Multilevel Relationship Algorithm for Association Rule Mining used for Cooperative Learning

Abstract

Mining the Data is also known as Discovery of Knowledge in Databases. It is to get correlations, trends, patterns, anomalies from the databases which can help to build exact future decisions. However data mining is not the natural. No one can assure that the decision will lead to good quality results. It only helps experts to understand the data and show the way to good decisions. Association Mining is the discovery of relations or correlations among an item set. An objective is to make rules from given multiple sources of customer database transaction. It needs increasingly deepening knowledge mining process for finding refined knowledge from data. Earlier work is on mining association rules at one level. Though mining association rules at various levels is necessary. Finding of interesting association relationship among large amount of data will helpful to decision building, marketing, & business managing. For generating frequent item set we are using Apriori Algorithm in multiple levels so called Multilevel Relationship algorithm (MRA). MRA works in first two stages. In third stage of MRA uses Bayesian probability to find out the dependency & relationship among different shops, pattern of sales & generates the rule for learning. This paper gives detail idea about concepts of association mining, mathematical model development for Multilevel Relationship algorithm and Implementation & Result Analysis of MRA and performance comparison of MRA and Apriori algorithm.
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Index Terms

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Keywords
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