

Python Project Proposal:
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Music Player Application

Description:

A windows desktop application that will playback and display a user's library of music, similar to iTunes or the music player foobar2000.

Algorithm:

No specific algorithm will be used, however the basic flow of the program would be to store filepaths to each audio file in a SQLite database, and then be able to browse available files from the application, and play them with a subset of the features typically found in a full-featured audio player like the ones listed above.

Libraries:

The libraries I will be using are Tkinter for the GUI, and mutagen for handling the audio file metadata. The library that I will use for the actual playback of the audio files I am still searching for, some of the candidates I have found are: pygame.mixer, simpleaudio, and PyMedia.

Plan of Work:

- Step 1. Make the framework of the GUI in tkinter.
- Step 2. Implement basic audio playback
- Step 3. Implement a persistent database of files that have been played
- Step 4. Implement a display for all files that have been added to the database
- Step 5. Implement metadata grouping and sorting (group albums/artists/genres together)
- Step 6. Implement a text search
- Step 7. Implement advanced playback features (shuffle/repeat)