Project 1

Documentation Page

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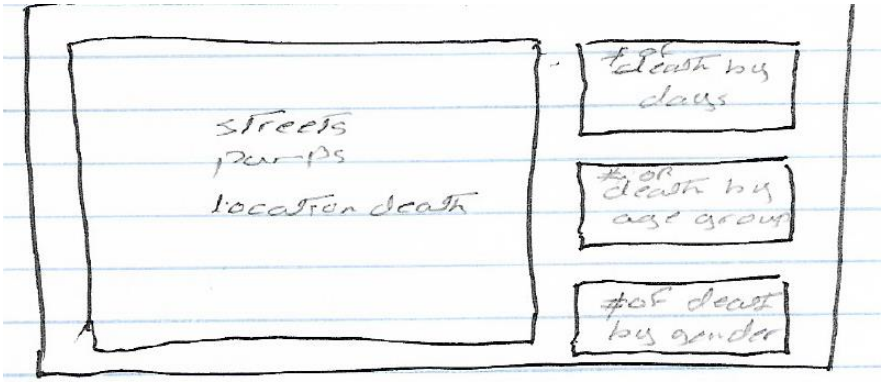
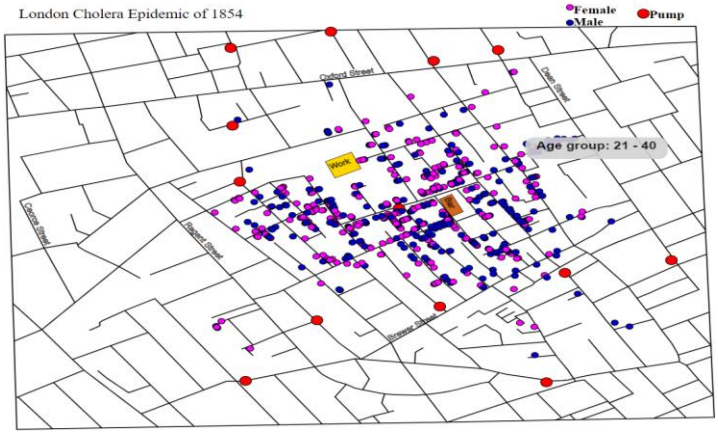
I began by reviewing the project specification. I prepared a rough draft to include the desired visualization.



I downloaded and reviewed the 4 files that we were provided. Then reviewed the data to understand what was provided and how it may be used to develop the project. I started the design process by defining the overall size of canvas. I wanted to include and divide it into the map area and three side bar graphs.

I created street paths from “streets.json” file to develop the map canvas. I reviewed and resized the streets area until I was satisfied with the outcome. Next, I drew the pumps on the map canvas from “pump.csv” file. Then I combined streets and pumps locations together. I worked on adding the location of deaths on the map from ““death_age_sex.csv” file by itself. Then I combined street map, pumps, and location of deaths. I grouped the three components in order to make the map stable. I have tested and revised the streets paths, location of pumps, and location of deaths including the color selections as applied to the component. I added legend on the map and added some of the major street names. Also added was the location of the brewery and workhouse on the map as bar and work. Colors were also applied to show the locations.



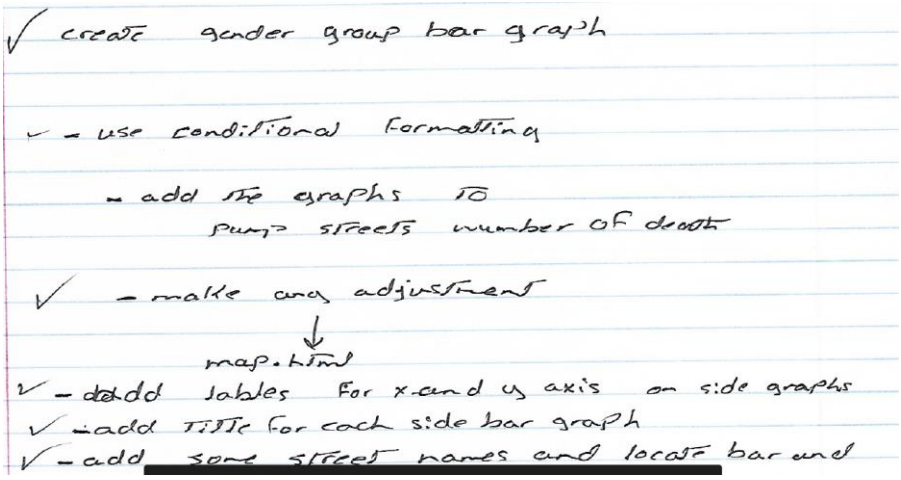
Once the overall layout of the map was developed, I created and drew the side bars. I started by drawing "Number of Deaths by Day" as a timeline bar graph. I reviewed the sample2.html from in class practice to be able to draw the bar graph. The data for the graph came from "deathdays.csv" file. I have added a graph title, x-axis and y-axis labels. I have drawn the bars using SVG "rect" and axis by "line". The next process was to combine the streets map with the "Deaths by Day" bar graph. I needed to resize streets maps and the bar graph so that they fit within the overall canvas.

I added the "Number of Deaths by Age Group" bar graph to define deaths by age group. I added age grouping rather than age 0 through 5 as contained in the "deaths_age_sex.csv" file, in order to make the age group of the victims clearer. The age grouping information was provided in the project specification that was provided in class. I used histogram concept to get total number of deaths for the age groups. I also added title for the graph and axis labels. I created an array to get total number of deaths for each age group. I added the age group of victims as tooltip to death locations.

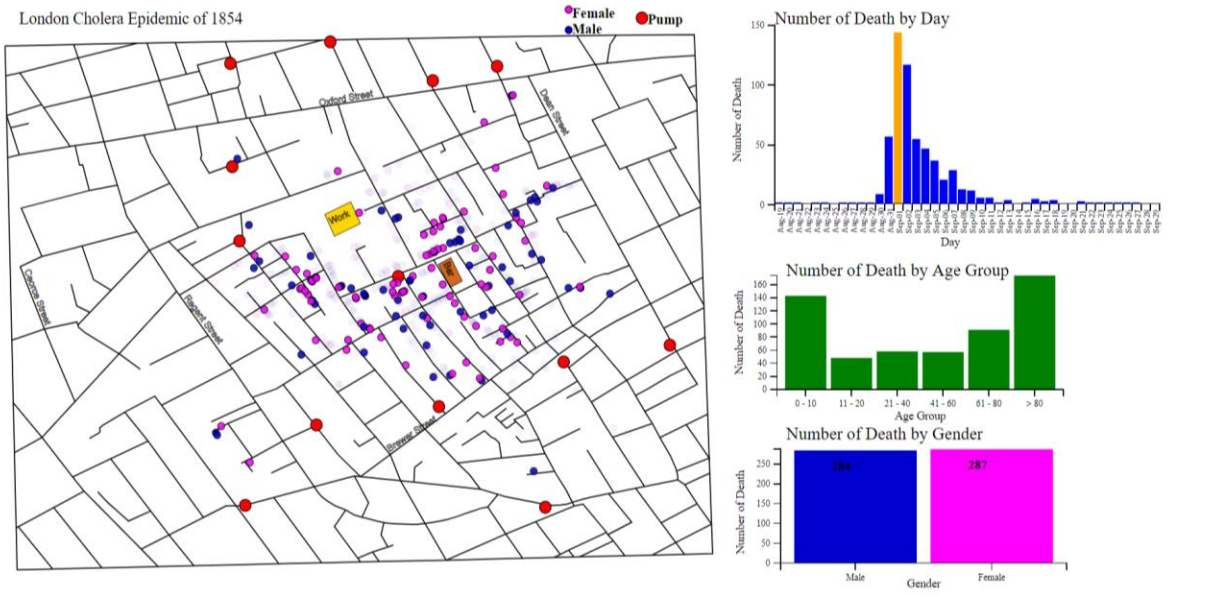
I drew a bar graph to show deaths by gender during the Cholera Epidemic. I used color blue to show male and magenta to show female. The same color coding was used to locate victims on the London Cholera Epidemic of 1854. I added total number of deaths to each bar. I defined sex 0 as male and 1 as female according to the information that was provided in class.

I needed to resize the map and bar graphs few times to fit within the width and height of the overall canvas.

Since I couldn't use "Color Oracle" to check my visualization for color blindness simulation, I asked one of my colleagues at work who is color blind to review my color selection. I redefined my color selections based on his recommendations.



After adding the three bar graphs on the side of the map, I added mouseover functionality on the death timeline graph. This was done in order to choose the desired day to be visualized as shows below (colored orange). Mouseover charts were added interactivity. As a user mouseover a bar on the "Number of Deaths by Day" graph, the location of the victims is shown on the map. I also changed opacity of the death circles that are not associated with the selected day in order to make them less transparent.



Link to the YouTube video: https://youtu.be/CJ8oWbzyU7M