

**ENTERPRISE RESOURCE PLANNING (ERP) DESIGN
FOR KOPERASI UNIT DESA (KUD) SARASAH**

FINAL PROJECT REPORT



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**DEPARTEMENT OF INDUSTRIAL ENGINEERING
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Bachelor in Department of Industrial Engineering, Faculty of Engineering,*

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ABSTRACT

KUD Sarasah is a cooperative established to improve the welfare of the people in Nagari III Koto. In its development, KUD Sarasah carried out several efforts for the improvement. These businesses include minimarts, shops, agricultural businesses, savings and loans, and refining citronella oil. As this business grows, KUD needs a system that can integrate the data and decision-making tools needed to run each company's business. The use of an information system in the form of Enterprise Resource Planning (ERP) is the solution to this problem. Using Enterprise Resource Planning (ERP) as an information system can make KUD activities more efficient by integrating information flows. The design of information systems in this study uses web-based Enterprise Resource Planning (ERP).

The methodology used is the System Development Life Cycle methodology which is modeled through Agile and the stages of ERP implementation. With this methodology, the ERP design of KUD Sarasah explains the description of the system, analysis of ERP system needs; Object Oriented Analysis and Design of ERP; Code and Construction; Test; Analysis and Design. This research produced a prototype of an information system design using Enterprise Resource Planning (ERP) which uses the Inventory, finance, Manufacturing, human resource and Dashboard modules according to predetermined needs. Based on the planned design, this system can help companies reduce the manual recording process, simplify the supervision process, and provide arrangements for the stock of materials or products in the warehouse so that they are able to provide maximum results for the KUD business. The ERP system designed includes several modules, including finance, inventory, marketing, and member management modules. The system is designed using web-based technology to allow its use online.

This research is expected to contribute to village unit cooperatives, especially the Sarasah KUD in improving their operational effectiveness and efficiency and can provide an overview of the importance of using an ERP system in village unit cooperatives. In addition, this research can also be used as a reference for further research on the development of ERP systems for more complex cooperatives.

Keywords: Agile, ERP, KUD, Information System, and SDLC

ABSTRAK

KUD Sarasah merupakan koperasi yang didirikan demi meningkatkan kesejahteraan rakyat di Nagari III Koto. Dalam perkembangannya KUD Sarasah menjalankan beberapa usaha demi peningkatan tersebut. Usaha tersebut ialah minimart, pertashop, usaha pertanian, simpan pinjam, dan unit usaha baru yaitu unit penyulingan minyak serai wangi. Seiring berkembangnya bisnis ini, KUD membutuhkan sebuah sistem yang dapat mengintegrasikan data dan perangkat pengambilan keputusan yang dibutuhkan untuk menjalankan bisnis masing-masing unit usaha. Penggunaan sistem informasi berupa Enterprise Resource Planning (ERP) menjadi solusi dari permasalahan tersebut. Enterprise Resource Planning (ERP) digunakan sebagai sistem informasi yang dapat membuat kegiatan KUD lebih efisien melalui integrasi arus informasi. Perancangan sistem informasi dalam penelitian ini menggunakan Enterprise Resource Planning (ERP) berbasis Web.

Metodologi yang digunakan adalah metodologi System Development Life Cycle yang dimodelkan lewat Model Agile serta tahapan penerapan ERP. Dengan metodologi tersebut rancangan ERP KUD Sarasah menerangkan deskripsi sistem, analisa kebutuhan sistem ERP; Object Oriented Analysis dan Design; Code dan Construction; Test; Analysis dan Design. Penelitian ini menghasilkan sebuah prototipe rancangan sistem informasi dengan menggunakan Enterprise Resource Planning (ERP) yang menggunakan modul inventory, finance, human resource dan dashboard sesuai dengan kebutuhan yang telah ditetapkan. Berdasarkan rancangan yang direncanakan, sistem ini dapat membantu perusahaan dalam mengurangi proses pencatatan manual, mempermudah proses pengawasan, dan memberikan pengaturan terhadap stok bahan ataupun produk di gudang sehingga mampu memberikan hasil maksimal bagi bisnis KUD. Sistem ini dirancang dengan menggunakan teknologi berbasis web sehingga memungkinkan penggunaannya menggunakan sistem ERP secara online..

Penelitian ini diharapkan dapat memberikan kontribusi bagi koperasi unit desa terutama KUD Sarasah dalam meningkatkan efektivitas dan efisiensi operasionalnya serta dapat memberikan gambaran mengenai pentingnya penggunaan sistem ERP pada koperasi unit desa. Selain itu, penelitian ini juga dapat dijadikan referensi bagi penelitian selanjutnya mengenai pengembangan sistem ERP untuk koperasi yang lebih kompleks.

Kata kunci: Agile, ERP, KUD, SDLC, Sistem Informasi.