

ABSTRACT

The inefficiency of the management system for the TANJIDOR program, namely Telutizen Becoming Ambassador, drives the need for the development of an adaptive and integrated digital system. This project develops the back-end of the TANJIDOR website application as a platform to support the management of the ambassador program, equipped with a digital content management system using an iterative incremental approach. The method employed combines the Laravel framework as the back-end foundation with a MySQL database for data management, as well as AWS App Runner and S3 cloud services for deployment and file storage, to improve system efficiency and scalability under dynamic user loads. In addition to content management functions, the Tanjidor application is equipped with various features to support ambassador members' needs, such as an authentication system, idea submission, user profile management, a leaderboard for performance tracking, an analytics dashboard, and a recruitment feature. Meanwhile, the admin system is specifically provided for the Public Relations & Analytics (PRA) team to monitor member activities, manage content targets, and accelerate digital-based content review processes. System testing results demonstrate good performance, with the ability to handle 16,729 requests from 100 users simultaneously within 10 minutes, achieving an average response time of 0.856 seconds and an error rate of only 0.15%. Evaluation through unit testing shows that all API endpoints function as expected with a PASS status.

Keywords: back-end development, brand ambassador, iterative incremental, API development, content management