Abstract

Web page ranking is a technique to optimize the search engines for finding the more relevant content according to the user search query. In this context the web pages are evaluated in such manner by which the appropriate position of a web page is decided in a World Wide Web graph. In literature several web page ranking techniques are available but most of them requires significant amount of time and memory resources for evaluation of web page rank. Therefore, the proposed work is motivated for designing and development of the efficient technique of web page rank. The proposed web page rank evaluation technique is a weight-based page rank technique. The weights are basically the page rank value based on which the web pages are organized on web graph. To compute the web page rank in the proposed technique the web page TF (Term Frequency), IDF (Inverse Document Frequency), Inbound and Outbound links are considered. Therefore, the proposed technique utilizes the techniques of web structure mining and web content mining for developing web page rank of a given web page. After computation of the considered factors the combined weight for all web pages are computed and most higher weight-based page is ranked first for any given query. The implementation of the
The proposed web page rank computation technique is performed on visual studio technology. After implementation of the proposed technique, the performance of the system is measured in terms of time and space complexity. In addition of that, the experimentation is extended for finding the optimal weighted factor. Therefore, it is concluded that the weighting factors 0.25, 0.25, 0.25, 0.25 is the most suitable weighting factor for web page rank calculation.

References


Index Terms

Computer Science

Algorithms
Keywords

web page ranking, web graph, weighted page rank, optimal weighting factor selection, implementation, and performance evaluation.