

Department of Statistics and Actuarial Science

STAT 464: Statistical Computing with R

Exercise 1

Instruction: For each question show your codes and results. Codes should be in Font Theme Courier New in Microsoft Word. All other narratives should be in Times New Roman. You may do it in groups of not more than 5 students.

1. Create a vector named Salary containing 7 values randomly selected from 0 to 10000. Name each element in your sample with a name of your choice.
2. Using your vector in (1), how can you select
 - a. the 3rd salary
 - b. 2nd, 4th and 6th salaries
 - c. modify the code in (b) to extract the other salaries?
3. Using the state.x77 data in package datasets
 - a. How can you inspect the structure of the data?
 - b. Select the states with the highest and lowest life expectancy.
 - c. Which states have Area values more than 100000?
 - d. Which States have Area values more than 100000 and Murder rate above 10?
4. Read the following data located on the GitHub page with the following URLs:
 - a. <https://github.com/rminkah/STAT222/blob/master/GHApparel.csv>
 - b. The iris data at <https://github.com/rminkah/Statistics-Short-Course>
 - c. Use (a) to answer the following questions:
 - i. How many methods of payment are available ?
 - ii. Obtain cross tabulation of methods of payment and Type of Customers
 - iii. Which method of payment is more prevalent?
5. Create a vector, data frame, matrix and a list of your choice. Combine all these data into a single list and name it. Use the name of the data frame to retrieve it from the created list.