WORKING CODE FOR OUR PROJECT

**ROUND THE CLOCK VIRTUAL FRIENDS : A PYTHON BASED AI ASSISTANT FOR DESKTOP**

import requests

from functions.online\_ops import find\_my\_ip, get\_latest\_news, get\_random\_advice, get\_random\_joke, get\_trending\_movies, get\_weather\_report, play\_on\_youtube, search\_on\_google, search\_on\_wikipedia, send\_email, send\_whatsapp\_message

import pyttsx3

import speech\_recognition as sr

from decouple import config

from datetime import datetime

from functions.os\_ops import open\_calculator, open\_camera, open\_cmd, open\_notepad, open\_discord

from random import choice

from utils import opening\_text

from pprint import pprint

USERNAME = config('USER')

BOTNAME = config('BOTNAME')

engine = pyttsx3.init('sapi5')

# Set Rate

engine.setProperty('rate', 190)

# Set Volume

engine.setProperty('volume', 1.0)

# Set Voice (Female)

voices = engine.getProperty('voices')

engine.setProperty('voice', voices[1].id)

# Text to Speech Conversion

def speak(text):

    """Used to speak whatever text is passed to it"""

    engine.say(text)

    engine.runAndWait()

# Greet the user

def greet\_user():

    """Greets the user according to the time"""

    hour = datetime.now().hour

    if (hour >= 6) and (hour < 12):

        speak(f"Good Morning {USERNAME}")

    elif (hour >= 12) and (hour < 16):

        speak(f"Good afternoon {USERNAME}")

    elif (hour >= 16) and (hour < 19):

        speak(f"Good Evening {USERNAME}")

    speak(f"I am {BOTNAME}. How may I assist you?")

# Takes Input from User

def take\_user\_input():

    """Takes user input, recognizes it using Speech Recognition module and converts it into text"""

    r = sr.Recognizer()

    with sr.Microphone() as source:

        print('Listening....')

        r.pause\_threshold = 1

        audio = r.listen(source)

    try:

        print('Recognizing...')

        query = r.recognize\_google(audio, language='en-in')

        if not 'exit' in query or 'stop' in query:

            speak(choice(opening\_text))

        else:

            hour = datetime.now().hour

            if hour >= 21 and hour < 6:

                speak("Good night sir, take care!")

            else:

                speak('Have a good day sir!')

            exit()

    except Exception:

        speak('Sorry, I could not understand. Could you please say that again?')

        query = 'None'

    return query

if \_\_name\_\_ == '\_\_main\_\_':

    greet\_user()

    while True:

        query = take\_user\_input().lower()

        if 'open notepad' in query:

            open\_notepad()

        elif 'open discord' in query:

            open\_discord()

        elif 'open command prompt' in query or 'open cmd' in query:

            open\_cmd()

        elif 'open camera' in query:

            open\_camera()

        elif 'open calculator' in query:

            open\_calculator()

        elif 'ip address' in query:

            ip\_address = find\_my\_ip()

            speak(f'Your IP Address is {ip\_address}.\n For your convenience, I am printing it on the screen sir.')

            print(f'Your IP Address is {ip\_address}')

        elif 'wikipedia' in query:

            speak('What do you want to search on Wikipedia, sir?')

            search\_query = take\_user\_input().lower()

            results = search\_on\_wikipedia(search\_query)

            speak(f"According to Wikipedia, {results}")

            speak("For your convenience, I am printing it on the screen sir.")

            print(results)

        elif 'youtube' in query:

            speak('What do you want to play on Youtube, sir?')

            video = take\_user\_input().lower()

            play\_on\_youtube(video)

        elif 'search on google' in query:

            speak('What do you want to search on Google, sir?')

            query = take\_user\_input().lower()

            search\_on\_google(query)

        elif "send whatsapp message" in query:

            speak(

                'On what number should I send the message sir? Please enter in the console: ')

            number = input("Enter the number: ")

            speak("What is the message sir?")

            message = take\_user\_input().lower()

            send\_whatsapp\_message(number, message)

            speak("I've sent the message sir.")

        elif "send an email" in query:

            speak("On what email address do I send sir? Please enter in the console: ")

            receiver\_address = input("Enter email address: ")

            speak("What should be the subject sir?")

            subject = take\_user\_input().capitalize()

            speak("What is the message sir?")

            message = take\_user\_input().capitalize()

            if send\_email(receiver\_address, subject, message):

                speak("I've sent the email sir.")

            else:

                speak("Something went wrong while I was sending the mail. Please check the error logs sir.")

        elif 'joke' in query:

            speak(f"Hope you like this one sir")

            joke = get\_random\_joke()

            speak(joke)

            speak("For your convenience, I am printing it on the screen sir.")

            pprint(joke)

        elif "advice" in query:

            speak(f"Here's an advice for you, sir")

            advice = get\_random\_advice()

            speak(advice)

            speak("For your convenience, I am printing it on the screen sir.")

            pprint(advice)

        elif "trending movies" in query:

            speak(f"Some of the trending movies are: {get\_trending\_movies()}")

            speak("For your convenience, I am printing it on the screen sir.")

            print(\*get\_trending\_movies(), sep='\n')

        elif 'news' in query:

            speak(f"I'm reading out the latest news headlines, sir")

            speak(get\_latest\_news())

            speak("For your convenience, I am printing it on the screen sir.")

            print(\*get\_latest\_news(), sep='\n')

        elif 'weather' in query:

            ip\_address = find\_my\_ip()

            city = requests.get(f"https://ipapi.co/{ip\_address}/city/").text

            speak(f"Getting weather report for your city {city}")

            weather, temperature, feels\_like = get\_weather\_report(city)

            speak(f"The current temperature is {temperature}, but it feels like {feels\_like}")

            speak(f"Also, the weather report talks about {weather}")

            speak("For your convenience, I am printing it on the screen sir.")

            print(f"Description: {weather}\nTemperature: {temperature}\nFeels like: {feels\_like}")