

**IMPLEMENTASI SISTEM PERAMALAN PERSEDIAAN BARANG
BERBASIS WEBSITE PADA USAHA DAGANG MULIA RASA DENGAN
MENGUNAKAN METODE WEIGHTED MOVING AVERAGE**

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ABSTRACT

Improper inventory management in trading businesses can lead to losses, such as stock shortages or surpluses. This study aims to design and implement a web-based inventory forecasting system for Mulia Rasa Trading Business using the Weighted Moving Average (WMA) method. The system was developed using the Laravel framework and includes features for managing products, stock, sales, and automated forecasting. Forecasting is performed over several periods and presented through graphs and accuracy metrics (MAD, MSE, MAPE). Testing was conducted using the Black Box method with both functional and usability testing, showing that all features operate as expected. The implemented system helps business owners forecast stock needs more optimally, supports decision-making, and improves operational efficiency. This system is expected to be applicable to other trading businesses with similar inventory needs.

Keywords : *Forecasting, Inventory, Website, Weighted Moving Average, Laravel, Trading Business.*