Bicycle Specialists	Mr.	Jay	Adams	Blue Ridge Mall		Kansas City	Missouri	United States	64106	Blue Ridge Mall, Kansas City, Missouri, United States, 64106
Fun Toys and Bikes	Mr.	Robert	Ahlerting	6500 East Grant Road		Tucson	Arizona	United States	85701	6500 East Grant Road, Tucson, Arizona, United States, 85701
Fast Bikes	Mr.	Francis	Ferrier	Earlridge Mall		Casper	Wyoming	United States	82601	Earlridge Mall, Casper, Wyoming, United States, 82601
Major Sport Suppliers	Mr.	Paul	Alcorn	White Mountain Mall		Rock Springs	Wyoming	United States	82901	White Mountain Mall, Rock Springs, Wyoming, United States, 82901
Stemmatic Sales	Mr.	Sean	Jacobson	2551 East Warner Road		Gilbert	Arizona	United States	85233	2551 East Warner Road, Gilbert, Arizona, United States, 85233
Mountain Toy Store	Mr.	Marvin	Allen	First Colony Mall		Sugar Land	Texas	United States	77478	First Colony Mall, Sugar Land, Texas, United States, 77478
Old Bike Accessories	Mr.	Oscar	Alpuerto	Rocky Mountain Pine Outlet		Loveland	Colorado	United States	80537	Rocky Mountain Pine Outlet, Loveland, Colorado, United States, 80537
Lightwork Company	Mr.	Tom	Johnston	Belz Factory Outlet		Las Vegas	Nevada	United States	89106	Belz Factory Outlet, Las Vegas, Nevada, United States, 89106
Isale Services	Mr.	Thomas	Armstrong	Fox Hills		Culver City	California	United States	90232	Fox Hills, Culver City, California, United States, 90232
Isa Gear Store	Mr.	John	Arthur	2345 North Freeway		Houston	Texas	United States	77003	2345 North Freeway, Houston, Texas, United States, 77003
Immense Manufacturing Company	Mr.	Chris	Ashton	70 N.W. Plaza		Saint Ann	Missouri	United States	63074	70 N.W. Plaza, Saint Ann, Missouri, United States, 63074
York and Play Association	Mr.	Stephen	Ayers	2533 Eureka Rd.		Southgate	Michigan	United States	48195	2533 Eureka Rd., Southgate, Michigan, United States, 48195
Remarkable Bike Store	Mr.	Cory	Booth	Eastern Beltway Center		Las Vegas	Nevada	United States	89106	Eastern Beltway Center, Las Vegas, Nevada, United States, 89106
Mad-Way Mart	Mr.	James	Bailey	Southgate Mall		Missoula	Montana	United States	59801	Southgate Mall, Missoula, Montana, United States, 59801
Wall Cycle Store	Mr.	Douglas	Baldwin	Horizon Outlet Center		Holland	Michigan	United States	49423	Horizon Outlet Center, Holland, Michigan, United States, 49423
Hand Bicycle Stores	Mr.	Wayne	Banack	48255 I-10 E. @ Eastpoint Blvd.		Baytown	Texas	United States	77520	48255 I-10 E. @ Eastpoint Blvd., Baytown, Texas, United States, 77520
okstand Sells	Mr.	Robert	Barker	6789 Warren Road		Westland	Michigan	United States	48185	6789 Warren Road, Westland, Michigan, United States, 48185
Inter Cycle Shop	Mr.	John	Beaver	99300 223rd Southeast		Bothell	Washington	United States	98011	99300 223rd Southeast, Bothell, Washington, United States, 98011
Inter Cycle Company	Mr.	Stanley	Alan	567 Sw McLaughlin Blvd		Milwaukie	Oregon	United States	97222	567 Sw McLaughlin Blvd, Milwaukie, Oregon, United States, 97222
Old Trip Inc	Mr.	Payton	Benson	997000 Telegraph Rd.		Southfield	Michigan	United States	48034	997000 Telegraph Rd., Southfield, Michigan, United States, 48034
ife Cycles Shop	Mr.	Robert	Bernacchi	25915 140th Ave Ne		Bellevue	Washington	United States	98004	25915 140th Ave Ne, Bellevue, Washington, United States, 98004
umber 1 Supply	Mr.	Matthias	Berndt			Escondido	California	United States	92025	Escondido, Escondido, California, United States, 92025
Off and Cycle Store	Mr.	Steven	Brown	5500 Grossmont Center Drive		La Mesa	California	United States	91941	5500 Grossmont Center Drive, La Mesa, California, United States, 91941
World Discount Store	Mr.	Jimmy	Bischoff	3065 Santa Margarita Parkway		Trabuco Canyon	California	United States	92679	3065 Santa Margarita Parkway, Trabuco Canyon, California, United States, 92679
Salibon Bike Company	Mr.	Donald	Blanton	Corporate Office		El Segundo	California	United States	90245	Corporate Office, El Segundo, California, United States, 90245
Sease and Oil Products Company	Mr.	Michael	Blythe	9903 Highway 6 South		Houston	Texas	United States	77003	9903 Highway 6 South, Houston, Texas, United States, 77003
Old Bike Store	Mr.	Randall	Boseman	2500 North Stemmons Freeway		Dallas	Texas	United States	75201	2500 North Stemmons Freeway, Dallas, Texas, United States, 75201

22. In the **FIELDS** pane, click **Sales**.
23. Right-click the **RevisionNumber** column, and click **Delete**.
24. In the **Delete column** dialog box, click **Delete**.
25. Right-click the **SalesOrderNumber** column, and click **Delete**.
26. In the **Delete column** dialog box, click **Delete**.

27. Right-click the **CustomerID** column, and click **Hide in report view**.

28. Right-click the **SalesOrderID** column, and click **Hide in report view**.

29. Right-click the **SalesOrderDetailID** column, and click **Hide in report view**.

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

```
LineTotal = Sales[OrderQty] * Sales[ListPrice]
```

31. Click the **LineTotal** column header.

32. On the **Modeling** tab, in the **Formatting** group, click **Format: General**, point to **Currency**, and then click **\$ English (United States)**.

OrderDetailID	SalesOrderNumber	MainCategory	Whole number	ProductID	Product	OrderQty	ListPrice	OrderDate	DueDate	ShipDate	SubTotal	LineTotal
110562	5071774	Component	Percentage	836	ML Road Frame-W - Yellow, 48	1	594.83	6/1/2008 12:00:00 AM	6/13/2008 12:00:00 AM	6/8/2008 12:00:00 AM	880.3484	\$594.83
110563	5071774	Component	Scientific	832	ML Road Frame-W - Yellow, 38	1	594.83	6/1/2008 12:00:00 AM	6/13/2008 12:00:00 AM	6/8/2008 12:00:00 AM	880.3484	\$594.83
110567	5071776	Component		907	Rear Brakes	1	106.5	6/1/2008 12:00:00 AM	6/13/2008 12:00:00 AM	6/8/2008 12:00:00 AM	78.81	\$106.50
110620	5071780	Bikes	Mountain Bikes	990	Mountain-500 Black, 42	1	539.99	6/1/2008 12:00:00 AM	6/13/2008 12:00:00 AM	6/8/2008 12:00:00 AM	38418.6895	\$539.99
110621	5071780	Components	Mountain Frames	926	LL Mountain Frame - Black, 48	1	249.79	6/1/2008 12:00:00 AM	6/13/2008 12:00:00 AM	6/8/2008 12:00:00 AM	38418.6895	\$249.79
110622	5071780	Components	Mountain Frames	743	HL Mountain Frame - Black, 42	1	1349.6	6/1/2008 12:00:00 AM	6/13/2008 12:00:00 AM	6/8/2008 12:00:00 AM	38418.6895	\$1,349.60
110626	5071780	Components	Pedals	937	HL Mountain Pedal	1	80.99	6/1/2008 12:00:00 AM	6/13/2008 12:00:00 AM	6/8/2008 12:00:00 AM	38418.6895	\$80.99
110628	5071780	Bikes	Mountain Bikes	985	Mountain-500 Silver, 42	1	564.99	6/1/2008 12:00:00 AM	6/13/2008 12:00:00 AM	6/8/2008 12:00:00 AM	38418.6895	\$564.99
110631	5071780	Bikes	Mountain Bikes	992	Mountain-500 Black, 48	1	539.99	6/1/2008 12:00:00 AM	6/13/2008 12:00:00 AM	6/8/2008 12:00:00 AM	38418.6895	\$539.99
110640	5071780	Components	Handlebars	810	HL Mountain Handlebars	1	120.27	6/1/2008 12:00:00 AM	6/13/2008 12:00:00 AM	6/8/2008 12:00:00 AM	38418.6895	\$120.27
110642	5071780	Components	Mountain Frames	925	LL Mountain Frame - Black, 44	1	249.79	6/1/2008 12:00:00 AM	6/13/2008 12:00:00 AM	6/8/2008 12:00:00 AM	38418.6895	\$249.79
110644	5071780	Accessories	Hydration Packs	880	Hydration Pack - 70 oz.	1	54.99	6/1/2008 12:00:00 AM	6/13/2008 12:00:00 AM	6/8/2008 12:00:00 AM	38418.6895	\$54.99
110659	5071782	Bikes	Touring Bikes	954	Touring-3000 Yellow, 45	1	2384.07	6/1/2008 12:00:00 AM	6/13/2008 12:00:00 AM	6/8/2008 12:00:00 AM	39785.3304	\$2,384.07
110678	5071782	Bikes	Touring Bikes	978	Touring-3000 Blue, 44	1	742.35	6/1/2008 12:00:00 AM	6/13/2008 12:00:00 AM	6/8/2008 12:00:00 AM	39785.3304	\$742.35
110679	5071782	Bikes	Touring Bikes	955	Touring-1000 Yellow, 50	1	2384.07	6/1/2008 12:00:00 AM	6/13/2008 12:00:00 AM	6/8/2008 12:00:00 AM	39785.3304	\$2,384.07
110680	5071782	Components	Brakes	948	Front Brakes	1	106.5	6/1/2008 12:00:00 AM	6/13/2008 12:00:00 AM	6/8/2008 12:00:00 AM	39785.3304	\$106.50
110681	5071782	Components	Bottom Brackets	994	LL Bottom Bracket	1	53.99	6/1/2008 12:00:00 AM	6/13/2008 12:00:00 AM	6/8/2008 12:00:00 AM	39785.3304	\$53.99
110682	5071782	Bikes	Touring Bikes	970	Touring-2000 Blue, 46	1	1214.85	6/1/2008 12:00:00 AM	6/13/2008 12:00:00 AM	6/8/2008 12:00:00 AM	39785.3304	\$1,214.85
110684	5071782	Bikes	Touring Bikes	957	Touring-3000 Yellow, 54	1	2384.07	6/1/2008 12:00:00 AM	6/13/2008 12:00:00 AM	6/8/2008 12:00:00 AM	39785.3304	\$2,384.07
110686	5071782	Bikes	Touring Bikes	963	Touring-3000 Yellow, 60	1	742.35	6/1/2008 12:00:00 AM	6/13/2008 12:00:00 AM	6/8/2008 12:00:00 AM	39785.3304	\$742.35
110689	5071782	Bikes	Touring Bikes	953	Touring-2000 Blue, 60	1	1214.85	6/1/2008 12:00:00 AM	6/13/2008 12:00:00 AM	6/8/2008 12:00:00 AM	39785.3304	\$1,214.85
110699	5071782	Components	Saddles	916	HL Touring Seat/Saddle	1	52.64	6/1/2008 12:00:00 AM	6/13/2008 12:00:00 AM	6/8/2008 12:00:00 AM	39785.3304	\$52.64
110700	5071782	Components	Touring Frames	886	LL Touring Frame - Yellow, 62	1	333.42	6/1/2008 12:00:00 AM	6/13/2008 12:00:00 AM	6/8/2008 12:00:00 AM	39785.3304	\$333.42
110701	5071782	Components	Touring Frames	892	HL Touring Frame - Blue, 54	1	1003.91	6/1/2008 12:00:00 AM	6/13/2008 12:00:00 AM	6/8/2008 12:00:00 AM	39785.3304	\$1,003.91
110702	5071782	Components	Touring Frames	893	HL Touring Frame - Blue, 60	1	1003.91	6/1/2008 12:00:00 AM	6/13/2008 12:00:00 AM	6/8/2008 12:00:00 AM	39785.3304	\$1,003.91
110705	5071782	Clothing	Gloves	859	Half-Finger Gloves, M	1	24.49	6/1/2008 12:00:00 AM	6/13/2008 12:00:00 AM	6/8/2008 12:00:00 AM	39785.3304	\$24.49
110719	5071783	Components	Handlebars	813	HL Road Handlebars	1	120.27	6/1/2008 12:00:00 AM	6/13/2008 12:00:00 AM	6/8/2008 12:00:00 AM	83858.4261	\$120.27

33. On the **Modeling** tab, in the **Calculations** group, click **New Measure**, and then in the formula bar, type the following expression, and then press Enter:

```
TargetSales = SUM('Sales'[LineTotal]) * 1.2
```

1 TargetSales = SUM('Sales'[LineTotal]) * 1.2												
CustomerID	SalesOrderID	SalesOrderDetailID	SalesOrderNumber	MainCategory	SubCategory	ProductID	Product	OrderQty	ListPrice	OrderDate	DueDate	ShipDate
29847	71774	110562	5071774	Components	Road Frames	836	ML Road Frame-W - Yellow, 48	1	594.83	6/1/2008 12:00:00 AM	6/13/2008 12:00:00 AM	6/8/2008
29847	71774	110563	5071774	Components	Road Frames	822	ML Road Frame-W - Yellow, 38	1	594.83	6/1/2008 12:00:00 AM	6/13/2008 12:00:00 AM	6/8/2008
30072	71776	110567	5071776	Components	Brakes	907	Rear Brakes	1	106.5	6/1/2008 12:00:00 AM	6/13/2008 12:00:00 AM	6/8/2008
30113	71780	110620	5071780	Bikes	Mountain Bikes	990	Mountain-500 Black, 42	1	539.99	6/1/2008 12:00:00 AM	6/13/2008 12:00:00 AM	6/8/2008
30113	71780	110621	5071780	Components	Mountain Frames	926	LL Mountain Frame - Black, 48	1	249.79	6/1/2008 12:00:00 AM	6/13/2008 12:00:00 AM	6/8/2008
30113	71780	110622	5071780	Components	Mountain Frames	743	HL Mountain Frame - Black, 42	1	1349.6	6/1/2008 12:00:00 AM	6/13/2008 12:00:00 AM	6/8/2008
30113	71780	110626	5071780	Components	Pedals	937	HL Mountain Pedal	1	80.99	6/1/2008 12:00:00 AM	6/13/2008 12:00:00 AM	6/8/2008
30113	71780	110628	5071780	Bikes	Mountain Bikes	985	Mountain-500 Silver, 42	1	564.99	6/1/2008 12:00:00 AM	6/13/2008 12:00:00 AM	6/8/2008
30113	71780	110631	5071780	Bikes	Mountain Bikes	992	Mountain-500 Black, 48	1	539.99	6/1/2008 12:00:00 AM	6/13/2008 12:00:00 AM	6/8/2008
30113	71780	110640	5071780	Components	Handlebars	810	HL Mountain Handlebars	1	120.27	6/1/2008 12:00:00 AM	6/13/2008 12:00:00 AM	6/8/2008
30113	71780	110642	5071780	Components	Mountain Frames	925	LL Mountain Frame - Black, 44	1	249.79	6/1/2008 12:00:00 AM	6/13/2008 12:00:00 AM	6/8/2008
30113	71780	110644	5071780	Accessories	Hydration Packs	680	Hydration Pack - 70 oz.	1	54.99	6/1/2008 12:00:00 AM	6/13/2008 12:00:00 AM	6/8/2008
29485	71782	110669	5071782	Bikes	Touring Bikes	954	Touring-1000 Yellow, 46	1	2384.07	6/1/2008 12:00:00 AM	6/13/2008 12:00:00 AM	6/8/2008
29485	71782	110678	5071782	Bikes	Touring Bikes	978	Touring-3000 Blue, 44	1	742.35	6/1/2008 12:00:00 AM	6/13/2008 12:00:00 AM	6/8/2008
29485	71782	110679	5071782	Bikes	Touring Bikes	955	Touring-1000 Yellow, 50	1	2384.07	6/1/2008 12:00:00 AM	6/13/2008 12:00:00 AM	6/8/2008
29485	71782	110680	5071782	Components	Brakes	948	Front Brakes	1	106.5	6/1/2008 12:00:00 AM	6/13/2008 12:00:00 AM	6/8/2008

34. On the **File** menu, click **Save** and close Power BI Desktop.

## Demo 1: Adding Visualizations to a Report

### Connect to a Database in SQL Database and Import Data

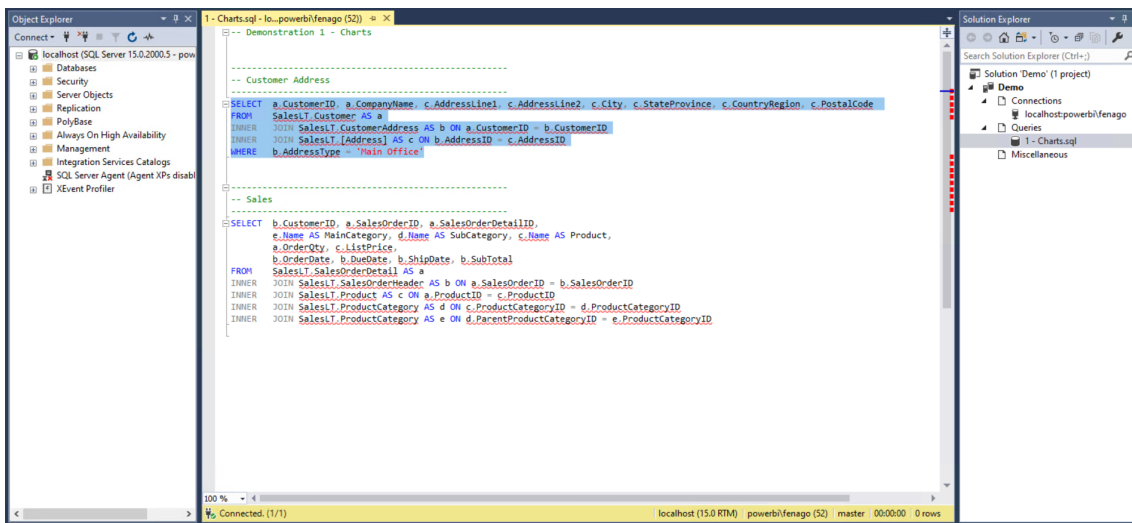
1. Open the **Desktop\power-bi-quickstart\Labfiles\Lab06** folder.
2. Run **Setup.cmd** as **Administrator**.
3. When the script completes, press any key to close the window.

```

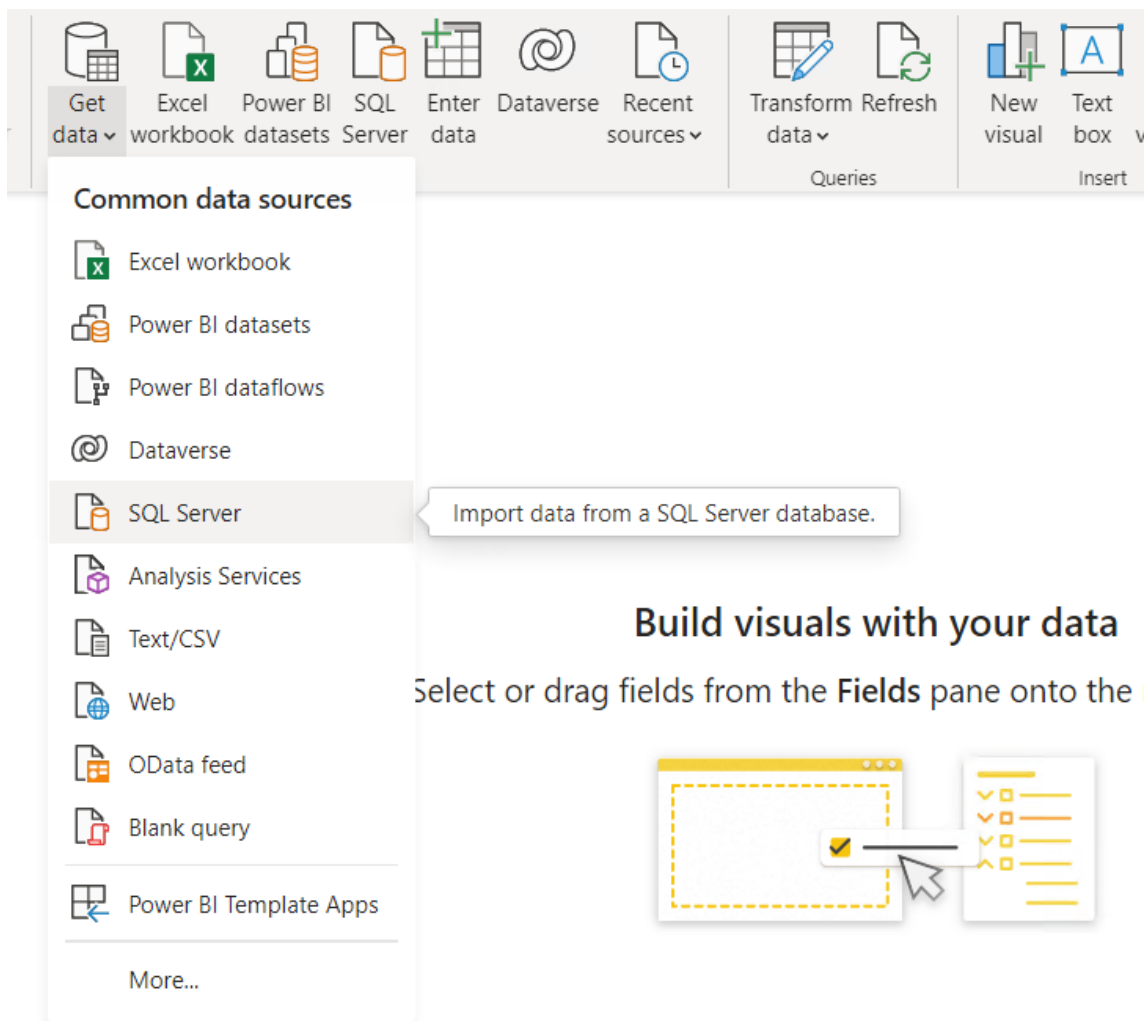
C:\Windows\System32\cmd.exe
Database 'AdventureWorks' running the upgrade step from version 876 to version 877.
Database 'AdventureWorks' running the upgrade step from version 877 to version 878.
Database 'AdventureWorks' running the upgrade step from version 878 to version 879.
Database 'AdventureWorks' running the upgrade step from version 879 to version 880.
Database 'AdventureWorks' running the upgrade step from version 880 to version 881.
Database 'AdventureWorks' running the upgrade step from version 881 to version 882.
Database 'AdventureWorks' running the upgrade step from version 882 to version 883.
Database 'AdventureWorks' running the upgrade step from version 883 to version 884.
Database 'AdventureWorks' running the upgrade step from version 884 to version 885.
Database 'AdventureWorks' running the upgrade step from version 885 to version 886.
Database 'AdventureWorks' running the upgrade step from version 886 to version 887.
Database 'AdventureWorks' running the upgrade step from version 887 to version 888.
Database 'AdventureWorks' running the upgrade step from version 888 to version 889.
Database 'AdventureWorks' running the upgrade step from version 889 to version 890.
Database 'AdventureWorks' running the upgrade step from version 890 to version 891.
Database 'AdventureWorks' running the upgrade step from version 891 to version 892.
Database 'AdventureWorks' running the upgrade step from version 892 to version 893.
Database 'AdventureWorks' running the upgrade step from version 893 to version 894.
Database 'AdventureWorks' running the upgrade step from version 894 to version 895.
Database 'AdventureWorks' running the upgrade step from version 895 to version 896.
Database 'AdventureWorks' running the upgrade step from version 896 to version 897.
Database 'AdventureWorks' running the upgrade step from version 897 to version 898.
Database 'AdventureWorks' running the upgrade step from version 898 to version 899.
Database 'AdventureWorks' running the upgrade step from version 899 to version 900.
Database 'AdventureWorks' running the upgrade step from version 900 to version 901.
Database 'AdventureWorks' running the upgrade step from version 901 to version 902.
Database 'AdventureWorks' running the upgrade step from version 902 to version 903.
Database 'AdventureWorks' running the upgrade step from version 903 to version 904.
RESTORE DATABASE successfully processed 24276 pages in 0.941 seconds (201.539 MB/sec).
Press any key to continue . . .

```

4. Start **Microsoft SQL Server Management Studio 18**, and then connect to the **localhost** database engine instance by using Windows® authentication.
5. In the **Desktop\power-bi-quickstart\Labfiles\Lab06\Demo** folder, open the **Demo.ssmssln** solution.
6. In Solution Explorer, expand **Queries**, and then open the **1 - Charts.sql** script file.



7. On the Taskbar, click **Power BI Desktop**.
8. To close the getting started window, at the top-right of the window, click **X**.
9. In the **Power BI Desktop** window, click **Get data**.
10. In the **Get Data** dialog box, click **SQL Server**.



11. In the **SQL Server database** dialog box, in the **Server** box, type the URL of the server **localhost**.
12. In the **Database (optional)** box, type **AdventureWorksLT**.
13. Expand the **Advanced options** box.
14. In SQL Server Management Studio, in the **1 - Charts.sql** query, copy the query under **Customer Address** to the clipboard.
15. In Power BI Desktop, in the **SQL statement (optional, requires database)** box, paste the query, and then click **OK**.

## SQL Server database

Server ⓘ

localhost

Database (optional)

AdventureWorksLT

Data Connectivity mode ⓘ

☒ Import

☐ DirectQuery

⌵ Advanced options

Command timeout in minutes (optional)

SQL statement (optional, requires database)

```
SELECT a.CustomerID, a.CompanyName, c.AddressLine1, c.AddressLine2, c.City, c.StateProvince,  
FROM SalesLT.Customer AS a  
INNER JOIN SalesLT.CustomerAddress AS b ON a.CustomerID = b.CustomerID  
INNER JOIN SalesLT.[Address] AS c ON b.AddressID = c.AddressID  
WHERE b.AddressType = 'Main Office'
```

☒ Include relationship columns

☐ Navigate using full hierarchy

☐ Enable SQL Server Failover support

OK


Cancel

16. In the data preview window, click **Load**.



## localhost: AdventureWorksLT

CustomerID	CompanyName	AddressLine1	AddressLine2	City	StateProvince	CountryRegion	PostalCode
29698	Finer Riding Supplies	#9900 2700 Production Way	null	Burnaby	British Columbia	Canada	V5A 4X1
29997	Closeout Boutique	1050 Oak Street	null	Seattle	Washington	United States	98104
29854	Local Sales and Rental	1200 First Ave.	null	Joliet	Illinois	United States	60433
30027	Engineered Bike Systems	123 Camelia Avenue	null	Oxnard	California	United States	93030
30023	Orange Bicycle Company	123 W. Lake Ave.	null	Peoria	Illinois	United States	61606
29637	Advanced Bike Components	12345 Sterling Avenue	null	Irving	Texas	United States	75061
29890	Basic Bike Company	15 East Main	null	Port Orchard	Washington	United States	98366
29625	Petroleum Products Distributors	20225 Lansing Ave	null	Montreal	Quebec	Canada	H1Y 2H7
29646	Fitness Toy Store	220 Mercy Drive	null	Garland	Texas	United States	75040
29719	Racing Bike Outlet	225 South 314th Street	null	Federal Way	Washington	United States	98003
29773	A Bike Store	2251 Elliot Avenue	null	Seattle	Washington	United States	98104
30031	Cycle Clearance	2255 254th Avenue Se	null	Albany	Oregon	United States	97321
29598	Mechanical Products Ltd.	22555 Paseo De Las Americas	null	San Diego	California	United States	92102
30070	Vintage Sport Boutique	22571 South 2500 East	null	Idaho Falls	Idaho	United States	83402
29627	Bikes and Motorbikes	22580 Free Street	null	Toronto	Ontario	Canada	M4B 1V7
29505	Imported and Domestic Cycles	22589 West Craig Road	null	North Las Vegas	Nevada	United States	89030
29764	Social Activities Club	23025 S.W. Military Rd.	null	San Antonio	Texas	United States	78204
29523	The Gear Store	2345 North Freeway	null	Houston	Texas	United States	77003
29873	Certified Bicycle Supply	2345 West Spencer Road	null	Lynnwood	Washington	United States	98036
29911	Consolidated Messenger	25 Danger Street West	Floor 7	Toronto	Ontario	Canada	M4B 1V7

 The data in the preview has been truncated due to size limits.



Load

Transform Data

Cancel

- On the **Home** tab, click **Get Data**.
- In the **Get Data** dialog box, click **SQL Server**.
- In the **SQL Server database** dialog box, in the **Server** box, type the URL of the server **localhost**.
- In the **Database (optional)** box, type **AdventureWorksLT**.
- Expand the **Advanced options** box.
- In SQL Server Management Studio, in the **1 - Charts.sql** query, copy the query under **Sales** to the clipboard.
- In Power BI Desktop, in the **SQL statement (optional, requires database)** box, paste the query, and then click **OK**.

## SQL Server database

Server ⓘ

localhost

Database (optional)

AdventureWorksLT

Data Connectivity mode ⓘ

☒ Import

☐ DirectQuery

⌵ Advanced options

Command timeout in minutes (optional)

SQL statement (optional, requires database)

```
a.OrderQty, c.ListPrice,  
b.OrderDate, b.DueDate, b.ShipDate, b.SubTotal  
FROM SalesLT.SalesOrderDetail AS a  
INNER JOIN SalesLT.SalesOrderHeader AS b ON a.SalesOrderID = b.SalesOrderID  
INNER JOIN SalesLT.Product AS c ON a.ProductID = c.ProductID  
INNER JOIN SalesLT.ProductCategory AS d ON c.ProductCategoryID = d.ProductCategoryID  
INNER JOIN SalesLT.ProductCategory AS e ON d.ParentProductCategoryID = e.ProductCategoryID
```

☒ Include relationship columns

☐ Navigate using full hierarchy

☐ Enable SQL Server Failover support

OK

Cancel

24. In the data preview window, click **Load**.

localhost: AdventureWorksLT

CustomerID	SalesOrderID	SalesOrderDetailID	MainCategory	SubCategory	Product	OrderQty	ListPrice	
29847	71774	110562	Components	Road Frames	ML Road Frame-W - Yellow, 48	1	594.83	6/1
29847	71774	110563	Components	Road Frames	ML Road Frame-W - Yellow, 38	1	594.83	6/1
30072	71776	110567	Components	Brakes	Rear Brakes	1	106.5	6/1
30113	71780	110616	Components	Mountain Frames	ML Mountain Frame-W - Silver, 42	4	364.09	6/1
30113	71780	110617	Bikes	Mountain Bikes	Mountain-400-W Silver, 46	2	769.49	6/1
30113	71780	110618	Bikes	Mountain Bikes	Mountain-500 Silver, 52	6	564.99	6/1
30113	71780	110619	Components	Mountain Frames	HL Mountain Frame - Silver, 38	2	1364.5	6/1
30113	71780	110620	Bikes	Mountain Bikes	Mountain-500 Black, 42	1	539.99	6/1
30113	71780	110621	Components	Mountain Frames	LL Mountain Frame - Black, 48	1	249.79	6/1
30113	71780	110622	Components	Mountain Frames	HL Mountain Frame - Black, 42	1	1349.6	6/1
30113	71780	110623	Bikes	Mountain Bikes	Mountain-200 Black, 38	4	2294.99	6/1
30113	71780	110624	Components	Mountain Frames	LL Mountain Frame - Silver, 44	2	264.05	6/1
30113	71780	110625	Bikes	Mountain Bikes	Mountain-200 Silver, 42	4	2319.99	6/1
30113	71780	110626	Components	Pedals	HL Mountain Pedal	1	80.99	6/1
30113	71780	110627	Clothing	Shorts	Women's Mountain Shorts, S	6	69.99	6/1
30113	71780	110628	Bikes	Mountain Bikes	Mountain-500 Silver, 42	1	564.99	6/1
30113	71780	110629	Bikes	Mountain Bikes	Mountain-500 Black, 40	2	539.99	6/1
30113	71780	110630	Bikes	Mountain Bikes	Mountain-500 Black, 44	3	539.99	6/1
30113	71780	110631	Bikes	Mountain Bikes	Mountain-500 Black, 48	1	539.99	6/1
30113	71780	110632	Bikes	Mountain Bikes	Mountain-500 Black, 52	2	539.99	6/1

The data in the preview has been truncated due to size limits.

Load

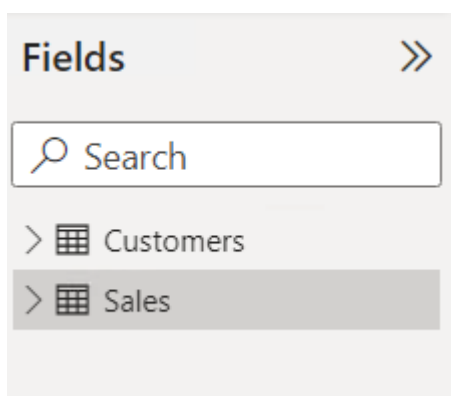
Transform Data

Cancel

25. The window will close and return to the report.

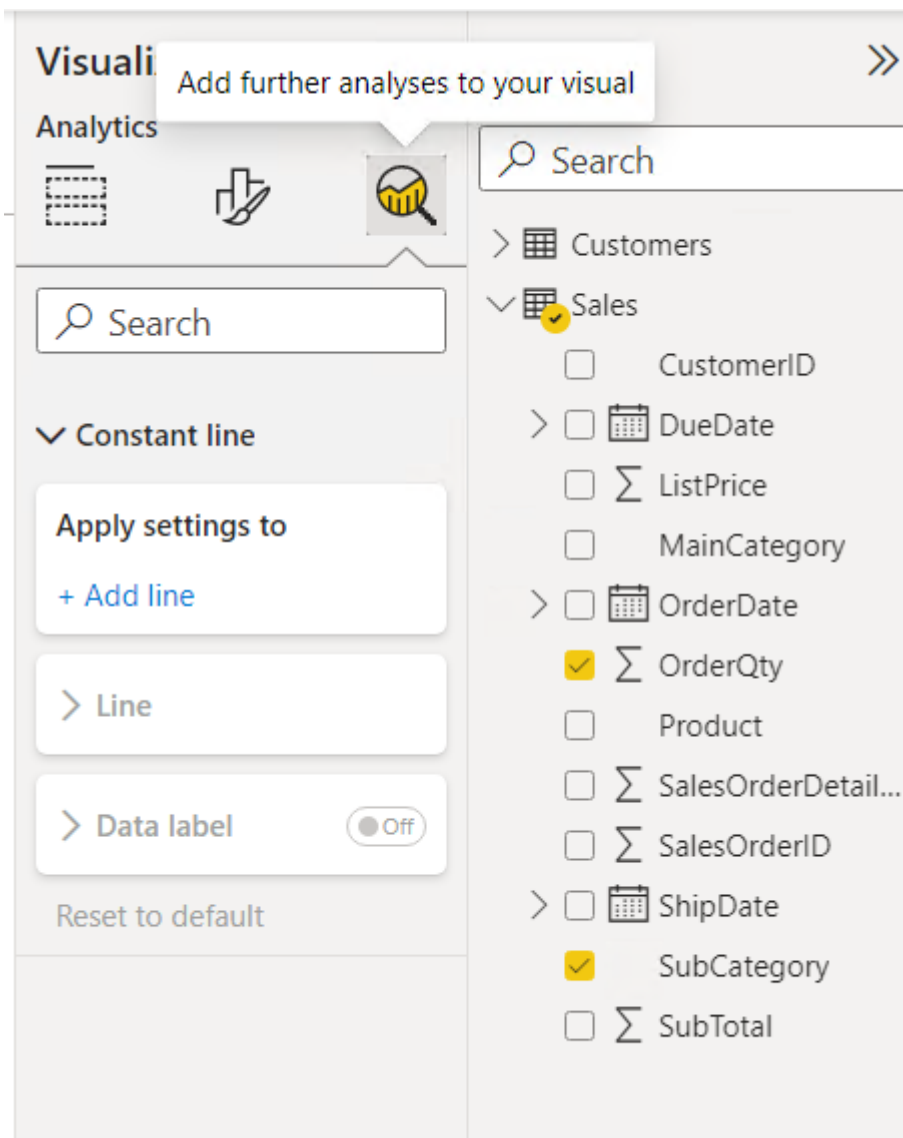
### Add Visualizations to a Report

1. In the **FIELDS** pane, right-click **Query1**, click **Rename**, type **Customers**, and then press Enter.
2. Right-click **Query2**, click **Rename**, type **Sales**, and then press Enter. Expand the two tables to display all the fields.

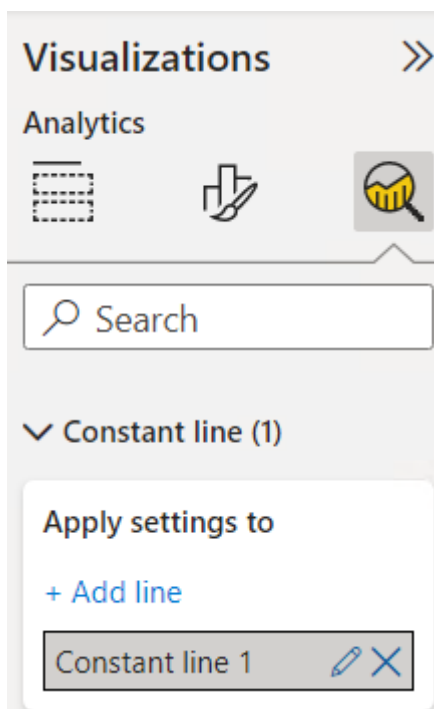


3. In the **FIELDS** pane, under **Sales**, select the **SubCategory**, and **OrderQty** check boxes. Power BI creates a table.
4. In the **VISUALIZATIONS** pane, click **Stacked column chart**.





7. Expand **Constant Line**, and click **Add**.



8. In the **Value** box, type **100**.
9. Change the color to **red**.
10. Toggle **Data label** to **On**.
11. Change the color to **red** to match the reference line.

## Visualizations

Analytics

value

Color

Transparency

Style

Position

☒ Data label

Horizontal position

Vertical position

Style

Color

## Fields

Customers

Sales

☐ CustomerID

☐ DueDate

☐ ListPrice

☐ MainCategory

☐ OrderDate

☒ OrderQty

☐ Product

☐ SalesOrderDetail...

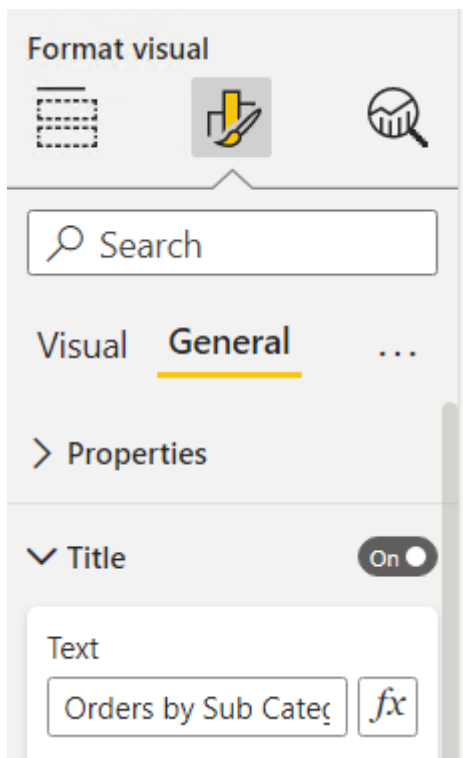
☐ SalesOrderID

☐ ShipDate

☒ SubCategory

☐ SubTotal

12. Click **Format**, and expand **Title**, in the **Title text** box, type **Orders by Sub Category**, and then click **Center** to align to the center.

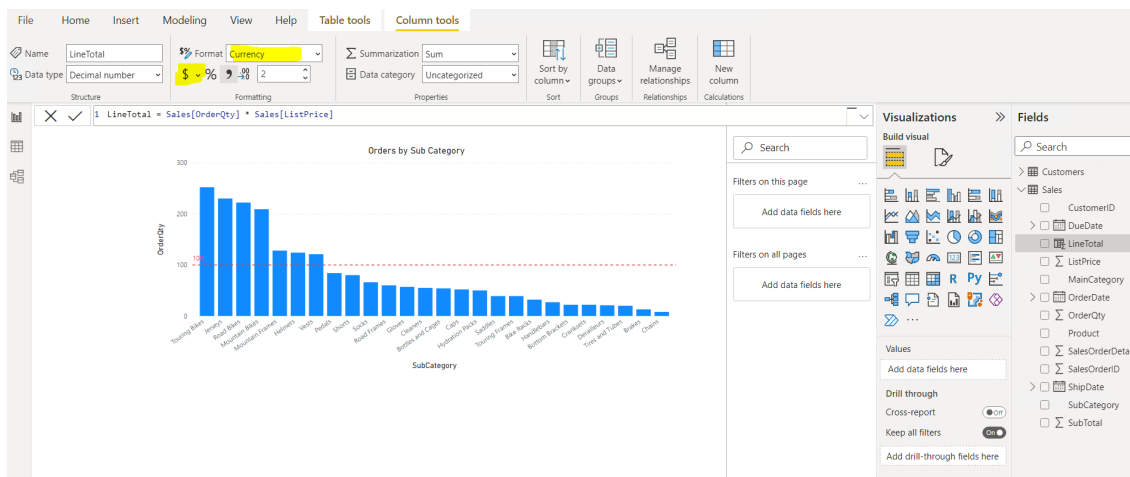


13. In the **FIELDS** pane, right-click **Sales**, and then click **New column**.

14. In the formula bar, highlight **Column =**, type the following script, and then press Enter:

```
LineTotal = Sales[OrderQty] * Sales[ListPrice]
```

15. On the **Modeling** tab, click **Format: General**, point to **Currency**, and then click **\$ English (United States)**.



16. Click a blank area of the page.

17. In the **FIELDS** pane, under **Sales**, select the **Product** check box, which adds a table, and then select the **LineTotal** check box.



The screenshot displays the Microsoft Power BI interface with three main panes: Filters, Visualizations, and Fields. The Filters pane on the left contains two filters: 'LineTotal is (All)' and 'Product is (All)'. The Visualizations pane in the center shows a table visualization. The Fields pane on the right shows the 'Sales' table with 'LineTotal' selected. A data table is visible on the left side of the interface.

Product	LineTotal
AWC Logo Cap	\$467.48
Bike Wash - Dissolver	\$437.25
Chain	\$161.92
Classic Vest, M	\$2,159.00
Classic Vest, S	\$5,524.50
Front Brakes	\$1,278.00
<b>Front Derailleur</b>	<b>\$1,189.37</b>
Half-Finger Gloves, L	\$465.31
Half-Finger Gloves, M	\$636.74
Half-Finger Gloves, S	\$293.88
Hitch Rack - 4-Bike	\$3,840.00
<b>Total</b>	<b>\$1,218,618.27</b>

18. In the **VISUALIZATIONS** pane, click **Fields**, under **Filters**, expand **LineTotal is (All)**.

19. In the list, click **is greater than**, and in the box, type **25000**.

20. Click **Apply filter**, and then note that the number of products in the table is reduced.

Product	LineTotal
Touring-1000 Yellow, 60	\$40,529.19
Touring-1000 Yellow, 46	\$28,608.84
Touring-1000 Blue, 60	\$61,985.82
Touring-1000 Blue, 50	\$38,145.12
Touring-1000 Blue, 46	\$28,608.84
Road-350-W Yellow, 48	\$71,441.58
Road-350-W Yellow, 42	\$32,318.81
Road-350-W Yellow, 40	\$34,019.80
Road-250 Black, 48	\$29,320.20
Road-250 Black, 44	\$29,320.20
Mountain-200 Silver, 46	\$30,159.87
<b>Total</b>	<b>\$638,542.34</b>

### Filters

Search

Filters on this visual

**LineTotal**

is greater than \$25,00...

Show items when the value

is greater than

25000

☒ And ☐ Or

Apply filter

Product

is (All)

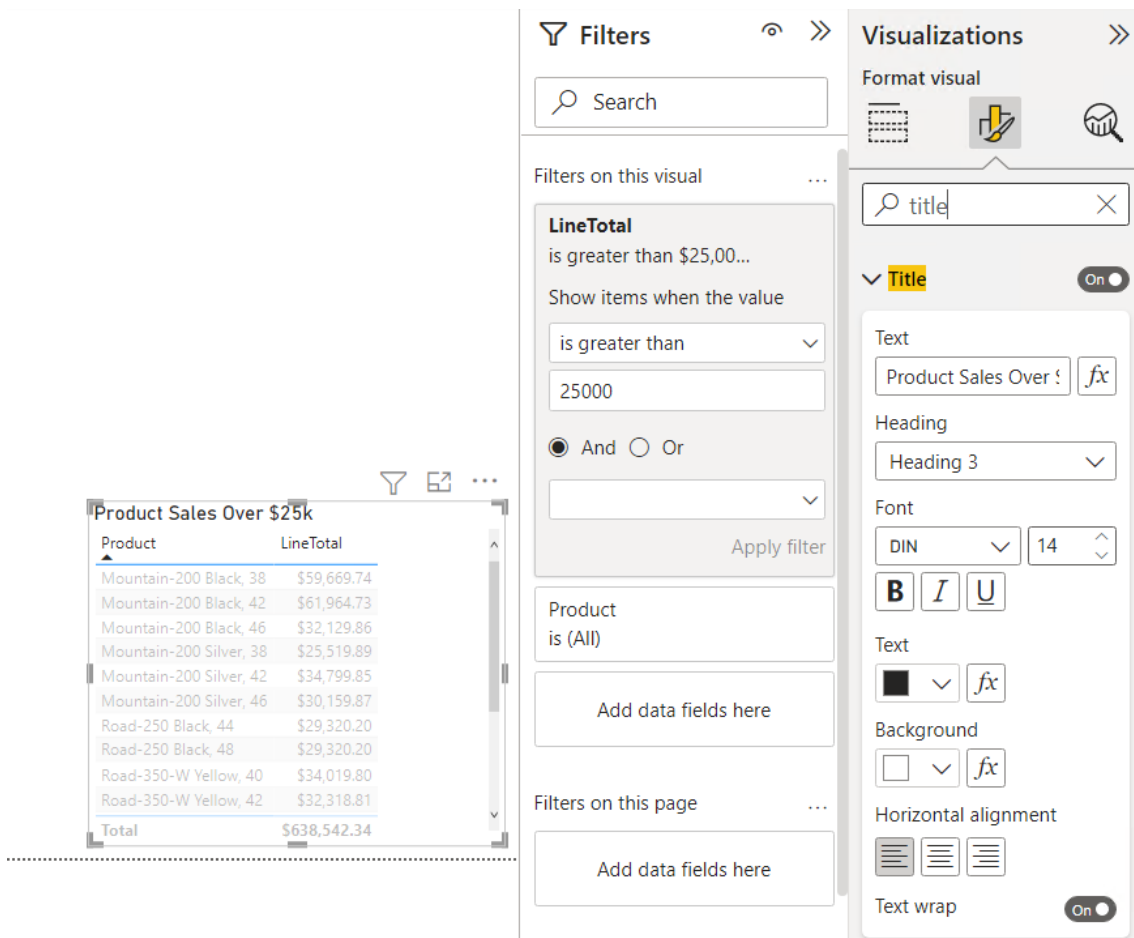
Add data fields here

Filters on this page

Add data fields here

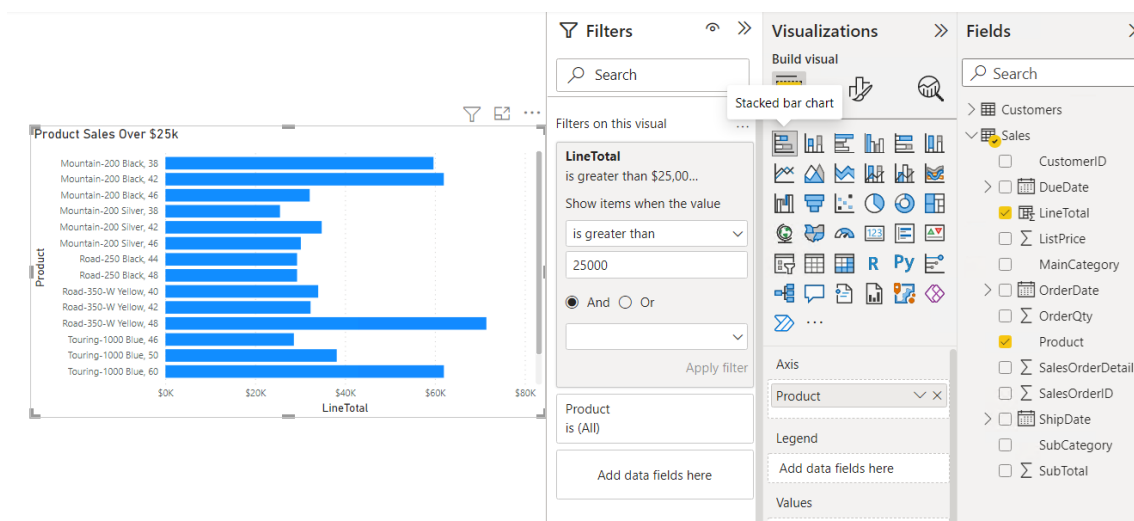
21. In the **VISUALIZATIONS** pane, click **Format**, click **Title**, and change the **Title** slider to **On**.

22. Under **Title**, in the **Title text** box, type **Product Sales Over \$25k**, and then click **Center**.

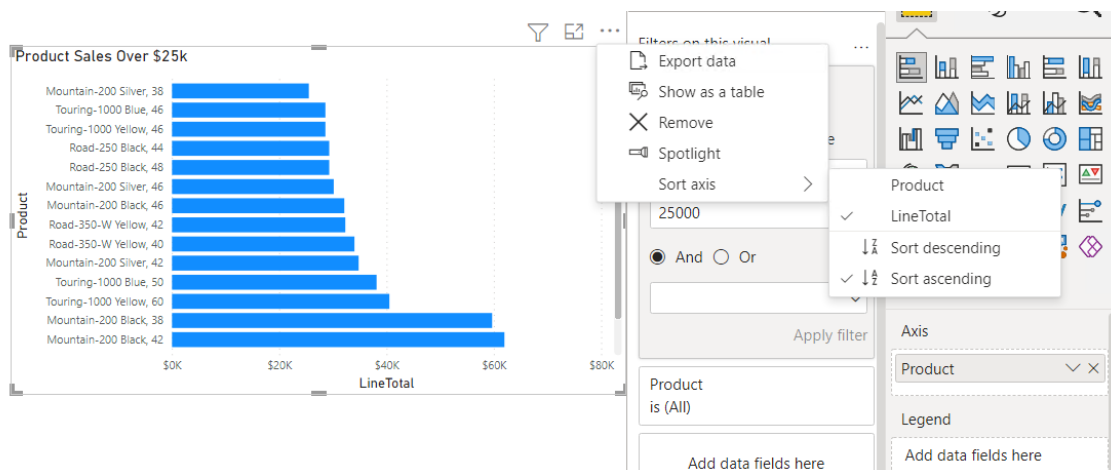


23. Select the table, and then click **Stacked bar chart**.

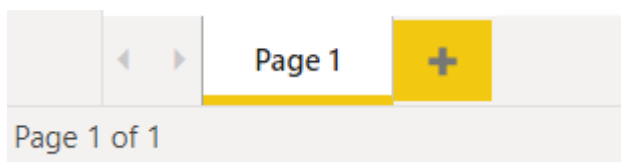
24. Use the expander to widen the chart to the same width as the column chart.



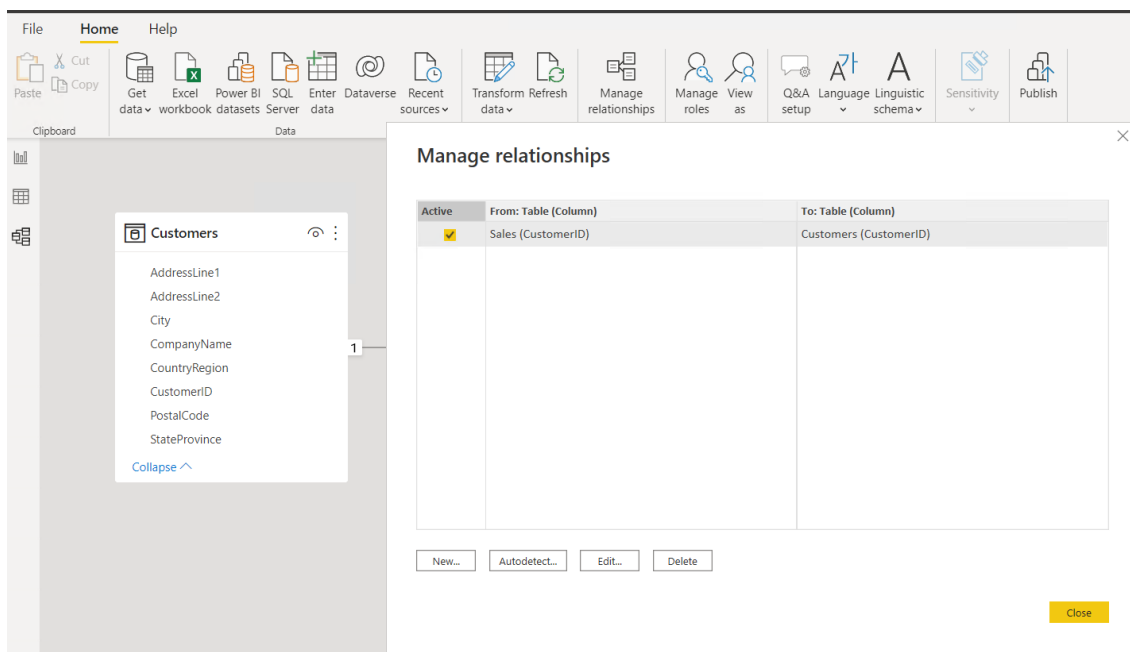
25. On the chart, click three dot icon, point to **Sort axis**, and then click **LineTotal**.



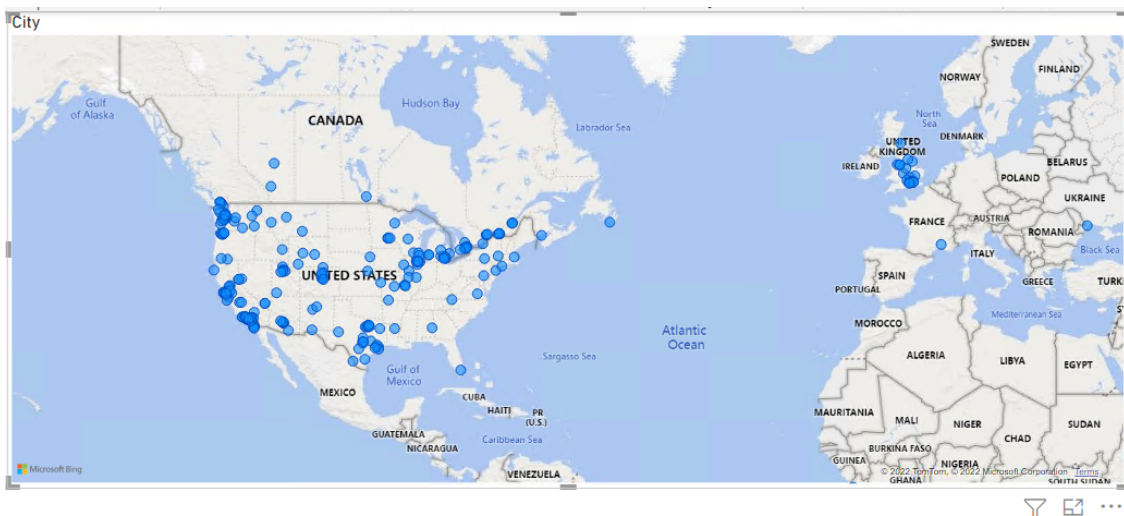
26. At the bottom of the window, click the + icon to add a new report.



27. Click **Model** tab from the left Menu, click **Manage Relationships**, and then point out that Power BI has auto-detected the relationship on the **CustomerID** columns, and then click **Close**.

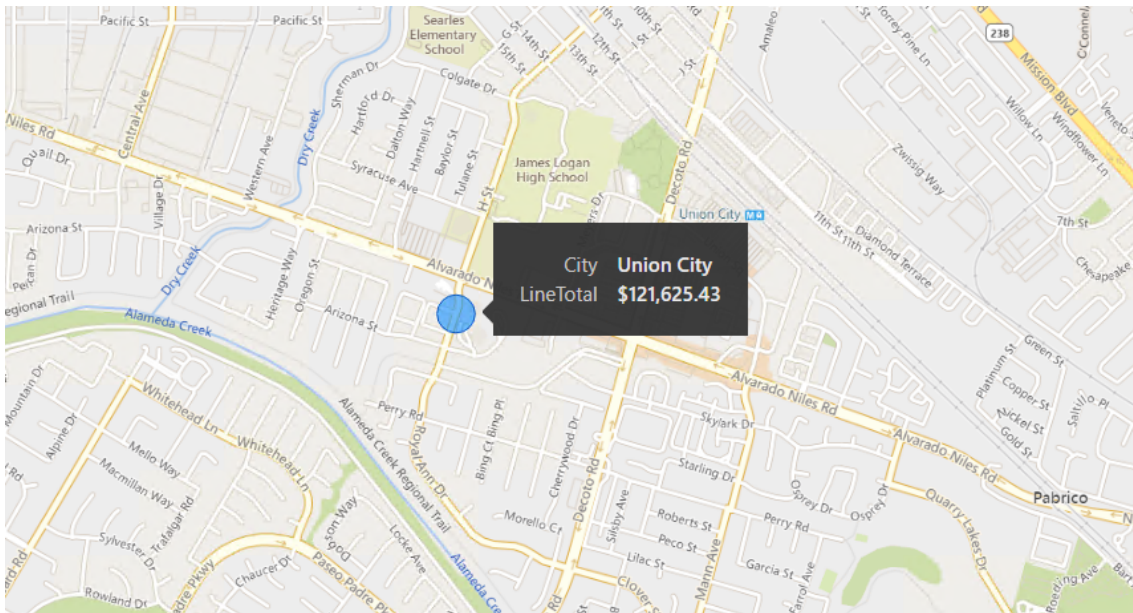


28. In the **FIELDS** pane, expand **Customers**, and then select the **City** check box. Power BI automatically adds a map chart.



**Note:** Enable map and filled map visuals options if you get an error.

29. In the **FIELDS** pane, under **Sales**, select the **LineTotal** check box to add it to the map. Grab the right corner of the map, and then drag it to fill the whole of the report page.
30. Zoom in on the map to focus on any place. Point out that the bubbles now represent the sales for each customer, and are proportionately sized. Position the cursor over some of the bubbles to display the data labels.



31. Close Power BI Desktop, and then close SQL Server Management Studio without saving any changes.