

ABSTRAK

Muhammad Nur Afiga Rohman. 2026. Implementasi Sistem Klasifikasi Sentimen Ulasan Pengguna Aplikasi *Access by KAI* Menggunakan Model IndoBERT. Skripsi. Program Studi Teknik Informatika, Fakultas Teknik, Universitas PGRI Madiun. Pembimbing (I) Yessi Yunitasari, S.Kom., M.Cs., Pembimbing (II) Puguh Jayadi, S.Kom., M.Kom.

Ulasan pengguna aplikasi *Access by KAI* pada *Google Play Store* tersedia dalam jumlah besar dan berbentuk teks tidak terstruktur yang memuat tanggapan positif, netral, keluhan, kritik, serta saran. Kondisi tersebut berpotensi menyebabkan proses analisis secara manual membutuhkan waktu dan dapat menimbulkan perbedaan penafsiran. Untuk mengatasi permasalahan tersebut, diperlukan sistem yang mampu membantu mengelompokkan sentimen dan aspek ulasan secara otomatis serta menyajikan hasilnya dalam bentuk informasi yang mudah dipahami. Tujuan penelitian ini adalah untuk merancang, membangun, dan mengimplementasikan sistem klasifikasi sentimen ulasan pengguna aplikasi *Access by KAI* berbasis website menggunakan model IndoBERT. Metode pengembangan sistem yang digunakan adalah *Prototype* dengan tahapan analisis kebutuhan, pembuatan prototipe, evaluasi prototipe, pengembangan, pengujian, dan penerapan sistem. Hasil penelitian menunjukkan bahwa sistem berhasil diimplementasikan menggunakan Vue 3 dan TypeScript sebagai *frontend*, FastAPI sebagai *backend*, PostgreSQL sebagai basis data, serta ONNX *Runtime* untuk menjalankan model IndoBERT. Data ulasan diperoleh dari *Google Play Store* melalui proses *scraping*, kemudian diproses menggunakan IndoBERT untuk menghasilkan sentimen negatif, netral, atau positif, sedangkan kategori aspek ditentukan menggunakan *Rule Based Classification*. Hasil analisis disimpan ke dalam basis data dan ditampilkan melalui fitur Dashboard, Live Scraping, AI Pipeline, serta Masukan Ulasan. Pengujian menggunakan *Black Box Testing* dan *Confusion Matrix* menunjukkan bahwa fungsi utama sistem dapat berjalan sesuai kebutuhan dan model dapat diterapkan untuk membantu proses klasifikasi sentimen. Dengan demikian, sistem mampu membantu proses pengambilan, pengolahan, penyimpanan, dan penyajian informasi ulasan pengguna *Access by KAI* secara lebih terstruktur.

Kata Kunci: *Access by KAI*, Analisis Sentimen, IndoBERT, *Natural Language Processing*, Sistem Berbasis Web.

ABSTRACT

Muhammad Nur Afiga Rohman. 2026. *Implementation of a Sentimen Classification System for User Reviews of the Access by KAI Application Using the IndoBERT Model*. Thesis. Informatics Engineering Study Program, Faculty of Engineering, Universitas PGRI Madiun. Advisor (I) Yessi Yunitasari, S.Kom., M.Cs., Advisor (II) Puguh Jayadi, S.Kom., M.Kom.

User reviews of the Access by KAI application on the Google Play Store are available in large quantities and consist of unstructured text containing positive and netral responses, complaints, criticisms, and suggestions. This condition causes manual analysis to require considerable time and may lead to differences in interpretation. To address this problem, a system is needed to automatically classify the sentiment and aspects of User reviews and present the results in an understandable form. This study aims to design, develop, and implement a website-based sentiment classification system for User reviews of the Access by KAI application using the IndoBERT model. The system development method used in this study is the Prototype method, which consists of requirements analysis, prototype development, prototype evaluation, system development, testing, and system implementation. The results show that the system was successfully implemented using Vue 3 and TypeScript as the frontend, FastAPI as the backend, PostgreSQL as the database, and ONNX Runtime to execute the IndoBERT model. Review data are collected from the Google Play Store through a scraping process and then processed using IndoBERT to classify the reviews into negative, neutral, or positive sentiments, while aspect categories are determined using Rule Based Classification. The analysis results are stored in the database and presented through the Dashboard, Live Scraping, AI Pipeline, and Review Feedback features. Testing using Black Box Testing and a Confusion Matrix shows that the main system functions operate according to the specified requirements and that the model can be applied to support the sentiment classification process. Therefore, the system can assist in collecting, processing, storing, and presenting information from Access by KAI User reviews in a more structured manner.

Keywords: *Access by KAI, IndoBERT, Natural Language Processing, Sentiment Analysis, Web-Based System.*