CIS 4930/6930-002: Data Visualization (Spring 2018)

Project 6: Creating a Linked-View Dashboard

1 Objectives

In this assignment you will combine your previously designed visualization and connect them together. Again, take care to use good software engineering practices.

2 Ground Rules

This assignment is intended to be done alone. You may ask others for help with figuring out how details of Processing. However, code must be your own (MOSS will be used!). Furthermore, NO additional libraries (such as giCentre utilities) may be used. Doing so will result in a 0 for those sketches.

3 Assignment Instructions

- Download the data set at `http://www.calvin.edu/~stob/data/srsatact.csv`. This dataset contains standardized scores for all Calvin College 2004 seniors that have taken both the ACT and the SAT, together with their GPAs. There are 271 data points and 4 dimensions.
- Create a sketch with 1200x800 resolution that opens a file dialog box (`http://processing.org/reference/selectInput_.html`) and loads a selected data file.
- Create a dashboard that displays each, a bar chart, a line chart, a scatterplot, a scatterplot matrix, and a parallel coordinate plot. Adjust their size and position in a manner that seems most optimal to you.
- Now link the views. The most basic version of this is selecting a data point in one view highlights it in all other view.
- Add any additional linking or interactions that you think will make your dashboard more useful. Your selection and their implementation will have an impact on your grade.
- Make sure your code works with the Calvin College dataset and at least 1 other dataset from Canvas.
- Modify your sketches such that they use additional visual channels to encoding additional variables. Consider using color, size, shape, depth, etc. Your selection and their implementation will have an impact on your grade.
- Add embellishments of your choice. These can include but are not limited to: axis lines, labels, and tick marks. Your selection and their implementation will have an impact on your grade.
- Make sure your visualizations are robust by designing them to support other data (number of elements or value range) and by designing them to support any size of canvas.

4 Submission

All of your work should be done in your git repository in a directory named **project6**. If you name it anything else, our script will fail (and so will you). Make sure things are labeled well, so that your peers can find them.

As you work on the files, and when you're done, make sure you add the files to the repository (i.e. *git add*), commit the changes (i.e. *git commit*), and push changes to the remote server (i.e. *git push*). If you fail to do this, we won't get your files.

5 Grading and Feedback

Your grade will be combination of objective measures (based on the assignment instructions) and subjective grading by the instructor.

Peer Review will be used to provide feedback. You will review 3 of your peers' submissions, and 3 of your peers will review your work. This should be taken very seriously as it is the primary form of feedback you'll receive.