

Fall 2017

CSCI 0360 Introduction to Statistics with R

Assignment weight: 50 points

Assignment 1 - Familiarization with the RStudio Environment

1. Open a script file, by opening the File menu, select New File, and then select R Script. This will open a blank script in the script window.
2. Save the file using the following format: **assignment1_lastnameFirstname.R**
3. Use comments to display your name and the assignment number at the top of the script file.
4. Create a vector **x** that contains the values 2, 4, 8, 5, 0, 1
5. Create a vector **y** that contains the sequence 5 to 10
6. Add vectors **x** and **y** and assign the result to a vector called **z**. Display the vector **z**.
7. Create a vector of length 10 named **temp**, with random numbers between 1 and 5
 - a. Use the **runif()** function
 - b. Example: `alpha <- runif(5,0,4)` generates a vector named **alpha** with five elements with random values between 0 and 4
8. Display the vector **temp**
9. Use the command `data()` to list the datasets available in the package "datasets", and other dataset packages
10. Use a command to preview the first few lines of **mtcars**.
11. Display information about the dataset **mtcars**
12. Display the structure of the dataset **mtcars**
13. Display previews of the two datasets: **beaver1** and **beaver2**.
14. Load package **MASS** to get more datasets for statistical processing using the following command:
 - a. `library(MASS)`.
 - b. If the package is not installed, install it, and then load it
15. View the information and previews of the following datasets in **MASS**: **Animals**, **cats**, **Cars93**.
16. Upload the script file to Blackboard under Assignment 1.