

ABSTRACT

The development of information technology in the halal tourism sector has a significant impact, such as searching for halal information needed by Muslim tourists such as in the process of finding information on halal products, mosques, halal restaurants, and the process of ordering food that can be done from the application. South Korea is a non-Muslim country that is developing halal tourism, the increase in the number of South Korean tourists from 1975 to 2021 increased by 1,681,516 (CEIC Data, 2021). South Korea seeks to increase the Muslim-friendly tourism sector with the support of the KTO (Korea Tourism Organization). To support the South Korean government's program, several agencies have also developed a tourism application to help Muslim tourists with limited features that require users to use a separate application. To make it easier for Muslim tourists some of the features needed can be wrapped in an application as a provider of information and ordering services. In this study, an application will be designed and built that provides information services to users such as forum information for communicating, halal product information, mosque information, restaurant information, and halal food ordering services. The development of the Korea Halal Tourism application uses a Microservices architectural method that separates the server side (backend) and the client side (frontend). The backend concept developed follows the Rest API development style which provides results in the form of JSON (JavaScript Object Notation) to support backend development, so in this research, we utilize a Laravel framework. The development method used is iterative incremental, considering the ability of researchers in developing a backend application so that iterative incremental is chosen for the software development method. The result of this research is a backend design and application with Rest API architectural style that has been adjusted to the needs of prospective users with reference to processed interview data. From the results of tests carried out by unit testing and methods. Unit Testing is carried out using 2 processes, first using the automate testing method using the Laravel phpunit library, in the automate testing process it is implemented on the Authentication feature with a positive case scenario with testing results showing that the Authentication feature can run well on endpoint

registers, OTP requests, verify OTP, login, refresh token, and logout with a test time of 1.79s. The second process of unit testing uses a manual testing method that utilizes a Postman application tool as a tool for testing HTTP Requests, the testing carried out shows the results that each endpoint tested gets an HTTP Response code of 200 ok. In , server resilience testing is carried out using apachebench as a testing technology, testing is carried out by sending a maximum of 1000 requests to the musko app staging server, with the results obtained the time required for testing is 24,140 seconds, Complete requests 1000, Concurrency Level 100, and Requests per second 41.43.

Keywords: Halal Tourism, Rest API, JSON, Iterative Incremental, Laravel