COLLEGE ENQUIRY CHAT-BOT SYSTEM

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Abstract - Nowadays, many people are using smartphone with many new applications i.e. technology is growing day by day. Today Artificial Intelligence is playing a major role in a variety of fields ranging from industries in product manufacturing, to customer care in public relations. As there are many online Artificial Intelligence (AI) systems or chat bots which are in existence that help people solve their problems. So, we are going to implement a virtual assistant based on AI that can solve any college related query. This will work as a College Oriented Intelligence machine. This virtual machine will respond the queries of students on college related issues. A chat bot has information stored in its database to identify the sentences and making a decision itself as response to answer a given question. The college enquiry chat bot will be built using algorithm that analyses queries and understand user's message

Chatbots are conversational systems that can do chat interactions with human automatically. It is developed to be virtual assistant, making entertainment for people, helping for answering the questions, getting driving directions, serving as human partner in smart homes etc. Most of the chatbots utilize the algorithms of artificial intelligence (AI) in order to get the required responses. In this paper, we provide the design of a University Chatbot that provides an efficient and accurate answer for any user questions about university information. This is the first University Chatbot for inquiring about school information in Myanmar Language based on Artificial Intelligence Markup Language and uses Pandora bots as the interpreter. This paper introduces approach made for improving the efficiency of the chatbot or artificial conversational entity used in various commercial and banking sector. Humanizing is to improving the response generation ability of the chatbot.

Key Words: Artificial Intelligence, Database. Intelligence Machine.

1.INTRODUCTION

A chatbot is a software application used to conduct an online chat conversation via text or text-to-speech, in lieu of providing direct contact with a live human agent. Designed to convincingly simulate the way a human would behave as a conversational partner . Bots can be created by using language like Artificial Intelligence Mark-up Language(AIML), a language based on XML that allow developer's write rules for the bot to follow. Another drawback is writing rules for different scenarios is very time consuming and it is impossible to write rules for every possible scenario. So these bots can handle simple queries but fail to manage complex queries is stated in paper [7]. In paper [2] the chat-bot system is been proposed and designed using chat fuel platform and integrated in Facebook page. The chatbot has been designed to provide students feel like talking to the staff from college and their queries are addressed through the conversational text. Responses can be provided to the user in text format, pictures and with many more features provided by the chat fuel. The setup AI feature makes the bot smart and answers the queries of user [2]. The purpose of developing this project is based on an intellectual chat-bot system which will deal with the academic activities like admission enquiry, fees structure, scholarship details, time-table of every department, details of the documents required to attach etc. With this chat-bot system it will be easy for the student to directly clear their queries in lesser time.

Artificial Intelligence (A.I.) deals to create machines that can have human intelligence, with a lot of scope A.I. is now the new trend A chatbot is a contrived material that is proposed tomimic humans. A chatbot is a computer program created to stimulate intellectual human language collaboration through text or speech and the aim is to participate in the conversation or to interact in proper chat messages between human assistants through their natural language.

A chatbot is quite simply used in any business one has to train the bot by giving user responses. Chatbots are more promising when it arises to educational tenacity. Rasa NLU is a new and popular framework for Chatbot implementation.

2. LITERATURE SURVEY

1. College Campuses are huge in terms of the area they cover. If a certain person has a query that he wants to enquire, he/she would have to travel to various departments gathering segments of the answer to the query he had. The proposed system, GALGOBOT eases the query solving process by saving time and effort. GALGOBOT, a chatbot system acts as a companion and can be integrated on college websites. A Login and Signup System webpages was also added in the system to prevent unknown users from gathering inside information. The software would also ask various questions to get precise answers to the query by utilizing Natural Language Processing (NLP) model which is

helpful in the process. GALGOBOT intends to streamline the process of query solving

2. The days of solely engaging with a service through a keyboard are over. Users interact with systems more and more through voice assistants and chatbots. A chatbot is a computer program that can converse with humans using Artificial Intelligence in messaging platforms. Every time the chatbot gets input from the user, it saves input and response which helps chatbot with little initial knowledge to evolve using gathered responses. With increased responses, precision of the chatbot also gets increases. The ultimate goal of this project is to add a chatbot feature and API for Matrusri Engineering College. This project will investigate how advancements in Artificial Intelligence and Machine Learning technology are being used to improve many services. Specifically it will look at development of chatbots as a channel for information distribution.

3. Chatbot is a new and upcoming technology that has great demand in various industries. The main goal of a chatbot is to create a human-like conversation between a human and a machine, to reduce the work stress. The chatbot can be implemented in any industry easily, unlike any other product where the products need to be developed and tested before switching platforms. In colleges, especially during the time of admission, reception gets crowded and people have to wait to get their queries solved. If any person wants to know about the college, then he/she has to travel to college. Although every college has its website, not everybody can find the answer to their query. Colleges are not working on weekends, so if someone wants to visit or call reception to get their query answered they will have to wait until any working weekday. To solve these problems, we will create an AI chatbot. This chatbot will be embedded on the college website and will be able to answer any college-related query easily. Chabot will be able to answer multiple persons at the same time, people don't have to visit the college to get their query solved and it will be available 24/7 .[9]

4. In this pandemic situation, all are learning education online. There is a lot of drawbacks to these methods, the main drawback of this system is the interaction between students and teachers become low. A chatbot is one of the most convenient ways of studying for students and it also rectifies student doubts at any time without human support. This paper aims to approach a typical way to design a chatbot for MATLAB practical dataset. Students can ask a question in the chatbot in the form of text then, the question is processed with natural language processing and deep learning technology. Finally, the chatbot can answer the students with exact answers. So this kind of chatbot is useful for both the students and teachers.

5. The college information chatbot system is enhanced using the Naïve Bayes classification algorithm that analyzes user's queries and messages. This system responds appropriately to the queries that are posed by the user using in-built Artificial Intelligence (AI) with an effective Graphical User Interface (GUI) tool. The queries posed by the user were analyzed by the chatbot using a cognitive service named Language Understanding Intelligent System (LUIS), which is designed by Microsoft. It is integrated with the Skype application which can be downloaded and installed from the play store on the user's smartphone.

6. Paper Context sentences to Single Vector Compression using Convolutional Transformers for Deep Learning based NLG Tasks. Studied by Aditya khadilkar. In natural / casual conversations, people tend to have their own unique style of speaking/ chatting; certain phrases only they use, style of typing, customized grammar, nicknames etc. These 'imperfections' make the dialogue more human; we are able to identify people from their unique style of chatting. Conversational chatbots trained on clean text won't be able to capture these nuances. We propose a method to capture these quirks in the form of a chatbot with a novel NLG (Natural Language Generation) architecture; In the form of a convolutional transformer. WhatsApp chats between two users were cleaned and exported for training the model. The dataset had Unicode characters for foreign lexicon, emojis, and personalised grammar / texting patterns. The model is able to capture these traits in conversation for short responses and 83.[10]

3. PROCESS OF PROJECT

1. Define Requirements
Scope: Understand the range of questions the chatbot will answer (e.g., admission criteria, courses, fees, application deadlines, faculty, events).
Target Audience: Identify who will be using the chatbot (e.g., prospective students, current students, parents, faculty).
Goals: Determine the primary purpose of the chatbot (e.g., provide information, guide through the application process, answer FAQs).[11]

2. Choose a Platform
Development Environment: Decide on a platform or framework for building the chatbot, such as Rasa, Dialogflow, or Microsoft Bot Framework.
Integration: Plan how the chatbot will integrate with the college's website, social media, or other communication channels.

3. Design the Chatbot Conversation Flow
Identify Common Queries: Based on your requirements, list out common questions the chatbot should handle.

Design Conversations: Create conversation flows and responses to guide users through common queries.

Fallback: Plan for situations where the chatbot doesn't understand a question, with options like asking for clarification or redirecting to a human operator.

4. Develop and Train the Chatbot

Implement: Use your chosen platform to create the chatbot, implementing the conversation flows and responses.

Natural Language Processing (NLP): Train the chatbot's NLP model to understand various ways users might ask the same question.

Integrate APIs: Integrate APIs for accessing real-time data such as course information, admission status, or events.

5. Test and Iterate

Testing: Test the chatbot with real or simulated queries to identify any issues or shortcomings.

Collect Feedback: Gather user feedback to understand the chatbot's performance and areas for improvement.

Iterate: Refine the conversation flows, responses, and logic based on testing and feedback.

6. Deployment

Launch: Deploy the chatbot on the chosen platforms such as the college website or social media.

Monitor: Monitor chatbot performance and interactions to ensure it is functioning as expected.

7. Maintenance and Updates

Continuous Learning: Use ongoing interactions to help train the chatbot for better accuracy and user experience.

Update Content: Keep the chatbot's information up-to-date, particularly around admissions, courses, and college news.

Review Feedback: Regularly review feedback and logs to improve the chatbot and add new features as necessary.

8. Additional Features

Analytics: Implement analytics to track performance and user interactions, which can help inform improvements.

Integration with Live Support: Integrate with live support for more complex queries or issues the chatbot can't handle.

Data Privacy: Ensure data privacy and security protocols are followed, especially when handling user information.
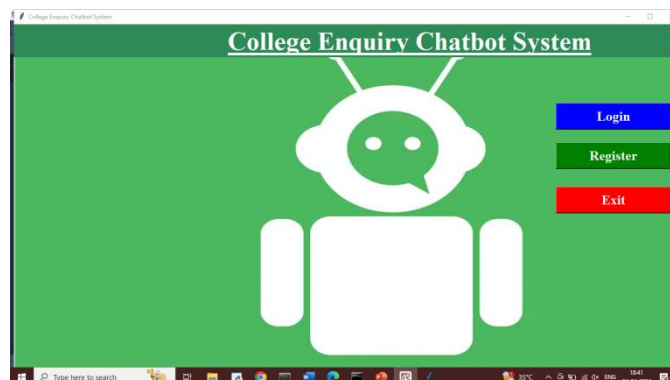
4. IMPLEMENTATION

Artificial Intelligence (A.I.) deals to create machines that can have human intelligence, with a lot of scope A.I. is now the new trend. Corporates are now trying to replace their human workforce with A.I. Informational chatbots is an integral use of A.I. Nowadays chatbots are trending topic applications that are built using the concept of artificial intelligence. A chatbot is a contrived material that is proposed to mimic humans. A chatbot is a computer program created to stimulate intellectual human language collaboration through text or speech and the aim is to participate in the conversation or to interact in proper chat messages between human assistants through their natural language. A chatbot is quite simply used in any business one has to train the bot by giving user responses. Chatbots are more promising when it arises to educational tenacity. Rasa NLU is a new and popular framework for Chatbot implementation. The proposed system chatbot is designed using an open-source framework RASA using various[12]
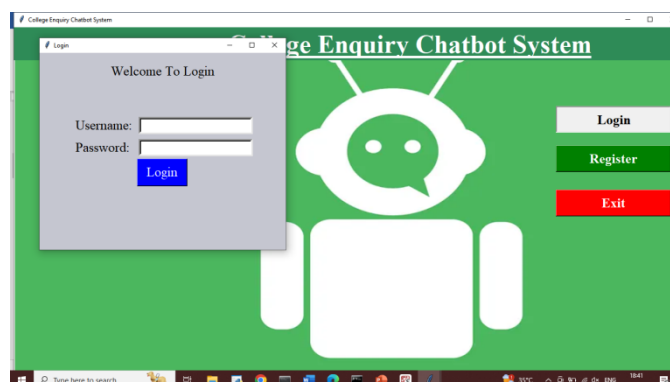
1. Main Page

When designing a main page for a College Enquiry Chatbot System, it's important to create an interface that is easy to use and provides a clear entry point to engage with the chatbot.
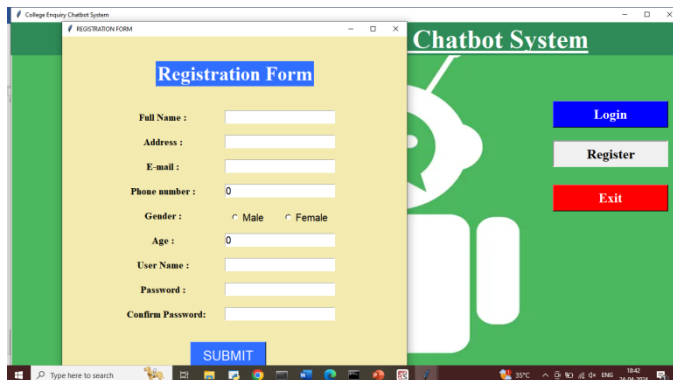

2. Login page

For a College Enquiry Chatbot System that includes a login page, you may want to restrict access for certain types of inquiries or for tracking user interactions. A clean and user-friendly login page can improve the user experience and help maintain a secure system.
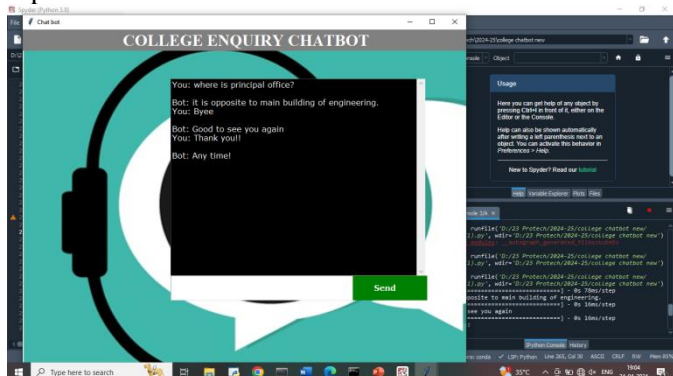
3. Registration page

Creating a registration page for a College Enquiry Chatbot System allows users to create accounts and access features that may require personalized data, such as tracking inquiries or saving preferences.

4. ChatBot Page

A chatbot page for a College Enquiry Chatbot System is where users interact with the chatbot to ask questions, seek guidance, and get information. The page should be user-friendly and efficient, providing easy access to the chatbot while ensuring a seamless conversation experience.

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