

Component Based Testing Using Clustering and Support Vector Machine

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Abstract : Software Reusability is important part of software development. So component based software development in case of software testing has gained a lot of practical importance in the field of software engineering from academic researcher and also from software development industry perspective. Finding test cases for efficient reuse of test cases is one of the important problems aimed by researcher. Clustering reduce the search space, reuse test cases by grouping similar entities according to requirements ensuring reduced time complexity as it reduce the search time for retrieval the test cases. In this research paper we proposed approach for re-usability of test cases by unsupervised approach. In unsupervised learning we proposed k-mean and Support Vector Machine. We have designed the algorithm for requirement and test case document clustering according to its tf-idf vector space and the output is set of highly cohesive pattern groups.

Keywords : software testing, reusability, clustering, k-mean, SVM

Conference Title : ICCIE 2015 : International Conference on Computer and Information Engineering

Conference Location : Toronto, Canada

Conference Dates : June 15-16, 2015