**Python Text To Speech | pyttsx module**

**pyttsx** is a cross-platform text to speech library which is platform independent. The major advantage of using this library for text-to-speech conversion is that it works offline.

However, *pyttsx*supports only Python 2.x. Hence, we will see pyttsx3 which is modified to work on both Python 2.x and Python 3.x with the same code.

***!pip install pyttsx3***

**Usage –**

First we need to import the library and then initialise it using init() function. This function may take 2 arguments.

***init(driverName string, debug bool)***

* ***driverName string:*** [Name of available driver] ***sapi5***on Windows | ***nsss***on MacOS
* ***debug bool:*** to enable or disable debug output

After initialisation, we will make the program speak the text using say() function. This method may also take 2 arguments.  
***say(text unicode, name string)***

* ***text unicode:*** Any text you wish to hear.
* ***name string* :** To set a name for this speech. (optional)

Finally, to run the speech we use runAndWait() All the say() texts won’t be said unless the interpreter encounters runAndWait().

**For example:**

***Code #1:****Speaking Text*

|  |
| --- |
| # importing the pyttsx library  import pyttsx3    # initialisation  engine = pyttsx3.init()    # testing  engine.say("My first code on text-to-speech")  engine.say("Thank you")  engine.runAndWait() |

***Code #2:****Listening for events*

|  |
| --- |
| import pyttsx3  ~~def onStart():~~  ~~print('starting')~~  ~~def onWord(name, location, length):~~  ~~print('word', name, location, length)~~  ~~def onEnd(name, completed):~~  ~~print('finishing', name, completed)~~  engine = pyttsx3.init()  ~~engine.connect('started-utterance', onStart)~~  ~~engine.connect('started-word', onWord)~~  ~~engine.connect('finished-utterance', onEnd)~~  sen = 'Global warming is the long-term rise in the average temperature  of the Earth’s climate system'    engine.say(sen)  engine.runAndWait() |

**Why pyttsx?**

It works offline, unlike other text-to-speech libraries. Rather than saving the text as audio file, *pyttsx*actually speaks it there. This makes it more reliable to use for voice-based projects.