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1 year ago



In this tutorial, we will learn how to build or create a simple music player application in Python using Tkinter and Pygame.

Listening to music is a hobby of almost every person you meet around daily, for playing this music we need to have installed a music player in our device, each and every operating system whether it is Windows, Linux, Mac or even Android, Apple IOS also consist of a music player for playing your favorite songs.

So In this tutorial, we will be learning how to create a music player from scratch using the Python Programming Language. As we all know Python has a very rich library support, so from the bunch of libraries we are going to use some of them to build our GUI based music player. The libraries we are going to use are:

- **Tkinter** – As it is specified in the title of our tutorial that we are going to use the Tkinter library for GUI creation of our music player, as Tkinter is most popular and very easy to use library that comes with many widgets which helps in creating of seamless and nice-looking GUI Applications.
- **Pygame** – Pygame is also a very library that gives us the power of playing with different multimedia formats like audio, video, etc. In this tutorial, we will be using Pygame's 'mixer.music' module for providing different functionality to are music player application, related to manipulation with the song tracks.
- **OS** – This is a module that comes in the standard library of Python, we don't need to install it explicitly. OS provides different functions for interaction with the Operating System. In this tutorial, we are going to use OS for fetching the playlist of songs from the specified directory and make it available to the music player application.

To learn more about [Tkinter](#) library, [Pygame](#) Library or [OS](#) Module of Python you

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```
$ sudo apt-get install python3-tk
$ pip3 install pygame
```

Now, let's get started with our code:

Source Code: Music player in Python

```
# Importing Required Modules & libraries
from tkinter import *
import pygame
import os

# Defining MusicPlayer Class
class MusicPlayer:

    # Defining Constructor
    def __init__(self, root):
        self.root = root

        # Title of the window
        self.root.title("Music Player")

        # Window Geometry
        self.root.geometry("1000x200+200+200")

        # Initiating Pygame
        pygame.init()

        # Initiating Pygame Mixer
        pygame.mixer.init()

        # Declaring track Variable
        self.track = StringVar()

        # Declaring Status Variable
        self.status = StringVar()

        # Creating Track Frame for Song label & status label
```

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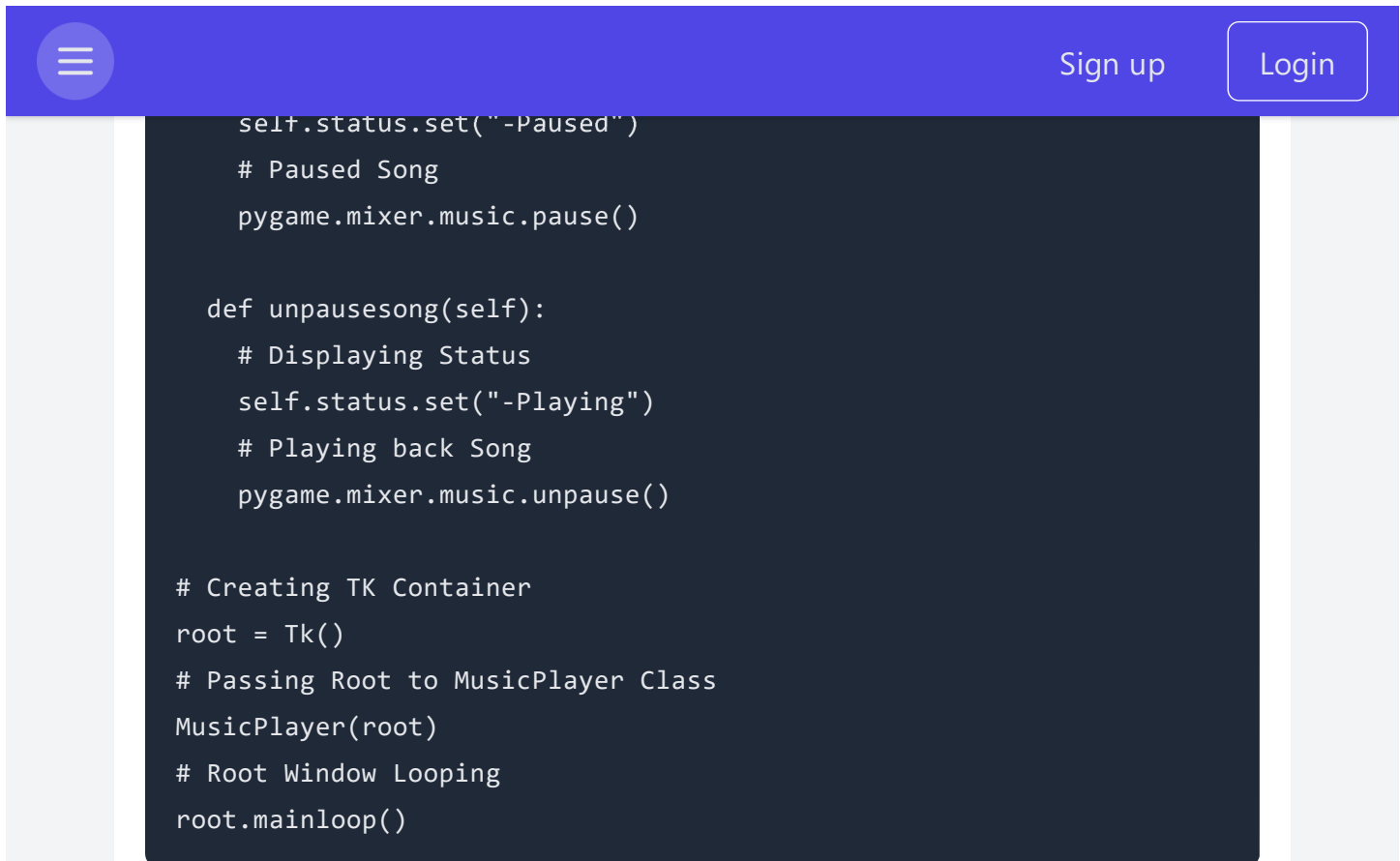
```
# Inserting Pause Button
playbtn = Button(buttonframe,text="PAUSE",command=self.pausesong,w

# Inserting Unpause Button
playbtn = Button(buttonframe,text="UNPAUSE",command=self.unpauseso

# Inserting Stop Button
playbtn = Button(buttonframe,text="STOP",command=self.stopsong,wid

# Creating Playlist Frame
songsframe = LabelFrame(self.root,text="Song Playlist",font=("time
songsframe.place(x=600,y=0,width=400,height=200)
# Inserting scrollbar
scrol_y = Scrollbar(songsframe,orient=VERTICAL)
# Inserting Playlist listbox
self.playlist = Listbox(songsframe,yscrollcommand=scrol_y.set,sele
# Applying Scrollbar to listbox
scrol_y.pack(side=RIGHT,fill=Y)
scrol_y.config(command=self.playlist.yview)
self.playlist.pack(fill=BOTH)
# Changing Directory for fetching Songs
os.chdir("/home/sameer/Desktop/CodeSpeedy/cs10/songs")
# Fetching Songs
songtracks = os.listdir()
# Inserting Songs into Playlist
for track in songtracks:
    self.playlist.insert(END,track)

# Defining Play Song Function
def playsong(self):
```

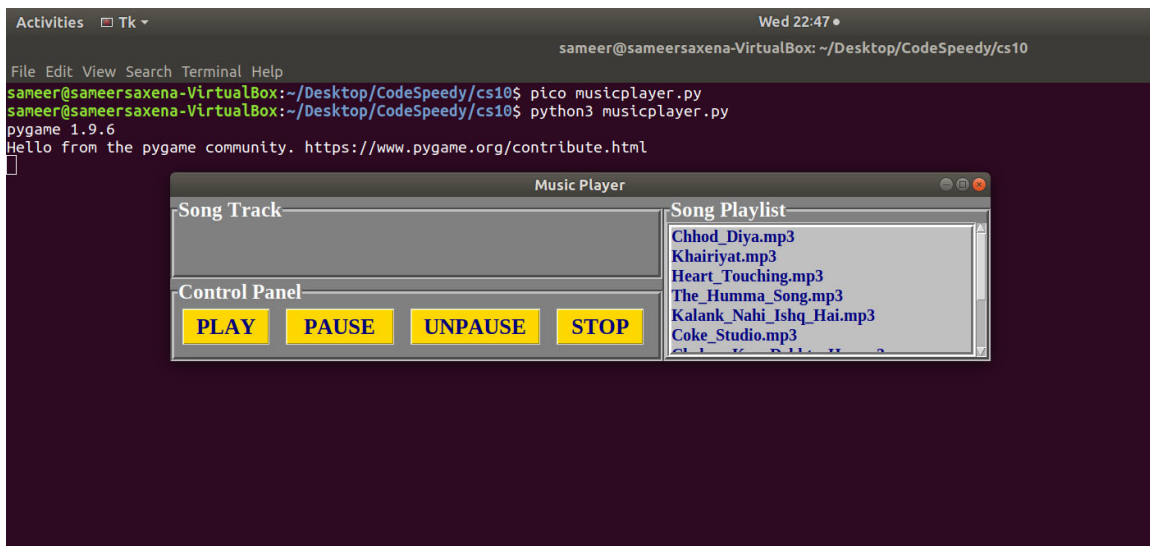


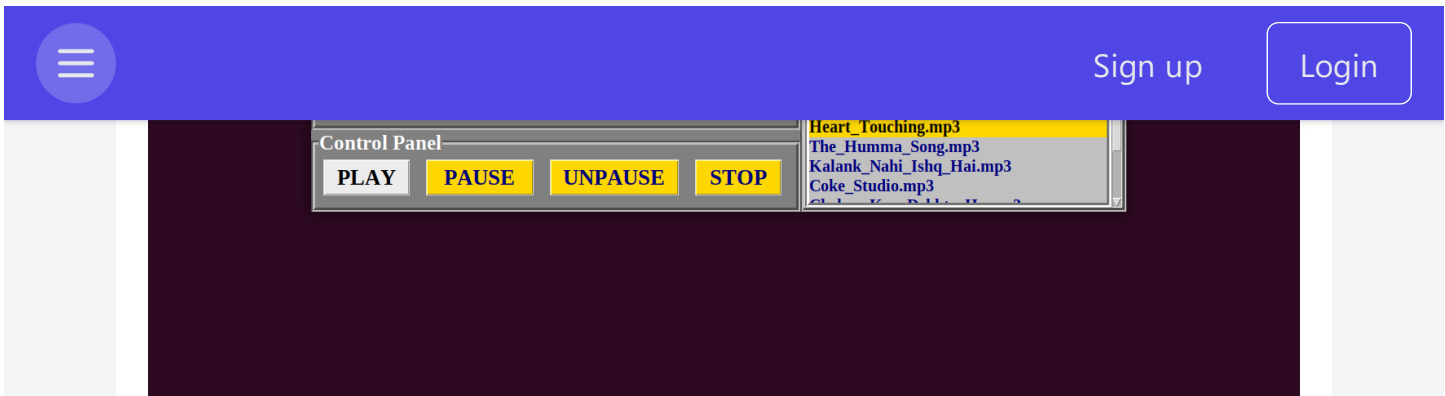
I would recommend you to go through the code thoroughly, it is very easy to understand I had also added comments for almost every single line, for making your understanding better.

Output:

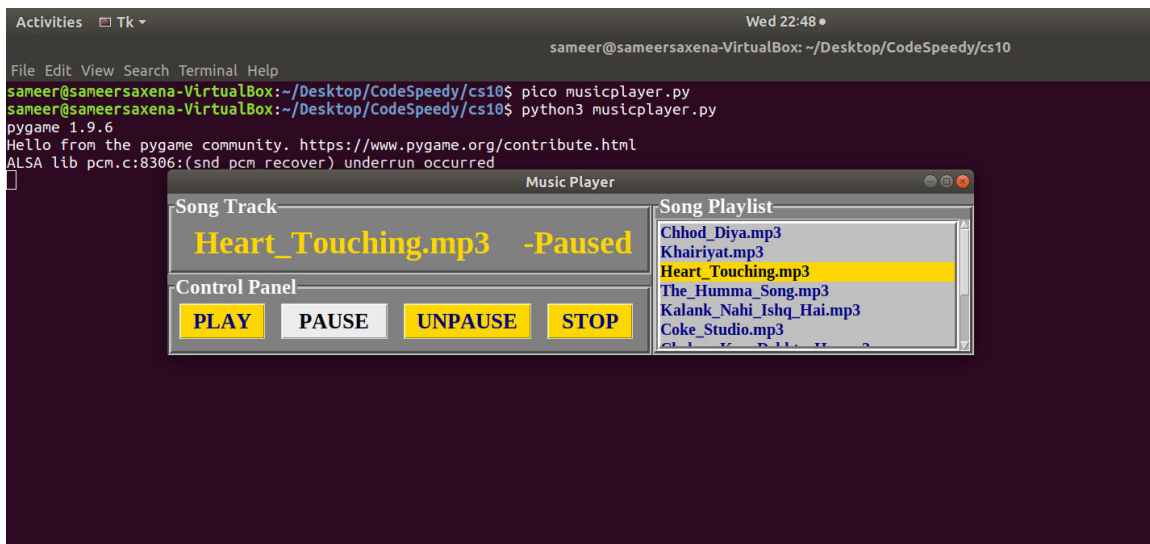


Started the Music Player Application:





Clicked on the PAUSE button, Song Paused:





So In this way, you can create a simple music player using Python. I hope this tutorial was helpful to you, thank you 'keep Learning Keep Coding'.



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