Lab 1 – Time (60 Minutes)

Material Required:

- **Airline Safety Data**
- **Students – make new tabs to record your answers from the exercise.**

Topics Covered:

- **Data Formatting**
  - **Data Table**
  - **Cell Format - Percentage**
- **Conditional Formatting**
- **Aggregate Functions**
  - **Count and CountIF**
  - **Sum and SumIF**
  - **Average**

Exercise:

1. Make sure you open the “Airline Safety Data” workbook.
2. Make an answer sheet tab in the workbook to record answers when they apply. (some answers are formatting on the data itself)
3. Set Data filtering on this sheet. You can use either Data -> Filter, or format as a Table.
4. Sort the Column “Incidents from 1985-99” in ascending order.
   a. Who has the fewest incidents in the criteria?
   b. Who has the most?
5. Use Conditional Formatting
   a. Highlight in green any value of “0” for both “Fatal Accidents” Columns.
   b. Highlight in Red on the same column from above fatalities greater than 100.
6. Count Functions
   a. Using the Count or CountIf or CountIfs function, count how many airlines had greater than 100 fatalities AND greater than 5 incidents, from 1985 to 1999. Record your results.
   b. Repeat the above step for the 2000 – 2014 data.

7. At the bottom of the Data Set, make a new row that records SUM TOTALS for each column.
    a. Compare the sum totals of the number of incidents between 1985-99 and 2000-14. Which timeframe had fewer total incidents? Record your answer.
    b. Do the same from above, comparing the fatalities.
8. Now calculate the SUM TOTALS, only if the values are green from Step 3 above. Record your answer.
9. Do the same as Step 8, only if values meet the red criteria.
10. Make two new Columns at the Right of the data set. One for "Percent Change 1985-99". One for "Percent Change 2000 – 2014".
    a. Think about the Percent Change formula, look this up if you need to.
    b. Apply this formula for both the new columns you just made, for every row in the data set.
11. In the columns from Step 10 above:
    a. Highlight in green any values that DECREASED in incidents or fatalities.
    b. Highlight in red any values that INCREASED.
    c. Calculate the AVERAGE percent change for both columns. Record your answers.