Class #2 -- 9 Feb 2017

- Review progress on last week's assignment
  - How might these data visualizations relate to tools that you're used to using?
    - Tell a story, do some analysis, create a tool,...?
  - Styling the fiddle -- was anyone able to save their work?
  - Getting a project to load automatically in JSFiddle -- how did folks do?
- Github Pages
  - Make sure everyone has an account & website (e.g., https://umbc.github.io)
  - Serve a web page: https://help.github.com/categories/github-pages-basics/
    - Walk through steps to publish a page from docs folder on master branch
    - Do the same thing for a project repository -- create classes/class-02
- Bar chart II -- learn a little more HTML, SVG & CSS
  - http://bost.ocks.org/mike/bar/ & http://bl.ocks.org/mbostock/7322386 (HTML)
  - https://bl.ocks.org/mbostock/7341714 (SVG)
  - Put SVG bar chart in auto-loading JSFiddle -- get students to follow along
- Earthquake demo -- how to adapt a gist
  - http://bl.ocks.org/pbogden/935370a5272acff2618b -- umbc
  - Show the relationship between a gist and a page on bl.ocks.org
  - Show how to get the data in a browser with D3
  - Move the gist to umbcvis repo -- get remote data with the "raw" URL
- Data types & data structures -- how to use an open-data API
  - Strings, Numbers, values -- Mozilla is an authoritative resource
    - https://developer.mozilla.org/en-US/docs/Web/JavaScript/Data_structures
    - http://www.w3schools.com/js/js_datatypes.asp -- W3Schools has stuff
    - https://github.com/d3/d3-array -- Arrays in D3 (d3-array) = helpful tools
  - Arrays & Objects (associative arrays)
- Standards enable innovation...
  - Specifications...
    - http://json.org/ -- JSON
    - http://geojson.org/ -- GeoJSON
  - http://bl.ocks.org/pbogden/48cadd9940ad05ec96d2 -- demo
    - Use console to inspect the earthquake data
    - Inspect the data: Object.keys(), Array.length, data.features[0], typeof data
    - JavaScript manipulation of an array & object properties
  - http://earthquake.usgs.gov/earthquakes/feed/v1.0/geojson.php -- USGS API
- Assignment for next class...
  - Use data from the USGS earthquake API to create a bar chart
    - Plot # of earthquakes of magnitude [0 - 1), [1 - 2), [2 - 3), etc.
  - Project ideas -- Prepare to give a 30-60 second description of your idea.
  - Project data -- See if you can you find a public API with some data.