STAT 6430 Homework 3

Please submit your annotated R code in a file titled hw03.R, along with the text files requested below. Give an example showing the output from your functions where it is possible to include in R.

- 1. Download a copy of transactions.txt.
  - (a)
  - (b) Import transactions.txt into R using readLines.
  - (c) Examine each line. Ignore those that do not have a path beginning with "Library ...".
  - (d) For those containing "Library ..." remove everything except the date/time information in "[...]" and the file path "Library ..."
  - (e) Write out the new file to output.txt. The first two lines should be

[Wed May 21 15:47:57 2014] Library/FortLewis/Algebra/10-1-Exponential-Functions/MCH1-10-1-6.pg [Wed May 21 15:49:31 2014] Library/FortLewis/Algebra/10-1-Exponential-Functions/MCH1-10-1-6.pg

2. Download a copy of supremecourtclerks.html. This is the source file for the page

http://en.wikipedia.org/wiki/List\_of\_law\_clerks\_of\_the\_Supreme\_Court\_of\_the\_United\_States This is claimed to be the longest article on Wikipedia. Visit Wikipedia to see how the page looks in formatted HTML. Then open the source file in a text editor to see the raw form. Use R to answer the following questions:

- (a) For which justice did David Kravitz clerk?
- (b) How many clerks went to school at the University of Texas?
- (c) How many clerks did Hugo Black have in his career? What are their names?
- (d) Which law school has produced the most clerks? How many?
- (e) Which justice had there most clerks?
- (f) Load the table into a data frame called clerks, and then export it to a CSV file called clerks.csv.