Statistics for Earth and Environmental Scientists

Homework #4

Handed out: Thursday, September 19 Due: Thursday, September 26, 11:59 p.m.

1. Answer the following (total of 100 points), Please upload three things only two exported files and word file with answers.

1. From the type of data created during our lab#4 save it in two formats (.csv, .txt) using the functions explained and mentioned in the ppt. (80 points, 40 each)
2. Name the different type of data structures? (10 points)

* Lists
* Data frames
* Arrays
* Matrices
* Tibbles

1. Write the significance of the following functions.
   1. Cast: a function that converts long format data into wide format data with more complex arguments.
   2. Melt: a function that converts wide format data into long format data with more complex arguments.
   3. Unstack: a function that converts simple data from long format to wide format.
   4. Stack: a function that converts simple data from wide format to long format.