



**Development of TeachHops: A Web-Based ERP System for School
HR, Operations, and Library Management**

UNDERGRADUATE THESIS
Submitted as one of the requirements to obtain
Sarjana Komputer (S.Kom)

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ABSTRACT

Schools play a vital role in shaping the nation's future generations, not only as institutions for academic learning but also as centers for character development, moral education, and social skills. However, many schools in Indonesia, particularly those located in tertinggal, terdepan, terluar (3T) areas, still face significant limitations in terms of access to technology, qualified human resources, and adequate administrative systems. These disparities often result in inefficient school management, poor documentation, and vulnerability to data errors, which ultimately affect the quality of education provided.

To address these challenges, this research presents the development of *TeachHops*, a web-based Enterprise Resource Planning (ERP) system specifically designed to support administrative processes in schools, with a particular focus on 3T areas. TeachHops aims to provide an affordable, structured, and user-friendly solution that helps schools digitize their workflows and improve overall efficiency. The system primarily focuses on the Human Resources (HR) module, which facilitates the management of teacher data, class schedules, and the assignment of teachers as homeroom mentors, allowing teaching and learning activities to be better organized and monitored.

TeachHops supports three main user roles: Admin, Teacher, and Library. The Admin holds full access rights and oversees the entire system, including teacher data management, scheduling, and overall system configuration. Teachers can view their teaching schedules, manage assigned classes, and carry out their roles as homeroom teachers. The Library user is responsible for managing the school's book collections, recording borrowings, and overseeing library administration through a dedicated module.

The system also integrates an academic calendar to assist schools in planning and synchronizing academic activities throughout the year. TeachHops was developed using the Laravel framework and follows the prototyping model within the Software Development Life Cycle (SDLC), allowing for iterative refinement based on feedback. Functional testing and user acceptance testing (UAT) were conducted using dummy data based on junior high school standards.

The results show that TeachHops effectively enhances administrative efficiency, improves data accuracy, and reduces reliance on physical documentation. With its lightweight architecture, modular structure, and targeted features, TeachHops has strong potential to be widely implemented as a digital administrative solution, particularly in schools across the 3T regions striving for a more modern and efficient education management system.

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