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import speech_recognition as sr
import pyttsx3
import pywhatkit
import datetime
import pyjokes
import requests
from bs4 import BeautifulSoup
from urllib.parse import quote
import webbrowser
from tkinter import*
root=Tk()
root.title("welcome to alexa")
root.geometry("500x500")
img3=PhotoImage(file="bg.png")
li2=Label(root,image=img3)
li2.place(relheight=1,relwidth=1)
lb1=Label(root,bg="navy blue",width=280,height=15)
lb1.place(x=0,y=0)
img1=PhotoImage(file="alexa.png")
li1=Label(image=img1)
li1.place(x=700,y=-10)
11=Label(root,height=2,width=35,text="I am your
Alexa", font=("timesnewroman", 20), fg="navy blue", bg="light
blue",relief=SUNKEN,anchor=CENTER)
11.place(x=570,y=315)
13=Label(root,height=2,width=15,text="Click on Alexa\nto Play ---
",font=('arial',25),fg="blue",anchor=CENTER)
13.place(x=450,y=540)
img2=PhotoImage(file="alexa2.png")
15=Label(root,width=50,text="Designed By Anushka",font=('arial',25),bg="navy
blue",fg="white",anchor=CENTER)
15.place(x=300,y=860)
def run():
    listener=sr.Recognizer()
    engine=pyttsx3.init()
    voices=engine.getProperty("voices")
    engine.setProperty("voice",voices[1].id)
    engine.say("I am your Alexa")
    engine.say("What can I do for you?")
    engine.runAndWait()
    def talk(text):
      engine.say(text)
      engine.runAndWait()
    def alexa_command():
       max attempts = 3
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attempt = 0
        command = ""
        while attempt < max attempts:</pre>
            try:
                with sr.Microphone() as source:
                    voice = listener.listen(source)
                    command = listener.recognize_google(voice)
                    command = command.lower()
                    if "alexa" in command:
                        command = command.replace("alexa", "")
                        talk(command)
                        break
                    else:
                        talk("Unable to detect voice, please try again")
                        attempt += 1
                        break
            except sr.UnknownValueError:
                attempt += 1
                talk("Unable to detect voice, please try again.")
            except sr.RequestError:
                talk("Sorry, my speech recognition service is not available at
the moment.")
                break
        return command
    def google search(query):
        encoded_query=quote(query)
        url = f"https://www.google.com/search?q={encoded_query}"
        headers = {"User-Agent": "Mozilla/5.0 (Windows NT 10.0; Win64; x64)
AppleWebKit/537.36 (KHTML, like Gecko) Chrome/91.0.4472.124 Safari/537.36"}
        response = requests.get(url, headers=headers)
        soup = BeautifulSoup(response.text, 'html.parser')
        search_results = soup.find_all('div', class_='tF2Cxc')
        if search_results:
            result = search_results[0].find('div', class_='yuRUbf').a
            title = result.text
            link = result['href']
            return title, link
        else:
            return "No results found", ""
    def run_alexa():
        command=alexa command()
        if "play" in command:
            song = command.replace("play","")
            talk("Playing"+song)
            pywhatkit.playonyt(song)
        elif "time" in command:
            time = datetime.datetime.now().strftime("%H:%M")
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talk("Current time is"+time)
        elif "joke" in command:
            jokes = pyjokes.get joke()
            talk(jokes)
        elif "search" or "tell me about" or "what is the meaning" in command:
            if "search" in command:
                query = command.replace("search", "")
                talk("Searching Google for " + query)
                title, link = google search(query)
            elif "tell me about" in command:
                query = command.replace("tell me about", "")
                talk("Searching Google for " + query)
                title, link = google search(query)
            elif "what is the meaning" in command:
                query = command.replace("what is the meaning", "")
                talk("Searching Google for " + query)
                title, link = google_search(query)
            if title != "No results found":
                talk("Top result: " + title)
                talk("Opening the top search result in your web browser.")
                webbrowser.open(link)
            else:
                talk("Sorry, no results found for " + query)
        elif "love" in command:
            query=command.replace("love","")
            talk("You have much interest in Love That's not fine"+query)
        elif "bf" or "boyfriend" or "relationship" in command:
           talk("Sorry I don't disclose about my relationship")
        else:
           talk("Sorry, I am unable to find your query")
    run alexa()
b1=Button(root,image=img2,command=run,cursor="hand2")
b1.place(x=850,y=440)
root.mainloop()
```