

ABSTRACT

Effective project management plays an important role in improving organizational efficiency, including ToSS Perumda Air Minum Tugu Tirta Kota Malang. Currently, ToSS Perumda Air Minum Tugu Tirta Kota Malang faces challenges in managing projects, such as poorly documented task communication, difficulty in systematically monitoring projects, and limitations of Google Keep and Asana as supporting tools used to help manage projects comprehensively. To address these issues, this study developed a web-based project management information system using the Kanban method. The Kanban method was chosen because it provides clear visualization of real-time workflow monitoring. The system was developed using the Laravel framework with a MySQL database and modeled using UML to depict the business processes of ToSS Perumda Air Minum Tugu Tirta Kota Malang. Testing was conducted through three methods: Black Box Testing, which was performed on 48 features and all were validated for each testing scenario; White Box Testing, which included testing on 10 main controllers and all testing scenarios passed (PASS); and User Acceptance Testing (UAT) conducted on three main roles, with acceptance rates of 89.6% for admin, 81.6% for project leader, and 90.8% for member. The implementation of this system can assist ToSS Perumda Air Minum Tugu Tirta Kota Malang in managing partner projects in a more structured manner, simplifying project progress monitoring, and facilitating document management within an integrated platform. This enables ToSS Perumda Air Minum Tugu Tirta Kota Malang to provide better services in managing projects with collaborating partners.

Keywords— Project Management, Kanban, Information System, Laravel