Development Of Anime Recommendation System Using Content-Based Filtering

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ABSTRACT

Anime has become one of the most popular forms of entertainment, easily accessible through online platforms. As anime continues to grow in popularity, the number of available titles has become increasingly diverse and abundant. However, with so many options, not all popular anime matches individual preferences. Therefore, a system is needed to filter and recommend anime in a more personalized and relevant way based on user interests. To address this issue, this study proposes the development of an anime recommendation system based on Content-Based Filtering using the Cosine Similarity method. The system analyzes the similarity between anime based on features such as genre and production studio, which are processed using one-hot encoding techniques. Testing of the recommendation feature—based on a single anime and user profiles resulted in average precision scores of 84% and 88%, respectively, demonstrating the system's effectiveness in generating relevant suggestions. Additionally, the system has been implemented as a web-based application that allows users to browse anime titles, mark favorites, and receive interactive recommendations tailored to their preferences. Application testing shows that the system runs smoothly, is responsive, and provides a satisfying user experience.

Key words: anime, recommendation system, content-based filtering, cosine similarity, one-hot encoding