SEWAमित्र

Empowering Healthcare with Intelligent Analysis

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Overview of the Solution:

- RAG-based AI helps doctors with real-time decisions.
- Patients store and share medical data safely.
- AI summarizes patient history for quick diagnosis.
- Easy report uploads and AI-driven advice.

How it Addresses the Problem:

- **Secure Medical Records:** Patients upload documents to Google Drive with OTP-based access for doctors.
- **AI-Powered Insights:** Provides personalized health recommendations using RAG technology.
- **Faster Consultations:** AI summarizes medical history, saving doctors' time.
- **Error Reduction:** Cross-references patient data with latest medical research.
- **Improved Engagement:** Patients can track health progress and receive tailored suggestions.

Innovation and Uniqueness:

- **Verified Doctors**: Only authenticated professionals access data.
- **RAG Model:** AI-driven real-time insights.
- **Secure Sharing:** Patients upload reports via Google Drive.
- **Smart Diagnosis**: AI-summarized case files.
- **Health Tracking:** AI-powered progress monitoring.

Key Technologies:
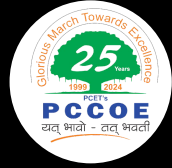

Integration & Scalability:

- Compatible with existing healthcare systems and cloud storage.
- Scalable architecture to handle growing user data.
- AI model adapts to new medical research and patient records.
- Secure APIs for seamless third-party integrations.

Key Algorithms/Processes:

- **Retrieval-Augmented Generation (RAG):** Enhances AI-driven clinical insights.
- **Natural Language Processing (NLP):** Extracts key information from medical records.
- **Machine Learning Models:** Provides personalized health recommendations.

Feasibility Analysis: Our Vs Existing

Feature		
AI-Powered Insights	✅	❌
Data Security	✅	❌
Verified Doctors Only	✅	❌
Medical Record Sharing	✅	❌
Real-Time Decision Support	✅	❌
User-Friendly Interface	✅	❌
Cost Efficiency	✅	❌

Potential Challenges :

- Ensuring data privacy and security for patient records.
- AI-generated insights may require validation from doctors.
- Adoption challenges among non-tech-savvy users.
- Dependence on internet connectivity for seamless functionality.

Strategies for Overcoming Challenges:

- **Data Privacy & Security:** OTP authentication, encryption, and verified doctor access.
- **Doctor-Patient Trust:** Transparent policies and restricted access to verified doctors.
- **AI Accuracy:** RAG model retrieves latest medical research for reliable insights.
- **User Adoption:** Simple UI with step-by-step guidance.
- **System Integration:** API-based compatibility with hospital EMRs.