Homework 1 Due Date: **September 15th no later than 11:59 p.m.**

Instructions:

1. Upload your solution file to Blackboard. The solution file can be a Word document or PDF that contains answers to the questions given as well as the Python (to generate the “basket” from the given csv file) & R code you used.
2. DO NOT submit more than one version of the program.

Perform a market-basket analysis on the marketbasketNew.csv file that is under “datasets” on Blackboard. You must first convert the file to the right format before you run your analysis. Your program should do the following:

1. Display an item frequency plot. To display a reasonable number of items, use the support parameter or the topN parameter. An example of how to use the item frequency plot command is given below:

itemFrequencyPlot(t, support = 0.06, horiz = TRUE, type = “absolute”)

support = 0.06 implies that only items that occur in at least 6% of the transactions will be displayed. For this dataset, 5% to 8% should be reasonable. Type can be changed to “relative” if you desire relative frequencies. You may use either “absolute” or “relative”.

1. Display the top 5 rules sorted in descending order by “Lift”.
2. Display a “graph” of the top 8 rules.