

Abstract

The recommendation system is an application to provide and recommend an item in making a decision desired by the user [9]. The problem discussed in this final project is to build a mobile tourism recommendations application using a combination of Collaborative filtering and Context-aware methods so that users will get the best recommended tourist spots and according to the user's wishes. The use of collaborative filtering will aim to calculate the value of Cosine-similarity or the similarity of rating data that has been given by several previous users so that the data will get a predictive value that is used to determine the value of predictive rating on a tourist spot that has never been rated by users [3]. So that later it will get an average rating with a comparison of people who give ratings of these attractions with a balanced number of users on all tourist attractions. While the Context-aware use is aimed at getting information on the location of tourist attractions with users and objects around the user along with changes such as when the job opens and closes the tour [3]. So that later the conditions of distance and opening hours of tourist attractions will enter into contextual attributes that will later be used to recommend tourist attractions. In this method there are several calculations that will be used as a comparison to recommend tourist attractions namely by utilizing the Haversine equation formula for calculating distances by utilizing value information (Longitude & Latitude) from the user's location with the distance of the destination to be addressed. And also take the value of user interest based on the sub-category and take the value of the clock conditions open and close tourist attractions. From some of these calculations will get the value of Utility which will be used to recommend tourist attractions to users.

Keywords: Recommendation System, Collaborative Filtering, Context-Aware, Cosine-similarity, Haversine formula