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ABSTRACT

Klepio is a web-based AI-driven dental diagnosis system designed to assist patients in assessing their dental health through a structured questionnaire. By analyzing user responses, the AI model predicts potential dental conditions from a pool of 28 predefined diagnoses. The system provides an intuitive and user-friendly interface, ensuring accessibility for patients with varying technical expertise. Doctors can access patient responses and AI-generated diagnoses, facilitating more informed consultations. Additionally, the platform supports multiple languages to enhance usability across diverse demographics. Security and privacy are prioritized, ensuring compliance with data protection standards while maintaining high system performance and availability. Future enhancements, such as PDF report generation and AI model refinements, will further improve the system's functionality and accuracy.

Key Features:

- **AI-Powered Diagnosis:** Uses a custom-trained AI model built with **sklearn** to analyze patient responses and predict dental conditions.
- **User-Friendly Interface:** Developed using **ReactJS** to ensure a seamless and intuitive user experience.
- **Doctor's Dashboard:** Enables dentists to review patient symptoms and AI-generated diagnoses for better consultations.
- **Multilingual Support:** Supports multiple languages to ensure accessibility for diverse users.
- **Comprehensive Questionnaire:** Designed with expert input to cover a wide range of symptoms for accurate assessments.
- **Secure & Scalable Backend:** Built using **Django** to ensure security, data privacy, and system scalability.

Deliverables:

- A fully functional web-based diagnostic system with a robust frontend and backend.
- A trained AI model capable of predicting various dental conditions.
- A responsive and well-structured questionnaire designed with **Figma**.
- A secure and scalable backend with proper authentication and data management.
- A multilingual user interface for better accessibility.

With these features and technologies, Klepio aims to revolutionize dental diagnostics by providing a fast, accessible, and AI-powered solution for patients and doctors alike.