Asl Translator

I LOVE YOU
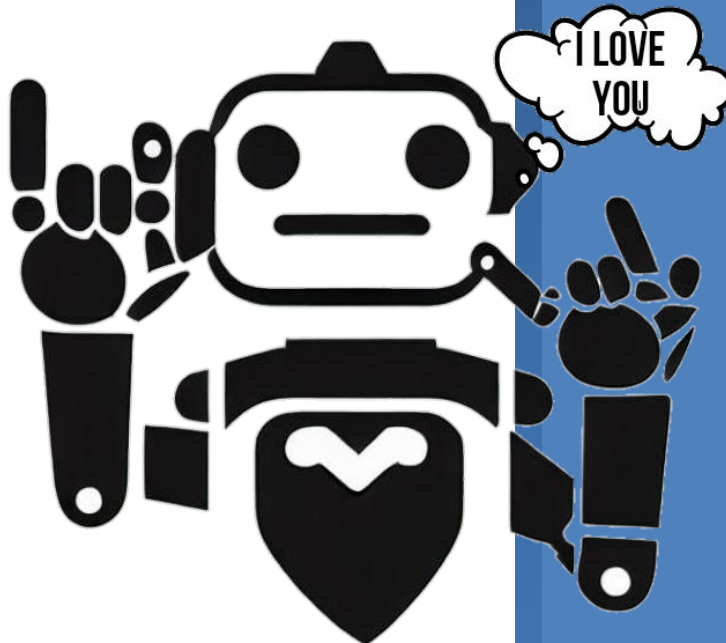
Ain shams university

Statistics and computer science department

About project

We, as students of the Faculty of Science at Ain Shams University, have chosen sign language as the focus of our graduation project. Sign language is a form of manual communication that is commonly used by individuals who are deaf. It is important to note that sign language is not universal, as different countries have their own versions of sign language. The gestures or symbols used in sign language are structured in a linguistic way, with each individual gesture being referred to as a sign. A sign has three distinct components, namely the handshape, the position of the hands, and the movement of the hands. In the United States, American Sign Language (ASL) is the most used form of sign language.
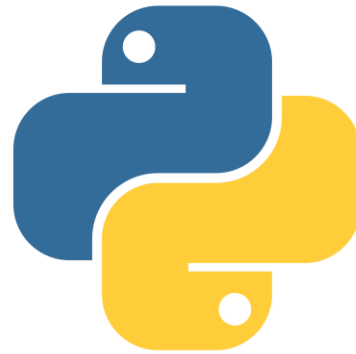
Our team

1. Shady ayman elsaied
2. Mohamed tarek Mohamed
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4. Mahmoud mohamed zaki
5. Mohab Mohamed abdelMaksoud

Hey there! 🤓

Requirements to make our project work

You need to have VS code and Python 3.9 to run our project

Installation Steps

0- Of course first download our project throw the following link:

https://github.com/users/TArOoO2/projects/4/views/1

1- First you need to do to run our ASL project is to open **requirements file:**

Wait till it Finish downloading as following…

2- Then open RUN file to run our server as the follows…

📁 .idea	5/16/2023 12:13 PM	File folder	
📁 assets	5/16/2023 12:13 PM	File folder	
📁 js	5/16/2023 12:13 PM	File folder	
📁 static	5/16/2023 12:13 PM	File folder	
📁 templates	5/16/2023 12:13 PM	File folder	
app	6/5/2023 8:46 PM	PY File	9 KB
data	4/25/2023 2:14 PM	JSON File	1 KB
hands_gesture_recog	4/24/2023 12:02 AM	PY File	3 KB
model.pkl	5/13/2023 7:11 PM	PKL File	4,632 KB
requirements	6/5/2023 11:05 PM	Windows Batch File	1 KB
RUN	6/5/2023 11:12 PM	Windows Batch File	1 KB

After the Server loads you can now open our website throw the following steps


```
C:\WINDOWS\system32\cmd.exe                                                                    —    □    ×
Running app.py...
[nltk_data] Downloading package wordnet to
[nltk_data]     C:\Users\zaki1\AppData\Roaming\nltk_data...
[nltk_data]   Package wordnet is already up-to-date!
[nltk_data] Downloading package punkt to
[nltk_data]     C:\Users\zaki1\AppData\Roaming\nltk_data...
[nltk_data]   Package punkt is already up-to-date!
[nltk_data] Downloading package stopwords to
[nltk_data]     C:\Users\zaki1\AppData\Roaming\nltk_data...
[nltk_data]   Package stopwords is already up-to-date!
 * Serving Flask app 'app'
 * Debug mode: on
WARNING: This is a development server. Do not use it in a production deployment. Use a production WSGI server instead.
 * Running on http://127.0.0.1:5000
Press CTRL+C to quit
 * Restarting with stat
[nltk_data] Downloading package wordnet to
[nltk_data]     C:\Users\zaki1\AppData\Roaming\nltk_data...
[nltk_data]   Package wordnet is already up-to-date!
[nltk_data] Downloading package punkt to
[nltk_data]     C:\Users\zaki1\AppData\Roaming\nltk_data...
[nltk_data]   Package punkt is already up-to-date!
[nltk_data] Downloading package stopwords to
[nltk_data]     C:\Users\zaki1\AppData\Roaming\nltk_data...
[nltk_data]   Package stopwords is already up-to-date!
 * Debugger is active!
 * Debugger PIN: 478-091-670
```
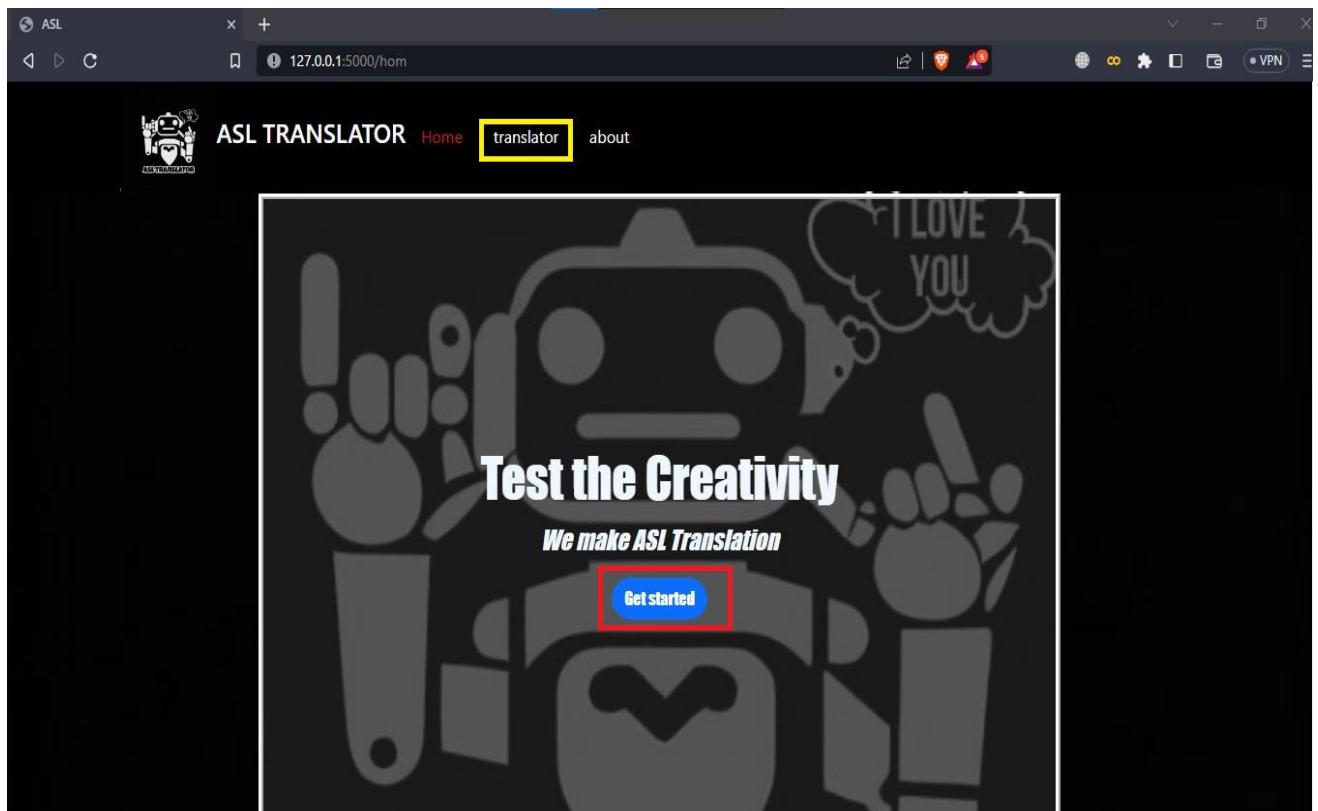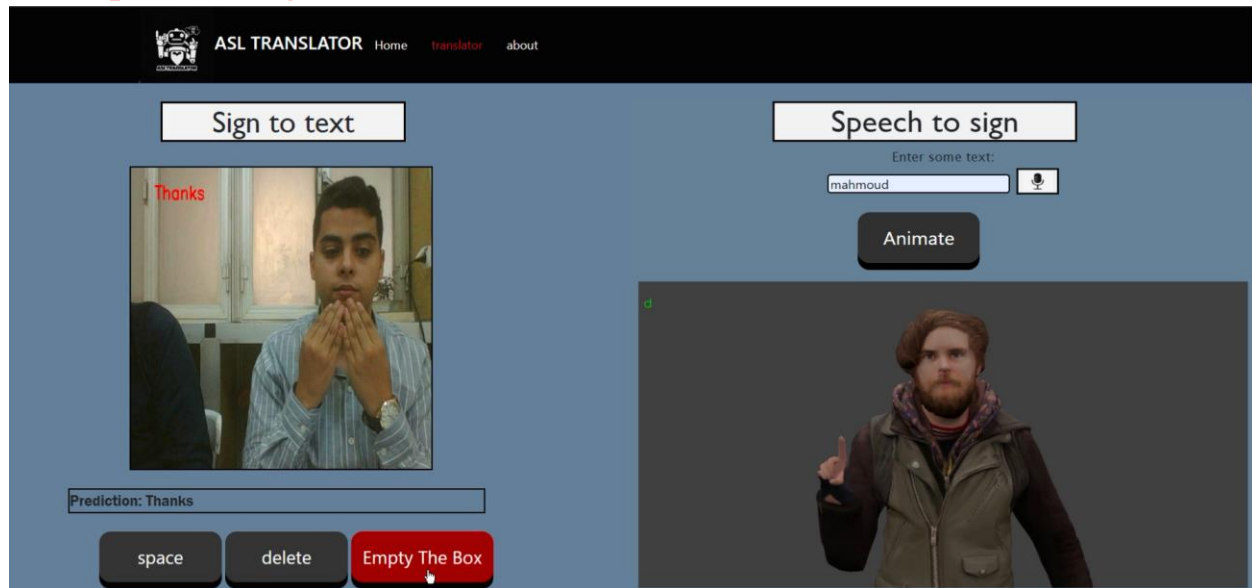
How To Use

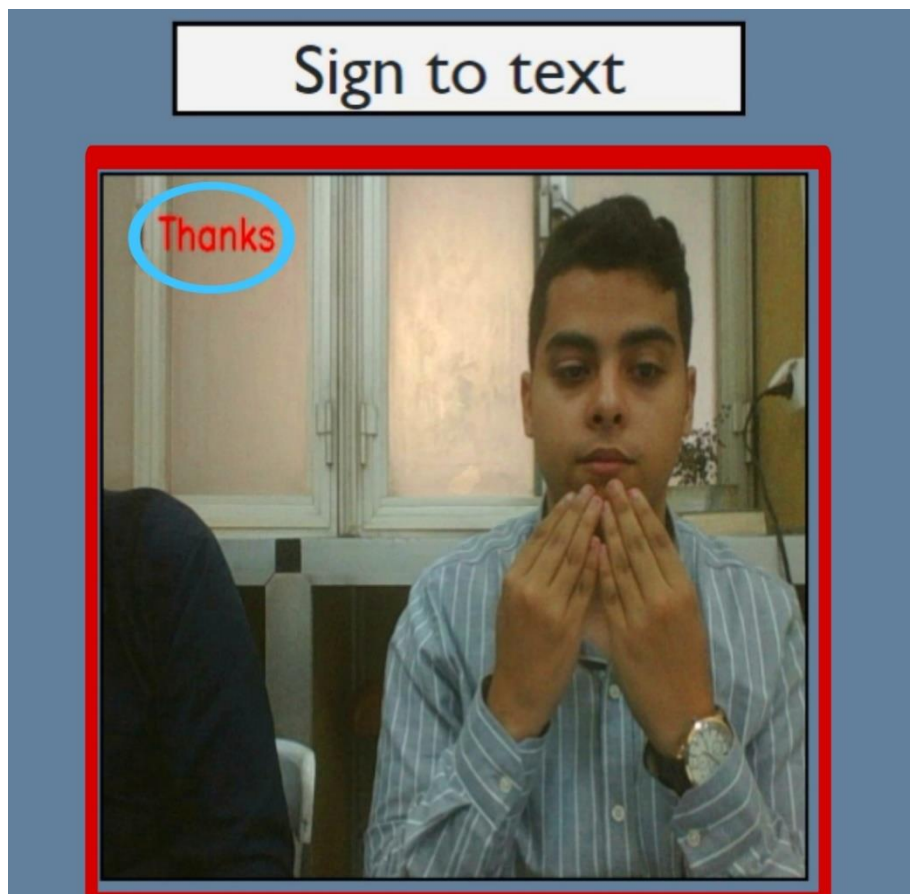**1- Follow the following link to use our ASL Translator https://127.0.0.1:5000**

2-Home page includes information about ASL and how to learn it and you can navigate to our Translator throw Get Started or Translator

3-Here is the translator page which translate from Sign to Text and Text/Speech to Sign

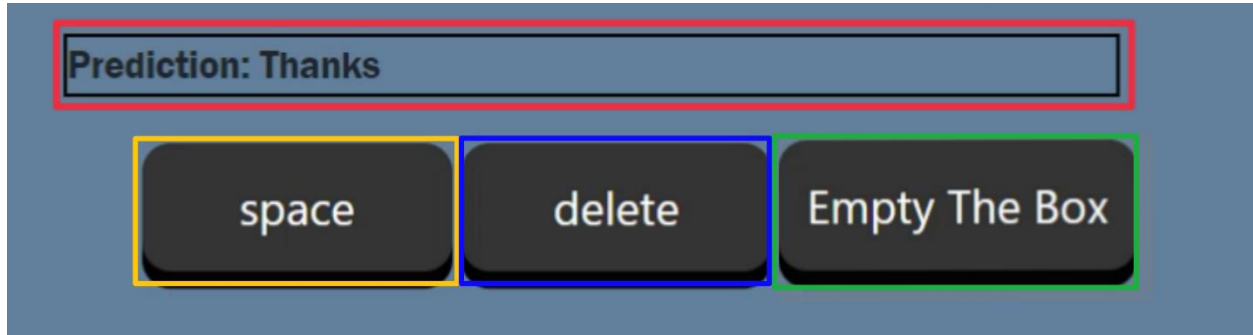**4-The live feedback from Camera in the Red box and the Prediction in Circle**

5-Here Dialogue being saved in red box

- **Space is button for giving space between words.**
- **Delete is button for delete last letter**
- **Empty The Box is to clear all data is dialogue**

6-Here is Speech/Text to Sign

- **You can write what you want to translate into sign in the yellow box**
- **You can speak what you want to translate into sign by clicking on mic icon**
- **By clicking on Animate it will transform Text/Speech into text**

7-In this box an animation showing the text or the speech in signs