

ABSTRACT

Website Based Cooperative Management System Backend Design Using NodeJS Using the SCRUM Method

(Case Study: Village Unit Cooperative (KUD) Rukun Tani Cilongok)

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The Rukun Tani Cilongok Village Unit Cooperative (KUD) is an active cooperative in Banyumas Regency which still relies on conventional management systems in managing savings and loan data, so it often faces obstacles such as recording errors and slow work processes. Digitalization of cooperative management systems is important to increase efficiency and reduce human error; Processes that are currently manual risk causing loss of important data and reduced service quality. To answer these problems, a website-based cooperative management backend system was developed using the NodeJS platform and the SCRUM development method. The development process is carried out iteratively through the stages of product backlog, sprint planning, sprint development, review and retrospective. This system includes authentication features, managing member data, recording savings, loan applications, and digital transaction reporting. Testing is carried out using the black box method to ensure all functions run as required. The final results show that the system has succeeded in increasing recording accuracy, operational efficiency and ease of data access for cooperative administrators. The main contribution of this research is to provide a backend system foundation that is flexible, structured, and can be further developed. For future development, it is recommended that this system be integrated with a user-based frontend interface and add notification or transaction history features for members to improve transparency and user experience.

Keywords: Village Unit Cooperative, Management System, SCRUM Methodology, Website, NodeJS