Lab4A

Download the lab file [Lab4AStart v5.xlsx](https://github.com/MicrosoftLearning/Introduction-to-Data-Analysis-using-Excel/raw/master/Module4/Lab4AStart%20v5.xlsx) to answer the questions below.

Start by adding a new sheet named **Dashboard**. Then move (Cut and Paste) the four charts that you have to that sheet. Arrange the charts as appropriate.  
Hint: The **Snap to Grid** option located at the **Align Object** on the **Page Layout** tab might be useful.

For easy reference, let's give the charts titles if they don't have any, or rename them as appropriate. Name the four charts as follows:

* + Yearly Sales by Country
  + Yearly Sales by Category
  + Sales by Frame Size
  + Sales by Age Group

Hint: To add a chart title, select the chart, then on the **Design** tab, select **Add Chart Element**.

You can now add slicers to the sheet. Select the Yearly Sales by Country chart, and add seven slicers corresponding to Year, Country, Customer Gender, Age Group, Product Category, Sub Category and Frame Size. Arrange the slicers as appropriate.

The next thing you need to do is to connect these slicers to the charts. Let's do this chart by chart.  
Hint: The Filter Connections option is available on the chart Analyze tab.

* 1. Connect the **Yearly Sales by Country** chart to all slicers, except the **Year** slicer. In another words, disconnect the **Year** slicer from the **Yearly Sales by Country**
  2. Connect the **Yearly Sales by Category** chart to the **Age Group**, **Country**, **Customer Gender**, and **Frame Size** slicers.
  3. Connect the **Sales by Frame Size** chart to all slicers, except the **Frame Size** slicer.
  4. Connect the **Sales by Age Group** chart to all slicers, except the **Age Group**.

For niceties, you can clear the **Gridlines** on the Dashboard,  
Hint: The **Gridlines** option is available on the **View** tab.

Once you've done the above, you're ready to present the dashboard to Lucy.

Create an additional pivot chart to show **Sales by Country** using **Pie** chart. Show percentages for each slice of the pie and connect the chart to all the slicers, except the **Country** slicer. Overall, Australia commands 25% of the company's total sales. But in some of the years, this proportion changes.

Hint: Create your new Pie chart based on a new pivot table that you will create on the Pivot worksheet.

Based on the previous answer, create an additional pivot chart to show **Sales by Category** using a **Pie** chart. Show percentages for each slice of the pie and connect the chart to all the slicers, except the **Category** slicer.

For the next two questions, filter the charts by **Australia** using the country slicer and play around with the **Year** filter. Notice for different years, the changes in composition of **Australia's** sales by **Category**.

Hint: Create your new Pie chart based on another new pivot table that you will create on the Pivot worksheet.

## Lab 4B

Create an additional pivot chart to show **Sales by Customer Gender** using **Pie** chart. Show percentages for each slice of the pie and connect the chart to all the slicers, except the **Customer Gender** slicer.

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What about Customer Gender vs age group? Right now the **Sales by Age Group** chart does not differentiate by **Gender**. Modify this chart to be a **Column** chart. Show the **Customer Gender** side-by-side for each age group. Ensure that the chart is connected to all slicers. Last but not least, sort the **Age Group** appropriately.  
Hint: Clear any existing filter, place **Customer Gender** as **Legend** and create **Custom List** to sort the **Age Group**.