Exercise: Data modeling and visualizations (Optional for MAC Users)

You are employed as a sales manager with Northwind Traders. You have assembled important sales information which you would like all your department staff to be aware of. The data is currently in an Excel spreadsheet, but you feel that it would be easier for the staff to read and assimilate in the form of a Power BI report.

You will need to create a Power BI report which focuses on an analysis of the sales data broken down by customer.

Setup Instructions

1. Download the Excel file **Northwind Sales.xlsx** and save it to your local drive.

2. In Power BI Desktop choose Get Data and then Excel Workbook and click connect. Navigate to where you have saved the file, select it, and chose open.

3. When the Navigator dialog opens the contents of the Northwind Sales file will be listed on the left. Choose the table called **tbl_sales** and click load.

4. When the data load has finished, you will be looking at a blank design canvas.

Transforming the Data

Select the table choice in the navigator bar on the left to view the table of data. You can see that some columns will need to be amended.

Task #1

Use the formatting choices in the Column Tools ribbon to make these formatting changes:

- Format the numbers in the CSAT column as percentages with no decimal places.
- Format the numbers in the Sales column with a dollar currency symbol.

Task #2

Click on Transform Data on the Home Ribbon and then on transform data again.

Use the commands in the ribbons to:

- Split the Employee column into two using the space as a delimiter. Rename the columns Employee First Name and Employee Last Name. (*Tip: right click on the column heading to rename.*)
- Use drag & drop to re-order the First Name and Last Name columns.
- Use the Custom Column choice on the Add Column ribbon to create a new custom column called Contact Name. You will need to create a formula to combine the entries. (*Tip: remember the ampersand and the double quote symbols can be useful.*)
- Click Close and Apply on the home ribbon to exist the Editor screen.

Creating Visualizations

Visualization #1

Add a table in the bottom left corner of the canvas which contains the customer names and four columns showing sales figures. Initially all four columns will show the same totals, but you should then customize them so that they show Total Sales, Average Sales, Minimum Sale, and Maximum Sale. (*Tip: if you right click a field name in the values box, you will see useful choices such as Rename for this Visual as well as being able to change the aggregate.)*

Visualization #2

Add a Clustered Column Chart visualization in the bottom right-hand corner. It should show sales broken down by month. (*Tip: if you expand the date hierarchy you will be able to pick individual date components.)*

Visualization #3

Add a Stacked Bar Chart visualization in the top left corner of the page. It should show Sales by Category.

Visualization #4

Add a Table Visualization in the top middle of the page. It should include Product Name and Sales.

Visualization #5

In the top right corner of the canvas add a Donut Chart which shows Sales by Payment type.

Task #6

Add borders around each visualization and space them in a balanced way on the page. (*Tip: The General settings tab for a visualization has a choice called effects. You can turn the borders on there.*)

Save and Publish

Rename the report page Customer Information. Save the file as Northwind Sales Data. The file is automatically given a dot **pbix** file extension.

Once the file has been saved click on Publish and then chose the My Workspace option.