A Project Report

on

Translating Software

Submitted in partial fulfillment of the

requirement for the award of the degree of

Bachelor of Technology in Computer Science and Engineering

Under The Supervision of
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Department of Computer Science and Engineering

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GALGOTIAS UNIVERSITY, GREATER NOIDA, INDIA

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SCHOOL OF COMPUTING SCIENCE AND ENGINEERING
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CANDIDATE'S DECLARATION

I/We hereby certify that the work which is being presented in the project, entitled **" Translating Software App "** in partial fulfillment of the requirements for the award of the **BACHELOR OF TECHNOLOGY IN COMPUTER SCIENCE AND ENGINEERING**
submitted in the **School of Computing Science and Engineering** of Galgotias University, Greater Noida, is an original work carried out during the period of **JULY-2021 to DECEMBER-2021**, under the supervision of **Mr. Mukesh Kumar Jha**, **Department of Computer Scienceand Engineering** of School of Computing Science and Engineering , Galgotias University, Greater Noida

The matter presented in the project has not been submitted by me/us for the award of any other degree of this or any other places.

19SCSE1140030 – Sidhant Raj

19SCSE1140042 – Pius Thomas Kawala

This is to certify that the above statement made by the candidates is correct to the best of my knowledge.

Supervisor

(**Mr. Mukesh Kumar Jha**)

CERTIFICATE

The Final Thesis/Project/ Dissertation Viva-Voce examination of **19SCSE1140030 – Sidhant Raj, 19SCSE1140042 – Pius Thomas Kawala** has been held on _____and his/her work is recommended for the award of **BACHELOR OF TECHNOLOGY IN COMPUTER SCIENCE AND ENGINEERING**.

Signature of Examiner(s) **Signature of Supervisor(s)**

Signature of Project Coordinator **Signature of Dean**

Date:

Place:

ABSTRACT

The world is full of people with different tradition, cultures and languages. Language is the most important tool for people to communicate and understanding each other. Suppose a Korean guy want to speak to a Chinese person, these people come from different backgrounds with different tradition and language. Despite the backgrounds and traditions, they will be able to communicate to one another if they use a common language.

Technology has grown very wide such that now we are able to build apps and programs which are able to translate one language to another language. Thus, from above example we can connect those two people (Korean and Chinese guys) to understand each other.

Suppose we use the same program to build apps that will facilitate communication between teachers and students (international), the outcome will be good since teachers will use the app to teach students by languages which are suitable for them and students will be able to grasp concepts from teachers very easily.

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Acronyms

SVM	Support Vector Maching
ML	Machine Learning
DL	Deep Learning
CNN	Convolution Neural Networks

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CHAPTER 1

1.1 LITERATURE REVIEW

The term ‘mobile’ has taken on new meanings now that mobile apps allow professional translators to translate anywhere. Before Steppes and other truly mobile based translation tools came about, mobile translation used to mean either the localization of mobile apps themselves (i.e. the translation of the user interface of mobile applications into different languages) or mobile translation apps that use MT (machine translation) to translate foreign text.

For example, there are apps for both Android and iOS that provide real-time translation of street signs in Japanese, French, and other languages into the user’s native language using OCR (optical recognition) technology and then MT (machine translation.) Other tools have been developed to translate a person’s speech into another language using text-to-speech, text-to-text, or speech-to-speech. However, one thing in common about these tools is that they all use machine algorithms instead of humans for the translation.

True mobile translation apps, on the other hand, are software programs specifically written for mobile devices that enable translators to perform professional human translation directly on their smartphones. Until now, professional translation tools have been mainly desktop based, employing intricate workflows and complex interface designs to translate the world’s large amount of multilingual content. For this reason, the possibility of mobile translation had been largely dismissed because localization software developers thought mobile screens were too small to process large amount of text efficiently, a common requirement of translation processes.

Fortunately, Steppes has finally solved this input dilemma by taking advantage of native mobile user behaviors, instead of simply forcing desktop practice onto mobile devices. Steppes, for

example, employs the popular chat feature, a common task that is very familiar with the majority of mobile users today. As a result, Steppes makes it possible for translators to translate confidently on their smartphones with good user experience. Combined with voice-assisted input and MT, mobile translation can now achieve productivities comparable to desktop applications, which is the key for widespread adoption.

CHAPTER 2

2.1 PROBLEM FORMULATION

Focusing school purposes, this software will provide us with a lot of benefit from both sides (teachers and students). The advantages are as follows;

- The teacher will be free to speak with his native language as teaching language because the software will help to translate that language.
- Students also will have the freedom to choose any language which they are comfortable with in order to grasp concepts easily.
- There will be a good communication between teachers and students especially international students as healthy relationships will be built.

2.2 REQUIRED TOOLS

WPML's editor- allows your translators to do their work more quickly and easily while providing better translations. The editor comes with key features like machine translation, a glossary, translation memory, spell checker, HTML-less editing, and more.

Hardware like microphone which will facilitate speech recognition in our software which will be easily translate.

2.3 FEASIBILITY ANALYSIS

Feasibility is a determination of whether or not a project is worth doing. Feasibility Study is performed for determining the feasibility of a project. The content and recommendations of such a study will be used as a sound basis for deciding to proceed, postpone, or cancel the project. In the conduct of feasibility study, we will usually consider following inter-related type of feasibility. They are:

Technical feasibility

Since many users have smart phones then they will be able to use the app, since the app works only on active internet connection therefore users are required to have a stable internet in their mobile devices.

Operational feasibility

The software will be a GUI system which will enable users to understand it easily. This app will require active internet so that it may be able to exchange data from web and convert them to a suitable language chosen by the us.

Economic feasibility

The application is free of cost and can be used by anyone. This is because the app is built with the intention of helping people especially students.

CHAPTER 3

3.1 COMPLETE WORK PLAN LAYOUT

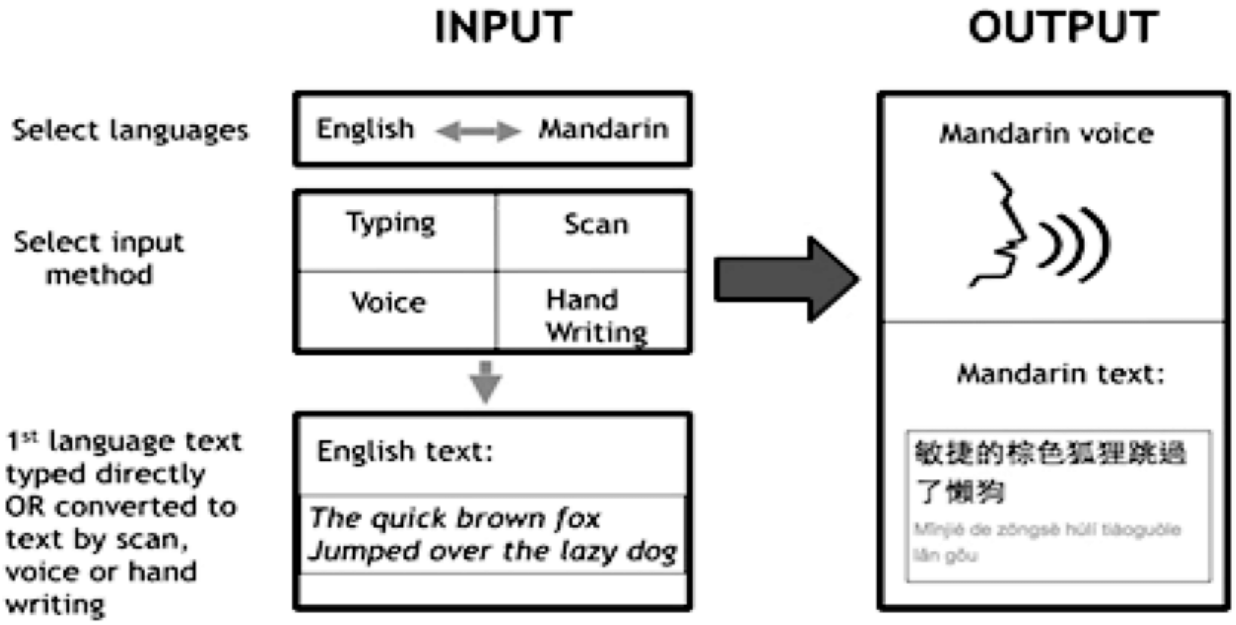
Work (Topic Wise)	Time for completion (in days)
Learning and understanding the concept	10-16
System analysis	5-8
Working on modules	3-4
Classification algorithms	7-14

Coding & Designing	3-5
Testing	2-6
Implementation & Maintenance	2-5

CHAPTER 4

4.1 DESIGN

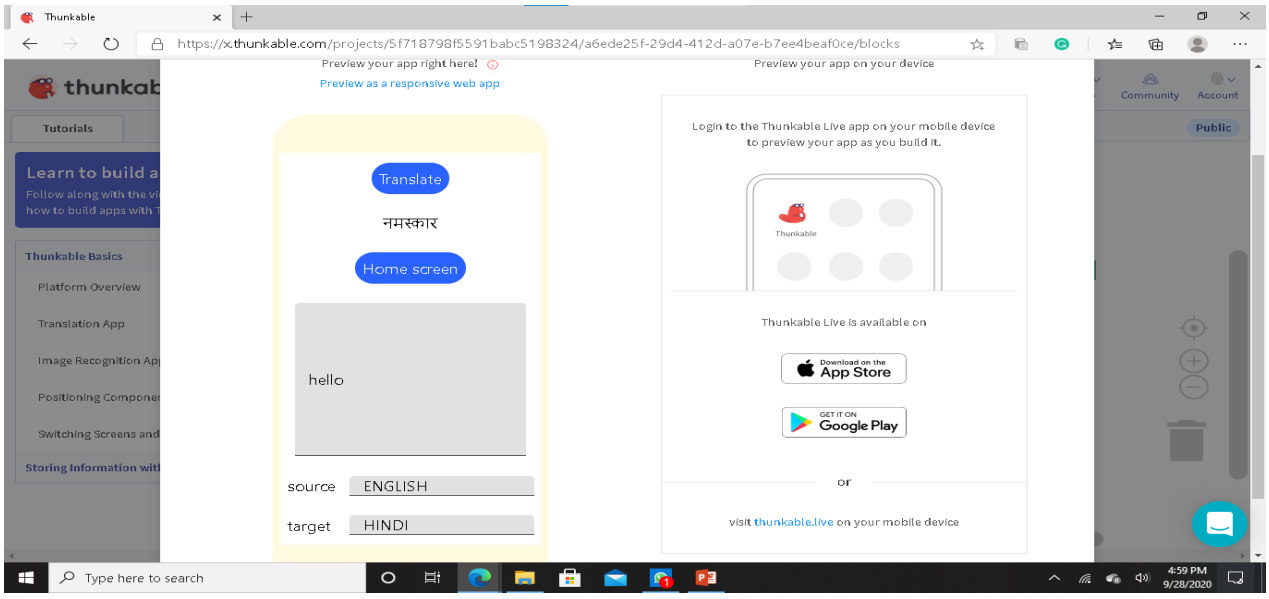
A simple software is an android app. So, a teacher and a student should both have a similar app on their mobiles where each can connect their earphones or microphones on the mobiles. So, a teacher starts teaching in any language which he/she is comfortable with and a student can choose which he/she can listen and learn. Here is a diagram showing all the processes.



CHAPTER 5

5.1 IMPLEMENTATION & TESTING

We tried to use **thunkable.com** website to make the translating app. This site allows us to use simpler codes written in the site. So this is how our app will look at.



We will also try to add speech recognition feature so as users can enter the message using their voice.

CHAPTER 6

6.1 LIMITATIONS

This app will require fast internet connection for it to be able to translate one language to another language. Therefore, a lot of cost and maintenance will be required on server's side for the app to function properly.

Meaning of a sentence can be lost on the translating device causing a person sentence to be misunderstood when the message is delivered to another message.

There is no way of reporting errors in order to avoid having them repeated, nor is there a way to proof read what has been translated unless one is fluent in both the source and the target language.

6.2 FUTURE PROJECT SCOPE

We believed that within the allotted time, we would finish our project in designing the software and hardware. Therefore, due to various reasons especially "corona virus pandemic disease" we did not have ability to meet with each other discussing the project.

We were able to design theoretical part of the program but not practical implemented. Therefore, the whole completion of the program will be completed when we meet each other as group members when the COVID-19 has ended.

6.3 CONCLUSION

Translating software apps are very useful in our daily life, for education purposes, this software will improve learning in schools hence teachers and students will communicate easily in class and performance will improve significantly.

It’s our vision that in the future, every student will learn any subject easily despite the language being used because such software will provide great importance in school systems.

6.4 REFERENCE

Google

Quora.com

wikipedia.org

6.5 BOOKS

NATURAL LANGUAGE PROCESSING WITH PYTHON –
STEVEN BIRD, EWAN KLEIN.