Abstract

One of the basic methods that can be applied in recommender systems development is Collaborative Filtering. To improve the quality of the results of the recommender system, a multi-criteria form can be applied in the rating system, which was previously only in the form of single criteria. The application of multi-criteria in question that involves additional aspects other than the overall rating value, in this case study there are packaging rating, repurchase rating, and the appraisal of the price as these aspects. In this study, several configuration options were used, namely the user-based collaborative filtering approach, similarity calculation using Euclidean distance and rating prediction using the neighborhood average.

To measure the quality of this study, 2 types of experiments were conducted, both of which were measured using MAE. The first test was to determine the number of the best neighborhood, the test results showed that the best quality of recommender system was obtained by configuring the number of neighborhood number 80 with an MAE of 2.4197. While the second test is to compare the quality of the single-criteria system with the multi-criteria system. The single-criteria system obtained an MAE of 3.5906 and the multi-criteria system obtained an MAE of 2.4197