ABSTRACT

The Laboratory of the Faculty of Industrial Engineering faces significant problems regarding the management of inventory items, especially in the reporting section which is still done manually. This manual reporting process is not only time-consuming, but also increases the risk of human error, late identification of problems, uncertain decision making and the risk of losing inventory items increases. Therefore, to answer the problems that occur, an application is needed that can improve the management of inventory items in the laboratory, namely a website-based dashboard application. This application is designed to support the reporting and monitoring of inventory items, which allows the reporting process to run more effectively and efficiently, and minimizes errors that may occur in the manual process.

The process of developing this application is carried out using the Rapid Application Development (RAD) method because of its advantages in accelerating the development process through rapid prototyping and allowing continuous improvement. After the creation is complete, it is continued with testing with two methods, namely blackbox testing and User Acceptance Testing. The results of the test that the existing features run as expected, and show a high success rate with a value of 97%. Users stated that with this application, the reporting process becomes faster, more accurate, and reliable, thus helping to reduce the risk of losing inventory items and improve operational efficiency. The application also allows managers to be more proactive in managing inventory, by providing real-time data that can be used for better decision-making.

*Keywords : **Inventory Management, Dashboard, Rapid Application Development, Blackbox Testing, User Acceptance Testing***