



PROJECT REPORT
HYBRID COLLABORATIVE FILTERING AND
CONTENT-BASED FILTERING ANIME
RECOMMENDATION SYSTEM

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ABSTRACT (ABSTRACT TITLE)

In the entertainment industry, especially Japanese animation, viewers often have difficulty finding new anime series according to their interests due to the variety of genres, graphics, and stories. This problem stems from previous research that highlights the ineffectiveness of existing recommendation systems for anime streaming platforms, as they often provide inaccurate recommendations. By applying collaborative filtering, content-based filtering, and hybrid filtering methods to improve the accuracy of anime recommendations. The methods used include cosine similarity, popularity, weighted rating, SVD, KNNBasic and RMSE to evaluate the recommendation results. The data used is from the results of scraping itself and data downloads from kaggle to compare the results of the two data. The results show that content-based gives the lowest RMSE (0.17841) which means the highest accuracy, while the hybrid model follows an RMSE of (1.92260), better than SVD and KNNBasic, which both have an RMSE of (2.83961), showing similar and lower accuracy. Weighted Rating also affects the recommendation order, by considering the number of members and the average score, thus providing a more accurate rating of the recommended anime. The findings show that content-based filtering provides the most accurate recommendation results of the tested methods, although the hybrid method also performs quite well as it combines collaborative and content-based algorithms with balanced results.

Keyword: Anime recommendation, Collaborative, Content-Based, Hybrid Approach, Jikan API, RMSE, SVD, KNNBasic, Weighted Rating, MyAnimeList