

Team members:

Ansuman D. Mohanty - 2016A7PS0043H

Syed Abid Abdullah - 2016A7PS0562H

Mridul Bhaskar - 2016A7PS0391H

Deepak Gupta - 2016A7PS0105H

Dataset Used

Groceries

Preprocessing Done

An encoding of the items in the dataset was done in increasing order of their support. Example, the most supported item in the dataset 'whole milk' was given a number of 0 and the least frequent 'baby food' was given 168. (Total number of distinct items were 169).

Number of frequent itemsets

(We didn't choose larger values of minsupport because the dataset being sparse, the number of frequent itemsets diminishes quickly, and reduces in size of itemsets as well. To get meaningful association rules, these smaller values of minsup were taken)

minsup=0.1%	minsup = 1%	minsup = 2%	minsup = 3%
16188	341	123	64

Number of association rules

minsup = 0.1%, conf = 50%	minsup = 1%, conf = 40%	minsup = 2%, conf = 30%	minsup = 3%, conf = 20%
7703 (all)	62	37	26
7659 (non redun.)	62	37	26
Rules available in Assn_Rules_sup:0.1conf50_nonredundant.txt	Rules available in Assn_Rules_sup:1conf40_nonredundant.txt	Rules available in Assn_Rules_sup:2conf30_nonredundant.txt	Rules available in Assn_Rules_sup:3conf20_nonredundant.txt

Closed Frequent and Maximal Frequent Itemsets

Minsup	Closed_Frequent	Maximal_Frequent
0.1%	Count = 16124 Itemsets available in Closed_Freq_Items:sup0.1.txt	Count = 9156 Itemsets available in Max_Freq_Items:sup0.1.txt
1%	Count = 341 Itemsets available in Closed_Freq_Items:sup1.txt	Count = 250 Itemsets available in Max_Freq_Items:sup1.txt
2%	Count = 123 Itemsets available in Closed_Freq_Items:sup1.txt	Count = 92 Itemsets available in Max_Freq_Items:sup2.txt
3%	Count = 64	Count = 50

	Itemsets available in Closed_Freq_Items:sup1.txt	Itemsets available in Max_Freq_Items:sup3.txt
--	---	--

Redundant rules

Redundant rules (minsup =0.1%, conf=50%)

Available in Assn_Rules_sup:0.1conf50_redundant.txt

Redundant rules (minsup =1%, conf=40%)

No rules were found to be redundant

Redundant rules (minsup =2%, conf=30%)

No rules were found to be redundant

Redundant rules (minsup =3%, conf=20%)

No rules were found to be redundant