LANGUAGE TRANSLATOR APP

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ABSTRACT

A language translator is a mobile application that can be utilized for translating from one language to another. The problem of language difference has hindered effective information communication over the years. This traditional approach used for solving the problem of language differences has not been productive and favorable. The study develops an android language converter app in order to make learning and language translation easy and facilitates stress-free communication. The system will also be able to evaluate language translation to determine their suitability for everyday conversation.

I.   INTRODUCTION

In communication, language has been a significant barrier for centuries now, and human beings have always tried to provide a solution to the issues of language translation. Over the decade's humans have developed different ways of translating languages in other to solve the problems associated with language differences. Real time world contains different significant messages, labels and useful information but most of them are written in different official languages which depend on the host country.

Besides that, it is inconvenient for a traveler to carry on their tasks in a foreign country if they don't understand the language used in that country. They need to carry a pocket dictionary or use an online translation service in order to understand the message. Optical character recognition (OCR) has been introduced to simplify the digitization process for users. However, OCR is not able to translate scanned text images into different human readable languages.

Therefore, this paper proposed an Android-based application programming interface (API) developed using Firebase as an improvement text recognition program that is able to translate the scanned text images into language of user preference. This proposed API processes text images, detects text from the scanned images, and translates the text into user-preferred languages.

II.   LITERATURE REVIEW

Most of these tourists like to move independently and with our good road system and availability of public transport, they are comfortable with their visit here but they encounter communication problems. Through interviews and researches, the researchers found that there is no mobile application for translation for the different languages.
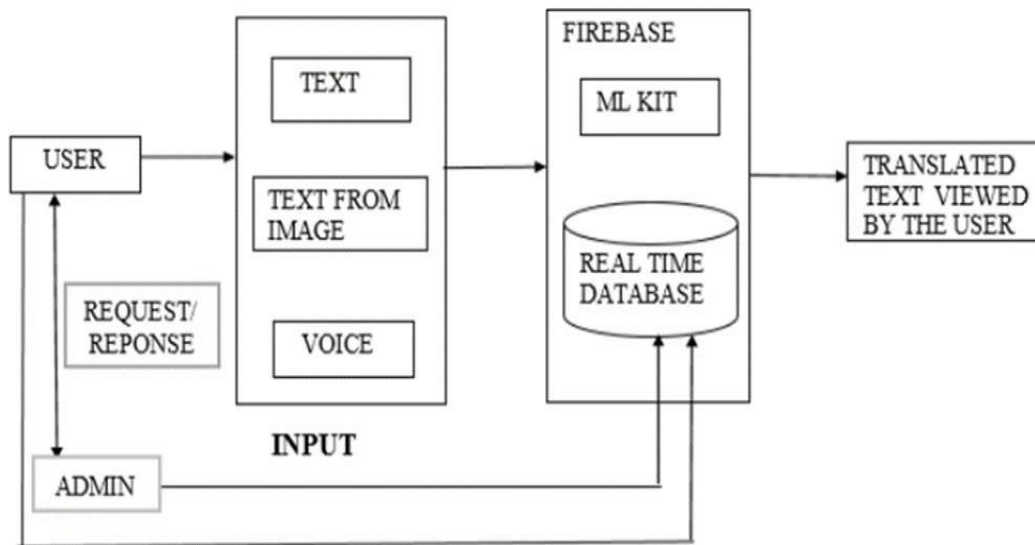
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This research work proposes a portable and 24x7 available system with support for bidirectional translation i.e. from sign language to speech and speech to sign language.

According to the research results, there are some recommendations on this system to fulfil the needs and requirements of the end-users. In future, new improvements can be implemented on this application where the upgraded versions can provide the user to access more languages for translation. Moreover, online functions can be added to provide more updated information.

Android language translator application: It is an android based application where we will be implementing language translator which helps tourists, people who are dumb and deaf and the people travelling between states in India.
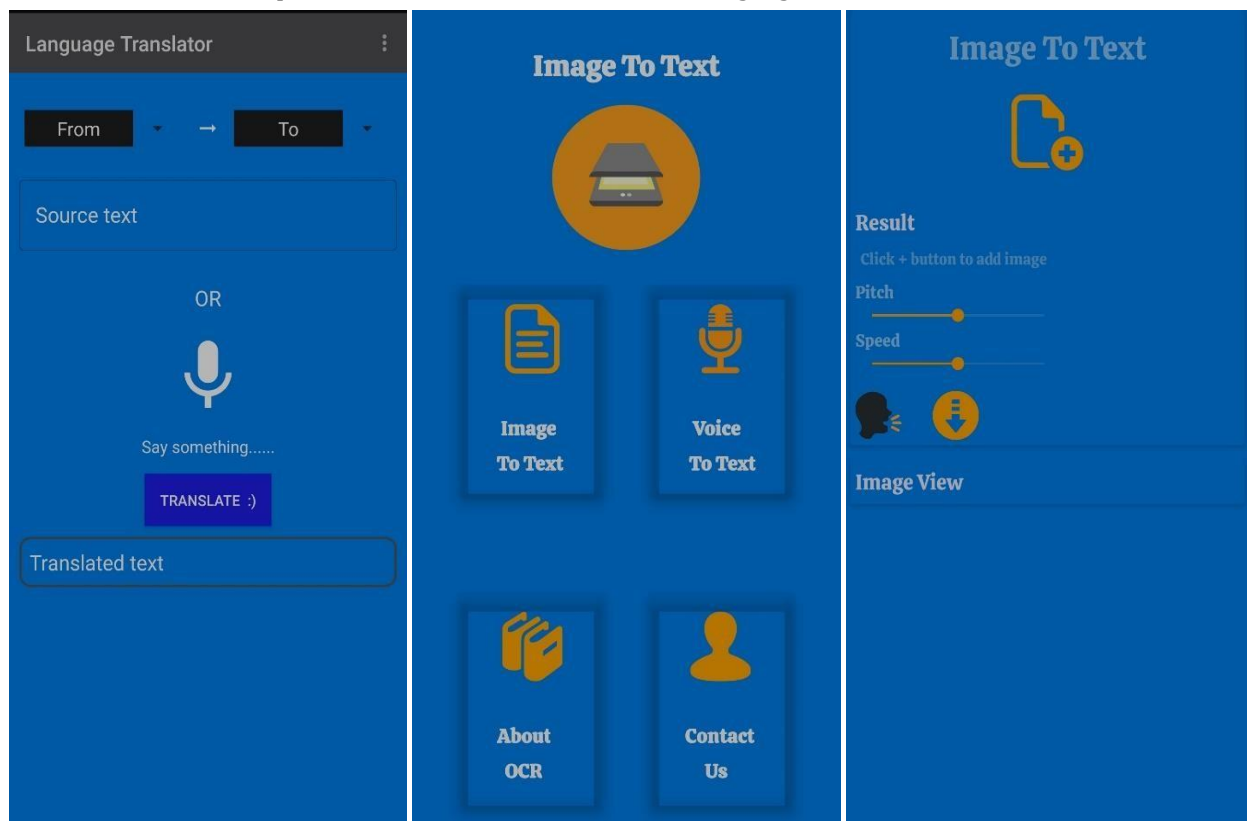
III.   METHODOLOGY

System architecture shows the overall flow of the project and how the one system component is connected to another component and also the role of each component in the project.

User: First user will request through the application by choosing text or text from image or voice and the translator sends the request to the firebase and finally the user will get response from firebase.

Admin: Admin can view all the details of the registered users and the user send a request to admin in case if he/ she had any issues with the application and the admin responds back to the user.

Google Trans a Java library that implements Google Translate API. This uses Google Translate API to make calls to such methods as detect and translate. To begin with we can either input the language code or input "options" keyword to get the list of languages and their respective code. After inputting the language code, application will ask the user to enter the text that user wants to translate. Translator will detect the language and then it will show the translation and pronunciation of the text into desired language.

IV.   PROBLEM FORMULATION

Language barriers among tourists:

Language barrier is still a major issue everywhere. Most tourists will not learn the language before going for vacation or visiting other countries. Through the questionnaire distributed, about 70% ofthe tourists do not have awareness about the language in the country they are going to visit. Another 25% have awareness about the language existence and are in th e process of learning it. The remaining 5% have mastered the language more than the intermediate level.

Risk of getting wrong information:

Translating the word directly from one language to another language can have effects of wrongly phrased or defined. When inquiring for information or directions, the tourists need to depend on the locals nearby. Misleading information may cause inconvenience to the tourists and affect significant impact to the tourisms industry. The direct translation of words may lead t o different meaning in another language.

Extra cost and budget:

Tourists had to hire a translator or purchase expensive books to learn the language. To learn from books will take the tourists a long time and if they hire a translator, the cost of hiring one is even higher.

Risk of interpreting the phrases or words:

Tourist might not be able to comprehend what is mentioned as these phrases and words might notbe familiar to them and it will cause the tourists a lot of anxiety as they cannot depict what has been mentioned as they probably have not seen them or could not visually figure out what have been explained to them.

V.   RESULT DISCUSSIONS

This app strives to make information accessible and useful to all users. To help address content gaps when a user queries in their local language. A translated result that enables users to view results from other languages in their language, and can help publishers reach a larger audience.

VI.   CONCLUSION

In the existing system, we have google translator which utilizes internet connectivity whereas internet may not be available all the time and there are also many android application available that may not support all the functionalities like scanning text, speech recognition and translates thetext and which are applicable for specific and limited languages which are not useful for all the users. So here in the proposed system where we will be implementing translation with support all the functionalities like scanning text, speech recognition and translates the text and includes the languages which are popular in our country as well as popular all over the world. The advantage of this application is it doesn't require internet connectivity.

ACKNOWLEDGEMENT

VII.   REFERENCES

For making this project we referred following resources:

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