HW1- CMDA

Submit your script to Dropbox by Monday, September 8. Name your script ("YourName_HW1.r"). Use the lecture 1-3 class notes and Lecture 1-3 script from Resources as reference, as well as R help and internet resources. Ask questions in the Forum for your colleagues to answer. Work in teams (the project team is a good start) if you want, but submit your individual file with your work.

Problem 1

1) Install R.
2) Install RStudio.
3) Install GitHub and Git GUI. Create a GIT account. Provide the account link in the homework file as comment and on Forum for everyone else.
4) Create an Rfolder on your computer.
5) Create a HW1 R file that you save in your Rfolder. In comments, give the date, your name, class name, hw number, date. Save it in your R folder.

6) Find out using R help how to import the prices dataset with no header and create variable names for the created R data frame within the read.table function, with the help of the col.names argument. Print your data frame and ascertain that the header was assigned correctly.

7) Find out what row.names argument does (for function read.table). Describe in one line comment.
8) Using a text editor, create a small file with the following lines:
   a b c
   1 2 3
   4 5 6
   Read this file into R so that the variable names are a, b, c.
9) Read up on the help for the read.table function. Try to understand what different arguments are for. (no need to do a write up for this)

Problem 2

1) Create a 4 X 4 matrix MAT1 using the cbind(function).
2) How do you list the last element of the matrix with a one line command?
3) Find the transpose of your matrix.
4) Find the inverse of your matrix.

Problem 3

1) Locate in Lecture code the fpe dataset imported from the internet.
2) For the fpe dataset, print out only the observations with 0 effort.
3) For the fpe dataset print the names of the variables using one function.
4) For the fpe dataset print the names of the rows using one function.
5) Find out what the head() function does and print out the result for the fpe data frame.
6) Export your fpe data frame as both a text and a csv file.