

Laravel & DevOps: Revolutionizing Clinical Applications at Kijabe Hospital

Laravel powers groundbreaking clinical apps, enhanced by DevOps at Kijabe Hospital

Authors

Timothy Makori, Kevin Mwaura, Oliver Mulwa, Simon Ngaruiya, Collins Muigai, Francis Gachau, Godwin Wechuli, Amos Cheruiyot, Augustine Okoth

Affiliations

Kijabe Hospital



Introduction

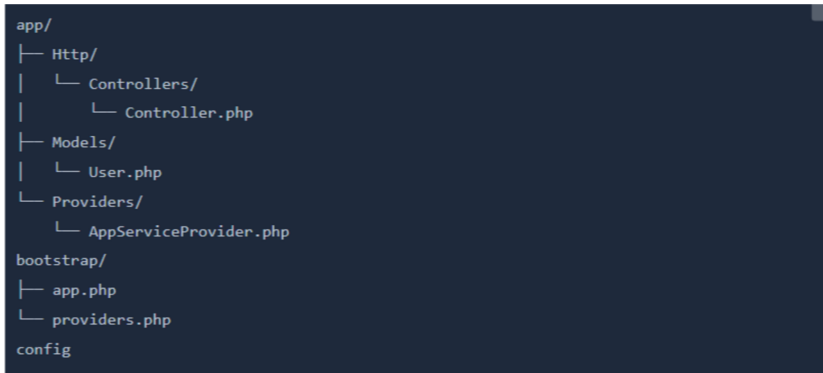
Kijabe Hospital exists to provide compassionate care and to touch lives for Christ. DevOps, a subset of IT Department in the hospital, might be making this more feasible through empowering workflows through leveraging the powerful features of Laravel - a robust PHP framework with eloquent queries for seamless data management. In just one year, DevOps has revolutionalized information on KH’s website, availed clinical guidelines in a seamless way, provided HMIS-Quality Dashboard integrations, and built a burgeoning telemedicine solution all through Laravel.

Objective

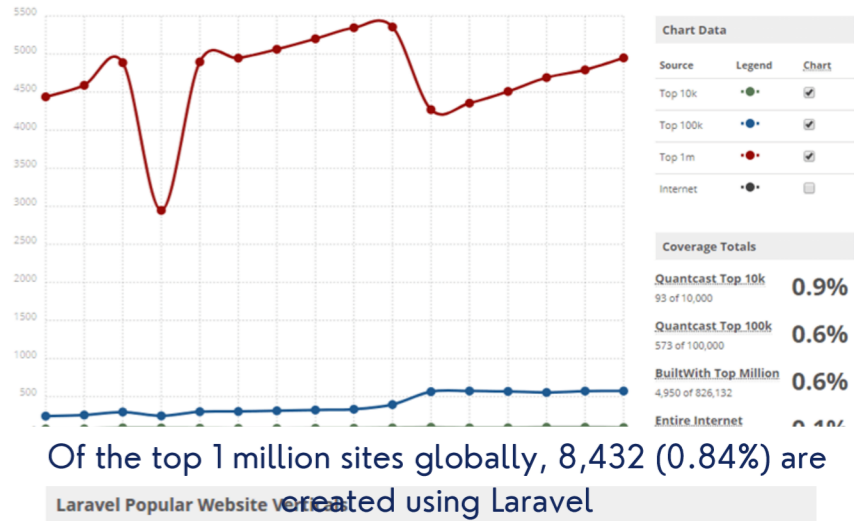
To optimize workflow, improve presentation of information, and integrate HMIS at Kijabe Hospital using Laravel, enhancing efficiency and healthcare delivery through a Quality Dashboard, telemedicine, RFQ tool, booking platform, and website.

Analysis

PHP Laravel is becoming the most popular PHP framework for web development. It offers a range of prime advantages, such as a scalable and credible code, powerful extending capacities with the use of multiple bundles or modules, a rapid institution, and a rapid turnover. Its use in Kijabe Hospital DevOps is starting to have ripple effects that will be far reaching in a while.



Clean App Structure in Laravel 11

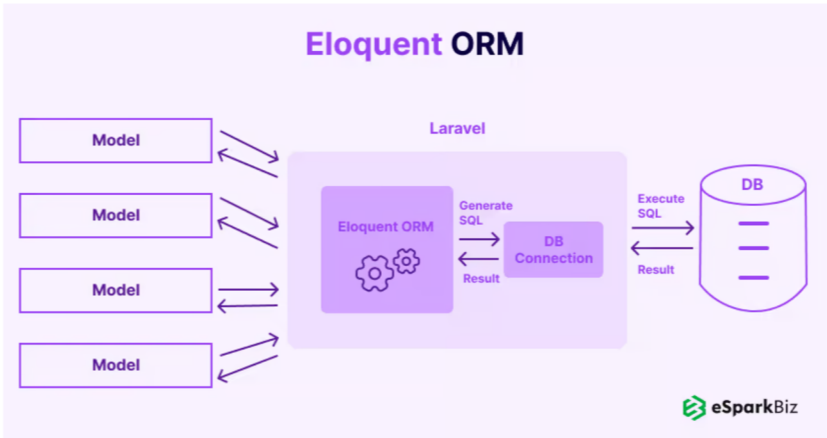


Methodology

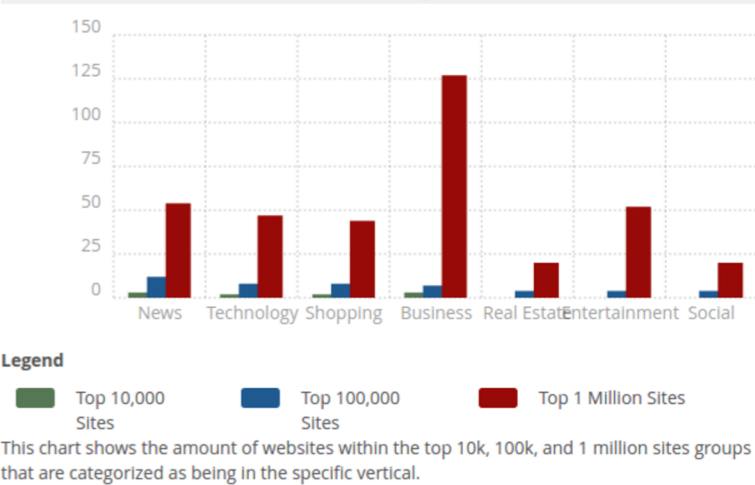
Our approach harnesses Laravel’s Model-View-Controller (MVC) architecture to develop clinical applications at Kijabe Hospital, optimizing workflows, enhancing information presentation, and integrating the Hospital Management Information System (HMIS). Key steps include:

- MVC Implementation - Models, Views, Controllers
- Unique Laravel Features - Artisan CLI, Laravel Mix, Queues
- DevOps Integration:
- Employed CI/CD pipelines (e.g., GitHub Actions) to deploy updates rapidly, ensuring continuous improvement of clinical apps

This methodology leverages Laravel’s flexibility and DevOps practices to deliver scalable, integrated solutions tailored to Kijabe Hospital’s needs.



Beautiful simple structure for working with database



Results/Findings

Laravel’s MVC architecture, with Eloquent ORM Models and asynchronous queues, are projected to help in kickstarting telemedicine improving RFQ processing time, and streamlining hospital operations. Controllers will automated repetitive tasks and boost staff efficiency. With such reliability, the framework might be set to revolutionize the management of records in most departments within Kijabe Hospital.

Conclusion

Kijabe Hospital leverages Laravel and DevOps to transform clinical applications, enhancing healthcare delivery. This DevOps practice is showcased as a quality improvement endeavor and efforts to explore how Laravel will optimize other areas of the hospital beyond the hospital website, Quality Dashboard, telemedicine, RFQ tool, and booking platform will continue

Related literature

Inventory, B. (2024, February 21). What Makes Laravel an Excellent Choice for Healthcare Application Development? Medium.