**Worksheet #2.3**

In pairs, follow the instructions below to produce a few simple visualizations. Each person must submit an individual file to Canvas.

1. Create a new Jupyter Notebook. Load pandas and Seaborn.
2. Load the Avengers data (avengers.xlsx) into a dataframe. This is the same data we used in exercise #2.
3. Display the first five rows of the dataframe.
4. Display a table with the five-number summary of the dataframe.
5. Complete the following visualizations. Note: when calling the Seaborn functions make sure you spell the column names correctly, since they are case-sensitive. Refer to the table produced by step 3 to check the column names are correct:
   1. A boxplot of **Years since joining** separated by **Death1** status.
   2. A histogram of the **Years since joining** with a binwidth of20.
   3. A barplot with the number of **Appearances** separated by **Death1** status (you don’t need to change the default confidence interval settings in this case).
   4. A scatterplot comparing the **Years since joining** (horizontal axis) to the number of **Appearances** (vertical axis).
   5. A lineplot with the **Year** in the horizontal axis and the number of **Appearances** in the vertical axis.
   6. A violinplot with the number of **Appearances** separated by the **Current?** status of the characters. Make sure you cut the plot at 0.
6. Write, in a new *markdown* cell your reflections of how these visualizations complement the analysis in the FiveThirtyEight article you read for exercise #2.
7. When you are done, save the file as an HTML page (File>Download as>HTML). Please change the name of the file to your student number (e.g., A1234567R.html) and upload it to Canvas. If you are done and have no questions, you can leave. If you don’t finish during the class time, please upload the exercise by the end of week #6. **Every person must submit the HTML page individually, even if you worked on it in pairs.**
8. Please feel free to ask questions at any point.