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Graph-Clustering Association Rules Mining Algorithm

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Abstract: Association rules mining algorithms have been extensively researched in the last decade. This paper proposes an efficient algorithm for association rules mining called GCAR. The proposed algorithm employs both graph and clustering techniques to discover association rules. The graph technique reduces the database scans, while the clustering technique eliminates some candidate itemsets that cannot be frequent. From a practical point of view, GCAR is very attractive because it reduces the number of data scans, eliminates some infrequent candidate itemsets, and hence has better performance. Several experiments on real data as well as synthetic data showed that GCAR outperforms the most well known association rules algorithm Apriori.