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Health Care Chatbot Using AI

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ABSTRACT

A chatbot is a pc software application that conducts a conversation via auditory or textual methods. This software is used to carry out obligations inclusive of quick responding to customers, informing them supporting to purchase merchandise and supplying higher provider to customers. Chatbot are packages that work on Machine Learning Platform. A pc program designed to simulate communication with human users, especially over the Internet. A chatbot is an synthetic intelligence laptop application which plays communication the use of audio and video device. A character can ask any questions and chatbot will solution therefore. A chatbot is used in lots of regions like order food, product tips, customer service, weather, private finance assistance, scheduled a meeting, seek and track flights, ship money, and many more. The gadget turned into carried out the use of python. In this paper, we streamline gadget getting to know algorithms for effective prediction of persistent disease outbreak in ailment-common groups. The principles of artificial intelligence, gadget gaining knowledge of and natural language tool package (NLTK) have furnished tremendous assistance inside the discipline of healthcare.

1.Introduction

A chatbot is an automated software program that conversation with humans. A chatbot is merely a computer program that fundamentally simulates human conversations. Software that conduct conversational. Many chatbot are created to simulate how a human would behaves as a conversational partner. Chatbot are in many devices ,for example Siri, Cortona, Alexa and Google Assistant. many chatbot are used now a days for customer service. there are broadly two variants of chatbot: A Rule Based chatbot that answer question based on some rules that it trained on while Self Learning chatbot is a chatbot that uses some Machine Learning based technique to chat. we will use rule-based approach for responding back to greeting and we will have the chatbot respond to question and queries by talking in some text and having the chat select the best response back from the text .this type of Self Learning is called retrieval based learning .CKD also may lead to sudden illness or allergy to certain medicine. In recent years chronic kidney disease (CKD) has reached a global prevalence as high as 11–13% with the majority in the stage 3. It is observed that the prevalence is higher for women than for men.Famous chatbots like Google Assistant, Amazon Alexa, Siri, Facebook and many more are in trend. Chatbot can be described as an answering system where a system will be able to answer questions or statements submitted by users and allow users to control over the content to be displayed. A bot is trained on and according to the training, based on some rules on which it is trained, it answers questions. It is called ruled based approach Chatbots are programs that can do talk like human conversations very easily.

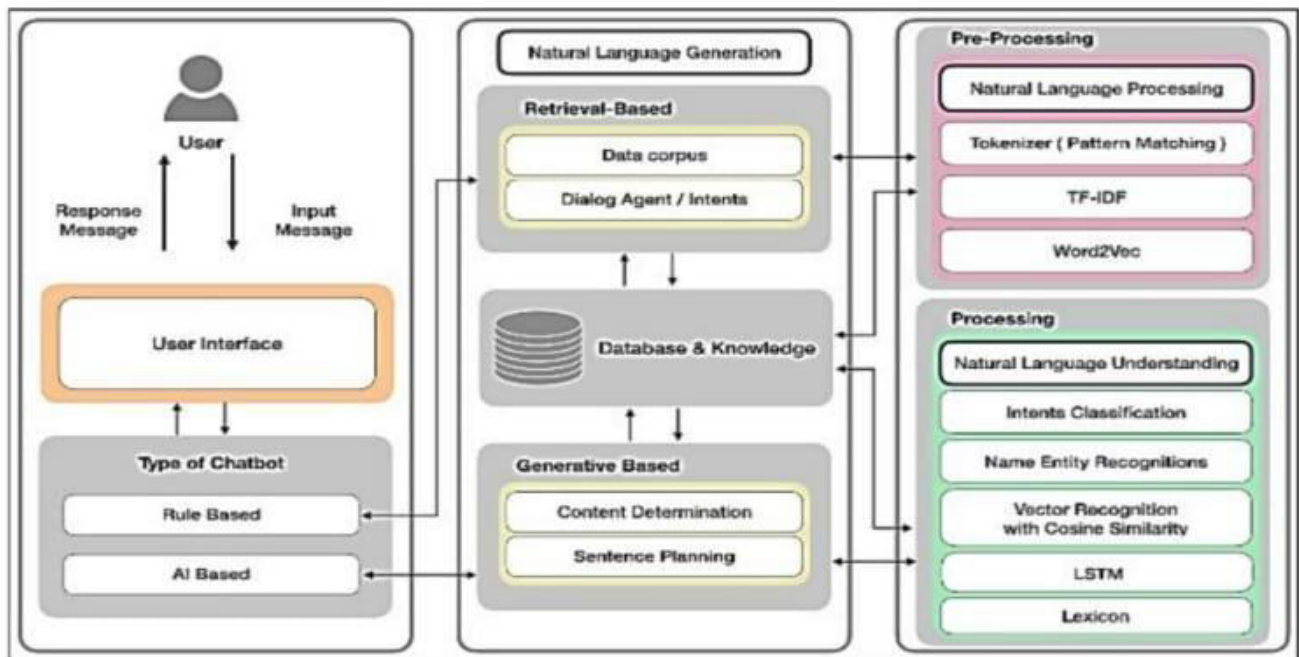
2.Literature survey

Advancement in technology has a far-reaching effect in the field of Healthcare. Machine Learning algorithms have not only helped the doctors but also have provided a first-hand testing set for the patients. H.AWidarwa.et.proposed and evaluated kernel based Extreme Learning Machine to predict Chronic kidney disease. performance of kernel-based ELM. namely RBF-ELM, Linear-ELM. Natural Language Processing being a part of AI provides data extraction and assistance in understanding the patient's words in a better way.al paper presents on survey of various chatbot implementation techniques. The research is based on the survey of various chatbot and it is shown that how the various chatbot differs from each other's. To make chatbot the various technology has been used to make. A chatbot can be considered as a question-answer. Chatbot are computer programs capable of carrying out natural conversations. AI are becoming aeasible customer service channel and reduces manpower Literature Review or Background was conducted in order to study and obtain knowledge from previous researches and surveys. Some Survey papers are also mentioned describing the comparison between various existing chatbot. This survey paper aims to present an overview of an existing approaches of implementing a chatbot system. In this paper it as compares various chatbot from the first chatbot ELIZA to one of the latest chatbot like ALEXA, not only this is shown various chatbots like IBM Watson, Siri, Tay, etc.Similarities& Differences with some Influential factors in designs of Chatbots like voice/text, creating new chatbots, using available chatbot. CKD increase the risk factor of Cardio Vascular Disease like hypertension, diabetes mellitus and metabolic syndrome CKD also leads to end stage renal disease which has no cure U.N.Dullhare.et extracted action rules based on stages but also predicted CKD. Natural Language Tool Kit (NLTK) is a python library which offers assistancefor Natural Language processing (NLP). NLTK has built tokenizers the NLTK in corporate a wide scope of tokenizer the most

usually utilized tokenizer is the word-punkt tokenizer which part the sentences at the blank spaces .

3. Proposed system

Systems design is the process of defining the designed structure, components, unit of measure and data for a given system to satisfy wanted requirements. Chronic fever Disease the chatbot will be able to solution the questions outside of its dataset and which are currently happening in the real- world Care libraries is used in this context for some utilities such splitting a dataset. The chatbot comprises two concepts of NLP namely tokenization and wordnet. Synset is a simple interface that is present in NLTK (Natural Language Toolkit) to look up the words present in Word Net. This section describes the chatbot architecture based on our literature review. Its shows the basic common workflow of a chatbot pc in both Python-based and rule-based chatbot.



Natural Language processing (NLP) -Acts as a fundamental pillar for recognition of language, which is used by Apple, Siri, Google.it allows technology to recognize human natural language text.

Natural Language understanding (NLU) – is responsible for handling and changing formless data into proper form that the system can easily communicate and understand.

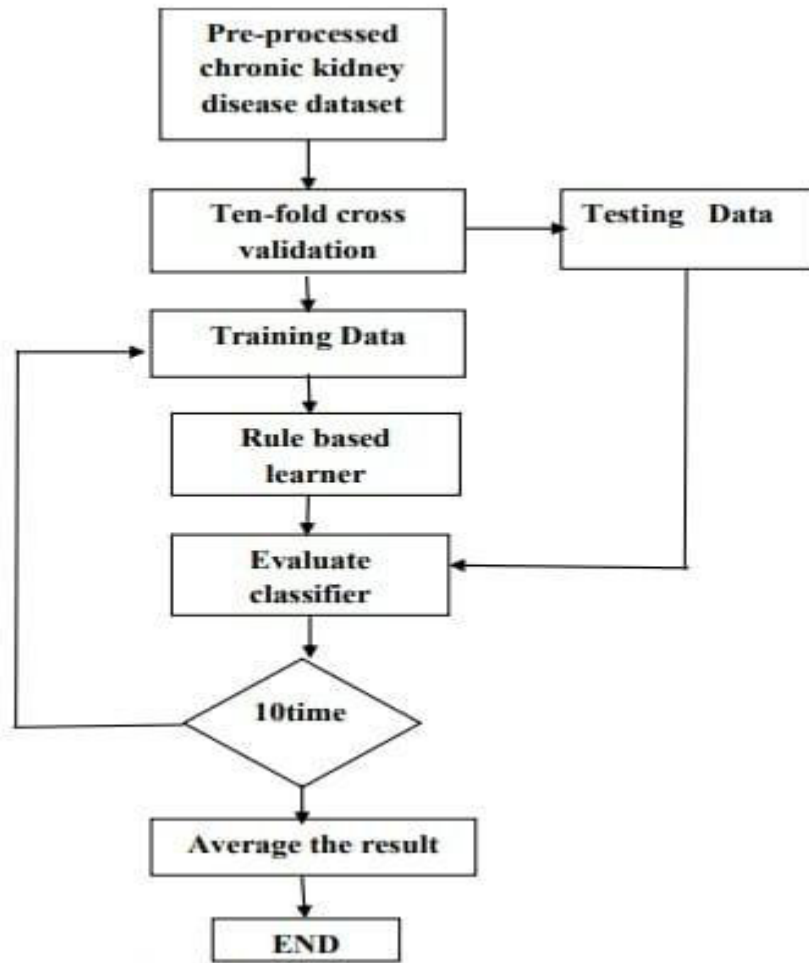
- Natural Language Generation (NLG) – language generation is responsible for that formation of contextuallycorrect sentences and phrases the key competition faced by NLP is to understand the complications of natural human language.

- Tokenization -In Python tokenization basically refers to splitting up a larger size of text into smaller lines, words or even creating words for as non-English language. The various tokenization functions in-built into the Natural Language Toolkit module itself

TF IDF -TFIDF stands for “Term Frequency — Inverse Document Frequency”. This is a process to quantify a word in documents, we have generally compute a quantity to each word which signifies the importance of the word in the document and corpus. This method is a widely used technology in Information Retrieval and data Mining.

- Intent Classifier: it takes input from human, interprets its meaning and then relates it to that intent in which is supported by the healthcare chatbot.

Workflow of the CKD prediction: - The core purpose of this chatbot is to respond to user queries without man will power. User can work with the healthcare chatbot in any web browser. The chatbot receives the request send by the user, analyses it and responds to the user in return. This analysis is when done, using the machine learning algorithm. The queries are predefined with a particular tag for each set. Almost all questions from this user will be perfectly responded, only few are exceptional cases.



4. Conclusion and Future Enchantment

We made a viral fever chatbot system. This chatbot can answer questions in the textual human input. The goal of the project is to reduce man-power and saving cost and respond to user query at faster rate. This paper represents a prediction model driven system that prediction very accurate for that diseases based on the symptoms. The concept of NLP is used to diagram an interactive chatbot to retrieve symptoms provided by the user. Chatbot can overcome this from delay, chatbot satisfies the user give request or query immediately with relevant responses for every customer or user needs appropriate answers and also database is used to so that purposes can be solved. This can also be considered as future work . this project can be developed even more by adding multi languages and speech recognition. We can add many more tags to the dataset an and other disease as the website gets developed. Future Such chatbots, backed by machine-learning technology, will be able to remember past conversations and learn from them to answer new ones. this project is a small start to make the website user-friendly by the user.

REFERENCES

1. <https://www.geeksforgeeks.org/python>
2. Natural language processing Available at http://en.wikipedia.org/wiki/natural_language_processing.
3. M. Chen, Y. Hao, K. Hwang, L. Wang and L. Wang, "Chronic kidney Disease by Machine Learning from Healthcare Communities," in IEEE Access, 2017.
4. Bayan Abu Shawar and Eric Atwell, 2007 "Chatbots: Are they Really Useful?"
5. <https://www.irjet.net/archives/V6/i11/IRJET-V6I1174.pdf>