DUE: March 5, 2019 at 11:59 PM

ANA1002 – Module 6 Assignment /24

Create and submit an R script which, when run, will print the answers to the following questions and output any graphics. Your R script must include a title with your name and student number and comments for each question number.

1. **(4 marks)** Import the *FuelEfficiencyAssignment* dataset. This is similar to the dataset used in class, but with a few modifications. What is the class of the variable *Cylinders*? Convert this variable to a factor and print out the levels of the factor. How many levels does the factor have?

2. **(8 marks)** Store your date of birth in the following format, "Year, Month Day", as a date in R using the as.Date() function. Using your date object answer the following questions: On which day of the week were you born? How many weeks have you been alive? How many days are there until your birthday?

3. **(5 marks)** Use the as.POSIXct() function to store your date and time of birth (if you do not know what time you were born at use 12:00:00 AM) . Determine how many seconds you have been alive.

4. **(7 marks)** In the *FuelEfficiencyAssignment* dataset, we would like to use the Type variable as a factor, however, because of data entry errors, there are too many distinct values. For instance, sometimes SUV is written as suv, and R recognizes these as two levels, although clearly they should both indicate the factor SUV. Ideally, our variable should have four levels: Sedan, Minivan, Wagon, SUV. In the dataset, R identifies 12 different levels. Use string normalization to appropriately modify the Type variable so it can be used as a factor with four levels.

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Save your R Script as: Last Name, First Name Module 6

Upload your R Script to the "Module 6 Assignment" dropbox on Moodle before March 5, 2019 at 11:59 PM.