ds_project_plan

Project Plan (10)—due 3/30

- App Title and Names of your group members (1)
  - App Title: Potential health issue on the people who died with covid-19
  - Members: Trevor K Richardson, Sih-Yuan Han, Chi-Yun Liu
  - Target User: People who are interested in the impact of covid with cross reference of chronic diseases based on map visualization
  - Concept for the Shiny App: We expect that this app can show the information to users about how the confirmed cases and/or deaths toll of covid-19 change under the given condition. For example, the proportion of deaths from COVID-19 with some chronic diseases, and see what kind of chronic diseases has a higher death rate
- Description of the problem to be analyzed in the Shiny App (1)
  - What kind of chronic disease has a higher risk of death when getting covid?
  - Does age affect the death rate when getting covid?
  - Does each state's lockdown policies work?
  - Compared to pandemic SARS(?)
- Proposed data sources (1)
  - Data from CDC

    1. https://data.cdc.gov/NCHS/Conditions-contributing-to-deaths-involving-corona/hk9y-quqm

    2. https://data.cdc.gov/Case-Surveillance/COVID-19-Case-Surveillance-Public-Use-Data/vbim-akqf

    3. https://data.cdc.gov/NCHS/AH-Provisional-COVID-19-Deaths-by-Race-and-Educati/i6ej-9eac
- Overall Layout (1)
  - For a first tab, we may use a US map to be a basic visual of the dashboard to show any input that the user selects. + For a second tab, we may use a table to show the analysis in details(table and/or plot)
- Data Analysis and Visualization with User Choices and Results (2)
  - User interface
  1. Choice of the interest of which chronic diseases' data
  2. Choice of before and after lockdown (different by states)
  3. Choice of before and after holidays' periods
  4. Input of customized start and end date of interested cases data
  - Server
  1. Output some plots
  2. Output a map
  3. Output some statistical summary
- Statistical Modeling with User Choices and Results (2)
  - ANOVA test
  - Does chronic disease affect the death rate?
  - Does a specific race have a higher death rate?
  - Display qq plot, residual plot and summary of linear model
- Allocation of Responsibilities for the team (1)
  - Trevor K Richardson:

  - Sih-Yuan Han:
  - Chi-Yun Liu:
- Project Steps/Schedule (1)
  - 4/5
  - data clean and tidy
  - ui ready
  - 4/12
  - server version 1
  - 4/19
  - server version 2
  - 4/26
  - server version 3 / test
  - 5/3
  - Submit HTML and .Rmd on GitHub and a note in Canvas
  - Submit Complete Repo on GitHub and a note in Canvas
  - Presentations