

INTISARI

Tren hidup sehat yang didukung kemajuan teknologi mendorong peningkatan penggunaan aplikasi kesehatan, khususnya aplikasi calorie tracking seperti Fatsecret. Beragam sentimen pengguna di Google Play Store menunjukkan apresiasi sekaligus kritik terhadap fitur dan layanan aplikasi tersebut. Penelitian ini bertujuan mengklasifikasikan sentimen ulasan pengguna aplikasi Fatsecret menggunakan metode Support Vector Machine (SVM) dan menganalisis kinerja SVM dalam tugas klasifikasi sentimen ini. Dataset yang digunakan sebanyak 1.301 ulasan pengguna aplikasi Fatsecret dari Google Play Store berkategori relevan, dikumpulkan pada periode 27 Februari 2022 hingga 27 Februari 2025 menggunakan teknik scraping Data. Proses analisis dimulai dengan Preprocessing Data meliputi cleaning, case folding, normalization, tokenizing, stopword removal, dan stemming. Selanjutnya, fitur diekstraksi menggunakan TF-IDF dan diklasifikasikan ke dalam tiga kelas sentimen positif, netral, dan negatif menggunakan metode Support Vector Machine (SVM). Implementasi SVM melibatkan weight balancing dan k-fold cross validation, serta evaluasi menggunakan confusion matrix, akurasi, presisi, recall, dan F1-score. Hasil penelitian menunjukkan 838 ulasan bersifat positif, 373 ulasan bersifat netral, dan 78 ulasan bersifat negatif. Implementasi SVM memperoleh akurasi tertinggi 92% dengan kernel linear dan k-10 cross validation. Performa model untuk kelas positif adalah presisi 98%, recall 93%, dan f1-score 95%; untuk kelas netral presisi 81%, recall 95%, dan f1-score 87%; dan untuk kelas negatif presisi 89%, recall 69%, dan f1-score 78%. Dengan demikian, penelitian ini berhasil mengimplementasikan SVM dan mengevaluasi kinerjanya, menunjukkan bahwa SVM cukup efektif dan andal dalam mengidentifikasi sentimen pengguna aplikasi Fatsecret.

Kata kunci: Analisis Sentimen, Aplikasi Kesehatan, Fatsecret, Support Vector Machine (SVM), Ulasan Pengguna.

ABSTRACT

The healthy living trend supported by technological advances has driven an increase in the use of health apps, particularly calorie tracking apps such as Fatsecret. Various user sentiments on the Google Play Store show both appreciation and criticism of the app's features and services. This study aims to classify user review sentiments of the Fatsecret app using the Support Vector Machine (SVM) method and analyze the performance of SVM in this sentiment classification task. The dataset used consists of 1,301 relevant user reviews of the Fatsecret app from the Google Play Store, collected between February 27, 2022, and February 27, 2025, using data scraping techniques. The analysis process begins with data preprocessing, including cleaning, case folding, normalization, tokenization, stopword removal, and stemming. Next, features were extracted using TF-IDF and classified into three sentiment classes: positive, neutral, and negative using the Support Vector Machine (SVM) method. The SVM implementation involved weight balancing and k-fold cross-validation, as well as evaluation using a confusion matrix, accuracy, precision, recall, and F1-score. The results of the study show that 838 reviews are positive, 373 reviews are neutral, and 78 reviews are negative. The SVM implementation achieved the highest accuracy of 92% with a Linear kernel and k-10 cross validation. The model's performance for the positive class was precision 98%, recall 93%, and F1-score 95%; for the neutral class, precision 81%, recall 95%, and F1-score 87%; and for the negative class, precision 89%, recall 69%, and F1-score 78%. Thus, this study successfully implemented SVM and evaluated its performance, demonstrating that SVM is sufficiently effective and reliable in identifying user sentiment in the Fatsecret application.

Keywords: Sentiment Analysis, Health Application, Fatsecret, Support Vector Machine (SVM), User Reviews