

ABSTRACT

This report presents the results of an internship conducted at the Directorate of Information Technology Centre (PuTI), Telkom University, focusing on the migration of the academic registration system (Sirama) from the iGracias platform, built with Laravel, into a standalone system using Nestjs. The migration was initiated in response to scalability issues and increasing system complexity in the previous architecture. The project concentrated on two main modules: course schedule and registration schedule. A modular development approach was adopted, utilising modern technologies such as Node.js, Nest.js, and Prisma as the Object Relational Mapping (ORM) tool. The development stages included legacy system analysis, backend restructuring, codebase initialisation, PostgreSQL database configuration, and the implementation and documentation of 24 Restful API endpoints. Each API was rebuilt according to existing business logic and documented interactively using Swagger. The migration improved code maintainability, clarity, and flexibility for future development. Overall, this initiative serves as a strategic step toward enhancing the adaptability and sustainability of academic service systems within Telkom University.

Keywords: Sirama, System Migration, Nest.js, Laravel, Telkom University