CSci 5523: Data Mining, Programming Assignment 1: Frequent Pattern Mining

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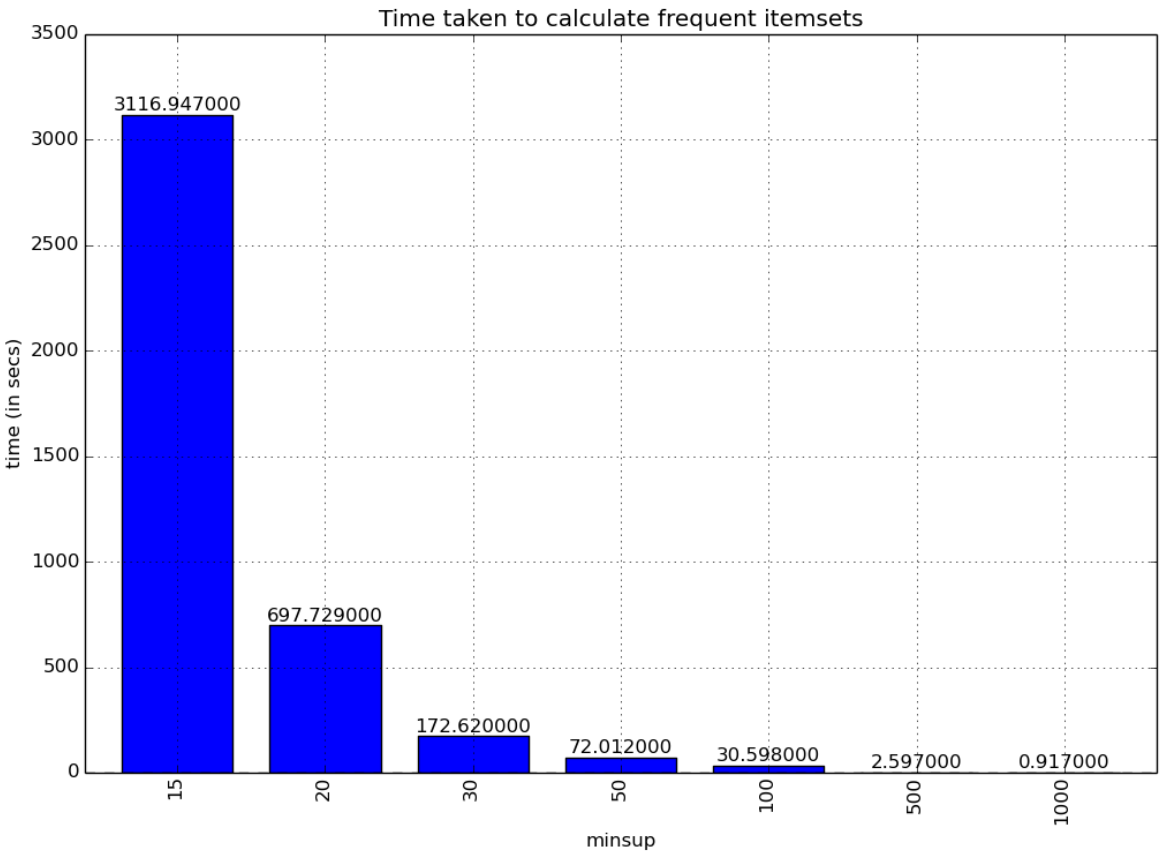
A Brief Summary of results

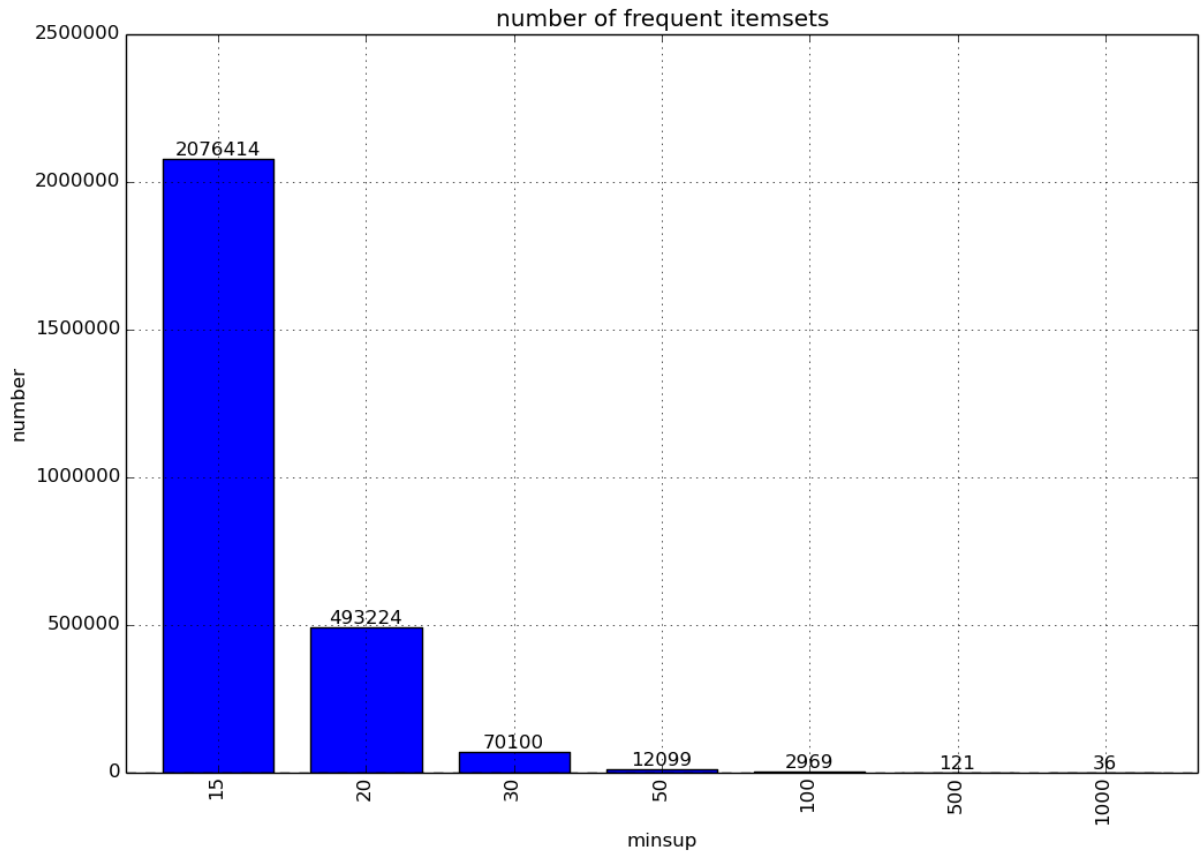
Itemset mining was keenly carried out for the **Inter** dataset.

minsup	minconf	Time for freq. itemsets (s)	No. freq. itemsets	Time for assoc. rules(s)	No. of rules
1000	0.8	1.055	36	0.003	2
1000	0.9	0.931	36	0.002	0
1000	0.95	0.917	36	0.002	0
500	0.8	2.597	121	0.004	3
500	0.9	2.57	121	0.003	0
500	0.95	2.601	121	0.003	0
100	0.8	30.231	2969	0.038	423
100	0.9	30.566	2969	0.038	40
100	0.95	30.598	2969	0.031	9
50	0.8	72.254	12099	0.085	4025
50	0.9	72.166	12099	0.078	1458
50	0.95	72.012	12099	0.075	642
30	0.8	172.62	70100	5.084	515780
30	0.9	175.042	70100	3.814	204300
30	0.95	178.384	70100	1.958	86542
20	-	697.729	493224	-	-
15	-	3116.947	2076414	-	-

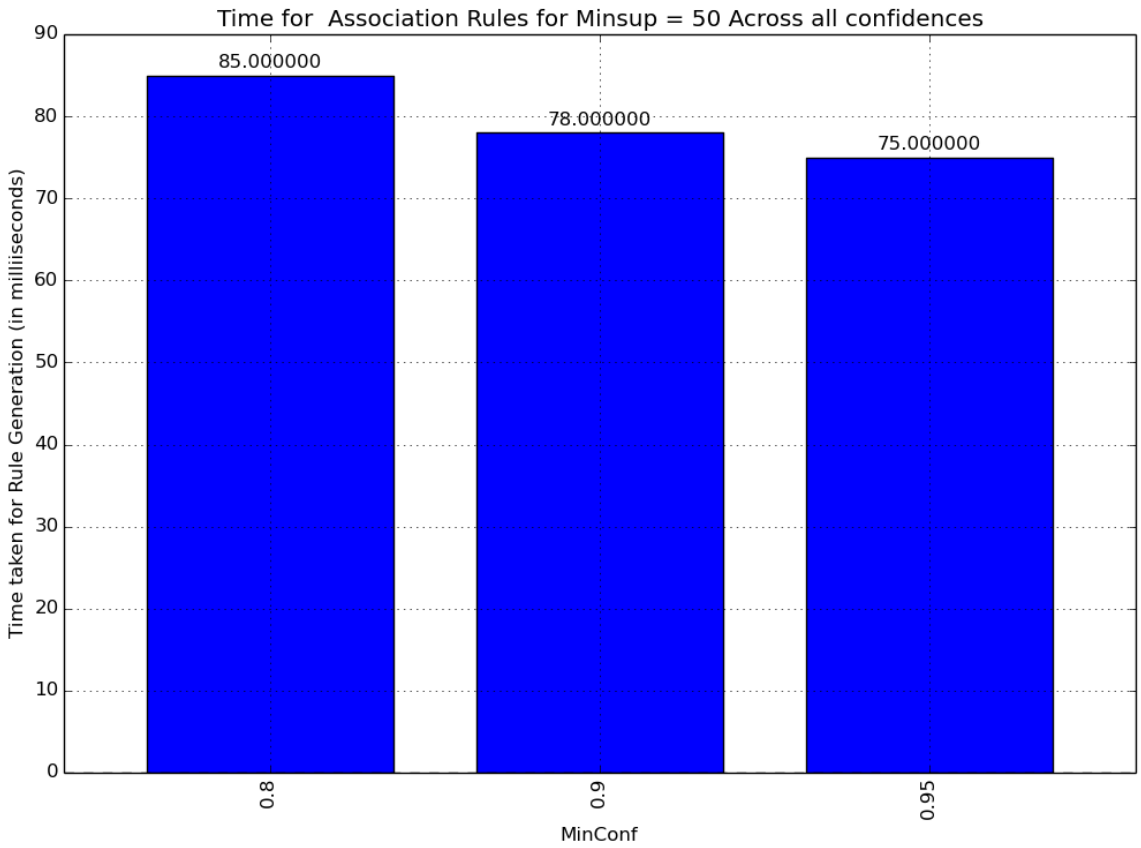
Graph1


Time taken to calculate frequent itemsets
time (in secs)
minsup
3116.947000
697.729000
172.620000
72.012000
30.598000
2.597000
0.917000
0
500
1000
1500
2000
2500
3000
3500
15
20
30
50
100
500
1000

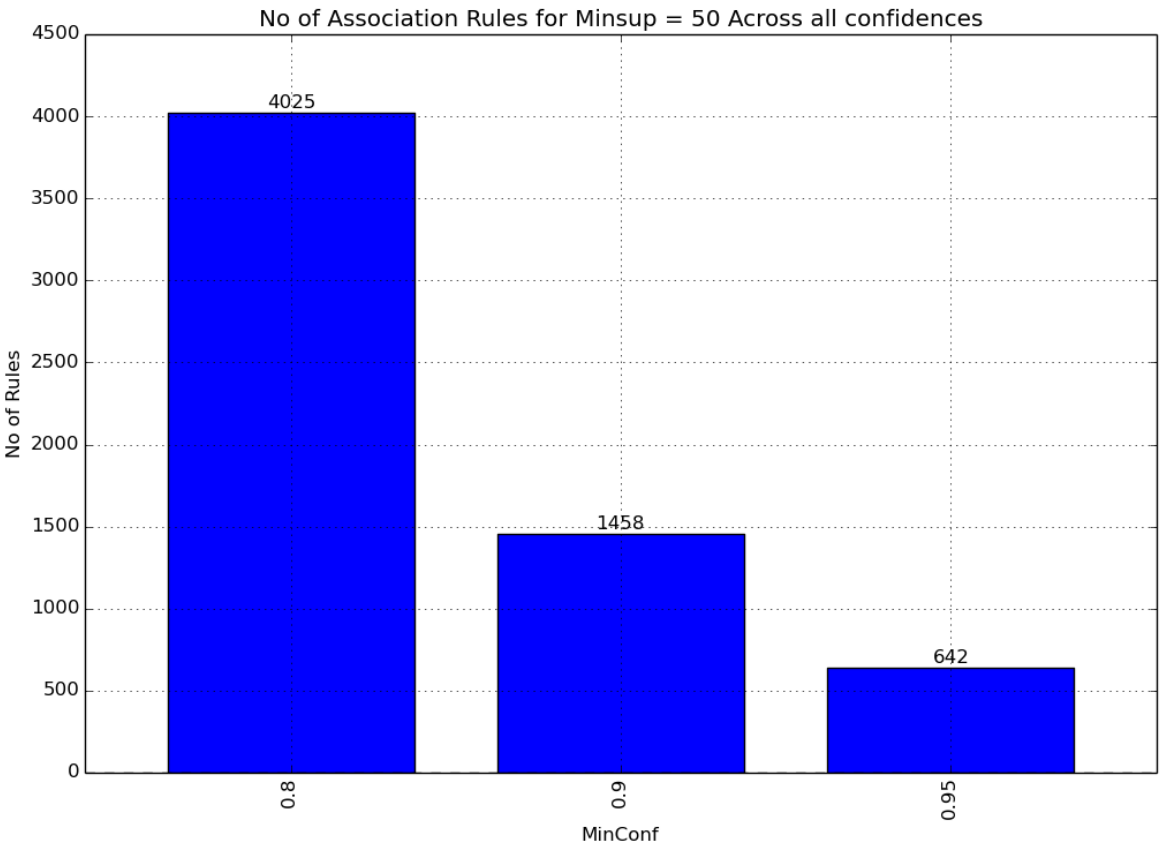
Graph2


number of frequent itemsets
2500000
2000000
1500000
1000000
500000
0
number
2076414
493224
70100
12099
2969
121
36
15
20
30
50
100
500
1000
minsup

Graph3


Time for Association Rules for Minsup = 50 Across all confidences
Time taken for Rule Generation (in milliiseconds)
MinConf
85.000000
78.000000
75.000000
0.8
0.9
0.95
0
10
20
30
40
50
60
70
80
90

Graph4


No of Association Rules for Minsup = 50 Across all confidences
No of Rules
MinConf
4025
1458
642
0.8
0.9
0.95
0
500
1000
1500
2000
2500
3000
3500
4000
4500