Lecture 2: Text Processing and Useful R Tools

In-Class Activities

Answer the following questions in an RMarkdown document and discuss it with the people around you (no need to write the problem down, just give it a header (## Problem 1, etc.):

1. Use the "precip" dataset in R to answer the following questions using logical and named vectors for index-selection
   (a) Display all cities who had less than or equal to 15 inches of rain
   (b) Display all cities who did not have more 15 inches of rain (do this a different way)
   (c) Display all cities which got between 20 and 25 inches of rain
   (d) Display the totals from New York, Albany, Buffalo
2. Use the "precip" dataset in R to answer the following questions using the *grep()* and *sub()* functions
   (a) Display all cities with the last letters "ton"
   (b) Display all cities that start with the letter C
   (c) Display all cities with a space in the name
   (d) Display all cities either ending with "ta" or "ia"
   (e) Display all cities with a m then any letter then an n (that is "m_n")
   (f) Change all of the "City" occurrences to "Town"
   (g) Add an ! at the end of every city name
3. Use the "precip" dataset in R to answer the following questions using the "special" functions discussed in the online text
   (a) Round all of the precip values to the nearest integer, save it to a vector, and use the vector for the remaining problems.
   (b) Display all values which are multiples of 3
   (c) Display all values ending in either 4 or 9 without using *grep()* (think about modular division)
   (d) Display just the unique values (do this two different ways)
   (e) How many unique values are there?
   (f) Determine if any values are less than 5 inches of rain