In [ ]:

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import speech_recognition as sr
import pyaudio
from detoxify import Detoxify
import pandas as pd
from gtts import gTTS
from textblob import TextBlob
from deep_translator import GoogleTranslator
from vaderSentiment.vaderSentiment import SentimentIntensityAnalyzer
from googletrans import Translator
from gtts import gTTS
import pyttsx3


a=Detoxify('multilingual')
t=Translator()
r = sr.Recognizer()



print('''****************************
 SELECT YOUR CHOICE WHETHER YOU WANT TO CONVERT TEXT TO SPEECH OR SPEECH TO TEXT!
****************************''')
engine = pyttsx3.init()
voices = engine.getProperty('voices')
engine.setProperty('voice', voices[0].id)
engine.say("SELECT YOUR CHOICE WHETHER YOU WANT TO CONVERT TEXT TO SPEECH OR SPEECH TO TEXT")
engine.runAndWait()
for choice in ["1. Text to speech", "2. Speech to text",").Exit"]:
    print(choice)
select_choice=int(input("Enter the number>>"))
if select_choice==2:
    engine = pyttsx3.init()
    voices = engine.getProperty('voices')
    engine.setProperty('voice', voices[0].id)
    engine.say("YOU HAVE SELECTED OPTION 2 THAT IS SPEECH TO TEXT")
    engine.runAndWait()
    with sr.Microphone() as source:
        engine = pyttsx3.init()
        voices = engine.getProperty('voices')
        engine.setProperty('voice', voices[0].id)
        engine.say("PLEASE START YOUR SPEECH AFTER 2 SECONDS")
        engine.runAndWait()
        print("Pls Start your Speechh")
        audio = r.listen(source,timeout=4,phrase_time_limit=100)
    engine = pyttsx3.init()
    voices = engine.getProperty('voices')
    engine.setProperty('voice', voices[0].id)
    engine.say("SELECT THE LANGUAGE")
    engine.runAndWait()

    for lang in ["1. Hindi", "2. English",").Exit"]:
        print(lang)
    select_lang=int(input("Enter the number>>"))

    if select_lang==1:
        engine = pyttsx3.init()
        voices = engine.getProperty('voices')
        engine.setProperty('voice', voices[0].id)
        engine.say("YOU HAVE SELECTED HINDI LANGUAGE ")
        engine.runAndWait()
        try:
            q=r.recognize_google(audio,language='en-US')
            translated_text = GoogleTranslator(target='hi').translate(q)
            print("Text:"+GoogleTranslator(target='hi').translate(q))
            analyzer = SentimentIntensityAnalyzer()
            sentiment_dict = analyzer.polarity_scores(GoogleTranslator(target='en').translate(q))
            print(sentiment_dict)
            if sentiment_dict['compound'] >= 0.05 :
                print("It is a Positive Sentence","\U0001f600")

            elif sentiment_dict['compound'] <= - 0.05 :
                print("It is a Negative Sentence","\U0001f608")
            else :
                print("It is a Neutral Sentence","\U0001f610")

        except:
            pass
    elif select_lang==2:
        engine = pyttsx3.init()
        voices = engine.getProperty('voices')
        engine.setProperty('voice', voices[0].id)
        engine.say("YOU HAVE SELECTED ENGLISH LANGUAGE")
        engine.runAndWait()
        try:
            q=r.recognize_google(audio, language = 'hi-IN')

            analyzer = SentimentIntensityAnalyzer()
            sentiment_dict = analyzer.polarity_scores(GoogleTranslator(target='en').translate(q))
            print("Text:"+GoogleTranslator(target='en').translate(q))

            print(sentiment_dict)
            if sentiment_dict['compound'] >= 0.05 :
                print("It is a Positive Sentence","\U0001f600")

            elif sentiment_dict['compound'] <= - 0.05 :
                print("It is a Negative Sentence","\U0001f608")
            else :
                print("It is a Neutral Sentence","\U0001f610")
        except:
            pass



    elif select_lang==3:
        print("Have a Good Day")
        engine = pyttsx3.init()
        voices = engine.getProperty('voices')
        engine.setProperty('voice', voices[0].id)
        engine.say("HAVE A GOOD DAY")
        engine.runAndWait()
        #print("Have a Good Day")



    print(a.predict(q))



if select_choice==1:
    engine = pyttsx3.init()
    voices = engine.getProperty('voices')
    engine.setProperty('voice', voices[0].id)
    engine.say("YOU HAVE SELECTED OPTION 1 THAT IS TEXT TO SPEECH")
    engine.runAndWait()
    def convert_to_audio(text):
        engine = pyttsx3.init()
        voices = engine.getProperty('voices')
        engine.setProperty('voice', voices[0].id)
        engine.say("PLEASE ENTER THE PATH OF THE TEXT FILE  USING .T X T extension")
        engine.runAndWait()
        e=input("enter the path of text file:")
        print(e)
        f = open(e, "r",encoding="UTF-8")
        l=f.read()
        #print(r)
        r=GoogleTranslator(target='hi').translate(l)
        #print(r)
        p=GoogleTranslator(target='en').translate(l)

        audio=gTTS(r)

        engine = pyttsx3.init()
        voices = engine.getProperty('voices')

        print('''****************************
                    SELECT THE LANGUAGE YOU WANT TO CONVERT:
              ****************************''')
        engine = pyttsx3.init()
        voices = engine.getProperty('voices')
        engine.setProperty('voice', voices[0].id)
        engine.say("SELECT THE LANGUAGE IN WHICH YOU WANT TO CONVERT")
        engine.runAndWait()
        for language in ["1.HINDI", "2.ENGLISH", ".3.EXIT" ]:
            print(language)
        select_LANGUAGE=int(input("Enter the number>>"))

        if select_LANGUAGE==1:
            engine = pyttsx3.init()
            voices = engine.getProperty('voices')
            engine.setProperty('voice', voices[0].id)
            engine.say("YOU HAVE SELECTED HINDI LANGUAGE")
            engine.runAndWait()
            print('''****************************
                        SELECT THE VOICE IN WHICH YOU WANT TO LISTEN:
                  ****************************''')
            for voice in ["1.FEMALE VOICE", "2.EXIT" ]:
                print(voice)
            select_VOICE=int(input("Enter the number>>"))
            if select_VOICE==1:
                engine = pyttsx3.init()
                voices = engine.getProperty('voices')
                engine.setProperty('voice', voices[0].id)
                engine.say("YOU HAVE SELECTED FEMALE HINDI VOICE")
                engine.runAndWait()
                try:
                    r=GoogleTranslator(target='hi').translate(l)
                    print(r)
                    print('''****************************
                        DO YOU WANT TO SAVE THIS AUDIO :
                  ****************************''')
                    engine = pyttsx3.init()
                    voices = engine.getProperty('voices')
                    engine.setProperty('voice', voices[0].id)
                    engine.say("IF YOU WANT TO SAVE THIS FILE THEN PRESS 1")
                    engine.runAndWait()
                    for save in ["1. SAVE IT", "2.Exit"]:
                        print(save)
                    select_save=int(input("Enter the number>>"))
                    if select_save==1:
                        try:
                            audio.save(a)
                            engine = pyttsx3.init()
                            voices = engine.getProperty('voices')
                            engine.setProperty('voice', voices[0].id)
                            engine.say("YOUR AUDIO IS SAVED AT THE PATH YOU HAVE GIVEN SHORTLY!")
                            engine.runAndWait()
                        except:
                            pass
                    else:
                        print("Have a good day")

                    engine.setProperty('voice', voices[1].id) #changing index changes voices but ony 0 and 1 are working here
                    engine.say(r)
                    engine.runAndWait()
                    print(a.predict(r))
                except:
                    pass
            elif select_VOICE==2:
                try:
                    engine.setProperty("language",'hi','voice', voices[0].id) #changing index changes voices but ony 0 and 1 are working here
                    engine.say(r)
                    engine.runAndWait()
                    print(a.predict(r))
                except:
                    pass
        elif select_LANGUAGE==2:
            engine = pyttsx3.init()
            voices = engine.getProperty('voices')
            engine.setProperty('voice', voices[1].id)
            engine.say("YOU HAVE SELECTED ENGLISH LANGUAGE")
            engine.runAndWait()
            print('''****************************
                        SELECT THE VOICE IN WHICH YOU WANT TO LISTEN:
                  ****************************''')
            for voice in ["1.FEMALE VOICE", "2.MALE VOICE",".3.EXIT" ]:
                print(voice)
            select_VOICE=int(input("Enter the number>>"))
            if select_VOICE==1:
                engine = pyttsx3.init()
                voices = engine.getProperty('voices')
                engine.setProperty('voice', voices[1].id)
                engine.say("YOU HAVE SELECTED FEMALE ENGLISH VOICE")
                engine.runAndWait()
                try:

                    p=GoogleTranslator(target='en').translate(l)
                    print(p)
                    audio=gTTS(p)

                    print('''****************************
                        DO YOU WANT TO SAVE THIS AUDIO :
                  ****************************''')
                    engine = pyttsx3.init()
                    voices = engine.getProperty('voices')
                    engine.setProperty('voice', voices[0].id)
                    engine.say("IF YOU WANT TO SAVE THIS FILE THEN PRESS 1")
                    engine.runAndWait()
                    for save in ["1. SAVE IT", "2.Exit"]:
                        print(save)
                    select_save=int(input("Enter the number>>"))
                    if select_save==1:
                        try:
                            engine = pyttsx3.init()
                            voices = engine.getProperty('voices')
                            engine.setProperty('voice', voices[0].id)
                            engine.say("GIVE THE NAME OF THE AUDIO FILE ACCORDING TO YOUR CHOICE USING .M P 3 extention")
                            engine.runAndWait()
                            a=input('give the name of the file ')
                            analyzer = SentimentIntensityAnalyzer()
                            sentiment_dict = analyzer.polarity_scores(p)
                            print(sentiment_dict)

                            au.save(a)
                            engine = pyttsx3.init()
                            voices = engine.getProperty('voices')
                            engine.setProperty('voice', voices[0].id)
                            engine.say("YOUR AUDIO IS SAVED AT THE PATH YOU HAVE GIVEN SHORTLY!")
                            engine.runAndWait()

                        except:
                            pass
                    else:
                        print("Have a good day")

                    engine.setProperty('voice', voices[1].id) #changing index changes voices but ony 0 and 1 are working here
                    engine.runAndWait()
                    print(a.predict(p))
                except:
                    pass
            elif select_VOICE==2:
                engine = pyttsx3.init()
                voices = engine.getProperty('voices')
                engine.setProperty('voice', voices[0].id)
                engine.say("YOU HAVE SELECTED MALE ENGLISH VOICE")
                engine.runAndWait()
                try:

                    p=GoogleTranslator(target='en').translate(l)
                    print(p)
                    au=gTTS(p)

                    print('''****************************
                                DO YOU WANT TO SAVE THIS AUDIO :
                          ****************************''')
                    engine = pyttsx3.init()
                    voices = engine.getProperty('voices')
                    engine.setProperty('voice', voices[0].id)
                    engine.say("IF YOU WANT TO SAVE THIS FILE THEN PRESS 1")
                    engine.runAndWait()
                    for save in ["1. SAVE IT", "2.Exit"]:
                        print(save)
                    select_save=int(input("Enter the number>>"))
                    if select_save==1:
                        try:
                            engine = pyttsx3.init()
                            voices = engine.getProperty('voices')
                            engine.setProperty('voice', voices[0].id)
                            engine.say("GIVE THE NAME OF THE AUDIO FILE ACCORDING TO YOUR CHOICE USING .M P 3 extention")
                            engine.runAndWait()
                            b=input('give the name of the file ')
                            analyzer = SentimentIntensityAnalyzer()
                            sentiment_dict = analyzer.polarity_scores(p)
                            print(sentiment_dict)
                            engine.setProperty('voice', voices[0].id) #changing index changes voices but ony 0 and 1 are working here
                            engine.save_to_file(p,b)
                            engine.runAndWait()
                            engine = pyttsx3.init()
                            voices = engine.getProperty('voices')
                            engine.setProperty('voice', voices[0].id)
                            engine.say("YOUR AUDIO IS SAVED AT THE PATH YOU HAVE GIVEN SHORTLY!")
                            engine.runAndWait()


                        except:
                            pass
                    else:
                        print("Have a good day")

                    print(a.predict(p))


                except:
                    pass
            elif select_VOICE==3:
                print("HAVE A GOOD DAY")
        elif select_LANGUAGE==3:
            print("HAVE A GOOD DAY")



    convert_to_audio(r)


if select_choice==3:
    engine = pyttsx3.init()
    voices = engine.getProperty('voices')
    engine.setProperty('voice', voices[0].id)
    engine.say("Thnks for visiting my Project")
    engine.runAndWait()
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In [ ]: