Abstract

Base path is one of the unit testing software testing methods. With this method we can calculate the number of each branch in the logic flow.[3] By calculating the number of branch lines, we can also determine the test case to be used in the unit testing for test scenario. Doing the work is not easy when finding complex algorithms such as the nested functions, so that it is necessary to make a tool that can generate test cases automatically by implementing base path methods, this tool is built using parsing techniques to find all branching components then a recursive calculation algorithm is made for the method to be able to calculate and define each branching condition. Generated test case tested against several case studies with various conditions and tested against false test. The conclusion is build a tool that can generate test cases automatically by implementing the base path method that can facilitate the work to do unit testing in software testing.

Keywords: Software Testing, Unit Testing, Base Path, Test Data, Test Case.