PIC 16, Winter 2018 – Assignment 8M

Assigned 2/26/2018. Code (a single `.py` file) due by the end of class 3/2/2018 on CCLE. Hand in a printout of this document with the self-assessment portion completed by the end of class on 3/2/2018.

In this assignment, you will extract data from a Plotly plot, manipulate the data, and produce a new plot.

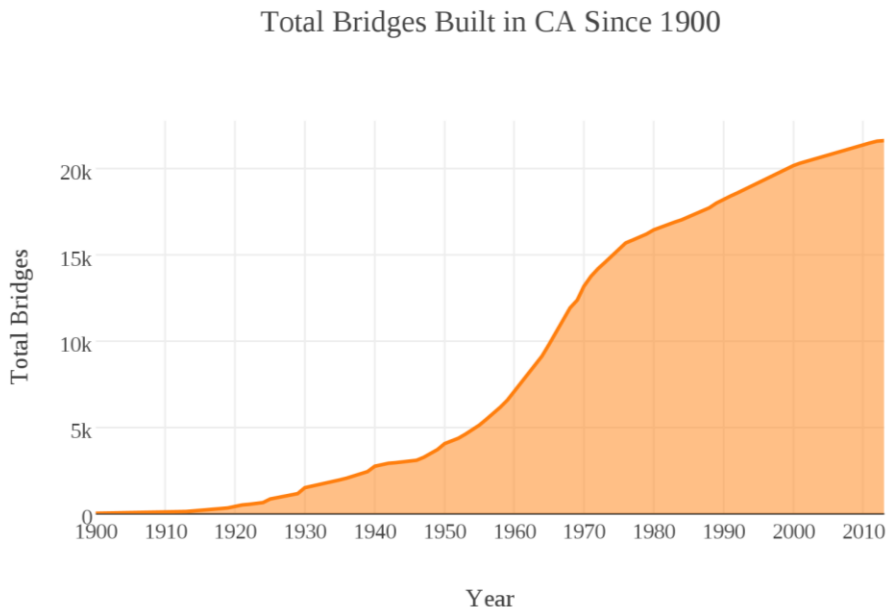
Task

https://plot.ly/~dfreder1/69/ shows the number of bridges built in California each year since 1940, but the code used to create it actually contains data for some years dating back to the 1800s. You are to extract the data from the plot and calculate the *cumulative* number of bridges built in California since 1900, i.e., for each year, you want to represent the *total* number of bridges that have been built since the turn of the century. (This will require some processing.) Create a `Scatter` plot (40 points) with these features (10 points each):

- Display `width` 600 pixels, `height` 400 pixels
- An orange `line color` and orange, semi-transparent `fill` below the line
- Years from 1900 to 2010 listed on the x-axis in 10 year increments (see `dtick`)
- Number of bridges built on the y-axis in increments of 5000 bridges
- All text in `font family` Times New Roman

Finally, save your plot to a `.png` file with resolution 1800 pixels x 1200 pixels (read about the `scale` argument…). (10 points)

There are some requirements above which were not explicitly covered in the tutorial. The intent is for you to edit your plot using the online interface, review the JSON description of the plot, and based on that, update your code to produce the same plot.



Self-Assessment

Does your code produce a plot with a trace like the example? (40 points)
Above, check off the features you achieved. (10 points each)

Indicate the total score: