

## ***ABSTRACT***

*The Faculty of Industrial Engineering is faced with challenges, which include aspects of managing inventory items contained therein. The process of documenting the condition of goods uses several filling form links which can cause duplication of data, and lack of data synchronization, besides that the process of borrowing inventory items is still carried out manually starting from the submission to the approval process so that it takes longer and is also prone to loss of loan submission documentation. If the existing problems are not resolved immediately, FRI can suffer losses due to lack of information regarding the condition of inventory items, and the lack of documentation and control in borrowing and maintaining inventory items can lead to decreased productivity, increased operational costs, and the risk of undetected damage to inventory items. In addition, manual processes can slow down workflow and increase the risk of losing important data. Therefore, a website-based inventory management application is needed for borrowing and maintaining inventory items.*

*The development of the application uses the Rapid Application development method, a method that allows rapid development based on intensive feedback provided by users. Based on the results of testing conducted with black-box testing, it shows that the features in the application have run as expected, while based on User Acceptance testing, it shows that the application has reached the level of success with an average of 94,99% of users agreeing that the application has met the needs and user acceptance of users.*

**Keywords:** *Inventory Goods, Inventory Goods Management System, Rapid Application Development, Black-box Testing, User Acceptance Testing.*