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DESIGN AND DEVELOPMENT OF SOFTWARE PROJECT MANAGEMENT SYSTEM USING SCRUM

Suwarno, William Surya Jaya

Faculty of Computer Science, University Internasional Batam

{ **suwarno.liang@uib.ac.id 1831164.william@uib.edu** }

ABSTRACT

Good project management is a crucial factor for the smooth implementation of projects in an application development organization. Management activities carried out manually have the potential to result in errors in data processing, and it is difficult to monitor project progress, which often results in time and financial losses. This research was conducted to overcome this problem by building a project management system based on the Scrum method using the Laravel framework and applying a multiple linear regression algorithm in estimating time for each project activity with parameters of the number of people involved and the type of work, as well as competency mapping on the recommendations in the human resource allocations. The Scrum method is used because of its flexibility and fast adaptability to the system development process. The result of this research is a software development project management system that helps organizations in allocating human resources and time management. The resulting multiple linear regression model obtains a Mean Absolute Error (MAE) of 349.97. Descriptive analysis conducted on user responses stated that user responses were positive towards the use of the project management system.

Keywords: *Project Management System, Scrum, Website, Multiple Linear Regression, Laravel.*