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CHATBOT USING AI

Thota Sri Poojitha [1] , Thummapudi Rohini Sai [2] , Telanakula Venkata Sai Nikitha [3] , Alla Kalavathi [4]

B. Tech Students, Department of IT, Vasireddy Venkatadri Institute of Technology, Guntur, India[1,2,3]

Professor & HOD, Department of IT, Vasireddy Venkatadri Institute of Technology, Guntur, India[4]

ABSTRACT- A student bot project is created with the help of artificial algorithms that assess user queries and comprehend their messages. This system is a web application that responds to a student's question. Students only need to ask a question through the bot that is utilized for chatting. Students can chat in any format they want; there is no need that they adopt a specific structure. The enquiry is answered by the System's built-in artificial intelligence. The responses are relevant to the user's query. The system allows the user to inquire about any college-related activity. The user is not required to visit the college in person to obtain information. After analyzing the question, the system responds to the user. The system responds to the query as if it were being answered by a human. The technology uses artificial intelligence to respond to the questions posed by the pupils. The system responds using a graphical user interface that makes it appear as if a real person is conversing with the user. With the use of this web application, the user can inquire about college-related activities online. This mechanism keeps students informed about campus activities.

I. INTRODUCTION

Chatbots typically provide a text-based user interface, allowing the user to type commands and receive text as well as text to speech response. Chat bots are usually stateful services, remembering previous commands (and perhaps even conversation) in order to provide functionality. When chat bot technology is integrated with popular web services it can be utilized securely by an even larger audience.

A chatbot is a conversational interface that allows the user to ask questions in the same way that a human would. A bot incorporates human behaviour and responds in a more efficient manner. This student chatbot uses previously known information about the institution to train the bot on topics such as placements, admissions, fee structure, departments, and so on.

Chatbots allow students to communicate with colleges in a more personal way without incurring the costs of hiring human representatives. Many of the questions or concerns that students have, for example, are common and easily addressed. Chatbots offer a more personal experience than a written FAQ or guide, and they can even triage questions, such as referring a student issue to a live person if it becomes too complicated for the chatbot to handle. Chatbots have grown in popularity as a time and money saver for students as well as an added convenience.

The system allows the user to inquire about any college-related activities. The user is not required to visit the college in person to obtain information. After analyzing the question, the system responds to the user. The system responds to the query as if it were being answered by a human. The system uses artificial intelligence to respond to the questions posed by the students. The system responds with a graphical user interface that makes it appear as if a real person is conversing with the user. With the help of this web application, the user can inquire about college-related activities online. This system keeps students informed about what's going on at college.

Chatbots are most commonly used in customer contact centre's to manage incoming communications and direct customers to the appropriate resource on the other side. Internally, they're frequently used for onboarding new employees and assisting all employees with routine tasks such as vacation scheduling, training, ordering computers and business supplies, and other self-service activities that don't require human intervention.

II. EXISTING SYSTEM

In the existing system, many applications incorporate a human appearance and aim to simulate human dialogue, but in most cases, the conversational bot's knowledge is stored in a database created by human experts.

Students may need to travel to the college to have their questions answered at the help desk. Students may not always be in close proximity to the college. However, if they have any questions, they can have them answered by going to college, which is expensive, and travelling may not be convenient just to get a simple question answered.

Disadvantages:
- User needs to have internet all the time.
- Poor in making decisions unlike humans.
- Chatbots are poor in processing.

III. PROPOSED SYSTEM

A student bot project is created with the help of artificial algorithms that analyze user queries and comprehend their messages. Students just have to query through the bot which is used for chatting. The system allows the user to inquire about any college-related activities.
Chatbot offers solution to problems like:
- Delay in responses
- Flexibility
- Effectiveness

The system possibly eliminates the need of going to the college and getting the queries resolved. Chatbots based on AI technology can aid in the creation of flexible interaction between the college and students. Algorithms can determine and understand the language that was used by humans and give the response in the same manner. Making the students feel like as if they are talking to a person.
Student chatbot answers the questions like based on college details, fee structure, placement details – which includes any companies that are hiring and the important updates that are related to placements.

A] Inquiry via the Internet:
Students can inquire about facilities and ask questions about exams, academics, and fee structures, among other things.
Students are also welcome to ask questions about placement activities.
B] Chatbot on the Internet:
The outcome can be displayed in the form of links, as well as text. The query will be answered based on the questions that were asked, the language model that was created, and the response media that was created.
Users can use the chat-bot to ask questions about the college during the admissions process or about any competitions held there.
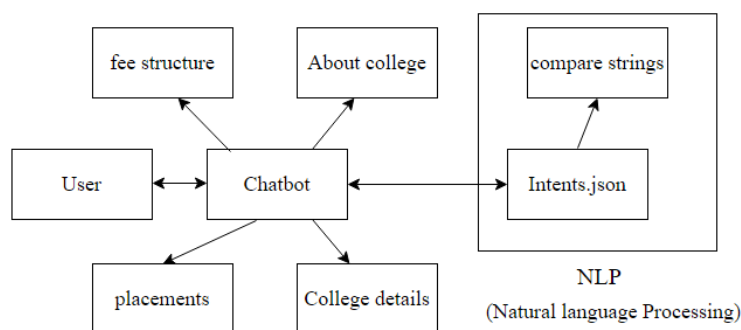
Fig. 1. Chatbot diagram of proposed system

The following are some of the most important advantages:
- There are no restrictions on the number of questions you can ask.
- There are no additional costs associated with using the chatbot application.
- Make customer service available around the clock.

IV. MODULES

They System has two modules:
- User Module
- System Module

User Module:
The application uses this module to allow users to ask any questions and receive responses from the bot.

System Module:

This module allows the bot to respond to the questions that the user has asked.

V. WORKING

The chatbot application is launched by the student.
The developer could create an intents file that contained the following details: This chatbot will provide students with information about the college, departments, staff, syllabus, and placements.

The chatbot is ready to take requests from the users.
The chatbot awaits the user's requests after the question has been successfully asked. The chatbot evaluates the most appropriate responses to the user's questions. The chatbot responds to the user's request as soon as possible.

VI. TESTING

Various test scenarios were used to put the AI-powered student chatbot to the test. When the project is launched, the user/student will be greeted by the chatbot, who will send a greeting message. Questions about the organization will be asked by the user.

Unit testing is performed to identify the key features like verifying if there is there is sufficient text in the intents file, allowing the user to get the answers quickly.
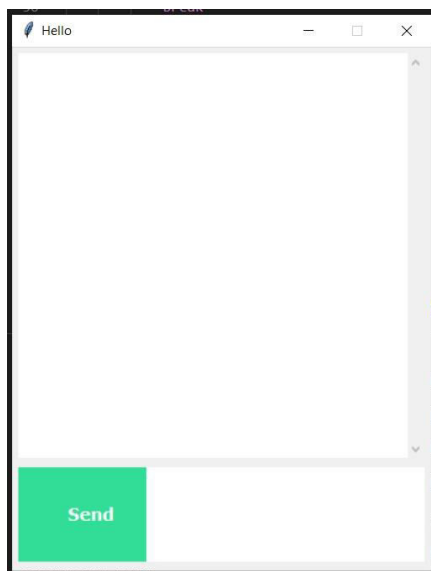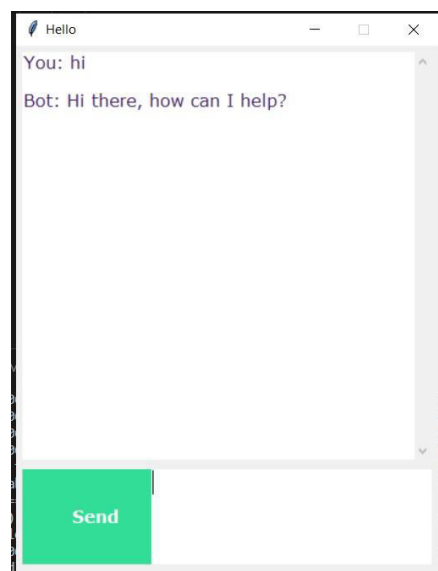
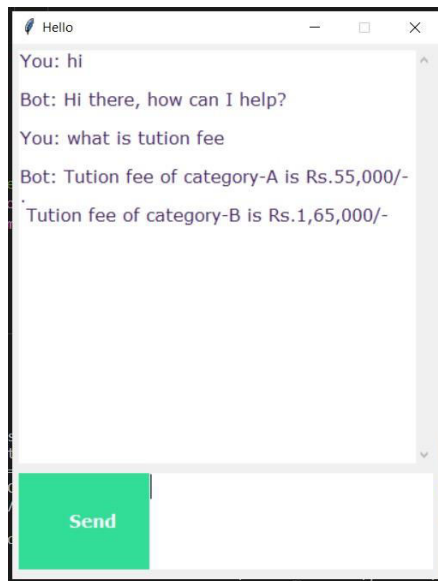Fig.2 : Chatbot Interface   Fig.3: user and chatbot greetings

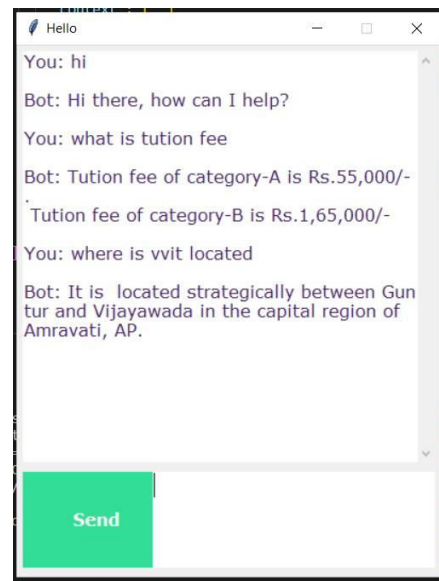Fig.4: Displays the fee structure of institution

Fig.4: Displays the college details without getting in contact with the help desk

VII. CONCLUSION

We created an intelligent chatbot in this project by combining natural language processing techniques and methods with libraries from nltk, keras, and pickle. For pre-processing, we used text processing methods such as cleaning, tokenization, stemming, and lemmatization, as well as feature generation methods such as Bag of words and creating training data.

Making a model is the first step. Here the keras library's sequential model was used to generate sequences of inputs and responses, after which we compiled the model and fit it to the training data. The user's input is processed and matched with patterns from the trained data, and using probability calculations, the most likely classes or tags are identified and presented to the user as a response in the interface.

VIII. FUTURE WORK

The goal of a student chatbot powered by AI is to make it easier for students to communicate with the institution without having to visit the college in the case of emergency. The student chatbot makes use of the intents.json file, which we use to train it with the chatbot's necessary details. To make the chatbot more effective, we need to expand the training set with more data so that the chatbot can provide students with more accurate information about the college.

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