Abstract

The World Wide Web is a source of knowledge; the knowledge is extracted from the web data. Web data is available in direct from normal web as contents to user and/or in direct forms to as the web access logs. For the web usage pattern analysis the web access logs are analysed. Web usage data used in various applications of web masters, user data recommendations, web pre-fetching and caching. In this paper using the web access log analysis, web next page recommendation system is introduced. The presented technique involves data personalization, user behavioural analysis and access patterns for recommendations.

The proposed web page recommendation system contains the K-means algorithm for finding similar access patterns of the user sessions. Additionally for classification and prediction the KNN algorithm is implemented. The model also incorporate the similar user access pattern data which is belongs from the other user therefore the proposed model also predicts the rarely accessed patterns. Thus to make the recommendations web usages data is personalized,
based on URL frequencies, user navigational frequencies, session based data analysis and
time based data analysis. Additionally to combine these parameters a weighted technique is
used.

The proposed recommendation system is implemented using JAVA technology. And their
performance in terms of accuracy, error rate, space complexity and time complexity is
estimated. The experimentation with increasing amount of data provides more accurate results
and also consumes less computational resources. Therefore the proposed data model is
adoptable for accuracy and efficiency both.

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Keywords

Web usages mining, recommendation, next web page prediction, implementation, results analysis