

Voice Assistant using Python

firstly we need to install all the necessary packages to make voice assistant

```
In [35]: !pip install SpeechRecognition
```

```
Requirement already satisfied: SpeechRecognition in c:\users\ankit\anaconda3\lib\site-packages (3.10.0)
Requirement already satisfied: requests>=2.26.0 in c:\users\ankit\anaconda3\lib\site-packages (from SpeechRecognition) (2.27.1)
Requirement already satisfied: charset-normalizer~=2.0.0 in c:\users\ankit\anaconda3\lib\site-packages (from requests>=2.26.0->SpeechRecognition) (2.0.4)
Requirement already satisfied: certifi>=2017.4.17 in c:\users\ankit\anaconda3\lib\site-packages (from requests>=2.26.0->SpeechRecognition) (2021.10.8)
Requirement already satisfied: urllib3<1.27,>=1.21.1 in c:\users\ankit\anaconda3\lib\site-packages (from requests>=2.26.0->SpeechRecognition) (1.26.9)
Requirement already satisfied: idna<4,>=2.5 in c:\users\ankit\anaconda3\lib\site-packages (from requests>=2.26.0->SpeechRecognition) (3.3)
```

```
In [2]: !pip install pyttsx3
```

```
Collecting pyttsx3
  Downloading pyttsx3-2.90-py3-none-any.whl (39 kB)
Requirement already satisfied: pywin32 in c:\users\ankit\anaconda3\lib\site-packages (from pyttsx3) (302)
Requirement already satisfied: comtypes in c:\users\ankit\anaconda3\lib\site-packages (from pyttsx3) (1.1.10)
Collecting pypiwin32
  Downloading pypiwin32-223-py3-none-any.whl (1.7 kB)
Installing collected packages: pypiwin32, pyttsx3
Successfully installed pypiwin32-223 pyttsx3-2.90
```

```
In [3]: !pip install PyAudio
```

```
Collecting PyAudio
  Downloading PyAudio-0.2.13-cp39-cp39-win_amd64.whl (164 kB)
Installing collected packages: PyAudio
Successfully installed PyAudio-0.2.13
```

```
In [20]: !pip install pywhatkit
```

```
Collecting pywhatkit
  Downloading pywhatkit-5.4-py3-none-any.whl (15 kB)
Requirement already satisfied: Pillow in c:\users\ankit\anaconda3\lib\site-packages (from pywhatkit) (9.0.1)
Collecting wikipedia
  Downloading wikipedia-1.4.0.tar.gz (27 kB)
Requirement already satisfied: requests in c:\users\ankit\anaconda3\lib\site-packages (from pywhatkit) (2.27.1)
Requirement already satisfied: Flask in c:\users\ankit\anaconda3\lib\site-packages (from pywhatkit) (1.1.2)
Collecting pyautogui
  Downloading PyAutoGUI-0.9.54.tar.gz (61 kB)
  Installing build dependencies: started
  Installing build dependencies: finished with status 'done'
  Getting requirements to build wheel: started
  Getting requirements to build wheel: finished with status 'done'
  Preparing wheel metadata: started
  Preparing wheel metadata: finished with status 'done'
Requirement already satisfied: itsdangerous>=0.24 in c:\users\ankit\anaconda3\lib\site-packages (from Flask) (2.0.1)
```

```
In [63]: !pip install wikipedia
```

```
Requirement already satisfied: wikipedia in c:\users\ankit\anaconda3\lib\site-packages (1.4.0)  
Requirement already satisfied: beautifulsoup4 in c:\users\ankit\anaconda3\lib\site-packages (from wikipedia) (4.11.1)  
Requirement already satisfied: requests<3.0.0,>=2.0.0 in c:\users\ankit\anaconda3\lib\site-packages (from wikipedia) (2.27.1)  
Requirement already satisfied: idna<4,>=2.5 in c:\users\ankit\anaconda3\lib\site-packages (from requests<3.0.0,>=2.0.0->wikipedia) (3.3)  
Requirement already satisfied: urllib3<1.27,>=1.21.1 in c:\users\ankit\anaconda3\lib\site-packages (from requests<3.0.0,>=2.0.0->wikipedia) (1.26.9)  
Requirement already satisfied: certifi>=2017.4.17 in c:\users\ankit\anaconda3\lib\site-packages (from requests<3.0.0,>=2.0.0->wikipedia) (2021.10.8)  
Requirement already satisfied: charset-normalizer~2.0.0 in c:\users\ankit\anaconda3\lib\site-packages (from requests<3.0.0,>=2.0.0->wikipedia) (2.0.4)  
Requirement already satisfied: soupsieve>1.2 in c:\users\ankit\anaconda3\lib\site-packages (from beautifulsoup4->wikipedia) (2.3.1)
```

Now the code begins with here

```
In [1]: import speech_recognition as sr  
import pyttsx3 as tts  
import pywhatkit as wk  
import datetime as dt  
import wikipedia as wiki  
import webbrowser  
from selenium import webdriver  
from selenium.webdriver.common.keys import Keys
```

```
In [2]: r=sr.Recognizer()  
speaker=tts.init()  
voices=speaker.getProperty('voices')  
speaker.setProperty('voice',voices[1].id) # To set the female voice
```

```
In [33]: def setCommand():
    "This function is used to take voice input from the user"

    with sr.Microphone() as source:
        print(".           Listening.....")
        try:
            voice=r.listen(source)
            r.energy_threshold =400
            r.pause_threshold = 1
            command=r.recognize_google(voice)
            print("YOU:",command)
            command=command
            return command
        except:
            text="Sorry couldn't process it at this moment please try again"
            print(text)
            exit()

def speak(command):
    "This function is used to make your voice assistant capable to speak."
    print("Assistant:",command)
    speaker.say(command)
    speaker.runAndWait()

def execution():
    "This is main executable function which perform all the task given by the user"

    audio=setCommand()
    audio=audio.lower()

    if 'play' in audio:
        song=audio.replace('play','')
        speak('playing '+song)
        wk.playonyt(song)
    elif 'the time' in audio:
        time=dt.datetime.now().strftime('%I:%M %p')
        speak("the current time is "+time)
    elif 'who is' in audio:
        data=audio.replace("who is",'')
        try:
            info=wiki.summary(data,3)
            speak(info)
```

```
except:
    speak("Sorry,I couldn't find this in wikipedia ")
elif 'open youtube' in audio:
    speak('opening youtube')
    webbrowser.open("youtube.com")
elif 'open google' in audio:
    speak('opening google')
    webbrowser.open_new_tab("google.com")
elif 'open facebook' in audio:
    speak('opening facebook')
    webbrowser.open_new_tab("facebook.com")
elif 'open instagram' in audio:
    speak('opening instagram')
    webbrowser.open_new_tab("Instagram.com")
elif 'open whatsapp' in audio:
    speak('opening whatsapp')
    webbrowser.open_new_tab("whatsapp.com")
elif 'open twitter' in audio:
    speak('opening twitter')
    webbrowser.open_new_tab("twitter.com")
elif 'search' in audio:
    data=audio.replace('search','')
    data=data.replace('in google','')
    speak("searching "+data+" in google")
    global driver
    driver=webdriver.Chrome()
    driver.get("https://www.google.com/")
    find=driver.find_element("name", "q")
    find.send_keys(data)
    find.send_keys(Keys.ENTER)
else:
    speak("sorry i can't process this command ")
```

Calling the execution() function to run the program

In [34]:

```
execution()
```

```
.           Listening.....
```

```
YOU: who is Donald Trump
```

```
Assistant: Donald John Trump (born June 14, 1946) is an American politician, media personality, and businessman who served as the 45th president of the United States from 2017 to 2021.
```

```
Trump graduated from the University of Pennsylvania with a bachelor's degree in economics in 1968. He became president of his father's real-estate business in 1971 and renamed it the Trump Organization.
```

In []: