Introduction

In this assignment, we'd like you to get some practice using d3, while at the same time getting a deeper understanding of some information visualization concepts and making some design choices.

We are assigning you pairs to work with so that you can help each other with both the coding and the design choices.  Your partner is indicated in the group called d3 in bcourses.  (There is one group of 3.)

Assignment Components

**1**. **Data:**We are providing a [dataset of the Times Higher Education World University Rankingsreview the documentiew in a new window](https://bcourses.berkeley.edu/courses/1457702/files/70255908/download?wrap=1) for 2011-2016 from [Kaggle's World University Rankings (Links to an external site.)](https://www.kaggle.com/mylesoneill/world-university-rankings). You should pick 5-7 of the variables to include in your visualization. You can also choose to visualize just one year of data. The focus of this assignment should be on visualization, not the dataset, so it is completely fine to cut the provided data down to a smaller set. You are welcome to use another dataset of your choosing but please do not invest too much time into finding a dataset and cleaning it since that is not the focus of this assignment.

**2.** **Visualization:**Each pair of students will create two visualizations for this dataset: a parallel coordinates and a radar chart. Links to examples are below, you can use this code as a starting point (or attempt to build them from scratch if you'd like but this is not necessary). You and your partner can each build one of these or you can work on both together.

Parallel Coordinates: [http://bl.ocks.org/jasondavies/1341281 (Links to an external site.)](http://bl.ocks.org/jasondavies/1341281)

Radar Chart: [https://github.com/alangrafu/radar-chart-d3 (Links to an external site.)](https://github.com/alangrafu/radar-chart-d3)

We want you to think through how to use these two different visualizations with the same dataset. Think about what information each one will be best to show. You can use the data differently in each (for example, you may want to aggregate the data for one of the charts but not the other).

You can hard code your data or read in a csv, it is up to you.

**3. Modifications:**You should modify your visualizations in some way, this could be changing colors and labels, adding animation (e.g., mouseover tooltips, transitions between years, etc.). You can be creative with this! Look around at other examples to get ideas and feel free to borrow and build on other code you find, just make sure to clearly cite it in your code comments and your writeup.

**4. Analysis:**Once you have created the two visualizations, you and your partner should discuss the strengths and weaknesses of each and explain your process and design decisions in a writeup.

 To Turn In:

1. **A brief writeup**:   Describe your code and the motivations for the choices for the visualizations.   Include your analysis as per part 4 above.  Describe the code modifications you made as per part 3 above. Clearly indicate any other code you borrow from other people, and where it comes from, in your writeup and in the code's comments. The writeup must also include a breakdown of each partner's contributions.
2. **The code**: in a zip file
3. **A web link**: To help with assessing this assignment we'd like everyone to make the visualizations for this assignment viewable via a web link somewhere.  Use your ischool account or any other web server to provide a runnable version of your code in addition to turning in the code files. You can also include a title and some introductory text on this webpage.