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Speech to Text

Step 1: downloading the Python packages

```
✓ [13] pip install speechrecognition
2s
        Looking in indexes: https://pypi.org/simple, https://us-python.pkg.dev/colab-wheels/public/simple/
        Requirement already satisfied: speechrecognition in /usr/local/lib/python3.7/dist-packages (3.8.1)
```

SpeechRecognition is the package that handles the conversion of speech to text.

Step 2: importing library

```
✓ [16] #import library
1s
        import speech_recognition as sr
```

Step 3: use Google's speech recognition technology

```
#Initialize  recognizer  class  (for  recognizing  the  speech)
r = sr.Recognizer()
```

Step 4: convert the audio file

Since mp3 format is not supported, but wav is, I used an online website to convert the audio. https://cloudconvert.com/mp3-to-wav

Step 5: listening to the audio file

```
# Reading Audio file as source
#listening  the  audio  file  and  store  in  audio_text  variable
with sr.AudioFile('AI_Assignment.wav') as source:
    audio_text = r.listen(source)
```

Step 6: exception handling

```
try:
    # using google speech recognition
    text = r.recognize_google(audio_text)
    print('Converting audio transcripts into text')
    print(text)
except:
     print('Please run again.')
```

recognize() method will throw an error if the API can't be reached

Step 7: output

```
Converting audio transcripts into text
hi I have a flight at 7 a.m. from Delhi to Mumbai
```

Step 8: fetching the relevant entries using substring

```
print("Time:", text[22:28])
print("Departure Location:", text[34:39])
print("Destination Location:", text[43:])

Time: 7 a.m.
Departure Location: Delhi
Destination Location: Mumbai
```