

## Lab 2: Data frame, Matrix, and List

The following worksheet is due by 8 pm Wednesday January 25<sup>th</sup>. You can find the submission dropbox in Brightspace by clicking on Content – > Lab Content.

0. Open a new R Markdown file.

Note: Your worksheet is to be submitted as an R Markdown file (you can knit it to HTML and then convert it to PDF, or you can knit it to PDF if you have LaTeX on your computer, or you can knit it to Word and then convert that to a PDF).

1. Download the ClinicalTrial dataset posted under Lab Content in Brightspace (under Lab 2)

and save it to whatever file you are using for this course.

- (a) Read the ClinicalTrial file into R and call it BasicCharacteristics.
- (b) Print the type of BasicCharacteristics using class() function.
- (c) How many rows and columns are there in the BasicCharacteristics.
- (d) Add a new row (127\_1271001, Female, >50, Current\_Smoker, 90) to the BasicCharacteristics.

2. Create a matrix called PatientsMatrix which contains the WEIGHT column of BasicCharacteristics.

- (a) Re-name the column of PatientsMatrix to WEIGHT.
- (b) Determine the weight over 80 in the PatientsMatrix.
- (c) Determine the average weight in the PatientsMatrix

3. Create a list called PatientsList which contains the column AGE of the BasicCharacteristics.

- (a) Print the length of PatientsList.
- (b) Determine the number of patients with age over 50 using the length() function.