**EXP 08:** **Capture Video/Audio from Webcam or Microphone and Display on Multimedia Interface**

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**CODE:**

**import cv2**

**import sounddevice as sd**

**from scipy.io.wavfile import write**

**import threading**

**import tkinter as tk**

**def rec\_audio():**

**dur = 5**

**fs = 44100**

**print("Recording...")**

**a = sd.rec(int(dur \* fs), samplerate=fs, channels=2)**

**sd.wait()**

**write('recorded\_audio.wav', fs, a)**

**print("Saved as recorded\_audio.wav")**

**def cam\_video():**

**cap = cv2.VideoCapture(0)**

**print("Press q to stop")**

**while True:**

**ret, frame = cap.read()**

**if not ret:**

**break**

**cv2.imshow("Camera", frame)**

**if cv2.waitKey(1) & 0xFF == ord('q'):**

**break**

**cap.release()**

**cv2.destroyAllWindows()**

**win = tk.Tk()**

**win.title("Audio Video Capture")**

**b1 = tk.Button(win, text="Record Audio", command=lambda: threading.Thread(target=rec\_audio).start())**

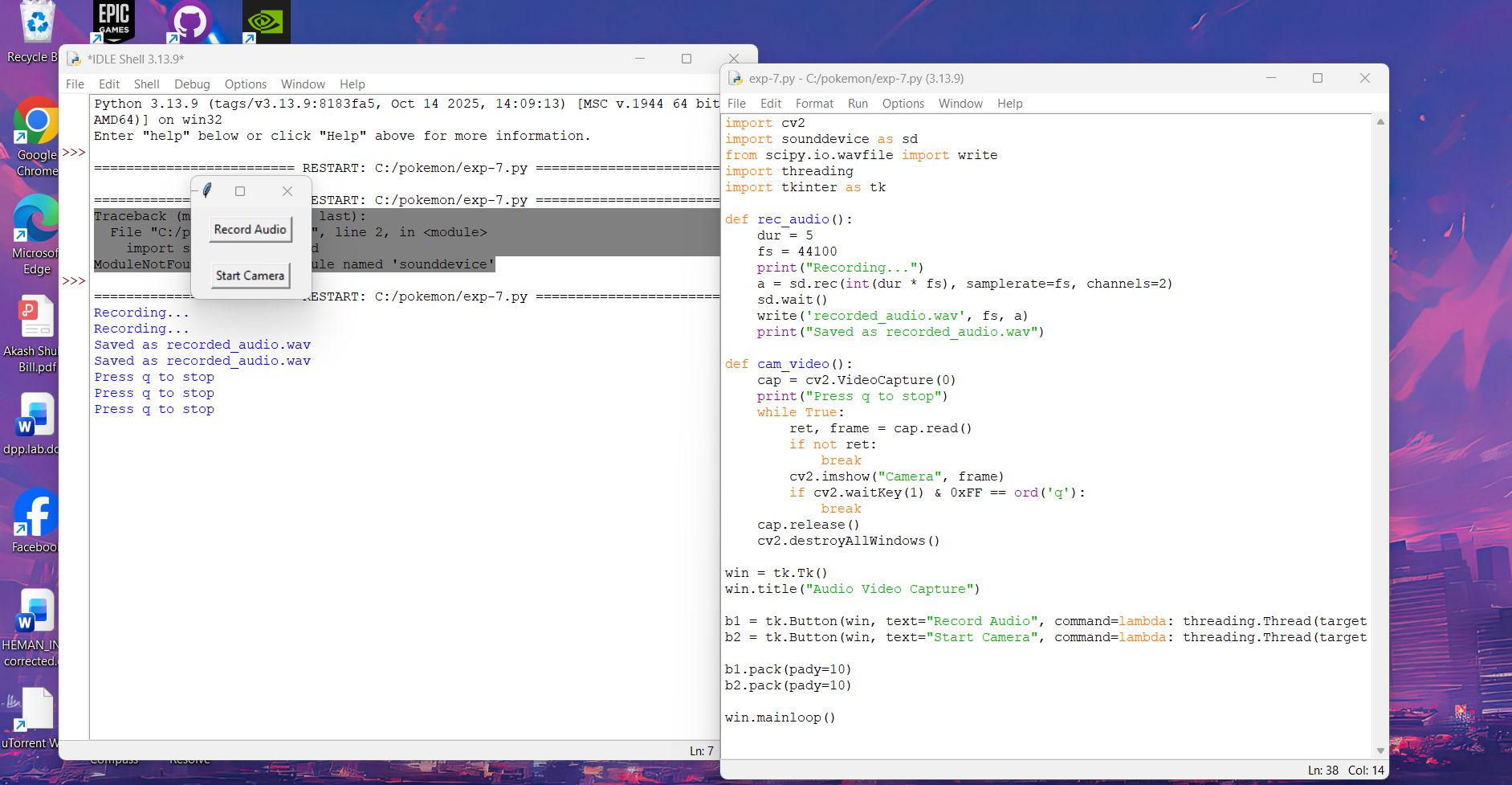
**b2 = tk.Button(win, text="Start Camera", command=lambda: threading.Thread(target=cam\_video).start())**

**b1.pack(pady=10)**

**b2.pack(pady=10)**

**win.mainloop()**

**OUTPUT:**

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