

## **ABSTRACT**

### **DESIGN AND IMPLEMENTATION OF RESTFUL API USING OAUTH 2.0 AUTHENTICATION IN LARAVEL FRAMEWORK ON MARKETPLACE (CASE STUDY: CV MARVELINDO UTAMA)**

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*CV Marvelindo Utama is a company that operates in the electronics sector, especially in selling products such as data packages, data vouchers and various other internet needs. This company has a number of distribution warehouses as product storage centers, which support a network of outlet branches spread across various regions. The challenge for this company is that in marketing its goods, it still uses manual methods via WhatsApp messages. This research aims to overcome this problem by focusing on the marketplace supply chain management system through designing a REST API and implementing authentication using OAuth 2.0 to ensure the security of data exchange. Researchers use the Extreme Programming (XP) application development method to speed up the development process. By conducting this research, CV. Marvelindo can be better prepared to face the challenges of modern technology that will come and improve its operational efficiency, as well as provide the best service to customers in a competitive business environment. Test results using black box and unit testing show that the system can meet the needs. Black box testing shows a score of 100% in one test and testing using unit testing shows positive results in testing every existing feature.*

**Keywords: Blackbox, Extreme Programming, OAuth 2.0, REST API, Supply Chain Management**