BSDS 100: Intro to Data Science with `R`
Assignment 3
Due 3/8 at 11:59pm

Directions: Write a single R markdown (.Rmd) file that answers each of these questions and produces a knitted .pdf which holds your responses. Make sure that all code can be successfully run on any computer. Put your name and date at the top of the document. For all questions that require written responses, write the answer (numbered appropriately) in markdown, not as a comment in the code. Turn in the .Rmd file and .pdf file on Canvas. Late assignments are not accepted.

Playlists: Here are a couple of playlists from me to help you get started on the assignment:

World Music Mix: https://shorturl.at/kIN02

80s Mix: https://shorturl.at/jtvwC

1. Create the following vectors, populated with information about the courses for which you are enrolled this year in addition to one course (any course) that you are not enrolled.
   (a) `coursenum`: course number of each course
   (b) `coursename`: course name of each course
   (c) `courseprof`: name of the instructor for each course
   (d) `enrolled`: a logical vector indicating whether or not you are enrolled in the course
   (e) `anticipated_grade`: your anticipated letter grade in each course, with an NA for any course for which you are not enrolled
   (f) `anticipated_hours`: your anticipated hours spent on each class per week based on on your experience so far, with an NA for any course for which you are not enrolled.
2. Create and print a data frame called `my_course_df` by combining all of the above vectors. Assign the names of each column to be the names of the original vectors. Summarize the type of each column. Do the data frame variables retain their original classes? Formally test this using appropriate R code.
3. Combine the vectors from (1) into a list called `my_course_list` where each vector is an element of the list. Assign the names of each element to be the names of the original vectors. Do the elements of the list maintain their original classes? Formally test this using appropriate R code.
4. Complete questions 1 - 5 of Section 10.5 in the R for Data Science course book here http://r4ds.had.co.nz/tibbles.html on Tibbles.
5. Complete exercises 1 - 6 of Section 14.2.5 in the R for Data Science book here: http://r4ds.had.co.nz/strings.html.
6. Complete exercises 1 - 3 of Section 14.3.1.1.
7. Complete exercises 1 - 2 of Section 14.3.2.1.