

## ABSTRACT

Jenang Mirah Company in Ponorogo Regency is a food industry business that still manages its production inventory traditionally using written notebooks. This traditional approach has led to various problems, including difficulty in accessing raw material stock data quickly, accurately, and in real time, the risk of unrecorded data or damaged notebooks, obstacles for the owner in monitoring warehouse conditions remotely, discrepancies between recorded stock and actual warehouse conditions, delays in decision-making due to the time required to trace data, as well as the risk of losing data related to suppliers, purchase history, product recipes, production results, and distribution, which could hinder the company's audit process. This study aims to produce a web-based inventory management application for the production department that is capable of managing raw material stock data, supplier data, raw material purchase history, and product recipes quickly, accurately, and in real time, as well as generating daily production and distribution reports in a timely and structured manner, so that the owner can monitor production conditions anytime and from anywhere. The application was developed using the ICONIX Process method, which consists of four main stages: Requirements, Preliminary Design, Detailed Design, and Implementation and Testing. This method was chosen because it prioritizes a clear workflow in mapping system requirements through use cases, validated using robustness diagrams, detailed through sequence diagrams, and ultimately producing a structured system implementation, with a concise, iterative, and user-needs-oriented approach. The application was built using the Laravel framework and tested using the Black Box Testing method. The test results from 121 test cases showed that all features worked properly and in accordance with the designed functionality. Therefore, this application is ready to be implemented as an alternative to the traditional recording process and is expected to improve operational efficiency and decision-making in the production department of Jenang Mirah Company.

**Keywords** : Inventory Management, Web-Based Application, ICONIX Process, Laravel, Black Box Testing, Jenang Mirah