Module 4: Shaping and Combining Data

Note: Lab Solution is present in `D:\Labfiles\Lab04\Solution` folder:

Lab: Shaping and Combining Data

Exercise 1: Shape Power BI Data

Task 1: Preparing the Environment

- Ensure that you have copied all folders from `Desktop/power-bi-quickstart` folder into *D:* drive before starting the lab.

Task 2: Import Data from Excel

1. Make sure previous task was completed.

2. On the Taskbar, click **Power BI Desktop**.

3. To close the getting started window, at the top-right of the window, click **X**.

4. In the **Power BI Desktop** window, click **Get data**.

5. In the **Get Data** window, click **Excel Workbook**, and then click **Connect**.

6. In the **Open** dialog box, browse to the **D:\Labfiles\Lab04\Starter\Project** folder, click **Sales - Europe.xlsx**, and then click **Open**.

7. In the **Navigator** window, select the **Europe** check box, and then click **Load**.

8. On the **Home** tab, click the **Get Data** arrow, and then click **Excel Workbook**.

9. In the **Open** dialog box, browse to the **D:\Labfiles\Lab04\Starter\Project** folder, click **Sales - North America.xlsx**, and then click **Open**.

10. In the **Navigator** window, select the **North America** check box, and then click **Transform Data**. This opens the Power Query Editor window.

**Task 3: Apply Formatting to the Existing Data**

1. In the **Queries [2]** pane, click **Europe** to show the data preview if this is not already displayed.

2. Right-click the **ProductKey** column, and click **Remove**.

3. Right-click the **SalesOrderNumber** column, and click **Remove**.

4. Right-click the **SalesTerritoryCountry** column, click **Rename**, type **Country**, and then press Enter.

5. Right-click the **SalesTerritoryGroup** column, click **Rename**, type **Sales Territory**, and then press Enter.

6. Right-click the **EnglishProductCategoryName** column, click **Rename**, type **Main Category**, and then press Enter.

7. Right-click the **EnglishProductSubcategoryName** column, click **Rename**, type **Sub Category**, and then press Enter.

8. Right-click the **EnglishProductName** column, click **Rename**, type **Product**, and then press Enter.

9. Right-click the **Color** column, point to **Move**, and then click **Left**.

10. In the **Queries [2]** pane, click **North America**.

11. Right-click the **ProductKey** column, and click **Remove**.

12. Right-click the **SalesOrderNumber** and click **Remove**.

13. Right-click the **SalesTerritoryCountry** column, click **Rename**, type **Country**, and then press Enter.

14. Right-click the **SalesTerritoryGroup** column, click **Rename**, type **Sales Territory**, and then press Enter.

15. Right-click the **EnglishProductCategoryName** column, click **Rename**, type **Main Category**, and then press Enter.

16. Right-click the **EnglishProductSubcategoryName** column, click **Rename**, type **Sub Category**, and then press Enter.

17. Right-click the **EnglishProductName** column, click **Rename**, type **Product**, and then press Enter.

18. Right-click the **Color** column, point to **Move**, and then click **Left**.

19. On the **Home** tab, in the **Query** group, click **Advanced Editor**. Notice that the query includes the changes you have made, and then click **Cancel**.

20. Leave the Power Query Editor window open for the next exercise.

Exercise 2: Combine Power BI Data

Task 1: Add Related Data to the Shaped Data

1. In the **Queries [2]** pane, click **Europe**.

2. On the **Home** tab, in the **Combine** group, click **Append Queries**.

3. In the **Append** dialog box, in the **Table to append** list, click **North America**, and then click **OK**. The rows are combined.

4. On the **Country** column header, click the **Arrow**, and then click **Load more**. You should now see that **United States** and **Canada** are included, and then click **Cancel**.

5. On the **Home** tab, click the **New Source** arrow, and then click **Excel WorkBook**.

6. In the **Open** dialog box, browse to the **D:\Labfiles\Lab04\Starter\Project** folder, click **Country Codes.xlsx**, and then click **Open**.

7. In the **Navigator** dialog box, select the **Country Codes** check box, and then click **OK**.

8. On the **Transform** tab, click **Use First Row as Headers**.
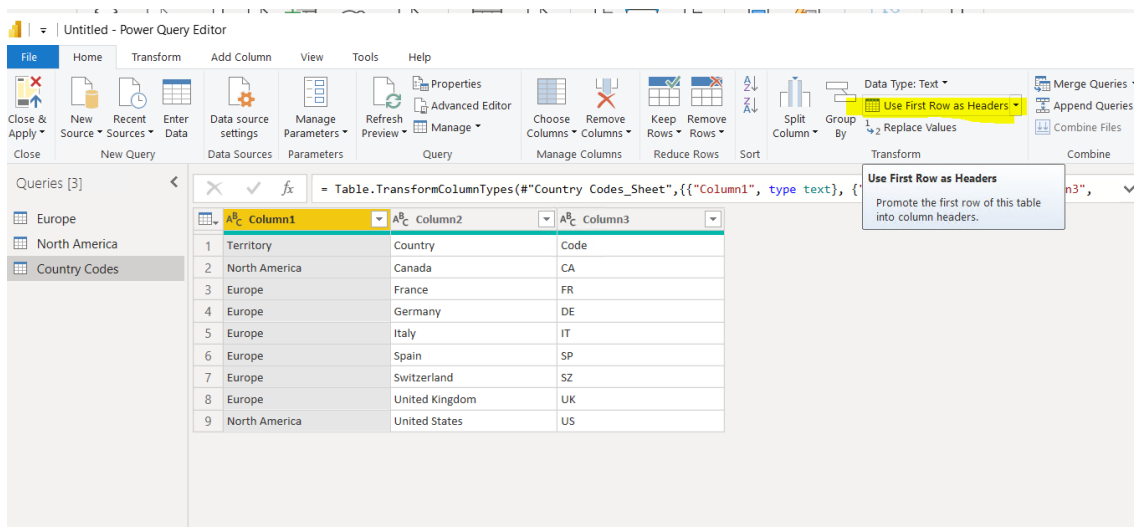
9. In Power Query Editor, in the **Queries [3]** pane, click **Europe**.

10. On the **Home** tab, in the **Combine** group, click **Merge Queries**.

11. In the **Merge** dialog box, click the **Country** column to select it.

12. In the list below the table, click **Country Codes**, click the **Country** column, and then click **OK**.

Merge

Select a table and matching columns to create a merged table.

Europe

Country	Sales Territory	Main Category	Sub Category	Color	Product	OrderQuantity
France	Europe	Bikes	Mountain Bikes	Silver	Mountain-100 Silver, 44	
United Kingdom	Europe	Bikes	Road Bikes	Red	Road-650 Red, 52	
Germany	Europe	Bikes	Road Bikes	Red	Road-150 Red, 44	
United Kingdom	Europe	Bikes	Road Bikes	Red	Road-150 Red, 44	

Country Codes

Territory	Country	Code
North America	Canada	CA
Europe	France	FR
Europe	Germany	DE
Europe	Italy	IT
Europe	Spain	SP

Join Kind

Left Outer (all from first, matching from second)

☐ Use fuzzy matching to perform the merge
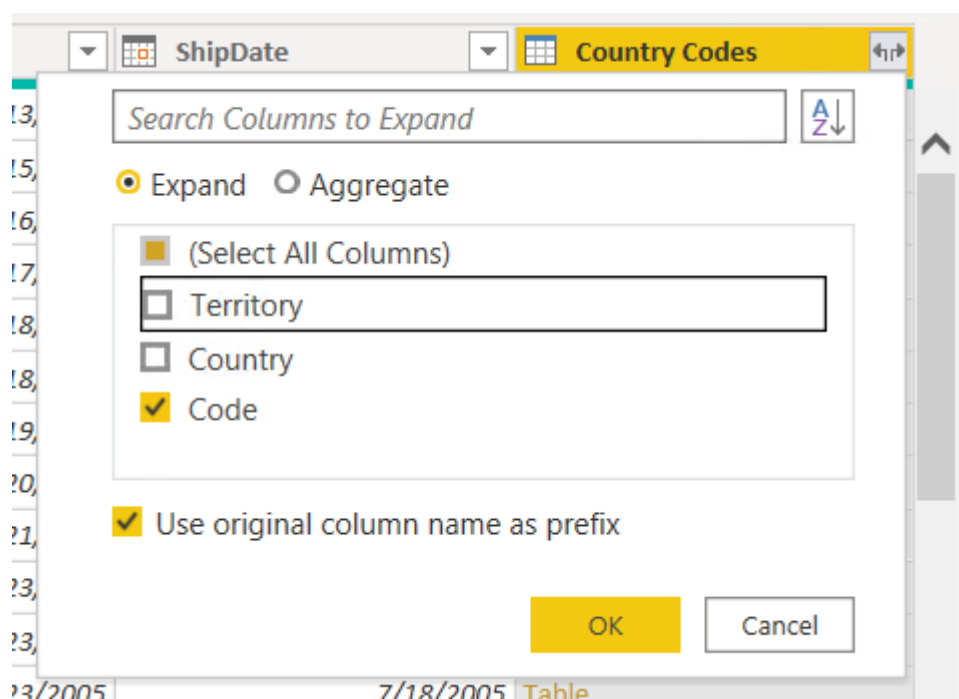
> Fuzzy matching options

✔ The selection matches 2000 of 2000 rows from the first table.   OK   Cancel

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13. The **Country Codes** is added to the **Europe** query.

14. In the **Country Codes** header, click the **double-arrow** icon, clear the **Territory**, **Country**, and **Use original column name as prefix** check boxes, and then click **OK**.

15. Right-click the **Code** column, point to **Move**, and click **To Beginning**.

16. Right-click the **Code** column, click **Rename**, type **Country Code**, and then press Enter.

17. On the **Home** tab, click the **Close & Apply** arrow, and then click **Apply**.

18. Close Power Query Editor, and then close Power BI Desktop without saving any changes.