Complete the following steps and answer the questions by Oct. 22th. Upload the results on GitHub.

1. Answer following questions:
   1. If we want to predict hurricane intensity change in next 24 hours using potential intensity of the hurricane, **what would be the target and feature variable?** (hint: read ‘VarList\_V2’ word document)
   2. **What does PER variable mean?**
   3. **Why do we need to do data cleaning? What are some of the some of the examples of ‘data cleaning’?**
2. Create a new notebook named “STEM Week 2 Review” and import SHIPS\_ATL.csv. Import any necessary libraries.
3. Inspect the data. Use “.describe()” function to analyze imported data (ex: ships.describe() ). **What can you tell about the data? What is the mean of DELV24?**
4. Drop all null values in the data. And inspect the data using “ .describe()” function. **Is there any difference to the mean of DELV24? If so, why?**
5. Answer following questions using groupby() function and plot functions
   1. **Did the average wind speed for each year change over time?**
      1. Hint: To answer this question, you will need to use two functions. First, you will need to group the data by the YEAR column and take an average. Second, you will need to plot Year on the x-axis and average wind speed on the y-axis.
   2. **Did the average DEVL24 for each year change over time? Is there any clear trend?**
6. During our last meeting, we learned about plt.scatter(), plt.box(). Lets try to use plt.hist() to plot a histogram. Histogram is a method to depict frequency or number of occurrence of values. Run the following code to make histogram of DELV24: plt.hist(SHIPS[‘YEAR’],rwidth=0.8)
   1. **Has hurricane occurrence increase overtime?**