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Medical Chatbot Using Android

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Abstract:

Medical services are necessary to human survival, in spite of the fact that they typically have minimal funding. Current technology is used to improve service capability and save operating costs. Medical services can use chatbots or automatic response systems. The aim of this accomplishment is to use chatbot technology to build the medical consultant system service. Health centre are the most popular setting for providing sick patients with medical analysis, disease analysis, and medication prescription. The purpose behind this is to make it simpler for people to check on their health as opposed to the traditional method of having to wait hours in queue to acquire their prescription. This research seeks to create a chatbot in order to build one.

Keywords- Prescription, Disease Analysis, Android Studio, Chatbot.

I.INTRODUCTION

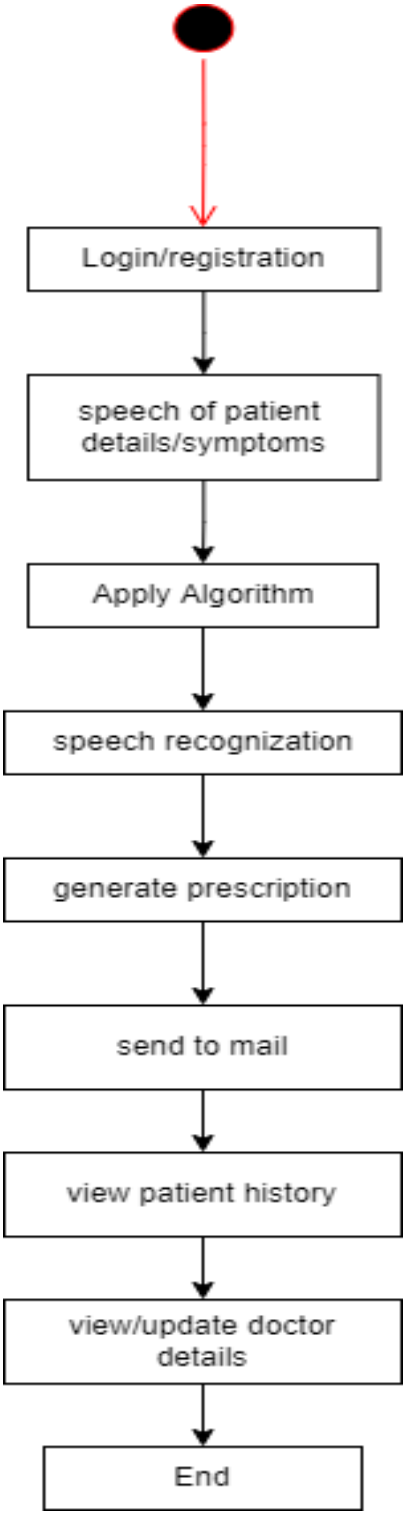
A medical chatbot allows us to chat with system to predict our disease and it is also an electronic prescription generating system. A Chatbot is a system that can interact with human users with natural language. A chatbot is an entity that mimics human conversation using a textual or spoken language and its specific acceptable setup techniques such as Natural Language Processing (NLP). Your system will email you your electronic prescription throughout the course of your appointment. An chatbot can be used to prescribe any medication. Your smart device stores the message with a link to your chatbot so you can access it whenever you're ready, saving you time, expediting the procedure, and enhancing pharmaceutical safety. patient get medical help using chatbot .its also helpful for doctor for making prescription digitally using speecher class and speech to text class also patient can predict there disease using data-set link hashset collection framework its work in key value format, we design chatbot using volley library. Because of the large amount of information on the internet, chatbots can deliver precise and effective information based on the user's needs. Chatbots are utilised for casual communication as well as in fields like customer support, virtual assistance, online trainings, and online reservations. Our goal is to show that the our medical Chatbot will be a better alternative to many other existing Chatbots in the domain of medicine.

II.LITERATURE SURVEY

A.an automatized medical chatbot is a system tool with human interaction using natural language diagnosis to provide medical service. Because of the large amount of information on the internet, chatbots can deliver precise statistics that are organised according to user needs. Chatbots are utilised for ordinary chat as well as in fields including customer support and services, virtual assistance, online trainers, and online reservations. We created a diagnosis bot that interacts with patients and describes their condition in straightforward English. The chatbot inquires for relevant particulars, Example: name, age, etc. and demand for symptoms. Our chatbot can withdraw patterns from messages using Artificial Intelligence Mark-up Language (AIML)based on Extensible Mark-up Language(XML) to strengthen Artificial Intelligence applications.The structure asks progressively more specific questions in order to obtain a good analysis. A medical chatbot is a program computer using automatic reply through text, picture, links and video etc. There are 2 types of the chatbot, i.e. Rule-Based chatbot and AI-Based chatbot. Rule based approach is the way to develop chatbot by specifying conditions and rules to the chatbot. When a user asks some questions without giving any conditions, the chatbot will not understand that

question. Therefore, this type of chatbot is not suitable for the conversation application. AI-based or intent-based approach is the technique that bases on the human ability to learn by themselves and gain effective information. To do this, the chatbot is trained based on natural language processing (NLP) with the data sets, which are conversion dialogs, to extract the combination of conversation including intent, context, and entity. This method can be implemented using a variety of contemporary tools, including IBM Watson, Api.ai or Dialogflow, and Wit.ai. Generally,on the basis of implementation chatbot requires templates that can match the user's inputs and generate the appropriate result. At that time, there are many ways to develop a chatbot without coding which makes the development of the chatbot is easy, convenient and fast.

III.PROPOSED FLOWCHART



IV.FEATURES

A.Disease Prediction:

Health maintenance is one of the most widely used applications of these technologies. DL stack up a maximum volume of patient data, including patient, medical, and insurance records, into neural

networks to develop better results. Disease prediction systems have been playing a remarkable role in the life of people, and it has been considered an crucial topic by many academics. In health protection management, data mining holds a remarkable role in disease prediction .

B.Generate Prescription for patient:

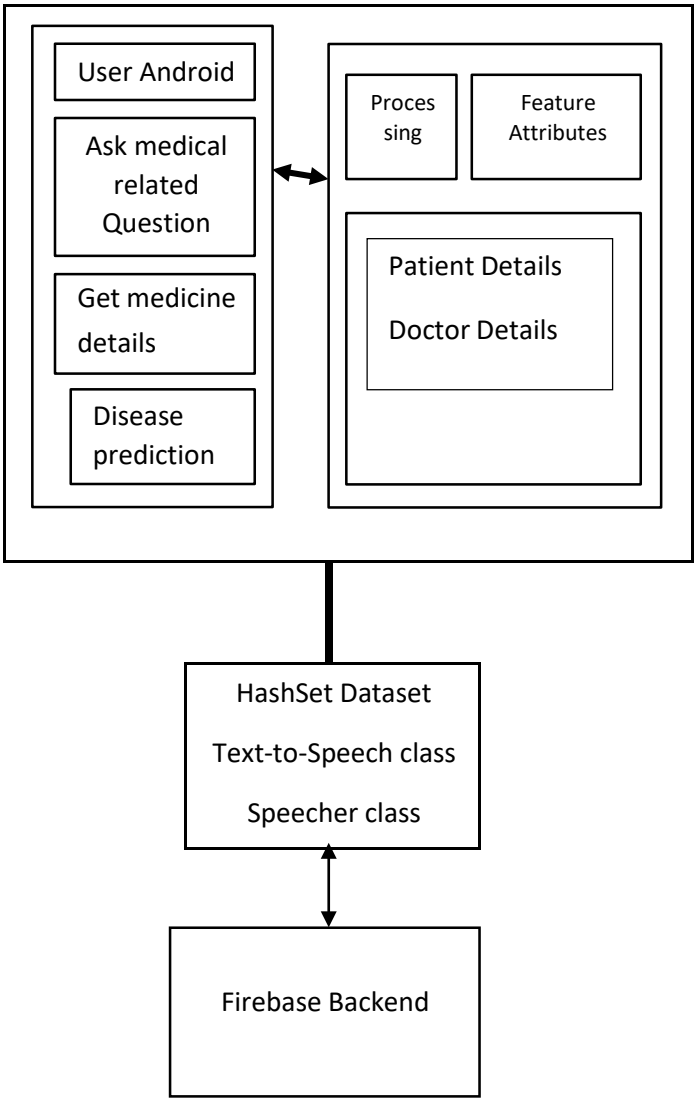
Medication prescription is one of the most common and powerful treatment method used by medical practitioner. For years, hand-written prescription has been a preferred communication method for medical practitioner in decision making concerning medication therapy, and pharmacists in in distributing medications. On the other side, it has been a valuable instruction on how to use medications for patients. Besides, it is considered as an crucial activity in the health maintenance process. National health care systems face various forces such as demographic changes followed by increasing need for health protection services. Hence, people move to use more medications which have been resulted in increasing the number of prescriptions and diversity in medication types. Therefore, society became much more relying on medication prescribing, distributing, administrating and processing systems. Medication process is an specious procedure.

C.Get medical information using Chatbot:

In our medical chatbot the user can interact with the chatbot through text and chatbot will interact to user through voice and text manner. With respect to the users queries, the chatbot identifies the disease if user chatting with the chatbot. In accordance with the diseases of the user, chatbot gives ideas for the disease and also prescribe specialist doctors. This system can be used by multiple users at a time without any delay. This medical chatbot helps users to submit their complaints and queries regarding their health. Customer fulfilment is the major concern for developing this system. . The actual prosperity of the chatbot is the facilitate the people by giving proper advice regarding the good and healthy life.

V.SYSTEM IMPLEMENTATION

A.SYSTEM ARCHITECTURE



B.IMPLEMENTATION PROCESS

In this section, the system implementation process is described. After that, the implementation process is elucidated. Finally, the tool set that uses to build the chatbot is demonstrated. The details of each part are given below.User forward a conversation phrases to the application. Then the application forward the message to Dialogflow, which is the engine of the medical chatbot. The message is extracted to obtain the goal. The response according to the message aim is predefined from the training

phrase in the fulfillment. In few case, to react to the request message, the system needs to pick up the data from an external database or APIs. For doing this, the additional coding is required. After that, the system will create the actionable data that user can understand and send back to the application. Finally, the user will receive responses in form of text. To implement chatbot, four steps of work are done, which are System Analysis, System Design, Development, and Testing system were performed.Following are the details of this process.The chatbot type of our system is the intentbased approach, which the architecture. The chatbot is where Line application is used in our study.

VI.RESULTS AND DISCUSSIONS

Health professionals can electronically deliver prescriptions to patients via chatbot systems, which involve the computer-based production, transmission, and filling of a medical chatbot. However, there are two significant security risks because of strict legal requirements and privacy rules. Our medical chatbot give medical helpto the patients for some general diseases like fever,cold, typhoid, malaria and jaundice.we have tendency to area unit originating the system owingto the requirement for increasing population of our country. Thus, the medical chatbot can provide medical help to the patients when the doctor isn't available. The implementation of chatbots within the medical domain is sort of the easiest way on far side our imagination.

VII.CONCLUSION

Its main purpose of this research paper is to make lives easier and healthier for the people who do not have time to look after themselves. Medical Chatbot is capable to function as a virtual doctor. As a server, the chatbot runs. The chatbot will specify their symptoms to the user of this application, and in response, the chatbot will specify the nearest possible illness and the health care steps to be taken.

The dataset includes general information about symptoms and illnesses, so the chatbot example will provide the user with information about illness and care. After observing the symptoms of the various users, the user is eventually able to predict the disease and provide a parameter where the specific needs are met. A chatbot will be helpful to people as it will ask for their symptoms and provide the most suitable disease to them along with the nutritional breakdown of the food that they have consumed. It is highly difficult for working people to go to hospitals for their checkups. Chatbot does not need the support of any doctor to provide users with effective health steps, and this is one of chatbot's key advantages. In addition, the cost-effectiveness of chatbot use is a big attraction for users.

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