

ABSTRAK

Pemilihan kamar kos sering kali menjadi proses yang kompleks karena pengguna harus mempertimbangkan berbagai kriteria seperti harga, lokasi, tipe kos, dan fasilitas. Penelitian ini bertujuan membangun sistem rekomendasi pemilihan kamar kos di wilayah Jabodetabek menggunakan metode *Knowledge-Based Recommendation* dengan pendekatan *Constraint-Based*. Data yang digunakan berasal dari dataset *Mamikos Jabodetabek Boarding Room Listings* yang diperoleh dari Kaggle dan diolah melalui tahapan prapemrosesan sebelum digunakan dalam sistem. Proses rekomendasi dilakukan melalui *Constraint Filtering* untuk menyaring kos berdasarkan harga, wilayah, dan tipe kos, serta *Utility Function* untuk menghitung tingkat kecocokan fasilitas dengan pembobotan sesuai preferensi pengguna. Sistem dikembangkan dalam bentuk aplikasi berbasis web menggunakan Laravel. Hasil pengujian *Black-Box Testing* menunjukkan seluruh fungsi sistem berjalan sesuai rancangan, sedangkan *Usability Testing* terhadap 20 responden memperoleh rata-rata indeks persentase sebesar 95% dengan kategori sangat baik. Hasil tersebut menunjukkan bahwa sistem mampu memberikan rekomendasi kos yang efektif, responsif, dan membantu pengguna menemukan kamar kos yang sesuai dengan kebutuhannya.

Kata Kunci: Sistem Rekomendasi, *Knowledge-Based Recommendation*, *Constraint-Based Recommendation*, Kamar Kos, Jabodetabek.

ABSTRACT

Choosing a boarding house room (*kos*) can be a complex process because users must consider various criteria, such as price, location, boarding house type, and available facilities. This study aims to develop a boarding house recommendation system for the Greater Jakarta area (Jabodetabek) using the *Knowledge-Based Recommendation* method with a *Constraint-Based* approach. The dataset used in this research was obtained from the *Mamikos Jabodetabek Boarding Room Listings* dataset available on Kaggle and was preprocessed before being utilized by the system. The recommendation process consists of two stages: *Constraint Filtering* based on price, location, and boarding house type, and *Utility Function* to calculate the suitability of facilities based on weight according to user preferences. The system was implemented as a web-based application using the Laravel framework. The results of *Black-Box Testing* indicate that all system functionalities operated as expected, while *Usability Testing* involving 20 respondents achieved an average score of 95%, categorized as excellent. These results demonstrate that the developed system is effective, responsive, and capable of assisting users in finding boarding house rooms that match their needs and preferences.

Keywords: Recommendation System, *Knowledge-Based Recommendation*, *Constraint-Based Recommendation*, Boarding House, Greater Jakarta (Jabodetabek).