FACULTY OF COMPUTING AND INFORMATICS
TDS 3401 - DATA VISUALIZATION

DATA VISUALIZATION PROJECT

GROUP LIEWBING

The Impact of Quality of Life on Infectious Diseases

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PREPARED BY:

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Introduction

Our quality of life might influence the infectious rate of certain diseases. In this project, we aim to use the data visualisation techniques and principles learnt from class to solve the myth of the correlation between infectious rate and quality of life, particularly, in California. Figure 1 to Figure 5 shows a list of visualization in our webpage.

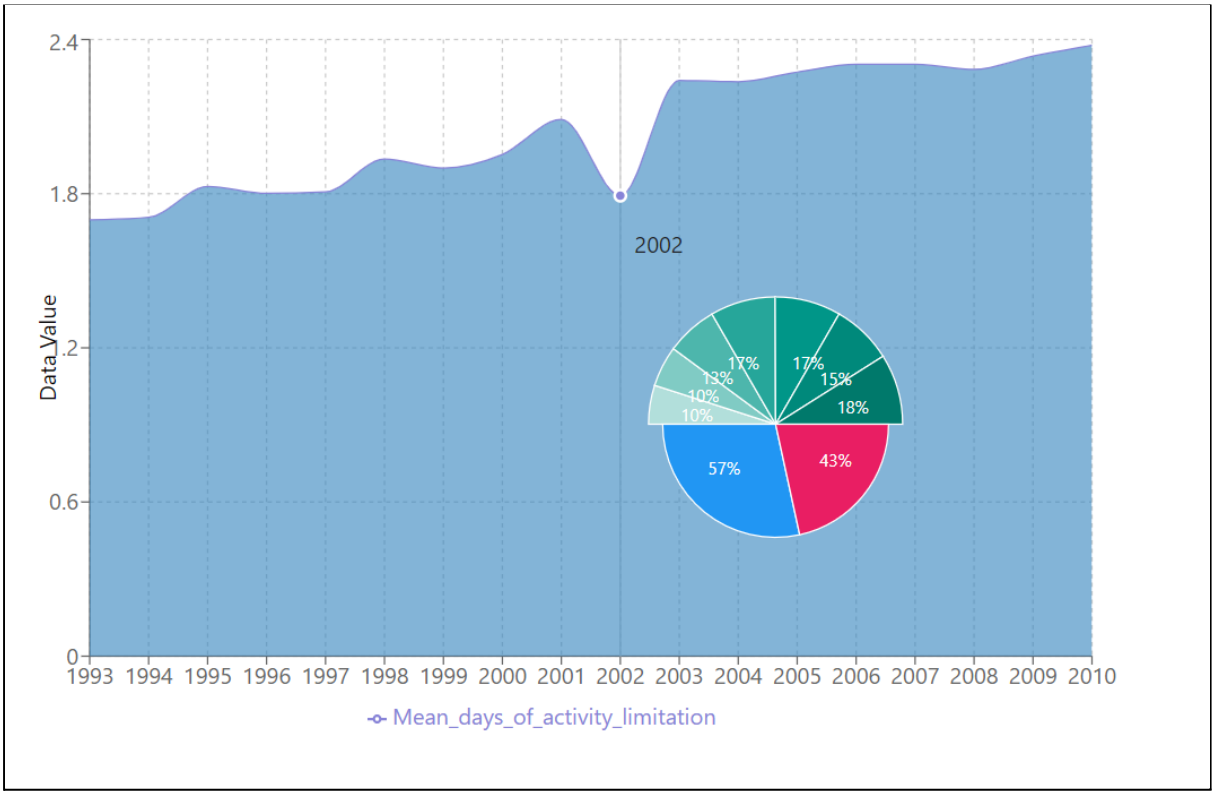

Figure 1: Health-related Quality of Life Line Chart and Pie Chart

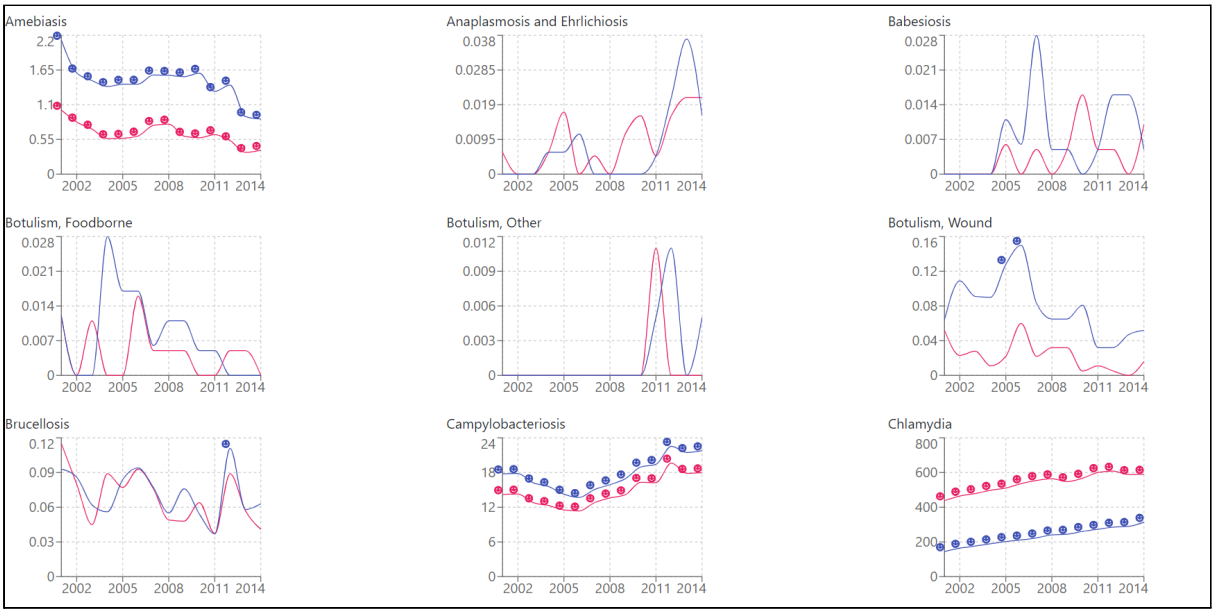

Figure 2: Infectious Disease on Different Genders

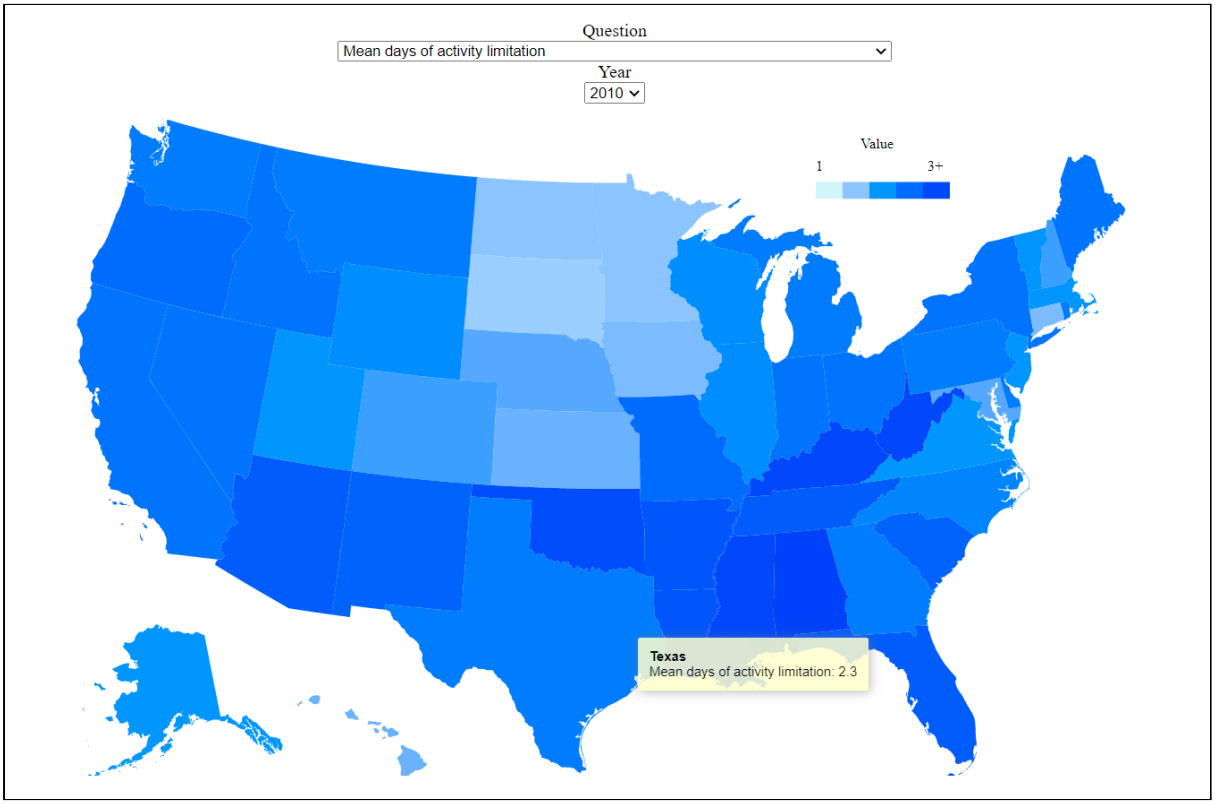

Figure 3: US Choropleth showing Quality of Life of each state

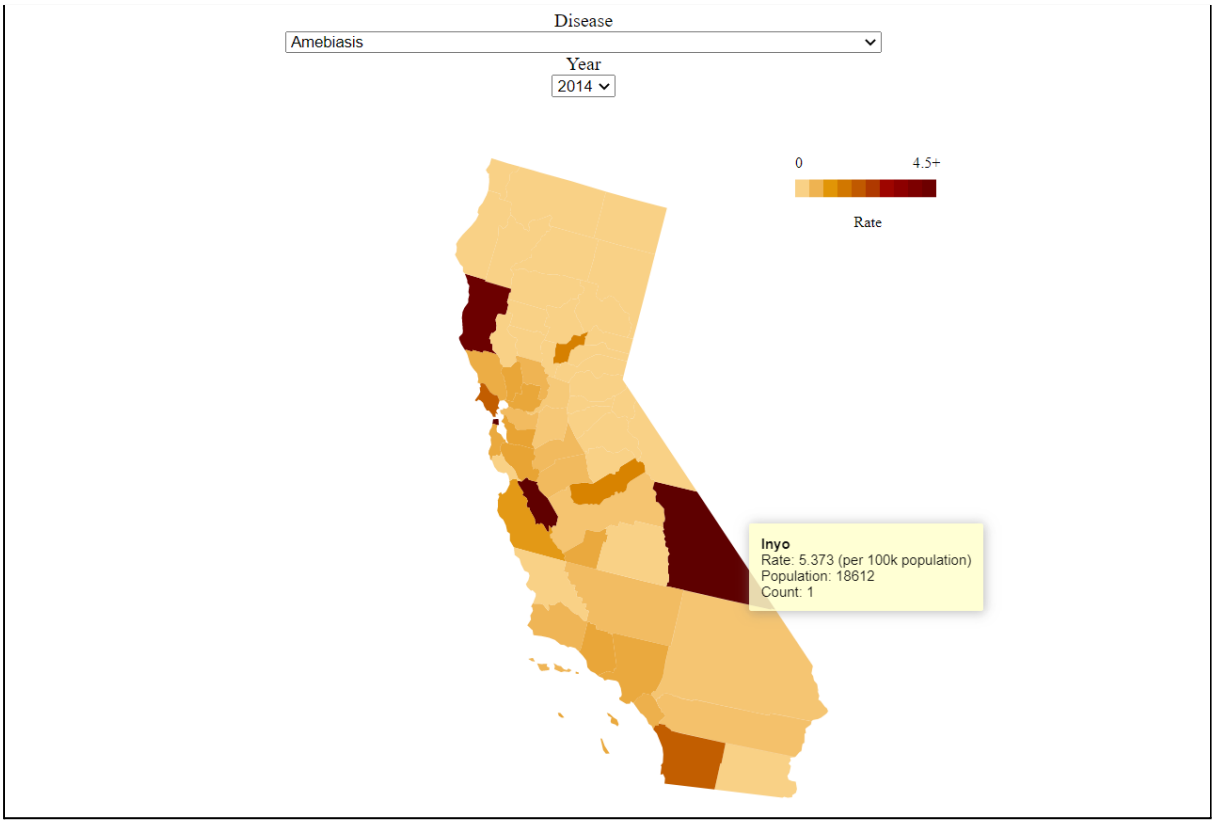

Figure 4: California Choropleth showing the rate of Infectious Diseases

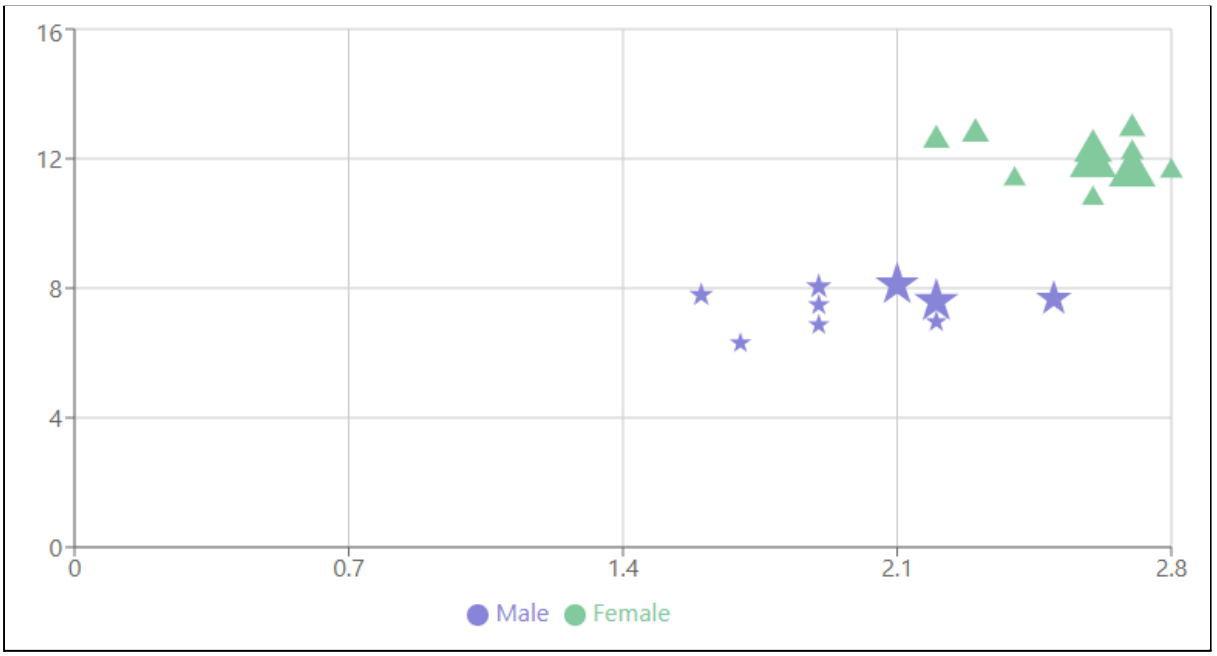

Figure 5.1: Scatter Plot of Infectious Rate against Quality Of Life Rating.

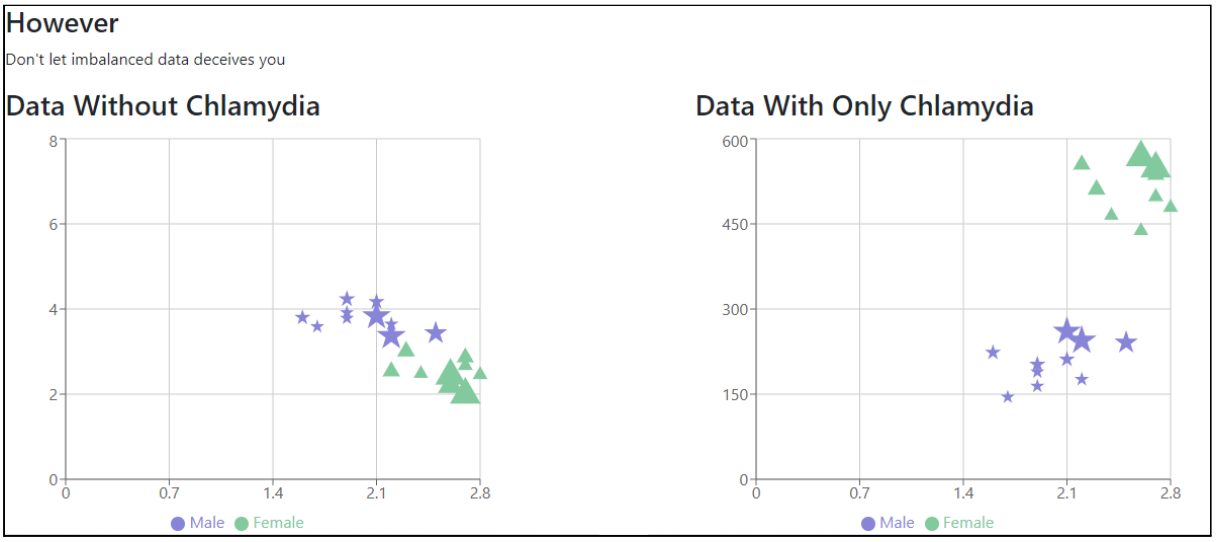

Figure 5.2: Scatter Plot of Infectious Rate against Quality Of Life Rating
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Changes between Storyboard and Final Implementation

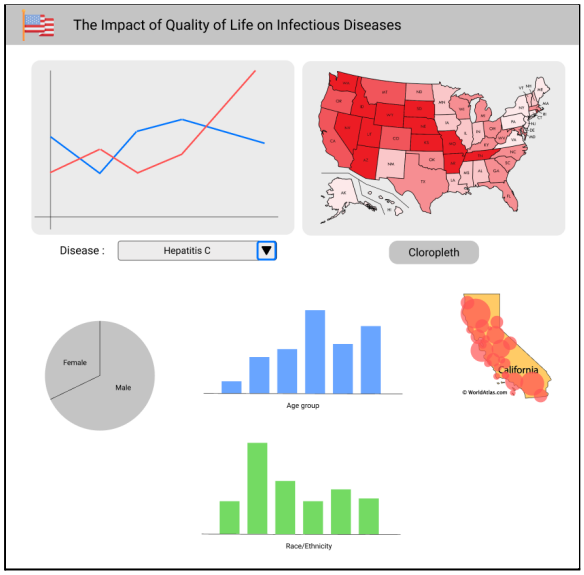

Figure 6: Storyboard page 1

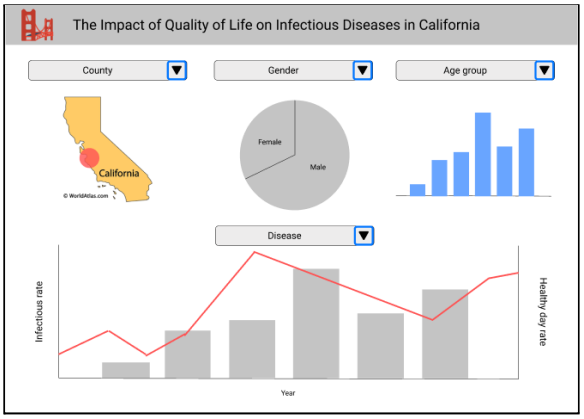

Figure 7: Storyboard page 2

Our final implementation contains 5 webpages. The biggest changes between our storyboard and our final implementation is that we separated the visualization into single pages for better viewing.

Some of the visualizations like the pie chart to represent gender and bar chart to represent age group were combined and placed into the line chart. This makes the dashboard cleaner.

Development Process

The work was split into two parts. Kuan Yung is in charge of the development of React and Recharts (D3.js). While Bing Quan is in charge of plotting both choropleth maps using D3.js. This project has roughly taken us more than a week to complete. This includes some data cleaning and simple EDA.

Time Consuming Aspects

US map choropleth and line chart with pie chart tooltip (also some css alignment…)

Additionally, data preparation also took quite a bit of time. We didn't use the whole chunk of data but instead filtered using a subset of data conditionally.