

## **ABSTRACT**

*One of the basic human needs is a house. One aspect considered when building a home is interior design. However, today, many people do not care about the importance of interior design in human psychology, which may cause a problem for interior designers, especially in getting their service users. Therefore, this study will discuss solutions to overcome the issues of interior designers and interior designer service users through the development of the Rekaruang startup. This research focuses on planning and building the back-end, which will later be implemented in the Rekaruang Application. The back-end development will use a microservices architecture with the waterfall method as a guide for development. The services formed are user service, master data service, consultation service, transaction service, and chat service. The created services are represented in the form of API endpoints which are then tested with unit testing and load testing types to determine the performance of microservices. The test results using unit testing show that of the 34 test cases tested, all test cases can be declared successful. Furthermore, this study only tested three endpoints for load testing because they were considered to have a long execution time. The total number of users that microservices can handle is 216 at the same time. The test results can be said to be good because the projection of Rekaruang users in the first year is only 40 users, consisting of 20 interior designers and 20 clients.*

*Keywords: interior designer, microservices, waterfall, Rekaruang*