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Language Translator

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Abstract: *A mobile translator is a mobile application that can be utilised for translating from English to any other dialect, and vice versa. The problem of language difference has hindered effective information communication over the years. There have been difficulties in information communication amid countries over the years. In modern times, language interpreters must understand and speak both the language been translated to and verse-visa. This traditional approach used for solving the problem of language differences has not been productive and favourable. Also, the teaching of different languages can be difficult due to language difference problems. The individual will also have to be taught by a tutor who will incur extra expenses and may not be the most efficient and favourable method. Therefore, the study develops an android phone language converter app in other to make learning and language translation easy and facilitates stress-free communication. The proposed language translation uses Google's real- time translation API natural language processing with Java programming language to develop the application. The most used languages globally (i.e., English, Spanish, Arabic, Hindi, French, and Chinese) were used for the android application translation. This application can be useful for Tourists for communication purposes, thus allowing them to integrate with the local people and access the right information. The system will also be able to evaluate language translation to determine their suitability for everyday conversation; given the fact that it is an android application, one will always be willing to use their phone to learn, compared to having them on a computer or learn from a physical tutor when your phone can be your tutor. The application was evaluated based on the classification time the memory usage, and the battery lifeall through distinctive use.*

Key Word: *Application Programming Interface.*

I.INTRODUCTION

Because of the increasing utilisation of mobile gadgets, the idea of mobile and omnipresent computation is becoming an extremely significant aspect of our daily lives due to its rising processing power, vast storage capacity, simple user experience, and enhanced networkinfrastructure. There is an increasing request for mobile utilisation to sustain our day-to-day events and offer diverse amusement [1]. Android is probably the most popular operating system that millions of smartphones and tablets are using today [2, 3], and is increasing by leaps and bounds. Hence, the android phone is one of the most advanced and easiest-to-use tools [4, 5, 6]. For the modern implementation of the education system, translation and language learning tools are needed. Often there is a boundary to the functionality and functions of current online submissions and a substantial increase in the number of cell phone apps providing such services. Machine Translation (MT) is an automated transformation of one natural language into another employing computer [7, 8, 9]. Arithmetical Machine Translation is a method to MT that is categorised by the utilisation of machine learning approaches [10, 11]. There are nearly 6,500 spoken languages globally, and 4,500 of them have more than 1000 speakers [12]. In information 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. The first approach which was implemented in solving this language problem was by using human translators that will be able to understand and translate both languages to the involved parties. This method was the first method introduced and has been used for decades, which has proven not to be the most efficient and effective method of language translation proven over the years. This method involves the translator being able to comprehend and express the language being translated and also understand and talk about the language of the party in which the language is going to be traduced. Translation of languages is useful in many aspects, such as education. It is challenging to teach in a specific language if the people being led do not understand the language of the tutor. For the students to have a complete understanding of what they are being taught, an interpreter will be needed. In tourism, tourists maynot be able to communicate with people successfully in the tourist country he visited, thus hindering communication. In communicating in general language, differences could lead to hindrance inaccurate dissemination of information [13, 14, 15]. In politics, language understanding is an essential factor in some countries like Nigeria, which has about 520 languages spoken in Nigeria, caused by multiple ethnicities [16, 17]. Therefore, each representative must be able to communicate successfully in other to share their ethnic view. In entertainment, language understanding is another significant

factor because, for viewers to understand any content concerning entertainment, the viewers must also understand the scope of language in many other sectors. Language is a significant factor in communication, without which it is impossible to accomplish meaningful results [18, 19]. For these reasons, the language translation is significant in Society at large irrespective of the sector. Hence, it is of importance to find a different approach other than standard human language translation by uses a mobile phone, computer, or machine translation, which forces on translating the major languages spoken across the world. Therefore, the paper has chosen Android as a platform to develop an android-based language translation application that solves the significant languages commonly spoken around the world. The android- based system provides a solution for people who can't read a language because they don't share a common language, or for other purposes. This paper applies an erudition procedure to the extraordinary form of the earlier interpreted language, identified as a comparable corpus, equivalent text, bi-text, or multi-text in various ways. This will help solve the limitation of human translation concerning cost, more extensive language translation options, efficiency.

II.MATERIAL AND METHODS

A. System Architecture

System architecture shows the overall flow of the project and how the one system component isconnected to other component and also the role of each component in the project.

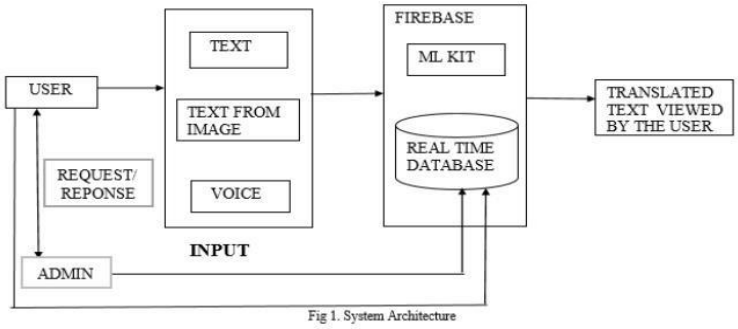

Fig 1. System Architecture

USER: First user will request through the application by choosing text from image or voice and thetranslator 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 incase if he/she had any issues with the application and the admin responds back to the user.

III.RESULT

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 the text 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 implanting 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.

IV.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 the text and which are applicable for specific and limited languages whichare not useful for all the users. So here in the proposed system where we will be implanting 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.

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