# OS PROJECT

MOOD-BASED MUSIC PLAYER

CODE

**from tkinter import \***

**import pygame**

**from tkinter import filedialog**

**import cv2**

**import requests**

**import matplotlib.pyplot as plt**

**from deepface import DeepFace**

**root = Tk()**

**root.geometry("500x400")**

**root.title('MP3 player')**

**pygame.mixer.init()**

**emotion\_var = StringVar()**

**# Create a VideoCapture object**

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

**# Check if the camera is opened successfully**

**if not cap.isOpened():**

**print("Could not open camera")**

**exit()**

**# Capture a frame**

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

**# Check if the frame is captured successfully**

**if not ret:**

**print("Could not capture frame")**

**exit()**

**# Save the frame to a file**

**cv2.imwrite('capture.jpg', frame)**

**# Release the camera**

**cap.release()**

**img = cv2.imread("capture.jpg")**

**plt.imshow(img[:, :, :: -1])**

**# ensures that the image is displayed**

**plt.show()**

**# Add the emotion-based song selection feature**

**result = DeepFace.analyze(img, actions = ['emotion'])**

**# print result**

**print(result)**

**query = str(max(zip(result[0]['emotion'].values(), result[0]['emotion'].keys()))[1])**

**print(query)**

**emotion\_var=query**

**def add\_song():**

**# Set the value of the emotion variable**

**song\_directory = '<file\_path>'+emotion\_var**

**song = filedialog.askopenfilename(**

**initialdir=song\_directory, title="Choose a song", filetypes=(("mp3 Files", "\*.mp3"), ))**

**song = song.replace('<file\_path>'+emotion\_var+'/', "")**

**song = song.replace(".mp3", "")**

**song\_box.insert(END, song)**

**# Add the emotion-based multiple song selection feature**

**def add\_many\_song():**

**# Set the value of the emotion variable**

**songs = filedialog.askopenfilenames(**

**initialdir='<file\_path>'+emotion\_var,**

**title="Choose songs", filetypes=(("mp3 Files", "\*.mp3"), ))**

**for song in songs:**

**song = song.replace(<file\_path>'+emotion\_var+'/', "")**

**song = song.replace(".mp3", "")**

**song\_box.insert(END, song)**

**# Modified play function with updated file path and emotion argument**

**def play():**

**song = song\_box.get(ACTIVE)**

**song\_directory = '<file\_path>'/'+song+'.mp3'**

**pygame.mixer.music.load(song\_directory)**

**pygame.mixer.music.play(loops=0)**

**def stop():**

**pygame.mixer.music.stop()**

**song\_box.select\_clear(ACTIVE)**

**def next\_song():**

**next\_one = song\_box.curselection()**

**next\_one = next\_one[0]+1**

**song = song\_box.get(next\_one)**

**song =’ <file\_path>'+emotion\_var+'/'+song+'.mp3'**

**pygame.mixer.music.load(song)**

**pygame.mixer.music.play(loops=0)**

**song\_box.selection\_clear(0, END)**

**song\_box.activate(next\_one)**

**song\_box.selection\_set(next\_one, last=None)**

**def previous\_song():**

**next\_one = song\_box.curselection()**

**next\_one = next\_one[0]-1**

**song = song\_box.get(next\_one)**

**song = '<file\_path>'+emotion\_var+'/'+song+'.mp3'**

**pygame.mixer.music.load(song)**

**pygame.mixer.music.play(loops=0)**

**song\_box.selection\_clear(0, END)**

**song\_box.activate(next\_one)**

**song\_box.selection\_set(next\_one, last=None)**

**def delete\_song():**

**song\_box.delete(ANCHOR)**

**pygame.mixer.music.stop()**

**def delete\_all\_songs():**

**song\_box.delete(0, END)**

**pygame.mixer.music.stop()**

**global paused**

**paused = False**

**def pause(is\_paused):**

**global paused**

**paused = is\_paused**

**if paused:**

**pygame.mixer.music.unpause()**

**paused = False**

**else:**

**pygame.mixer.music.pause()**

**paused = True**

**song\_box = Listbox(root, bg="black", fg="white", width=60,**

**selectbackground="gray", selectforeground="black")**

**song\_box.pack(pady=20)**

**back\_btn\_img = PhotoImage(file='<file\_path>/back.png')**

**forward\_btn\_img = PhotoImage(file='<file\_path>/forward.png')**

**play\_btn\_img = PhotoImage(file='<file\_path>/play.png')**

**pause\_btn\_img = PhotoImage(file='<file\_path>/pause.png')**

**stop\_btn\_img = PhotoImage(file=’<file\_path>/stop.png')**

**controls\_frame = Frame(root)**

**controls\_frame.pack()**

**back\_button = Button(controls\_frame, image=back\_btn\_img,**

**borderwidth=0, command=previous\_song)**

**forward\_button = Button(**

**controls\_frame, image=forward\_btn\_img, borderwidth=0, command=next\_song)**

**play\_button = Button(controls\_frame, image=play\_btn\_img,**

**borderwidth=0, command=play)**

**pause\_button = Button(controls\_frame, image=pause\_btn\_img,**

**borderwidth=0, command=lambda: pause(paused))**

**stop\_button = Button(controls\_frame, image=stop\_btn\_img,**

**borderwidth=0, command=stop)**

**back\_button.grid(row=0, column=0, padx=10)**

**forward\_button.grid(row=0, column=1, padx=10)**

**play\_button.grid(row=0, column=2, padx=10)**

**pause\_button.grid(row=0, column=3, padx=10)**

**stop\_button.grid(row=0, column=4, padx=10)**

**my\_menu = Menu(root)**

**root.config(menu=my\_menu)**

**add\_song\_menu = Menu(my\_menu)**

**my\_menu.add\_cascade(label="Add songs", menu=add\_song\_menu)**

**add\_song\_menu.add\_command(label="Add one song to playlist", command=add\_song)**

**add\_song\_menu.add\_command(**

**label="Add Many song to playlist", command=add\_many\_song)**

**remove\_song\_menu = Menu(my\_menu)**

**my\_menu.add\_cascade(label="Remove Songs", menu=remove\_song\_menu)**

**remove\_song\_menu.add\_command(**

**label="Delete a song from playlist", command=delete\_song)**

**remove\_song\_menu.add\_command(**

**label="Delete all songs from playlist", command=delete\_all\_songs)**

**root.mainloop()**