Week 6 Overview

This week we are doing a deep dive on R Markdown, and hopefully getting a bit of a breather to start really mapping out your final project. While there are not any milestones or deliverables due for your final project, it is a good idea to start planning and looking for data. R markdown is simply a nice, interactive, document containing your code and output that improves the presentation of your project work. Going forward, assignments should be submitted using R Markdown (although they should still be exported to PDF if you are not using GitHub to submit assignments).

Contents of the Week

Objectives

After completing this week, you should be able to:

Using R Markdown for Programming

R Markdown for presenting information and plots

Weekly Resources

Comprehensive R Archive Network

R Studio

Sage Publications. (2021). Discovering Statistics Using R

RStudio, PBC. (2021). RStudio Documentation

RStudio, PBC. (2021). R Studio Cheatsheets

Week 6 Readings, Assignments, and Tasks

Here are your tasks for this week:

Read the following:

- *R for Everyone:* Chapter 28
- https://bookdown.org/yihui/rmarkdown/
  - Read Preface, Chapter 1 Installation, and Chapter 2
- https://rmarkdown.rstudio.com/lesson-1.html
- Rmarkdown-2.0.pdf

Complete the following:

- 6.1 Discussion/Participation
- 6.2 Exercise

6.1 Discussion/Participation

Here are optional topics for discussion via Teams this week.

Remember, these topics aren't required, but if you are struggling to know what to post about, these can be used to initiate discussion!

1. What is R Markdown? Why do we use it?
2. Why does the presentation method matter?
3. What is the equivalent to R Markdown in Python?
4. What are the cons of using Markdown?
5. What topic are you thinking about for your final project? Have you found your data for the project yet?

6.2 Exercise

This week we are back in GitHub to practice using RMarkdown. As you look at the folder for Assignment 4, you will notice there are more files included vs previous weeks. This is because RMarkdown introduces a couple new file types for us. As you have read this week, the benefits of RMarkdown are around the presentation layer and the ability to control what gets exported and how.

In this week's GitHub exercise, you will see the following files:

- assignment_04_LastnameFirstname.R - this is a regular R script, which you need to complete and submit as a PDF
- assignment_04_LastnameFirstname.Rmd - this is an actual RMarkdown file, with placeholders to type your code
- assignment_04_instructions.md - this is a ReadMe file, similar to a RMarkdown file - but this can be used to provide instructions & information to others looking at your GitHub repo. This is where you will find the requirements for your RMarkdown portion of this assignment.
- bibliography.bib - has the citations needed from your course books and is called in your RMarkdown file to display the citations correctly (without you having to type the author and other book information)

For this week, you will submit your completed R Script as a PDF, and your RMarkdown exercise as a PDF.

Submission Instructions

For all assignments in this course, you must export the script or Markdown file to PDF. You are welcome to submit your URL to GitHub in addition, but all submissions must include a PDF (no zip files will be accepted either).

The assignment is due by Sunday, 11:59 p.m. CT.