

ABSTRACT

DEVELOPMENT OF INDEPENDENT CURRICULUM ACADEMIC INFORMATION SYSTEM BACKEND WITH LARAVEL FRAMEWORK USING RAPID APPLICATION DEVELOPMENT METHOD

Oleh
Wahyu Triono
NIM 20104002

This research aims to design the backend of the Independent Curriculum Management Information System using the Laravel framework and the Rapid Application Development (RAD) method. The curriculum management information system is crucial for facilitating the management and recording of curriculum-related data in schools. A common issue is the manual management and recording of the curriculum using methods such as handwritten notes and spreadsheets, leading to the potential for errors in assessment formulas. Additionally, the submission of documents often involves hardcopy or spreadsheet files, resulting in multiple versions and inefficient storage. This leads to a significant number of hardcopy files, increasing the risk of loss. Therefore, an integrated information system is needed to improve curriculum management and enhance collaboration between teachers and school staff. This research utilizes the Rapid Application Development methodology, emphasizing the creation of prototype-based applications with iterative and repetitive feedback. Laravel framework is chosen as the technology for developing the backend of this information system due to its user-friendly nature, comprehensive documentation, and outstanding features such as routing and Object-Relational Mapping (ORM). By using the Laravel framework, the system can be built more efficiently with the assistance of built-in features provided by Laravel. The developed system undergoes testing using the white-box unit testing method with PHPUnit, achieving a 100% success rate in testing 202 units.

Keywords: *Backend, Academic Information System, Independent Curriculum, Laravel, RAD*