MSIS 2506: R Programming
Project 4, Fall 2019

Logistics:

Assigned: November 14, 2019
Due: December 14, 2019 (11:59PM)
Presentations: December 5, 2019 (7:35-9:10PM)

Objective:

Create an R Shiny app to let a user explore data and analysis of a data.gov (or Kaggle, or similar) dataset.

The requirements for this project are:

- Demonstrate mastery of R, write clean (easy to read) code, free of errors, with appropriate comments.
- Use at least 1 drop-down or free-text filter.
- Use at least 2 sliders
- Plot 2 graphs/charts in your output
- Display 1 table of data or text
- Use a new library, technique, tool, that has not been taught in class.

Ideas for “New Technique” Requirement

- Build a machine learning model based on your data, and allow the user to input/change the inputs, and show the predicted output.
- Visualize GIS data in your plots.
- Scrape the data.

Collaboration:

You will work as a group on the assignment. Your group must be 3-4 members. You are allowed and encouraged to use Google extensively.

Final Presentation:

- All groups will present their final projects in class on Thursday December 5, 2019 (7:35pm).
- You will have 15 minutes to present, including questions. I recommend a 10-12 minute presentation, with the remaining time for questions

Final Submission:

- You will submit your final, working R code on December 14, 2019, including a link to your data (put your data in Google Drive if it has been wrangled/changed from the original), and a 1-2 page pdf describing your work, data preparation, and app development.

Grading Rubric:

Section	**Grade**	**Criteria**
Data Selection, Preparation	5%	Good choice of data set and/or data preparation
Strategy & code	20%	Order of code, procedures, correctness
Interactive Robustness	20%	No user input should be able to “break” your app/code (if interactive). No bad file upload should be able to “break” you calculator (if a calculator).
Reactive Inputs	20%	Use of sliders, filters, and other user inputs—including UI layout
Learn Something New	15%	Use a library or technique that hasn’t been taught in class. Identify and explain in your write-up
Outputs, Charts, Layout	20%	Use of charts, tables, and appropriate layout

Bonus:

- Host your app online