

## Abstract

Recommender system is a system that can be used to predict the items in this case a movie, based on information obtained from users, so get recommendations based on user profiles. Collaborative filtering is a method of recommender systems that predict an item (movie) based on existing information from users or other items. To get the maximum prediction calculation of similarity is required either from user or from the item.

This final rating analyze prediction accuracy generated by the recommender system after implementing effective missing data prediction algorithm collaborative filtering. Where in obtaining the predicted value of the items items that have not been in the rating is based on the calculation of the similarity of users and items, along with significance weighting technique. The data used is the data set of IMDB (Internet Movie Data Base). The parameters used in the analysis is the parameter Gamma,  $\alpha$ ,  $\beta$ ,  $\gamma$  and  $\lambda$ . This final project will analyze the level of prediction accuracy ratings generated by the evaluation method of MAE (Mean Absolute Error)

Prediction accuracy generated by the missing data prediction algorithm effective collaborative filtering is better than classic collaborative filtering. Best performance occurs when predicting the missing data by using information from the user or item.

**Keywords:** *recommender systems, collaborative filtering, similarity, missing value.*