

Automating Black Box Testing Using Katalon Studio for Web and Mobile-Based Posyandu Service Applications

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ABSTRACT

The development of information technology has encouraged the use of web and mobile-based applications in healthcare services such as Posyandu. As application complexity increases, effective software testing is required to ensure system quality. This study aims to implement automated Black Box Testing using Katalon Studio on a Posyandu service application and to analyze the testing results. The method used includes designing test scenarios, creating test cases, implementing automated testing on the website platform, conducting manual Black Box Testing on the mobile platform, and analyzing the results. From 30 test cases on the website, 29 test cases passed and 1 test case failed, resulting in a success rate of 96.6%. The failure was caused by inadequate input validation. Meanwhile, manual testing on the mobile application involving 14 test cases showed that all test cases passed, resulting in a success rate of 100%. The use of Katalon Studio has proven to improve efficiency, consistency, and accuracy in the testing process. Therefore, the combination of automated testing on the website and manual testing on the mobile platform can be an effective solution to improve application quality and assist developers in identifying functional errors.

Keywords: *Black Box Testing, Katalon Studio, test automation, Posyandu application.*