

## a. Import NLTK.

```

C:\Windows\System32\cmd.exe
Microsoft Windows [Version 10.0.22631.4890]
(c) Microsoft Corporation. All rights reserved.

C:\Users\acer\AppData\Local\Programs\Python\Python312\Scripts>pip install nltk
Requirement already satisfied: nltk in c:\users\acer\appdata\local\programs\python\python312\lib\site-packages (3.9.1)
Requirement already satisfied: click in c:\users\acer\appdata\local\programs\python\python312\lib\site-packages (from nl
tk) (8.1.7)
Requirement already satisfied: joblib in c:\users\acer\appdata\local\programs\python\python312\lib\site-packages (from n
ltk) (1.3.2)
Requirement already satisfied: regex>=2021.8.3 in c:\users\acer\appdata\local\programs\python\python312\lib\site-package
s (from nltk) (2024.11.6)
Requirement already satisfied: tqdm in c:\users\acer\appdata\local\programs\python\python312\lib\site-packages (from nlt
k) (4.67.1)
Requirement already satisfied: colorama in c:\users\acer\appdata\local\programs\python\python312\lib\site-packages (from
click->nltk) (0.4.6)

[notice] A new release of pip is available: 23.2.1 -> 25.0.1
[notice] To update, run: python.exe -m pip install --upgrade pip

C:\Users\acer\AppData\Local\Programs\Python\Python312\Scripts>

```

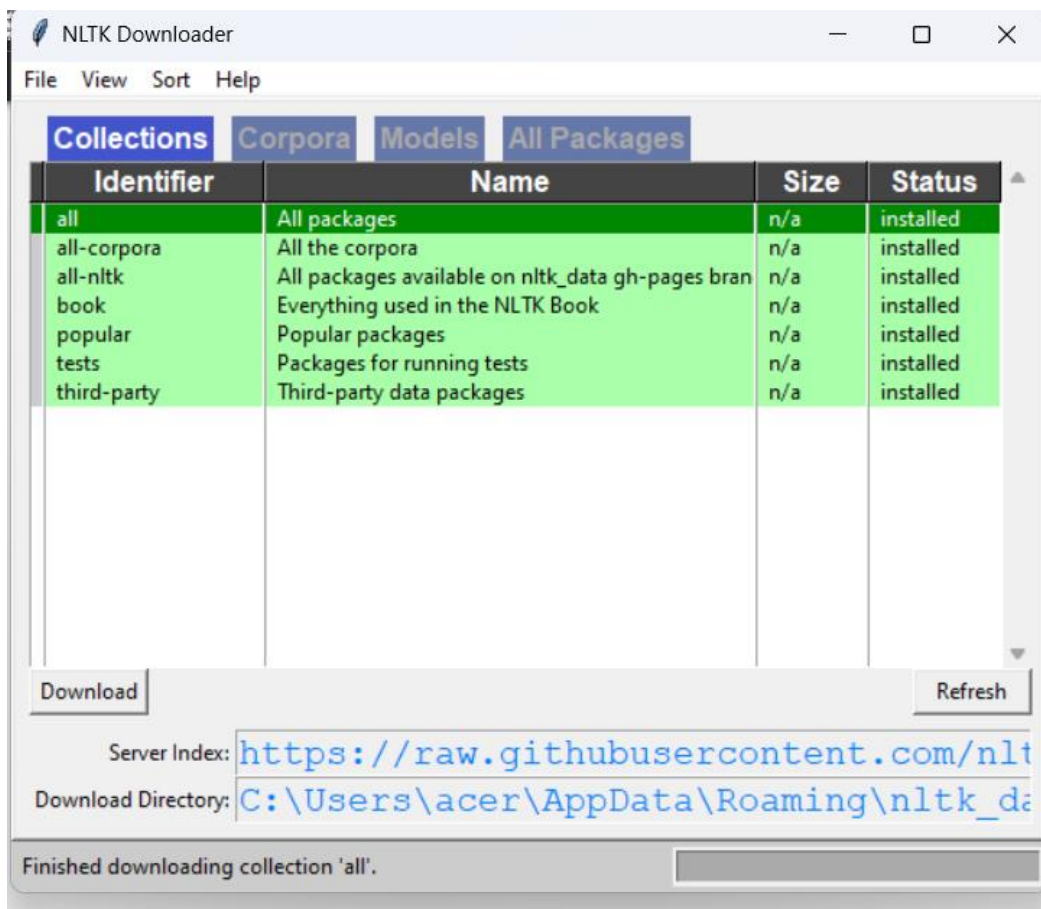
import nltk

nltk.download()

```

showing info https://raw.githubusercontent.com/nltk/nltk_data/gh-pages/index.xml
True

```



```
from nltk.corpus import brown
```

```
brown.words()
```

```
| ['The', 'Fulton', 'County', 'Grand', 'Jury', 'said', ...]
```

**b. Convert the given speech to text.**

Code:

```
import speech_recognition as sr

filename = "D://MSc.IT//sem_4//NLP//NLP_practical//NLP_prac_codes//female.wav"

#initialize the recognizer

r = sr.Recognizer()

#open the file

with sr.AudioFile(filename) as source:

    #listen for the data (load audio into memory)

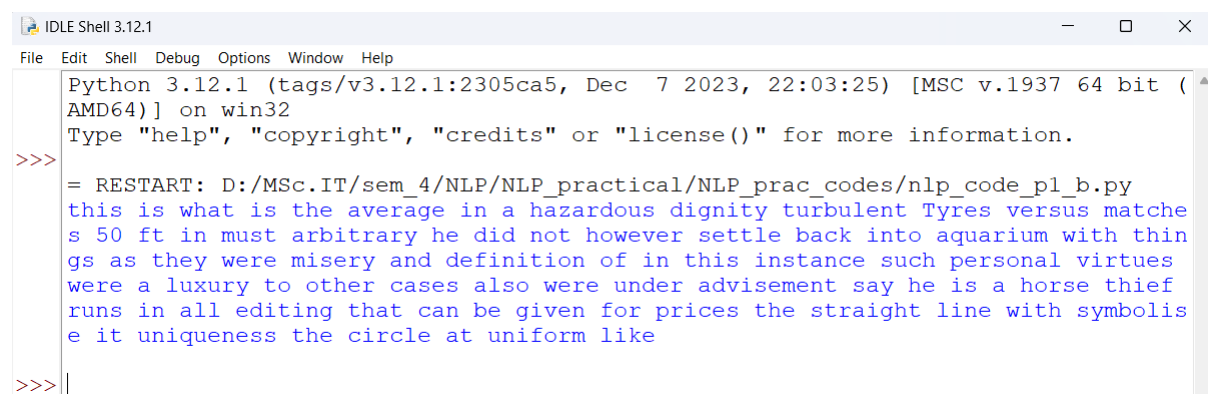
    audio_data = r.record(source)

    #recognize (convert from speech into text)

    text = r.recognize_google(audio_data)

    print(text)
```

Output:



```
IDLE Shell 3.12.1
File Edit Shell Debug Options Window Help
Python 3.12.1 (tags/v3.12.1:2305ca5, Dec 7 2023, 22:03:25) [MSC v.1937 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>> = RESTART: D:/MSc.IT/sem_4/NLP/NLP_practical/NLP_prac_codes/nlp_code_p1_b.py
this is what is the average in a hazardous dignity turbulent Tyres versus matches
s 50 ft in must arbitrary he did not however settle back into aquarium with thin
gs as they were misery and definition of in this instance such personal virtues
were a luxury to other cases also were under advisement say he is a horse thief
runs in all editing that can be given for prices the straight line with symbolis
e it uniqueness the circle at uniform like
>>> |
```

**c. Convert the given text to speech.**

Code:

```
#Import the gTTS module for text to speech
from gtts import gTTS
#This module is imported so that we can play the converted audio
from playsound import playsound

#It is a text value that we want to convert to audio
text_val = 'You are studying Natural Language Processing. Better Speak in English'

#Here are converting in English Language
language = 'en'

#Passing the text and language to the engine, here we have assigned
#the module that the transformed audio should have a high speed
obj = gTTS(text = text_val, lang = language, slow = False)

#Here we are saving the transformed audio in a mp3 file named exam.mp3
obj.save("exam.mp3")

#Play the exam.mp3 file
playsound("exam.mp3")
```

Output:

