

Language Translator application

Abstract

The development of technology connects everyone from all around the worlds. The problem is, people cannot really mingle with one another because they have communication problems. Some of the problems are with other traveler, disabled peoples, Friends in social media, and International business partners. This device invented to solvethis entire problem that faced by people in today's life.

This device invented to make people more knowledgeable, reduce miscommunication among people all around the world, connects people, get maximum profit and give job opportunity to people.

Translation is a medium to transfer the knowledge or information. It can be a bridge which connects the people from the different languages and cultures. By using translation, people can learn and understand each other's languages and cultures. Translation is not merely at changing words, but also transferring of cultural equivalence with the culture of the original language and the recipient of that language as well as possible. The better translation must be accepted by all people in logic and based on fact; thus, the message which contained in the source language (SL) can satisfy the target language (TL) reader with the information within.

Translation is necessary for the spreading new information, knowledge, and ideas across the world. It is absolutely necessary to achieve effective communication between different cultures. In the process of spreading new information, translation is something that can change history.

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Chapter 1 .INTRODUCTION

Translation is necessary for the spreading new information, knowledge, and ideas across the world. It is absolutely necessary to achieve effective communication between different cultures. In the process of spreading new information, translation is something that can change history.

1.1 Motivation

The Language translators allow computer programmers to write sets of instructions in specific programming languages. These instructions are converted by the language translator into machine code. The computer system then reads these machine code instructions and executes them.

1.2 Problem Statement

- The structure of sentences in English and other languages may be different. This is considered to be one of the main structural problems in translation.
- Limit your Expertise: Gain expertise only in a couple of languages that you are already well-versed with. The translator has to know the exact structure in each language, and use the appropriate structure, and they have to ensure that the translation is performed without changing the meaning as well.

1.3 Objectives

- To extract effective communication between people around the world.
- To provide ability for two parties to communicate and exchange the ideas.
- To encourage learners to discuss the meaning and use of language at the deepest possible levels.
- To get a challenging position in reputed organization where we can learn a skills by communicating.
- To perform and translate our native language.

1.4 Scope

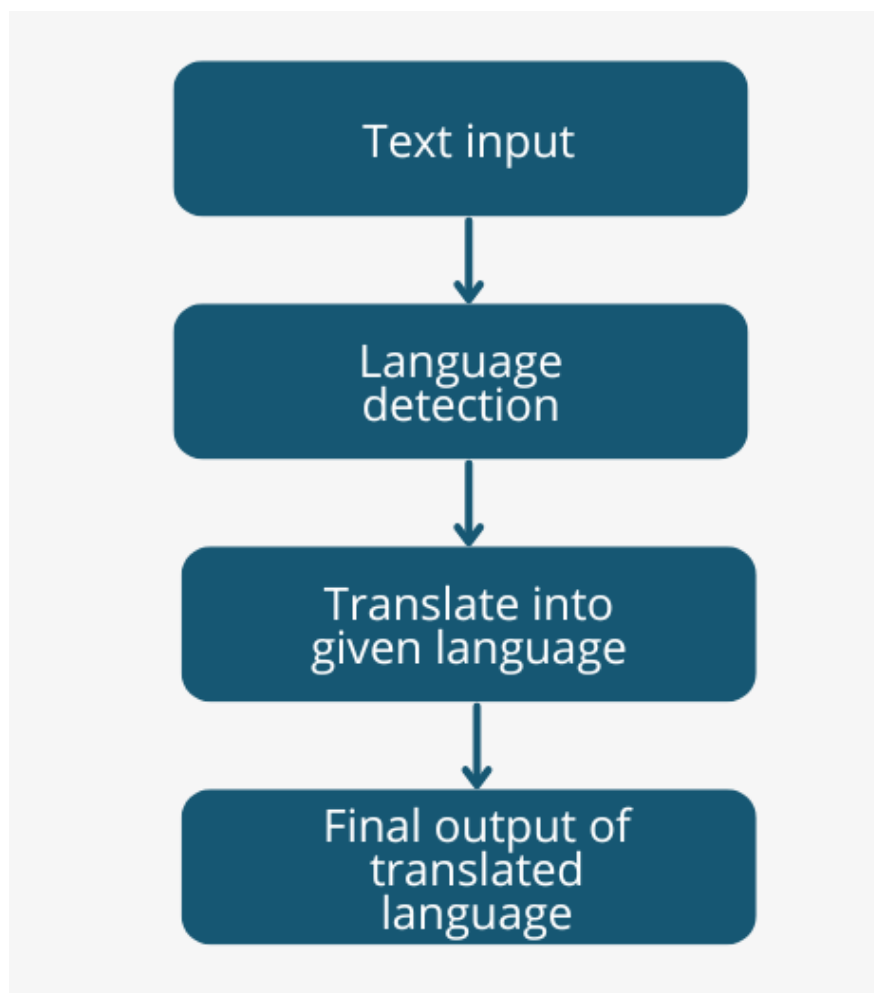
- Translation is necessary for the spreading of new information, knowledge, and ideas across the world.
- It is absolutely necessary to achieve effective communication between different cultures. It is the only medium by which certain people can know different works that will expand their knowledge of the world.
- Not everyone speak English ,so Language Translator is helpful for us to translate our native language.

Chapter 3. PROPOSED SYSTEM

3.1 Proposed System

- The aim of the proposed system is to develop a system that has capability to perform Translation, Converting text to speech, Speech Recognition. The system proposed here will be developed for a small domain of English words.
- A translator is a programming language processor that modifies a computer program from one language to another.

3.1 .1 Block diagram



3.2 Implementation

1. Import Modules

We import flask from python for API and googletrans library for language translation

2. Create a display window

We use react for develop frontend with the help of npm package manager we create a react application after that we modify that application according to our need. Using npm install material UI framework. With this material UI component we create the frontend

3. Create an Input-output text widget

Using Material UI TextField component I create a text area for type the text want to translate. The using react-select I designed a select field to which language you want to translate. Finally with box and Typography component of material UI I designed a Field to display the translated text.

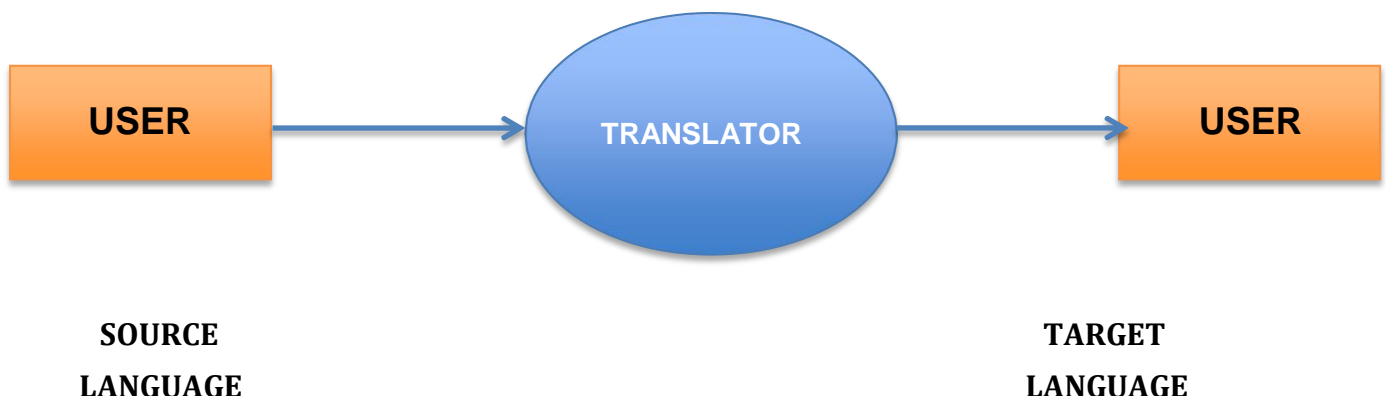
4. Define Function

The function is created to get the data from form and send this payload to flask api to get the translated text. Using axios I send the request to flask Api for more information see the code.

5. Create a translate button

When we click on the Translate button it will call the translate function which collect the data from react form and send the request to flask api and the response is displayed the allotted text field.

DATA FLOW DIAGRAM:

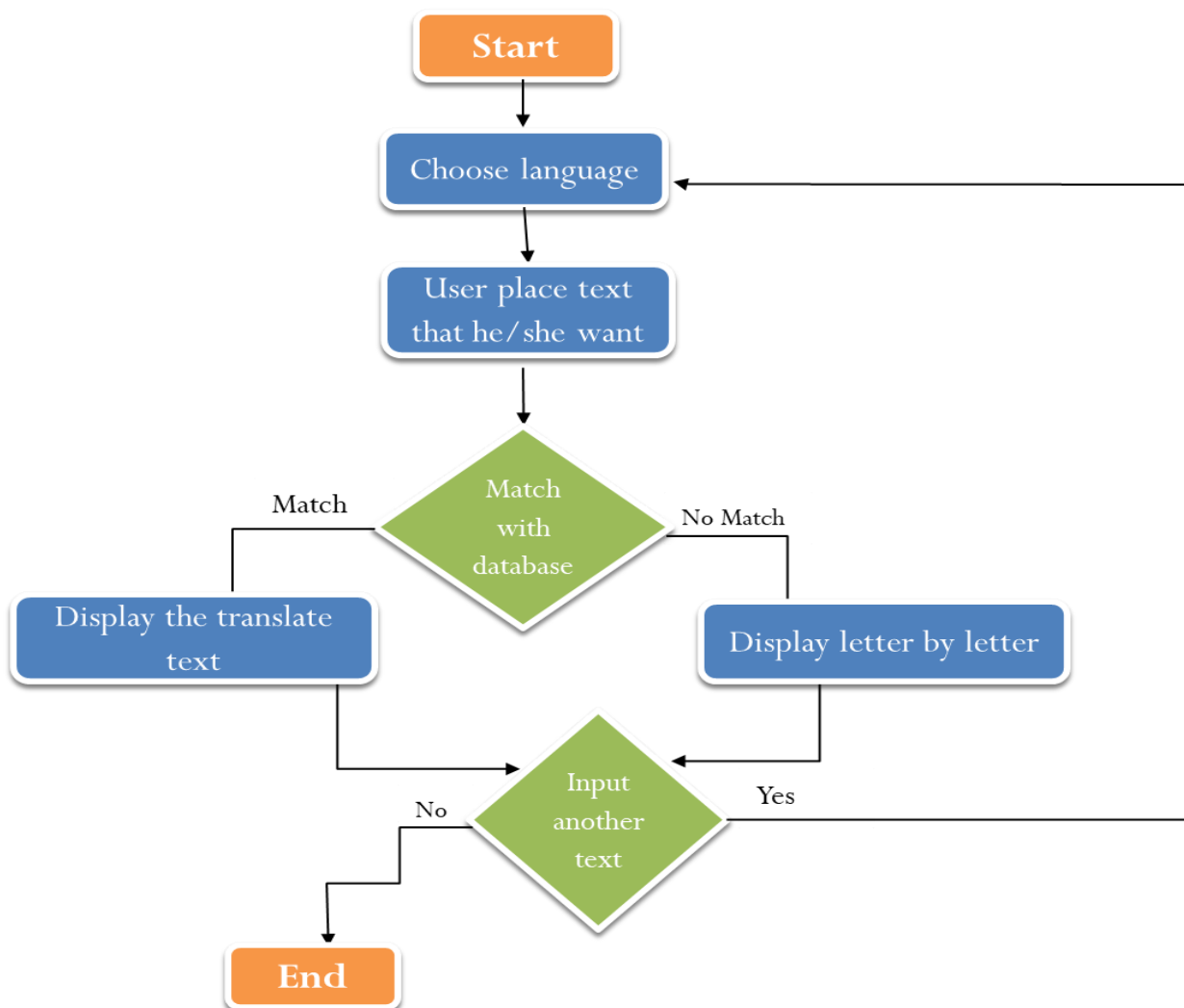


3.2.1 Algorithm/Flowchart

Algorithm:

- Step 1: Select the language
- Step 2: Input the text/speech that want to translate
- Step 3: convert the speech into text
- Step 4: language detection
- Step 5: translate into given language
- Step 6: convert speech into text
- Step 7: output of translated language

Flowchart:



Chapter 4. RESULT ANALYSIS

We develop this application for desktop application. Here we are integrating the speech to speech, text to text, speech to text and language translator in one system so user doesn't have to download for the different application. You can also give voice input to translate language.

TECHNOLOGY:

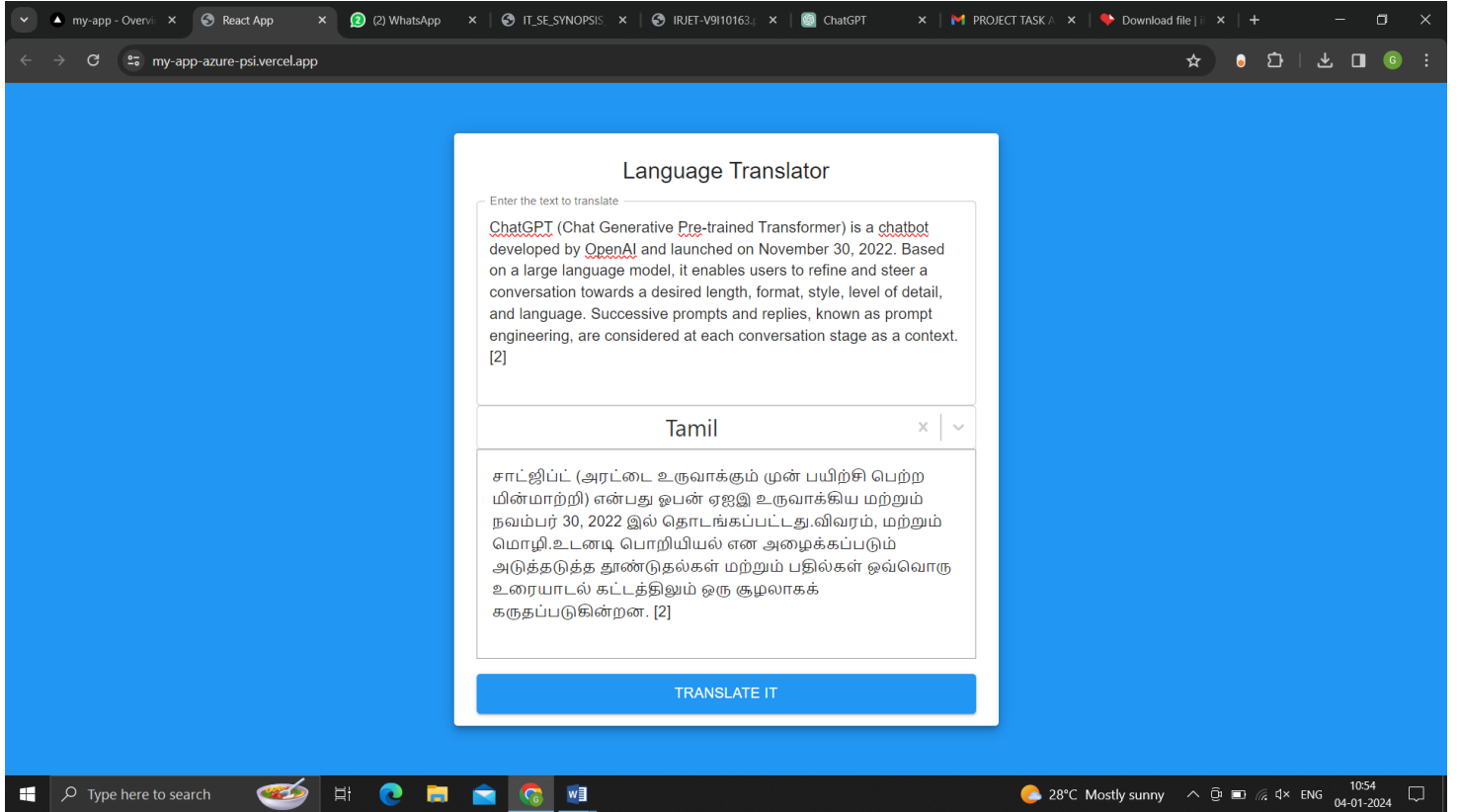
- **We Important Libraries and python modules.**
- **React frontend**
- **API calls**
- **Flask for API**
- **We Use VS Code Software as code editor**

MODULES:

USER MODULE

- **Text: that he/she want to translate.**
- **Language change: According to understanding they can change language of the translation.**

Url: <https://my-app-azure-psi.vercel.app/>



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Chapter 5. CONCLUSION

In this proposed system, we implemented the system for user who phasing problems of language barrier and also its user interface is also user friendly so that user can easily interact with this system. So it automatically reduce the user task for understanding the languages for communication.

Translation is not merely at changing words, but also transferring of cultural equivalence with the culture of the original language and the recipient of that language as well as possible. The better translation must be accepted by all people in logic and based on fact; thus, the message which contained in the source language (SL) can satisfy the target language (TL) reader with the information within.

When you understand the importance of translation for everyone, you will be able to see it as a necessary and worthy investment.

Chapter 6. FUTURE SCOPE

However to make this system more precise and useful for a wide range of target audience, it demands some further improvements. Further we are aiming at following improvements:

To take input text from an image of printed English text by implementing character recognition. Presently we are only able to take manual input through virtual keyboard.

The system can be further extended to include more languages and possibly dialects.