Automated Test Data Generation For some types of Algorithm

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Abstract : The cost of test data generation for a program is computationally very high. In general case, no algorithm to generate test data for all types of algorithms has been found. The cost of generating test data for different types of algorithm is different. Till date, people are emphasizing the need to generate test data for different types of programming constructs rather than different types of algorithms. The test data generation methods have been implemented to find heuristics for different types of algorithms. Some algorithms that includes divide and conquer, backtracking, greedy approach, dynamic programming to find the minimum cost of test data generation have been tested. Our experimental results say that some of these types of algorithm can be used as a necessary condition for selecting heuristics and programming constructs are sufficient condition for selecting our heuristics. Finally we recommend the different heuristics for test data generation to be selected for different types of algorithms.

Keywords : ongest path, saturation point, lmax, kL, kS

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