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1 import speech_recognition as sr
2 import pyttsx3
3 import pywhatkit
4 import datetime
5 import pyjokes
6 import requests
7 from bs4 import BeautifulSoup
8 from urllib.parse import quote
9 import webbrowser
10 from tkinter import *
11
12 a=Tk()
13 a.title("My Alexa")
14 a.geometry("1400x750")
15
16 f1=("timesnewroman",24,"bold","italic")
17 f2=("chiller",36,"bold")
18 f3=("algerian",30,"bold")
19 f4=("timesnewroman",14)
20
21 lb1=Label(a,bg="blue",width=280,height=15)
22 lb1.place(x=0,y=0)
23
24 img1=PhotoImage(file="alexa_norm.png")
25 li1=Label(image=img1)
26 li1.place(x=500,y=0)
27
28 l1=Label(a,height=2,width=30,text="I am your Alexa",font=f1,fg="dark
blue",relief=SUNKEN,anchor=CENTER)
29 l1.place(x=0,y=310)
30
31 l2=Label(a,height=2,width=35,text="What can I do for you
?",font=f2,fg="maroon",relief=SUNKEN,anchor=CENTER)
32 l2.place(x=700,y=310)
33
34 l3=Label(a,height=2,width=15,text="Click on Alexa\nto Play -->",font=f3,fg="dark
grey",anchor=CENTER)
35 l3.place(x=0,y=450)
36
37 l4=Label(a,height=1,width=15,text="-- Comments --",font=f3,fg="black",anchor=CENTER)
38 l4.place(x=800,y=450)
39
40 l5=Label(a,width=50,text="Designed By
Swagatam",font=f3,bg="black",fg="white",anchor=CENTER)
41 l5.place(x=0,y=680)
42
43 img2=PhotoImage(file="alexa_but.png")
44
45 t1=Text(a,height=6,width=52,font=f4)
46 t1.place(x=710,y=510)
47
48 def run():
49     listener=sr.Recognizer()
50     engine=pyttsx3.init()
51     voices=engine.getProperty("voices")
52     engine.setProperty("voice",voices[1].id)
53     engine.say("I am your Alexa")
54     engine.say("What can I do for you?")
55     engine.runAndWait()
56

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57 def talk(text):
58     engine.say(text)
59     engine.runAndWait()
60
61 def alexa_command():
62     max_attempts = 3
63     attempt = 0
64     command = ""
65
66     while attempt < max_attempts:
67         try:
68             with sr.Microphone() as source:
69                 voice = listener.listen(source)
70                 command = listener.recognize_google(voice)
71                 command = command.lower()
72                 if "alexa" in command:
73                     command = command.replace("alexa", "")
74                     talk(command)
75                     break
76                 else:
77                     t1.insert(END, "Unable to detect voice ! Please try again\n")
78                     talk("Unable to detect voice, please try again")
79                     attempt += 1
80                     break
81         except sr.UnknownValueError:
82             attempt += 1
83             t1.insert(END, "Unable to detect voice ! Please try again\n")
84             talk("Unable to detect voice, please try again.")
85             break
86         except sr.RequestError:
87             t1.insert(END, "Sorry, Speech recognition service is not available at
the moment\n")
88             talk("Sorry, my speech recognition service is not available at the
moment.")
89             break
90     return command
91
92 def google_search(query):
93     encoded_query=quote(query)
94     url = f"https://www.google.com/search?q={encoded_query}"
95     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"}
96     response = requests.get(url, headers=headers)
97     soup = BeautifulSoup(response.text, 'html.parser')
98     search_results = soup.find_all('div', class_='tF2Cxc')
99     if search_results:
100         result = search_results[0].find('div', class_='yuRUbf').a
101         title = result.text
102         link = result['href']
103         return title, link
104     else:
105         return "No results found", ""
106
107 def run_alexa():
108     command=alexa_command()
109     if "play" in command:
110         song = command.replace("play", "")
111         t1.insert(END, "Playing"+song+"\n")
112         talk("Playing"+song)
113         pywhatkit.playonyt(song)

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```
114     elif "time" in command:
115         time = datetime.datetime.now().strftime("%H:%M")
116         t1.insert(END, "Current time is: "+time+"\n")
117         talk("Current time is"+time)
118     elif "joke" in command:
119         jokes = pyjokes.get_joke()
120         t1.insert(END, "Joke is: "+jokes+"\n")
121         talk(jokes)
122     elif "search" or "tell me about" or "what is the meaning" in command:
123         if "search" in command:
124             query = command.replace("search", "")
125         elif "tell me about" in command:
126             query = command.replace("tell me about", "")
127         elif "what is the meaning" in command:
128             query = command.replace("what is the meaning", "")
129         t1.insert(END, "Searching On the Way ...\n")
130         talk("Searching Google for " + query)
131         title, link = google_search(query)
132         if title != "No results found":
133             talk("Top result: " + title)
134             t1.insert(END, "Opening the top search result in your Web Browser\n")
135             talk("Opening the top search result in your web browser.")
136             webbrowser.open(link)
137         else:
138             t1.insert(END, "Sorry, No Result Found !!!\n")
139             talk("Sorry, no results found for " + query)
140     elif "love" in command:
141         t1.insert(END, "You have much interest in Love !!! That's not fine\n")
142         talk("You have much interest in Love That's not fine")
143     else:
144         t1.insert(END, "Sorry, I am unable to find your query !!!\n")
145         talk("Sorry, I am unable to find your query")
146
147     run_alexa()
148
149 b1=Button(a, image=img2, command=run)
150 b1.place(x=446, y=410)
151
152 a.mainloop()
153
```