

A NOVEL RECOMMENDATION SYSTEM USING ROUGH SET CLUSTERING AND CLOSED SEQUENTIAL PATTERN MINING

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ABSTRACT

The World Wide Web is a massive source of information that is widely used today due to the constant availability of useful and dynamically changing information. However, users are often confused by the large number of webpages and they find it difficult to search the appropriate information relevant to their interest. This paper presents a novel recommendation system that provides navigation recommendations to users. The proposed model is implemented by integrating preprocessing, rough set clustering using upper approximation, sequential pattern mining using PrefixSpan technique and closed sequential pattern mining. Rough set clustering helps to create clusters of transactions having similar browsing patterns. Mining such similar transactions using PrefixSpan generates more efficient sequential patterns. Closed sequential pattern mining uses the post pruning strategy to generate a compact set of closed sequential patterns from the set of sequential patterns generated by PrefixSpan. The combination of all these techniques helps to provide more efficient and accurate recommendations to the users.

KEYWORDS: Preprocessing, Rough Set Clustering, Upper Approximation, Sequential Pattern Mining Using PrefixSpan, Closed Sequential Pattern Mining