

EMPIRICAL ANALYSIS OF TEST CASE PRIORITIZATION TECHNIQUES IN REGRESSION TESTING

K. KALAIVANI¹, A. SARITHA² & K. ULAGAPRIYA³

^{1,2}Assistant Professor, Department of Computer Science and Engineering, Vels University, Chennai, Tamil Nadu, India

³PG Student, Department of Computer Science and Engineering, Vels University, Chennai, Tamil Nadu, India

ABSTRACT

Test case prioritization techniques schedule test cases in multiple test suites for execution in an order that attempts to increase their efficiency at meeting some performance goals like increasing the rate of fault detection, reducing the time required to detect the faults in the testing process. The increased rate of fault detection during testing can provide faster feedback on the system under test. The test case prioritization techniques are widely used in regression testing where the software is retested after modifications. There are several techniques to prioritize test cases in regression testing. These techniques are grouped based on the total coverage of code components, coverage of code components not previously covered, and the ability to reveal faults in the code components. These techniques are applied on various test suites and the rate of fault detection is measured.

KEYWORDS: Test Case Prioritization, Software Testing, Regression Testing, Test Suite