## **Association Rule Mining**

- Get online Retail dataset from <a href="http://archive.ics.uci.edu/ml/datasets/Online+Retail">http://archive.ics.uci.edu/ml/datasets/Online+Retail</a>
  It consists of 541909 instances with 8 attributes.
  - a. Write a function to choose unique 'k' items from the dataset.
  - b. Write a function to find the customers who bought items from a given list of 'k' items and output in the form of a transaction matrix.
- 2. Frequent k-itemset.- L(k)
  - a. Given a support threshold 's', write a function to find the k-itemset having support greater than 's'.
- 3. Candidate itemset
  - a. Given two frequent k-itemset, L(k), generate L(k+1)
- 4. Given an itemset with cardinality 'T', and confidence threshold 'c', write a function to output the possible association rules with confidence greater than 'c'.
- 5. Repeat 2,3,4 for the dataset 'store data.csv'
- 6. Follow <a href="https://www.geeksforgeeks.org/implementing-apriori-algorithm-in-python/">https://www.geeksforgeeks.org/implementing-apriori-algorithm-in-python/</a> to use in-built apriori algorithm.