APPENDIX 1

MUSIC PLAYER WITH ATTRACTIV INTERFACE

END TERM REPORT BY

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APPENDIX 2

STUDENT DECLARATION

This is to declare that this report is written by us. No part of the report is copied from other sources. All information included from other sources have been duly acknowledged. We aver that if any part of the report is found to be copied, we shall take full responsibility for it.

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APPENDIX 3

Table of Contents

Background and objectives of the project assigned

This is a Project Report on “Music Player with Attractive Interface”. Our main aim of the project is to develop an application through which users can easily play and listen to their favorite songs and we include user-friendly features so that any user can handle it effortlessly.

During the making or the development of the project we explored new ideas and libraries in python for implementing GUI based Application. The Project is the output of our planning, schedule, programming skills and the hard work and this report reflects our steps taken at various levels of programming skill, planning and schedule. We have learnt a lot during this project in our coding skills and deep concept related to these kinds of projects.

Objective

The main objective of this project is to design cross-platform media player using python and tkinter. Python is really very powerful language; it contains many libraries and modules and this language provides stability to write cross-platform code that can run-on all types of the system without even doing any big changes in codes.

This Python module provides a high-level core Music player interface where you are supposed to provide all the remaining high-level logic like the user interface, the play list logic and the audio data etc.
Our project is “MUSIC PLAYER WITH ATTRACTIVE INTERFACE”. This is a python-based application and our main goal is to enable people to play their local songs using this application. We have included many options like increase volume, decrease volume, selection of the song from your device, pausing and resuming of the song along with a very attractive interface.

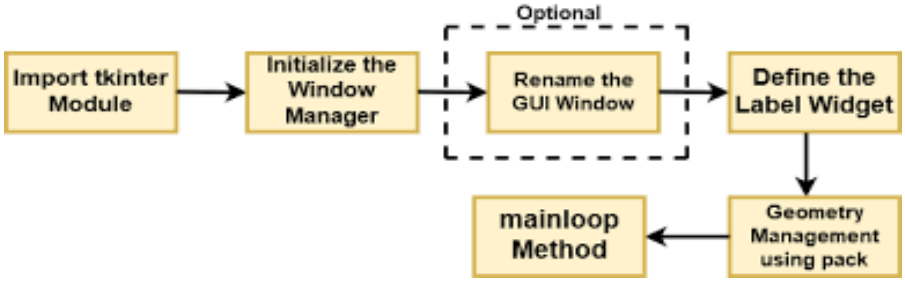
Description of the project

To develop our project, we have used many modules which are listed below

1) Tkinter:

Tkinter is the standard GUI library for Python. Python when combined with Tkinter provides a fast and easy way to create GUI applications. Tkinter provides a powerful object-oriented interface to the TK GUI toolkit Creating a GUI application using Tkinter is an easy task. All you need to do is perform the following steps-

- First, we need to import the tkinter module
- Then we use a root window named 'root' which is used to call title (), geometry (), resizable (), etc...
- Here we even use python tkinter 'Frame' widget as its used to organize the group of widgets. It acts like a container which can be used to hold the other widgets. We have many options which we can add to make our application like border width, fill, expand, etc...
- We also use tkinter label. This is used to implement a display box where we can place text or images.



2) Pygame:

Pygame is a cross –platform set of python module designed for writing video games. It includes computer graphics and sound libraries designed to be used with the Python programming language.

3) Mutagen:

Mutagen is a Python module to handle audio metadata. It supports ASF, FLAC, MP4, Monkey's Audio, MP3, Musepack, Ogg Opus, Ogg FLAC, Ogg Speex, Ogg Theora, Ogg Vorbis, True Audio, WavPack, OptimFROG, and AIFF audio files. It can read Xing headers to accurately calculate the bitrate and length of MP3s. ID3 and APEv2 tags can be edited regardless of audio format. It can also manipulate Ogg streams on an individual packet/page level.

4) Datetime:

In Python, date and time are not a data type of its own, but a module named **datetime** can be imported to work with the date as well as time. **Datetime module** comes built into Python, so there is no need to install it externally.
Datetime module supplies classes to work with date and time. These classes provide a number of functions to deal with dates, times and time intervals. Date and datetime are an object in Python, so when you manipulate them, you are actually manipulating objects and not string or timestamps.

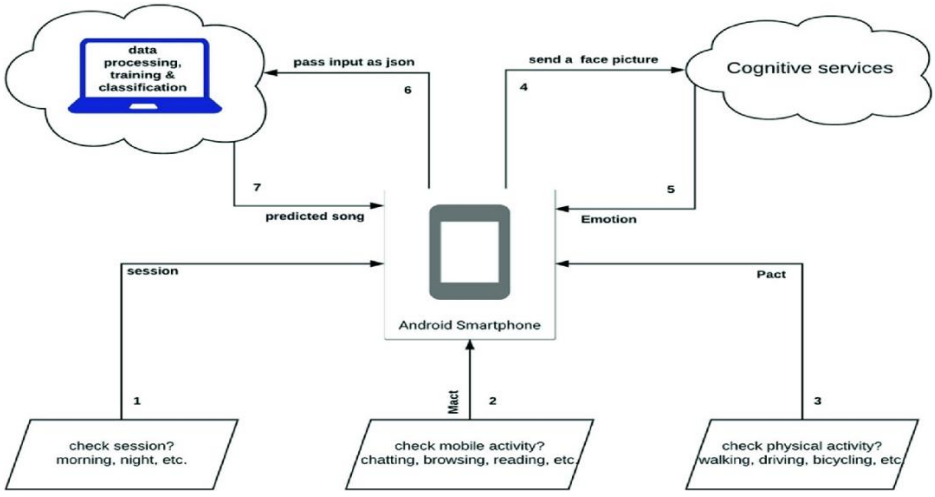
5) PIL:

Python Imaging Library (abbreviated as PIL) (in newer versions known as Pillow) is a free and open-source additional library for the Python programming language that adds support for opening, manipulating, and saving many different image file formats.

- Here we use import ImageTk from PIL because the ImageTk module contains support to create and modify Tkinter BitmapImage and PhotoImage objects from PIL images and file dialog is used for the dialog box to appear when you are opening file from anywhere in your system or saving your file in a particular position or place.

While developing this application we have created many functions like:

- musicUrl()
- playMusic()
- pauseMusic()
- resumeMusic()
- volD()
- stopIt()
- muteMus(), etc...


data processing, training & classification
pass input as json
6
send a face picture
4
Cognitive services
7
predicted song
5
Emotion
session
Pact
Android Smartphone
Mact
1
2
3
check session? morning, night, etc.
check mobile activity? chatting, browsing, reading, etc.
check physical activity? walking, driving, bicycling, etc.

Description of the Work Division:

Our team consists of 3 members and we divided the complete work among us

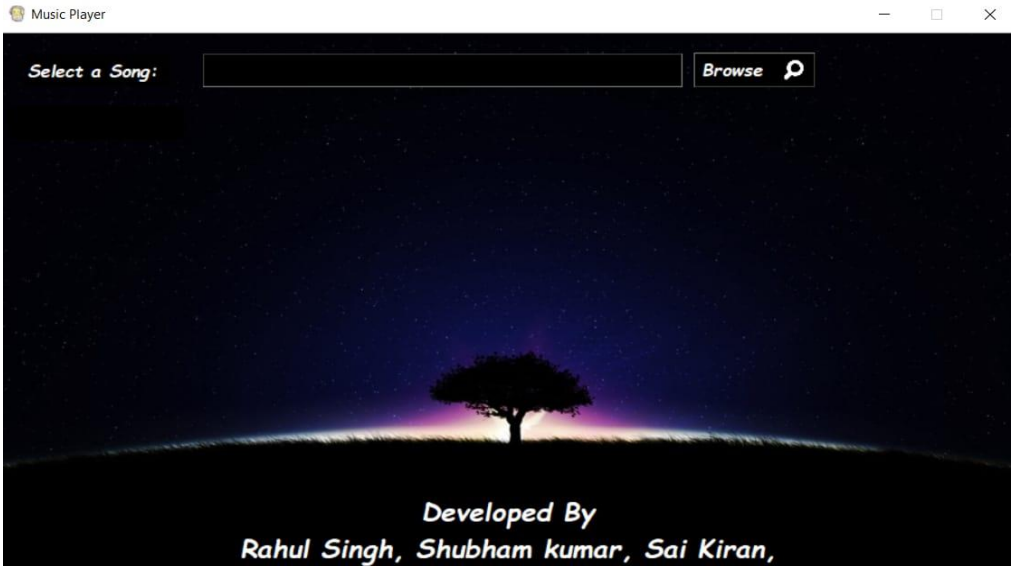
Shubham Kumar: Plan of application, data required to proceed with this application, prepared a layout of the application with important features and involved in coding part of the application, collected the data. Developed the functions like musicUrl(), volD().

Sai Kiran: Description about the functions that are to be included in application, involved in coding part of the application, and involved in the synopsis writing of the application, analysis of code of application. Developed the functions like playMusic(), stopIt().

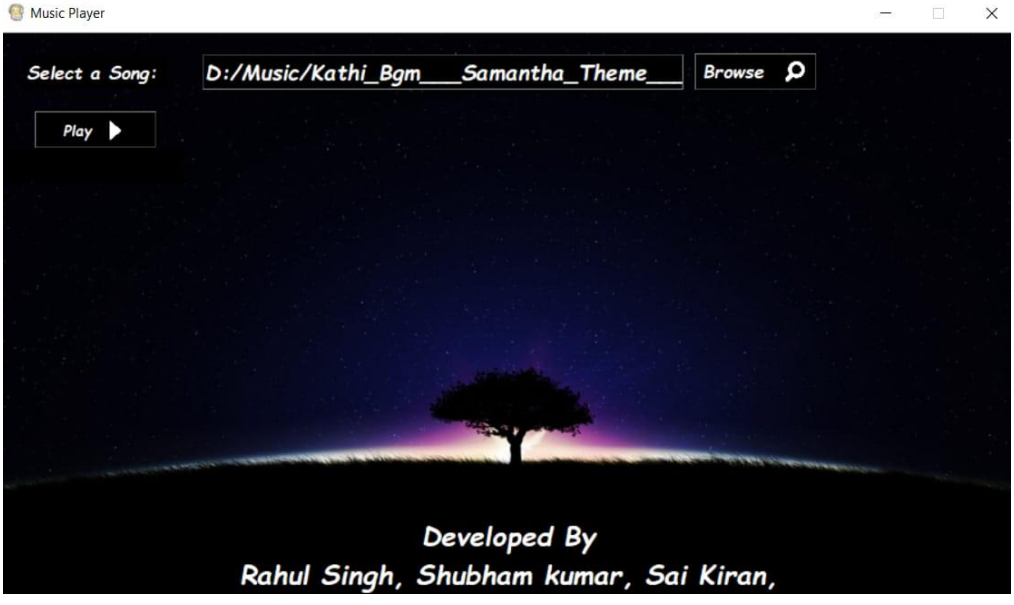
Rahul Singh: Description of the code, Developed the code for the application, collected the images for functions like stop, play, arranged them and involved in the synopsis writing for the application, verified the code and corrected errors. Developed the functions like resumeMusic(), muteMus().

Implementation of the scheduled work of project:

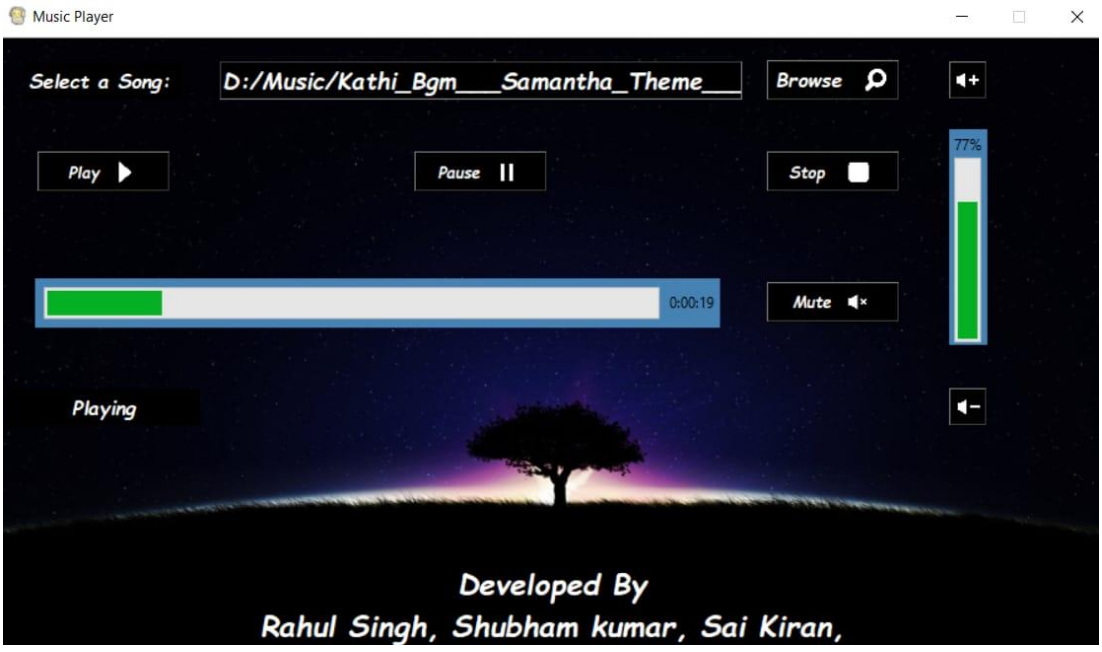
1.This is window appears after we run our code that includes Browse button and texts:



2.After we select the song through browse,play button appears:

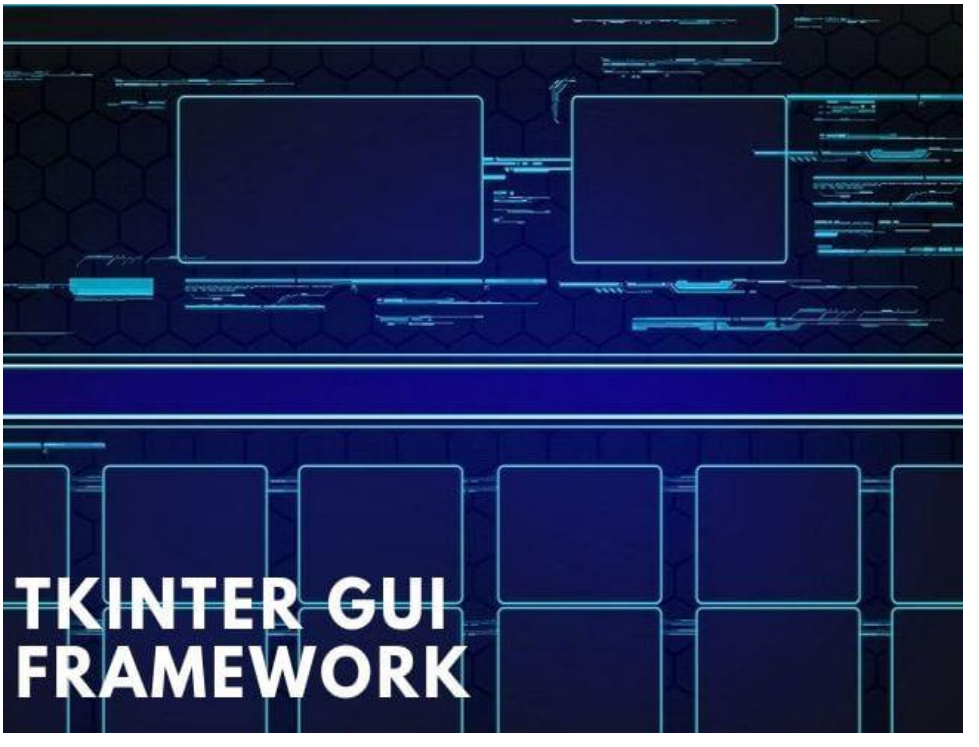


3.Final view of interface when music is playing, it includes play button, pause button, stop button, mute button, volume level control and audio progress bar:



Technologies and Frame work to be used:

- For developing this music application, we have used Tkinter or Tk interface.
- Tkinter or Tk interface is Python's de-facto standard GUI (Graphical User Interface) package. This is an 'open-source framework' and is available on platforms like Unix and Windows. It is one of the simplest and most popular ways to build a GUI-based application in Python.



- As we know that python is a cross-platform language, so we can run this python code in any platform and use this application.

Features of the application:

1) **Play:** This option is used for playing the song which is imported from the library of the system

2) **Pause:** To pause the currently playing song

3) **Stop:** For stopping the currently playing song

4) **Browse:** To choose the song from the system to play it

5) **Mute:** To set the volume of the system to zero

6) **Volume options:** to either increase or decrease the volume

Analysis of the application:

Strength:

1) Its feature rich
2) User-friendly
3) Productive
4) Can run on different platforms

Weakness:

1) The execution of the application is a bit slower
2) In order to run this application in any system, of any platform, one must install all the required modules and packages

References:

- https://www.geeksforgeeks.org/python-gui-tkinter/

- https://www.tutorialspoint.com/python/python_gui_programming.html

- https://www.w3school.com