In-Class Activity #15: Answer Key

**Part 5: Try it yourself**

Looking at your Excel worksheet with the imported rules and answer the following questions:

a) How many rules are there with a lift value between 4 and 5?

**6**

b) What service are customers with an automobile loan (AUTO) and a checking account (CKING) most likely to also have (or be interested in having)? Explain your answer.
 **(HINT: Sort the rules in alphabetical order to make those rules easier to find.)**

**{AUTO,CKING} 🡪{??????????}**

**If you looked at lift, the answer would be -- a home equity loan.**

**{AUTO, CKING } => {HMEQLC } has the highest lift (1.80). It also has a moderate level of confidence (0.297). This means that it isn’t a strong relationship, but it does occur more often than random chance (so we can rule out coincidence).**

**If you looked at confidence, the answer would be – saving account.**

**{AUTO,CKING} => {SVG} has the highest confidence (0.70), meaning that the probability that a customer with auto loan and checking account will also have a saving account is 70%. It also has a lift value higher than 1 (1.11). This means that it is a strong relationship (high confidence), and occurs more often than random chance (lift>1).**

c) Find rule 138: {SVG,TRUST} => {CD}). Explain in business terms what it means and what you, as a bank manager, should do with that information.

**Rule: { SVG, TRUST } => { CD }**

**The lift is 3.108 and the confidence is also high (0.762). This implies a strong relationship (high confidence) that is also predictive (more likely than random chance, with lift>1).**

**This means that customers who have a savings account and a trust account are also likely to have or want a certificate of deposit. As a bank manager, we could target these customers with a campaign highlighting CDs as an investment opportunity.**