

ABSTRACT

The Desk Evaluation application is a web platform that helps students and lecturers at Telkom University's Bachelor of Information Systems study program in carrying out Final Assignment 1. In its use, the Desk Evaluation application still has shortcomings such as problems with the system and a lack of supporting features, so maintenance or repairs are needed. Desk Evaluation application that includes problem fixes and feature additions. This research will focus on improving and adding features from the back-end side. This maintenance is carried out using the Collaboration Model of Software Development method. The phases contained in this method include communication & requirements, planning, modeling, construction, and deployment which will undergo iteration according to the distribution of feature improvement priorities that have been determined in the planning phase. The Desk Evaluation application that has been repaired will be tested using unit testing and load testing methods. The results of the unit testing of the Desk Evaluation application after maintenance showed that all controllers gave a response of 200 (OK) and gave pass results. The load testing results of the Desk Evaluation application after maintenance show that the endpoint managed by the controller can be loaded by many requests at varying times, starting from 0.333 seconds (fastest) to 20.48 seconds (slowest). This is influenced by the amount of data loaded and the number of requests received by the controller. All endpoints tested had a loading rate above 98 percent so the possibility of the controller failing to handle requests is very small. Then, the line of code in the Desk Evaluation application after maintenance has a reliability level of A after checking using SonarQube, which indicates that the line of code has been written following programming language writing rules.

Keywords: Maintenance, Website Development, Back-end, Controller, Collaborative Model, Unit Testing, Load Testing.