

# College Enquiry using Mini Chatbot

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**Abstract:** This article explores the development and implementation of a college inquiry chatbot designed to provide students with rapid and meaningful answers to their questions. The chatbot was designed using machine learning principles and can accept text and voice messages from users. It saves students and staff time by handling daily tasks such as scheduling, billing, and answering frequently asked questions. Chatbots can be integrated into school websites to interact with visitors and answer their school-related questions. Benefits of using a college chatbot survey include student satisfaction, easy communication, cost savings, personal interaction, time management, increased efficiency possible, reduced administration, data collection and analysis, automated FAQs, and integration with existing systems. Overall, college inquiry chatbots are powerful tools for increasing student engagement, satisfaction, and retention while reducing operational and administrative costs.

**Keywords:** For a college inquiry chatbot, you might consider the following keywords: - Admissions, Courses, Programs, Scholarships, Campus, Facilities, Faculty, Events, FAQ, Contact

## I. INTRODUCTION

Chatbot are computers that print and analyze human conversations (spoken or written), allowing people to communicate with electronic devices like conversations with a live agent. Chatbots range from simple programs that respond to a sample to virtual assistants that learn and evolve as data is collected and processed to provide highly personalized experiences.

Technologies that help robots (machines) understand what people want to convey from text are NLP and machine learning. The chatbot receives the user's input, and then processes the input it receives through a complex process, understands the user's intent and selects the most useful one based on the distribution by leaving value and selects the response from this target. The chatbot system will be developed using neural networks, NLP, Python and JavaScript and will be integrated into the College website. Students will find it easy and quick to get direct answers to their questions using our chatbot. The chatbot answers students' questions in a chat format, making them feel like they are talking to a university employee.

The chatbot provides users with the following content: - 1) Educational Information, 2) College Information, 3) Financial Aid Information, 4) Admission Procedure, 5) Fees , 6) Program for each section and category, 7) Faculty, alumni, location study.

## II. LITRATURE SURVEY

| Title                               | Year | Author Name                            | Proposed Methodology  |
|-------------------------------------|------|--|---|
| A Web Based College Enquiry Chatbot | 2018 | Sagar Pawar, Omkar Rane, Ojas Wankhade | Evaluation of text using tuples. Use better data collection techniques.   |
| College Enquiry Chat Bot            | 2019 | Karanvir Singh Pathania                | Uses the Library and Artificial Intelligence Language skills to communicate with the people.  |
| College Enquiry Chatbot             | 2021 | Mrs. Nidhi Sharma, Gayatri             | Made by creating a HTML and CSS file and by writing AIML Scripting for Chatbot standard startup file: (std-startup aim). SQLite Database as well as Flask was used. |

### III. IMPLEMENTATION

The basic algorithm by which this system will work is as follows:

Step 1: Start

Step 2: Get login questions from the user.

Step 3: Preliminary research.

Step 4: Get more important words from the question.

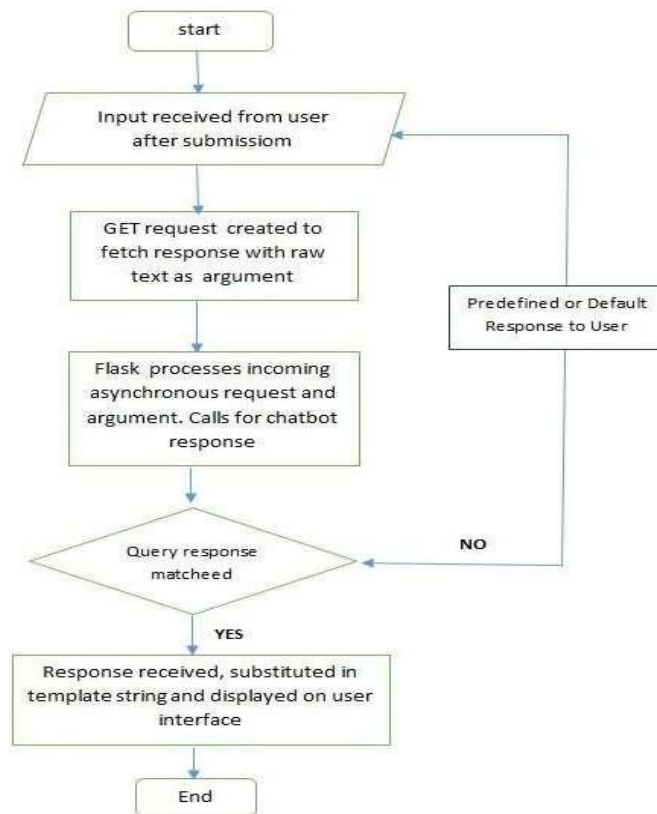
Step 5: Compare the retrieved content with the keywords in the knowledge base and provide the appropriate response

Step 6: Data extension is used to use the data center to search for appropriate services to find appropriate information

Step 7: Keywords will be used by the content matching algorithm.

Step 8: Send the question back to the Chatbot. Step 9: Exit

#### Flow Diagram:-



### IV. PROPOSED METHODOLOGY

Some of the tasks that can be done using a chatbot include:

#### Software Requirements:

We propose an android application which is used as medium to chat with the user.

#### Front end:

In the college enquiry chatbot example provided, each technology serves a specific purpose.

- **HTML (Hypertext Markup Language):** HTML is used to define the layout of the chatbot interface, including the structure of the container, card, input fields, and chat message display area.
- **CSS (Cascading Style Sheets):** CSS is used to apply custom styles to the chatbot interface, such as colours, fonts, margins, and paddings, ensuring consistency and improving readability

- **JavaScript:** JavaScript is used to handle user interactions, such as sending messages, displaying messages in the chat area, and processing user input. It also defines the behaviour of the chatbot, including how it responds to user queries.
- **Bootstrap:** Bootstrap is used to leverage its pre-built CSS components and JavaScript plugins to create a responsive and visually appealing chatbot interface quickly. Bootstrap's grid system, cards, buttons, and form components are used to design the layout and style various elements of the chatbot interface efficiently

#### Back end:

##### Python:

Python can be used on the backend to handle various tasks that require server-side processing and logic.

Here are some purposes for which Python might be used as the backend:

- **Handling User Input:** Python can receive and process user input submitted through the chatbot interface. This input may include questions about college programs, admission requirements, campus facilities, etc.
- **Processing Queries:** Python can process user queries and generate appropriate responses. This might involve querying a database or accessing external APIs to retrieve relevant information based on the user's request.
- **Natural Language Processing (NLP):** Python's NLP libraries (e.g., NLTK, SpaCy) can be used to analyze and understand the meaning of user queries. This allows the chatbot to interpret user intent and provide accurate responses.
- **Database Interaction:** Python can interact with a database to store and retrieve information related to college programs, courses, faculty, etc. This allows the chatbot to provide new information to the user.
- **Integration with External Systems:** Python can integrate with external systems and services, such as college management systems or student information systems, to access additional data or perform specific tasks.
- **Session Management:** Python can manage user sessions to maintain context and continuity in the conversation. This ensures that the chatbot remembers previous interactions and provides relevant responses based on the current conversation context.

#### Framework:

##### Flask:

In the context of a college enquiry chatbot, Flask plays a crucial role as the backend framework. Here's how Flask contributes to the functionality of the chatbot:

- **Routing:** Flask handles URL routing, allowing the chatbot to respond to different types of requests from the frontend interface. For example, when a user sends a message or submits a form through the chat interface, Flask routes these requests to appropriate functions for processing.
- **Request Handling:** Flask manages HTTP requests and responses, enabling the chatbot to receive user input, process it, and send back appropriate responses. This includes handling different HTTP methods like GET and POST for retrieving data from the frontend and sending responses back.
- **Integration with Backend Logic:** Flask integrates with the backend logic of the chatbot, which may involve processing user queries, retrieving information from databases or external APIs, performing natural language processing (NLP), and generating appropriate responses. Flask provides a framework for organizing and executing this backend logic in response to user requests.
- **Error Handling:** Flask provides mechanisms for handling errors gracefully, allowing the chatbot to respond appropriately to unexpected errors or invalid user input. This includes returning informative error messages to the frontend interface and preventing application crashes by catching and handling exceptions

#### V. APPLICATION

- College University Search Chatbot helps students find the right information.
- Not a university Chatbot query, a Chatbot will give them instant and accurate answers.
- Artificial intelligence-based Chatbot system can be used in most schools across the country, as well as in many business- related companies and businesses.

#### ADVANTAGES

- There is no need for users to go to university. Ask for personal and university information.
- The system helps students stay informed about school activities.
- The system is designed to reduce the time of students, parents and school staff.

#### VI. FUTURE SCOPE

We will include questions and answers in the future of our project. The user only needs to give instructions in the form speech and the producer will give the text and give the speech while giving it. We can easily improve the functionality of your project by adding text to text and text to speech.

#### VII. ACKNOWLEDGMENT

A substantial activity can only be successfully and satisfactorily completed with the involvement of diverse personal effort from all angles, both explicit and implicit. Wide-ranging, worthwhile reading activities result in significant knowledge gains from books and other informational sources, but real competence comes through related learning tasks and experience.

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#### VIII. CONCLUSION

A chatbot is one of the simplest and convenient way to transport information from a system to the user without having to look up in a search or browse several web pages. The user can easily ask the question in simple language and can get the proper response instantly. It is a great tool for rapid interaction with the user.

The project creates a new way of connecting modern technologies and provides the basis for a more detailed analysis. It also helps students stay informed about college events and programs. It also saves teachers and non-teaching staff time and effort and has proven to be very beneficial.

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