

College Chatbot

Ms. Sonali A. Handore¹, Parth Bhavsar², Ajay Patil³, Atharva Kangane⁴, Samruddhi Nikam⁵

Professor, Department of Computer Engineering¹
Students, Department of Computer Engineering^{2,3,4,5}

Matoshri College of Engineering and Research Centre, Nashik, India

Abstract: Nowadays, many people are using smartphones 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. There are many online Artificial Intelligence (AI) systems or chatbots 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 to the queries of students on college-related issues. A chatbot has information stored in its database to identify the sentences and make a decision itself as a response to answer a given question. The college enquiry chatbot will be built using an algorithm that analyses queries and understands user's messages. College Enquiry Chatbot is a type of web application, the main motto of this project is to provide information regarding college. It gives information regarding college only. The information may be like how many branches are in college? what are the courses offered by the college? how many students per branch? By adding some more features and making some improvements we can embed this project into the working site of the college. The chatbot created here is a web-based application which uses Natural Language Processing Libraries and Artificial Intelligence Language to have conversations with humans. It is a simple bot which answers the queries regarding the college

Keywords: Artificial Intelligence, Database, Intelligence Machine, Machine Learning, NLP

I. INTRODUCTION

A chatbot is a software application used to conduct an online chat conversation via text or text-to-speech, instead 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 Markup Language (AIML), a language based on XML that allows developers to 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 as stated in the paper. In the paper, the chatbot system is proposed and designed using a chat fuel platform and integrated into a Facebook page. The chatbot has been designed to provide students feel of talking to the staff from college and their queries are addressed through conversational text. Responses can be provided to queries of users. The purpose of developing this project is based on an intellectual chatbot system which will deal with academic activities like admission enquiry, fee structure, scholarship details, timetable of every department, details of the documents required to attach etc. With this chatbot system, it will be easy for the student to directly clear their queries in less time.

II. OVERVIEW

The main objective of "College Chatbot" is to minimise the time required to solve the queries of a user, reduce the workload on the college's office staff, save the time and strength of a user of visiting and contacting the administration office often, keep the user fully updated about the ongoing and upcoming events of college, etc.

III. MOTIVATION

As students, we tend to gain more knowledge concerning our school, college and university throughout our course. Generally obtaining these details is very cumbersome and drawn-out. Obtaining facts concerning our fee's

structure or the due fees remaining may be a drawn-out method that we have to travel to the administration building and notice the right window to explore for a no-due form then fill it with correct information so submit it to the acceptable person so that person can tell us our due fees. So why have this long and worthless process to get this minor information? We as a computer science student are always looking forward to solving the problems around us using the technology that we learn and how to implement them to achieve ease of usage in real life. This is where we thought of using an intelligent bot to deliver this information. Think about an application, Where all you can do is just ask. You would like to grasp the free structure of a student, then ask the bot about is it clear or not it will tell you.

IV. PROBLEM STATEMENT

At the start of each academic semester, registration opens for those wishing to join the university in various disciplines, and telephone calls for admission and registration abound. In today's fast-paced educational landscape, students, faculty, and administrators at our college face several challenges related to information access, communication, and operational efficiency.

V. ORGANIZATION OF REPORT

The topic describes a general overview of the college chatbot system, the application necessary and the objective.

DESIGN OF MODEL

- **User Interaction:** The user interacts with the chatbot through a messaging interface.
- **Data Flow:** The chatbot processes user queries, retrieves relevant information from a database or predefined knowledge base, and provides responses accordingly.
- **Data Storage:** The system may utilize a database to store information such as courses, schedules, faculty details, etc.
- **Flow Diagram Explanation:** It can describe processes such as course registration, student enrollment, faculty assignments, etc.

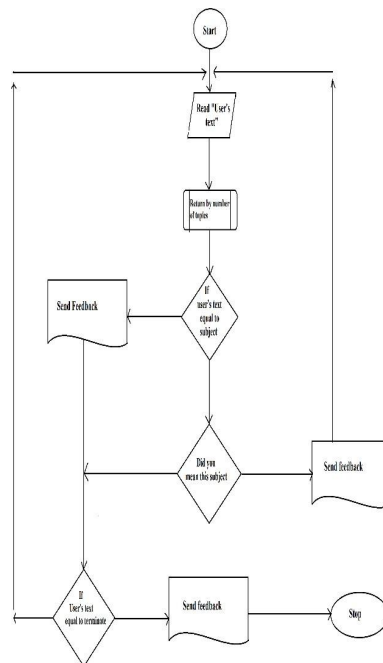


Figure: Data Flow Diagram

DFD 0 Level Diagram :

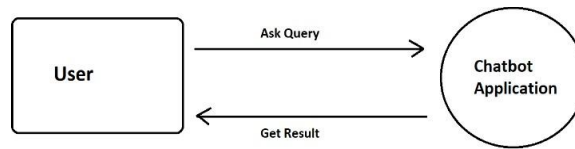


Figure: DFD 0 Level

DFD 1 Level Diagram :

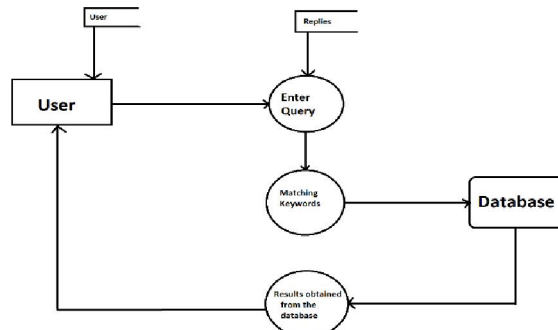
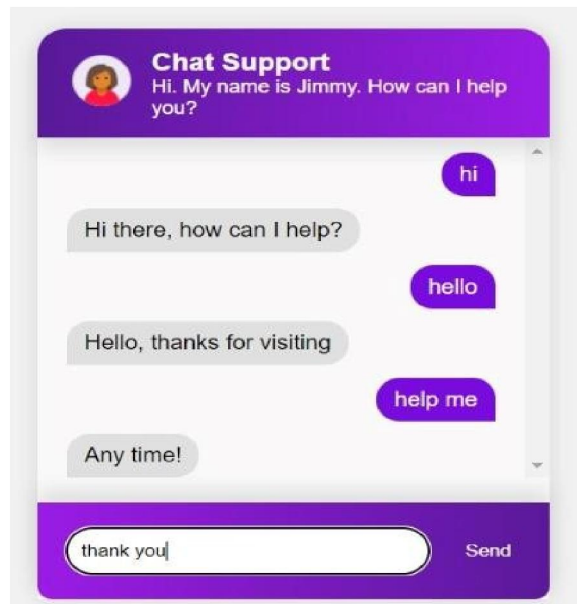


Figure: DFD 1 Level

Output



- **User Query:** The user interacts with the chatbot by asking a question or stating a query. For instance, they might ask, "What courses are available next semester?"
- **Response Generation:** The chatbot processes the response from the ERP system and formats it into a user-friendly message. For example, it might list the available courses along with their details such as course code, title, and schedule.
- **Output to User:** Finally, the chatbot presents the information to the user in the chat interface. The user can view the list of available courses without needing to log in to the ERP system.

VI. CONCLUSION

We have successfully implemented the College Chatbot. The main objective of the project was to develop an algorithm which would identify answers associated with user-submitted questions.

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