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Feasibility Analysis on Primary Medication Problem using Kotlin and Brainshop.Ai

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ABSTRACT: Artificial Intelligence Chatbot is emulating humans in real life, for example, anybody can know weather forecast using system device (e.g., mobile phone, laptop, Tablet, Personal computer) via internet or you can search for a good restaurant that is nearer to you with the help of AI based software systems. Many AI-based software systems are already in the market and assisting human beings in reducing workload, increasing performance, and improving accuracy by solving different real-world problems. It is a need of time to develop such automated systems which could help human beings (that will be the user of system – University Students) in getting some useful information in the reply of any queries, search, or dialogue. Similarly, Chatbot is a technology which uses AI-based knowledge to reply to its users queries after necessary analysis on the asked queries, in a smarter way (like a human) e.g., Siri, Alexa. Now you will develop a web based Chatbot using AI technology i.e., Artificial Neural Networks (ANN) which is helpful for its users in a way that the proposed system will provide useful information to the university students. The increasing medical needs of a growing population have demanded for the history of medical assistance done till now for the future. The dominant rise in medical facilities demands for more previous data to predict the current scenario result. Researches done till now primarily relied on data over cross-sectional channels, which if available OK, else new records have to be prepared without any previous knowledge. This can lead to acute fall of correctness in treatment. Thus in order to achieve visibility out of fogs, we must maintain all those necessary. An approach trying to achieve the milestones might need some digital skills helpful in developing a common platform to work along with. These digital skills include the AI search Chatbot & APIs for medication Newsfeed. Motivated by the results shown by Medibuddy app which revolutionizes the maintenance of all such needed data, we focus on contributing it in a much better way to serve without flaws in a feasible approach.

KEYWORDS: Kotlin, XML, Firebase, Brainshop.AI, Map Navigation, API integration, News segmentation.

I. INTRODUCTION

As stated by Eliezer Yudkowsky [1], *"Anything that could give rise to smarter-than-human intelligence—in the form of Artificial Intelligence, brain-computer interfaces, or neuroscience-based human intelligence enhancement – wins hands down beyond contest as doing the most to change the world. Nothing else is even in the same league."* Chatbots promises to meaningfully connect with you, to show bits and pieces of empathy while giving you a chance to talk about your troubles and get some counselling back in return. Just as a human psychologist does. There are countless cases where a digital personal assistant or a chatbot could help physicians, nurses, patients or their families. Better organization of patient pathways, medication management, and help in emergency situations or with first aid, offering a solution for simpler medical issues: these are all possible situations for chatbots to step in and ease the burden on medical professionals. Modern chatbots rely on AI and natural language processing (NLP) to recognize users' intent from the context of their input and generate correct responses. Chatbots can be divided into 3 types based on the response-generation method:-

1). AI-based chatbots: AI-enabled chatbots rely on NLP to scan users' queries and recognize keywords to determine the right way to respond. Additionally, some AI-based chatbots self-improve by using users' data as new training data in order to expand the knowledge database and improve their responses. 2). Rule-based chatbots: Rule-based chatbots rely on if/then logic to generate responses based on predefined conditions and responses. These chatbots have limited

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customization capabilities but are reliable and are less likely to go off the rails. 3). Hybrid chatbots: Hybrid chatbots rely both on rules and NLP to understand users and generate responses. These chatbots' databases are easier to tweak but have limited conversational capabilities compared to AI-based chatbots.

II. LITERATURE SURVEY

The Initial step in collecting articles for reviewing involved searching arXiv (a repository of preprints) where we have used a set of search words/phrases to identify additional articles. We followed the same filtering process as that applied to the journal databases.

"Recruitment Chatbots", International Research Journal of Engineering and Technology (IRJET)

Authors: Akash Balachandar, Anusha D Kulkarni

In this paper, authors have explained how the chatbot behaving as a human conversational partner are designed to comprehend a conclusive human response. In today's world, it is difficult to collect correct information easily while hiring the right candidate. Using simply a chatbot can be a solution to this problem. Recruiters can use this in day-to-day life to automate time-consuming tasks.

"Classification Technique of Interviewer-Bot Result using Naïve Bayes an Phrase Reinforcement Algorithms," International Journal of Emerging Technologies in Learning (IJET).

Authors: Sarosa, M., Junus, M., Hoesny, M. U., Sari, Z., & Fatnuriyah, M.

In this paper authors have classified the outcomes of a job interview among the interviewer-bot and user by using Naïve Bayes algorithm.

"Task-based Interaction Chatbot", EEE521 final year project Report school of computing, Engineering & Intelligent System

Authors: Dr. Kevin Curran, Dr. Daniel Kelly

"Intelligent Chatbot for Easy Web-Analytics Insights". In 2018 International Conference on Advances in Computing, Communications and Informatics (ICACCI) (pp. 2193-2195). IEEE [5].

Author: Ravi, R.

In this paper, a comparison is done based on their ease of usage, using different analytic tools. The chatbot is built using Artificial Intelligence Markup Language contain analytics' raw data and the required data is fetched from the analytics tool's raw data. An International Scholarly Open Access Journal, Peer-Reviewed, Refereed Journal Impact Factor 7.95 Calculate by Google Scholar and Semantic Scholar | AI-Powered Research Tool, Multidisciplinary, Monthly, Multilanguage Journal Indexing in All Major Database & Metadata, Citation Generator. We studied the bibliographies of the 85 articles to identify more articles that seemed pertinent. We used Google scholar to retrieve the full text of potential articles that appeared in the bibliography of 85 articles. This process allowed us to obtain a further 150 relevant articles for our study. Thus, the total number of articles at our disposal for reviewing was 235 articles.

III. ANALYSIS & RESULT

The initial setup of the app include the login page through user can sign-up for using the app. There is a brain and cell based AI chatbot training facility to enhance the quality of the chatbot answer, chatbot is not letter sensitive, can arrange wrong spell words, autocorrect the answer if there is any error in the input words.

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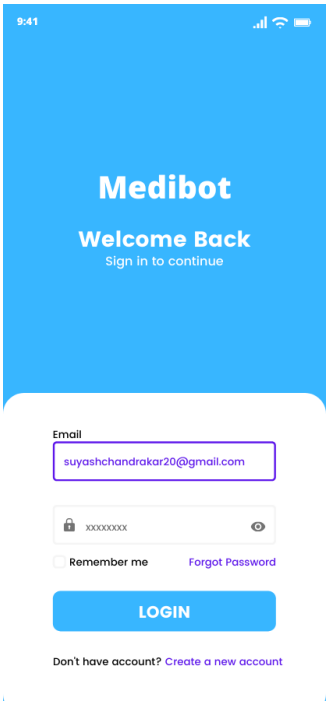
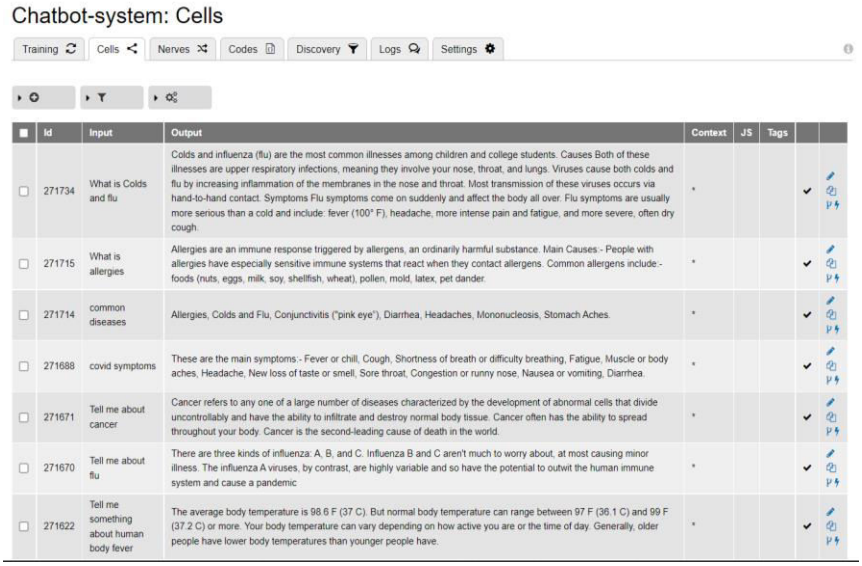
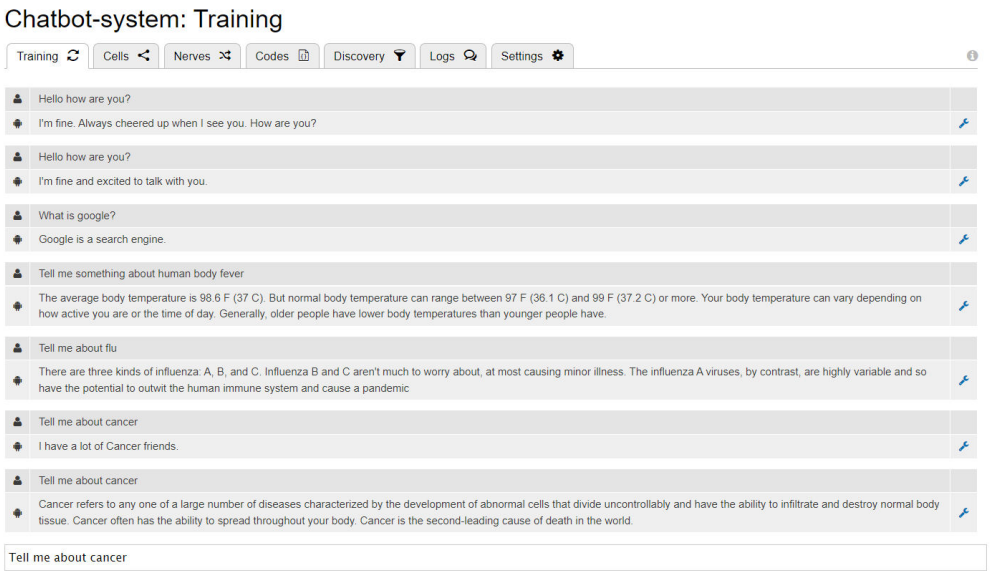


(Fig:- Sign-up/Sign-in page)



(Fig:- Cells training module for chatbot)



(Fig:- Chatbot Training module)

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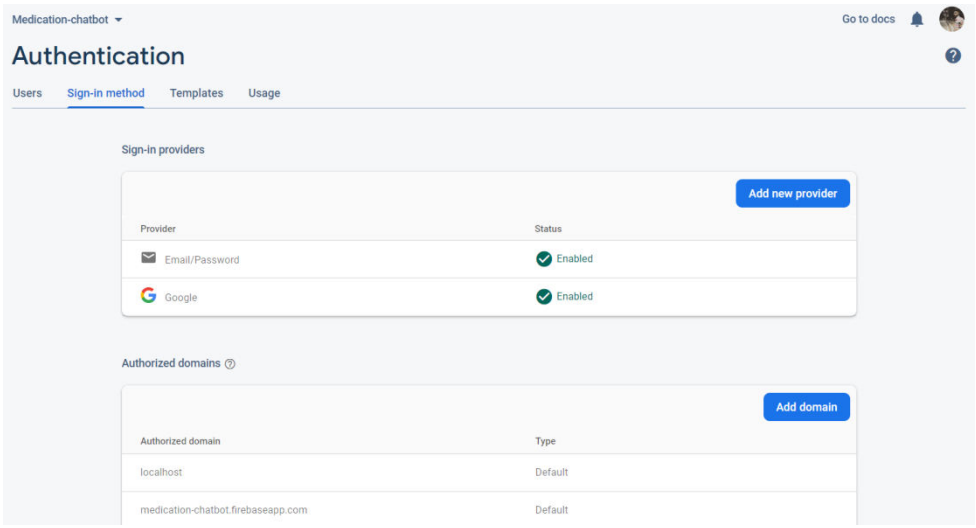
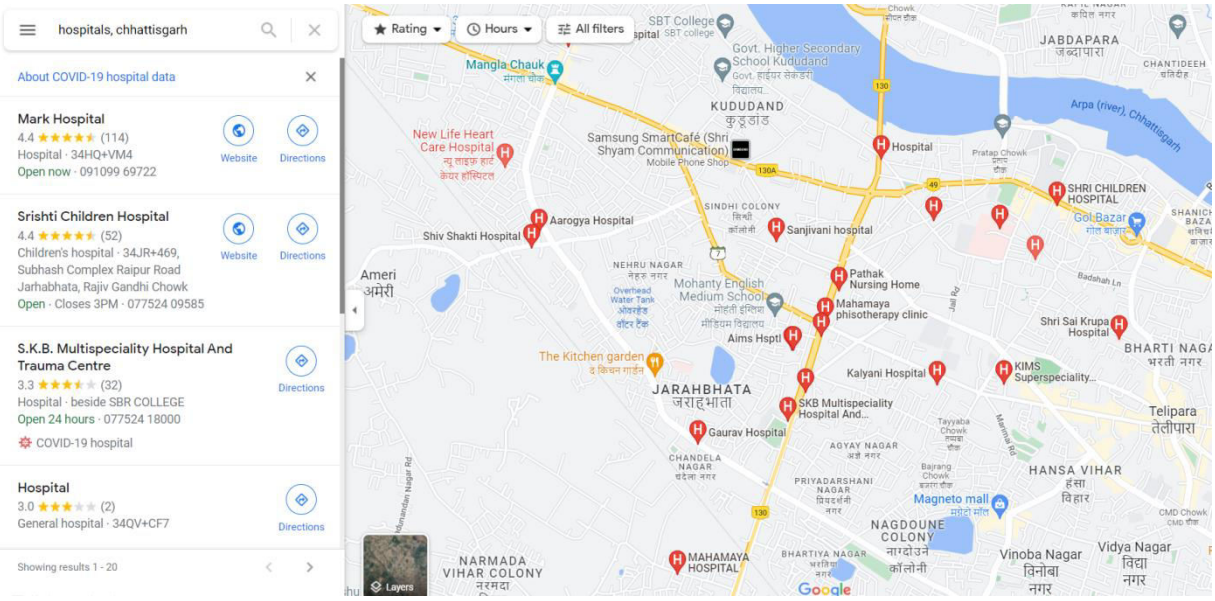


(Fig:- Firebase Sign-up Section)



(Fig:- Map Navigation Section using Google API)

IV. LIMITATIONS AND CHALLENGES

Nowadays people are more concerned about their health the number of patients are rapidly increasing because of that the human resources are lesser as compared to the patients and as we know during the 2nd phase of covid most of the people were having symptoms related to normal cough, flu, fever etc but they were afraid to visit the doctors because they were also in contact with covid patients to overcome these problems our project could be the helpful.

The first implementation of a chatbot, which relied heavily on linguistic rules and pattern matching techniques, was achieved in 1966 with the development of ELIZA.

A marked evolution in chatbot in the 1980s is the use of Artificial Intelligent. A.L.I.C.E. (Artificial Intelligent Internet Computer Entity) is based on the Artificial Intelligence Markup Language (AIML), which is an extension of XML. It was developed especially so that dialogue pattern knowledge could be added to A.L.I.C.E.'s software to expand its knowledge base.

The main limitation in setting the rules and pattern matching in chatbot systems is that they are dependent on domain and this makes them less flexible cause they are dependent on manually identified rules for those domains but now with

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the use of advanced machine learning techniques and natural language processing tools advanced chatbots are created which are not relying on rules or pattern matching techniques.

V. CONCLUSION

Our Medical Chatbot will have a great impact on the life of its users. It would provide them the advantage of carrying a virtual Doctor in their pockets. It would also give them the freedom to consult a doctor 24/7 and also can get a real doctor's advice if needed. This can be a most popular tool for people with busy schedule as they won't have to hamper their schedule to consult a doctor for minor health queries. This would also be a tool with high utility among elderly and physically disabled people as this can help them get solutions to all their health related issue at their fingertips. We would bring Doctors and Medical Professionals to our platform to feed the medical data into our records and also to chat with our users when required. Having lots of medical data would make our Chatbot function more efficiently and accurately.

The main purpose of a chatbot system is to simulate a human conversation. Its architecture integrates a language model and computational algorithm to emulate information online communication between a human and a computer using natural language. Popular chatbot algorithms include the following:

- Pattern matching
- Naïve Bayes
- Sequence to Sequence (seq2seq) model
- Recurrent neutral networks (RNN)
- Long Short Term Memory (LSTM)
- Natural Language Processing (NLP)

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