

ABSTRACT

Interior design is the layout and design of a building. The role of interior design is not just room decoration but as a liaison between humans and their environment. According to Rahayu, in 2017, the business in the interior design sector increased by 50%, so the interior design business has an excellent opportunity for now. Based on the results of interviews behind the increasing development of interior design, some problems still occur, especially in the design sales process. Therefore, this research was conducted to analyze the issues and provide a design solution that can have business value. This research focuses on designing and implementing user interfaces in web-based engineering applications using the waterfall methodology. In this research, interface design will be carried out and its application to the Rekaruang application. The design of the Rekaruang application interface is carried out using the design thinking methodology. The result of this methodology is a design that is tested using usability testing before being implemented in code form. The test results use the SUS calculation method, which produces a score of 86 for the client application design, and 79 for the designer application design. From these calculations, the design solution design for the Rekaruang application is acceptable by potential users of the Rekaruang application. The implementation of the Rekaruang application interface in code form uses the waterfall model methodology, which produces a web-based Engineering application. The results of the implementation were tested using a white-box testing technique with the unit testing method. The test results align with the expected expectations because as many as 21 test cases tested resulted in successful test status. So, it can be concluded that each unit of code generated can run well.

Keyword: Interior designer, Rekaruang, UI/UX, design thinking, waterfall model, usability testing, unit testing.