SOFTWARE TESTING USING GENETIC ALGORITHM

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Abstract

Software Testing is the process of identifying the correctness and quality of software program. Testing verifies that the system meets the different requirements including, functional, performance, reliability, security, usability and so on. Software testing is time consuming and it also requires lots of effort and money, therefore the main aim of testing depends on generation of test cases and evaluation. This arise the need for the automated testing process. Use of evolutionary algorithms for automatic test generation has been an area of interest. This paper presents the optimization of software testing using the Genetic algorithm (GA). The genetic algorithm is a method for solving both constrained and unconstrained optimization problems that is based on natural selection, the process that drives biological evolution. This paper reviews the use of Genetic algorithm to maximize test coverage and decrease cost as well as improving the quality of software.