

data visualization final project

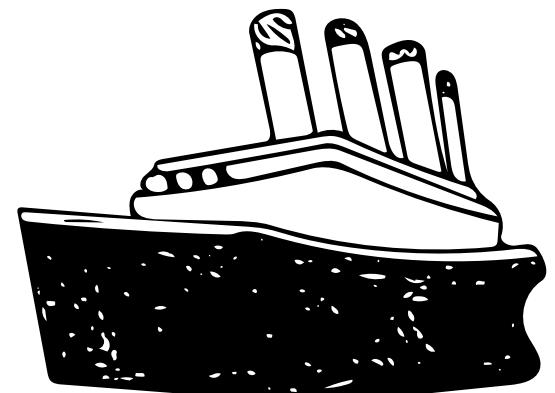
passenger stories: an investigation into the casualties and survivors of the Titanic

proposed goals: Investigate how a diverse group of people was impacted by a singular event, as well as give a richer picture of the characteristics of those aboard the Titanic. I also intend to demonstrate how certain passenger characteristics intersected with survival rates.

source materials: passengers list csv file, (<http://biostat.mc.vanderbilt.edu/wiki/Main/DataSets?CGI-SESSID=10713f6d891653ddcbb7ddbdd9cffb79>);

final product: a site consisting of an intro page, and three subpages. Each subpage will feature sections of d3 code to present different interpretations and/or investigations of the data.

by Deirdre Offenheiser
DSGN352 Designing with Data

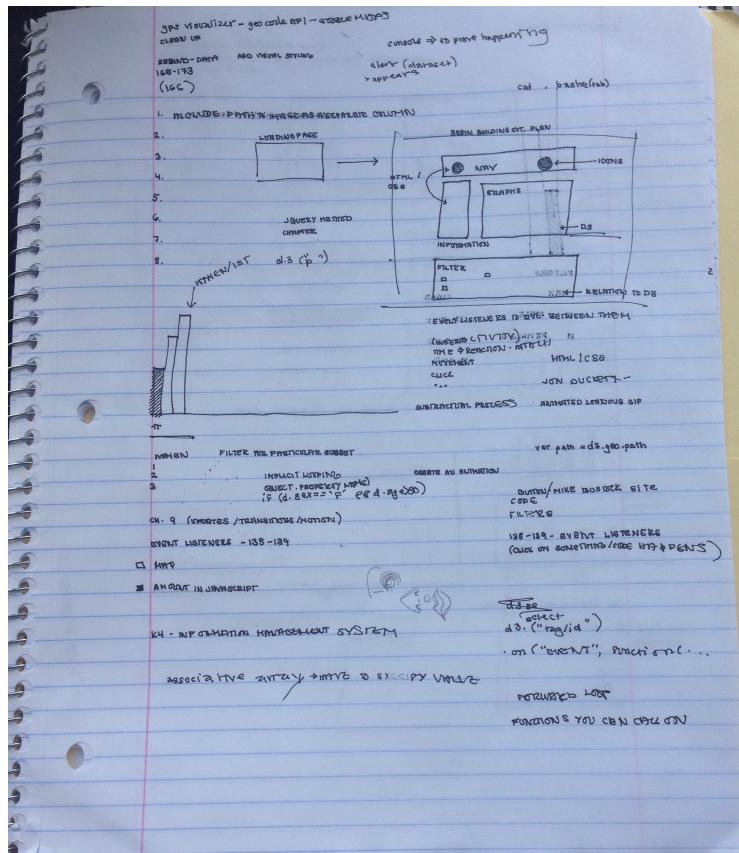




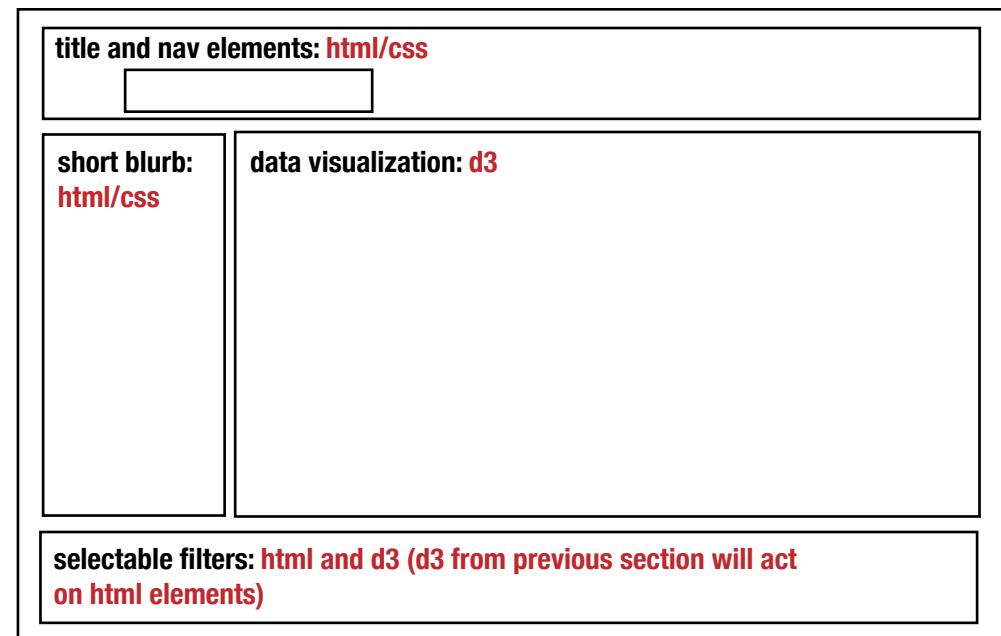
Step 1: project scope

Identify component parts and create a set of steps to figure out how to execute them.

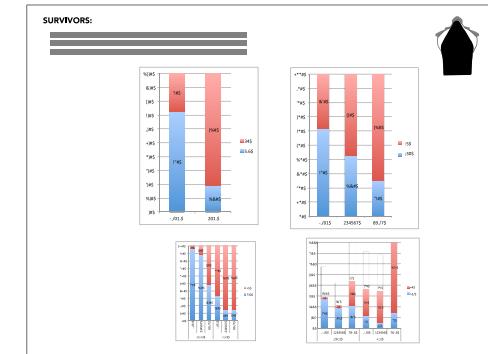
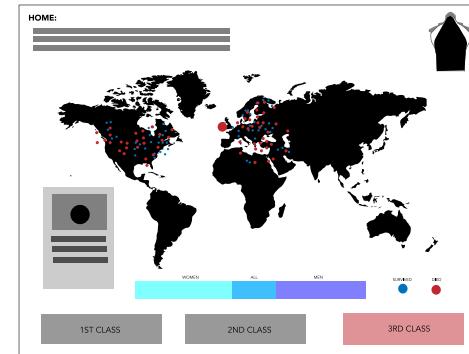
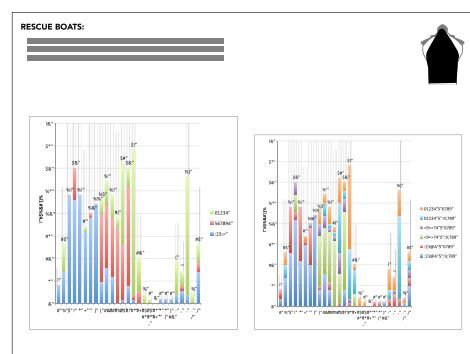
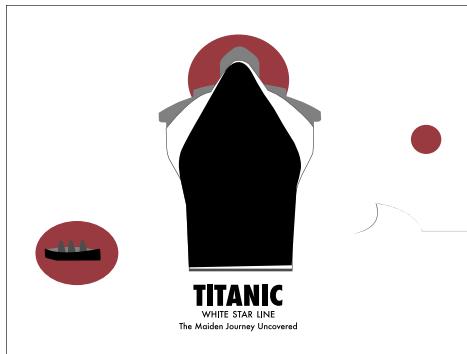
sketch/attempt to make sense of how visual elements connect to code



essence of sketch: this format would apply to all three subpages

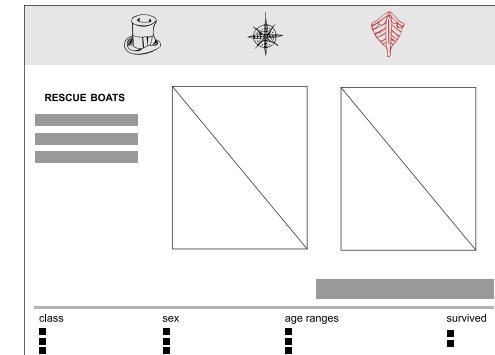
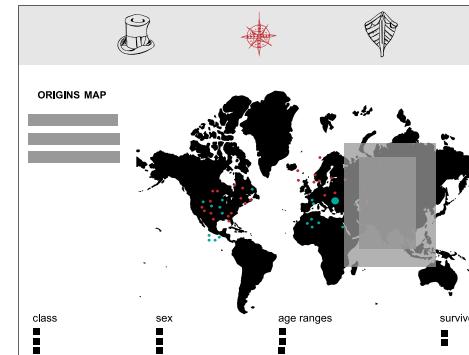
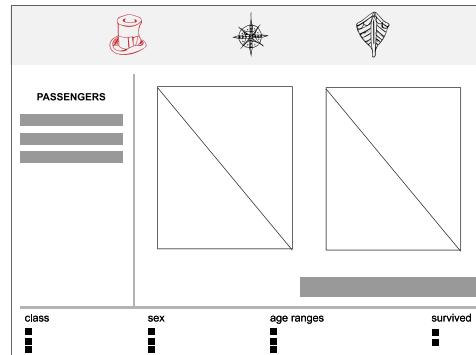


wireframes:



take away: improve navigability, reconsider site structure.

kinetic mockup:



take away: mostly functional site design. make sure there's exposition on intro page.

Step 2: parsing d3

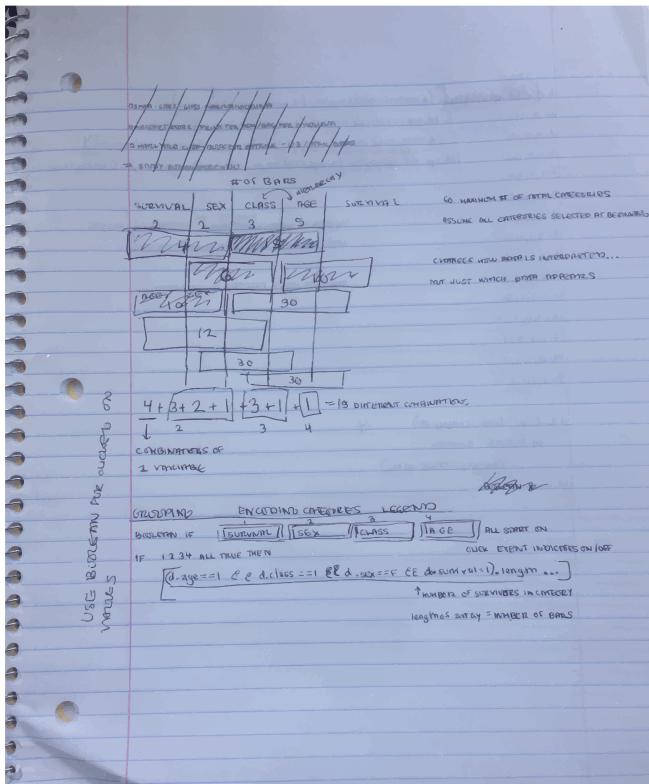
Consider and clearly articulate what you hope to show in each visualization:

1. Passenger demographics bar chart
2. Journies and geographic info map visualization
3. Demographics sorted by rescue boats

Visualization 1:

goals: “create an array of filters”; create a filter menu in html; link filter menu to d3 code so viewer can interact with visualiztion.

stuck on this step: need to simplify scope of project



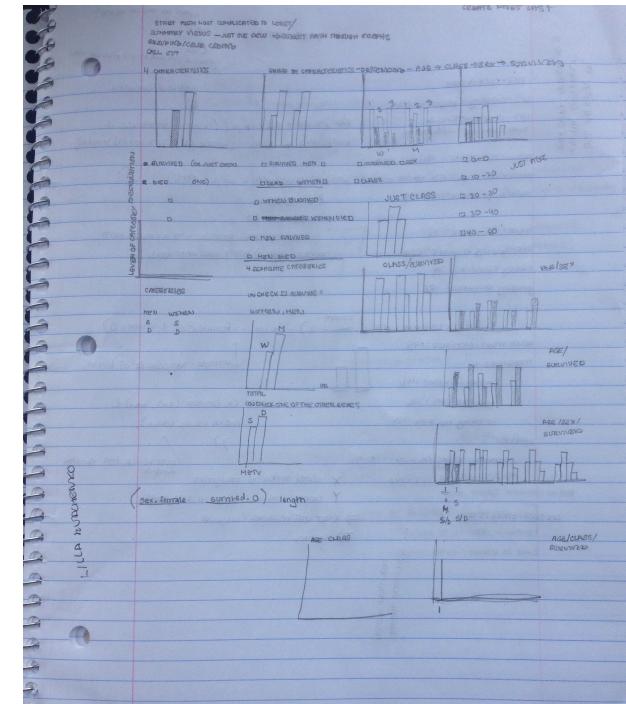
1. $\text{length}[(d.\text{survived} == 0), \text{length}, (d.\text{survived} == 0), \text{length}]$
 2. $d[0, 0]$
 $[(d.\text{sex} == \text{female}), \text{length}, (d.\text{sex} == \text{male}), \text{length}]$
 3. $d[1, 0]$
 $[(d.\text{class} == 1), \text{length}, (d.\text{class} == 2), \text{length}, (d.\text{class} == 3), \text{length}]$
 4. $d[0, 0, 1]$
 $[(d.\text{age} == 1), \text{length}, (d.\text{age} == 2), \text{length}, (d.\text{age} == 3), \text{length}, (d.\text{age} == 4), \text{length}]$
 5. $d[1, 1, 0]$
 6. $d[1, 0, 1, 0]$
 7. $d[1, 0, 1, 1]$
 8. $d[0, 1, 0]$
 9. $d[0, 1, 1, 0]$
 10. $d[0, 0, 1, 1]$
 11. $d[1, 1, 1, 0]$
 12. $d[1, 0, 1, 1]$
 13. $d[1, 1, 0, 1]$
 14. $d[0, 1, 1, 1]$
 15. $d[1, 1, 1, 1]$

VALUES OF CATEGORIES - DELETE CHECKING INDIVIDUAL FILTERS BASED ON WHICH CHARACTERISTIC

CHECK ON SPAL'S PROPOSED FILTER SYSTEM

d. ("p", filter_category #)
 .on ("click", function()
 category = phase (row))

18



Process:

sketch out all possible combinations of variables. Determined that there were 15 different ways you could view the data. The largest bar chart would have 60 bars.
 created arrays of all the possible variable combinations.

bar chart elements:

x-scale (ordinal): each bar represents a filter variation- would need to refer to the length of an array of filtered variables

y-scale (linear): would need to refer to the length of a single filter (ie how many elements share the same characteristics in each sortable variation)

event listeners:determine, which set of filters would be displayed.

Step 3: html and css

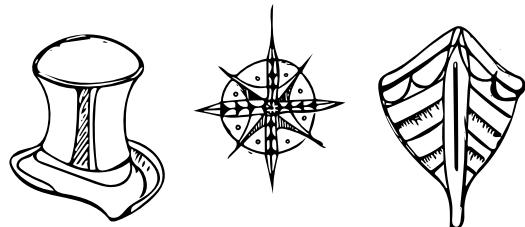
use html to create and order sections

use css to structure sections on the page; style typography and colors of sections

identify other necessary files (eg. pngs for icon set)

created icon set:

first draft icons in kinetic model



reduced to 36 px (does not show well in browser)



Step 4: debugging

still working out the kinks