

ABSTRACT

The Capstone Design and Project course is an essential part of the curriculum for the Information Systems Bachelor's Program at Telkom University, aimed at integrating students' knowledge and skills through the completion of real-world projects. However, managing this course faces challenges in data collection and monitoring, especially due to the use of manual systems that risk causing errors in record-keeping, delays in monitoring, and difficulties in coordination between students and lecturers. To address these issues, this research designs and develops a web-based application to facilitate the management of the Capstone Design and Project course more effectively and efficiently. The application development was conducted using Extreme Programming and Design Thinking methodologies, focusing on user needs. All features of the application were tested through Usability Testing, involving Mission Usability Score (MIUS), Maze Usability Score (MAUS), Single Ease Question (SEQ), and System Usability Scale (SUS) methods, tested with 10 students, 3 lecturers, and 2 Capstone team members. The results of the Usability Testing showed that the application successfully provides ease of use, efficiency, and the ability to meet user needs. This application also significantly improves the efficiency of Capstone course management. It is expected that this application will be a solution to support international accreditation and enhance academic quality at Telkom University.

Keywords: Capstone Design and Project, Website, Extreme Programming, Design Thinking, Usability Testing.