

# Speech recognition is the ability of a computer software to identify words and phrases in spoken language and convert them to human readable text.

Speech Recognition is the ability of a machine or program to identify words and phrases in spoken language and convert them to textual information.

You have probably seen it on Sci-fi, and personal assistants like Siri, Cortana, and Google Assistant, and other virtual assistants that interact with through voice.

These AI assistants in order to understand your voice they need to do speech recognition so as to understand what you have just said.

Speech Recognition is a complex process, well I'm not going to teach you how to train a Machine Learning/Deep Learning Model to that, instead, I instruct you how to do that using google speech recognition API.

As long as you have the basics of Python you can successfully complete this tutorial and build your own fully functioning speech recognition programs in Python.

In [12]:

```
!pipwin install pyaudio
```

Building cache. Hang on . . .

Done

Package `pyaudio` found in cache

Downloading package . . .

[https://download.lfd.uci.edu/pythonlibs/y2rycu7g/PyAudio-0.2.11-cp38-cp38-win\\_amd64.whl](https://download.lfd.uci.edu/pythonlibs/y2rycu7g/PyAudio-0.2.11-cp38-cp38-win_amd64.whl) ([https://download.lfd.uci.edu/pythonlibs/y2rycu7g/PyAudio-0.2.11-cp38-cp38-win\\_amd64.whl](https://download.lfd.uci.edu/pythonlibs/y2rycu7g/PyAudio-0.2.11-cp38-cp38-win_amd64.whl))

PyAudio-0.2.11-cp38-cp38-win\_amd64.whl

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\prathyu lachireddy\pipwin\pyaudio-0.2.11-cp38-cp38-win_amd64.whl
Installing collected packages: PyAudio
Successfully installed PyAudio-0.2.11
[*] 110 kB / 110 kB @ 22 kB/s [#####] [100%, 0s left]
```

In [10]:

```
!pip install pipwin
```

Collecting pipwin

Downloading pipwin-0.5.1.tar.gz (8.8 kB)

Collecting docopt

Downloading docopt-0.6.2.tar.gz (25 kB)

Requirement already satisfied: requests in c:\users\prathu lachireddy\anaconda3\lib\site-packages (from pipwin) (2.24.0)

Collecting pyprind

Downloading PyPrind-2.11.3-py2.py3-none-any.whl (8.4 kB)

Requirement already satisfied: six in c:\users\prathu lachireddy\anaconda3\lib\site-packages (from pipwin) (1.15.0)

Requirement already satisfied: beautifulsoup4>=4.9.0 in c:\users\prathu lachireddy\anaconda3\lib\site-packages (from pipwin) (4.9.3)

Collecting js2py

Downloading Js2Py-0.71-py3-none-any.whl (1.0 MB)

Requirement already satisfied: packaging in c:\users\prathu lachireddy\anaconda3\lib\site-packages (from pipwin) (20.4)

Collecting pySmartDL>=1.3.1

Downloading pySmartDL-1.3.4-py3-none-any.whl (20 kB)

Requirement already satisfied: chardet<4,>=3.0.2 in c:\users\prathu lachireddy\anaconda3\lib\site-packages (from requests->pipwin) (3.0.4)

Requirement already satisfied: certifi>=2017.4.17 in c:\users\prathu lachireddy\anaconda3\lib\site-packages (from requests->pipwin) (2020.6.20)

Requirement already satisfied: urllib3!=1.25.0,!1.25.1,<1.26,>=1.21.1 in c:\users\prathu lachireddy\anaconda3\lib\site-packages (from requests->pipwin) (1.25.11)

Requirement already satisfied: idna<3,>=2.5 in c:\users\prathu lachireddy\anaconda3\lib\site-packages (from requests->pipwin) (2.10)

Requirement already satisfied: soupsieve>1.2; python\_version >= "3.0" in c:\users\prathu lachireddy\anaconda3\lib\site-packages (from beautifulsoup4>=4.9.0->pipwin) (2.0.1)

Collecting tzlocal>=1.2

Downloading tzlocal-2.1-py2.py3-none-any.whl (16 kB)

Collecting pyjsparser>=2.5.1

Downloading pyjsparser-2.7.1.tar.gz (24 kB)

Requirement already satisfied: pyparsing>=2.0.2 in c:\users\prathu lachireddy\anaconda3\lib\site-packages (from packaging->pipwin) (2.4.7)

Requirement already satisfied: pytz in c:\users\prathu lachireddy\anaconda3\lib\site-packages (from tzlocal>=1.2->js2py->pipwin) (2020.1)

Building wheels for collected packages: pipwin, docopt, pyjsparser

Building wheel for pipwin (setup.py): started

Building wheel for pipwin (setup.py): finished with status 'done'

Created wheel for pipwin: filename=pipwin-0.5.1-py2.py3-none-any.whl size=8784 sha256=547335901beb2b771d2eb4c7017d07bbabe313832ddb4ddb80d846e0cfb09b66

Stored in directory: c:\users\prathu lachireddy\appdata\local\pip\cache\wheels\94\1b\63\6465d24b53c03f566cfb25a7a9b806b4b0e29c95d82ac189d8

Building wheel for docopt (setup.py): started

Building wheel for docopt (setup.py): finished with status 'done'

Created wheel for docopt: filename=docopt-0.6.2-py2.py3-none-any.whl size=13709 sha256=291b0dd0e5a9afce860a75141e31d82ff3473da4d7a81133ed15749e7e5cd74f

Stored in directory: c:\users\prathu lachireddy\appdata\local\pip\cache\wheels\56\ea\58\ead137b087d9e326852a851351d1debf4ada529b6ac0ec4e8c

Building wheel for pyjsparser (setup.py): started

Building wheel for pyjsparser (setup.py): finished with status 'done'

Created wheel for pyjsparser: filename=pyjsparser-2.7.1-py3-none-any.whl size=26004 sha256=76a1594bc2dc1a6f01b7d6a107744e58a593447edd80b303f2beb4a4f36e72d5

Stored in directory: c:\users\prathu lachireddy\appdata\local\pip\cache\wheels\d5\88\34\ccb5bb40eb3178a134eb293e6c363928c5bcfba0b91031db76  
Successfully built pipwin docopt pyjsparser  
Installing collected packages: docopt, pyprind, tzlocal, pyjsparser, js2py, pySmartDL, pipwin  
Successfully installed docopt-0.6.2 js2py-0.71 pipwin-0.5.1 pySmartDL-1.3.4 pyjsparser-2.7.1 pyprind-2.11.3 tzlocal-2.1

Link: -<https://github.com/gauravbhambhani/Sentiment-Analyzer/blob/main/code.py>.  
(<https://github.com/gauravbhambhani/Sentiment-Analyzer/blob/main/code.py>).

In [2]:

```
!pip install SpeechRecognition
```

Collecting SpeechRecognition

Downloading SpeechRecognition-3.8.1-py2.py3-none-any.whl (32.8 MB)

Installing collected packages: SpeechRecognition

Successfully installed SpeechRecognition-3.8.1

In [2]:

```
import speech_recognition as sr
```

In [3]:

```
import webbrowser
```

```
r= sr.Recognizer()
```

In [8]:

```
import speech_recognition as sr

r= sr.Recognizer()

with sr.Microphone() as source:
    print("What do want to search?")
    audio = r.listen(source)

try:
    txt = r.recognize_google(audio)
    print("You said:", txt)
except sr.UnknownValueError:
    print("I could not catch that")
except sr.RequestError as e:
    print("Could not request results; {}".format(e))
```

What do want to search?

You said: hello Google

In [ ]:

In [ ]: