LIBRARY BOOK RECOMMENDATION APPROACH WITH A HYBRID OF WORDNET-BASED SIMILARITY AND ASSOCIATION RULE MINING

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Libraries provide a great contribution to the society by promoting the progress of knowledge and information. The book storages in the libraries are increasing inchmeal with newly published books. So, it is hard to find relevant books according to the readers' exact needs. Recommendation systems are generally used to recommend most appropriate products to the users. The main objective of this study was to develop a model which suggests books for a reader in an efficient way based on the readers' past borrowings. Initially, the past library records were collected. The collected user profile library records were pre-processed. The association rules of the borrowing records were gained through the Apriori algorithm. Then, content-based filtering was applied. Here, to calculate the content similarity of the books, we used WordNet based similarity method. WordNet is a lexical database for the English language. Here, we used it as a knowledge base and we can increase the semantic similarity using it. The results from WordNet were integrated with Apriori in separately in order to generate a hybrid recommendation. Both Approaches were implemented using Java programming language. Finally to evaluate our approach, we implemented recommendation approach using traditional cosine similarity method. The recommendation results of these two approaches were provided books which tally with user requirements. Further, the results found out that WordNet ontology-based similarity gives high similarity value if both books are in the same domain (or category). The hybrid recommendation system with WordNet and Apriori was more suited to generate a recommendation for a library user according to the results. The future researches which mainly focused on clustering according to the domain (category) and integrate with association rule mining are recommended to get better results.