Lab Assignment

NOTE: Implement the problems using C ++/JAVA, the datasets are attached with mail.

Practice: Write program for the problem discussed in class.

1. Implement Apriori algorithm for association rules. Run the algorithm with two different support and confidence level defined by you.
    (Chees, Mushroom, Retail dataset can be used.)

2. Let $Y \subseteq I$ and
    $X \subseteq Y$
If the X is an *infrequent* itemset, then Y is also an infrequent itemset. On that basis apply the Apriori algorithm.

3. Use Apriori algorithm on the given Lenses problem data. (FILE1.txt)
    - Run Apriori for $0.1 <=$ minsup$<= 0.8$ and $0.1 <=$ minconf$<= 0.6$, using increments of 0.1 (i.e.,   this means you should run the algorithm 48 times).
    - Summarize your findings.
    - What do your (discovered) associations tell us?

4. Use your algorithm on the Mirror Symmetry problem.(FILE2.txt)
    - Run Apriori for various combinations of minsup and minconf values(user defined).
    - Summarize your findings.
    - This is an artificial problem. Each attribute represents a bit position in a string of 30 bits: Lmost, Lmost1, ..., Lmost14, Rmost14, Rmost13, ..., Rmost1, Rmost and the attribute Symm is 1 if the pattern is symmetric about its center, and 0 otherwise. Given this interpretation, do any of the rules discovered by your Apriori algorithm make sense?