

**RANCANG BANGUN *CHATBOT VIRTUAL CARE* BERBASIS
WEB UNTUK GANGGUAN PENCERNAAN GASTRITIS DI
LINGKUNGAN FAKULTAS TEKNIK, UPN “VETERAN”
JAKARTA**

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ABSTRAK

Evolusi terhadap teknologi informasi telah memunculkan inovasi layanan medis berbasis kecerdasan buatan, salah satunya melalui *chatbot*. *Virtual Care* merupakan *chatbot* berbasis web yang berfungsi sebagai sistem pendukung diagnosis awal gastritis sekaligus meningkatkan aksesibilitas layanan kesehatan. Metode yang digunakan adalah *Hybrid Case-Based Reasoning* dengan pembobotan gejala, diintegrasikan dalam sebuah aplikasi berbasis Python-Flask dan PostgreSQL. Data diperoleh melalui observasi awal serta uji coba yang melibatkan 100 responden mahasiswa Universitas Pembangunan Nasional “Veteran” Jakarta. Evaluasi dilakukan dari aspek teknis melalui *load testing* menggunakan Locust, serta aspek nonteknis melalui kuesioner kepuasan pengguna. Hasil penelitian menunjukkan bahwa *chatbot* mampu memberikan respons kurang dari satu menit dengan tingkat keberhasilan permintaan 100% pada simulasi 17.179 *request*, serta stabil pada beban rata-rata 19,07 *request per second*. Dari sisi nonteknis, lebih dari 80% responden menyatakan puas terhadap kemudahan akses, gaya bahasa, serta fitur pendukung seperti *self-assessment* dan rekomendasi fasilitas kesehatan terdekat. Dengan demikian, *chatbot Virtual Care* terbukti secara efektif sebagai alat *screening* awal, meningkatkan pengalaman pengguna dalam layanan medis berbasis web, serta memiliki potensi guna dikembangkan lebih lanjut dengan fitur tambahan dan cakupan penyakit yang lebih luas.

Kata Kunci: *Chatbot*; Flask; *Hybrid Case-Based*; Kesehatan; PostgreSQL

DESIGN OF A WEB-BASED VIRTUAL CARE CHATBOT FOR GASTRITIS DIGESTIVE DISORDERS IN THE FACULTY OF ENGINEERING, UPN "VETERAN" JAKARTA

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ABSTRACT

The evolution of information technology has given rise to innovative artificial intelligence-based medical services, one of which is the use of chatbots. Virtual Care is a web-based chatbot that serves as a support system for early diagnosis of gastritis, enhancing the accessibility of healthcare services. The method used is Hybrid Case-Based Reasoning with symptom weighting, integrated into a Python-Flask and PostgreSQL-based application. Data was obtained through initial observations and trials involving 100 student respondents at the National Development University Veteran Jakarta. Evaluation was conducted from a technical perspective through load testing using Locust, and from a non-technical perspective through a user satisfaction questionnaire. The research results showed that the chatbot was able to respond in less than one minute with a 100% success rate in 17,179 simulated requests, and maintained a stable average load of 19.07 requests per second. From a non-technical perspective, more than 80% of respondents expressed satisfaction with the ease of access, language style, and supporting features such as self-assessment and recommendations for nearby healthcare facilities. Thus, the virtual care chatbot has proven effective as an initial screening tool, enhancing the user experience in web-based medical services, and has the potential for further development with additional features and broader disease coverage.

Keywords: Chatbot; Flask; Hybrid Case-Based; Healthcare; PostgreSQL