

STUDENT INFORMATION CHATBOT SYSTEM

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Abstract : Chatbots have become popular in recent years largely due to dramatic advancements in machine learning and other technologies such as NLP (Natural Language Processing). Today's chatbots are smarter, more responsive and useful and now evolution of artificial intelligence is in a huge wave of progress. Chatbot is a computer program designed to simulate conversation with human especially over the Internet. We have identified that in existing chatbot systems namely ELIZA was used which was having limited features. To overcome this problem, we decided to use ALICE (Artificial Linguistic Internet Computer Entity) with advanced features of pattern matching techniques. This Chatbot System will help users to solve various queries related to students faculties and parents.

IndexTerms - Chatbot, ELIZA, ALICE, NLP, AI.

I. INTRODUCTION

A chatbot (also known as chatterbot or chatter robot) is conversational or software agents that interact with human using natural language. It can be considered as a question-answer system where experts provide knowledge for user. Chatbot recognize the user input as well as by using pattern matching, access information to provide a predefined acknowledgement. A chatbot is implemented using pattern comparing in which the order of sentence is analyzed and response pattern is saved to exclusive variables of the sentence.

Chatbots are typically used in dialogue systems for various practical purposes including customer service or information acquisition. Chatbot can scrape data from anywhere and in any form and present it in the most suitable format. This means that the knowledge base of the chatbot can be expanded in many ways like database servers, social media contents such as face book posts, and so on.

A student information chatbot system is a web application that built using artificial intelligence algorithms to analyze and understand user's queries. This system provides answer to the query about the college related activities through online with the help of this web application. This system maintains academic record of students. Faculties can upload documents and also contact with parents to inform about students' academic activities. This system keeps the student updated about college activities.

II. LITERATURE REVIEW

The German scientist, Dr. Joseph Weizenbaum developed a computer program which is called as ELIZA in 1996 and coded in MIT. ELIZA is considered as the first chatterbot in the computer history. It is an early natural language processing computer program. It acts like a therapist by reframing the statements of user and posing them back as question for communication between humans and machines. It simulates conversation by using 'pattern matching' algorithm that helps users to understand the part of program. It was one of the first program capable of passing the turing test. First, Eliza examined the text entered by the users and checked for certain keyword. Then it applies values to them and transformed the input to the output. The script that Eliza ran determined the keywords, set of values and set of rules for the output.

The existing system consists a specific module that is student and admin module only. Students can chat using only one format, as there is a specific format that the user has to follow. For example the user can use only one language to interact with chatbot. If the answer of query found to be invalid, user just need to select the invalid answer button which will notify the admin about the incorrect answer. Admin not delete invalid answers or not add any specific answer to that.

III. SYSTEM ARCHITECTURE

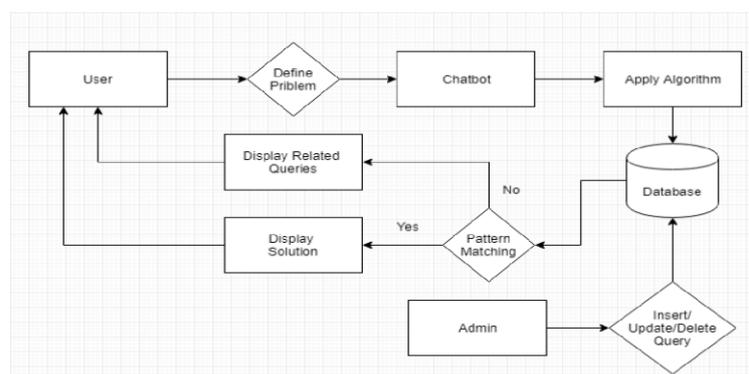


Fig 1: System Architecture

IV. IMPLEMENTATION

The Student Information Chatbot System will make the user more interactive as it responds to the query entered by the user very accurately and precisely. It will solve various queries related to students, parents and Faculties by using the artificial intelligence algorithms to give appropriate answers to the user query very effectively and in very minimum time. It will provide verification of the document, all the different activities and events that are organized will be shown to the users on the home page. Faculty can view, upload different documents, notices and send notifications of student’s records to parents. So paperwork will be reduced. Students and parents can view different activities and ask query related to the problem.

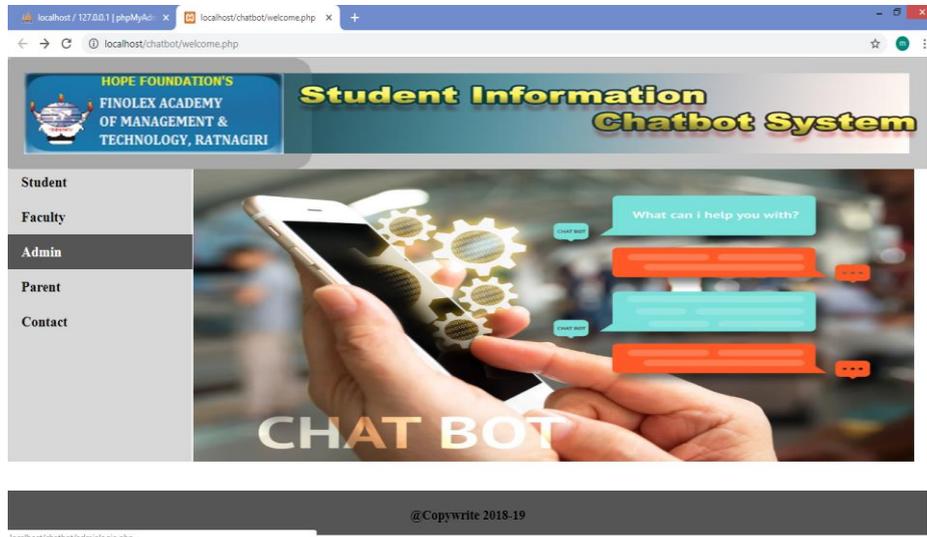


Fig 2: Select User



Fig 3: Admin Login Page

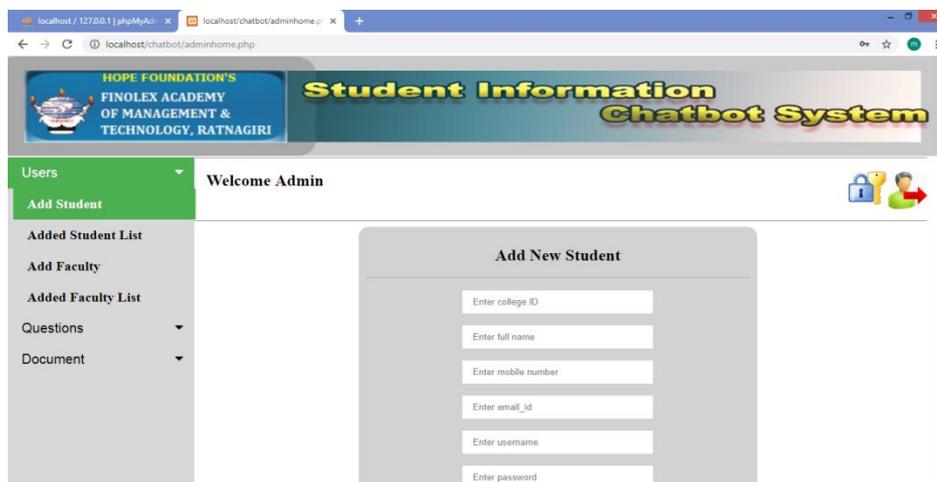


Fig 4: Admin Home Page

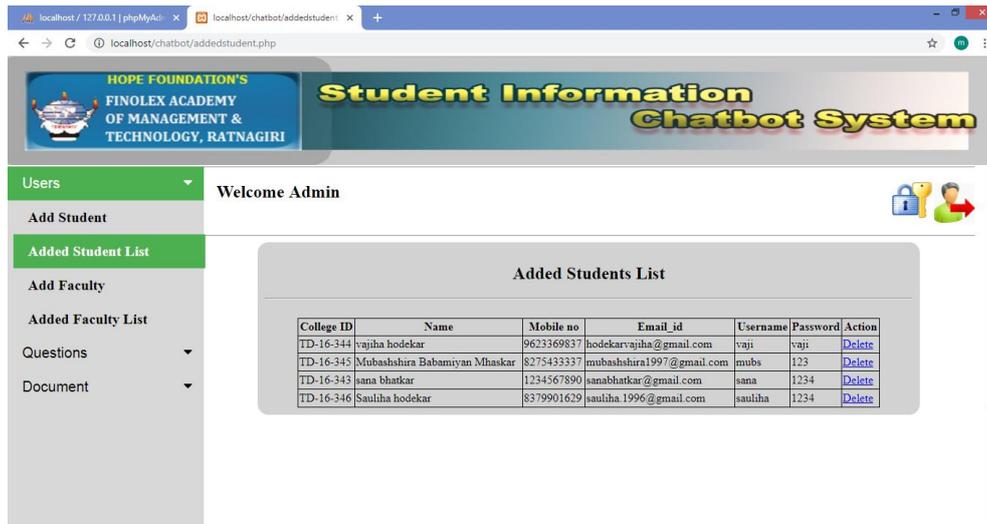


Fig 5: Added Student

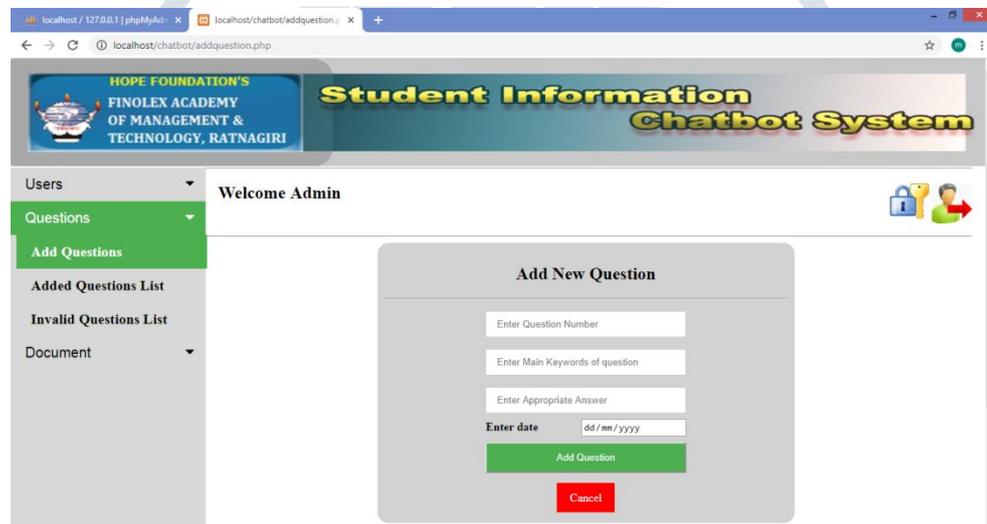


Fig 6: Add Question

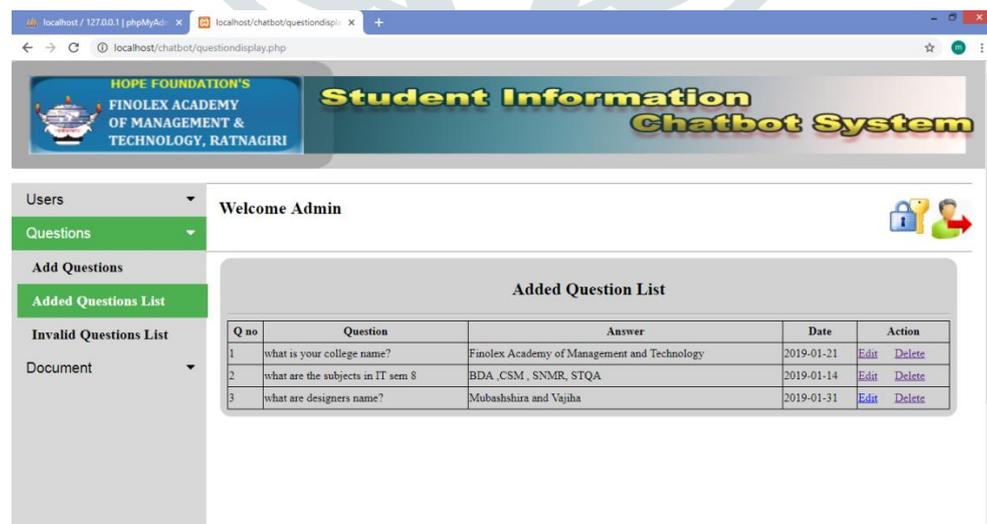


Fig 7: Added Questions

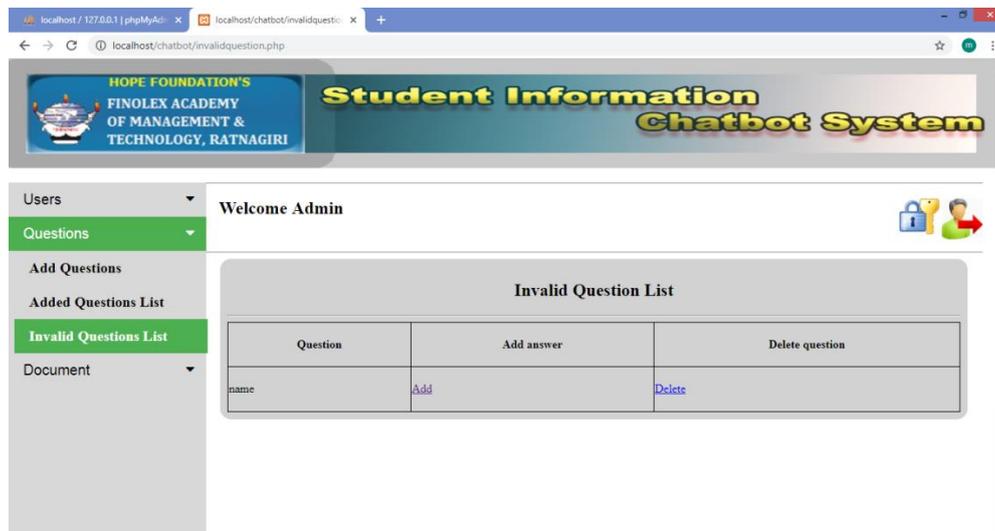


Fig 8: Show Invalid Questions

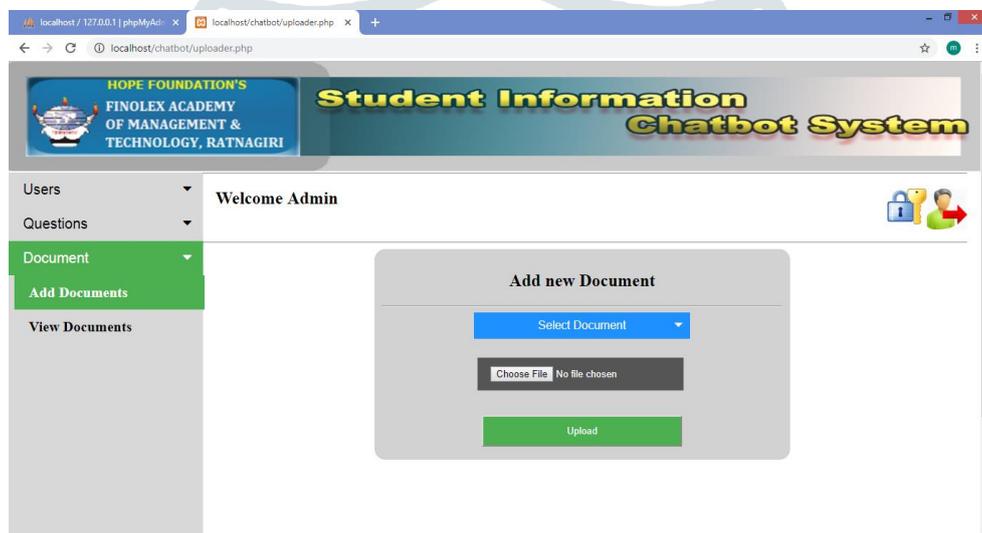


Fig 9: Add Document

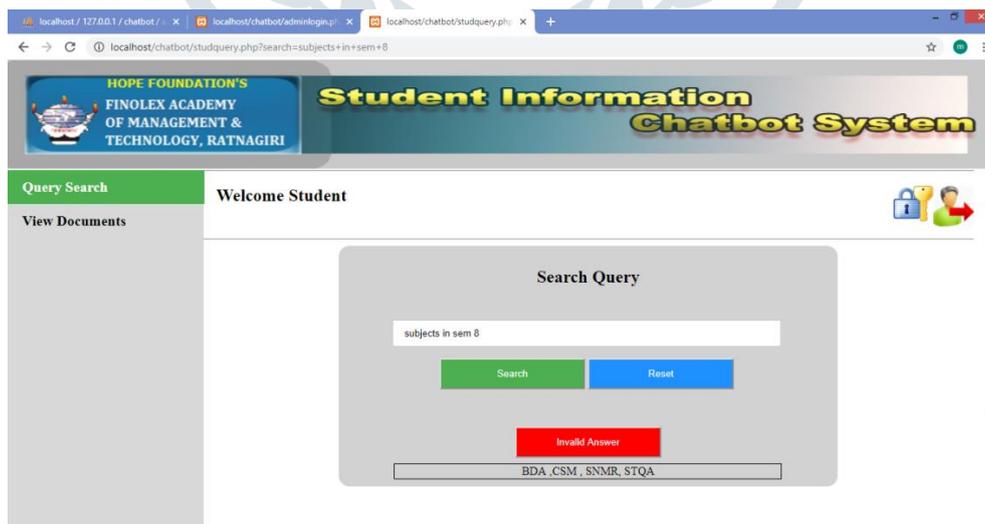


Fig 10: Query Searching

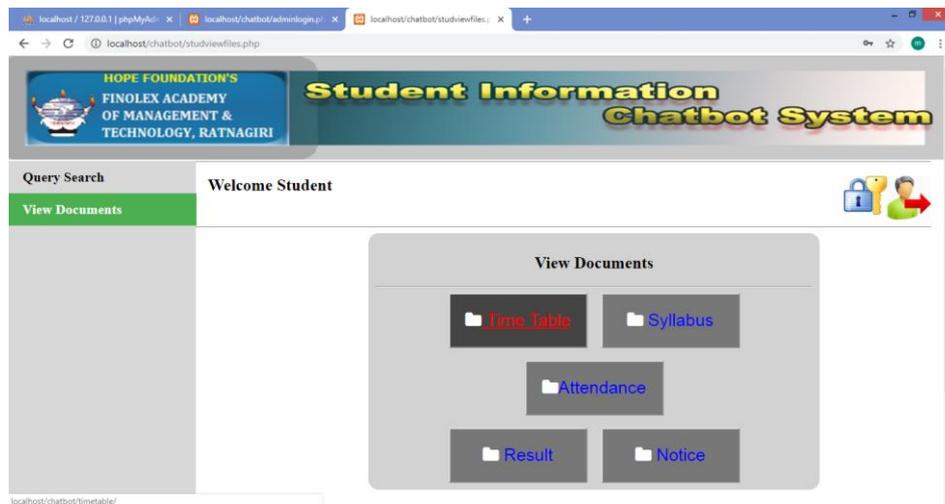


Fig 11: View Documents

IV. CONCLUSION

In this paper we have propose a system called chatbot which is an artificial intelligence (AI) software that think and act like human. It can simulate a conversation with a user in natural language through messaging applications, websites and mobile application. Chatbots can simultaneously have conversations with different people. This system will give quick solutions to the problems ask by the students.

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