

CPSC 446/546
Assignment 6
Due 5/2/2019, 11:59 pm

Upload to Canvas as a zip file named *yourfirstname_yourlastname_6.zip*.

ALSO, for this assignment, make an appointment to demo your assignment the week of April 29. Your work does not have to be complete at the time of the demo, but you should be able to describe the dataset and your intended views. Ten minute slots are available on Canvas.

This assignment requires you to develop visualizations using D3. Do your own coding using examples given in the Scott Murray textbook or Mike Bostock's examples <https://bl.ocks.org/mbostock>. **Do not use any other code from the internet that you may find that creates visualizations similar to those required in problems.** If we find that code you use for a solution is taken from another internet source, you will receive a zero for the entire assignment.

Be sure to edit your files to include the version of d3.js that you use (for this assignment you can use whatever version of d3.js you choose).

In this assignment you are to visualize a dataset of your own choosing. The dataset must consist of at least 100 items, and have at least 5 attributes. You may assemble the dataset into a file or files from several sources. If you don't have data that you want to visualize some sources to check are:

Yale Office of Institutional Research <https://oir.yale.edu/historical-data-main-page>

Data Haven <https://www.ctdatahaven.org/data-resources>

Connecticut Data Collaborative <http://data.ctdata.org/dataset>

US Census Bureau <https://www.census.gov/data.html>

Climate.gov <https://www.climate.gov/maps-data/datasets>

You should turn in a document with written answers to the questions below, as well as an html file with the visualizations described below.

Questions requiring written answers (similar to Assignment #3):

1. What question(s) are you trying to answer? (Domain situation)
2. What data do you need to answer the question and did you need to perform any data transformations? (Data/task abstraction)
3. How did you choose to display your attributes? (Visual Encoding and Interaction Idiom)

Required visualizations:

You should facet the data into three different but related views (for **546** you need four different views), as described in Munzner, chapter 12. The views should use three distinct types of visualization from among the following types:

- 1) Bar charts (including clustered and stacked)
- 2) Heat maps
- 3) Scatter plots (including all variations of encoding glyphs to place at each 2D position)
- 4) Geographic maps
- 5) Line plots and slope graphs
- 6) Radial charts (including pie charts and radial charts)
- 7) Node-link diagrams: tidy trees, force-link diagrams, chord diagrams
- 8) Treemaps and packed circles
- 9) Iso-contours