

ABSTRACT

The development of digital technology and high internet penetration has opened up opportunities for digitalization in the management and rental of boarding houses. However, boarding house owners still face obstacles in manual management using notebooks or spreadsheet files that are prone to data loss and delays in information updates. On the other hand, tenants have difficulty obtaining relevant information and contacting the owner of the boarding house, thus hampering the rental process. This research aims to design and build a web-based application called RuangHuni, which can assist owners in managing rental lists, marketing boarding houses, and facilitating tenants in finding boarding house information and communicating directly with owners. The development method used is waterfall, which includes the stages of requirements analysis, design, implementation, and testing. The system provides main features such as rental list management, listing management, boarding house search with filters, detailed boarding house information, wishlist, direct communication, and dashboard. As an added value, the system is equipped with a challenge & reward feature to increase user engagement, as well as text and image-based fake post detection to support platform security, although these two features are not the main focus of the research. Testing was conducted through Black Box Testing, Usability Testing, System Usability Scale (SUS), and User Acceptance Testing (UAT). The test results show an average SUS score of 72.7 (Good Usability) and User Acceptance Testing (UAT) with a user acceptance rate of 91.7%, which proves that the system functions well, is easy to use, and is accepted by users.

Keywords— web application, black-box testing, boarding house management, user acceptance testing, waterfall