

Programming Project / C++ – Watched Movies Management System –

Student 1: David Cojocaru

Student 2: Victor-Daniel Luca

I. Task Description

Student 1 is responsible for managing:

- User accounts (registration, viewing users)
- The movie database: adding, deleting, modifying, and searching movies

Student 2 is responsible for managing user interactions:

- Logging in as a user
- Creating a list
- Adding/removing movies to/from a list
- Viewing lists

II. Data Structures Used by the Team

The following classes will be used:

- Movie: string title, string description, int duration, string genre
- List: string name, Movie[] movies
- User: string username, string password, List[] lists

III. File Structure

The following files will be used:

Version 1(CSV files):

Users.csv

A file where are stored the credentials for each user:

username,password

Movies.csv

Stores the complete list of available movies. Each row represents a movie:
title,description,duration,genre

ListX_<username>.csv

Stores a list of movies created by a specific user:
title

Version 2(SQLite):

Movies.db

users – stores registered user accounts:

- id: unique user ID
- username: user's name
- password: user's password

movies – stores all available movies:

- id: unique movie ID
- title: movie title
- description: short summary of the movie
- duration: movie length in minutes

- genre: genre of the movie

lists – stores movies in a list:

- id: unique list ID
- user_id: references a user from the users table
- name: the name of the list

link_list_movies - links movies to lists created by users:

- list_id: references a list from the lists table
- movie_id: references a movie from the movies table

IV. Interacting with Executables

Application 1 will offer the following options:

`./app_1.exe view_movies`

View all available movies

`./app_1.exe add_movie "<title>" "<description>" <duration> "<genre>"`

Add a new movie

`./app_1.exe delete_movie "<title>"`

Delete a movie

`./app_1.exe modify_movie "<title>" <description|duration|genre> "<new_value>"`

Modify an existing movie

`./app_1.exe search "<keyword>"`

Search movies by keyword in title/description

`./app_1.exe register_user <username> <password>`

Register a new user

`./app_1.exe view_users`

View all registered users

Application 2 will offer the following options:

`./app_2.exe login <username> <password>`

Log in as a user

`./app_2.exe view_list <list_name>`

View current user's list

`./app_2.exe add_to_list "<title>" <list_name>`

Add a movie to a list

`./app_2.exe remove_from_list "<title>" <list_name>`

Remove a movie from a list

`./app_2.exe mark_as_watched "<title>"`

Move a movie from To Watch to Watched

`./app_2.exe create_list "<title>"`

Create a new list