A Novel Composite Approach for Software Clone Detection

International Journal of Computer Applications
Foundation of Computer Science (FCS), NY, USA

Volume 126
Number 7

Year of Publication: 2015

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10.5120/ijca2015906098

Abstract

In recent decades, the branch of Clone Detection has undergone a great advancement. This progress is due to the development of various methods, which involves the implementation of complex algorithms and tool chains to offer clone detection. Various clone detection methods that are already available include textual comparison, token comparison, and comparison of Abstract Syntax trees, Suffix trees and Program Dependency Graphs. Moreover, these Clone Detection techniques are limited to a particular programming language environment only. The aim of the paper is to present a survey of the various existing techniques and to develop a tool which is user friendly, easy to maintain and is not limited to small and big software. This method of clone detection can also be implemented to more complex applications such as web based applications. i.e a website code related to PHP or JSP or it can be an application which is linked with internet not a standalone application. In addition to this, the proposed approach is applicable to all the languages and platforms. Hence the proposed system is a platform independent system.
References

Index Terms

Computer Science
Software Engineering

Keywords

Clone detection, Textual comparison, Hybrid approach, code cloning.