

GEB 6895: Business Intelligence

Department of Economics
College of Business Administration
University of Central Florida
Fall 2019

Assignment 2

Due Tuesday, September 24, 2019 at 11:59 PM
in *your* private mirror of the GEB6895F19 GitHub repo.

Instructions:

Complete this assignment within the space on your private mirror of the GEB6895F19 GitHub repo in the folder `assignment_02`. Create a folder called `my_answers` that will contain all of your work for this assignment. Within this folder, code your solutions in `.R` with the filename as specified. When you are finished, use `git` to `add`, `commit` and `push` your code to your private mirror of the GEB6895F19 repo. You are free to discuss your approach to each question with your classmates but you must `git push` in your own work.

Question 1:

In this exercise, you will produce a function library of the functions for the pseudocode examples from the document titled *Pseudo Code Practice Problems* discussed in class. Create one R script `my_functions.R` that will *return* the result for any calls to your functions. Use the script `my_functions_example.R` as a starting point, which will be evaluated by running a script like `my_function_test.R`. Use your coded and tested examples from Assignment 1 as a starting point.

The exercises are restated below with some clarification for your convenience.

- Example 1 Write an R function with two numbers as the arguments (inputs), multiplies them together and returns their product. You could start out with `multiply_two <- function(num_1, num_2) { ... }`.
- Example 2 Write an R function that returns a character string that tells a user whether or not the number entered as the argument is a 5 or a 6. In this version, there is no need to take input from the keyboard when the number is passed as an argument `num_in`.
- Example 3 Write an R function that performs the following: Take one number as the argument. If the number is between 0 and 10, return the word blue. If the number is between 10 and 20, return the word red. If the number is between 20 and 30, return the word green. If it is any other number, return a message stating that it is not a correct color option.
- Example 4 Write an R function to return all multiples of 5 between 1 and `n` (possibly including `n`).

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Example 5 Write an R function that will return the count of all the even numbers up to the entered stopping point.

Example 6 Write an R function that will perform the following.

- a) Read in 5 separate numbers.
- b) Calculate the average of the five numbers.
- c) Find the smallest (minimum) and largest (maximum) of the five entered numbers.
- d) Print out the results found from steps b and c with a message describing the results, i.e. `maximum is`. In this case, this function can still provide the printout.
- e) Return a list of the minimum, average and maximum values.