Recommendations for market store

18th December 2017

OVERVIEW

Given data set of a grocery store of items sold in a week and items bought by a customer at a time are stored together.

GOALS

1. To build a system which can recommend customer to buy other than his wish list or can suggest people who bought this also bought this.

PROCEDURE

1. Done by calculating support(#A / total), confidence((#B | A) / support), lift(confidence/support).
2. We will use python libraries - numpy, matplotlib and panda.
3. Next is read data set which is in form of csv file, keeping header none.
4. Then we iterate and create a list for each entry (creating string for each item) and name it as transaction.
5. Now importing apyori and using it we create rules. We set parameters for transaction, min support , min confidence, min lift and min length. By testing for different values best result is found at min support = 0.003, min confidence = 0.02.
6. Finally creating new variable result which store recommendation and its support and confidence value.

Results : We could recommend which items to keep closer in store so that they have high chances to be bought. Results are sorted in according to combination of max lift,support and confidence.

References

- https://en.wikipedia.org/wiki/Apriori_algorithm
- http://adataanalyst.com/machine-learning/apriori-algorithm-python-3-0/
- http://blog.hackerearth.com/beginners-tutorial-apriori-algorithm-data-mining-r-implementation