An automated test case generating tool using UML activity diagram

ABSTRACT

Software or application testing is a process of executing a program with the goal of finding defect to make better system. In software testing phase, writing test cases is one of the important activities. Manually writing test cases approach is lengthy of time period and need more effort to accomplish the process. On the other hand, automated test case generation technique is the way to solve this issue and model-based test case generation approach would be the appropriate for this automation process. Usually, a model is required in model-based testing approach to generate the test cases and UML activity diagram is the model in our research. In this paper, we explained our proposed model-based test case generating approach and we successfully developed a tool based on our proposed technique that could generate test cases automatically using UML activity diagram as an input. Finally, we conducted an experiment on a real life simple application of a system using the tool and successfully able to show that our tool can produce same test cases as manually writing test cases of the same system but this tool can save a lot of time and effort as well.