AN ENHANCED GENERIC PIPELINE MODEL FOR CODE CLONE DETECTION

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Abstract

Maintainability is an important attribute when developing software. One of the factors that negatively affect maintainability of software is cloning. Cloning is identical copies of the same instances or fragments. Code cloning happens due to rapid changes when programmers perform clone instances and copy-paste technique. Although copy and paste is widely used in code reusability approach, it significantly increases maintenance cost. Current code clone research focuses in detection and analysis of code clones in order to help software developers to identify code clones in a source code and reuse the source code in order to decrease the maintenance cost. Necessary measures needed in order to reduce issues caused by cloning during implementation. Therefore, there is a need in exploring problems and possibilities associated in code cloning. This paper proposes an enhancement of a generic pipeline model for code clone detection. With the support of a tool, we implement and apply the proposed approach.

Keywords: Code clone, Maintainability, Reusability, Code clone detection, Generic pipeline model