

## **ABSTRACT**

Automation testing is much more efficient and accurate, and the script is easy to document, and update compared to manual testing. Testing a website may necessitate time and effort to learn the tools to be used. Cucumber and RobotFramework are well-known open-source frameworks, according to Stack Overflow and GitHub. Cucumber and RobotFramework are known on an international scale, especially RobotFramework, which is often used by large companies. Each uses the Java and Python languages, which both support BDD. The comparative efforts of the two tools aim to help testers compare and determine automated testing tools in the BisOps Logee Port Web Admin case study based on the effectiveness and efficiency of the tools and create specific test cases as test documentation so that testers do not need to spend time analyzing both. Because this research involves evaluation and comparison, several criteria were chosen to support the evaluation process, namely functionality, reliability, usability, performance efficiency, and portability. The results of this study show that both tools can be recommended for novice QAs who want to learn the basics of automation by implementing BDD. Meanwhile, for QAs who have done automation before and want to do more in-depth configuration and reporting, it is recommended to use robotframework because the syntax is short, has lots of keywords that make it easier for testers, and can make the testing system shorter but more specific.

Keywords: comparative evaluation, automated testing, behavior driven development, cucumber, Robot framework