

# Review and Manage Location Matches in Oracle Analytics

## Before You Begin

This lab shows you how to use location matches to check the accuracy of map results.

## Background

You can view match results of the geographical locations in your map visualization. The Location Match dialog shows these types of matches:

- 100% confidence
- Multiple possible locations (ambiguous matches)
- Low confidence with matches in the map layer (partial matches)
- No location found in the map layer that matches your data point

You might want to:

- Correct spelling of cities, states, or countries in your data source.
- Add data such as county or province to resolve matches with multiple possible map locations.
- Add filters to the map visualization to increase the match quality.
- Create a custom map layer such as a postal code map layer that provides additional details about the data that isn't available in the default map layer.

Creating a custom map layer requires administrator privileges and an understanding of map layers.


In this tutorial, you create a map visualization, correct and remove data, and create a filter using the available data.

## What Do You Need?

- Access to Oracle Analytics Cloud or Oracle Analytics Desktop
- Download the following files to your computer:
  - superstore\_data.xlsx
  - world\_cities\_data.xlsx

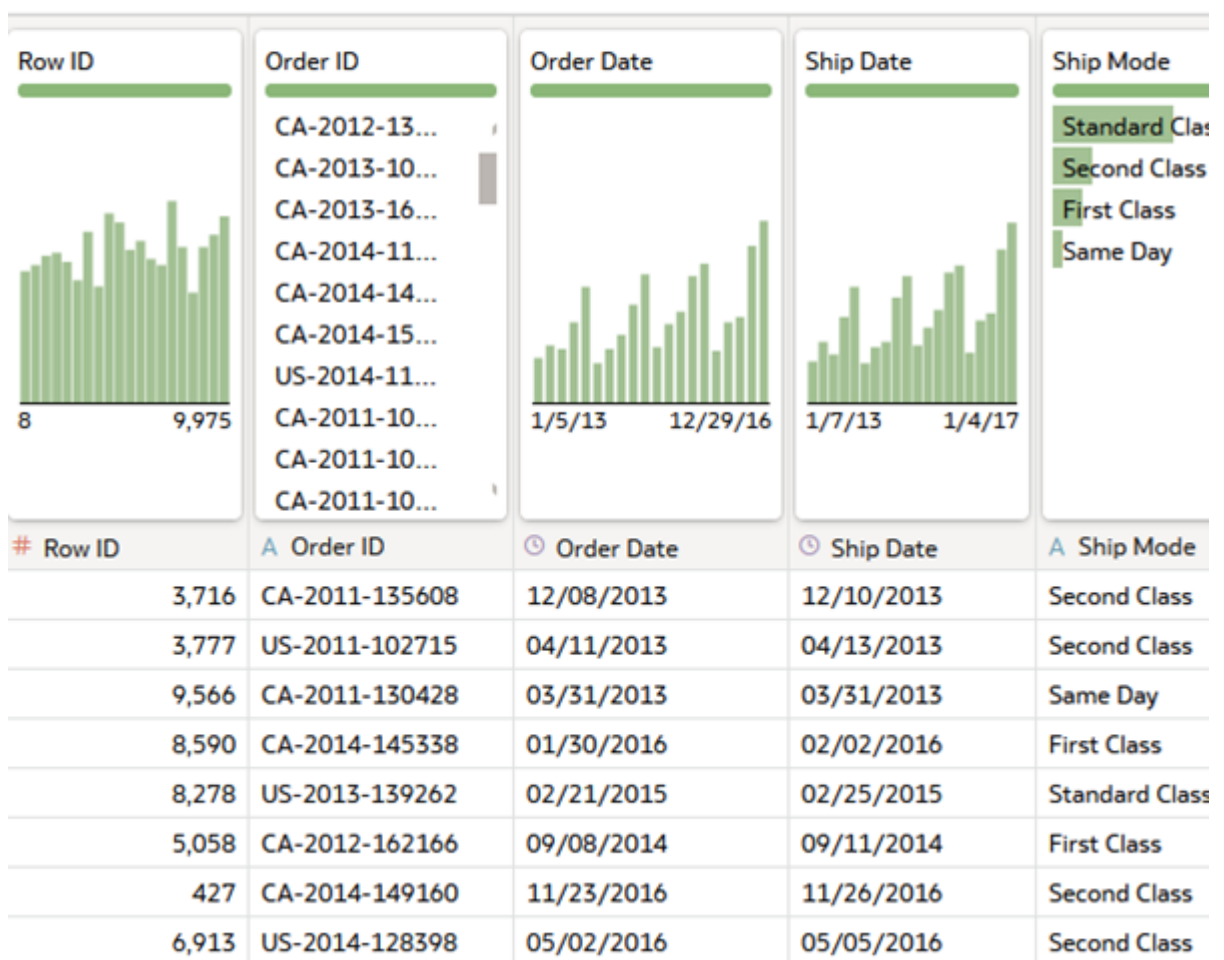
## Create a Dataset

In this section, you review location matches in your map visualization of sales by cities in the United States.

1. Sign in to Oracle Analytics.
2. On the Home page, click **Create**, and then select **Dataset**.
3. In Create Dataset, click **Drop data file here or click to browse**, select the superstore\_data.xlsx file, and then click **Open**.
4. In Create Dataset From superstore\_data.xlsx, click **OK**.
5. Click **Save** . In Save Dataset As, enter superstore\_data, and then click **OK**.



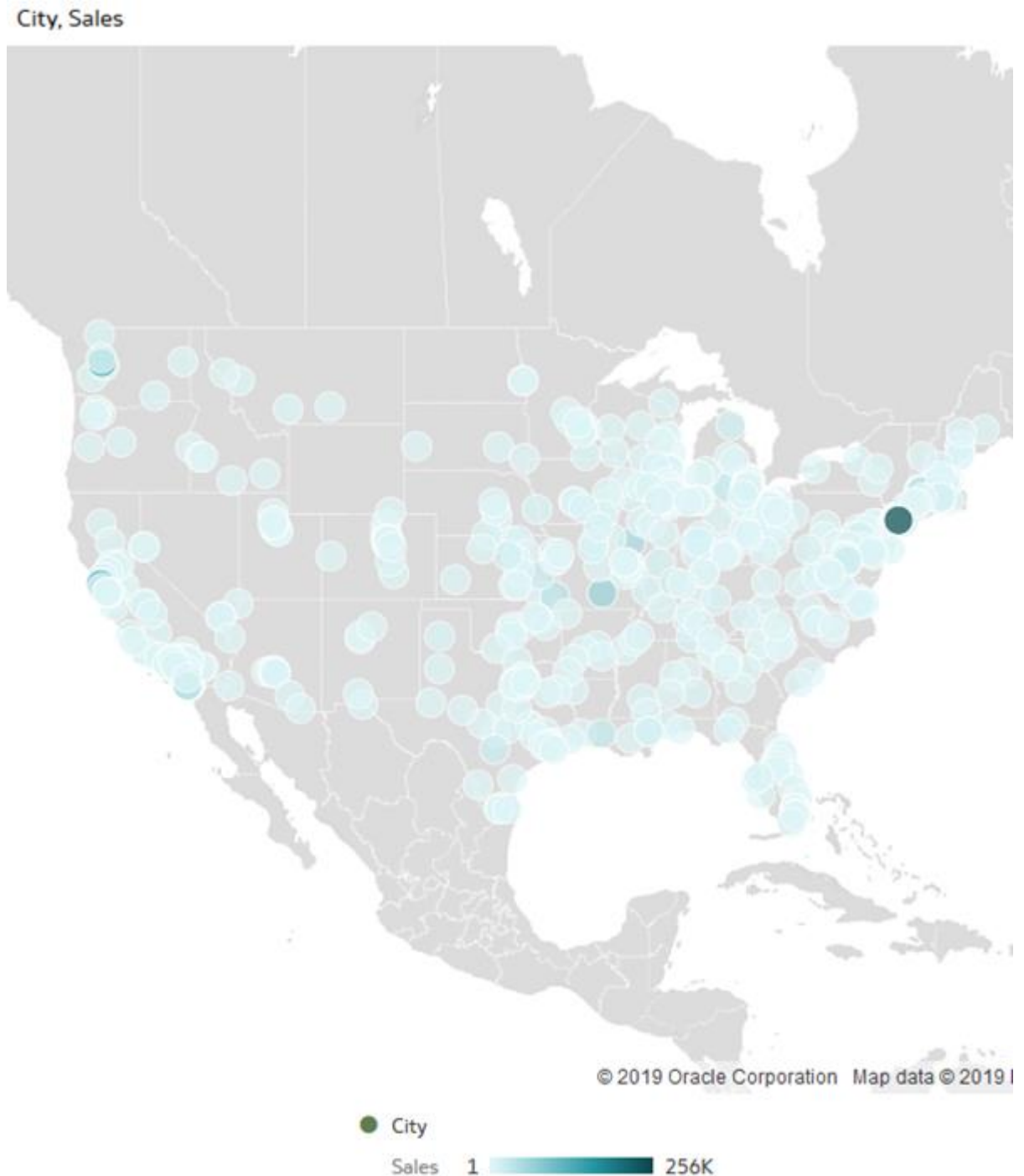
superstore\_data




## Create a Map Visualization


In this section, you create a map visualization with sales from cities around the world.

1. Click **Create Workbook**. Close the Auto Insights panel.
2. From the Data panel, hold down the **Ctrl** key, select **City** and **Sales**, and then right-click **Pick Visualization**. Select **Map** .













3. Click the visualization **Menu**  and select **Location Matches**.

## Location Matches

 City

Map Layer Auto (usa cities) ▼ 531 Locations (219 Issues)

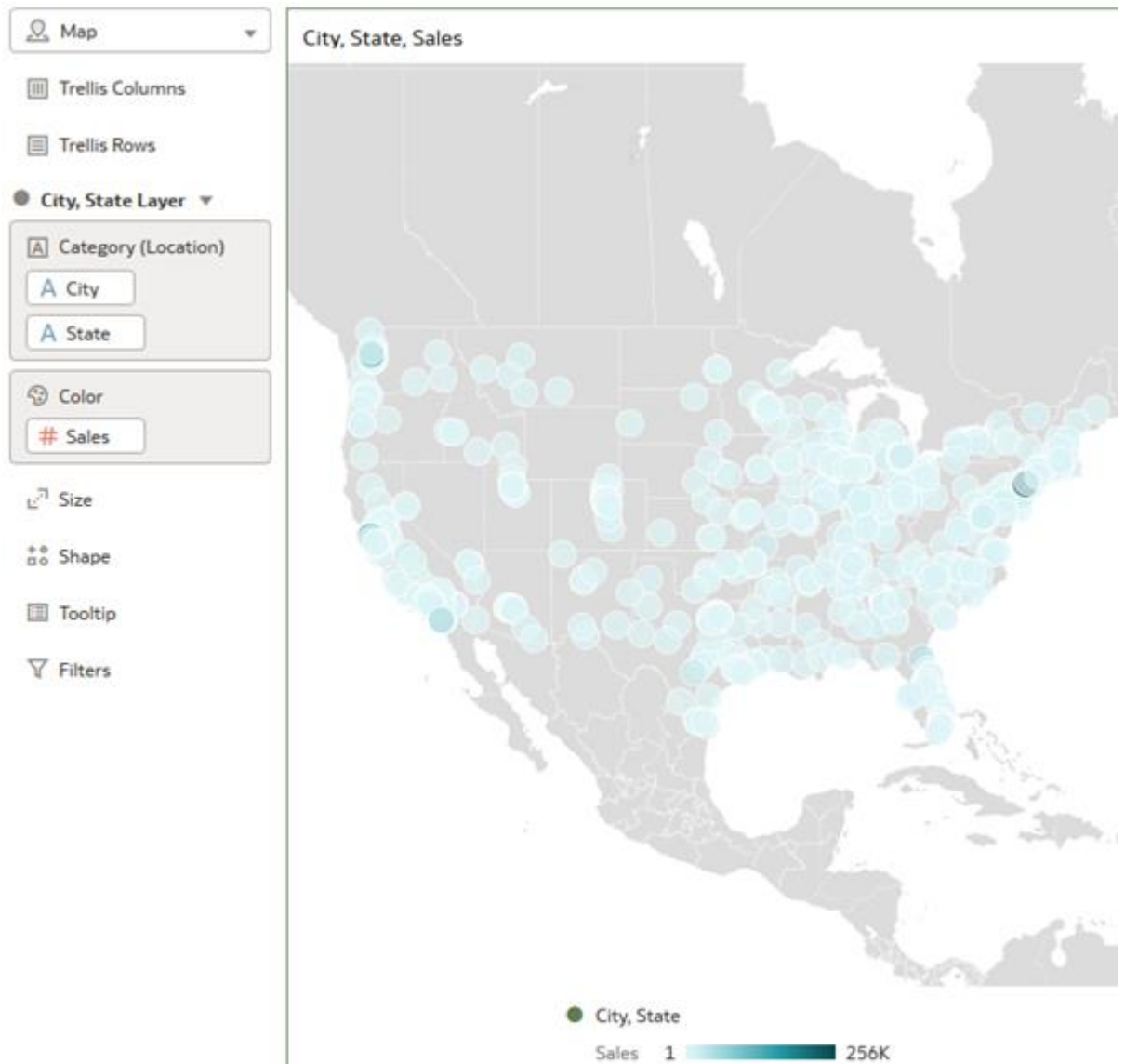
Your Data	Match	▼	Match Quality	Remove	⋮
Franklin	 Franklin, Nebraska		14 Matches	<input type="checkbox"/>	
Madison	 Madison, Virginia		12 Matches	<input type="checkbox"/>	
Clinton	 Clinton, Iowa		11 Matches	<input type="checkbox"/>	
Jackson	 Jackson, Michigan		11 Matches	<input type="checkbox"/>	
Lancaster	 Lancaster, Pennsylvania		11 Matches	<input type="checkbox"/>	
Marion	 Marion, Kansas		11 Matches	<input type="checkbox"/>	
Washington	 Washington, Kansas		11 Matches	<input type="checkbox"/>	
Greenville	 Greenville, South Carolina		10 Matches	<input type="checkbox"/>	
Mount Vernon	 Mount Vernon, Ohio		10 Matches	<input type="checkbox"/>	
Salem	 Salem, New Jersey		10 Matches	<input type="checkbox"/>	

Cancel OK

Location Matches shows 219 ambiguous matches because the United States includes multiple cities with the same name.

4. Click **OK**.
5. From the Data panel, drag **State** to **Category (Location)** in the Grammar panel to add more detail to the map.


The map appears the same as the map visualization that just used City.









6. Right-click the map visualization and select **Location Matches**.

The addition of State to the map layer resolved all but 5 of the location match issues.

## Location Matches

 City, State


Map Layer Auto (usa cities) ▼ 604 Locations (5 Issues)

Your Data	Match 	Match Quality	Remove	
Belleville, New Jersey	 Belleville, Kansas	101 Matches	<input type="checkbox"/>	
Fairfield, Connecticut	 Darien, Connecticut	17 Matches	<input type="checkbox"/>	
Canton, Michigan	 Canton, Ohio	9 Matches	<input type="checkbox"/>	
Andover, Massachusetts	 Andover, Kansas	2 Matches	<input type="checkbox"/>	
Orange, New Jersey	 East Orange, New Jersey	78% Confidence	<input type="checkbox"/>	
Aberdeen, South Dakota	Aberdeen, South Dakota	100% Confidence	<input type="checkbox"/>	
Abilene, Texas	Abilene, Texas	100% Confidence	<input type="checkbox"/>	
Akron, Ohio	Akron, Ohio	100% Confidence	<input type="checkbox"/>	
Albuquerque, New Mexico	Albuquerque, New Mexi...	100% Confidence	<input type="checkbox"/>	
Alexandria, Virginia	Alexandria, Virginia	100% Confidence	<input type="checkbox"/>	

Cancel OK

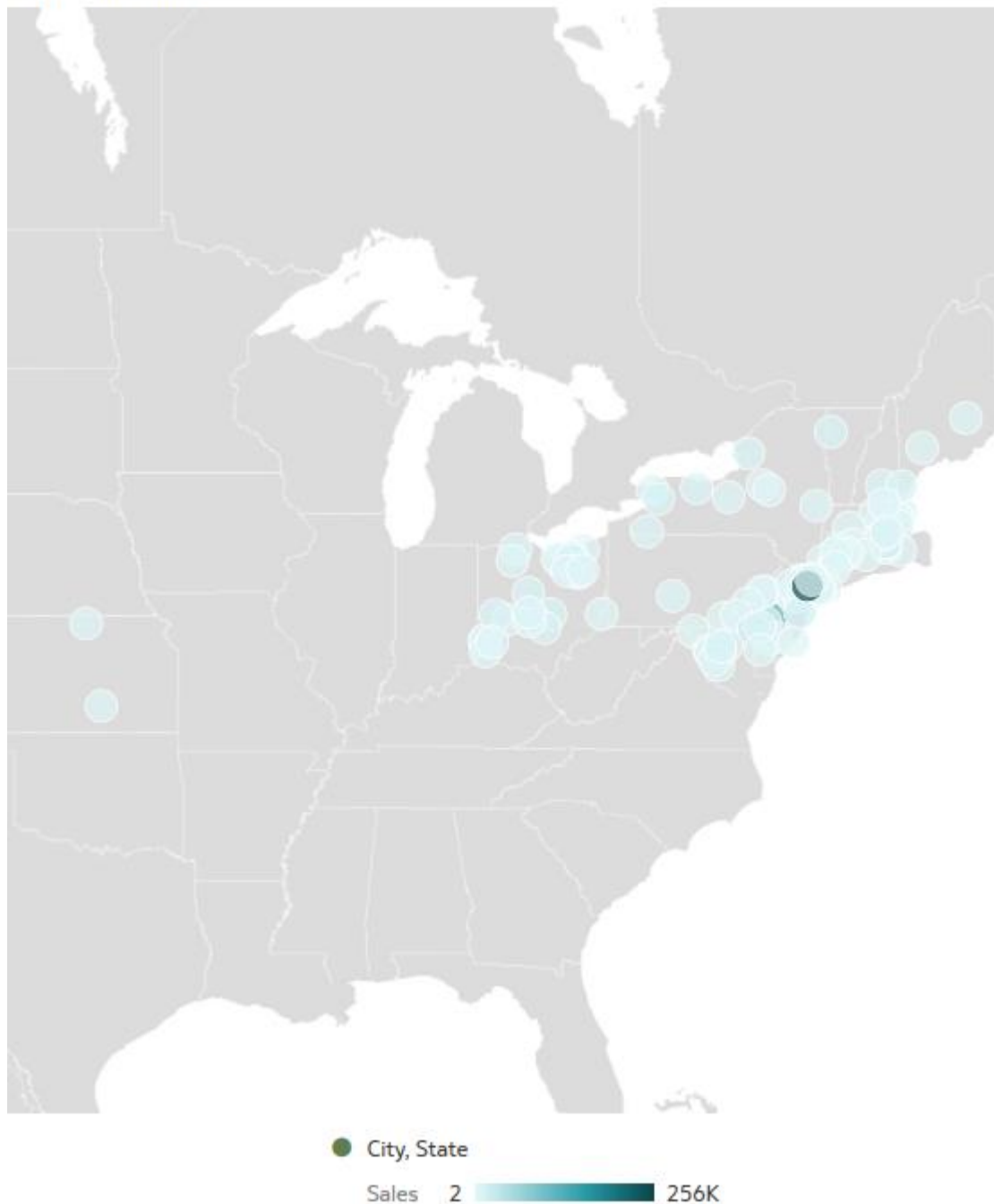
## Create a Filter

In this section, you use a filter in the visualization to narrow your map view to a specific area of interest, and possibly reduce the number of location mismatches.

1. In the canvas, click **Add Filter** . From `superstore_data`, select **Region**. From **Region**, select **East**, and then click outside of the selection dialog.

The map visualization changes to show the data points in the East region. However, a couple of data points appear in the mid-west.


City, State, Sales








2. Click the visualization **Menu** and select **Location Matches**.

The region filter reduced the location match issues to four. If you added county to your dataset, the out of region location match issues might disappear. Because the City of Orange, New Jersey, and East Orange, New Jersey are in the same county, the location matches issues probably won't totally disappear without a custom map layer of New England cities. A custom New England cities layer would also resolve the Darien and Fairfield, Connecticut location match issues.


## Location Matches

 City, State

Map Layer Auto (usa cities) ▼ 114 Locations (4 Issues)



Your Data	Match 	Match Quality	Remove	
Belleville, New Jersey	 Belleville, Kansas	101 Matches	<input type="checkbox"/>	
Fairfield, Connecticut	 Darien, Connecticut	17 Matches	<input type="checkbox"/>	
Andover, Massachusetts	 Andover, Kansas	2 Matches	<input type="checkbox"/>	
Orange, New Jersey	 East Orange, New Jersey	78% Confidence	<input type="checkbox"/>	
Akron, Ohio	Akron, Ohio	100% Confidence	<input type="checkbox"/>	
Allentown, Pennsylvania	Allentown, Pennsylvania	100% Confidence	<input type="checkbox"/>	
Altoona, Pennsylvania	Altoona, Pennsylvania	100% Confidence	<input type="checkbox"/>	
Atlantic City, New Jersey	Atlantic City, New Jersey	100% Confidence	<input type="checkbox"/>	
Auburn, New York	Auburn, New York	100% Confidence	<input type="checkbox"/>	
Baltimore, Maryland	Baltimore, Maryland	100% Confidence	<input type="checkbox"/>	

Cancel OK

3. Click **Save**. In Save Workbook, enter Cities Location Matches in **Name**, and then click **Save**. Click **Go back**  to return to the Home page.

## Create a Map Visualization with World Cities

In this section, you create a new workbook with a different data source.

1. On the Home page, click **Create**, and then select **Dataset**.
2. In Create Dataset, click **Drop data file here or click to browse**, select the world\_cities\_data.xlsx file, and then click **Open**.
3. In Create Dataset table from world\_cities\_data, click **OK**.
4. Click **Save** . In Save Dataset As, enter world\_cities\_data, and then click **OK**.
5. Click **Create Workbook**. Close the Auto Insights panel.
6. From the Data panel, hold down the **Ctrl** key, select **City** and **Sales**, and then right-click **Pick Visualization**. Select **Map** .



City, Sales




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

7. Click the visualization **Menu** and select **Location Matches**.

Location Matches can't find the small French village of Eze and Riccione, Italy on the default map.

## Location Matches

 City

Map Layer Auto (world cities) ▼ 145 Locations (34 Issues)

Your Data	Match 	Match Quality	Remove	⋮
Eze	 No Match	No Match	<input type="checkbox"/>	
Riccione	 No Match	No Match	<input type="checkbox"/>	
Victoria	 Victoria, Seychelles	5 Matches	<input type="checkbox"/>	
Albany	 Albany, United States	4 Matches	<input type="checkbox"/>	
Richmond	 Richmond, Australia	4 Matches	<input type="checkbox"/>	
Santiago	 Santiago, Chile	4 Matches	<input type="checkbox"/>	
Caiyro	 Cairo, Egypt	3 Matches	<input type="checkbox"/>	
Columbia	 Columbia, United States	3 Matches	<input type="checkbox"/>	
London	 London, Canada	3 Matches	<input type="checkbox"/>	
Rosario	 Rosario, Brazil	3 Matches	<input type="checkbox"/>	

Cancel OK

- From the Data panel, drag **Country** to **Category (Location)** in the Grammar panel to possibly improve matches.




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



- Click the visualization **Menu** and select **Location Matches**.

With the addition of Country to the world cities map layer, the village of Eze has four matches and Riccione has 22 matches. The number of location match issues are reduced from 21 to 16.

## Location Matches

 Country, City

Map Layer Auto (world cities) ▼ 145 Locations (15 Issues)


Your Data	Match 	Match Quality	Remove	
France, Eze	 France, Melun	70 Matches	<input type="checkbox"/>	
Italy, Riccione	 Italy, Crotone	53 Matches	<input type="checkbox"/>	
Egypt, Caiyro	 Egypt, Cairo	6 Matches	<input type="checkbox"/>	
United States, Albany	 United States, Albany	3 Matches	<input type="checkbox"/>	
United States, Columbia	 United States, Columbia	3 Matches	<input type="checkbox"/>	
Brazil, Paulo	 Brazil, Sao Paulo	2 Matches	<input type="checkbox"/>	
United States, Augusta	 United States, Augusta	2 Matches	<input type="checkbox"/>	
United States, Burlington	 United States, Burlington	2 Matches	<input type="checkbox"/>	
United States, Charleston	 United States, Charleston	2 Matches	<input type="checkbox"/>	
United States, Columbus	 United States, Columbus	2 Matches	<input type="checkbox"/>	

Cancel OK












10. In Location Matches, click the check box in the Riccione row, and then click **Remove** to create a filter to remove the selected item. Click **OK**.
11. Right-click the map view, and then click **Location Matches**.

Adding country removed some of the ambiguous matches, and Riccione no longer appears in Locations Matches. In your workbook, scroll through the dialog to review the location matches.

## Location Matches

 Country, City

Map Layer Auto (world cities) ▼ 144 Locations (14 Issues)

Your Data	Match 	Match Quality	Remove	
France, Eze	 France, Melun	70 Matches	<input type="checkbox"/>	
Egypt, Caiyro	 Egypt, Cairo	6 Matches	<input type="checkbox"/>	
United States, Albany	 United States, Albany	3 Matches	<input type="checkbox"/>	
United States, Columbia	 United States, Columbia	3 Matches	<input type="checkbox"/>	
Brazil, Paulo	 Brazil, Sao Paulo	2 Matches	<input type="checkbox"/>	
United States, Augusta	 United States, Augusta	2 Matches	<input type="checkbox"/>	
United States, Burlington	 United States, Burlington	2 Matches	<input type="checkbox"/>	
United States, Charleston	 United States, Charleston	2 Matches	<input type="checkbox"/>	
United States, Columbus	 United States, Columbus	2 Matches	<input type="checkbox"/>	
United States, Jackson	 United States, Jackson	2 Matches	<input type="checkbox"/>	

Cancel OK





## Correct Data Source Issues

In the Location Matches, under the Your Data column, the City of *Caiyro* is spelled incorrectly.

1. In the workbook, click **Save**. In Save Workbook, enter World Sales in **Name**, and then click **Save**.
2. Open the world\_cities\_data.xlsx file. In the spreadsheet, use **Ctrl + F**, and then in **Find What**, enter Caiyro. Close the Find dialog.
3. In the row with Caiyro, enter Cairo, click **Save**, and then close the file.


## Update the Data in Your Workbook

In this section, you reload the updated data source and refresh the workbook.












1. On the Home page, click **Data** in the search bar, enter world\_cities\_data, and then click **Search**. In world\_cities\_data, click **Actions menu** , and then select **Reload Data**.
2. On the Home page, click **Workbooks**, enter World Sales, and then click **Search**.
3. In the World Sales workbook, click the **Actions menu** , and then select **Open**.
4. In the workbook, click **Menu** , and then select **Refresh Data**.
5. Click the visualization **Menu**  and select **Location Matches**.

6. In Location Matches, scroll to **Cairo** to view the correction made in the dataset.

### Location Matches

 Country, City


Map Layer Auto (world cities) ▼ 144 Locations (13 Issues)

Your Data	Match 	Match Quality	Remove	⋮
France, Eze	 France, Melun	70 Matches	<input type="checkbox"/>	
United States, Albany	 United States, Albany	3 Matches	<input type="checkbox"/>	
United States, Columbia	 United States, Columbia	3 Matches	<input type="checkbox"/>	
Brazil, Paulo	 Brazil, Sao Paulo	2 Matches	<input type="checkbox"/>	
United States, Augusta	 United States, Augusta	2 Matches	<input type="checkbox"/>	
United States, Burlington	 United States, Burlington	2 Matches	<input type="checkbox"/>	
United States, Charleston	 United States, Charleston	2 Matches	<input type="checkbox"/>	
United States, Columbus	 United States, Columbus	2 Matches	<input type="checkbox"/>	
United States, Jackson	 United States, Jackson	2 Matches	<input type="checkbox"/>	
United States, Jamestown	 United States, Jamesto...	2 Matches	<input type="checkbox"/>	

Cancel OK

## Create a Pivot Table

In the Location Matches dialog, some data points had multiple matches. In this section, you create a pivot table that enables viewing all of your City sales data points.

1. In the Data panel, hold down the **Ctrl** key, and select the following:
  - **Country**
  - **City**
  - **Sales**
2. Right-click, select **Pick Visualization**, and then select **Pivot** .
3. In the Grammar panel, drag **City** to Color, and then drag **Country** to Rows.  
You can scroll through the list in the pivot table to review the data.

Sales by City, Country

Country	City	Sales	
Argentina	Abra Pampa	62.35	
	Buenos Aires	98.17	
	Carhue	196.95	
	Córdoba	30.60	
	General Roca	1,859.16	
	La Plata	198.98	
	Las Plumas	31.08	
	Los Blancos	429.60	
	Rinconada	248.72	
	Rosario	610.01	
	San Pedro	741.36	
Australia	Adelaide	6,846.35	
	Canberra	18.87	
	Hobart	778.91	
	Melbourne	477.37	
	Perth	843.34	
	Sydney	167.47	
Brazil	Paulo	1,798.05	
	Recife	959.13	
	Rio de Janeiro	7,049.74	

City

- Abra Pampa

Buenos Aires

Carhue

Córdoba

General Roca
- Hobart

Melbourne

Perth

Sydney

Paulo
- Shanghai

Bogota

Cairo

San Salvador

Eze
- Duisburg

Frankfurt

Hamburg

Munich
- Varanasi

Vijayawada

Tel Aviv

Milano

Naples