Please install these libraries

- 1. pip install speechrecognition
- 2. pip install pyttsx3

Linux Users -

1. sudo apt-get install python3-pyaudio

Windows Users -

1. pip install pyaudio

!pip install speechrecognition # installing the speech recognition library so that we can convert spoken words into text

```
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```

!pip install pyttsx3 # installing pyttsx3 so our program can talk back using text-to-speech

```
Requirement already satisfied: pyttsx3 in c:\users\saite\appdata\local\programs\python\python311\lib\site-packages (2.98)
Requirement already satisfied: comtypes in c:\users\saite\appdata\local\programs\python\python311\lib\site-packages (from pyttsx3)
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[notice] A new release of pip is available: 25.0 -> 25.0.1

[notice] To update, run: python.exe -m pip install --upgrade pip
```

!pip install pyaudio # installing pyaudio to access and work with the microphone for voice input

```
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[notice] A new release of pip is available: 25.0 -> 25.0.1
[notice] To update, run: python.exe -m pip install --upgrade pip
```

This code will not run on Google Colab as this requires access to microphone. You will have to run this code in your local machine.

```
import speech_recognition as sr
import pyttsx3
# setting up the recognizer from the speech_recognition library
r = sr.Recognizer()
# function that will speak whatever text we give to it
def SpeakText(command):
    # starting the text-to-speech engine
    engine = pyttsx3.init()
    engine.say(command)
    engine.runAndWait()
# running a loop so the program keeps listening to my voice
while(1):
    try:
        # using the microphone to take voice input
        with sr.Microphone() as source2:
            # letting it adjust to the background sound before listening
            r.adjust_for_ambient_noise(source2, duration=0.2)
            # now it listens to my voice
            audio2 = r.listen(source2)
            # trying to understand what I said using google
```

```
MyText = r.recognize_google(audio2)
             MyText = MyText.lower()
             print("Did you say "+MyText)
             SpeakText(MyText)
   # if the request to google fails
    except sr.RequestError as e:
        print("Could not request results; {0}".format(e))
   \mbox{\tt\#} if it couldn't understand what I said
    except sr.UnknownValueError:
        print("unknown error occured")
→ unknown error occured
     Did you say so you can see there is
     Did you say let me
     Could not request results; recognition connection failed: [Errno 11001] getaddrinfo failed
     Could not request results; recognition connection failed: [Errno 11001] getaddrinfo failed
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Start coding or generate with AI.