



An AI-Based Medical Chatbot Model for Infectious Disease Prediction

TEAM-26

BY:

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GUIDE:

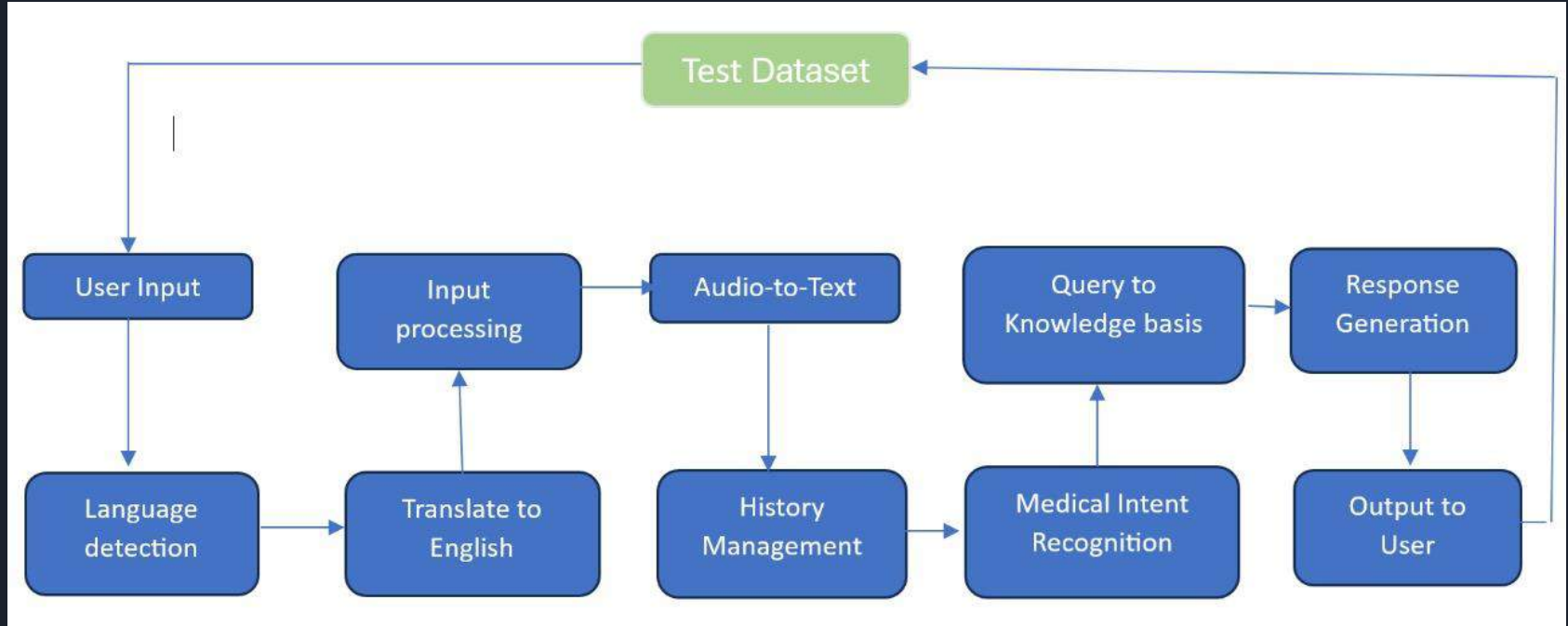
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PROBLEM STATEMENT

- ❑ Design and implement an AI-driven medical chatbot leveraging natural language processing and deep learning methodologies to provide accurate and timely information on symptoms, diseases, treatments, and essential medical services.
- ❑ The goal is to develop an interactive platform capable of understanding user queries, offering informed medical advice, and disseminating crucial health-related information during pandemics and health crises.
- ❑ The project aims to ensure the chatbot's reliability, accuracy, and user-friendliness, enabling seamless interactions between users and the chatbot interface for efficient healthcare support and guidance.

FLOWCHART





LITERATURE SURVEY

- This paper explores the rising literature on integrating chatbots in the medical sector to combat infectious diseases, emphasizing strategies for their promotion in healthcare. The research details a 2021 training model and study report, focusing on enhancing human interaction through natural language processing in databases. The proposed deep feedforward multilayer perceptron model addresses a knowledge gap, stressing the importance of theoretical guidelines for effective AI chatbots, especially in lifestyle improvement programs. The study's comparative analysis highlights the model's robustness, with a minimum loss of 0.1232 and an accuracy of 94.32%. The paper extends its discussion to the functionalities and challenges of medical chatbots during health crises, providing a comprehensive understanding of their applications. In conclusion, the findings contribute valuable insights to the evolving field, showcasing the potential for continuous improvement in medical chatbot functionality, particularly in addressing health crises such as the ongoing COVID-19 pandemic.



DATASETS USED

- ❖ **Dataset Content:**

- ❖ Contains medical information structured in JSON format.
- ❖ Includes various keys for pattern recognition and mapping, categorized under parent and child keys.
- ❖ Covers symptoms, diseases (such as COVID-19, Deep Fever, chronic diseases), treatments, RT-PCR tests, side effects, past infections, and service-related information (like doctor's numbers, hospital contacts).

- ❖ **Dataset Functionality:**

- ❖ Supports pattern recognition and input-output mapping for the chatbot's responses to user queries.
- ❖ Facilitates the understanding of patterns and text for the neural network-based model used by the chatbot.



LSTM :

- FORGET GATE
- INPUT GATE
- CELL GATE
- OUTPUT GATE



TECHNOLOGIES USED

TENSORFLOW

KERAS

PYMYSQL

PICKLE MODULE

Google Translator Api

DJANGO (Frontend)



CONCLUSION

The AI-based medical chatbot project described in the provided sources focuses on developing a sophisticated chatbot model for infectious disease prediction, particularly during the Covid-19 pandemic. The project incorporates advanced technologies like chatbots, language translation modules, speech recognition, and the Django web framework to enhance user interaction and accessibility. By utilizing neural network architectures, LSTM models, and decision tree algorithms, the chatbot demonstrates high accuracy in predicting diseases, providing treatment information, and offering personalized healthcare guidance. The system's ability to track user history, integrate multilingual support, and enable voice-based interaction showcases its potential to revolutionize healthcare accessibility and disease management. Through rigorous testing and continuous improvement, the project aims to provide a user-friendly, efficient, and personalized healthcare solution for a diverse user base.



Future scope


- Implementing with new languages
- Giving input with images.

RESULTS:

Medical Chatbot

127.0.0.1:8000/Signup.html

Home User Login Here New User Signup Here



New User Signup Screen

Username

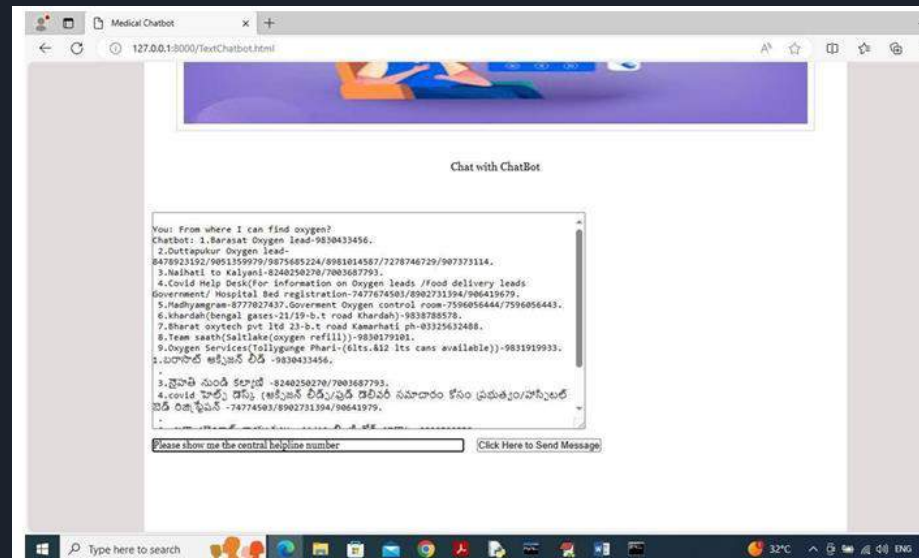
Password

Contact No

Email ID

Address

RESULTS:



Medical Chatbot

127.0.0.1:2000/ViewHistory

Username	Question	Chatbot Response	Date
suresh	need your help	Yes sure I will help you	2024-03-08
suresh	From where I can find oxygen?	1.Barasat Oxygen lead-9830433456. 2.Duttapukur Oxygen lead-8478923192/9051359979/9875685224/8981014587/7278746729/907373114. 3.Naihati to Kalyani-8240250270/7003687793. 4.Covid Help Desk(For information on Oxygen leads /Food delivery leads Government/ Hospital Bed registration-7477674503/8902731394/906419679. 5.Madhyamgram-8777027437.Government Oxygen control room-7596056444/7596056443. 6.khardah(bengal gases-21/19-b.t road Khardah)-9838788578. 7.Bharat oxytech pvt ltd 23-b.t road Kamarhati ph-03325632488. 8.Team saath(Saltlake(oxygen refill))-9830179101. 9.Oxygen Services(Tollygunge Phari-(6lts.&12 lts cans available))-9831919933.	2024-03-08
suresh	Please show me the central helpline number	The central help line number is: +911123978046	2024-03-08

Type here to search

32°C

12:49



Thank you!

