

ABSTRACT

This paper presents the development and performance analysis of a backend module for a digital content reporting website, designed to address the growing issue of negative and illegal content in Indonesia's digital space. With increasing internet usage, there has been a corresponding rise in exposure to harmful content, necessitating effective reporting mechanisms. We developed a structured reporting platform using the Laravel framework, focusing on optimizing API response times to improve user experience. The system implements a workflow-based approach with a multi-tier architecture, separating the data, business logic, and API layers. Our methodology involved comprehensive testing using three scenarios: baseline testing, fixed load testing (25, 50, and 100 virtual users), and ramp-up load testing. Results revealed significant performance degradation under high load conditions, with response times increasing by up to 20 times from the baseline at 100 concurrent users. These research provide valuable insights for optimizing digital content reporting systems through targeted performance enhancements such as caching mechanisms, database query optimization, and load balancing strategies.