

ABSTRACT

The objective of this research is to create a reliable Cafe Recommender System for the Bandung region using a combination of Item-Based Collaborative Filtering (IBCF) and Recurrent Neural Network (RNN) techniques. This study is motivated by the increasing demand for more precise and pertinent café suggestions in Bandung, a city well-known for its wide range of cafes. Prior studies have predominantly concentrated on utilizing either collaborative filtering or natural language processing methods separately, resulting in frequent constraints in comprehending the complete context of user preferences and evaluations. In order to fill these deficiencies, we employ the IBCF technique to examine user rating data, detecting resemblances among cafes to produce tailored suggestions. Simultaneously, we utilize the RNN approach to analyze and comprehend user reviews, enabling a more sophisticated and contextually aware recommendation process. Our hypothesis is that combining IBCF and RNN will improve the accuracy and relevance of suggestions in the Bandung region. The evaluation of the recommendations are based on metrics like as Precision, Recall, and F1-score. The model has a precision of 89.04%, a recall of 88.75%, and an F1-score of 88.62%, indicating its viability as a substitute for conventional techniques frequently employed for suggesting cafes.

Keywords: Recommender System; Café Recommender System; Item-Based Collaborative Filtering (IBCF); Recurrent Neural Network (RNN), Long-Short Term Memory