

ABSTRACT

Construction project management faces complex challenges in team coordination, budget control, and progress monitoring, which are still often performed manually. CV. Mahoni, as a construction consulting company, experiences inefficiencies caused by miscommunication between internal and external teams, delayed decision-making, and the lack of real-time monitoring. These issues result in project delays, cost overruns, and reduced work quality.

As a solution, a web-based project management information system called ProjectMan was developed. This system offers key features such as project management, budget tracking, real-time progress reporting, and role-based access control to enhance data security. Supported by cloud technology, the system enables users to monitor, manage, and evaluate projects efficiently anytime and anywhere.

The testing results show a 100% functional success rate in both Black Box and White Box testing. Performance testing with 100 virtual users recorded an average response time of 5.99 seconds and a throughput of 7.5 requests per second, while load testing processed 4,328 requests with an error rate of only 0.05%. The User Acceptance Test (UAT) conducted with CV. Mahoni indicated high user satisfaction regarding system accessibility, features, and performance. Therefore, ProjectMan is considered effective in improving efficiency, data accuracy, and collaboration in construction project management.

Keywords: project management, information system, cloud, construction, efficiency