

Multi-criteria evolutionary regression test prioritization for dynamic object-oriented programs

ABSTRACT

To build confidence on software product, regression testing involving relevant test cases from existing test suite are executed on that software. Several testing techniques proposed include test case prioritization. Test case prioritization arrange test cases according to certain criterion which are to be tested based on the available resources. The vast prioritization techniques for regression testing concentrate only on the product developed with static languages such as Java living those developed with dynamic object-oriented languages such as Python unattended. This paper proposed new regression testing technique that uses multiple coverage criteria for regression test prioritization of dynamic object-oriented language using genetic algorithm. Index terms - Regression testing, multi-criteria, test case, test case prioritization, Python, genetic algorithm.

Keyword: Regression testing; Multi-criteria; Test case; Test case prioritization; Python; Genetic algorithm