Fall 2017

CSCI 0360 Introduction to Statistics with R

Assignment weight: 100 points

Assignment 3 - Descriptive Statistics

1. Save your R scipt file using the following format: **assignment3_lastnameFirstname.R**
2. Use comments to display your name and the assignment number at the top of the script file.
3. For this assignment you will be using the **mtcars** built-in dataset.
4. Use the **summary** function to view the summary information for the **mtcars** dataset.
5. Use the **summary** function to view the summary information for each of the following variables: **mpg**, **hp**, and **qsec**.
6. View Tukey's five-number summary for the following variables: **mpg**, **hp**, and **qsec**.
7. View the boxplot statistics for the following variables: **mpg**, **hp**, and **qsec**.
   Note: you are not creating a boxplot, you are only using the boxplot statistics function.
8. Use the **describe** function in the **psych** package to view the set of descriptive statistics for the **mtcars** dataset. The **describe** function is located in the **psych** package which is not installed by default. You will need to install the **psych** package first, then load it using the **require** or **library** function.
9. View the mean of the variable **qsec**.
10. View the median of the variable **qsec**.
11. View the trimmed mean of the variable **qsec** by trimming off 5% of the data from each end.
12. View the trimmed mean of the variable **qsec** by trimming off 20% of the data from each end.
13. For the variable **qsec**, use the trimmed mean function with the appropriate percentage of trimming so that the trimmed mean is equal to the median.
14. View the standard deviation for the variable **mpg**.
15. View the median absolute deviation for the variable **mpg**.
16. View the interquartile range (IQR) for the variable **mpg.**
17. Detach the psych package using the command **detach("package:psych", unload = TRUE)** and clear your workspace using the command **rm(list = ls())**.
18. Upload the script file to Blackboard under Assignment 3.