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Automatized Medical Chatbot

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Abstract: *In the current world situation, people are more concerned about their health. Unfortunately, nowadays the doctor human resource is lesser than the patient. These circumstances make a lot of people who seek treatment are unhandled. Many studies can solve this problem with some kind of chatbot or health assistant. In this paper, we want to explore and deepen more about chatbots that could help people to get the same and proper treatment as a doctor would do. Chatbots are mainly usedfor the processing of specific tasks, and can introduce products to customers or solve related problems, thus saving human resources. Text sentiment recognition enables chatbot to know the user's emotional state and select the best response, which is important in medical care. In this study, we combined the multiturn dialogue model and sentiment recognition model to develop a chatbot, that is designed for used in daily conversations rather than for specific tasks. I believe that in the next few years every major business will have a chat bot to deal with customers' basic queries and maybe even go as far as processing full orders. Chat bots have the potential to replace call centers, customers can get their queries answered simply by opening their fovouratemessaging platform and chatting with a bot.*

Keywords: Python, Django Framework, NLP Algorithm

I. INTRODUCTION

A Chatbot is a system that can interact with human users with natural language. The vast amount of information that is available on the internet allows Chatbots to provide accurate and efficient

Information based on the user's requirements. Chat bot system is automating lot of customer care service and also company, institutions, organization's websites. User get quick response to the questions which are more common are which are frequently asked. Here we have proposed chat bot system for patients. Patients definitely may have lots if queries related to diseases, medicines and other facilities.

Instead of asking any random person they can get quick answer via this chat bot system. A chatbot is an AI agent that can participate in a conversation with a user. Most are equipped with a messenger type interface with an input from a user and an output from the chatbot. The chatbot processes the users input and outputs a reply based on what the user has just sent. It could be a greeting, conversation topic, or even an image.

Advances in modern technologies have caused a shift towards digital health in healthcare, where clinical and administrative activities can be assisted by computer-generated analytics, and with the use of electronic medical records. However, although health professionals have trained for years to practice, retrieving information from a large-scale database often requires specialist IT skills and a specialized infrastructure. As a result, health professionals are often limited by their own personal experience or thatof peers in a joint practice. Therefore, an information retrieval system in the form of a question answering (QA) model can be of great value for health professionals, in helping find similar patients, patterns of disease, or successful treatments.

II. PROBLEM STATEMENT

It is difficult to have access to hospital and doctors personally on regular basis. It is time-consuming and costly to approach hospitals for normal consultancy. There is need for localized people to connect to the medical practitioners at ease, which is possible by using machine learning approach.

Several times, its difficult for common people to get consultancy from health experts on time and at affordable cost. This can be reduced using technologies present.

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III. OBJECTIVE

1. To create an intelligent AI or ML based chat bot that can allow a human inter-acting with the bot to have an ongoing, interesting and enriched conversation featuring looked up information from Google.
2. Basic functionality – Ability to respond only texts conversion
3. Advanced logic –Ability to respond text as well as voice conversion.
4. Voice communication helps to easily interact with doctors.
5. The bot should be able to pick topics to talk about rather than waiting on user input.

IV. UML DIAGRAM

4.1 System Architecture

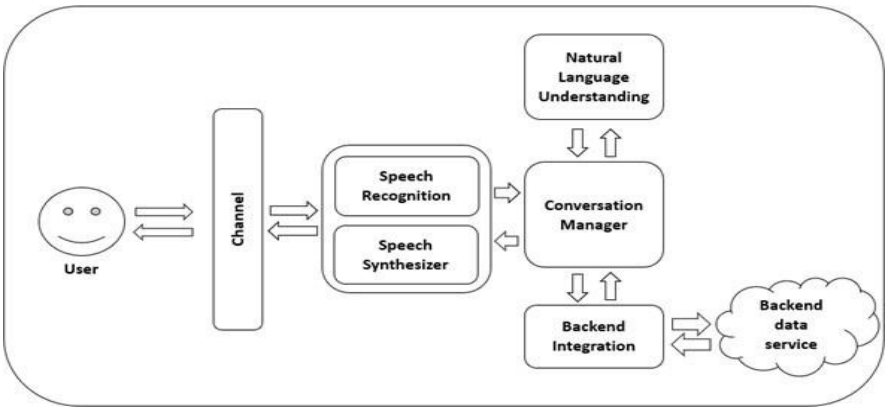

Figure 1: System Architecture

4.2 Use Case

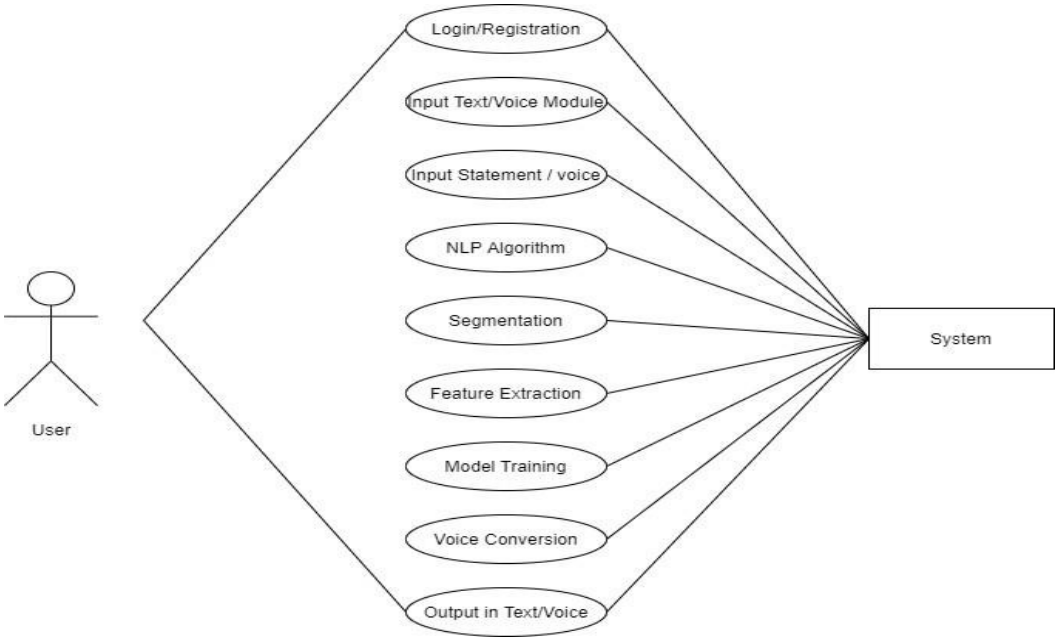

Figure 2: Use Case Diagram

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4.3 Activity Diagram

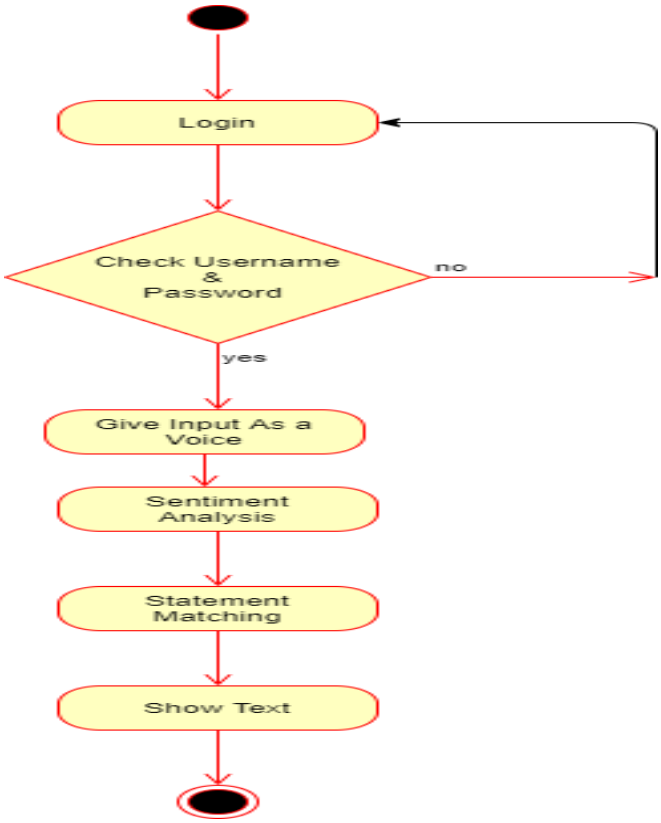

Figure 3: Activity Diagram

V. CONCLUSION

From the review of various journals, it is concluded that, the usage of Chatbot is user friendly and can be used by any person who knows how to type in their own language in mobile app or desktop version. A healthcare system provides personalized diagnoses based on symptoms. In the future, the bot's symptom recognition and diagnosis performance could be greatly improved by adding support for more medical features, such as location, duration, and intensity of symptoms, and more detailed symptom description. The implementation of Personalized Medical assistant heavily relies on AI And ML algorithms as well as the training data. At last, the implementation of personalized medicine would successfully save many lives and create a medical awareness among the people. As said before, the future era is the era of messaging app because people going to spend more time in messaging app than any other apps. Thus healthcare system has wide and vast future scope

ACKNOWLEDGMENT

It gives us great pleasure in presenting the preliminary project report on 'Web Based Application for Medical Chatbot'. We would like to take this opportunity to thank our internal guide Prof. A P Kulkarni for giving us all the help and guidance we needed. We are really grateful to her for their kind support. Their valuable suggestions were very helpful. We are also grateful to Prof. Dr. R. V. Babar, Head of IT Department, SIT Lonavala for his indispensable support, suggestions.

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