ABSTRACT

This final project aims to develop PIEC (Product Information for Experience Center), an interactive web-based system utilizing RFID technology to automatically display product information on a monitor when a registered card is tapped. The system is designed to replace conventional promotional media such as brochures, demo videos, and static presentations, which are often inefficient and lack responsiveness to visitor needs. Through RFID cards, users can access product information in realtime, with each unique card code matched to a centralized database. The system is developed using the Agile Scrum methodology through weekly sprints involving structured phases such as planning, design, development, testing, and deployment. Key technologies include Laravel as the main framework, Livewire for dynamic interface interaction without direct JavaScript use, PostgreSQL as the database system, and Visual Studio Code as the primary text editor. Additional tools include Notion for project management, Figma for UI/UX design, GitLab for version control and CI/CD, and OpenVPN for secure access to internal servers. The resulting system is a dynamic and responsive web application that enhances visitor interaction while simplifying content management for administrators. This solution is expected to improve the overall service quality of the Experience Center and provide a modern, integrated approach to digital product information delivery.

Keywords: RFID, Laravel, Experience Center, Interactive Web, Agile Scrum, Product Information