

Shri Shankaracharya Institute of Professional Management & Technology, Raipur

Major Project(Phase-I) Report on
**AI based platform for student
via chatbots for registration**

CSE 7th Semester

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Project Guide

MR. Dheeraj kumar ghaghre
(Asst professor, CSE)

Project Group Members:

Zeenat saba
Harshita pillay
Pankhudi lanjewar

Introduction about Project

We are developing chatbots for students using artificial intelligence. This helps students get immediate answers to their questions, which also saves us time when we have to ask them directly. Additionally, we are offering features like registration. Students no longer need to register independently; instead, they simply need to tell a chatbot, "I want to fill this form," and the chatbot will do it for them by using the student database. Chatbots are a subset of natural language processing (NLP), which calls for the machine to pick up on human language in order to fulfil user requests.

Application Area

- **Why did you opt to work on this project?**

The turnaround time from when an enquiry is raised until when a counsellor connects with the applicant for the first time is a major factor in their decision-making process. It is simply not possible for any institution to connect with all their leads in real time, especially after working hours or on holidays. Delayed, impersonal responses lead to applicants losing interest and poorly impact your enrolments. • The conversational AI-based Education chatbot, helps intelligently engage with your candidates throughout their admission journey. Built with evolving Natural Language Processing (NLP) technology and robust Machine Learning (ML) techniques, Niaa provides a delightful counselling experience with a human touch. Available 24*7, it can be integrated across web, WhatsApp and Facebook to help build applications, optimize ROI in real-time and drive admissions seamlessly!

- **What are the Applications and Benefits of this project?**

1. Virtual personal tutoring
2. Student engagement
3. Student support

- **Who are the End Users of this project?**

STUDENTS

Literature Review

•Literature Survey

Chatbots is a part of natural language processing (NLP), where it requires system to be trained as per human language, so that it can satisfy the needs of user. Chatbots conduct conversations with people, and developers typically hope that users will not realize they're actually talking to a robot. The term chatbot comes from “chatterbot,” a name coined by inventor Michael Mauldin in 1994. He created Julia, the first chatbots made with Verbot, a popular software program and development kit. Today, AI chatbots are also known by many other names: Talbot, bot, IM bot, intelligent chatbots, conversation bot, AI conversation bot, talking bot, interactive agent, artificial conversation entity, or virtual talk chatbots. It is one of the application or programs which takes the user queries and tries to answer those queries based on its knowledge

Literature Review

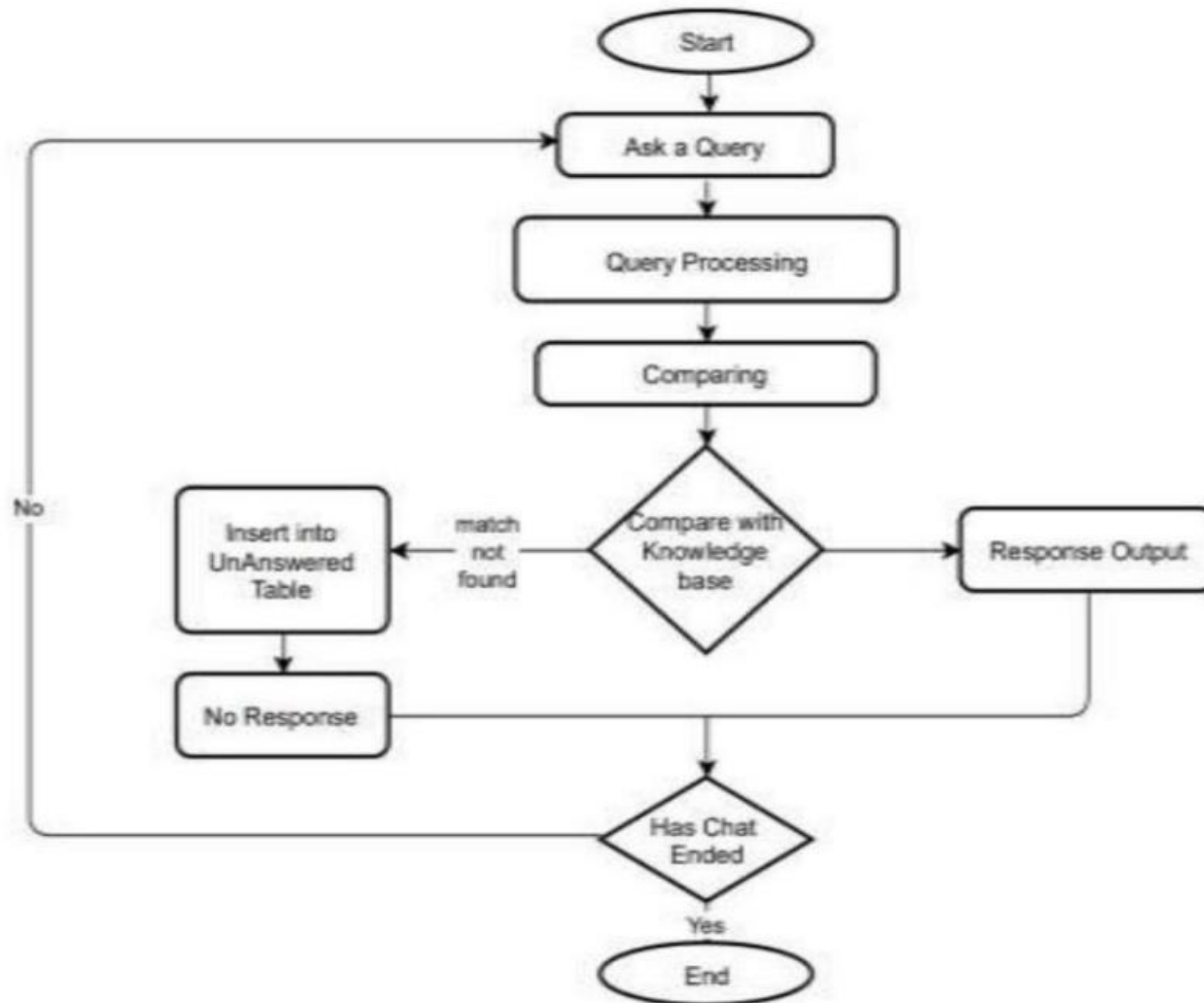
- Problem Identification

This project is focusing on creating a chatbot to be used by students to get their queries responded easily from the college website. Before implementing College Enquiry Chatbot, various existing chatbots were reviewed such as Amazon Shopping App, Alexa, Bank of America (Erica bot) and CNN news bot. In order to understand the requirement of a chatbot, consider an example of Amazon Shopping App. To resolve this issue, active learning can be introduced to the system to make probabilistic assessments and provide autonomous responses to the users. Active learning is an algorithm which interactively queries user to obtain the desired output. Whenever a user asks anything which is outside of the script the chatbot will ask questions to the user by giving two to three options and based on the user's input, the bot returns the answer to that query. This whole learning process is called as active learning.

Methodology

Our approach for conducting this literature survey study consists of two stages. Each stage involves several activities. In the first stage, we identify relevant search terms to literature work on the topic, and then we identify appropriate databases of research articles. Then, we collect research articles on chatbots from the selected databases. These activities are focused on information gathering about the topic. The second stage of our study involves the analysis of the retrieved articles. We focus on classifying the articles to different groups based on four aspects of chatbots: design, implementation, application and evaluation methods reported in the literature. In the following subsections, we give details of those activities.

Project Work Flow Diagram



Result & Conclusion

A chatbot is an ecosystem, a virtual human being that has been integrated with various industrial applications.

- 1) The main objective of the project is to develop a chatbot application that will be used to identify answers related to user submitted questions/queries.
- 2) The need is to develop a database where all the related data will be stored and to develop a web interface.
- 3) This can give up to 90% accuracy and helps the user to get the response in shorter time and with appropriate results.
- 4) They are exceptionally useful when the nature of customer enquiries are simple and repetitive.

To conclude, it is helpful in guiding students with correct and most up to date sources of information. It is advantageous for international applicants for queries such as fee payment and academic matters. Students can get the information at their fingertips rather than visiting college office. It improves efficiency by taking over tasks for which humans are not essential. Sentiment analysis implemented is correctly recognizes the user's query such as positive, negative, and neutral by storing all the conversations in the database

Snapshot

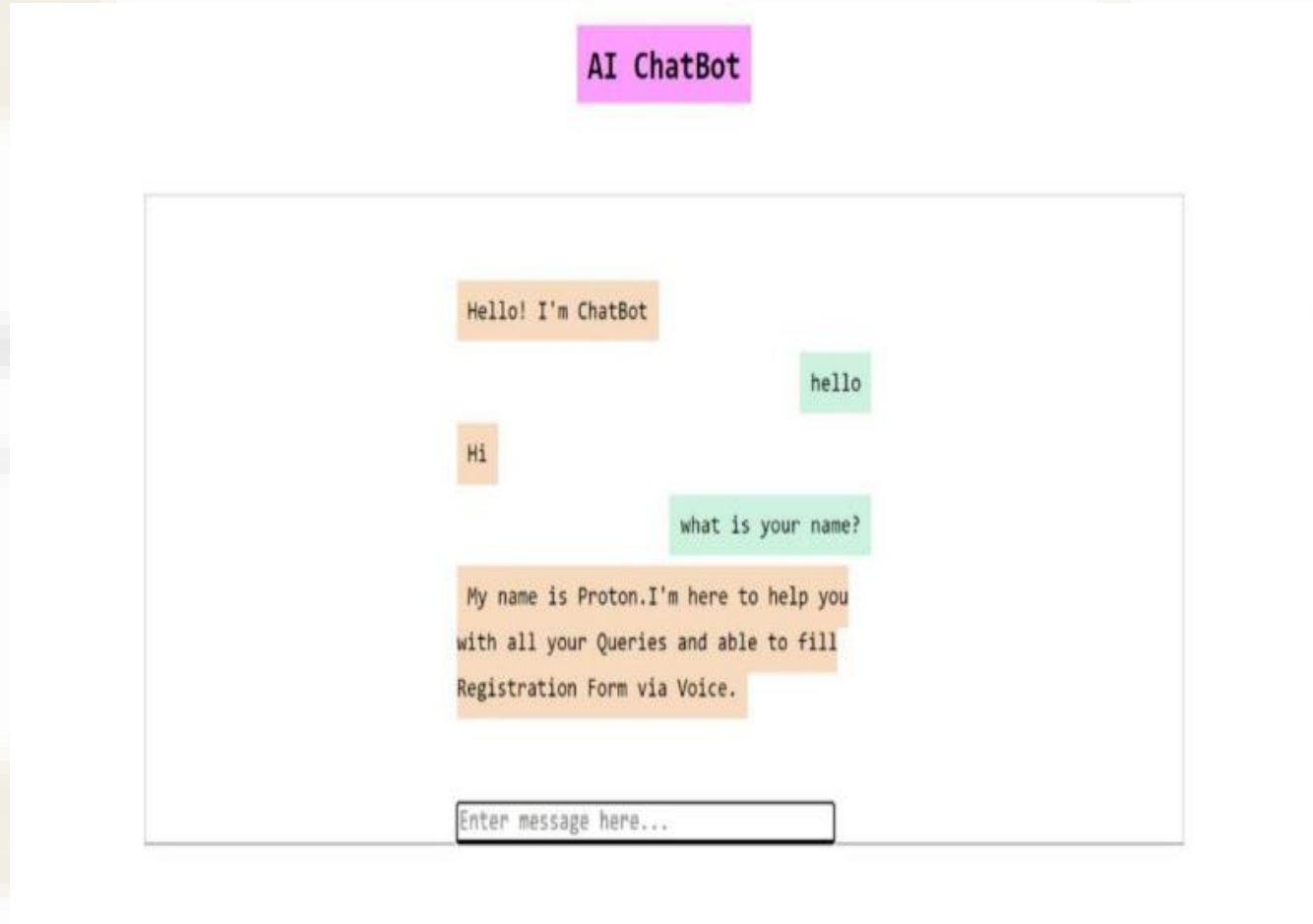


Fig: UI of chatbot

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