Assignment 1: R Basics

Due date: June 5, 11:59pm

Purpose:
In this assignment, you will have the opportunity to get familiar with the RStudio environment and practice basic R commands and functions related to data types and data structure.

Tasks: Write an R script that performs the following operations in the order listed. At the beginning of each task, write a comment marking the task number. For example:

"# Task 3
……<your_code>……
……<your_code>……"

Name the file as: lab1-<your last name>.R

1. In RStudio, examine the 4 panes: source editor, console, workspace browser(objects/variables), and plots. Make sure you understand the purpose and content of each pane. (No script needed for this task)

2. Set the working directory to your Lab1 folder. (No script needed for this task)

3. Create 3 vectors. Each vector should contain at least 4 data elements. The 3 vectors should contain different types of data. Print each vector, check the type and structure of each vector.

4. Create 2 matrices. Each matrix should contain at least 20 data elements and at least 3 columns and 3 rows. The two matrices should contain different types of data. Print each matrix. Check the type and structure of each matrix.

5. Create 2 arrays. Each array should contain at least 30 data elements and at least 3 tables. The two arrays should contain different types of data. Print each array. Check the type and structure of each matrix.

6. Create 1 data frame. The data frame should contain 4 columns of data. Columns 1 and 2 should be numeric, column 3 should be logical, column 4 should be character. Print the data frame and check the structure of the data frame.

7. Create 1 list. The list should have at least 4 vectors. Each vector should have at least 5 data elements. The vectors should have different length and contain at least 2 different types of data. Print the list and check the structure of the list.

8. Create another list containing the list you create in task 7. Print the list.

Submission:
Submit your assignment by uploading the actual R script itself to ELMS via the Lab 1 submission link.