

Documentación Codelab I

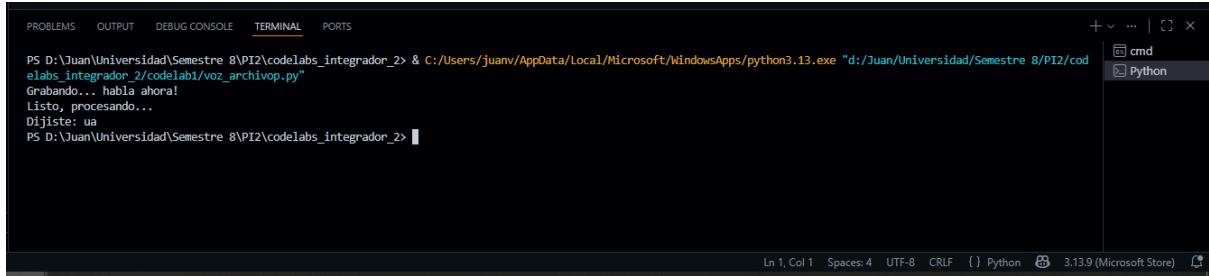
1. Se Configura la librería: Se agrega el idioma y el formato en el que se va a guardar para procesar el audio

```
codelab1 > ➜ voz_archivop.py > ...
1  import sounddevice as sd
2  from scipy.io.wavfile import write
3  import speech_recognition as sr
4  import tempfile, os
5
6  SRATE = 16000      # tasa de muestreo
7  DUR = 5
8
9  print("Grabando... habla ahora!")
10 audio = sd.rec(int(DUR*SRATE), samplerate=SRATE, channels=1, dtype='int16')
11 sd.wait()
12 print("Listo, procesando...")
13
14 # guarda a WAV temporal
15 tmp_wav = tempfile.mktemp(suffix=".wav")
16 write(tmp_wav, SRATE, audio)
17
18 # reconoce con SpeechRecognition
19 r = sr.Recognizer()
20 with sr.AudioFile(tmp_wav) as source:
21     data = r.record(source)
22
23 try:
24     texto = r.recognize_google(data, language="es-ES")
25     print("Dijiste:", texto)
26 except sr.UnknownValueError:
27     print("No se entendió el audio.")
28 except sr.RequestError as e:
29     print("Error:", e)
30 finally:
31     if os.path.exists(tmp_wav):
32         os.remove(tmp_wav)
```

2. Se definen los comandos:

```
34  #----- COMANDOS -----
35
36 cmd = texto.lower()
37
38 if "hola" in cmd:
39     print("¡Hola, bienvenido al curso!")
40
41 elif "abrir google" in cmd:
42     import webbrowser
43     webbrowser.open("https://www.google.com")
44
45 elif "abrir steam" in cmd:
46     import subprocess
47     posibles_rutas = [
48         r"C:\Program Files (x86)\Steam\steam.exe",
49         r"C:\Program Files\Steam\steam.exe"
50     ]
51     ruta_steam = next((p for p in posibles_rutas if os.path.exists(p)), None)
52     if ruta_steam:
53         try:
54             subprocess.run([ruta_steam], check=False)
55         except Exception as e:
56             print("No se pudo abrir Steam:", e)
57     else:
58         print("No encontré steam.exe. Verifica la ruta de instalación.")
59
60 elif "clima" in cmd:
61     import webbrowser
62     webbrowser.open("https://www.accuweather.com/es/co/tulua/106801/weather-forecast/106801")
63
64 elif "ua" in cmd:
65     import webbrowser
66     webbrowser.open("https://youtube.com/clip/UgkxRXSPStMIVf0FXaoXWRq1Dr0LopJTrHv_?si=xpBuixohfGWrxyTl")
67
68 elif "hora" in cmd:
69     from datetime import datetime
70     print("Hora actual:", datetime.now().strftime("%H:%M"))
71 else:
72     print("Comando no reconocido.")
```

3. Se ejecuta:



A screenshot of a terminal window titled "cmd" within a Microsoft Visual Studio Code interface. The terminal shows the following command and its output:

```
PS D:\Juan\Universidad\Semestre 8\PI2\codeLabs_integrador_2> & C:/Users/juanv/AppData/Local/Microsoft/WindowsApps/python3.13.exe "d:/Juan/Universidad/Semestre 8/PI2/cod
elabs_integrador_2/codeLab1/voz_archivo.py"
Grabando... habla ahora!
Listo, procesando...
Dijiste: ua
PS D:\Juan\Universidad\Semestre 8\PI2\codeLabs_integrador_2>
```

The status bar at the bottom indicates "Ln 1, Col 1 Spaces: 4 UTF-8 CRLF (Python 3.13.9 (Microsoft Store) ".

