VIRTUAL TREATMENT AND CONSULTATION SYSTEM

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ABSTRACT

Virtual Treatment and Consultation System maybe a project that explores what is accomplished with AI agents within the world we sleep in today the matter studied during this report is claimed to the virtual planning system is for the emerging and non-emergent patient. Virtual Treatment and Consultation System is automating a lot of customer care services and also companies, institutions, organization's websites. The user gets a quick response to the questions which are more common are which are commonly asked. Here we've proposed a Virtual Treatment and Consultation System for patients. Patients definitely may have queries related to, medicines and other facilities. instead of asking any random person, they'll get a quick answer via this method. This paper will highlight an analysis of the Virtual Treatment and Consultation System.

Keywords: NLP, Data Mining, Treatment, Chatbot, Consultation.

I.   INTRODUCTION

Virtual Treatment and Consultation System is automating a lot of customer care service and also company, institutions, organization's websites. The user gets a quick response to the questions which are more common are which are commonly asked. Here we've proposed a Virtual Treatment and Consultation System for patients. Patients definitely may have queries related to, medicines and other facilities. instead of asking any random person, they'll get a quick answer via this method.

A chatbot is an AI agent which will participate during a conversation with a user. The chatbot processes the user's input and outputs a reply supported by what the user has just sent. it's going to be a greeting, conversation topic, or even an image. most basic chatbots work by matching a user input with a predefined set of dialogs. The predefined set of dialogs are going to be founded to imitate a typical conversation between two people. Problems can arise when a user says something the chatbot doesn't recognize, an example may be the user assuming to say "Thank you", but instead says "Thanks a lot", this might confuse the chatbot because it is looking to match the "Thank you" input with "Welcome". This finishes up in much manual work by trying to define every combination of a user saying "Thanks".

Modern chatbots are more complex and have language processing that is able to learn from user inputs. they'll access APIs to induce information users like news, - 10 - weather, time, etc. they'll even process orders and make bookings entirely through a chatbot interface. Chatbots are well suited for mobile devices as messaging is at the center of an itinerant. Messaging has come a protracted way since SMS messages became popularized within the 2000s and are now on the decline. [John Hargan, killbiller.com 2015] Although SMS is experiencing a decline, this doesn't mean that folk isn't sending messages anymore, it just means they're using different services. it's fast becoming the norm where a chatbot is less complicated to use than an application, and businesses are taking advantage of this. center and customer service jobs whereby a person's work will get eliminate a script and a gaggle of answers to generic customer queries will soon get replaced by chatbots.

Chatbots are trained and equipped to accommodate the everyday needs of a customer, which they'll do so at an extremely little cost. With the worth of the event of a chatbot ranging anywhere from 3,000to10,000, it would be a no-brainer for a company to implement chatbot services in their customer service department. [Oswalt, 2017] Inevitably, there will be situations where a chatbot won't suffice and a customer will be redirected to somebody's representative, but it's still a revolution in cutting down costs and automation. Another aspect of chatbots that should not be overlooked is that the information they'll collect.

II. METHODOLOGY

Natural Language Processing:

A chatbot can answer users' queries in language which is formed possible by using a man-made intelligence term tongue processing or NLP. linguistic communication processing gives machines the power to ingest the given input, break it down, extract its meaning, determining appropriate action, and answering users in their linguistic communication. tongue processing (NLP) has two subsets language understanding (NLU) and language generation (NLG). NLU takes unstructured data as input and converts it into structured data therefore the machine can understand and bear upon it. NLU focuses on extracting the meaning from user input queries. linguistic communication generation (NLG) simply converts the solution generated by a chatbot in structured data to a human-understandable tongue. The structure of words is analyzed and identified. the full input text is split into tokens. Then the tokens are passed to syntax analysis where tokens are analyzed for grammar and arranged in a way during which the link among the word is straightforward to grasp. Then the input is passed to semantic analysis. The meaning of words or tokens is extracted during this step. Object in task domain and mapping syntactic structure are answerable for meaning extraction from the input. the following step is discourse integration where the meaning of the sentence is tried to extracted using the previous sentence meaning. the ultimate step is pragmatic analysis. during this analysis, the most emphasis is on what was said is reinterpreted on what does it actually meant. in any case, in these steps, the meaning of the sentence is understood by the machine and it finds the solution to the user query and passes it to tongue generation (NLG) for the generation of the ultimate output. linguistic communication processing (NLP) is employed in many chatbots for effective communication with humans.

Pattern Matching Algorithm:

Pattern matching was one among all one amongst one every of the foremost used algorithms in chatbots Pattern Matching Algorithm contains questions and answers stored in a database. The solution for the actual question consists of Artificial Intelligent Mark-up Language (AIML) tags. Patterns and templates are stored within the type of tree. Questions are on the branches and answers are at the nodes so whenever the question is asked by the user first that question is hunted for a solution word by word, then it fetches the actual answer from the node. This sort of structure is employed within the ALICE chatbots. The advantage of this algorithm is that users can easily get answers to the questions it's already stored. And thus it's widely used due to its complexity. This algorithm stores only particular sorts of questions and thus if any question aside from the stored is asked by the user it might not be ready to answer. And thus, it lacks self-learning capability
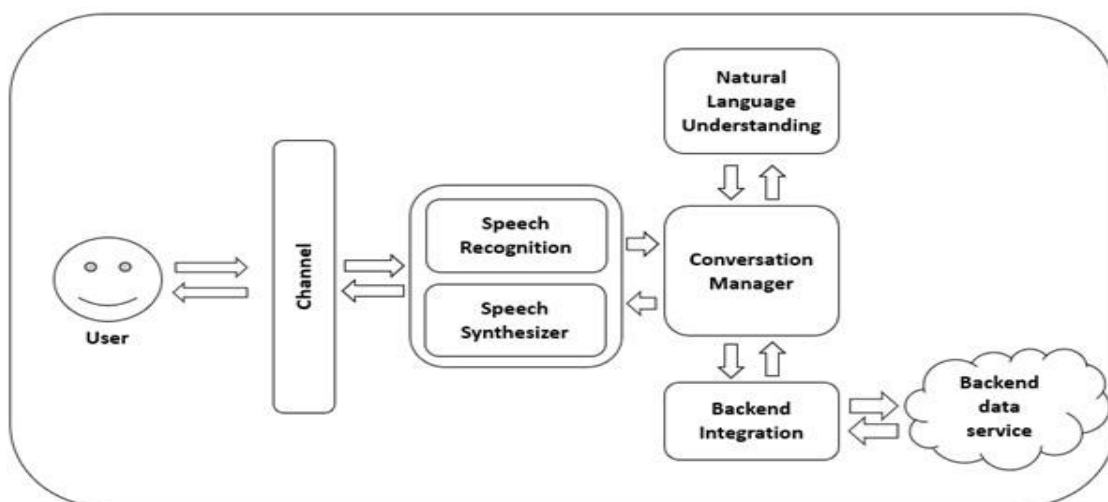
III. MODELING AND ANALYSIS

Figure 1: System Architecture

- Module 1: Press the button for voice input.
- Module 2: We need to give our question or query to the system.
- Module 3: The system will recognize the speech.

• Module 4: Recognize the query using Speech Recognition Module and convert to text using text Conversion.

• Module 5: Translate the query using a translator.

• Module 6: Match the query in the database (Use NLP).

• Module 7: Response to query by translating in a quick way.
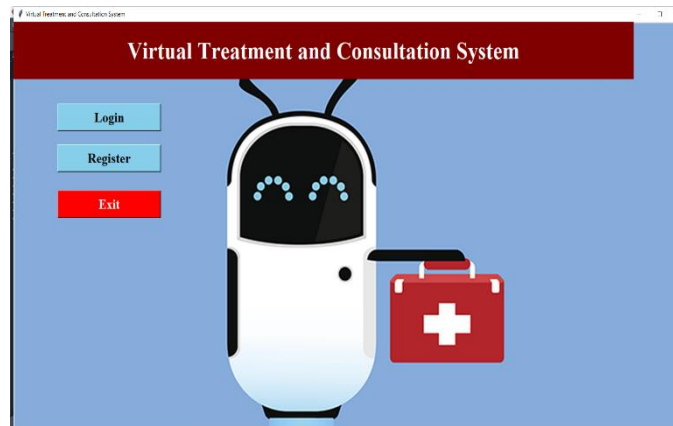
IV. RESULTS AND DISCUSSION

Figure 2: GUI

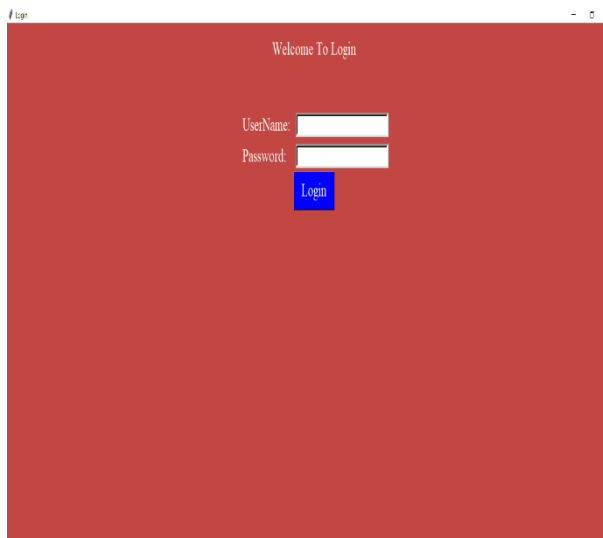**Figure 3:** Registration
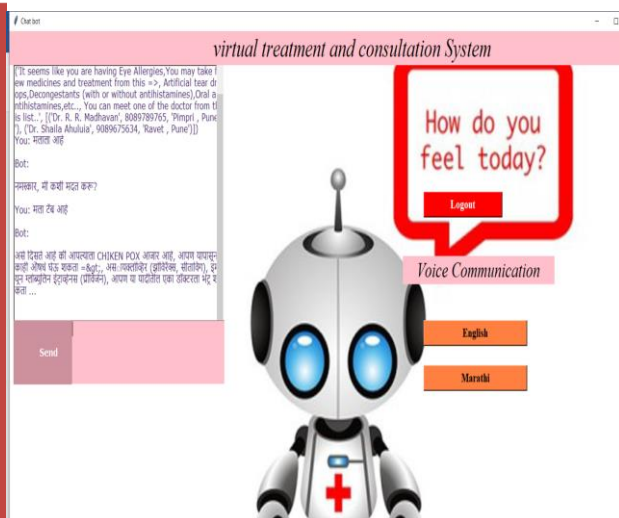

Figure 4: Login   **Figure 5:** Voice Search and Result
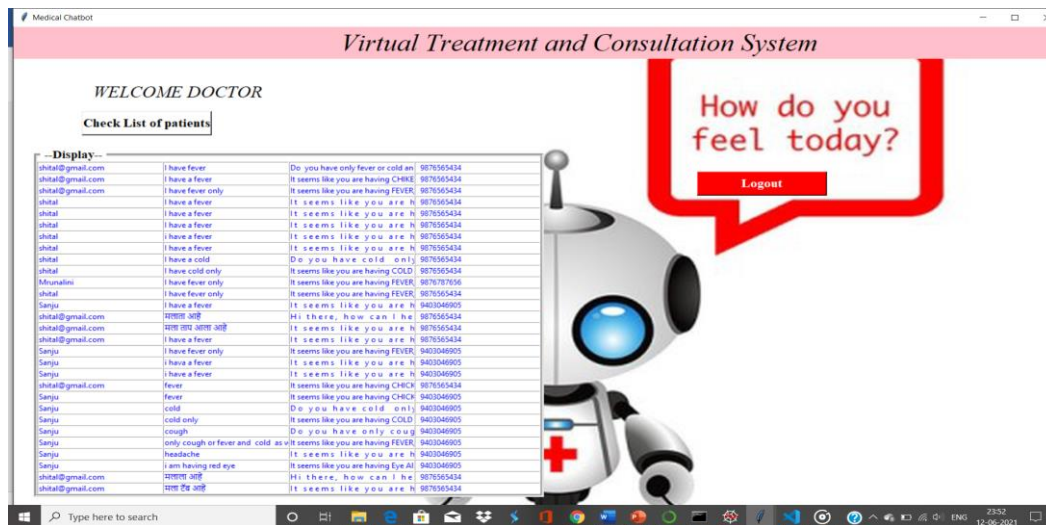
Figure 6: Doctor Side List

We have to create an account as a patient. After Creating account patients' needs to log in for the further process. On the patient side, we can send symptoms through a chat box and the system will reply to msg according to the dataset. One Important feature is that we can send our symptoms through voice inputs. Voice input options are two one in English and one in Marathi. After that System will reply through voice out about disease, medicines, doctor list. On doctor, side doctor can view the history list of patients who check their symptoms with contact, mail id, etc.

V.   CONCLUSION

The framework we create to create client benefits simple. As there we are trying to create a framework simple to attach. There'll be no compelling reason to press the catch to choose choice even as no compelling reason to hold tight for a solution. Here we use the Speech Recognition module, Speech to content change module, and language interpreter module. Chatting bot service provider acts as a customer look after many organization/institutions/industries etc. or it should act as a private assistant to any or all the people of the globe. Bots developed on our site may also help to recollect many things. It's going to also help in attracting customers nationwide for several companies. It may also be wont to entertain people by sending them jokes, facts, quotes, etc. whenever they're bored. At the highest of all performed within the main concern while developing our projects that it can serve numerous customers at one moment. After the simplest testing results and responses from the developed system proposed method concluded that methodology is properly successful.

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