Customer Satisfaction using Market Basket Analysis

ALGORITHM

1. Start
2. Read Transactional Data
3. Store unique items
4. Input minimum support and minimum confidence
5. Calculate support for itemsets
6. Remove itemsets whose support < minimum support
7. Calculate confidence of remaining itemsets.
8. Remove itemsets whose confidence < minimum confidence
9. Add remaining itemsets to association rule.
10. Make combination of itemsets.
11. Repeat from step 5 to step 11 until all possible combinations of items are formed.

Pseudo Code

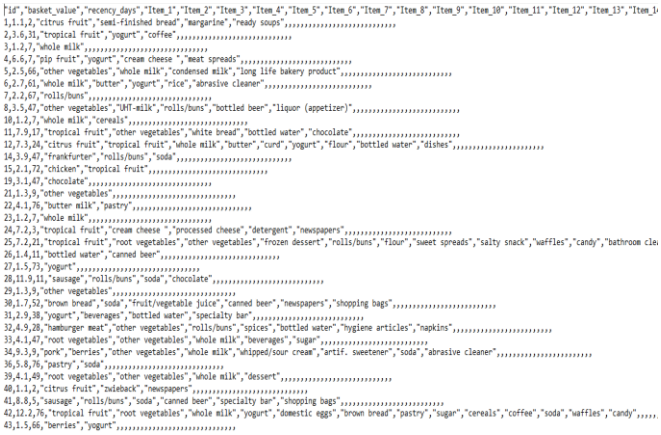
INPUT: S, $support$ **where** $S = dataset$, $min\_support = real$
OUTPUT: *Set of Frequent Itemsets*
Require: $S \neq \varnothing$, $0 \leq min\_support \leq 1$

```
1: procedure GETFREQUENTITEMSETS
2:     freqSets[ ] ← null
3:     for all Itemsets i in S do
4:         if support ≥ min_support then
5:             freqSets[ ] ← i
```

INPUT: S **where** $S = dataset$
OUTPUT: *Set of Candidate Itemsets*
Require: $S \neq \varnothing$

```
1: procedure GENERATECANDIDATES
2:     i ← 2
3:     num ← NumAttributes(S)
4:     candidates[ ] ← null
5:     while i < num do
6:         candidates[ ] ← all sets of size i, support
7:         i ← i + 1
8:     end while
9: end procedure
```

Progress



Raw Data

Cleaned Data

Transformed Data

Code Screenshots