SIH project

phase 1 :

the first phase of the program focuses on the basic translation part and detection part:

(handler - @aditya)
resources used are :

- **googletrans** library in python
- for the info regarding the destination languages (languages the text is to be translated into): https://cloud.google.com/translate/docs/languages

```
# to translate the text from one language to another w/o language detection

'''
use cases :
- translating sentences
'''
import googletrans
from googletrans import *

trans = googletrans.Translator()

languages_list = googletrans.LANGUAGES

# print(languages_list['de'])

# ---------------------------------------- translation part :

string1 = "my name is aditya."

new_string = trans.translate(string1, dest="ko")
print(new_string.text)

# ---------------------------------------- detection part :

string2 = "Dies ist ein Auto"

detected_lang = trans.detect(string2)
```

```
print(detected_lang.lang) # this only gives out the ISO-639 code
# for the whole language name
print(f"the language detected is {languages_list[detected_lang.lang]}")

string3 = "billo balle baggeya da ki karegi"
print(trans.detect(string3))

# the confidence of the language detection is :

level_of_confidence = trans.detect(string3).confidence * 100
level_of_confidence = round(level_of_confidence, 2)
print(f"{level_of_confidence}%")

print(f"confidence of detection is {level_of_confidence}%")
```

phase 2:

this phase focuses on words rather than the sentences :

(handler - @aditya)

resources used are :

- https://api.dictionaryapi.dev/api/v2/entries/en/<word>
- requests module in python (to fetch data)

```
# the api to be used :
# https://api.dictionaryapi.dev/api/v2/entries/en/<word>


import requests

#--------------------------------availability of the word :

def valid(word) :

    wordDictionary = requests.get(f"https://api.dictionaryapi.dev/api/v2/entries/en/{word}")

    if wordDictionary.status_code == 404 :
        print(f"{word} is not a valid word.Please enter valid input.")
    else :
        print("valid word")
        pass

# valid("audbhbyubyub")

#--------------------------------availability of the word :
```

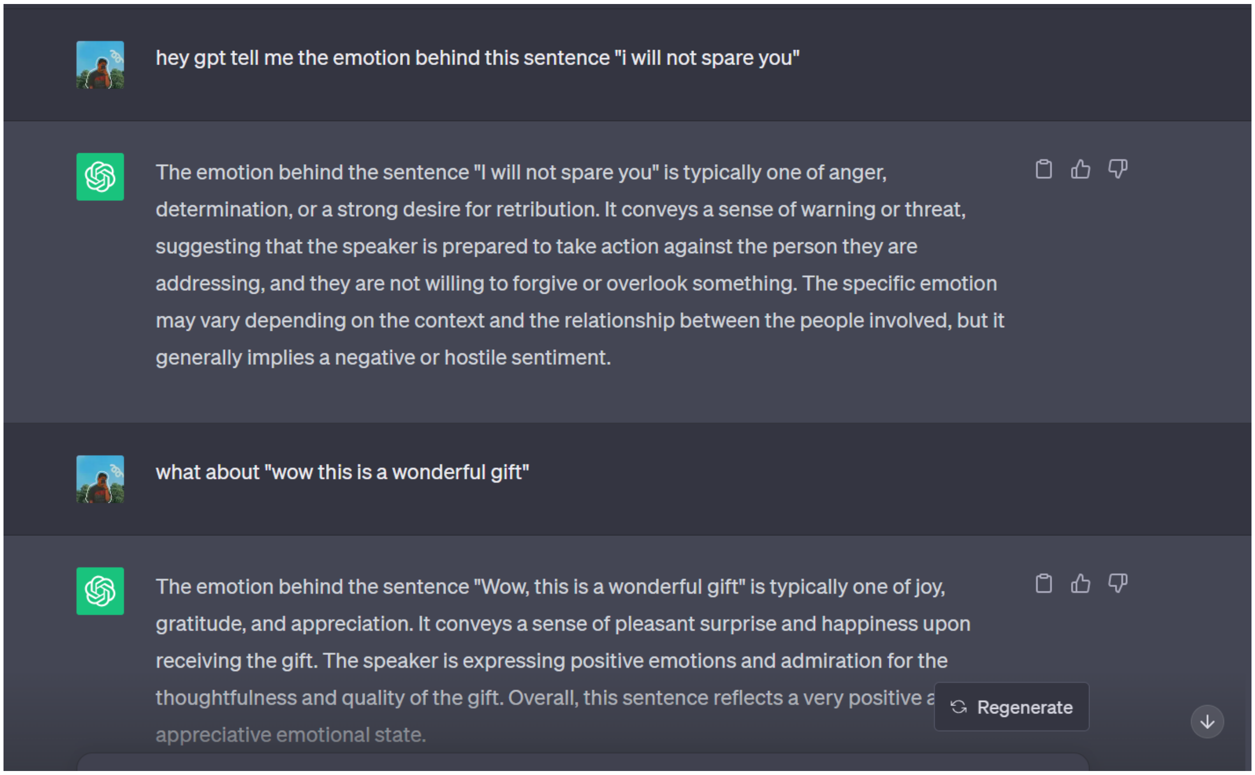
```
def meanings(word) :
    wordDictionary = requests.get(f"https://api.dictionaryapi.dev/api/v2/entries/en/{word}")

    wordDictionary = wordDictionary.json()
    # here the api is converted into json format
    wordDictionary = wordDictionary[0]
    # here the wordDictionary is now just a dictionary with all the properties of the word

    word_partOfSpeech = wordDictionary['meanings'][0]["partOfSpeech"]
    word_meaning = wordDictionary['meanings'][0]["definitions"][0]["definition"]
    word_synonyms = wordDictionary['meanings'][0]["synonyms"] # this is a list of synonyms

    word_dict = {
        "meaning" : word_meaning,
        "part" : word_partOfSpeech,
        "synonyms" : word_synonyms
    }

    return word_dict

#-----------------------------------------------------------test :

word = "audacity"

valid(word)
print(f"meaning of {word} is '{meanings(word)['meaning']}'")
print(f"part of speech of {word} is '{meanings(word)['part']}'")
print(f"synonyms of {word} are :")

for i in meanings(word)['synonyms'] :
    print(i) # synonym
```

phase 3 :

using chatgpt api (or openai api) to give examples with the word meanings. and also to detect emotion :

(IF FEASIBLE)

like this :



hey gpt tell me the emotion behind this sentence "i will not spare you"

The emotion behind the sentence "I will not spare you" is typically one of anger, determination, or a strong desire for retribution. It conveys a sense of warning or threat, suggesting that the speaker is prepared to take action against the person they are addressing, and they are not willing to forgive or overlook something. The specific emotion may vary depending on the context and the relationship between the people involved, but it generally implies a negative or hostile sentiment.

what about "wow this is a wonderful gift"

The emotion behind the sentence "Wow, this is a wonderful gift" is typically one of joy, gratitude, and appreciation. It conveys a sense of pleasant surprise and happiness upon receiving the gift. The speaker is expressing positive emotions and admiration for the thoughtfulness and quality of the gift. Overall, this sentence reflects a very positive a appreciative emotional state.

phase 4 :

to convert the text into voice and voice into text using MACHINE LEARNING

(handler - @utkarsh)

phase 5 :

to create the frontend of the app using KIVY python framework.

(handler - @tripti)