

## ABSTRACT

The mailing service is one of the essential needs for students, particularly for submitting cover letters required for academic purposes such as internships, fieldwork, and research. Currently, the mailing system at the Faculty of Science and Mathematics, Diponegoro University, still relies on manual and semi-digital methods, leading to various issues such as limited letter tracking, lack of process transparency, and inefficient resource utilization. To address these issues, this study developed a student mailing application using the Agile methodology, enabling students to submit requests and faculty staff to manage them. The user requirement gathering process identified 25 user stories, followed by the design of UML diagrams. The application development was carried out in four sprints, each lasting ten working days. The Scrum approach provided flexibility in adapting to evolving stakeholder needs while maintaining a short development cycle. Stakeholders were involved throughout the process, particularly in requirement gathering and sprint reviews, allowing for quicker validation of application outcomes. This flexibility was evident when changes were required at the end of Sprint 2, which were promptly accommodated in Sprint 3. Key features developed include student letter submission, submission disposition flow, and digital signatures for approved letters. Testing was conducted using the black-box method, with test cases derived from the Definition of Done, demonstrating that the application successfully met the requirements for letter submission at the Faculty of Science and Mathematics. The implementation of this application is expected to improve the efficiency, transparency, and speed of the mailing service.

**Keywords** : Letter Application, Web-based Application, Agile, Scrum