Task

On

Speech to Text

**Course**: Artificial Intelligence

(Machine Learning & Deep Learning)

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Peshawar

[1]:

[2]:

**1 Speech Recognition | Audio File**

Load an audio file. Listen to the audio, then store in text variable

!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

Requirement already satisfied: IPython in c:\users\furqan khalil\anaconda3\lib\site-packages (7.22.0)

Collecting IPython

Downloading ipython-7.29.0-py3-none-any.whl (790 kB) Requirement already satisfied: pickleshare in c:\users\furqan khalil\anaconda3\lib\site-packages (from IPython) (0.7.5) Requirement already satisfied: decorator in c:\users\furqan khalil\anaconda3\lib\site-packages (from IPython) (5.0.6)

Requirement already satisfied: prompt-toolkit!=3.0.0,!=3.0.1,<3.1.0,>=2.0.0 in c:\users\furqan khalil\anaconda3\lib\site-packages (from IPython) (3.0.17) Requirement already satisfied: pygments in c:\users\furqan khalil\anaconda3\lib\site-packages (from IPython) (2.8.1)

Requirement already satisfied: backcall in c:\users\furqan khalil\anaconda3\lib\site-packages (from IPython) (0.2.0) Requirement already satisfied: traitlets>=4.2 in c:\users\furqan khalil\anaconda3\lib\site-packages (from IPython) (5.0.5) Collecting matplotlib-inline

Downloading matplotlib\_inline-0.1.3-py3-none-any.whl (8.2 kB) Requirement already satisfied: colorama in c:\users\furqan khalil\anaconda3\lib\site-packages (from IPython) (0.4.4) Requirement already satisfied: jedi>=0.16 in c:\users\furqan khalil\anaconda3\lib\site-packages (from IPython) (0.17.2)

Requirement already satisfied: setuptools>=18.5 in c:\users\furqan khalil\anaconda3\lib\site-packages (from IPython) (52.0.0.post20210125) Requirement already satisfied: parso<0.8.0,>=0.7.0 in c:\users\furqan khalil\anaconda3\lib\site-packages (from jedi>=0.16->IPython) (0.7.0)

[3]:

Requirement already satisfied: wcwidth in c:\users\furqan khalil\anaconda3\lib\site-packages (from prompt- toolkit!=3.0.0,!=3.0.1,<3.1.0,>=2.0.0->IPython) (0.2.5)

Requirement already satisfied: ipython-genutils in c:\users\furqan khalil\anaconda3\lib\site-packages (from traitlets>=4.2->IPython) (0.2.0) Installing collected packages: matplotlib-inline, IPython

Attempting uninstall: IPython

Found existing installation: ipython 7.22.0 Uninstalling ipython-7.22.0:

Successfully uninstalled ipython-7.22.0

Successfully installed IPython-7.29.0 matplotlib-inline-0.1.3

ERROR: pip's dependency resolver does not currently take into account all the packages that are installed. This behaviour is the source of the following dependency conflicts.

spyder 4.2.5 requires pyqt5<5.13, which is not installed.

spyder 4.2.5 requires pyqtwebengine<5.13, which is not installed.

librosa: python package for music and audio analysis [resource to learn more about Librosa](https://librosa.org/doc/latest/tutorial.html) display module: Public API for display tools in IPython.the Class IPython.display.Audio creates an audio object.

[4]:

[5]:

<IPython.core.display.HTML object>

Saving Welcome.wav to Welcome.wav

lobrisa.loadLoad an audio file as a floating point time series. When this object is returned by an input cell or passed to the display function, it will result in Audio controls being displayed

[6]:

Output hidden; open in https://colab.research.google.com to view.

rate (integer) – The sampling rate of the raw data.

Speech Recognizer ClassEach recognize\_\*() method will throw a speech\_recognition. its primary purpose is to recognise speech. Using the recognize\_google instance.Initialize class for recognizing the speech)

Listen Speech file and store it in the text variable. recognize speech using Google Speech Recognition

[7]:

**with** sr.AudioFile('Welcome.wav') **as** source:

*#use the Merry Christmas-SoundBible.com-1120316507.wav as the AudiFIle -*␣

*‹→which is our source*

*#listen for the first phrase and extract it into audio data*

speech= audio\_rec.listen(source)

**try**:

*#using google speech recognition*

text = audio\_rec.recognize\_google(speech) print('You Said: ')

print(text)

**except**:

print('could not undertand audio')

[ ]:

You Said:

thank you for choosing the Olympus dictation management system the Olympus dictation management system gives you the power to manage your dictations transcriptions and document seamlessly and to improve the productivity of your daily work for example you can automatically send the dictation files or transcribed documents do your assistant ociosa via email or fdp