**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.)

* Print frequent itemset.
* Print closed frequent itemset.

2. Implement Apriori algorithm for association rules using **hash function**. Run the algorithm with two different user defined support and confidence level to find frequent item sets from L2 and C2.

(Chees, Mushroom, Retail dataset can be used.)

3. Consider a set of items from the alphabet: **{A, B, C, D, and E}** and the collection of frequent sets

**S = {{A},{B},{C},{E},{A,B},{A,C},{A,E},{C,E},{A,C,E}}**

Find negative and positive collection of frequent sets**.**

4. Use partitioning to divide a data set in two partitions. Apply Apriori algorithm and compare the frequent pattern results between integrated and partitioned data sets.

**Note:** Let and

If the X is an *infrequent* itemset, then Y is also an infrequent itemset. On that basis apply the Apriori algorithm.