Chat-bot Mini Project

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Abstract

The College chat-bot project is built using artificial intelligence algorithms that analyses user's queries and understand user's message. This System is a python application which provides answer to the query of the student. Students just have to query through the bot which is used for chatting. Students can chat using any format there is no specific format the user has to follow. The System uses built in artificial intelligence to answer the query. The system provides appropriate answers as per user queries. The User can query any college related activities through the system. The user does not have to personally go to the college for enquiry. The System analyses the question and then answers to the user. The system answers to the query as if it is answered in person. With the help of artificial intelligence, the system answers the query asked by the students. The system replies using an effective Graphical User Interface, as if a real person is talking to the user. The user can query college related activities such as date and timing of annual day, sports day, and other cultural activities. The system replies to the user with the help of effective graphical user interface. The user can query about the college related activities online with the help of this python application. This system helps the student to be updated about the college activities.

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Introduction

The chatbot hype originates from a mixture of two factors; The fast growth of communication apps and the increased effect of artificial intelligence and natural language processing in our daily life. We are somehow more comfortable communicating over messaging apps rather than face to face interaction. This is true because communicating over apps is much more accessible, cheaper and faster. Chatbots provide an innovative way of combining messaging and artificial intelligence to provide faster and more responsive systems. Chatbots can scrape data from anywhere and in any form and present it in the most suitable format. It is often impossible to get all the data on a single and simple interface without the complications of going through multiple forms and windows.

The need for college inquiry system arises due to various reasons which include: the slow nature of college website, an outsider would not know where to search for a particular piece of information, difficult for the person outside college's domain to extract information. The smart solution for all the drawbacks lends to the need of the system. The college inquiry system will provide the response by summarizing the query and then output answers, it also provides selective information what the user wants. A college system will dispense all answers relating to domains such as admission, examination cell, notice board, attendance, placement cell and other miscellaneous domains.

The major features of the chat bot are:

- College admission related queries could be answered through it.
- Viewing user profiles and retrieves attendance and grade/ pointers.
- College students can get information about examinations to be held.
- College students can fetch particulars about placement activities.

Design of chat bot

The design of chat bot is shown with help of following diagrams as shown below.

Use Case Diagram: -

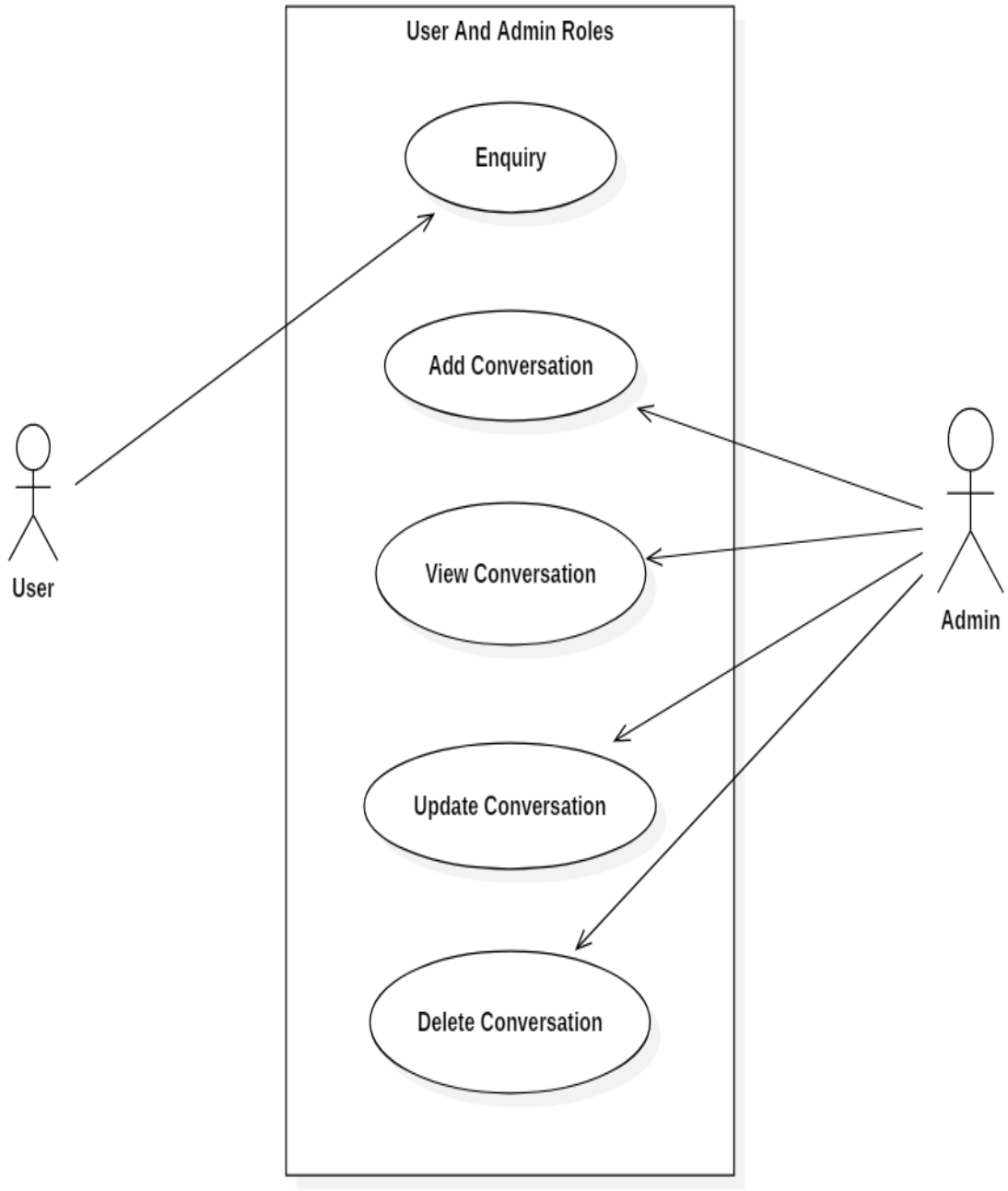

Fig 2.1: - Use Case Diagram of Chatbot

Sequence Diagram: -

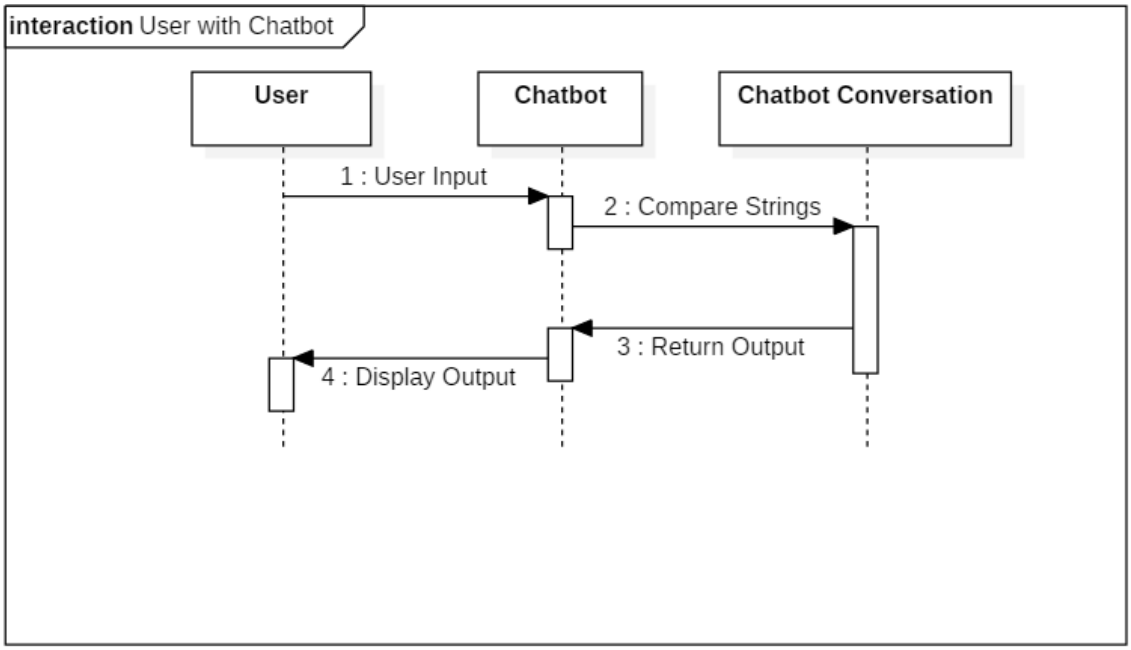

Fig 2.2: - Sequence Diagram of Chatbot

Methodology

The Chat bot is created on python using Natural Language Toolkit and Tkinter. The Steps of making this Chat bot is shown below :

Steps to design a Chat bot :

1. Download and install python 3.7
2. Install and import tkinter, nltk library.
3. Design chat bot UI using tkinter.
4. Implement nltk in chat bot.
5. Create conversation file for chat bot.
6. Train chat bot with conversation.

Implementation Snaps

Here are some snaps of chatbot as shown below :

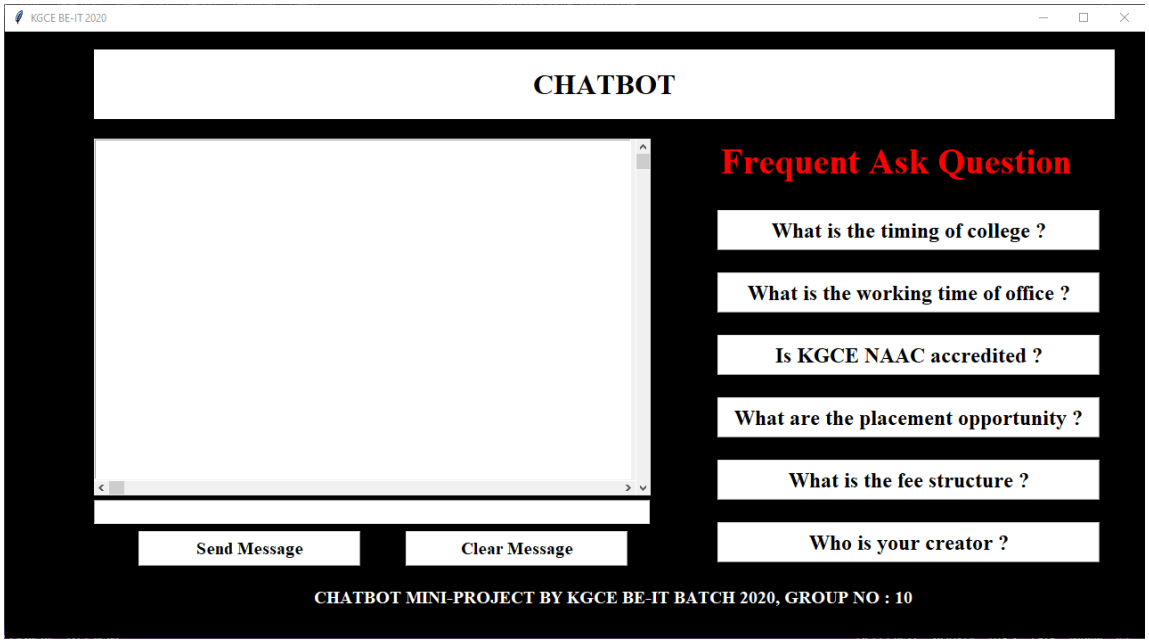

Fig 4.1: - Chatbot with no message.

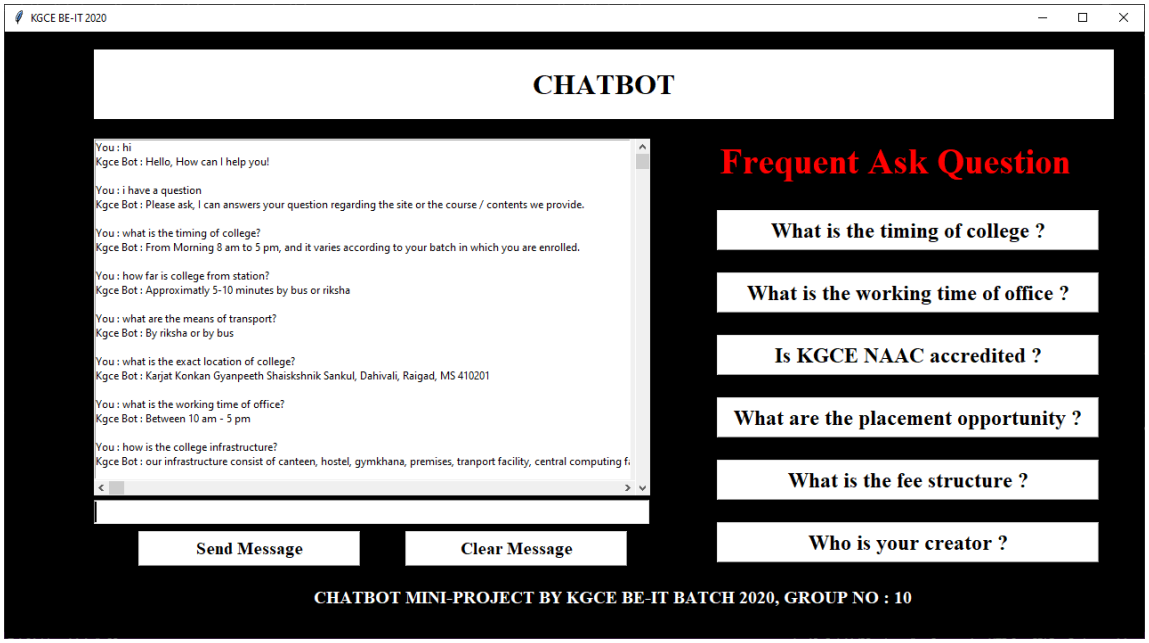

Fig 4.2: - Chatbot with some messages.

References

1. https://towardsdatascience.com/build-your-first-chatbot-using-python-nltk-5d07b027e727

2. https://www.nltk.org/