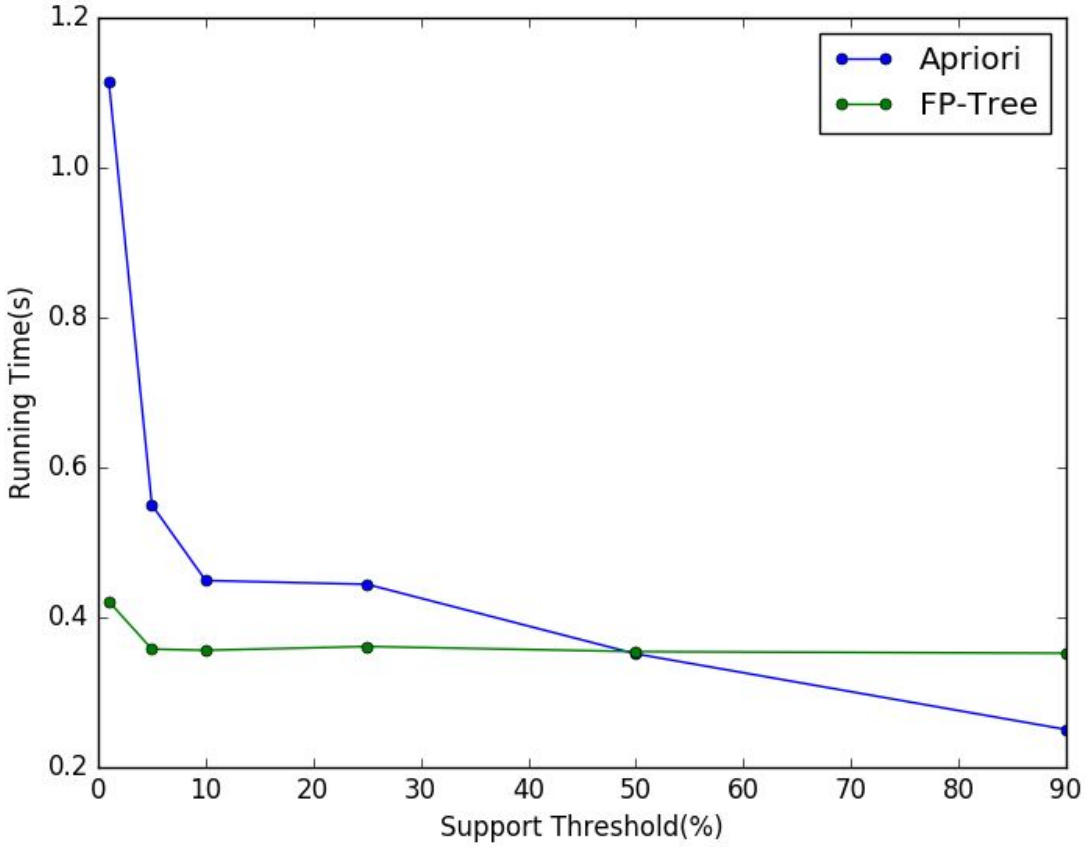
Files present in folder

1. apriori.cpp - source code for apriori algorithm
2. fptree.cpp - source code for fptree algorithm
3. compile.sh - to compile apriori.cpp and fptree.cpp using O3 optimization
4. 2015CS50281.sh - to run apriori and fptree algorithms and to generate comparison plot
5. plot.py - source code for generating plot using matplotlib

Comparison



Apriori algorithm scans transaction database as many times as the largest size of frequent itemset present in solution, while FP-tree algorithm scans the database only twice.

For smaller support thresholds, there will be some frequent itemsets with large sizes, therefore apriori algorithm takes more time since it scans the database more number of times.

For larger support thresholds, there might not be frequent itemsets with large sizes, here FP-tree algorithm takes more time. This is because the number of database scans time factor is outweighed by FP-tree construction time.

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