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# Code for virtual assistant with GUI

import speech_recognition as sr
import pyttsx3
import time
from time import ctime
import webbrowser
import playsound
import os
import random
from gtts import gTTS
from tkinter import *
from PIL import ImageTk, Image

print('Say something...')
r = sr.Recognizer()
speaker = pyttsx3.init()

def record_audio(ask = False):
    #user voice record

    with sr.Microphone() as source:
        if ask:
            lee_voice(ask)
        audio = r.listen(source)
        voice_data = ''
        try:
            voice_data = r.recognize_google(audio)
            print('Recognizer voice :'+ voice_data)

        except Exception:
            print('Oops something went Wrong')
            #lee_voice('Oops something went Wrong')
        return voice_data

def lee_voice(audio_string):
    #Play audio text to voice
    tts = gTTS(text=audio_string, lang='en')
    r = random.randint(1, 10000000)
    audio_file = 'audio-' + str(r) + '.mp3'
    tts.save(audio_file)
    playsound.playsound(audio_file)
    print(audio_string)
    os.remove(audio_file)

class Widget:
    #GUI OF VIRTUAL ASSISTAND AND COMMANDS
    GIVEN
    def __init__(self):

        root = Tk()

        root.title('lena')
        root.geometry('520x320')

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img = ImageTk.PhotoImage(Image.open('lena img.jpg'))
panel = Label(root, image=img)
panel.pack(side='right', fill='both', expand='no')

compText = StringVar()
userText = StringVar()

userText.set('Your Virtual Assistant')
userFrame = LabelFrame(root, text='Lena', font=('Railways', 24,
'bold'))
userFrame.pack(fill='both', expand='yes')

top = Message(userFrame, textvariable=userText, bg='black',
fg='white')
top.config(font=("Century Gothic", 15, 'bold'))
top.pack(side='top', fill='both', expand='yes')

# compFrame = LabelFrame(root, text="Lena", font=('Railways',
10, 'bold'))
# compFrame.pack(fill="both", expand='yes')

btn = Button(root, text='Speak', font=('railways', 10, 'bold'),
bg='red', fg='white', command=self.clicked).pack(fill='x', expand='no')
btn2 = Button(root, text='Close', font=('railways', 10,
'bold'), bg='yellow', fg='black', command=root.destroy).pack(
    fill='x', expand='no')
lee_voice('How can i help you Shashank?')
root.mainloop()

def clicked(self):
    #BUTTON CALLING
    print("working...")

    voice_data = record_audio()
    voice_data = voice_data.lower()
    if 'who are you' in voice_data:
        lee_voice('My name is Lena ')
    if 'search' in voice_data:
        search = record_audio('What do you want to search for ?')
        url = 'https://google.com/search?q=' + search
        webbrowser.get().open(url)
        lee_voice('Here is what i found' + search)

    if 'find location' in voice_data:
        location = record_audio('What is your location?')
        url = 'https://google.nl/maps/place/' + location + '/&'
        webbrowser.get().open(url)
        lee_voice('Here is location' + location)

    if 'what is the time' in voice_data:
        lee_voice("Sir the time is :" + ctime())

    if 'exit' in voice_data:
        lee_voice('Thanks have a good day ')
        exit()

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if __name__ == '__main__':  
    widget = Widget()  
  
time.sleep(1)  
while 1:  
    voice_data = record_audio()  
    respond(voice_data)  
  
speaker.runAndWait()
```