EXP-7

**Create a Multimedia Application that Integrates Images, Sound, and Video in a Simple User Interface**

# Aim:

To develop a simple multimedia application that integrates:

* Images  Audio  Video

into a unified user interface using Python and suitable libraries.

# Procedure:

1. Use a Python GUI framework (e.g., tkinter).
2. Integrate:
   * Image loading and display using PIL (Pillow).
   * Audio playback using pygame or playsound.
   * Video playback using opencv or tkinter with ffpyplayer.
3. Arrange all elements in a basic GUI.
4. Provide buttons to trigger media playback.

# Code:

import tkinter as tk

from PIL import Image, ImageTk from playsound import playsound import cv2

import threading

# --- Function to play audio --- def play\_audio():

playsound('sample\_audio.mp3') # Replace with your audio file name

# --- Function to play video --- def play\_video():

cap = cv2.VideoCapture('sample\_video.mp4') # Replace with your video file name while cap.isOpened():

ret, frame = cap.read() if not ret:

break cv2.imshow("Video", frame)

if cv2.waitKey(25) & 0xFF == ord('q'): # Press 'q' to quit break

cap.release() cv2.destroyAllWindows()

# --- Function to load and display image --- def load\_image():

img = Image.open('sample\_image.jpg') # Replace with your image file name img = img.resize((300, 300))

img\_tk = ImageTk.PhotoImage(img) panel.configure(image=img\_tk) panel.image = img\_tk

# --- GUI Setup ---

window = tk.Tk() window.title("Multimedia App")

panel = tk.Label(window)

panel.pack()

btn\_img = tk.Button(window, text="Show Image", command=load\_image)

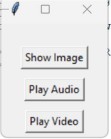
btn\_audio = tk.Button(window, text="Play Audio", command=lambda: threading.Thread(target=play\_audio).start())

btn\_video = tk.Button(window, text="Play Video", command=lambda: threading.Thread(target=play\_video).start())

btn\_img.pack(pady=5) btn\_audio.pack(pady=5) btn\_video.pack(pady=5)

window.mainloop()

# Output:

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**Result:**

A multimedia application was successfully created that integrates image, audio, and video functionality into a single interactive interface.