DATA 624 Fall 2017, Project #1

Format: Single Effort, no interaction with others outside of meetups on this assignment

DUE: 10/24/17 by 7 PM ET

Submission: Via Email – scott.burk@sps.cuny.edu

Submission: Word Readable Document for Report (all in one), Excel Readable (all in one, separate sheets).

File Convention: LastName\_Project1\_Fall624, for me it would be Burk\_Project1\_Fall624

Part A – ATM Forecast, ATM624Data.xlsx

In part A, I want you to forecast how much cash is taken out of 4 different ATM machines for May 2010. The data is given in a single file. The variable ‘Cash’ is provided in hundreds of dollars, other than that it is straight forward. I am being somewhat ambiguous on purpose. I am giving you data, please provide your written report on your findings, visuals, discussion and your R code all within a Word readable document, except the forecast which you will put in an Excel readable file. I must be able to cut and paste your R code and run it in R studio or other interpreter.

Part B – Forecasting Power, ResidentialCustomerForecastLoad-624.xlsx

Part B consists of a simple dataset of residential power usage for January 1998 until December 2013. Your assignment is to model these data and a monthly forecast for 2014. The data is given in a single file. The variable ‘KWH’ is power consumption in Kilowatt hours, the rest is straight forward. Add this to your existing files above.

Part C – BONUS, optional (part or all), Waterflow\_Pipe1.xlsx and Waterflow\_Pipe2.xlsx

Part C consists of two data sets. These are simple 2 columns sets, however they have different time stamps. Your optional assignment is to time-base sequence the data and aggregate based on hour (example of what this looks like, follows). Note for multiple recordings within an hour, take the mean. Then to determine if the data is stationary and can it be forecast. If so, provide a week forward forecast and present results as above in a Word readable file and the forecast in an Excel readable file.





