

SELECTION AND PRIORITIZATION OF TEST CASES IN REGRESSION TESTING OF WEB SERVICES

NEHA AGARWAL¹ & MANALI GUPTA²

¹Computer Science, Amity University, Noida, India

²Information Technology, ITS College, Noida, India

ABSTRACT

As Web services grow in maturity and use, so do the methods which are being used to test and maintain them. Regression Testing is a major component of most major testing systems but has only begun to be applied to Web services. A number of different approaches have been studied to maximize the value of the accrued test suite: minimization, selection and prioritization. Test suite minimization seeks to eliminate redundant test cases in order to reduce the number of tests to run. Regression test selection optimizes the regression testing process by selecting a subset of all tests, while still maintaining some level of confidence about the system performing no worse than the unmodified system. Test case prioritization seeks to order test cases in such a way that early fault detection is maximized. This paper surveys each area of minimization, selection and prioritization technique and discusses open problems and potential directions for future research.

KEYWORDS: Regression Testing, Test Case Prioritization, Test Case Selection, APFD Metric