

# Programming Project / C++ - Playlist Management System

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**Student 2:** Puşa Gabriel Valer

## I. Task Description

Student 1 (Tănase Vlad Mihai) was responsible for building the playlist management system and the executable app1.exe, including:

- Developing commandline application app1.exe
- Managing file input/output for playlist data and current playlist state.
- Testing app1.exe specific functionalities

Student 2 (Puşa Gabriel Valer) was responsible for testing and debugging and the executable app2.exe, including:

- Developing commandline application app2.exe
- Managing file input/output for song data and current playlist state.
- Testing app2.exe specific functionalities

## II. Data Structures Used by the Team

The following classes are used with composition relationships:

- Song: string title, string artist
- Playlist: string name, float rating, vector of Song objects (composition)
- PlaylistManager: vector of Playlist objects (composition)

## III. File Structure

The following files are used:

- file\_txt: Stores playlist data in the format:

```
#<playlist_name>,<rating>
<song_title>,<artist>
...
<empty line>
#<next_playlist_name>,<rating>
...
```

- current\_playlist\_txt: Stores the name of the currently selected playlist for app2\_exe.

## IV. Interacting with Executables

Application 1 (app1.exe) offers the following options:

- `./app1.exe view_playlists`  
To view all playlists sorted by rating (highest to lowest).
- `./app1.exe create_playlist <name> <rating>`  
To create a playlist with the given name and rating (float, 0.0 to 5.0).
- `./app1.exe delete_playlist <name>`  
To delete the playlist with the specified name.
- `./app1.exe exit`  
To save changes to file.txt and exit. But this function was simply added because it already existed in the original C code.

Application 2 (app2.exe) offers the following options:

- `./app2.exe manage_playlist <name>`  
To select a playlist for song management, storing the name in `current_playlist.txt`.
- `./app2.exe add_song <title> <artist>`  
To add a song with the specified title and artist to the current playlist.
- `./app2.exe view_songs`  
To view songs in the current playlist, sorted alphabetically by title.
- `./app2.exe delete_song <title>`  
To remove the song with the specified title from the current playlist.
- `./app2.exe exit`  
To save changes to file.txt, clear `current_playlist.txt`, and exit.