**[Assignment 2 - Affinity Analysis](https://ku.blackboard.com/webapps/assignment/uploadAssignment?content_id=_229613_1&course_id=_28169_1&group_id=&mode=view)**

This is a GRADED ASSIGNMENT

**Deadline :** **1 November 2019, Friday 23:30**

**This is an individual assignment.**

Assignment definition in *CMSE501\_W6\_AffinityAnalysis.pdf.*

*Numpy arrays* shall be used in this assignment.

*PART 1:*

1. Propose 5 rules, for example people buying cheese also buy apples
2. Calculate support, confidence, lift for rules in step 1.
3. Interpret the rules considering the values of their  support, confidence, lift. Which rule would you recommend to be used to the marketing team.

*PART 2:*

1. Propose ALL possible rules for the given products namely bread, milk, cheese, apples, and bananas. How many rules are generated?
2. Identify and list the valid rules for the dataset given.
3. Calculate support, confidence, lift for rules in step 2.
4. Interpret the valid rules considering the values of their  support, confidence, lift. Which 5 rules would you recommend to be used to the marketing team, what is your reasoning in picking these ones over the others?

Data set : In Exercises folder *W6\_Affinity\_dataset.txt*

For every code you upload:

1. Include docstring (see course slides)
2. The following information shall be present as comment in your code:

Your Full Name, StudentId, Assignment No/Name, version starting with 1.0 (if uploaded your code after modification increment accordingly)

You shall be uploading 2 files: A code file and a word doc including your interpretation and discussion.