CareBot

The Personal Health Assistant

PROBLEM OVERVIEW

The Problem

The survey found that despite the growing popularity of online health information, nearly half of Europeans are unable to understand and effectively apply that information to manage their health.

Almost 1 in 2 respondents had limited health literacy — **47%**

VS

1 in 10 respondents showed insufficient health literacy — **12%**

European health literacy survey (HLS-EU)

Carebot Description

CareBot: The Personal Health Assistant is an AI-powered virtual assistant designed to help users easily access medical information. **CareBot** includes features such as:

- Natural medical conversations
- Updating users with reliable health news
- Encouraging regular physical activity through a streak-based habit tracker

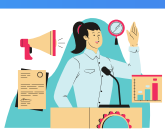
OBJECTIVE

CareBot aims to bridge the health literacy gap by providing clear, accurate, and personalized health information to users. Built with responsible AI principles, CareBot uses explainable AI techniques — especially Chain-of-Thought prompting — to guide users through complex health topics in a transparent and understandable way. Beyond simply delivering information, CareBot encourages healthy lifestyle habits through daily activity tracking, motivating users to maintain their well-being.

RESPONSIBLE AI

Transparency

- CareBot clearly displays the source of medical information and uses Chain-of-Thought reasoning to explain the reasoning process in each response. This allows users to clearly understand why the system gives a certain answer, increasing reliability and verifiability.



Data Privacy

- The application only collects necessary information with the user's permission to ensure user privacy.
- Data is encrypted and complies with personal data protection regulations.
- Users have the right to control and delete their data at any time.

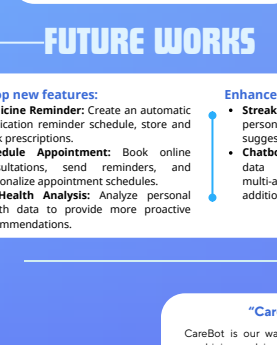
Misinformation Prevention

- CareBot only uses medical information from official, verified sources such as National Institutes of Health (NIH), WHO, PubMed, etc. The system does not replace doctors but only provides reference content.
- With multi-hop reasoning capabilities, CareBot can connect multiple pieces of information to give logical, complete answers with clear citations.

Accountability

- The application stores the query and response history to ensure transparency and allows users to review the information provided.
- Training data is always verified and the system always includes a "reference information" warning. When necessary, it will guide users to medical experts, ensuring the safety of receiving medical information.

TECHNOLOGY



Layer Architechture

Client Layer: the interface layer that allows users to interact with CareBot.

API Gateway Layer: responsible for handling authentication, access control, and request routing.

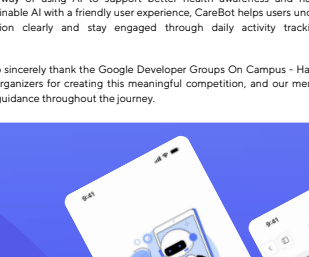
Service Layer: manages the system's services as well as user registration, login, and session management.

AI Layer: is Core AI model operations take place.

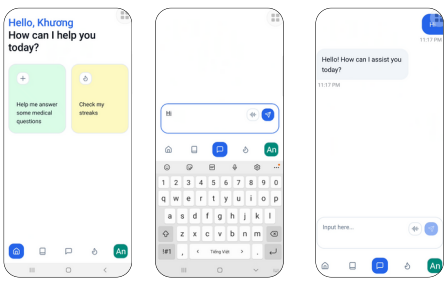
Data Layer: contains modules responsible for storing the system's data.

Technical Diagram

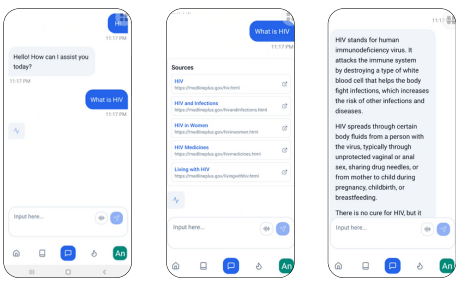
Integrating various Google technologies to enhance system flexibility, improve performance, and provide a better user experience.

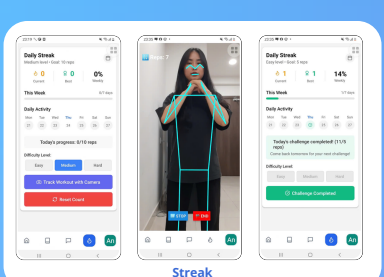


INTERFACE

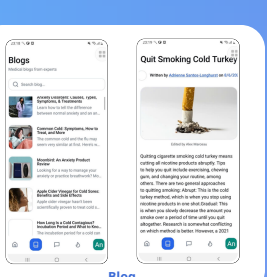


Chat with CareBot

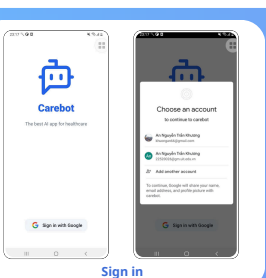




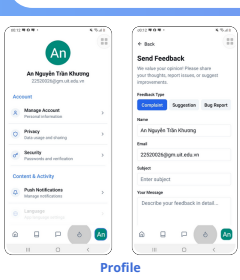
Streak



Blog



Sign in



Profile

FUTURE WORKS

Develop new features:

- **Medicine Reminder:** Create an automatic medication reminder schedule, store and track prescriptions.
- **Schedule Appointment:** Book online consultations, send reminders, and personalize appointment schedules.
- **AI Health Analysis:** Analyze personal health data to provide more proactive recommendations.

Enhance existing functions:

- **Streak**: Diversify challenges, personalize exercises, and suggest diet plans.
- **Chatbot**: Add more reliable data sources and integrate multi-agent systems to develop additional new features.

Expand cross-platform:

Develop a full version, widely deploy it on **Google Play Store** and **Apple App Store**, and grow a larger user community.

CONCLUSION

"CareBot – Responsible AI, Sustainable Health"

CareBot is our way of using AI to support better health awareness and habits. By combining explainable AI with a friendly user experience, CareBot helps users understand health information clearly and stay engaged through daily activity tracking and gamification.

We would like to sincerely thank the Google Developer Groups On Campus - Hackathon Vietnam 2025 organizers for creating this meaningful competition, and our mentors for their invaluable guidance throughout the journey.

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