

**OPTIMIZATION OF APRIORI ALGORITHM WITH ITEMSET PRUNING
(CASE STUDY OF JEMBER DISTRICT CAFE)**

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ABSTRACT

Apriori algorithm is one of the most used algorithms in conducting market basket analysis. This is because the calculation results of apriori algorithm have a fairly high level of accuracy. Also, apriori algorithm is an algorithm that has long been recognized since introduced by Agrawal and Srikan in 1994. However, apriori algorithm itself has shortcomings in scanning data, which causes high time consumption. This is because the calculation results of apriori algorithm have a good level of accuracy. Therefore an optimization is needed to improve the performance of apriori algorithm. In this study, applied apriori with 355 menu items and 4029 transaction data that took 4638.95 seconds. Whereas in optimized apriori also applied with the same data only takes 2199.53 seconds. So that apriori performance was successfully improved with 52% faster results.

Key word: *apriori, optimized apriori, data mining, market basket analysis*