

Practical No. 07

Aim:

Perform association rule based on (Apriori algorithm) or clustering algorithm (K-means)

```
Start Stop
Result list (right-click for ...)
10:12:11 - Apriori

Associator output
Attributes: 4
Milk
Butter
Bread
Beer

=== Associator Model (full training set) ===

Apriori
=====

Minimum support: 0.4 (2 instances)
Minimum metric <confidence>: 0.5
Number of cycles performed: 12

Generated sets of large itemsets:

Size of set of large itemsets L(1): 7
Size of set of large itemsets L(2): 11
Size of set of large itemsets L(3): 5

Best rules found:

1. Butter =T 4 ==> Beer=F 4 <conf:(1)> lift:(1.2) lev:(0.11) [0] conv:(0.67)
2. Milk=T 3 ==> Beer=F 3 <conf:(1)> lift:(1.2) lev:(0.08) [0] conv:(0.5)
3. Bread=T 3 ==> Beer=F 3 <conf:(1)> lift:(1.2) lev:(0.08) [0] conv:(0.5)
4. Milk=T Butter=T 2 ==> Beer=F 2 <conf:(1)> lift:(1.2) lev:(0.06) [0] conv:(0.33)
5. Milk=T Bread=T 2 ==> Beer=F 2 <conf:(1)> lift:(1.2) lev:(0.06) [0] conv:(0.33)
6. Milk=F Beer=T 2 ==> Butter=T 2 <conf:(1)> lift:(1.5) lev:(0.11) [0] conv:(0.67)
7. Milk=F Butter=T 2 ==> Beer=T 2 <conf:(1)> lift:(1.2) lev:(0.06) [0] conv:(0.33)
8. Bread=F Beer=T 2 ==> Butter=T 2 <conf:(1)> lift:(1.5) lev:(0.11) [0] conv:(0.67)
9. Butter=T Bread=F 2 ==> Beer=T 2 <conf:(1)> lift:(1.2) lev:(0.06) [0] conv:(0.33)
10. Butter=T Bread=T 2 ==> Beer=T 2 <conf:(1)> lift:(1.2) lev:(0.06) [0] conv:(0.33)
```

Apriori Algorithm Result

Conclusion:

Through weka explored option of performing association rules based on Apriori algorithm.

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Theory:

Basic elements of association rule mining using WEKA. The sample dataset used for this example is book1.csv

Step 1: Open the data file in WEKA explorer. It is presumed that the required data fields have been discretized. In this example it is the transaction^{ID} ~~age~~ attribute.

Step 2: Clicking on the associate tab will bring up the interface for association rule algorithm.

Step 3: We will use the apriori algorithm. This is selected by default.

Step 4: In order to change the parameters for the run (example, support, confidence, etc.) we click on the text box immediately to the right of the choose button.

Conclusion:

Through WEKA explored option of performing association rule based on Apriori Algorithm.