**Lab 3A**

Download the lab file [Lab3Start v5.xlsx](https://github.com/MicrosoftLearning/Introduction-to-Data-Analysis-using-Excel/raw/master/Module3/Lab3AStart%20v5.xlsx) to answer the questions below.

1)First, let's start by naming the Excel table. Name the Excel table prepared in the previous lab to **SalesTable**. From now on, every time you add a pivot table, it should be based on this SalesTable, unless mentioned otherwise.

2)Now, proceed to add your first pivot table. Insert a new pivot table based on the SalesTable to a new sheet. Arrange the layout so that the pivot table displays the **Product Category** and **Sub Category** in the **Rows**, **Year** in the **Columns**, and **Revenue** (Sum of) as the **Values**.

3)Insert another pivot table to the same sheet, next to the existing pivot table. Arrange the layout so that the pivot table displays the **Country** and **State** in the **Rows**, **Year** in the **Columns**, and **Revenue** (Sum of) as the **Values**. Sort the pivot table by **Sum of Revenue** so that the **Country** and **State** with the highest revenue is displayed first.

4)Let's add another pivot table. This time arrange the layout so that the pivot table displays the **Frame Size** in the **Rows** and **Revenue** (Sum of) as the **Values**. Hide the rows that do not have a Frame size (blank Frame size), then sort the pivot table by **Sum of Revenue** so that the **Frame size** with the highest revenue is displayed first.

5)Last but not least, add another pivot table with **Age Group** as the **Rows** and **Revenue** (Sum of) as the **Values**. You will learn how to custom sort the Age Group in the next module. But for now, sort the pivot table by **Sum of Revenue** so that the **Age Group** with the highest revenue is displayed first.

Save your Excel file - you will need this work in the next Exercise (Lab 3B).

**Lab 3B**

Now you can start adding some charts to the sheet.

First, add a pivot chart for the pivot table that shows yearly sales (revenue) by Country (the pivot table you created for question 2 in Lab 3A). Select a **Line** chart to display the yearly trend. Make sure that the **Years** are located in the X axis, the **Revenue** in the Y axis, and the **Countries** as categories.

Hint: You might find the Switch Row/Column in Select Data Source window useful. In addition, try Collapsing the Country fields in order to hide the States fields.

Add another pivot chart for the pivot table that shows yearly sales (revenue) by Product Category (the pivot table you created for question 1 in Lab 3A). Select a **Column** chart to display the yearly sales by category so that the years are together.

Add another pivot chart, this time for the pivot table that shows Revenue by Age Group (the pivot table you created for question 5 in Lab 3A). Select a **Pie** chart to display the proportion of each **Age Group** (remember the chart styles) with data labels, formatted to two decimal points.

Add another pivot chart, this time for the pivot table that shows Revenue by Frame size (the pivot table you created for question 4 in Lab 3A). Select a **Bar** chart to display the order of revenue by **Frame size**. Sort the Y axis to show the **Frame size** that has the highest revenue on the top.  
Hint: Select the **Categories in reverse order** option in the Axis Options.