R Project Description

Introduction to the project

The purpose of the R Project is twofold. First, to give you experience analyzing a real data set using the statistical computing language R. Second, to get you used to communicating your results in a way that is replicable, since the ability to replicate a study is a corner stone of the scientific method.

To achieve these two the R Project is divided into three phases. In Phase I, you will each conduct your own analysis to answer a set of provided questions using either hypothesis testing or linear regression.. You will also write a one page methods section describing what you have done. In Phase II you will be given the Methods section of another student in the class and will need to recreate their analysis in R, based solely upon the document that is provided to you. Lastly, in Phase III, you and your partner will work together to determine why your results many not have matched and will submit a final combined analysis along with a summary of your results and how you reconciled any differences in your analyses.

Everyone in the class will work in pairs to complete the assignment. However, for the first two phases, no one will know the identity of their partner. This is to try and ensure that the work done in Phase II is a reflection of your ability to communicate in writing, not your ability to work together directly as a team. That is assessed in Phase III.

Phase I For the first part of the R Project, you will need to submit two separate files. The first is your R code, which must be working code as presented, and clearly labeled. The second file is a Methods section, describing what you have done to analyze the data.

Phase II You will submit R code recreating the analysis described in your partner's Method section.

Phase III For the last part of the R Project, you and your partner will submit your reconciled R code, along with a summary of your analyses and a brief description of how you reconciled any differences in your individual results.

Grading

- Each phase of the R Project is worth 1/3 of your overall grade for the assignment.
- Each component of each phase will be graded out of 100 pts. For example, Phase I will be graded out of a total of 200 pts, but is still worth 1/3 of your overall grade
- The expectations and grading breakdown for each component of the assignment will be provided in Canvas
- No one will be penalized because of errors in their partner's code
- This is a team project. This means a late submission on your part means your teamate is waiting to start on theirs!