MITRA (For Music and Quotes)

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ABSTRACT

We all live in a time where nothing is certain. Likewise goes with our minds. Our attitudes, decisions, and priorities shift on a regular basis. We are pleased to announce that we have created "MITRA (for Music and Quotes)" in light of a solution for people's behavior continually evolving. Mitra means "Friend", as the name would imply. We employ machine learning techniques for the chatbot and facial recognition so that our interface will act as a friend to the users and make music and quotes suggestions depending on the emotion recognized in the text while messaging with the chatbot and the emotion recognized in the face using facial recognition. It also contains a notes part where you can record the necessary content, and it uses a database for storage purpose.

Keywords: Mitra, Friend, Chatbot, Facial Recognition, Notes, Machine Learning, Database

I.   INTRODUCTION

Water Recommendations for music and inspirational quotes are crucial in today's technologically advanced world since they enable people to choose peaceful music that suits their moods and eases tension as well as inspirational words that motivate them to simply get going. Three sections make up this project: Chatbot, Facial Recognition, and Notes. The Chatbot can first determine a user's mood based on the tone of their text. It can then play music and provide quotes based on language preference and the user's current mental state from the dataset saved as a csv file. Second, based on the user's chosen language and singer, the facial recognition part uses the device's camera to capture the user's face, store it as a snapshot, recognize his or her emotion, and recommend a quote

and a variety of songs. Lasly, the notes section also contains a sign-up or login page where users can make and save notes. This section is similar to that of a diary where the users can make note of the recommendations or even the current thoughts in their mind.

II.   METHODS AND MATERIAL

A.   System Architecture

Fig. 1 shows the working of a chatbot as a structure.

1) Intent: According to its definition, the word "Goodbye" has the intention of finishing the discourse.

2) Entity: Entities are connected to knowledge bases to provide users with more individualized and accurate answers to their inquiries.

3) **Candidate Response Generator:** The chatbot's candidate response generator uses a variety of compute techniques to process the user request. The result of these calculations is the candidate's response.

4) **Response Selector:** To provide users a better response to their questions, the Chatbot's response selector uses words or text to choose from.
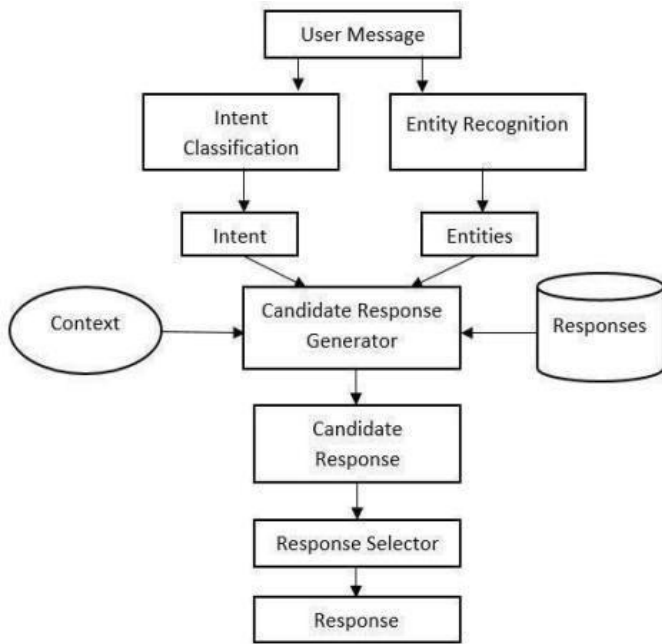

Fig. 1 System Architecture

B. Sequence Diagram

Fig. 2 shows the application's sequence. To determine accuracy, the user first runs the python file on the computer. The system then applies the algorithms to the datasets contained in the python file to determine accuracy. The accuracy result is sent to the user interface, where music and quote will be shown to the user based on accuracy.
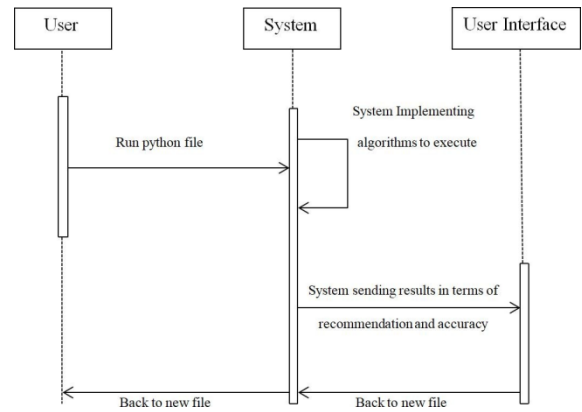

Fig. 2 Sequence Diagram

C. Flow Diagram

Fig. 3 shows the flow diagram that when we launch MITRA webapp, the first page has three components.

The first component is a chatbot that analyses the user's text inputs to provide music and quote recommendations when the user clicks "Go." The music is suggested based on the user's emotion detected by their text and also by language preferences. The chatbot uses the NaiveBayes Algorithm and own created CSV file with music and quotes.

The second segment is dedicated to facial recognition. By pressing the "Go" button, the user is brought to a new window with numerous language selections and singers. Then, the machine studies the user's face to determine his or her emotion (such as happy, sad, neutral, fear, surprise and anger). Based on the emotion identified, the system will recommend a quote and several songs. The Haarcascade Algorithm is utilised in Facial Recognition, as well as a Webbrowser module for website connection, such as YouTube for songs.

The notes part is the third section. When the user selects the "Go" button, they are directed to a new window with tools where they can add their own notes. These notes can then be saved and retrieved at any time, with a date and time stamp. Unauthorized users are not allowed access. For storing notes in Notes section, we have used the Oracle 11.2, Instant Client 21.9 database.
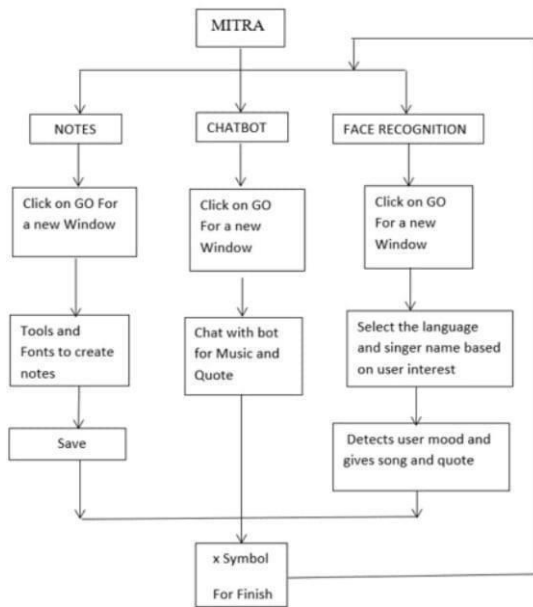
Fig. 3 Flow Diagram

III. RESULTS AND DISCUSSION

The final outcome of the project is discussed below along with the snapshots

A. Chatbot

Fig. 4 shows the chatbot section. Users can initiate conversation with the bot which will detect the emotion of the user based on his/her texts and recommend music and quote by considering the language preference.
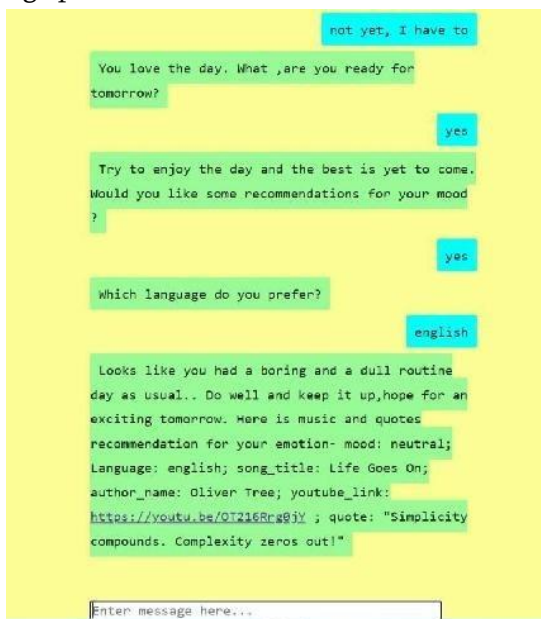

Fig. 4 Chatbot

B. Facial Recognition

Fig. 5 shows the facial recognition section. The user can choose or type the language of their choice and choose or type the singer of their choice. Finally, the system captures the user's facial expression using the device's camera and recommends songs and quotes based on that expression to motivate the user.

Fig. 5 Facial Recognition

C. Notes

Fig. 6 shows the notes section. The new user can first sign-up. An already existing user can login and start creating notes.The user can design their notes by choosing different text styles like bold and underline and also changing the background colour of the notes. The user can retrieve their previously created notes which will be displayed along with the date and time stamp. The user can also delete any existing note.

Fig. 6 Notes

IV. CONCLUSION

In this project, we have developed a machine learning model which includes the features such as chatbot and facial recognition where the emotion (sad, happy, neutral, etc..) of the user is understood. Based on the emotion detected, the machine will match the emotion with the music dataset which is linked as a csv file, and try retrieving the music with the respect to the language preferred by the user that facilitates the user with better song experience and positive quotes which helps the user to boost up. The additional feature called notes helps to make the important notes that can be retrieved anytime along with the date and time it was created.This model will have better user experience because of an embedded feature of the three sections i.e. chatbot, facial recognition and notes. This will undoubtedly be useful later.

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