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An enhanced CBAR algorithm for improving recommendation systems accuracy

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Abstract: The need of personalizing and customizing web pages of a web site is more than evident these days due to the continuous growth in the quantity of information and aspects of use. The objective of personalization or recommendation is to provide users with pages/ items they may be interested in without explicitly asking. In this paper, a novel recommendation system prototype is implemented. The data sources for this recommendation system rely on the user's navigational history without demanding explicit input from her. The core of this recommendation system relies on a cluster based association rules mining algorithm to generate the frequently occurring items called the large itemsets. The recommendation system uses these large itemsets directly to generate its recommendations without the need to explicitly generate association rules. The proposed recommendation system is an online system, providing recommendations fast enough to avoid any delay apparent to the user. An advantage of this recommendation system is that it can be dynamically updated. Experimental evaluation on real datasets shows that this recommendation system provides better recommendation effectiveness in terms of accuracy and execution time.