

Great! Now you understand the basics of working with the `SpeechRecognition` library. If for some reason the speech recording is not working for you, you may want to skip to Chapter 8 to follow a web-based approach for capturing the user's voice, and then continue from this chapter.

Speech Recognition

Let's now get to the code that records the audio and sends it to the STT for conversion to a text string. The page of the `SpeechRecognition` module at PyPi has a link to a code sample that performs the STT conversion. This section discusses that example.

Google STT

Take a look at this new code snippet:

```
import speech_recognition as sr
# obtain audio from the microphone
r = sr.Recognizer()
with sr.Microphone() as source:
    print("Say something!")
    audio = r.listen(source)

# recognize speech using Google Speech Recognition
try:
    # for testing purposes, you're just using the default API key
    # to use another API key, use `r.recognize_google(audio,
    key="GOOGLE_SPEECH_RECOGNITION_API_KEY")`
    # instead of `r.recognize_google(audio)`
    print("Google Speech Recognition thinks you said " + r.recognize_
        google(audio))
except sr.UnknownValueError:
    print("Google Speech Recognition could not understand audio")
except sr.RequestError as e:
    print("Could not request results from Google Speech Recognition service;
        {0}".format(e))
```

First you use the microphone as the source to listen to the audio and use the same code snippet that you used when you recorded the audio file. This snippet uses a `try/except` clause for error handling. If the error is `sr.UnknownValueError`, the program returns “Google Speech Recognition could not understand audio”. If you get a `sr.RequestError` error, you take its value in `e` and print “Could not request results from Google Speech Recognition service” along with the technical details of the error returned by Google STT. In the `try` clause, you use the `r.recognize_google()` function to pass the audio as an argument to Google STT. It then prints out what you said, as interpreted by Google, in the form of a string. This method uses the default API key; you do not need to enter a unique key for development purposes.