**Exercise 1: Import and Prepare Data**

1. Start a new Power BI report.
2. Get data from a folder and navigate to the *Subscribers* folder.
3. There are two .xlsx files in this folder (new and renewals). Load these two files into the editor.
4. Combine and append the two .xlsx files into one big list/query. Check the box to skip files with errors.
5. In the first column, replace the **.xlsx** values. This will leave the column contents as **new** and **renewal**.
6. Change the case for the values in the first column to capitalise each word.
7. Change the data type of the date column to date (not date/time).
8. Close and apply to the model
9. This list loads 942,079 rows. You can check this in Data view or a statistical function in the editor.
10. Get data from the Excel file named *Packages*.
11. Load the data from the dProduct table.
12. No changes should be necessary.
13. Get data from the text file *Countries*.
14. There is an issue with the header. Edit the query and choose to use the first row as headers.
15. Rename the query *dCountries*.
16. Close and apply.
17. Save the Power BI report as subscribers.pbix.

**Exercise 2: Modelling**

1. Open the subscribers.pbix file.
2. Switch to the Model view and arrange the three tables how you wish.
3. Create a relationship between the **Country** field of *dCountries* and the **Country Code** field of *subscribers*.
4. Create a relationship between the **Package** field of *dProduct* and the **Product** field of *subscribers*.
5. Create a new table and name it *dDate*.
6. Use the CALENDAR function to create a list of dates from the 1st January 2018 to the 31st December 2018.
7. Add a column named **MonthNumber** and use a function to return the month number for each date.
8. Add a column named **MonthName** and use a function to return the month formatted as the month name.
9. Sort the *MonthName* column by the *MonthNumber* column.
10. Add a column named **WeekNumber** and use a function to return a number that represents the day of the week for each date.
11. Add a column named **WeekdayName** and use a function to return the name of the week day for each date.
12. Sort the *WeekdayName* column by the *WeekNumber* column.
13. Mark the table as a date table.
14. Switch to the Model view and create a relationship between the **Date** field in *dDate* and the **Date** field in the *subscribers* table.

**Exercise 3: Recap on Day 1**

1. Start a new Power BI report.
2. Import the *cities*, *countries*, *products* and *sales* tables from the *simple.model.xlsx* workbook.
3. On the *sales* query, rename the **Date** column to **Week**.
4. Check the data type for each column (they should all be fine, but its good to always check).
5. Close and Apply the queries.
6. Check out Model view. All the relationships should be set up correctly.
7. Move and resize the tables how you want them.

**Exercise 4: DAX Formulas**

1. Create a measure named **TotalSubscribers** that **counts** how many subscribers we received.
2. Create a measure named **TotalFree** that **counts** how many **Free** subscribers we received.
3. Create a measure (or copy) named **TotalPremium** to **count** how many **Premium** subscribers we received.
4. Create a measure named **TotalRevenue** that **multiplies** the **TotalPremium** measure by the **price** in the dProduct table to calculate the total revenue.
5. Create a measure named **% Premium** that uses DIVIDE to find the percentage of subscribers that were premium. Display 0 as the alternate response. Apply the percentage formatting to the measure.

**Exercise 5: Creating Dashboards**

1. Add a card visualisation to display the total revenue. Position in the top left of the page.
2. Add another card visualisation and arrange next to the previous one. This card should display the total number of subscribers.
3. Add another card visualisation to display the % of subscribers that were premium.
4. Add a donut chart visual to show the contribution of total subscribers that were premium and free.
5. Add a final visual of a map. To show the total revenue geographical using bubbles.
6. The map should interact with all three cards when you click a bubble, but not the donut chart. Disable that interaction.
7. Add tooltips to the map chart to show the number of free and number of premium subscribers when users hover over a bubble.

