Problem Set 5: Create a Lab

Your name:

Deadline: Nov 13, 6pm

Introduction

This homework is somewhat different. It has two aims:

1. help you to think about one set of class-related problems and concepts;
2. help the instructors to understand your needs and way of thinking (and free-ride on lab creation :-)

Please submit your answers as a text file (html/pdf are fine), and if you include any substantial code, then also the code. You may also do it as a notebook or rmarkdown.

1 Create a lab!

Write a lab. A good lab is no longer that 2 pages (may be shorter) but should be clear enough. It may include example code and example answers with some tasks/questions left unanswered. It should be doable in roughly 1 hour, but may include some extension/extra credit tasks that are more demanding. You can consult examples in, well, canvas/files/labs folder! The complete lab should also include something like solutions but not necessarily complete solutions.

Your response should include the following parts:

1. The dataset used, if any (unless you use a standard dateset like Boston housing or Iris). Please attach the dataset to your submission.
2. Clear distinction between what is intended to be shown to students, what is not.
3. Sketch of the solution. The most important parts of the solution are the approach (how to do it) and demonstration whether it is doable. This demonstrates that the question, data, and method will work together, and demonstrate something that is relevant for this course.

The lab can be on any topic that will be covered in this class, including topics that we still haven not touched (if you can ;-).

But you do not have to follow the previous examples. Maybe you want just to think, not to code? Maybe you want to slowly walk over one hard-to-grasp concept? Maybe you want to tinker with some cool coding example instead? You know much more than us about labs from the "end-user perspective", so use your best judgment as a guidance!

Have fun!