

Graphical Playlist Management

DESCRIPTION:

The graphical playlist management(GPM) project is a GUI application that serves as a playlist manager that organizes a user's music folder into a highly structured playlist in which the user has all the rights to customize to their liking. The GPM solves the problem of inefficient and disorganized music collection that can simultaneously bring other problems such as deleting songs, data and even deleting full playlists, unintendedly. Our project aims to simplify music organization by providing users with a library-like structure where they can create, delete, sort, and customize playlists. Inside the application, the user will be able to select which songs to include in each playlist, giving them full control over their listening experience.

We want to provide a user-friendly application, where the user can perform these actions without getting lost or feeling overwhelmed by the application. Additionally, this application allows users to organize the playlists on various criteria, including genre, mood, or personal preference, ensuring an intuitive and enjoyable music experience. Users will be provided with all the interfaces needed to manage the items inside their playlist. The songs will contain information containing the artist and other people who have worked on the track, the title, the year that it was published, and the genre of the music. This information can be distributed to other clients to create a friendly environment where users can share their favorite music. The application will contain advanced features that allow the user to manage their playlist using a CSV file.

PROJECT BACKGROUND:

The growing complexity of digital music libraries has made it difficult for users to organize and manage their collections efficiently, often leading to disorganized playlists that do not match their preferences. The difficulty of finding an application that can manage our playlists, while also keeping it simple and easy for first-time users, is quite high. Applications will provide the most complex interface to keep our files clean and

organized making it a negative experience for the users. Luckily, the GPM will be developed to solve this problem by providing a simple, library-like interface with a highly customizable environment. By streamlining music management, the project addresses the need for better organization in the ever-expanding world of digital music, which will be to create, delete, sort, and customize playlists while also keeping everything neat and simple.

FUNCTIONALITY:

The GPM will have a user-friendly graphical user interface that will make the application quick and easy to use. The GPM will allow the user to create a new playlist and provide a title, which will create a new file that will have the information about the new playlist added and the title of it. Furthermore, the user can also delete playlists, which will remove the file that was created when the user added the playlist for the first time. Equally, the user will have the chance to add as many songs as they want in their playlist. When adding a new song, a CSV line will be created and will contain all the information about the song along with the playlist that the song is situated in. When removing music, the CSV lines will be permanently removed and the user will not be able to restore the specific song.

The users must not worry about the complexity of the application since each action will be provided with the help of controls and buttons that will display what their use is for. For example, if the user deletes a playlist, this action can be fatal, thus we will prompt the user with a window indicating that this action will be permanent and if they would like to proceed. Once the user has created their playlist, the option to search for a song will be available in case their playlist contains many songs. The same action can be taken when searching for a specific playlist. If the user wishes to find playlists or songs based on their, for example, genre, then a button will be provided and a list of playlists or songs will pop up. Finally, the user will be able to customize their application as much as they want by changing its colors, font style, and font size.

FEATURES AND ADDITIONAL DOCUMENTS:

The complexity of playlists and how to organize them:

<https://disctopia.com/insights/the-ultimate-guide-to-organizing-your-music-library/>

The Playlist Manager is a music management application that enables users to organize, create, and customize playlists efficiently. The main features of the application are related to playlists and song management. These features are:

- **Inputting Data:** When creating a playlist, the user will add their song and they will be able to add information to that added music, such as the artist, genre, album, and more.
- **Customization:** This feature allows users to manage the playlists themselves, providing options to delete individual playlists or songs, update playlist names or song information, delete all playlists, and add new playlists or songs.
- **CSV Export:** The application will generate CSV files for each playlist, enabling users to export playlists in a file format. Keeping track of all the added playlists and songs will provide a better way of organizing the history.
- **User interaction with the application:** An interface will be provided for users to simplify the process of organizing their playlists and songs. A tab control will be provided to manage the actions that the user will take to organize their playlist station.
- **Music Browsing:** Inside the playlist, a search bar will be provided to enable the users to search for a specific song. This action will be useful when the user would like to modify a song in a playlist. Since playlists will have a title, these titles can be organized alphabetically or based on the insertion.
- **Accessibility:** While on the app, the user can pick between dark and light modes depending on their needs. A section for the visuals of the app will be available so users can modify the font, color, and size of their text in case the default settings are not adequate for a user.
- **Commentary:** The user can add comments to songs or playlists to describe them, and to help with the organization.

- **History:** Each time a user adds a new playlist or music, this action will be tracked using a CSV file. However, if the user wants to delete a certain item, then this information will be deleted from the file and will be lost. This permanent action can be dangerous, so we will prompt the user by asking them if they would like to continue with the action or if they want to cancel.

WHO IS THIS APPLICATION FOR:

This application is intended for music listeners who want an efficient way to organize and manage their playlists and songs. This way, the user of this program will have a fast and easy way to sort their playlist and songs. The program will be highly customizable, allowing the user to design their management environment. The program is very beginner-friendly, so a new user will have no trouble utilizing our application for the first time. Furthermore, the application promotes inclusivity by offering two display themes: light and dark. In conclusion, our tool is designed for anyone who wants to organize their messy playlists and music by genre, artist, and other criteria that the user specifies.

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