MUSIC PLAYER USING PYTHON

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A PROJECT REPORT ON

Music Player Using Python

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Introduction :

Overview Of Project

Music is one the best stress Buster activity. So, we decide to work on this project. Python is easy to use and because of its great library support we are going to use it in this project.

In this software we will import folder where we stored our music files (.mp3) and plays it in our software, along with it we can perform some basic activity like pause, stop, sound increase, sound decrease, next song, previous song, etc.

We are tried our best to provide simple and easy to use user interface for the music player. So, any level of user can use it and enjoy their music.

Introduction :

Abstraction

Music player is the simple python project developed by using python and its Library like tkinter, pygame, etc. In this Project simple Graphical User Interface (GUI) is crated with the help of tkinter library, in which we can perform different activities like play music, pause music, stop, sound increase, sound decrease, next song, previous song, etc.

We an import our music folder which we want to plays in player by clicking one button fort that we use os module of python and plays it using pygame library fie.

Being new to Python Development. We tried to make best use of our knowledge in this project and make user friendly project so any one

can use it independent of programming knowledge.

Objective:

Objective of this project is to developed Music player which is easy to use and nice looking with the help of tkinter library and also plays music with the pygame library as well as we can make it online so with the help of URL we can plays music which is not on your machine but you can play is (future build).

We learn the tkinter library and its application. Also learn pygame library and its uses after completion of this project

REQUIREMENT:

Hardware requirement:

- x86 64-bit CPU (Intel / AMD architecture)
- 512 GB RAM
- 500 MB free disk space
- Other basic component required to run the system like keyboard, mouse, speaker, etc.

Software Requirement:

- Windows 7 or 10
- Mac OS X 10.11 or higher, 64-bit
- Linux: RHEL 6/7, 64-bit (almost all libraries also work in Ubuntu)
- Python 3.8 should be installed on your machine

Information of Programming language

Python

Python is a widely used general-purpose, high level programming language. It was initially designed by Guido van Rossum in 1991 and developed by Python Software Foundation.

Python is a high-level, interpreted, interactive, and object-oriented scripting language. Python is designed to be highly readable. It uses English keywords frequently whereas other languages use punctuation, and it has fewer syntactical constructions than other languages.

Python is a programming language that lets you work quickly and integrate systems more efficiently.

- Python is Interpreted – Python is processed at runtime by the interpreter. You do not need to compile your program before executing it. This is similar to PERL and PHP.
- Python is Interactive – You can actually sit at a Python prompt and interact with the interpreter directly to write your programs.
- Python is Object-Oriented – Python supports Object-Oriented style or technique of programming that encapsulates code within objects.
- Python is a Beginner's Language – Python is a great language for the beginner-level programmers and supports the development of a wide range of applications from simple text processing to WWW browsers to games.

History of Python

Python was developed by Guido van Rossum in the late eighties and early nineties at the National Research Institute for Mathematics and Computer Science in the Netherlands.

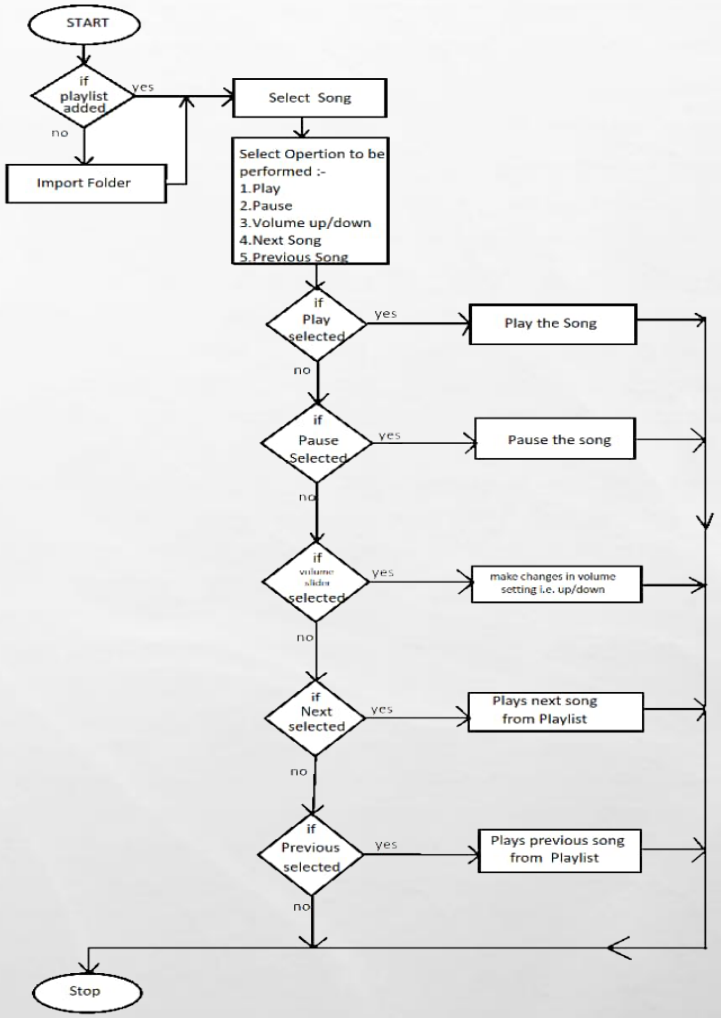
Python is derived from many other languages, including ABC, Modula-3, C,C, etc. Python is copyrighted. Like Perl, Python source code is now available under the GNU General Public License (GPL).

Python is now maintained by a core development team at the institute, although Guido van Rossum still holds a vital role in directing its progress.

Python Features

- Easy-to-learn – Python has few keywords, simple structure, and a clearly defined syntax. This allows the student to pick up the language quickly.
- Easy-to-read – Python code is more clearly defined and visible to the eyes.
- Easy-to-maintain – Python's source code is fairly easy-to-maintain.
- A broad standard library – Python's bulk of the library is very portable and cross-platform compatible on UNIX, Windows, and Macintosh.
- Interactive Mode – Python has support for an interactive mode which allows interactive testing and debugging of snippets of code.
- Portable – Python can run on a wide variety of hardware platforms and has the same interface on all platforms.
- Extendable – You can add low-level modules to the Python interpreter. These modules enable programmers to add to or customize their tools to be more efficient.
- Databases – Python provides interfaces to all major commercial databases.
- GUI Programming – Python supports GUI applications that can be created and ported to many system calls, libraries and windows systems, such as Windows MFC, Macintosh, and the X Window system of Unix.
- Scalable – Python provides a better structure and support for large programs than shell scripting.

Flow Chart


START
if playlist added
yes
no
Select Song
Import Folder
Select Opertion to be performed :-
1.Play
2.Pause
3.Volume up/down
4.Next Song
5.Previous Song
if Play selected
yes
Play the Song
no
if Pause Selected
yes
Pause the song
no
if volume slider selected
yes
make changes in volume setting i.e. up/down
no
if Next selected
yes
Plays next song from Playlist
no
if Previous selected
yes
Plays previous song from Playlist
no
Stop

Test Specification

Test Plan And Procedure:

It is the process of executing a program in the indent of finding an error. Testing is a crucial element of software quality assurance and present review of specification, coding and program.

System testing is an important phase. A series of testing is performed for the given system before the system is ready for user acceptance testing. A good case is one that has high probability of finding error.

Testing of Objective

Testing is a process of executing a program with the intent of finding error.

- A good case is one that has high probability of finding error.
- A successful test is one that uncovers as an undiscovered error.

Testing Principal

- All tests should be traceable to and user requirement.
- Test should be planned long before testing begins
- To be more accurate testing should be done by a third party.

Test Strategy

- All tests should be traceable to the end user requirement.
- Testing should be planned long before testing begins.
- Testing should begin on a small scale and progress towards testing in large.
- Exhaustive testing is not possible.

Testing Cover

Test case are derived to ensure that all statement in the program have been executed at least once during testing and that all logical conditions have been execute.

Screenshot:


Musicly
PlayList - 11
01 - Tum Hi Ho - Pagal
01 Khamoshiyan (Arijit
01 Mitti Di Khushboo.n
01 Moh Moh Ke Dhaag
01 Soch Na Sake - Airlit
02 Jag Ghoomeya - Sul
02 Samjhawan.mp3
03 - Chahun Main Ya M
04 Khuda Bhi SongsMp
04 Maahi Ve - Wajah Tu
04 Yaar Naa Miley.mp3
01 - Tum Hi Ho - PagalSongs.com.mp3
Load Songs
8

Outcome:

- Easy and attractive user interface.
- Easily understand by any level of user.

LIMITATIONS

Hear, we can only play the music which is already downloaded in our machine. If we want to Plays That song which are not in our system than it will not play.

Future Updates

In next update we can add function which can fetch the song from Internet with the help of URL. So, we can play song without Downloading it.

Better visuals and performance optimizations will be done to enrich the user experience

Conclusion

- With the help of python programming, we were able to create a program
- that helped us to nurture skills of programming.
- With the help of this project we learn the different Python Library like tkinter, etc.

THANK YOU