

ABSTRACT

Software quality testing is essential to ensure that an application is free from defects before it reaches end users. This final project involved the use of automated testing with Cypress to evaluate MyTask, a web based task management system. The main objective was to enhance the efficiency and accuracy of the testing process compared to manual testing, which is time consuming and prone to human error. The testing covered six core features including login, task list, attendance list, employee data, assignment types, and logout. The methodology consisted of designing detailed test cases, implementing the Page Object Model structure, and conducting end to end testing. Cypress was chosen for its strengths in real time debugging, automated reporting, and integration with continuous integration and deployment workflows. The results showed that 82 test scenarios were executed automatically in 1683 seconds, significantly faster than the 4231 seconds required for manual testing. This led to a time efficiency gain of 76.43 percent achieved without compromising accuracy due to the advanced automation features provided by Cypress. This implementation demonstrates that automated testing can significantly accelerate the software testing process while improving its reliability which aligns with industry demands for fast and high quality software releases.

Keywords: Software Testing, Automation testing, Cypress, End to End Testing, Page Object Model