Abstract

“Data Mining or Knowledge Discovery is the process of discovering patterns in large data sets” [1] in the form databases and data warehouses in structured or unstructured manner. Association Rule Mining (ARM) is primarily focused on analyzing data for frequent if/then patterns and using the criteria support and confidence to identify the most meaningful relationships. In the area of academic data mining, it concerns with developing methods for discovering knowledge from data that come from Academic Enterprise Domain. There are several data mining algorithms pertaining to association rules used both offline and online platforms. One of the most popular and classical is Apriori algorithm that is used to extract frequent itemsets from large database and generating the association rule for discovering the knowledge. In the proposed research we have implemented an Apriori Algorithm implementation using Matlab and Dot Net Technologies using an academic examination registration dataset. The various Association Rules have been used to mine valuable knowledge regarding present, past and future course selection trends on subjects selected by the students at undergraduate level. The results will provide an insight in making future
decisions regarding proposing academic infrastructure pertaining to human resource
development/management, building of new departments/ centers, enhancing/ reducing intake
capacity for a course/subject etc in an optimized manner.

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Index Terms
Keywords

Association rule mining, Support, Confidence, Lift, Apriori Algorithm.