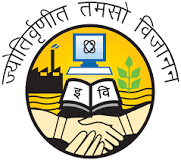
MINOR PROJECT

ON

User Future Request Prediction Using FCM in Web Usage Mining

Submitted in partial fulfilment of requirement of B.Tech CSE (Session 2014-18)



Under the guidance of: Submitted by:

ANJU SAHA SUJIT KUMAR

En. 05216403214

B.Tech CSE 7th sem

**University School of Information and Communication Technology**

**GURU GOBIND SINGH INDRAPRASTHA UNIVERSITY**

**DWARKA SEC-16C, DELHI 110078**

PROBLEM STATEMENT

In competitive environment of Business of Providing good services and products, it becomes curious to predict what user wants to get best deal. This project’s aim is to predict the user future request of web page where user can get related products and services. The system can identify uniquely recognised user on basis of IP address, Browser’s version and System on which user is browsing. It identifies the pattern of accessing behaviour of user on various websites and web pages where user has visited. After identifying the user’s accessing behaviour, it can predict next web page where user will find related searched items or services. This prediction increases the efficiency of browsing, decreases latency hit and reduces the loading of web server. This helps in satisfying user wants and growing business.

**Abstract**

Web usage mining is a type of web mining that deals with log files for extracting the information about user browsing behaviour. User future request prediction is an approach of web usage mining to predict the next web page for user. In this project, I use Fuzzy C-Mean (FCM) method of fuzzy clustering to predict the user future requests. At firstly, I collect the log file data and pre-process for removing irrelevant data. After that, I implement clustering algorithms FCM to predict the user future requests.

Introduction

Web mining is an application of data mining that uses data mining techniques to extract useful information from web documents. Web mining is further divided into three types Web Usage Mining, Web Content Mining and Web Structure Mining. Web usage mining is a process of mining useful information from server logs. When user use the internet and open different websites then browsing behaviour of the user automatically save into log file on server sites. Web usage mining analyses these log files and extracts information about user browsing behaviour on internet. This information is used in Personalization, Improving the website design, Business intelligence and predicting the user future requests.

Main objective of minor project ”User Future Request Prediction using FCM in Web Usage Mining‟ is to predict the browsing behaviour of user using fuzzy Clustering methods FCM. At firstly, I collect web log file data, then perform pre-processing step for removing irrelevant data, and then select the required attributes from log file. After that, I implement fuzzy clustering algorithm on Fuzzy C- Mean methods and predict user future requests.

Advantage

It increases the efficiency of browsing, decreases latency hit and reduces the loading of web server. This information can be used to improve the website design, Business intelligence and predicting the user future requests.

Requirements

Hardware:

1.) i3 processor based computer

2.) At least 2 GB RAM

3.) 1 GB free hard disk space for software installation

4.) Internet connection

Software:

1.) Windows 7 or higher operating system

2.) Web Log Analyser like Apache Log Viewer

3.) Web Browser like Google Chrome or Mozilla Firefox

4.) Python or R for implementing the algorithm

5.) Notepad