**A2: Music Playlist Manager**

**Project Overview**

Design and implement a music playlist management system using singly linked lists. This project simulates real-world music applications like Spotify or iTunes, giving students hands-on experience with dynamic data structures while building something they use daily.

**Learning Objectives**

* Master singly linked list implementation and operations
* Practice file I/O and data parsing
* Implement an search algorithm
* Handle user input validation and error cases
* Understand memory management and pointer manipulation

**Core Requirements - Data Structure**

1. A Song node structure containing the following attributes.

* Song title (string)
* Artist name (string)
* Duration in seconds (integer)
* Genre (string)
* User rating 1-5 (integer)
* Pointer to next song

1. Add undefined member functions to the Song structure
2. Create a Playlist Manager structure based on the provided base code.

**Technical Specifications**

1. **File Format**

# Sample format for playlist file

Title|Artist|Duration(seconds)|Genre|Rating

Bohemian Rhapsody|Queen|355|Rock|5

You can change the file contents but keep the format as it is.

1. **Error Handling Requirements**

* Invalid menu selections
* Empty playlist operations
* File not found errors
* Invalid file format handling
* Memory allocation failures

**User Interface Requirements**

* Clear, numbered menu system
* Formatted output (song numbers, MM:SS time format)
* Input validation with error messages
* Confirmation prompts for destructive operations