

## ***ABSTRACT***

*The Room 19 Library, as one of the independent libraries in Bandung, faces challenges in providing a fast, relevant, and personalized book search service. The current manual process, which relies on physical catalogs and direct staff interaction, results in an inefficient user experience, particularly for new visitors without specific reading references. To address this issue, this study develops a book recommendation system using content-based filtering integrated into the library's website. The system is designed to suggest books based on users' reading preferences collected through a digital questionnaire. The development process follows an iterative incremental approach, allowing the system to evolve gradually based on user feedback. The technologies used include Next.js for the web interface and PostgreSQL with Supabase as the database platform. Additional features include user accounts, a digital book catalog, authentication, and recommendation result visualization.*

*The system was evaluated in terms of both functionality and user experience. Black-box testing showed that all features operated according to the test scenarios without functional errors. In addition, a usability test using the System Usability Scale (SUS) yielded a score categorized as "Excellent." Regarding system performance, the recommendation model achieved a precision@5 of 0.9620 and a recall@5 of 0.1164, indicating the system's ability to consistently provide relevant book suggestions. This study demonstrates that a content-based filtering approach can be effectively applied in an independent library context, enhancing service efficiency and user satisfaction in finding suitable reading materials.*

***Keywords — library website, recommendation system, content-based filtering, user preferences, iterative incremental***