

Universiti Teknologi MARA

**Marketplace Product Recommendation
Using Collaborative Filter**

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ABSTRACT

Marketplace mobile application is an application that help employer or entrepreneur to sell their item online. Nowadays, many product already appear and available online sometime user of the marketplace application facing problems in choosing the best product in their category. Recommender Systems are software tools and techniques for suggesting items to users by considering their preferences. Objective of the project are to study Collaborative Filter Algorithm of product recommendation system for marketplace, to develop a prototype of Marketplace Product Recommendation System using Collaborative Filter Algorithm and to test the accuracy of Collaborative Filtering algorithm in the proposed work. The algorithm used to develop a product recommendation engine is collaborative filtering algorithm and this algorithm is written in python. For the development of the marketplace mobile application prototype this project use flutter this application is the platform to implement the recommendation system. Mean Absolute Error (MAE) is used to test the accuracy of the product recommendation system. The MAE is calculate using build in function in python and use two different value which is actual product rating and prediction product rating. The result show that the MAE value is 0.96 which is good because the good MAE value is the value closest to 1. In conclusion this paper is to develop a product recommender in marketplace mobile application using Collaborative Filter and the accuracy of the algorithm is measured using Mean Absolute Error

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