

An AI-Based Medical Chatbot

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Abstract

This medical chatbot has the potential help by allowing patients to receive. Support without having to physically visit the hospital for this process we use. Hence artificial intelligence -based application for the needed treatment. This chatbot works like virtual doctor based on NLP to provide primary healthcare, education information and Suggestion to the user.

These medical chatbots connect with potential patient visiting the web app. helping them discover Specialist, booking the appointments & getting them access to correct treatment. This Medical chatbot model Uses Natural language processing technique to process & analyse the data & the medical chatbot give output related health issues and to prevent the disease in appropriate manner to the user.

The main goal of medical chatbot project is to appearance how we can to briefly promote chatbots in the medical sector & infectious diseases. Medical chatbots are designed to assist patients and avoid issues that may arises during daily life and normal business hours, and with 24/7 accessability patient have immediate access to medical chatbot assistance whenever they need.

Keywords: Artificial intelligence, chatbot, LSTM algorithm, machine learning, natural language processing, query processing.

I. INTRODUCTION

In the twenty first century, artificial intelligence algorithms have been used to create a uprising medium with which users can interact with their needs to prevent and solve their problems easily.

There are many challenges in this country regarding good quality and affordable healthcare with growing population [1]. Users can ask multiple questions as well as symptoms he is going through regarding the medical health issues, and can save much time without consulting a doctor physically.

The main objective of this medical chatbot is to reduce healthcare costs and patient usage time, as it might not be possible for the users or patient to visit doctors or experts in emergency situations [2].The user can easily make conversation to this chatbot. moment the user walks into the queries regarding different health disease using the text and voice typing.

Using this web application we can create awareness through the user and the user can get proper medical solutions to find out the exact disease [5]

II. LITERATURE SURVEY

1. **“Design and Development of Conversational Chatbot for Covid- 19 using NLP”, ICCMC, 2022:** an AI application The proposed chatbot works with an objective to extend Medical resources and verified information related to COVID19 to all sections of society for better health management.
2. **“Chatbot Implementation to Collect Data on Possible COVID-19 Cases and Release the Pressure on the Primary Health Care System”, IEEE, 2021.** Chatbot innovation provides a fresh approach for businesses to serve users. Chatbots change how people connect with each other a person and a computer, carrying out a number of operations while having a conversation, setting aside traditional interfaces.
3. **“COVIBOT- An intelligent WhatsApp based advising bot for Covid-19”, ICCIKE, 2021.** The creation of the bot that is depicted in the paper is done by a view keeping in mind to help the humanity and provide a mechanism that is sufficient to advise a common person without any financial obligation about his health.
4. **“Conversational Artificial Intelligence Powered Chatbot for Delivering Tele-Health after COVID-19”, IEEE, 2020.** Keeping in mind the after-effects of a pandemic and the imbalance between the demand and healthcare services currently provided, especially in rural India have tried to bridge the gap by creating a Multilingual Conversational Application with Natural Language regular on-site consultations.

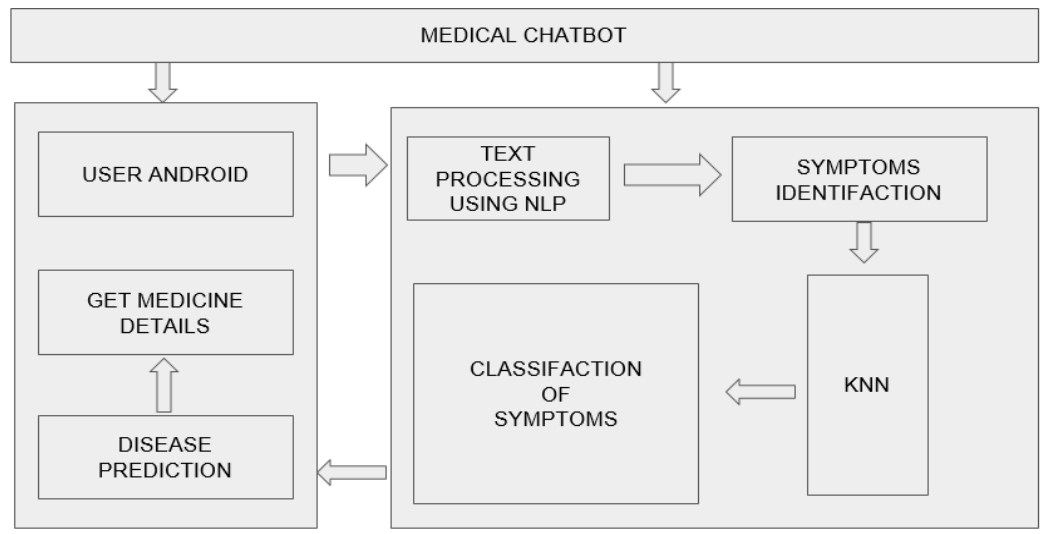
III. PROPOSED SYSTEM

User interface is user-friendly like chat window or chat room. Natural Language Processing The chatbot should be trained with vast knowledge of medical information such as symptoms, conditions, treatments, drug information and precautions. The user authentication is required Chatbot can provide preliminary diagnose.

Chatbot can connect users to telemedicine services, allowing than to virtual consultation. Chatbot support multiple languages to make the chatbot accessible to wider user base. Ensure the chatbot compiles with relevant healthcare regulations and standards.

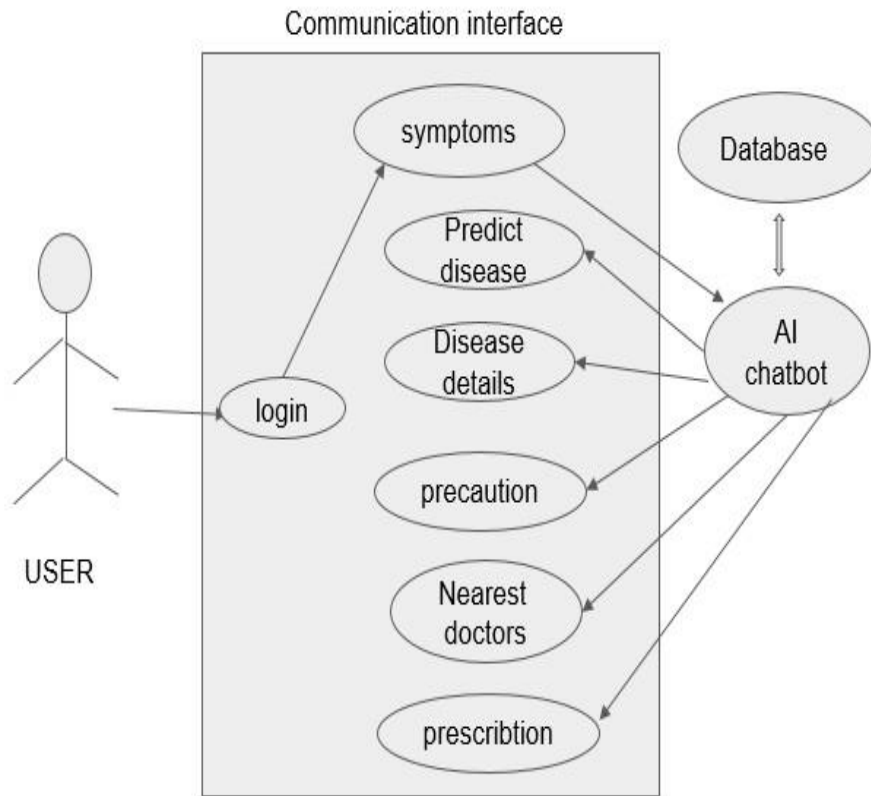
Advantages:

- Users can ask multiple questions as well as symptoms he is going through regarding the medical health issues, and can save much time without consulting a doctor physically.
- The medical chatbot give output related health issues and to prevent the disease in appropriate manner to the user.
- Using this web application we can create awareness through the user and the user can get proper medical solutions to find out the exact disease
- Medical chatbots are designed to assist patients and avoid issues that may arises during daily life and normal business hours, and with 24/7 accessability patient have immediate access to medical chatbot assistance whenever they need.



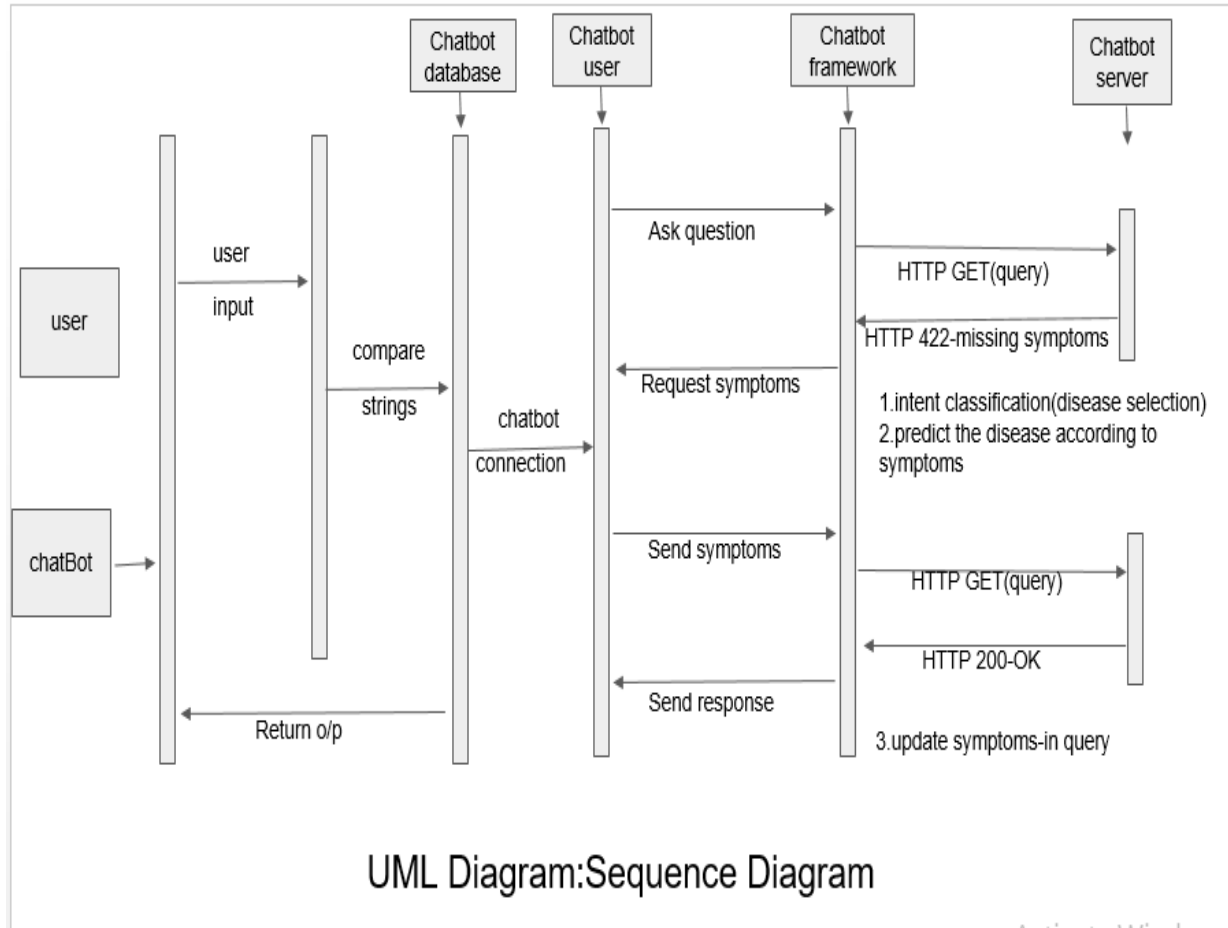
System Planner Diagram: Creating a system architecture diagram for the "An AI-Based Medical Chatbot" would involve illustrating the key components, their interactions, and how data flows within the system.

Use Case Diagram: A use case diagram for the "An AI-Based Medical Chatbot" should outline the various actors (users and external entities) and the use cases (functionalities) they interact with in the system.



Use case diagram

Activity Planner Diagram: An activity diagram for the "An AI-Based Medical Chatbot" can help visualize the workflow and activities within the system. Below is a simplified activity diagram representing the high-level processes and interactions that can occur within the application.



IV. FUTURE SCOPE

Healthcare accessibility can be increased or enhanced for basic diagnosis and information you don't have to visit doctors. Healthcare can be available even in remote or underserved areas can get a proper information about any diseases.

This helps in real-time communication with healthcare. Chatbots can personalize healthcare recommendation and reminders. Health can be monitored continuously. Chatbots can also provide health education. It can also give mental health support. Chatbot also gives information of medical appliances.

V. CONCLUSION

This Medical chatbot model Uses Natural language processing technique to process & analyse the data & the medical chatbot give output related health issues and to prevent the disease in appropriate manner to the user. The prospective medical chatbot works with an objective to extend medical resources and provide information related to all health diseases sections of society for better health management.

The medical chatbot can accommodate to support medical needs by providing best information, suggestions, symptoms, medications and other related resources for other contagious diseases. The user can easily make conversation to this chatbot, when the user enters the queries regarding different health

disease using the text and voice typing. Using this web application we can create awareness through the user and the user can get proper medical solutions to find out the exact disease.

VI. REFERENCES

List all the material used from various sources for making this project proposals

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