



MEDIBOT

AI Chatbot for Drug,
Disease Information, and
Diagnosis Support

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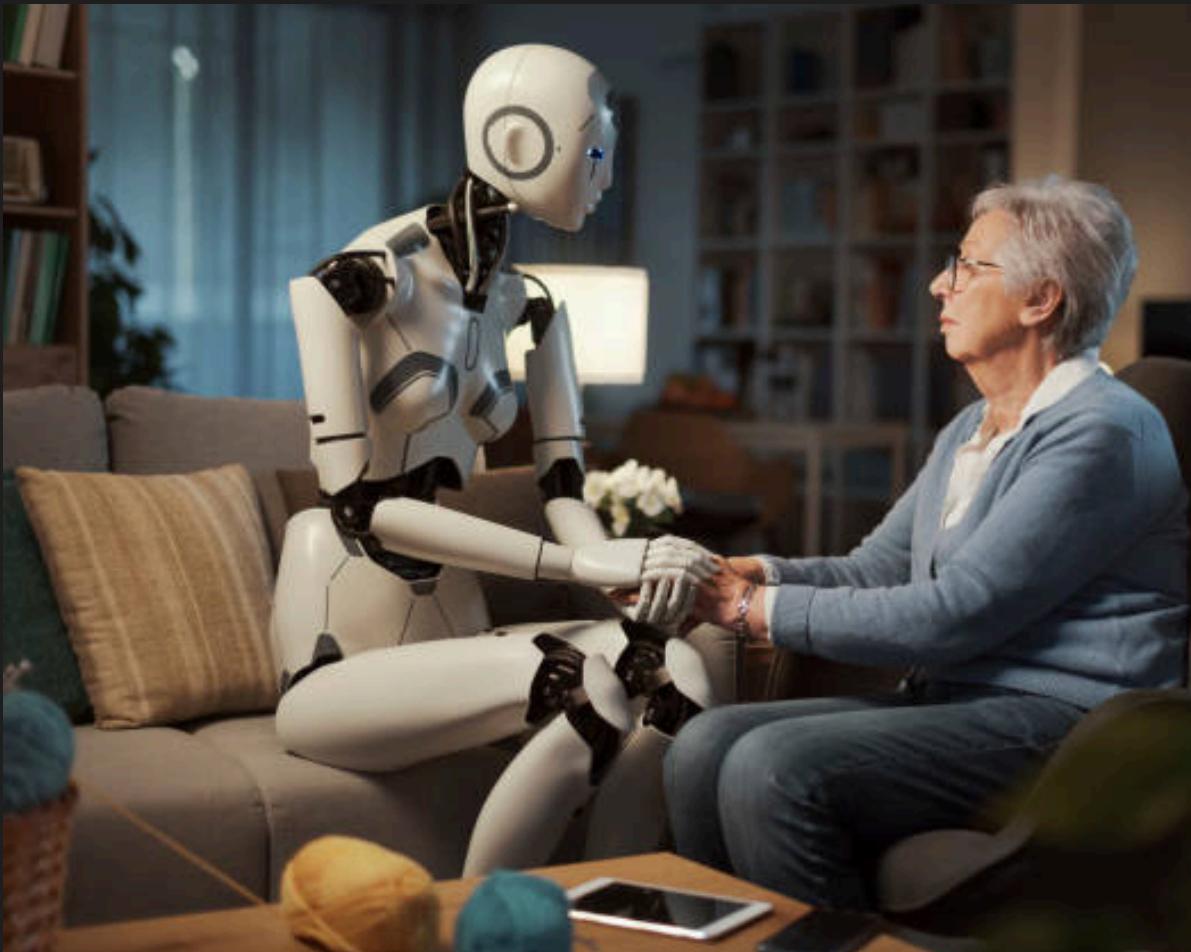
INTRODUCTION

In the fast-paced world today, individuals require immediate and accurate access to health information. Yet, many cannot interpret their symptoms or receive credible advice without going to a physician. Although some apps and chatbots are available, they only provide simple answers and are not capable of dealing with natural language or sophisticated medical queries. MediBot is an artificial intelligence medical assistant that can fix this issue. It can give precise drug and disease information, provide symptom-based diagnosis support, provide prevention advice, and assist in patient triage. The chatbot employs sophisticated AI models and provides an easy-to-use, simple chat interface.



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PROBLEM STATEMENT



MOST EXISTING MEDICAL CHATBOTS ARE LIMITED TO ANSWERING SIMPLE, PRE-DEFINED QUESTIONS USING RULE-BASED METHODS. THEY CANNOT UNDERSTAND NATURAL LANGUAGE WELL OR MAINTAIN CONVERSATION HISTORY. USERS OFTEN NEED TO USE DIFFERENT APPS FOR DRUG INFORMATION, SYMPTOM CHECKING, AND PREVENTION ADVICE, WHICH IS INCONVENIENT AND CONFUSING. THERE IS NO SINGLE SYSTEM THAT COMBINES ALL THESE FEATURES AND RESPONDS INTELLIGENTLY TO USER QUERIES. MEDIBOT AIMS TO FILL THIS GAP BY PROVIDING A SMART, RELIABLE, AND USER-FRIENDLY CHATBOT THAT CAN HANDLE A WIDE RANGE OF MEDICAL QUERIES USING ADVANCED NLP AND AI.

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PROPOSED SOLUTION

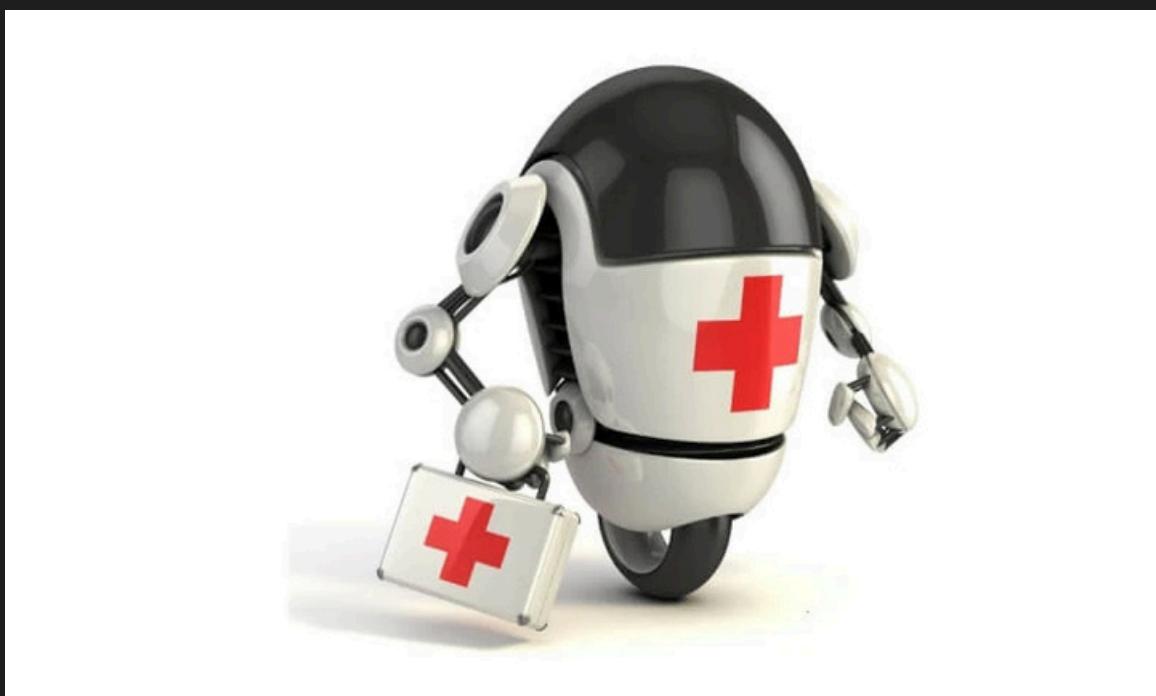
MEDIBOT IS AN AI MEDICAL CHATBOT.
USERS ASK QUESTIONS THROUGH A SIMPLE CHAT INTERFACE
(STREAMLIT).

FOR EASY QUESTIONS, IT USES BUILT-IN ANSWERS
(KNOWLEDGE BASE).

FOR COMPLEX QUESTIONS, IT SENDS QUERIES TO THE
SOLAR-PRO AI MODEL.

THE SYSTEM GIVES CLEAR AND ACCURATE ANSWERS.
CHAT HISTORY IS SAVED TO KEEP TRACK OF THE
CONVERSATION.

API KEYS ARE MANAGED SAFELY.
FAST, EASY, AND HELPFUL FOR MEDICAL INFORMATION.



FRONTEND: STREAMLIT (FOR USER CHAT INTERFACE)

BACKEND: PYTHON (LOGIC, API HANDLING)

NLP MODEL: SOLAR-PRO (UPSTAGE API)

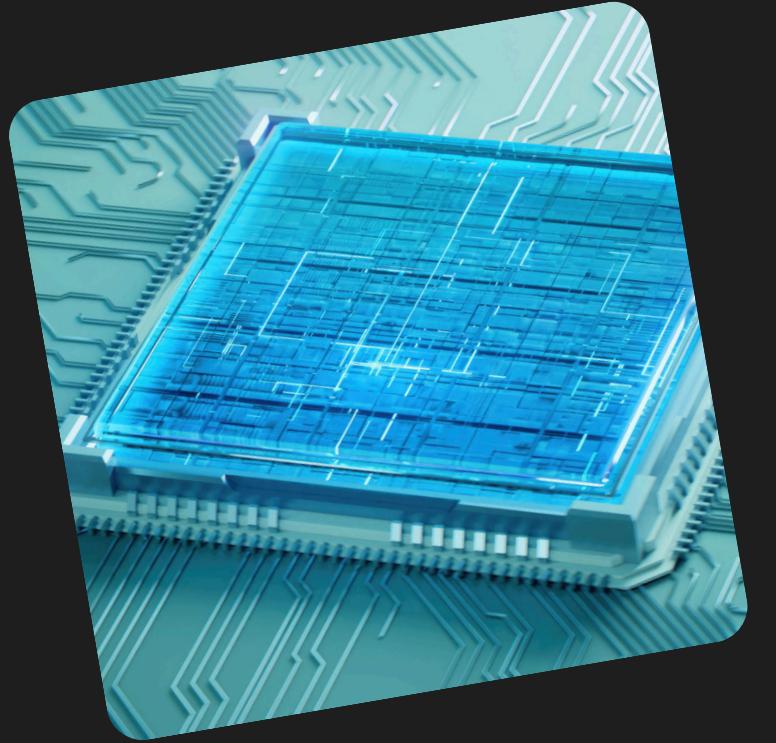
API COMMUNICATION: OPENAI SDK / REQUESTS

SESSION MANAGEMENT: STREAMLIT SESSION_STATE

ENVIRONMENT HANDLING: DOTENV / OS ENVIRONMENT VARIABLES

LOGGING & DEBUGGING: PYTHON LOGGING MODULE

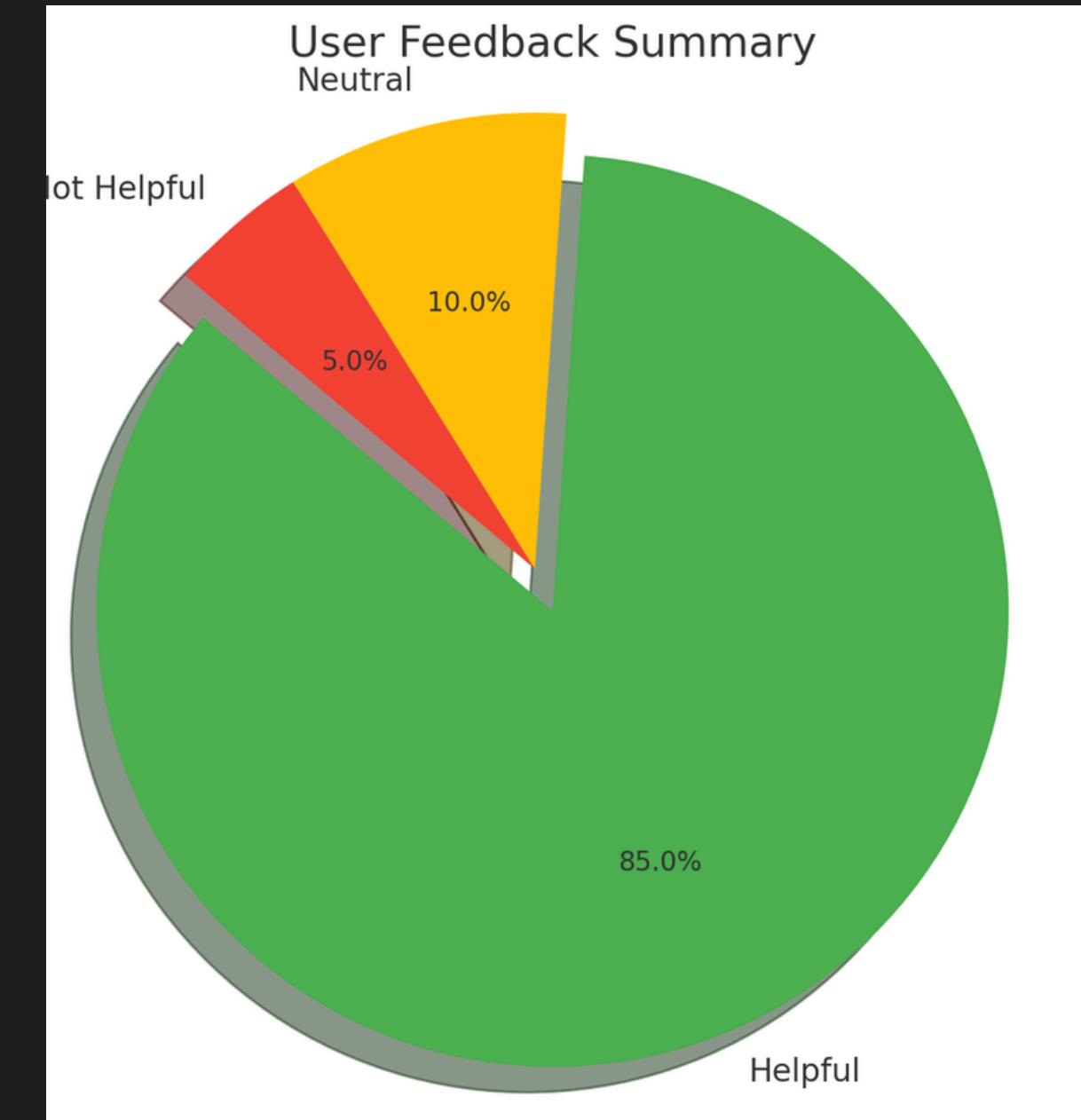
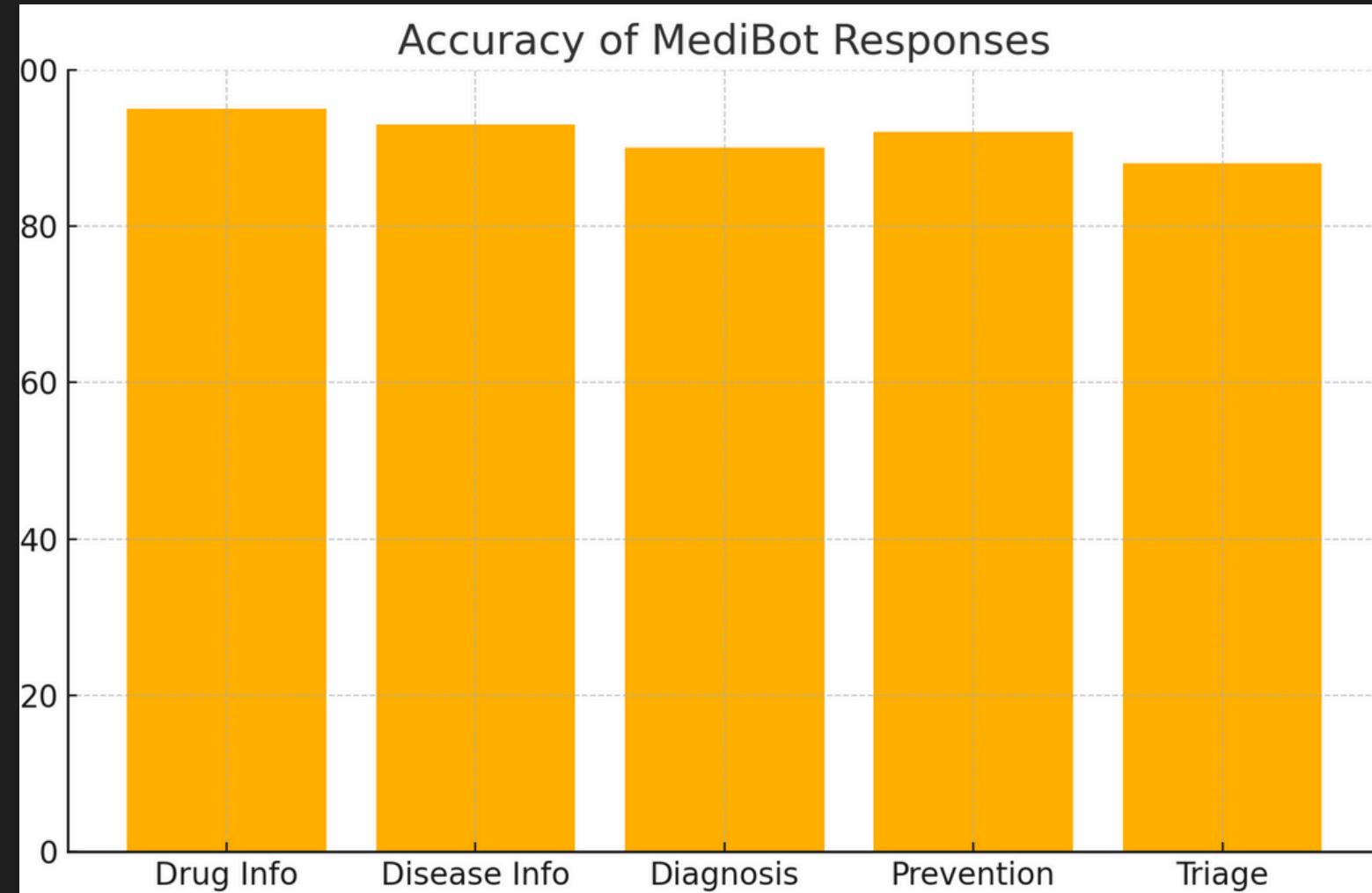
HOSTING (OPTIONAL): STREAMLIT CLOUD / RENDER



TECHNICAL STACK USED



ANALYSIS



OUTPUT SCREENSHOT

The image displays two screenshots of the MediBot Chatbot - Diagnosis Support and Triage interface, running on localhost:8502. Both screenshots show a dark-themed chat window with a sidebar containing medical information.

Screenshot 1 (Left): COVID-19 Information

The sidebar contains a detailed description of COVID-19, stating it is an infectious disease caused by the SARS-CoV-2 virus, first identified in December 2019 in Wuhan, China, and has since become a global pandemic. It spread through respiratory droplets and surfaces. A list of symptoms follows:

- Fever or chills
- Cough
- Shortness of breath or difficulty breathing
- Fatigue
- Muscle or body aches
- New loss of taste or smell
- Sore throat

A search bar at the bottom allows users to "Ask MediBot about drugs, diseases, symptoms, or diagnosis..."

Screenshot 2 (Right): Dolo Medication Information

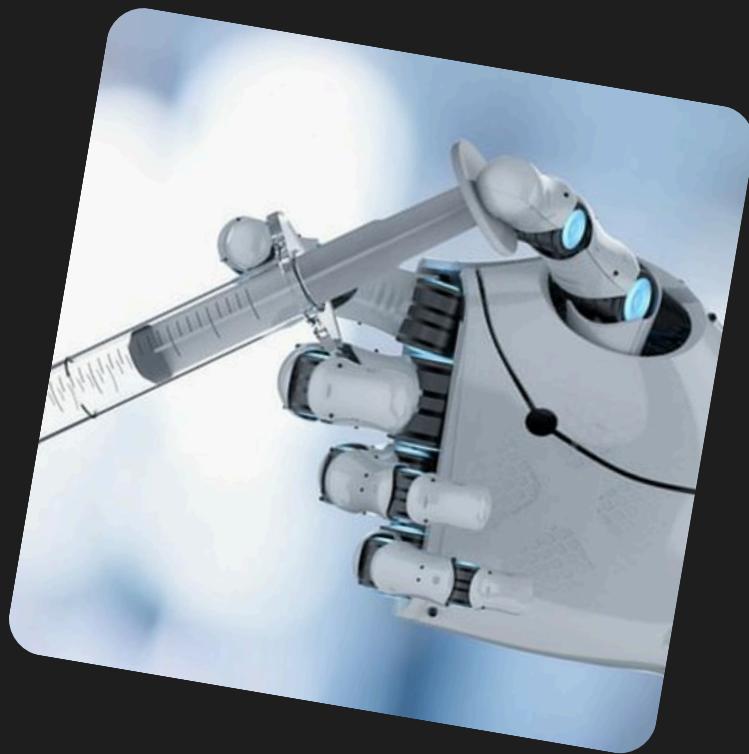
The sidebar contains information about Dolo, a medication containing acetaminophen (paracetamol) and caffeine. It is used for pain relief. Common uses include relief from headaches, muscle aches, menstrual cramps, and toothaches. A note cautions against excessive use due to potential side effects like liver damage and insomnia.

A search bar at the bottom allows users to "Ask MediBot about drugs, diseases, symptoms, or diagnosis..."

MEDIBOT IS A SMART AND USER-FRIENDLY MEDICAL CHATBOT THAT GIVES QUICK ANSWERS TO HEALTH-RELATED QUESTIONS. IT HANDLES SYMPTOMS, DRUG INFO, PREVENTION TIPS, AND TRIAGE USING AI. THE SYSTEM WORKS FAST, GIVES ACCURATE REPLIES, AND RECEIVED GOOD USER FEEDBACK. IT MEETS ALL GOALS AND IS READY FOR FUTURE UPGRADES.



CONCLUSION



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