Voice Assistant Project

# Voice Assistant Project  
  
import pyttsx3  
import speech\_recognition as sr  
import pyautogui  
import webbrowser  
import datetime  
import os  
import pywhatkit as kit  
import time  
  
# Initialize the speech engine  
engine = pyttsx3.init()  
engine.setProperty('rate', 150) # Speed of speech  
engine.setProperty('volume', 1) # Volume level (0.0 to 1.0)  
  
def speak(text):  
 """Convert text to speech."""  
 engine.say(text)  
 engine.runAndWait()  
  
def listen():  
 """Listen to the user's command and return it."""  
 recognizer = sr.Recognizer()  
 with sr.Microphone() as source:  
 print("Listening...")  
 recognizer.adjust\_for\_ambient\_noise(source)  
 audio = recognizer.listen(source)  
 try:  
 command = recognizer.recognize\_google(audio)  
 print(f"Command received: {command}")  
 return command.lower()  
 except sr.UnknownValueError:  
 print("Sorry, I did not hear that.")  
 return None  
 except sr.RequestError:  
 print("Sorry, the service is down.")  
 return None  
  
def open\_app(app\_name):  
 """Open installed desktop applications."""  
 apps = {  
 "chrome": r"C:\Program Files\Google\Chrome\Application\chrome.exe",  
 "firefox": r"C:\Program Files\Mozilla Firefox\firefox.exe",  
 "notepad": r"C:\Windows\System32\notepad.exe",  
 "whatsapp": r"C:\Users\YourUsername\AppData\Local\WhatsApp\WhatsApp.exe",  
 "spotify": r"C:\Users\YourUsername\AppData\Roaming\Spotify\Spotify.exe"  
 }  
   
 app\_path = apps.get(app\_name)  
 if app\_path:  
 speak(f"Opening {app\_name}")  
 os.startfile(app\_path)  
 else:  
 speak(f"Sorry, I cannot find {app\_name}. Please update my app list.")  
  
def open\_web\_app(app\_name):  
 """Open websites in the browser."""  
 web\_apps = {  
 "gmail": "https://mail.google.com",  
 "whatsapp web": "https://web.whatsapp.com",  
 "google drive": "https://drive.google.com",  
 "facebook": "https://www.facebook.com",  
 "twitter": "https://twitter.com",  
 "youtube": "https://www.youtube.com",  
 "instagram": "https://www.instagram.com"  
 }  
   
 app\_url = web\_apps.get(app\_name)  
 if app\_url:  
 speak(f"Opening {app\_name} in your browser.")  
 webbrowser.open(app\_url)  
 else:  
 speak(f"Sorry, I can't find {app\_name} in my list.")  
  
def tell\_time():  
 """Tell the current time."""  
 now = datetime.datetime.now()  
 current\_time = now.strftime("%H:%M")  
 speak(f"The current time is {current\_time}")  
  
def tell\_date():  
 """Tell today's date."""  
 today = datetime.date.today()  
 speak(f"Today's date is {today.strftime('%B %d, %Y')}")  
  
def greet():  
 """Greet the user."""  
 speak("Hello! How can I assist you today?")  
  
def send\_whatsapp\_message(contact\_number, message):  
 """Send a WhatsApp message."""  
 try:  
 hour = datetime.datetime.now().hour  
 minute = datetime.datetime.now().minute + 2 # 2 minutes later to adjust for processing time  
 if minute >= 60:  
 minute -= 60  
 hour += 1  
 speak(f"Sending your message shortly.")  
 kit.sendwhatmsg(f"+{contact\_number}", message, hour, minute)  
 time.sleep(10) # Allow enough time for pywhatkit to start the message  
 pyautogui.press('enter')  
 speak("Message sent successfully.")  
 except Exception as e:  
 print(e)  
 speak("Sorry, I couldn't send the message. Please try again.")  
  
def search\_google(query):  
 """Search Google for a query."""  
 speak(f"Searching for {query} on Google.")  
 webbrowser.open(f"https://www.google.com/search?q={query}")  
  
def play\_youtube\_music(song\_name):  
 """Play a song on YouTube."""  
 speak(f"Playing {song\_name} on YouTube.")  
 kit.playonyt(song\_name)  
  
def main():  
 greet()  
 while True:  
 command = listen()  
 if command:  
 if "open chrome" in command:  
 open\_app("chrome")  
 elif "open firefox" in command:  
 open\_app("firefox")  
 elif "open notepad" in command:  
 open\_app("notepad")  
 elif "open whatsapp" in command:  
 open\_app("whatsapp")  
 elif "open spotify" in command:  
 open\_app("spotify")  
 elif "open gmail" in command:  
 open\_web\_app("gmail")  
 elif "open whatsapp web" in command:  
 open\_web\_app("whatsapp web")  
 elif "open google drive" in command:  
 open\_web\_app("google drive")  
 elif "open facebook" in command:  
 open\_web\_app("facebook")  
 elif "open twitter" in command:  
 open\_web\_app("twitter")  
 elif "open youtube" in command:  
 open\_web\_app("youtube")  
 elif "open instagram" in command:  
 open\_web\_app("instagram")  
 elif "tell me the time" in command:  
 tell\_time()  
 elif "tell me the date" in command:  
 tell\_date()  
 elif "send whatsapp message" in command:  
 speak("Please say the contact number with country code, without plus sign.")  
 contact\_number = listen()  
 if contact\_number:  
 speak("What is the message?")  
 message = listen()  
 if message:  
 send\_whatsapp\_message(contact\_number, message)  
 elif "search on google" in command:  
 speak("What would you like to search?")  
 query = listen()  
 if query:  
 search\_google(query)  
 elif "play music" in command or "play song" in command:  
 speak("Which song would you like to play?")  
 song = listen()  
 if song:  
 play\_youtube\_music(song)  
 elif "exit" in command or "quit" in command:  
 speak("Goodbye! Have a great day!")  
 break  
 else:  
 speak("Sorry, I did not understand that. Please try again.")  
  
if \_\_name\_\_ == "\_\_main\_\_":  
 main()