STUDENT CHATBOT FOR UNIVERSITY ADMINISTRATION

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Abstract:

Now-a-days User interfaces for each and every applications are coming in a various formats like command-line, graphical, web applications and voice. Chat bot's application may serve the need of multithreaded connectivity. A Chat bot is used to make conversation between humans and machine. A chat bot usually does human conversations in its natural format that may be text or in spoken language (English) using artificial intelligence algorithms like natural language processing popularly known as NLP. Chat bot can also be called as Talbot, IM bot that automatically analyses the user's queries and then answers them. Developing a chat bot for a university can help both the students as well as the management and can be further integrated with the university website for making services available for large number of audience.

Keywords: **Chat bot, Artificial Intelligence, Natural Language Processing.**

1. INTRODUCTION

Chat bot machine has embedded knowledge to identify the sentences and making decision as to answer a question. Chat bots are usually stately services, it remembers the previous information or commands and processes them in order to answer any query. When chat bot applications are integrated with popular web services they can be used by a large audience.This Student chat bot system provides answers to the queries of the user by analyzing

them. The university inquiry chat-bots will be built using artificial algorithms that analyze user's queries and understand user's message. The response principle is to match the input string from a user. The System analyses the question and then answers the user.

2. PROBLEM STATEMENT

Generally if a student needs to get any kind of information regarding courses, admissions and so on, one needs to come to University or enquire through helpline. Although they have enquired through helpline they further forward the call to another section related to the query. This whole process is time consuming for both student and the management. Student needs to visit the college in person to get their queries answered. There may be some general queries for a student/parent that can be clarified from online chat bot itself. Here the chat bot comes into the place. Any question on university related activities can be asked by the user to chat bot without directly going to university for inquiry. These limitations like time consuming activity and money consuming activity to get the required information are the motivation to develop a university chat bot.

3. PROPOSED SYSTEM

The objective of this application is to propose a chat box enquiry for students to communicate with the colleges. By using artificial intelligence, the system answers the query asked by the students. The chat bot mainly consists of core and interface, where it mainly access the core in MySQL. Natural language processing technologies are here used for parsing, tokenizing, stemming and filtering the content of the complaint.

User Login and Complaint:

> User can register themselves and further login and post queries regarding University related activities. They can also lodge a complaint for any irrelevant/ wrong answer to the admin.

To further develop the proposed system – University chat bot we can use any programming language that supports object oriented concepts, but we use Python as it is the most happening language and user friendly. Software we use are PyCharm, Anaconda Navigator. We develop the artificial intelligence algorithm in the python language on PyCharm IDE and further integrate it with database using Anaconda Navigator.

4. DESCRIPTION

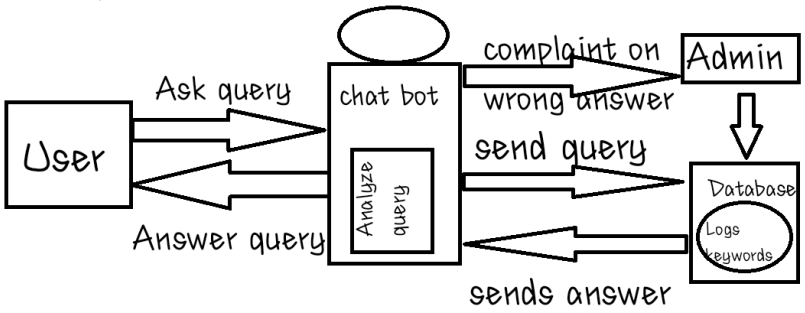
Chat bot is very happening application which is being widely used by many companies, service providers and many industries. This Chat bot application can be developed by many languages on many platforms. In this student chat bot we have used python programming language and Anaconda. Free and open source, Anaconda distributed computing with Python and R programming language knowledge which aims to simplify the management and deployment packages.Anaconda Navigator is graphical user interface that help usres to launch applications and manage packages. PyCharm was developed by Czech

company JetBrains, it is an integrated development environment used in computer programming specifically for Python. It provides code analysis, a graphical de-bugger as well as Data Science with Anaconda.

In this student chat bot project we use an artificial algorithm named, Porter stemming algorithm (or 'Porter stemmer'). It is a process for removing the common words or inflexional sentence endings from the input. It can be mainly used for normalization process that is removal of similar words or strings. The main role in building of a chat bot is played by Natural Language Processing Algorithm. It takes the input from the user a normal sentences further breaks the sentence into the keywords and processes them into machine understandable format. There are three modules in Chat bot. They are: Administrator, User and Chat bot.

Administrator: Administrator can view the posted queries and can add new features based on user's requirements.
User: User can post the queries to the system through bot and get answers.
Chat bot: Users can chat with bot about college related activities like courses offered, hostels, fees, etc.

BLOCK DIAGRAM:



BLOCK DIAGRAM OF PROPOSED SYSTEM

6. ALGORITHM

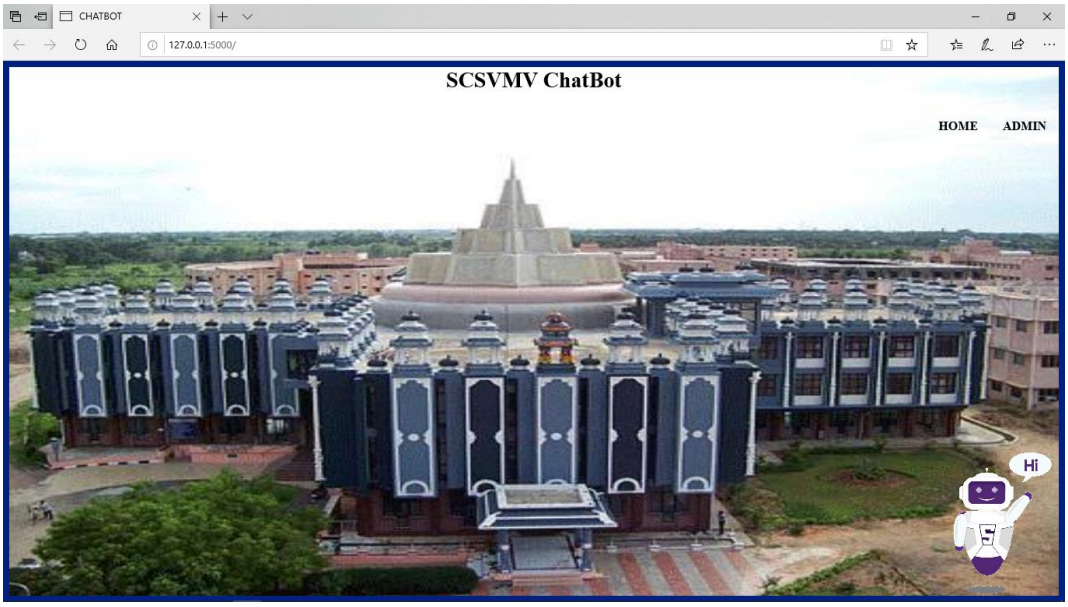
Step 1: Open Chat bot application, -On opening the Chat bot application you have two section namely Home and admin. Admin section has permission only for the admin.
Step 2: If you are a new user you must register yourself by providing details like username and password, email id and mobile number.
Else

Step 3: If you are a registered user login with your login credentials namely username and password.
Step 4: Type your query and click Post query.
Step 5: If obtained answer is irrelevant/wrong answer and if you are not satisfied with the answer, you can lodge complaint to admin.
Step 6: Close the chat bot application.

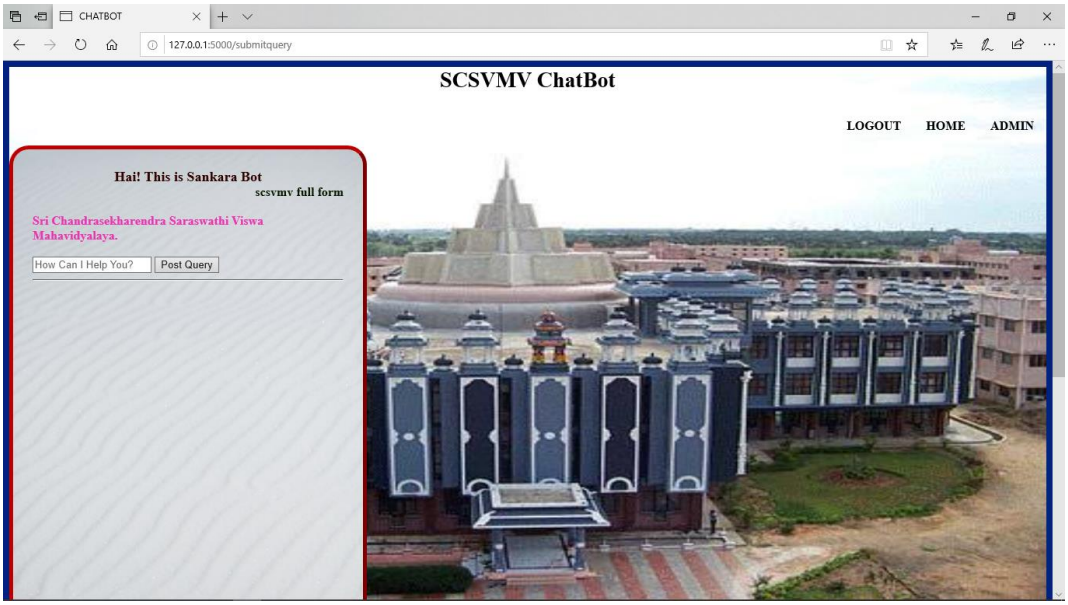
7. RESULT

Students can use the chat bot application to ask any queries related to University and this can be used to save time for both students and management. And can place a complaint for irrelevant/wrong query. This can be integrated along with college websites and can be made available to many users.
As mentioned in the proposed system, chat bot for University administration was developed it has a home page and user registration page for a new user, login page for registered user. It has a conversation page which can be seen only by the administrator.

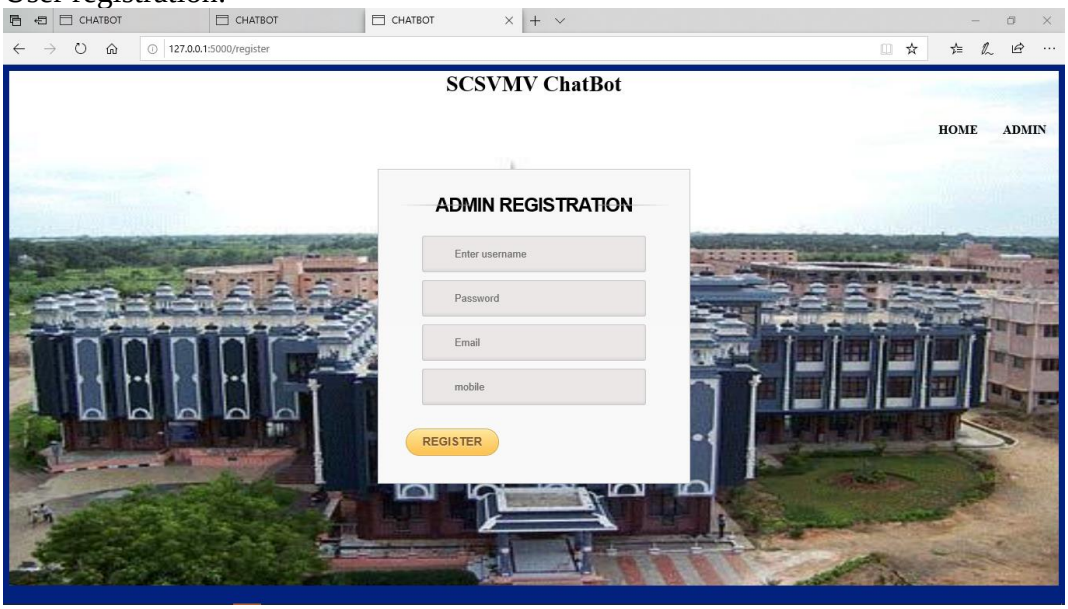
Home page:



Query execution:



User registration:



8. CONCLUSION

The Primary objective of this project is to develop an algorithm that can used to give information to the user regarding university related activities through chat bot. The web interface developed had two parts one for user and one for administrator. This interface for the administrator includes an overview of conversation procedure and chat log. A database to store the information about questions, answers, keywords and logs was developed. This chat bot can be developed and deployed to web server if necessary. This works efficiently to an extent and should be further trained for increase in efficiency.

9. REFERENCES

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