

ABSTRACT

The rising number of Indonesians leading sedentary lives caused the need for easily accessible and personalized digital health solutions. This study utilizes the Lean Canvas method with the Lightweight Architecture Tradeoff Analysis Method (ATAM) to create the backend architecture and business model for the WellnessPath startup. Using the Lean Canvas method, user requirements were identified and validated. Using a monolithic design and Go-Gin framework, the backend system was created with security, scalability, and performance as the software quality attribute focus. JWT authentication, connection pooling, queuing techniques, effective data mapping, and safe storage using Azure Blob and SQL Server are part of the architecture that follows the focused software quality. Using testing tools such as SonarCloud, Postman and Apache JMeter, the system was tested for security, scalability, and performance. The results show that the backend system satisfies software quality attributes that were identified. To conclude, the designed backend architecture and business model meet the functional and non-functional needs of a digital health application, offering a solid basis for further advancement and company expansion.

Keywords: *digital health, backend architecture, lean canvas, business model, lightweight Architecture Trade-off Analysis Method (ATAM), software quality attributes*