**Lab 2**

Download the lab file [Lab2Start v5.xlsx](https://github.com/MicrosoftLearning/Introduction-to-Data-Analysis-using-Excel/raw/master/Module2/Lab2Start%20v5.xlsx) to answer the questions below.

The first thing you need to do is to convert the data into an Excel table.

1)Once you do that, you can add total row, filter the data, and the total will reflect the total only for the filtered data. Let's try this. Add a total row for the table, and use the Sum aggregation to show the total of the **Revenue** column and then filter the data only for **United States**.

Now, you need to add several columns, derived from existing columns in the data. Before adding columns, it is good practice to clear any filters you previously applied.

2)First, let's add a "Month" column. Insert a new column to the left of the **Customer ID** column, and use formula to derive the month of sales from the **Date** column.  
HINT: Use the [Text()](https://support.office.com/en-us/article/TEXT-function-20d5ac4d-7b94-49fd-bb38-93d29371225c) function and look for a format code in the examples that would work on a date field.

3) Next, let's add an "Age Group" column. Remember to clear any filters you previously applied. Insert a new column to the left of the **Customer Gender**, and use formula to derive the age group from the **Customer Age** column. Let's group the customers based on the following criteria:

* + Youth (<25)
  + Young Adults (25-34)
  + Adults (35-64)
  + Seniors (>64)

HINT: Use the nested [IF()](https://support.office.com/en-us/article/IF-function-69aed7c9-4e8a-4755-a9bc-aa8bbff73be2) functions. Alternatively, you can use the [IFS()](https://support.office.com/en-us/article/IFS-function-36329a26-37b2-467c-972b-4a39bd951d45) function if it is available in your version (2016 + updates from O365)

4)Now, let's add a "Frame Size" column. Insert a new column to the left of the **Order Quantity**, and use a combination of the IF() and RIGHT() functions to derive the frame size of a bicycle from the last two characters of the **Product** column, when the **Product Category** is **Bikes**. Otherwise, leave it blank.  
HINT: Use the [IF()](https://support.office.com/en-us/article/IF-function-69aed7c9-4e8a-4755-a9bc-aa8bbff73be2) function to test for Product Category=”Bikes” and if it does, use the [RIGHT()](https://support.office.com/en-us/article/RIGHT-RIGHTB-functions-240267ee-9afa-4639-a02b-f19e1786cf2f) function to extract the last two characters of the Product column.

5) Last but not least, let's add a "Profit" column. Insert a new column to the right of the **Revenue**, and use formula to derive the Profit from both the **Revenue** and **Cost** columns. Show the total for the **Profit** column. Use the Sum aggregation in the total row of the table, for the **Profit** column.  
HINT: **Profit** is **Revenue** minus **Cost**.