## Project 3 (175 points)

## Association Rule Mining

## Implementing the Apriori Algorithm

## **Due Date and Time**

* Week 7, Sunday at 11:59 p.m. ET.

## **Instructions**

1. Read Chapter 6, pages 248-253
2. Review the tutorial,Implementing Apriori Algorithm in R: <https://datascienceplus.com/implementing-apriori-algorithm-in-r/>
3. Review the tutorial: Mining frequent items bought together using Apriori Algorithm: <https://www.analyticsvidhya.com/blog/2017/08/mining-frequent-items-using-apriori-algorithm/>
4. Write R source code that implements the **Apriori algorithm** on a dataset of your choice. Do not use the datasets provided in the tutorials listed above. You may use one of the built-in R datasets or find another dataset on your own. You may use any R packages to perform your analysis. You do not need to use the ones in the above tutorials.
5. Provide brief comments in your source code to document what you have done and how the algorithm is working.

## **Recommended Dataset Resources**

* The R dataset packages: <https://stat.ethz.ch/R-manual/R-devel/library/datasets/html/00Index.html>
* Free Datasets: <http://www.rdatamining.com/resources/data>
* General datasets: <https://www.kaggle.com/datasets>
* Machine Learning Repository: <http://archive.ics.uci.edu/ml/index.php>
* Government Datasets: <https://data.gov.in>

## **Academic Integrity**

The algorithms and programming techniques used in this assignment are very common Data Science problem solving approaches. You will find examples and source code all over the internet. Please do not copy code or use pre-existing examples that you find. Select your own, unique analysis on a new dataset of your choice. If you have questions about the use of acceptable examples and datasets, please contact your instructor for further clarification.

## **Submission Instructions**

Upload your **Source code** to the **Project 3** submission area.