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# Mini Lab Report

for

## Musify

A music playlist manager

Version 1.0

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## 1. Introduction:

- **Purpose:** "Musify" is undertaken to create an efficient and user-friendly music playlist management application. This project aims to provide music enthusiasts with a tool to organize and enjoy their music collections.
- **Objectives:**
  - 1) Design a user-friendly interface for managing music playlists.
  - 2) Implement features for adding, deleting, and searching songs in the playlist.
  - 3) Enable users to save and load their playlists to and from a file.
- **References/ Related Works:**
  - i. Wietse Balkema and Ferdi van der Heijden. 2010. Music playlist generation by assimilating Gaussian mixture models (**GMMs**) into self-organizing maps (**SOMs**). Pattern Recognition Letters 31, 11, 1396--1402.
  - ii. Claudio Baccigalupo and Enric Plaza. 2006. Case-based sequential ordering of songs for playlist recommendation. In Proceedings of ECCBR. 286--300.
  - iii. Dmitry Bogdanov and Perfecto Herrera. 2011. How much metadata do we need in music recommendation & quest; A subjective evaluation using preference sets. In Proceedings of ISMIR. 97--102.
  - iv. Claudio Giovanni Baccigalupo. 2009. Poolcasting: An Intelligent Technique to Customise Musical Programmes for Their Audience. Ph.D. Dissertation. Universitat Autònoma de Barcelona, Barcelona, Spain

## 2. Overall Description

- **Product Perspective:** "Musify" is a standalone music playlist management application designed to offer users a simple and intuitive solution for organizing and enjoying their music collections. It operates independently and is not dependent on any external systems.
- **Motivation:** The motivation behind this project is to provide a user-friendly tool for music enthusiasts, students, and anyone interested in efficiently managing their music playlists. The project acknowledges the need for a straightforward and accessible music playlist manager.
- **User Classes and Characteristics:** "Musify" is designed for a broad range of users, including music enthusiasts, students, and individuals who want to manage their music collections efficiently. Users are expected to have basic computer literacy and an interest in music.
- **Operating Environment:** "Musify" is intended to be a cross-platform application, running on various operating systems. This choice of platform ensures accessibility to a wide user base and allows users to enjoy their music on different devices.

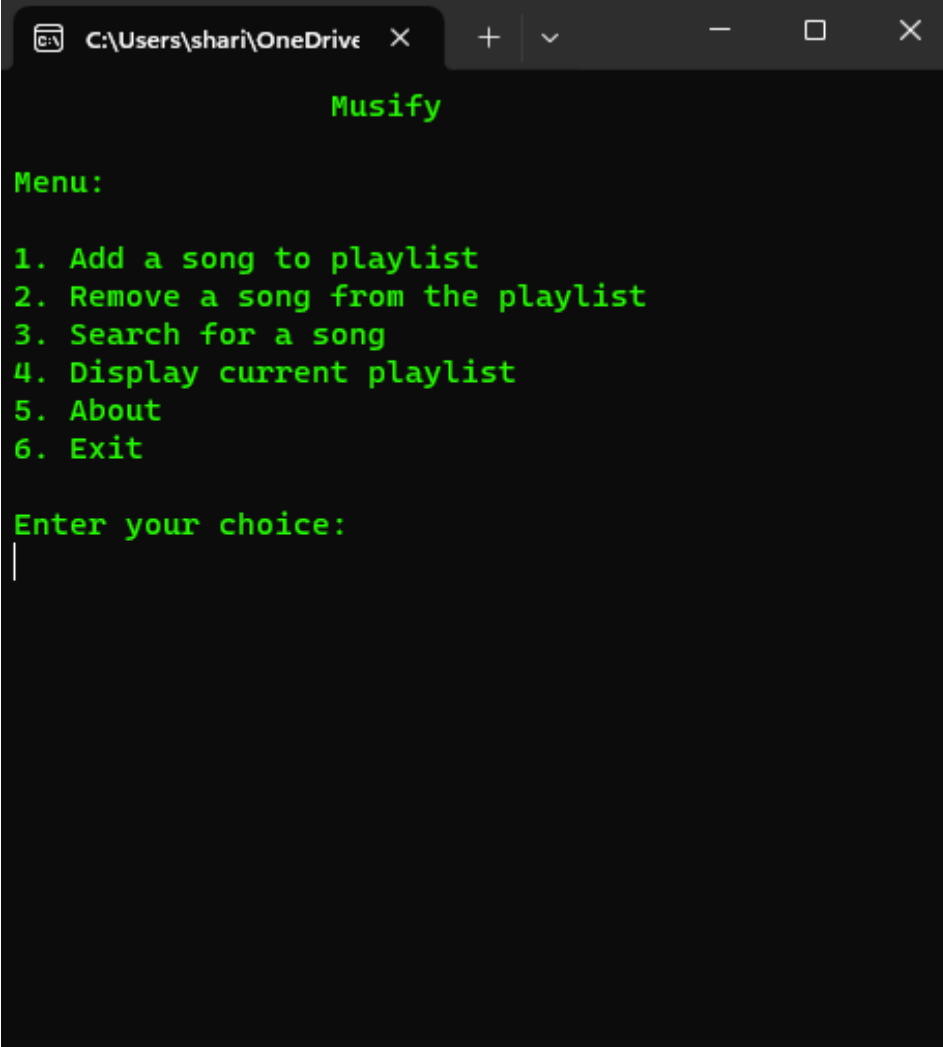
## 3. Project Features and Outcomes

- **List of Features:** Adding songs to the playlist: Users can add songs to their playlists by providing song titles, artists, and durations.

- Removing songs from the playlist: "Musify" enables users to delete songs they no longer want in their playlists.
- Searching for songs: Users can search for specific songs in their playlists based on titles or artists.
- Displaying the current playlist: The application allows users to view their current playlists, making it easy to manage and enjoy their music.
- Saving the playlist to a file: "Musify" offers the functionality to save the current playlist to a file, allowing users to access their playlists later.
- Loading the playlist from a file: Users can load their previously saved playlists, providing a seamless music management experience.
  
- **Data Collection:** Musify collects data about songs, including song titles, artists, and durations. This data is used to create and manage the user's playlists effectively.
- **Outcomes of the Project:** The "Musify" project aims to deliver a fully functional music playlist management application with a user-friendly interface and efficient features. Users will be able to organize and enjoy their music collections easily.

## 4. External Interface Requirements

- User Interfaces:



```
C:\Users\shari\OneDrive x + - □ X  
Musify  
Menu:  
1. Add a song to playlist  
2. Remove a song from the playlist  
3. Search for a song  
4. Display current playlist  
5. About  
6. Exit  
Enter your choice:  
|
```

**Fig 01:** User interface

- Input Output demo:

```
Musify

Menu:

1. Add a song to playlist
2. Remove a song from the playlist
3. Search for a song
4. Display current playlist
5. About
6. Exit

Enter your choice:
1

-Enter song details-
Titile:
Despasito
Artist:
Beiber
Duration (in seconds):
453

Songs are added to the playlist successfully.
```

Fig 02: Input demo

```
Musify

Menu:

1. Add a song to playlist
2. Remove a song from the playlist
3. Search for a song
4. Display current playlist
5. About
6. Exit

Enter your choice:
4

Total number of songs in current playlist: 2

1 no. song: Despasito

2 no. song: Heeriye
```

Fig 02: Output demo

## 5. Future Scope and Limitation

- **Limitation:** The project may have certain limitations, such as:
- Platform-specific restrictions: "Musify" may have limitations on some platforms that can affect its functionality.
- Limited features: "Musify" may not provide advanced features found in commercial music management software.

- **Future Scope:** The future scope of the "Musify" project includes:
  - Support for various audio formats: Expanding the application's compatibility with different audio formats to accommodate a wider range of music.
  - Advanced search capabilities: Implementing more advanced search features, such as filtering and sorting options.
  - Integration with online music services: Enhancing the application by integrating with online music platforms to provide users with a more comprehensive music management experience.
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- **Conclusion:** In conclusion, the "Musify" project represents a valuable contribution to the realm of music playlist management. With its simple yet efficient features, user-friendly interface, and the potential for future growth and improvement, "Musify" is well-positioned to meet the needs of music enthusiasts and users looking for an accessible solution to organize and enjoy their music collections. As we move forward, the project's future scope presents exciting opportunities for further enhancements and advancements in music playlist management.