Abstract

Software bug repositories contain lot of useful information related to software development, software design and software’s common error patterns. Most of the projects use bug tracking system to manage the bugs associated with the software. These bug tracking system works as an online bug repositories, which can be accessed by all of the project members situated at different locations. Researches can also access these online bug repositories for exploring knowledge from them. In order to extract knowledge from software repositories some preprocessing mechanism is required to extract, parse and save the data locally from these online repository. To address this problem an open source multi agent system is proposed in this paper for the preprocessing of online software defect repositories. The proposed system is also implemented using the open source technologies. Software agents are independent software units and works intelligently and also getting very popular for current and future research, and hence the concepts of agents are included for preprocessing task and multi agent system is implemented. The implementation is done using open source application programming interfaces (API's) and also performance is evaluated for the implementation in terms of bug data fetch and parse timings.

Reference

- Erik Linstead, Paul Rigor, Sushil Bajracharya, Cristina Lopes and Pierre Baldi, “Mining
An Open Source Multi Agent System for Data Preprocessing of Online Software Bug Repositories

- BugZilla: http://www.bugzilla.org
- Java Agent Development Framework JADE: http://www.jade.org
- Java : http://java.sun.com
- JAXP : https://jaxp.dev.java.net/
- JIRA: http://www.atlassian.com/software/jira/
- MySql : http://www.mysql.com
- Perforce: http://www.perforrce.com

Index Terms

Computer Science

Databases

Key words

Software bug repositories

Multi agent system

Fetching online bug repositories

Parsing software bugs
Preprocessing of online bug repositories