ABSTRACT

The Berbagi.link platform, a system designed for managing digital products and services, faced significant limitations with its backend infrastructure that impeded broader integration and future development. The two principal challenges identified were the backend's lack of flexibility for deployment across diverse client applications and its dependency on an outdated version of the Laravel framework. This technological constraint limited the integration of modern third-party services, such as FrankenPHP. To overcome these obstacles, this study focused on re-architecting the backend of the product module on the Berbagi.link platform. The new design implements a RESTful API structure utilizing the contemporary Laravel 11 framework. The development process was guided by the Scrum methodology, fostering an iterative and incremental approach to software creation. This methodology encompassed several key stages, including sprint planning, implementation, daily scrums, comprehensive reviews, and retrospectives. The primary objectives of the system's redesign were to enhance its maintainability, scalability, and compatibility with current technological standards. The implementation of each feature was methodically carried out over four distinct sprints, which concentrated on core functionalities such as store configuration, transaction account management, promotional banner administration, product categorization, and overall product management. To validate the quality and functional integrity of the redesigned system, Functionality Testing, Unit Testing, and User Acceptance Testing (UAT) was conducted with key stakeholders from Berbagi.link. The results of the UAT were definitive, with all 12 tested scenarios achieving a "Passed" status. This outcome confirms that the new backend architecture operates with high reliability and successfully meets all user requirements. In conclusion, the strategic redesign of the backend into a REST API-based system using Laravel 11 has effectively resolved the platform's initial limitations. This new architecture provides superior integration capabilities, greater flexibility for various frontend clients, and improved compatibility with modern technological infrastructures.

Keywords: REST API, *backend development*, Laravel 11, Berbagi.link, *scrum*