



INTELLIGENT CHATBOT FOR PREDICTING DISEASES AND SUGGESTING TREATMENTS

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ABSTRACT

Chatbots are artificial intelligence-based text or voice interfaces that allow users to converse and get responses. A chatbot will usually converse with an actual person. Chatbots are employed in contact centers, online gambling, and e-commerce customer care, among other uses. Programs designed to automatically respond to messages are known as chatbots. Chatbots can be configured to react consistently, to react differently to messages that contain specific keywords, or even to utilize machine learning to tailor their responses to the context of the message. Online chatbots are being used by an increasing number of healthcare facilities, assisted living facilities, and even private centers to provide human services on their websites. By interacting with potential patients on the website, these bots assist them in finding specialists, scheduling appointments, and gaining access to the appropriate care. Nevertheless, the application of artificial intelligence in a field where people's lives may be at stake continues to raise concerns. It raises questions about whether the aforementioned duty should be delegated to human personnel.

Keywords: Chatbot, intelligent, disease prediction, treatments

1 INTRODUCTION

Humans have been working so hard every day over the past few decades that they have neglected to regularly prioritize their health. Over time, this issue puts people's quality of life at danger. However, we can now offer affordable healthcare services to people at their convenience because to artificial intelligence. We are extremely fortunate to have a healthy physique. Everybody aspires to a healthy body and an improved quality of life. This paper's main goal is to accomplish the aforementioned goal by offering these services. Since high-tech devices have become a necessity in our life, it is hard to picture living without them. As a result, the numerous uses of artificial intelligence in research are contributing to the growth of the discipline. One of the key objectives of the researchers is to anticipate diseases based on the findings of big data analysis, which enhances the accuracy of risk classification based on a vast amount of data. [1]In developing nations, e-healthcare facilities are an essential resource, but their establishment can be challenging due to a lack of awareness and infrastructural development. the internet to get the answers to their questions about



healthcare. In order to support medical practitioners, we have created a platform that allows patients to receive online medical services. Additionally, the user can more easily obtain medical advice and learn about the different disorders and associated diagnoses. We have a chatbot for illness prediction that we have adopted to improve communication. Natural language processing, or NLP, is used by chatbots—the human equivalent of AI—to read user input and provide relevant responses. The disease prediction chatbot proposed in this study makes use of machine learning methods and natural language processing ideas. KNN and Decision Tree algorithms are used in the prediction process. Among the most popular classification algorithms used in disease prediction are KNN and Decision Tree. The NLP-driven chatbot helps with that. [2] The NLP concepts of wordnet and tokenization are applied. Tokenization divides the provided text into a list of terms, while WordNet is a dictionary lexical database intended for natural language processing. The study also focuses on the process of extracting text from the patient's scanned pathology report using Tesseract, an optical character recognition tool. By offering a graphical analysis of the test result, the generated text facilitates a more straightforward translation of the report.

2.LITERATURE SURVEY AND RELATEDWORK

In the paper by Rashmi Dharwadkar [5], the working of a chatbot relies upon Natural language preparation that causes clients to advance their issues about actual wellbeing. The patient can ask his wellbeing- related issues/inquiries through the clinical chatbot, it isn't required to test the client/patient should mandatorily go to the medical clinic rather by utilizing Google API for text-voice or voice-text discussion. Chatbot gets the inquiry from the client and showcases the connected arrangement through an android app.The proposed idea of the paper "A novel approach for medical assistance using trained chatbot" by Divya Madhu [4] is to plan a model utilizing computerized reasoning eat encourages the client to perceive the certified treatment for sickness. There are a ton of medicines accessible for a specific illness and nobody can explicitly recommend the appropriate treatment and which is the best counterpart for that infection. In this proposed, man-made brainpower assumes a significant part by giving a record of accessible medicines dependent on the illness perceived through the side effects. The framework recommends the medications for illnesses and their rec repaired utilizes and causes the client to choose an appropriate treatment. This framework urges individuals to Ave a fundamental thought of their wellbeing and monitor their health status, accordingly encourages the client to take appropriate treatment. The proposed thought of the paper "A self-conclusion clinical chatbot utilizing man-made reasoning" by S.

3 EXISTING SYSTEM

In this project we are designing hospital systems where chatbot will accept symptoms from patient and then suggest doctor availability date and time for that symptoms. To send SMS to doctor we need to have mobile service provider without that this service will not work and you are asking to generate prescription by chatbot but we don't have diseases and related medicines to generate prescription so we are not doing this but chatbot will suggest doctor by taking symptoms from patients.

4 PROPOSED WORK AND ALGORITHM



A chat bot will communicate with a real person. Chat bots are used in applications such as ecommerce customer service, call centers and Internet gaming. Chatbots are programs built to automatically engage with received messages. Chatbots can be programmed to respond the same way each time, to respond differently to messages containing certain keywords and even to use machine learning to adapt their responses to fit the situation. A developing number of hospitals, nursing homes, and even private centers, presently utilize online Chatbots for human services on their sites.

5 METHODOLOGIES

MODULES

- This application consists of 4 modules
- New user Registration: Using this module users can sign up with the application.
- Login: Using this module user can login to application
- Chabot: Using this module users can interact with Chabot
- Logout: Using this module users can exit from the application

6 RESULTSANDDISCUSSION

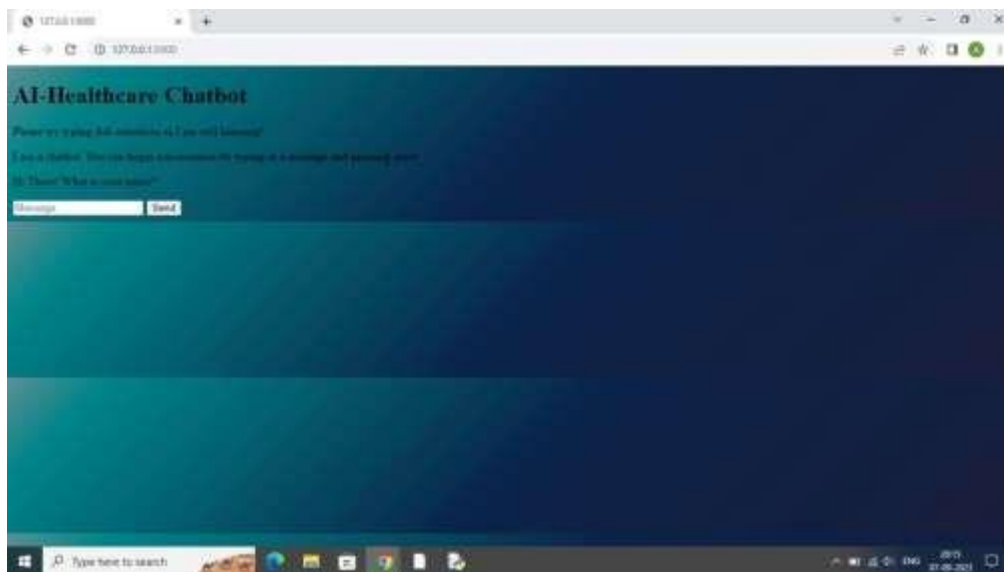


Fig 1:-AI Chatbot

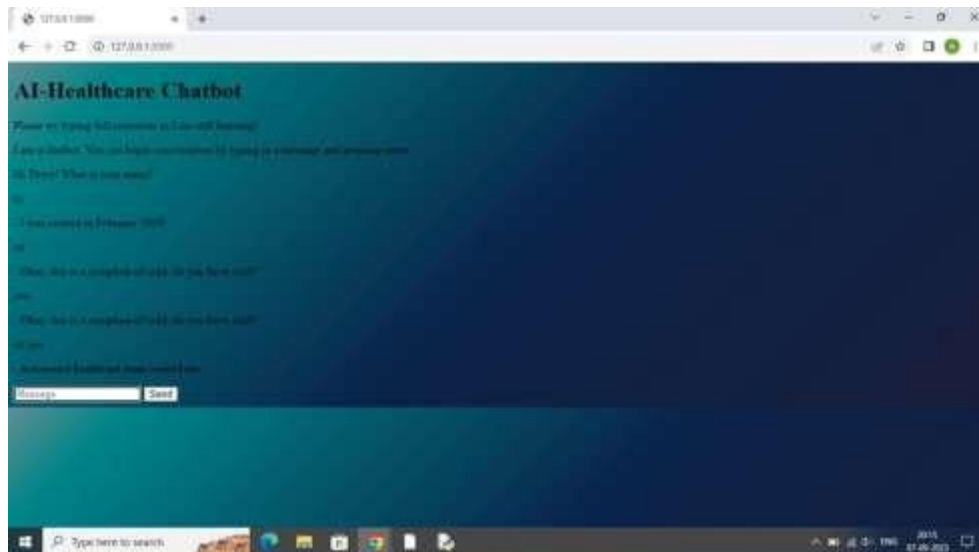


Fig 2:-AI chatbot asking questions according our problem

6. CONCLUSION AND FUTURE SCOPE

This paper presented the basic concepts of chatbots. It provided a synopsis of concepts, items, and platforms that are now accessible as well as those that were in the past. The present fascination with chatbots, their applications, and constraints have all been thoroughly examined. An example chatbot that incorporated interaction and user experience design as well as a generic, reusable software architecture for chatbots was created to demonstrate many facets of implementing chatbots and dealing with conversational interfaces. The objective was to provide an overview of chatbots, including what they are, how to make them, and their use cases, even though not all elements could be covered in the scope of this work. This information should facilitate the investigation of more chatbot applications and allow more developers to use chatbots in novel contexts, which will enhance overall human-machine interaction.

Future applications for chatbot-based illness prediction seem bright because these systems can deliver timely, easy-to-access healthcare information. The following are some possible advancements and paths for disease prediction using chatbots:

Increased Accuracy: By using cutting-edge AI and machine learning techniques, chatbots will become more accurate in predicting diseases. They will improve their forecasts over time by continuously learning from a large body of data.

Integration with Health Data: In order to get real-time health data, chatbots will more frequently link with wearable technology and electronic health records (EHRs). Predictions and suggestions will be more individualized because to this integration.

Early Warning Systems: For some diseases, chatbots may act as early warning systems. Through the examination of a user's lifestyle and medical history, risk factors can be identified and preventive actions suggested.

Chatbots can help with remote patient monitoring by following up with patients who are



managing chronic diseases on a regular basis. If they notice any worrying patterns or departures from the norm, they can notify medical professionals.

Population Health Management: By using chatbots to collect data more extensively, healthcare institutions can better detect patterns or epidemics within particular groups. This can be especially helpful for interventions related to public health.

Support for Mental Health: Chatbots are set to take on a more significant role in the field of mental health, providing early intervention, resources, and support for disorders such as anxiety and depression. They can also identify distress signals and suggest getting expert assistance.

Telemedicine Integration: To save time and money for patients and healthcare practitioners alike, chatbots can integrate easily with telemedicine platforms to do preliminary assessments and refer patients to the right degree of care.

Personalized Health suggestions: Based on a person's genetic predisposition, lifestyle, medical history, and preferences, chatbots will offer more individualized health suggestions. These suggestions may cover things like stress reduction methods, medication schedules, food, and exercise.

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