The Music Player

13006107 Introduction to Computers and Programming

Software Engineering Program

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By

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Intro

Music is a powerful tool that humans have invented and developed, music influences emotions and it is proved throughout history that emotions control most of the decisions and influence performances. As an example, whenever you're feeling great you tend to perform better than sitting in silence and it also relaxes your mind to keep yourself from overworking.

Motivation

I think being able to listen to music while working or just relaxing is very crucial to a healthy work environment and increased work performance.Music always keeps me calm when under stressful situations, keeps my focus in check.
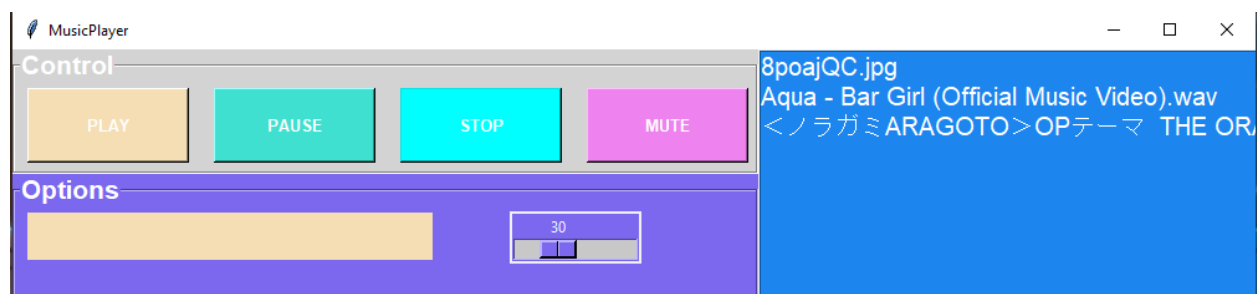
```python
from tkinter import *
import pygame
from pygame import mixer
import os
import tkinter.messagebox

def play():
    global paused
    if paused:
        mixer.music.unpause()
        songstatus.set("Resumed")
        paused = FALSE
    else:
        try:
            stop()
            holder = playlist.get(ACTIVE)
            mixer.music.load(playlist.get(ACTIVE))
            mixer.music.play()
            songstatus.set(f"Playing: {holder}")
        except:
            tkinter.messagebox.showerror("File not found","Please select the file
again! or wrong file type! ")

paused = FALSE
def pause():
    global paused
    paused = TRUE
    mixer.music.pause()
    songstatus.set("Paused")

def stop():
    mixer.music.stop()
    songstatus.set("Stopped")

muted = FALSE
def mute():
    global muted
```

```python
    if muted:
        mixer.music.set_volume(0.3)
        scale.set(30)
        muted = FALSE
    else:
        mixer.music.set_volume(0)
        scale.set(0)
        songstatus.set("MUTED")
        muted = TRUE

def set_vol(i):
    volume= float(i)/100
    mixer.music.set_volume(volume)

root = Tk()
root.geometry("1000x200+200+200")
root.title("MusicPlayer")
pygame.init()
mixer.init()
songstatus = StringVar()

def close():
    stop()
    root.destroy()
root.protocol("WM_DELETE_WINDOW",close)

# Mainframe
frame = LabelFrame(root,text="Control",font
=("Helvetica",16,"bold"),bg="lightgrey",fg="white")
frame.place(x=0,y=0,width=600,height=100)
play_button = Button(frame, width=15, height=3,font
=("Helvetica",10,"bold"),text="PLAY",command=play,
bg="wheat",fg="white").grid(row=0,column=0,padx=10,pady=5)
pause_button = Button(frame, width=15, height=3,
text="PAUSE",command=pause,font =("Helvetica",10,"bold"), bg="turquoise",
fg="white").grid(row=0,column=1,padx=10,pady=5)
```

```python
stop_button = Button(frame, width=15, height=3,
text="STOP",command=stop,font =("Helvetica",10,"bold"), bg="cyan",
fg="white").grid(row=0,column=2,padx=10,pady=5)
unpause_button = Button(frame, width=15, height=3,
text="MUTE",command=mute,font =("Helvetica",10,"bold"), bg="violet",
fg="white").grid(row=0,column=3,padx=10,pady=5)

# Options frame
second_frame = LabelFrame(root,text="Options",font
=("Helvetica",16,"bold"),bg="mediumslateblue",fg="white")
second_frame.place(x=0,y=100,width=600,height=100)
status = Label(second_frame,width=40, height=2,textvariable = songstatus,font
=("Helvetica",10,"bold"),bg="wheat",fg="white").grid(row = 0, column =
1,padx=10,pady=5)

# volume scale
scale = Scale(root,from_=0, to=100,orient=HORIZONTAL,
command=set_vol,bg="mediumslateblue",fg="white")
scale.set(30)
scale.grid(row=0,column = 1,pady = 130, padx=400)
mixer.music.set_volume(0.3)

# Playlist
playlist=Listbox(root,selectmode=SINGLE,bg="DodgerBlue2",fg="white",font=('ari
al',15),width=40)
playlist.grid(columnspan=5)
playlist.place(x=600,y=0,width=600,height=200)

# Directory for songs
os.chdir(r"C:\Users\User\Desktop\Playlist")
songs = os.listdir()
for i in songs:
    playlist.insert(END,i)

mainloop()
```