A MODERN MOVIE MANAGER WITH C#

Project Documentation

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System Description and Project Idea:

A Modern Movie Manager that can provide user-friendly interface to the users for storing their movies along with the information about the movies such as: custom thumbnail/poster, director, date of release, genre, etc, so that users can search for the particular movie using the particular information about that movie. This application allows the user to search for a movie under any genre category and find their desired movies to play. Moreover, this application also allows the user to store the movies the user wants to watch, this feature is called a "Watchlist". In this feature the user can also store information about the movies that user have watched and many other functionalities that we shall discuss later in the document.

Functional Requirements:

Functional requirements refer to the functionalities provided to the user. Following are the functionalities and features provided to the users of the application.

1. Users can add the movies.
2. Users can provide the information related to the movies such as (Name, Date of Release, Name of Director, Thumbnail of choice, Genre, and Source of the movie)
3. Users can play the movies from the collection.
4. Users can organize the movies by using genre category and sorting.
5. Users can sort the movies collection by Name or by Year.
6. Users can search the movie using either the movie's name or using the director's name
7. Users can add movies to their watchlist (A Watchlist feature is used for storing movies that user wants to watch later).
8. Users can keep track of the watched movies.
9. Users can edit the information about the movies.
10. Users can edit their own profile information.
11. There can be multiple users in the same computer, having their own separate data and collection of movies.

Non-Functional Requirements:

A non-functional requirement is a specification that describes the system's operation capabilities and constraints that enhance its functionality. Following are the non-functional requirements.

1. Timer
2. Source Images
3. Movement of controls in the panel
4. Button Layouts
5. Text Font
6. Login and sign-up security
7. User validation
8. Exceptional handling

System Features:

- Space Required: Less than 100MB
- Language Used: C#
- Framework: .NET Framework
- Storage: Filling

Technologies, Tools and Controls Used:

- Picture Boxes
- Timers
- Panels
- Serialization
- Forms
- Events
- Filling
- Textboxes
- CheckBoxes
- Buttons

User use cases diagram:

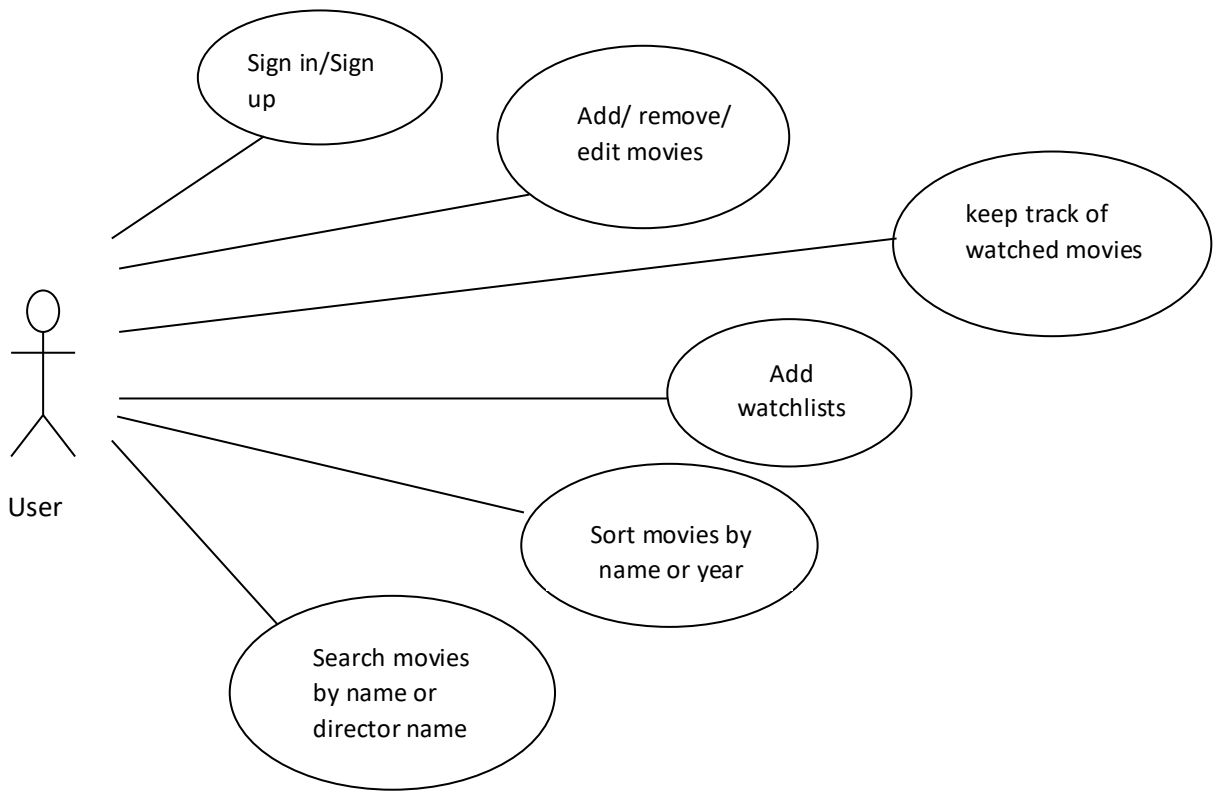
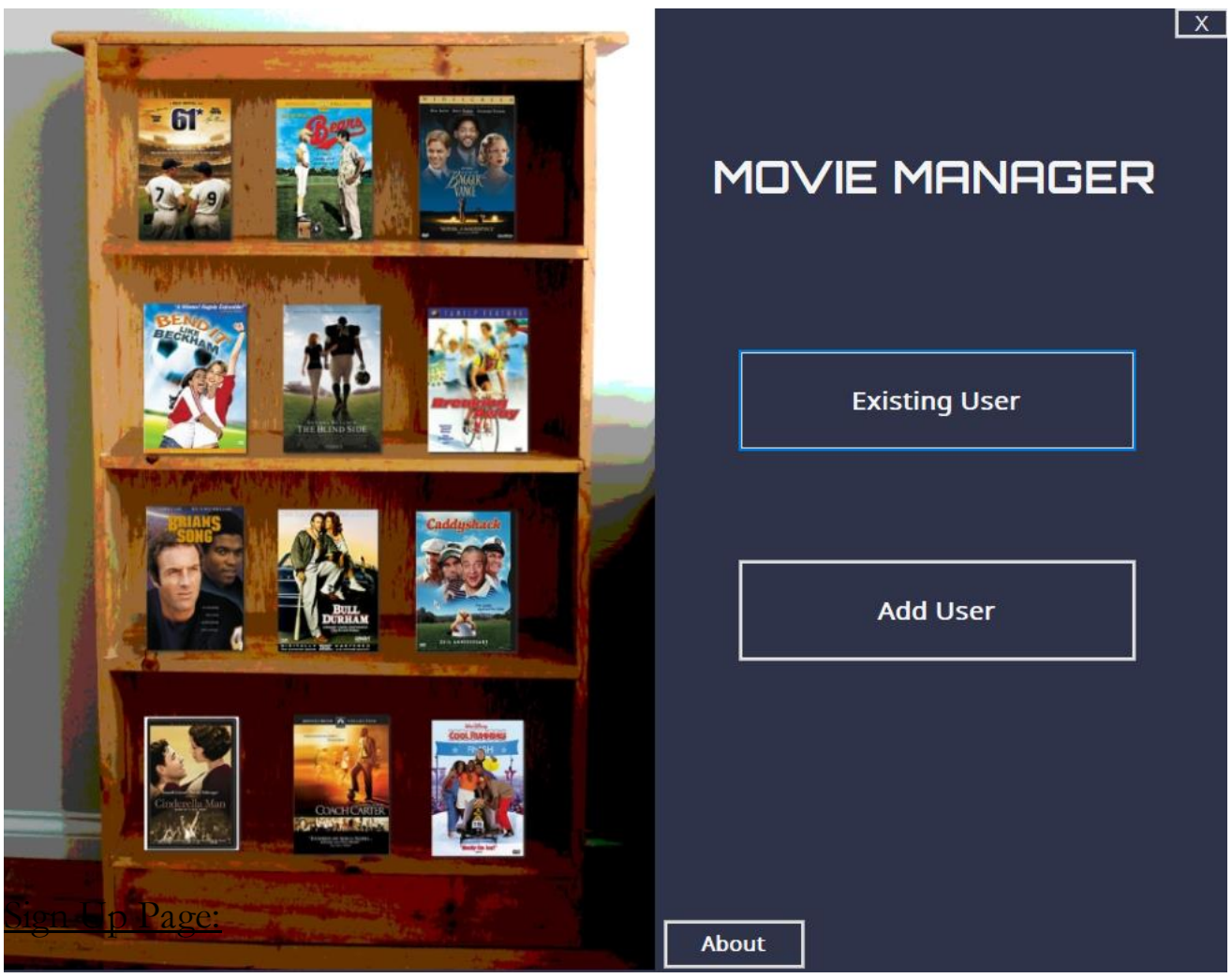


Figure 1 – User use cases

Execution Path and Functionalities

Sign in or Sign Up:

At this stage of the application, the user has to specify whether the user is an existing user or a new user to the application. Note that there can be ANY number of users on a single computer, and each user would have their own movies collection, info, watchlists, preferences of thumbnails and so on.



Sign Up Page:

Welcome to the SignUp page
Please Fill in the information required

Enter Full Name:

Enter Username:

Enter Password:

Select Date of Birth: Friday , January 1, 1999

Edit

Save Changes

Back

Welcome to the SignUp page
Please Fill in the information required

Enter Full Name: Ammar

Enter Username: ammar110

Enter Password: •••

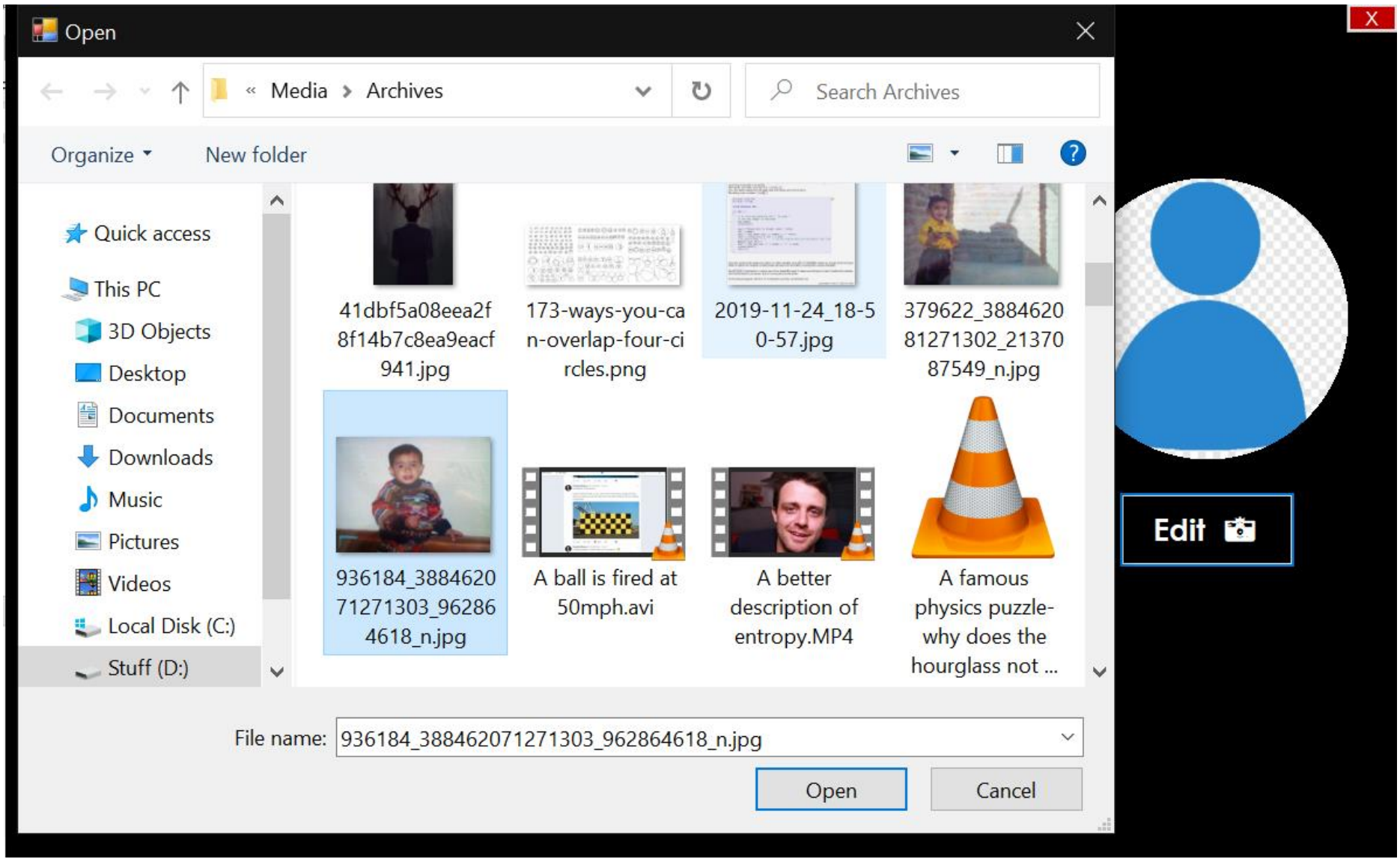
Select Date of Birth: Friday , January 1, 1999

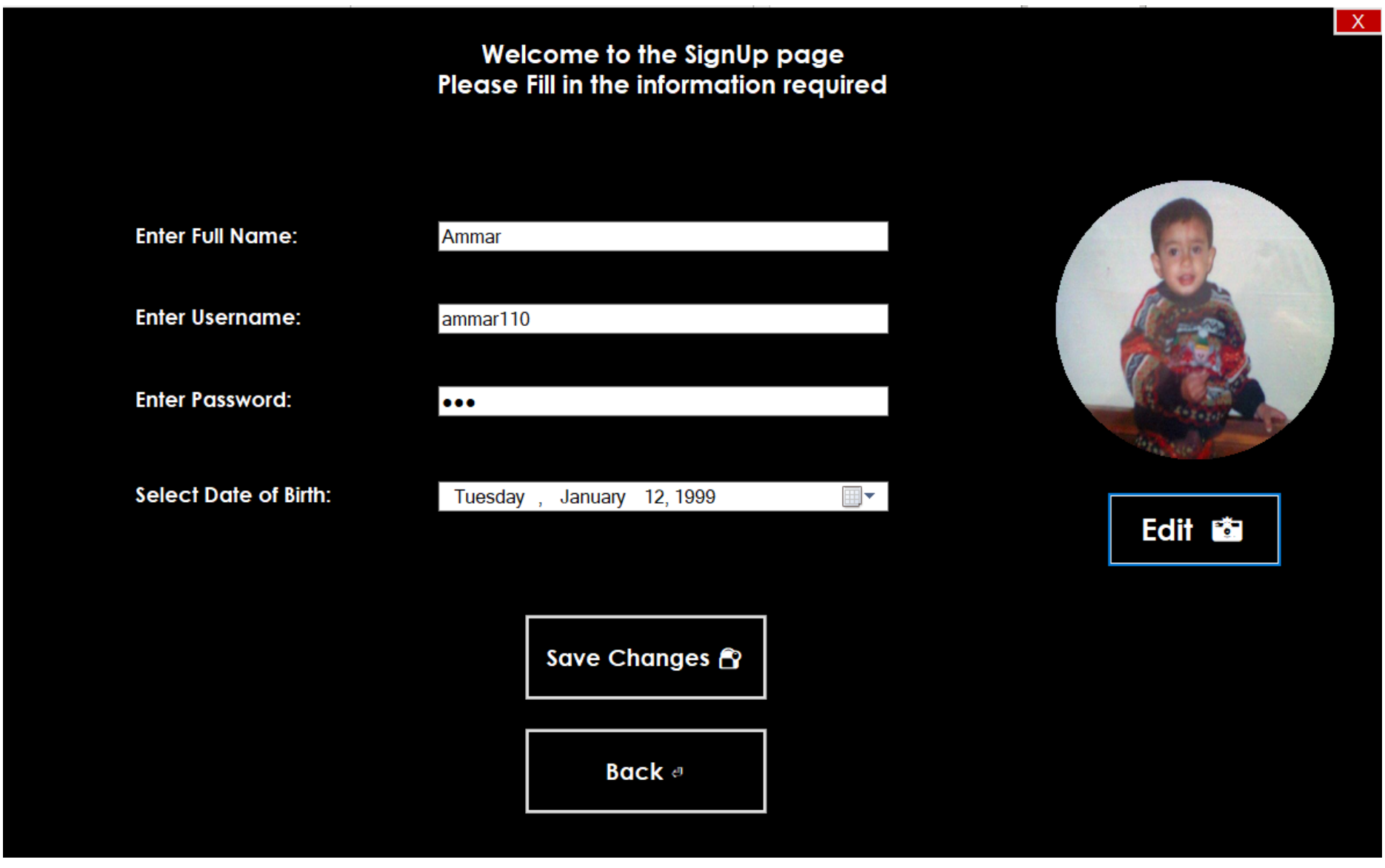
Edit

January 1999

Sun	Mon	Tue	Wed	Thu	Fri	Sat
27	28	29	30	31	1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31	1	2	3	4	5	6

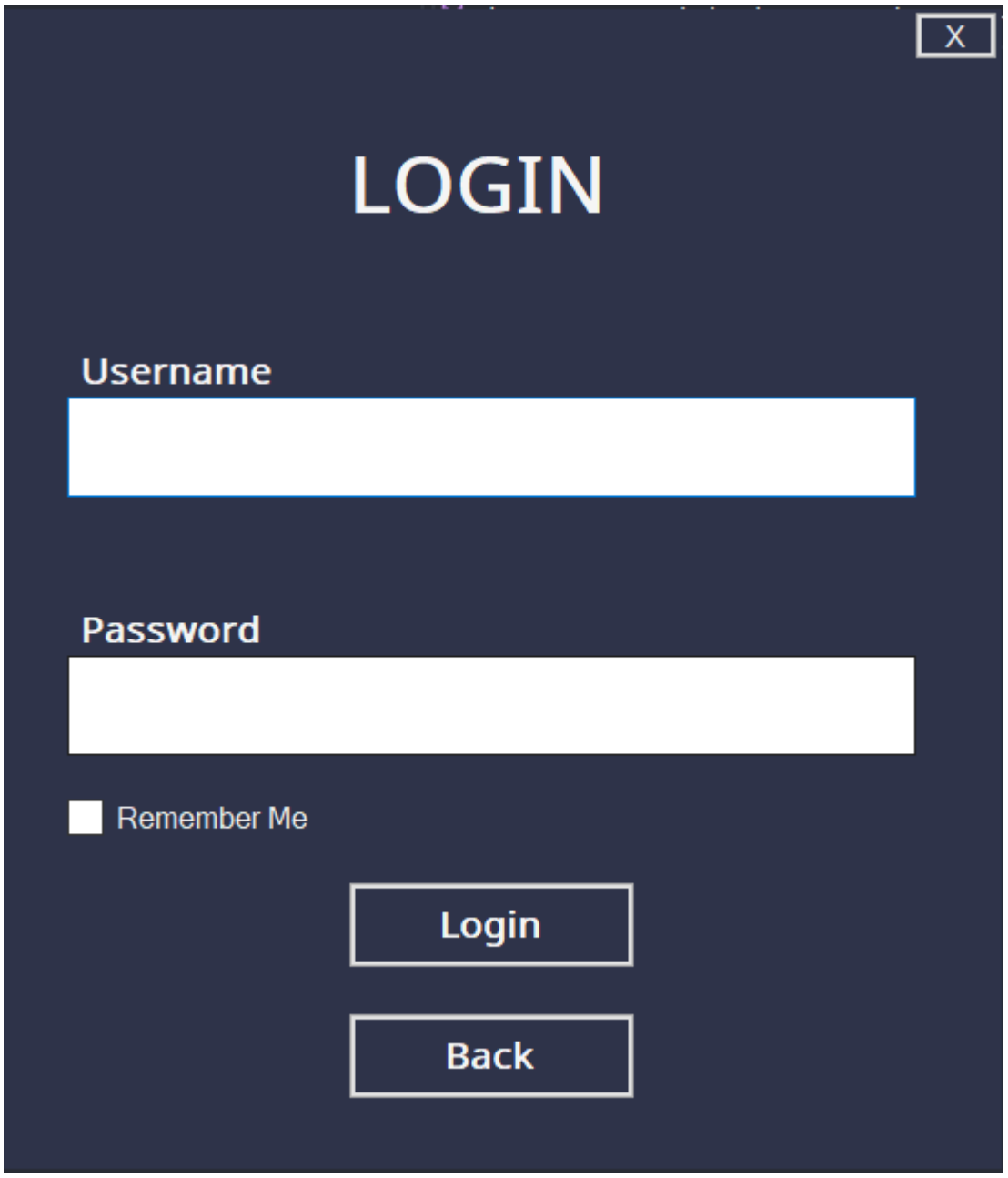
Today: 2/23/2022



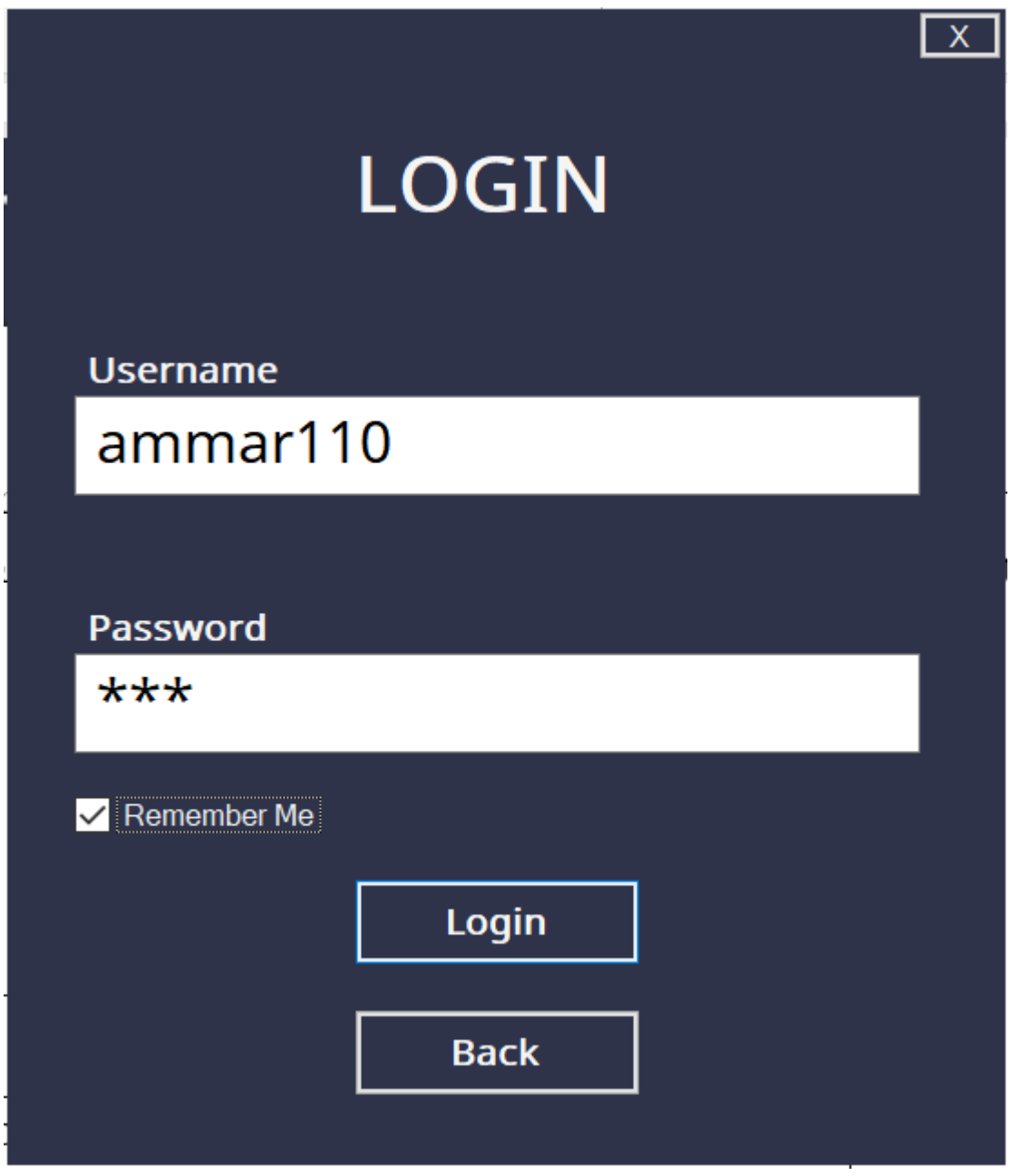


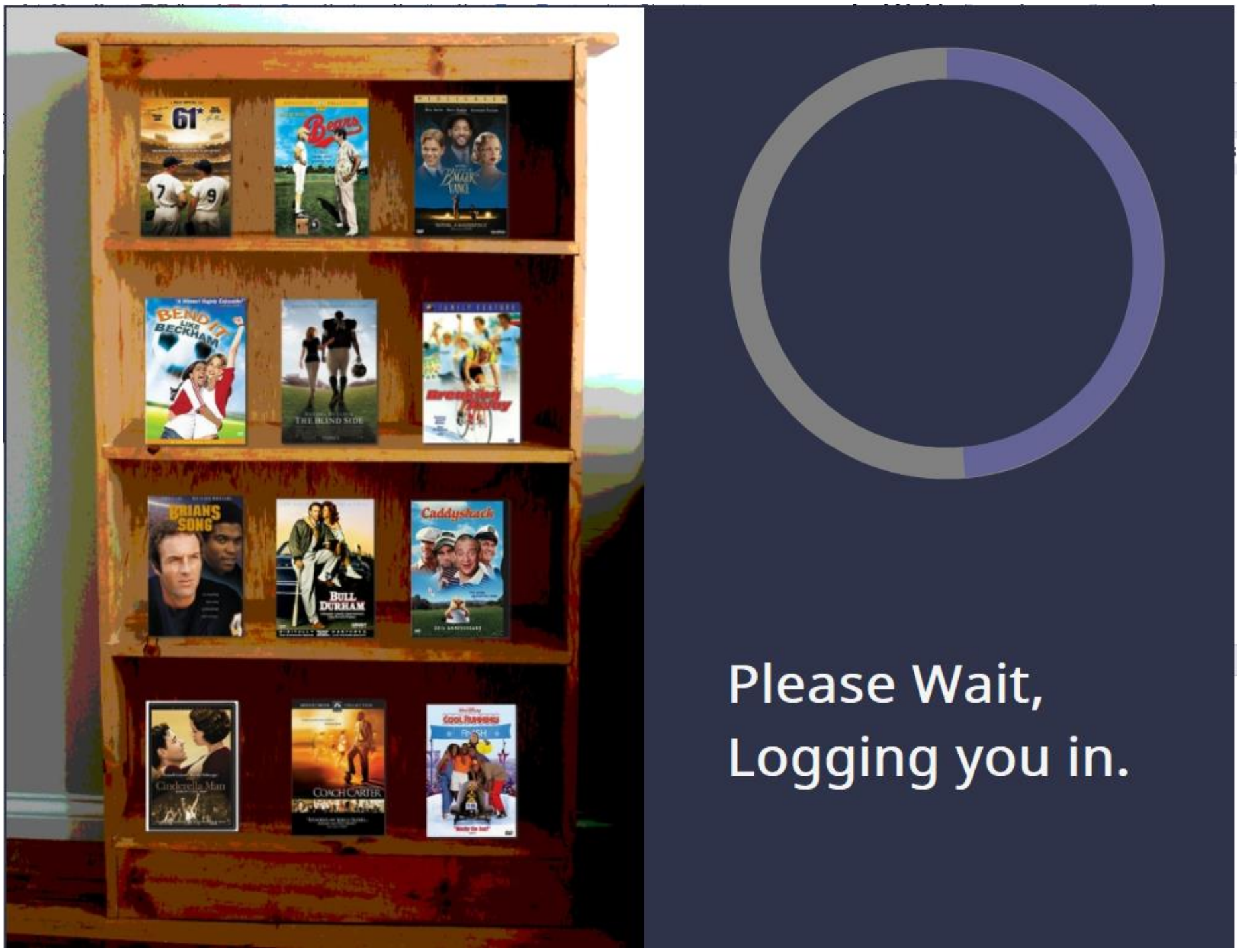
After the user is created, the user can login through the login page.

Login Page:



The “Remember me” check box is used to remember the currently logged in user, so that the user does not have to log in again each time the application is opened. If the user wants to log in through another account, then the user has to manually log out.

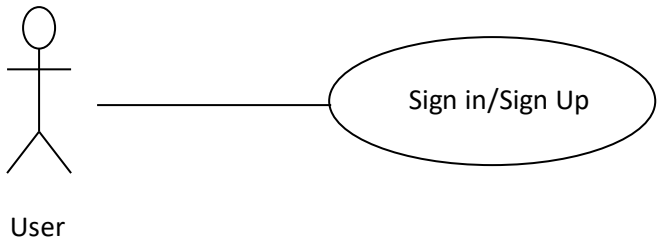




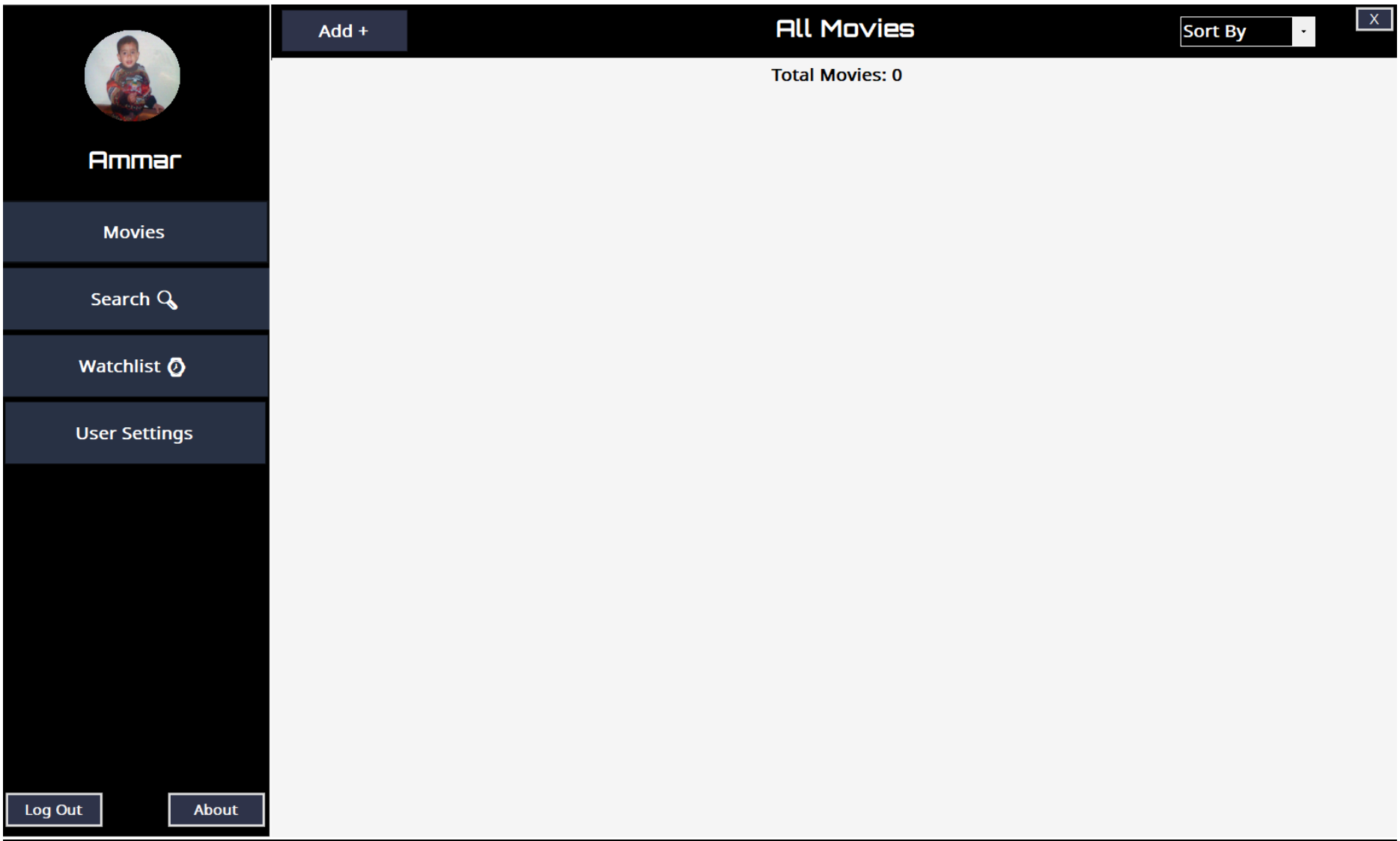
1. **Sign in and Sign up**

Use Case Name	Sign in or Sign Up
Trigger	The User has to specify whether he/she wants to create a new user or has existing account for login purpose.
Precondition	The user has to login using their credentials so that system can authorize them.
Basic Path	• The User specifies whether he/she is an existing user or new to the system. • If the user is new, then they must select the "Create new user" option. • The application then provides the user with the sign-up page in which the user is REQUIRED to fill their 1) Full name 2) Username 3) Password. The options for User profile picture and user's date of birth are optional. • Once the user is done providing all the details, the system checks whether the password, and the username are valid. • If the username and password are valid, the user is notified that their account has been created. • If the username or password or invalid, the user is notified to fill the sign-up info again with appropriate username or password.
Alternative Path	1. If the user is an existing user, then the 2. The system generates and shows the number of cases at runtime to the interacting user. 3. There are options for view details and downloading or sending the models.

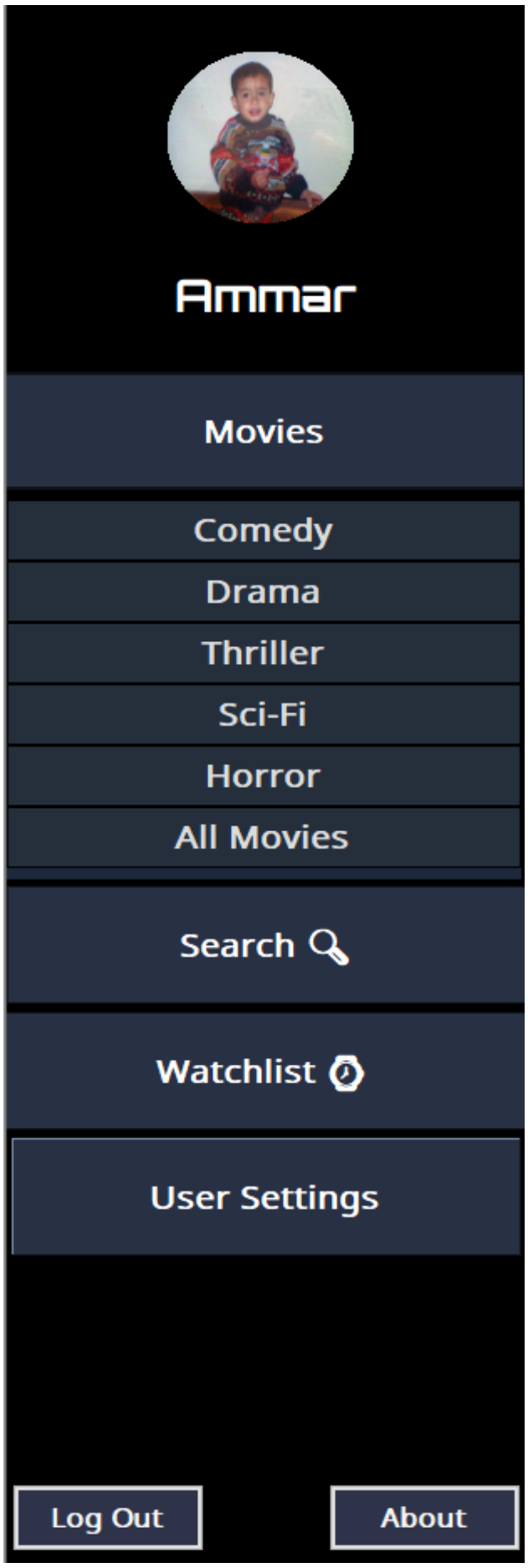
	4. You can return back to the home screen by choosing the option of Return back.
Postcondition	The user has to logout safely.
Exception Paths	The user may close the application at any time, without losing the data.



After Log in:

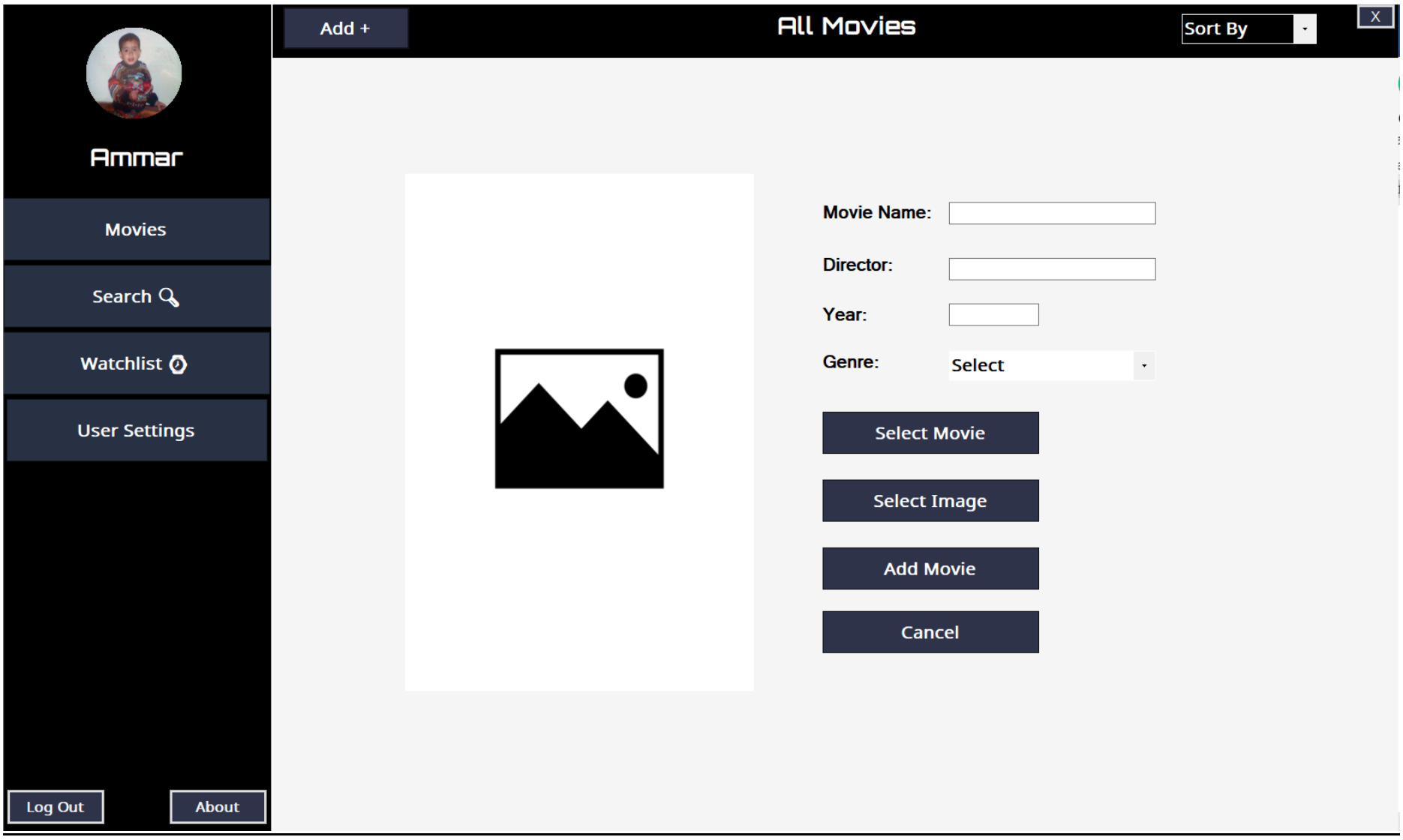


Under the movies button, you also have genres you can choose from:

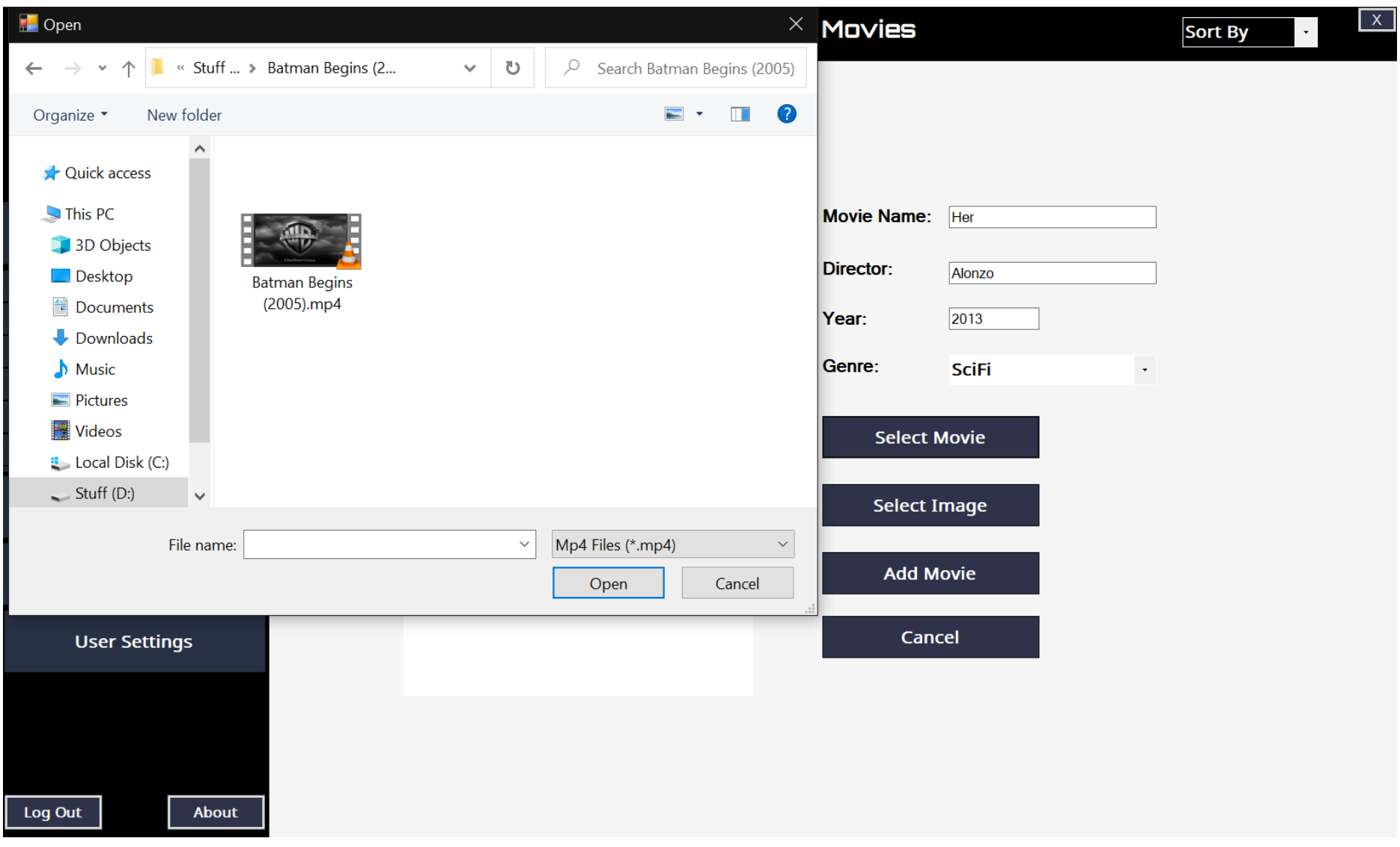


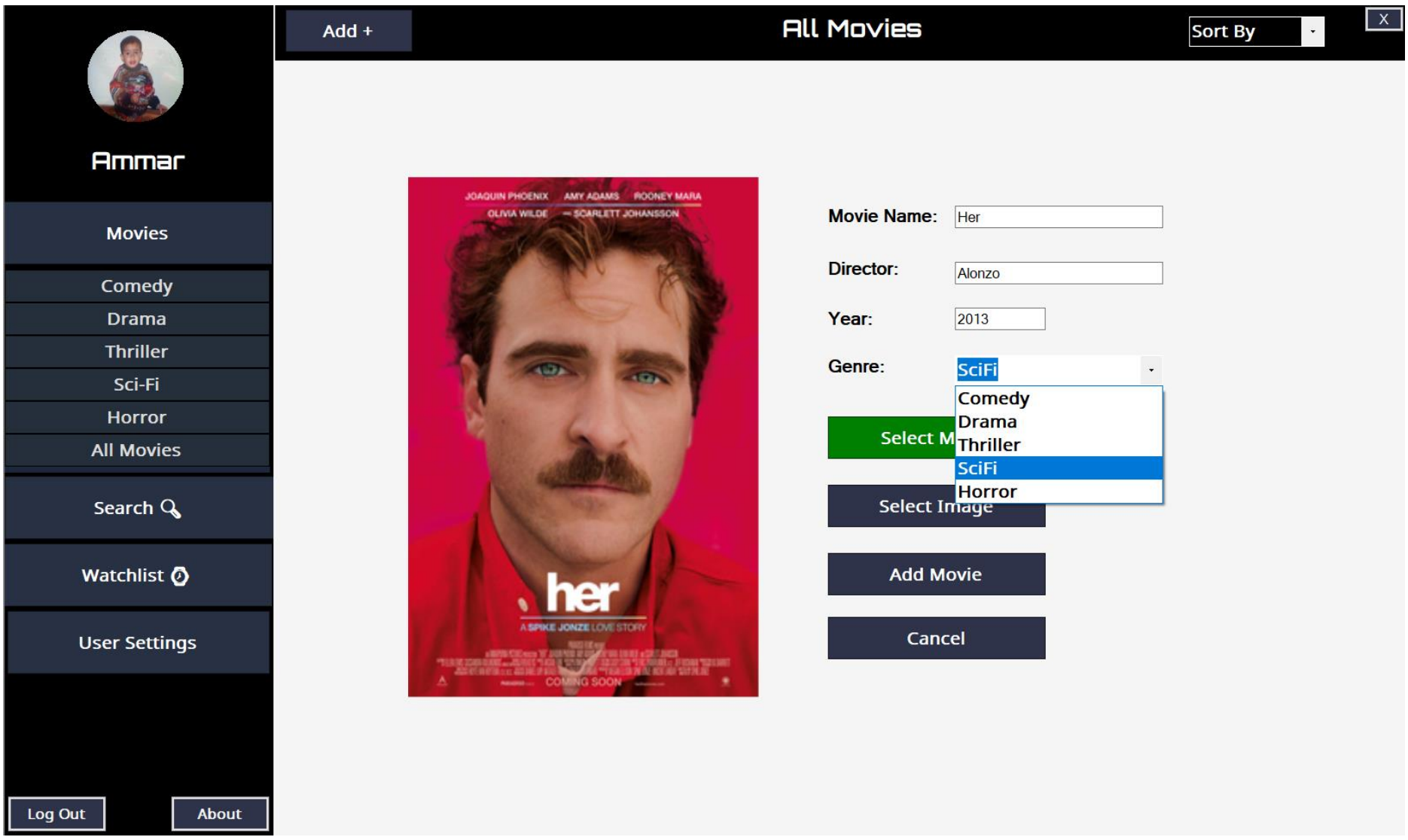
Every movie has a genre, at the time of adding the movie user specifies the genre of the movie and all the added movies are organized in their respective genres. The user can access particular genre category under the "Movies" button.

Adding and Organizing Movies

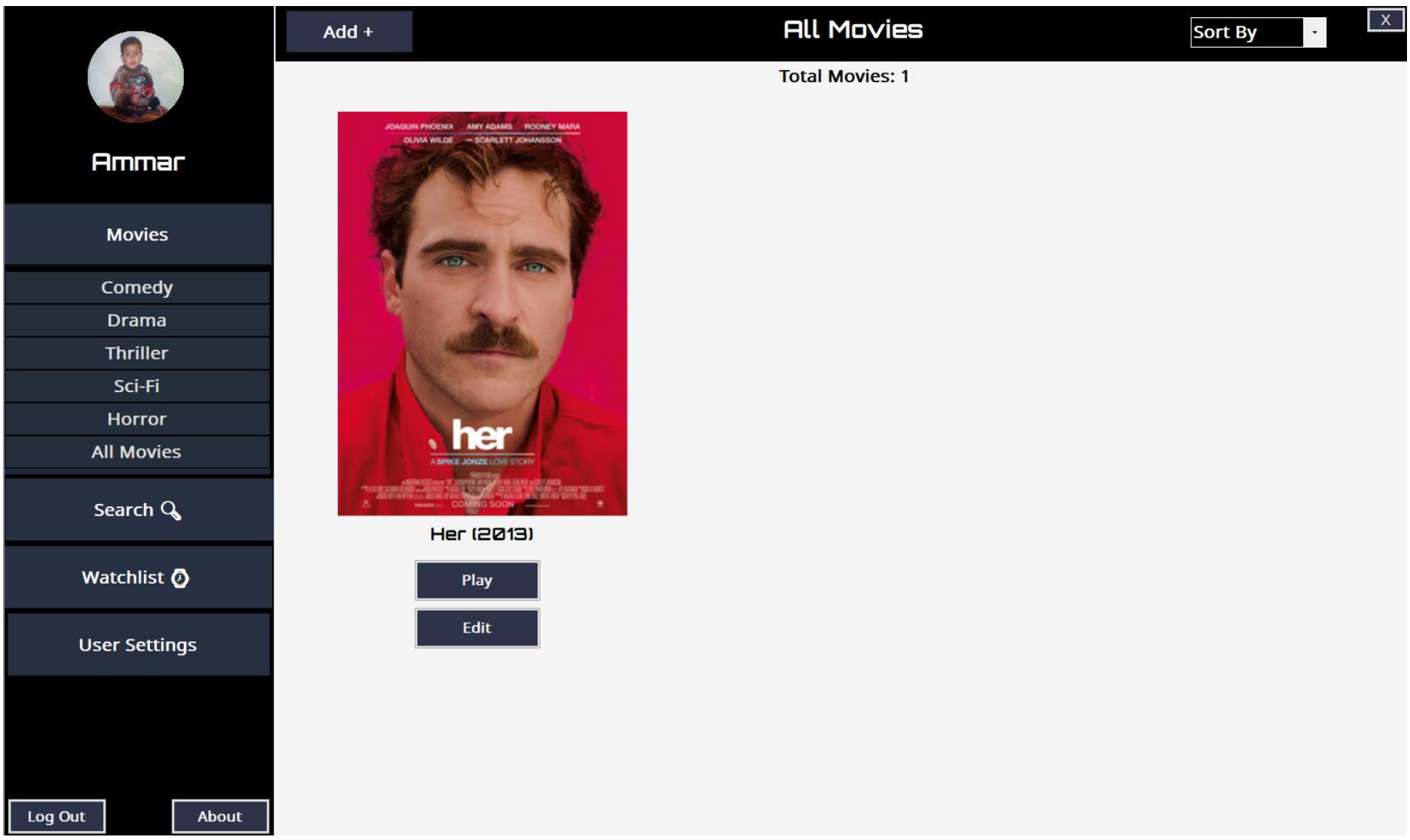


Select a Movie:

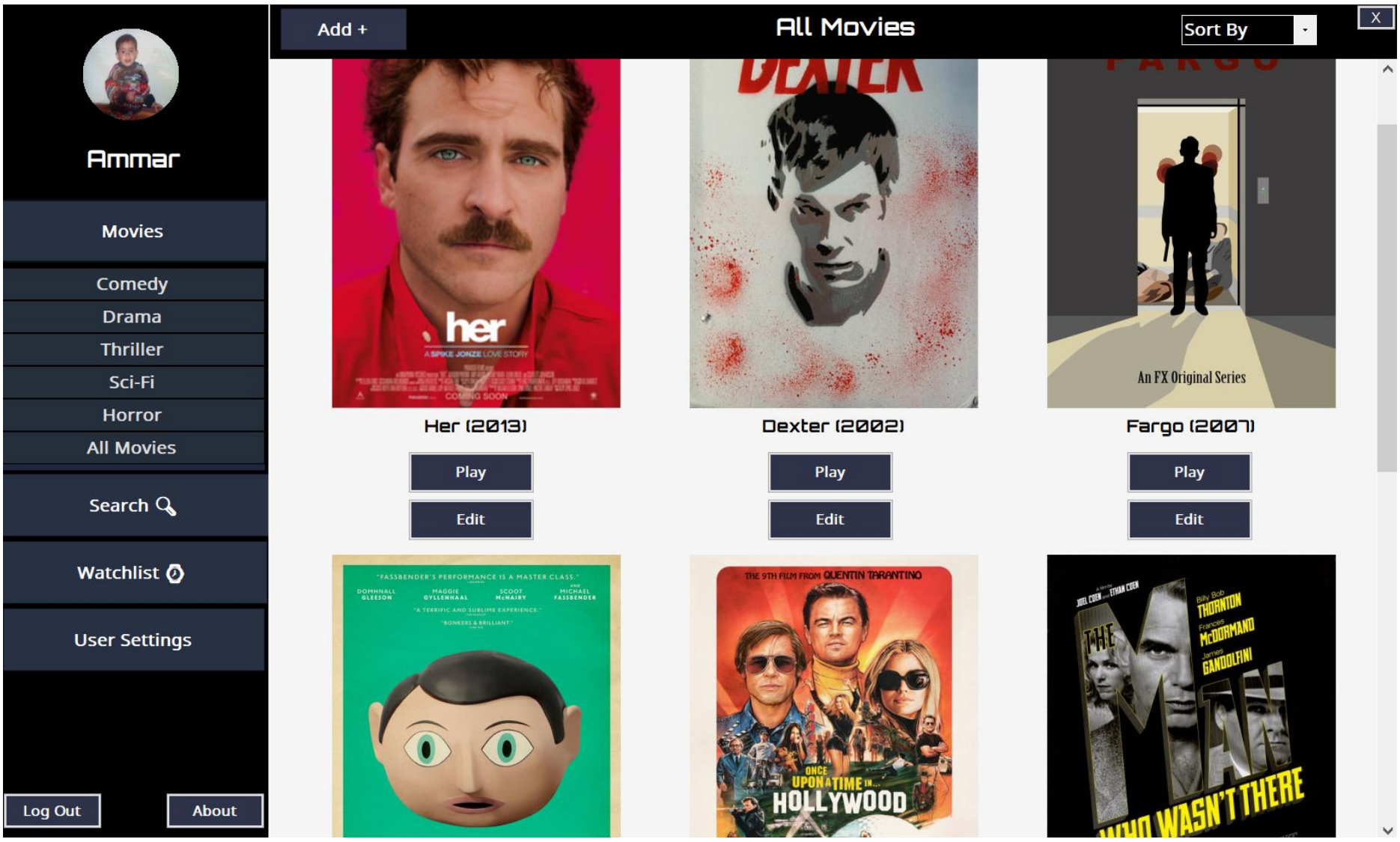




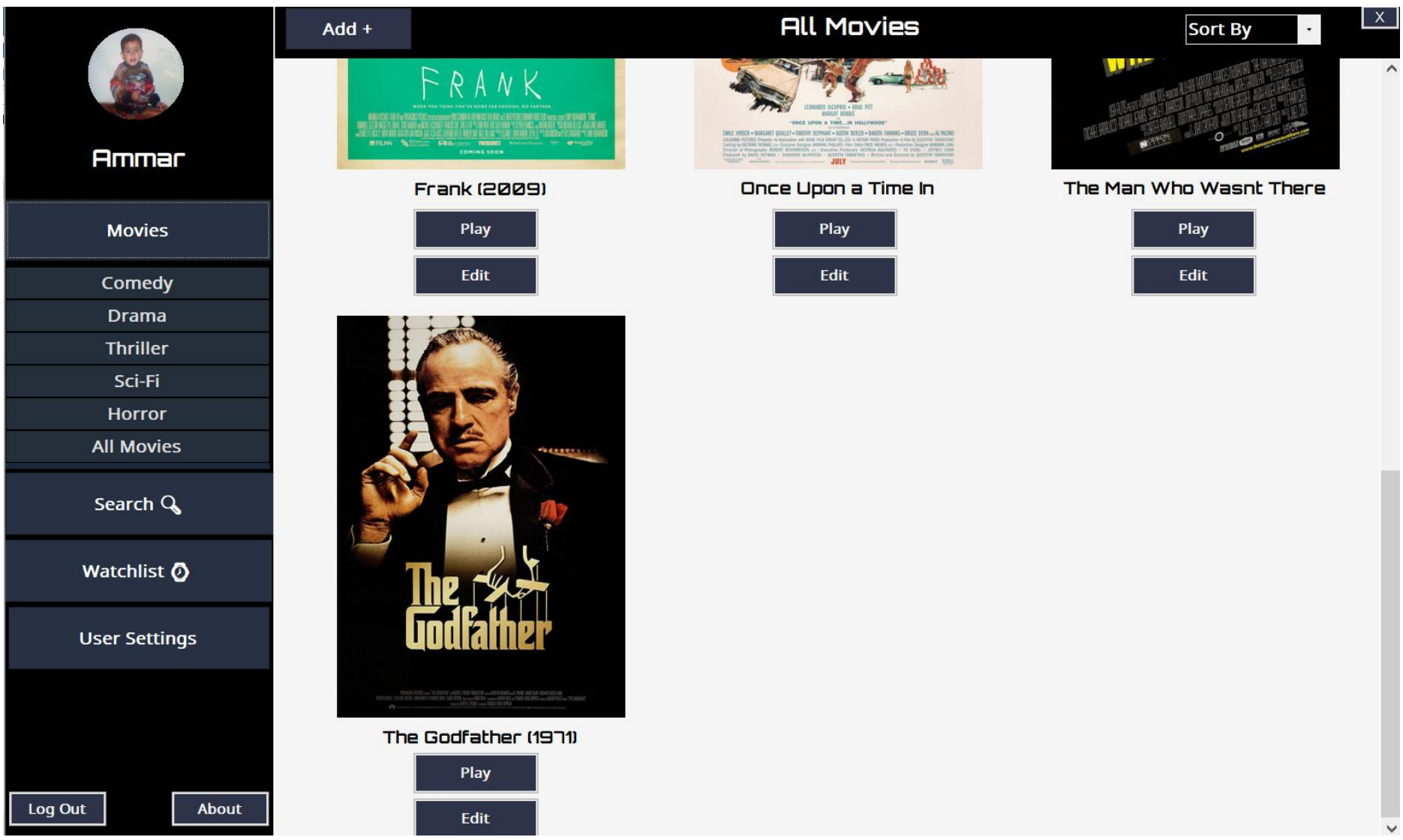
Movie is successfully added:



After adding couple of more movies:

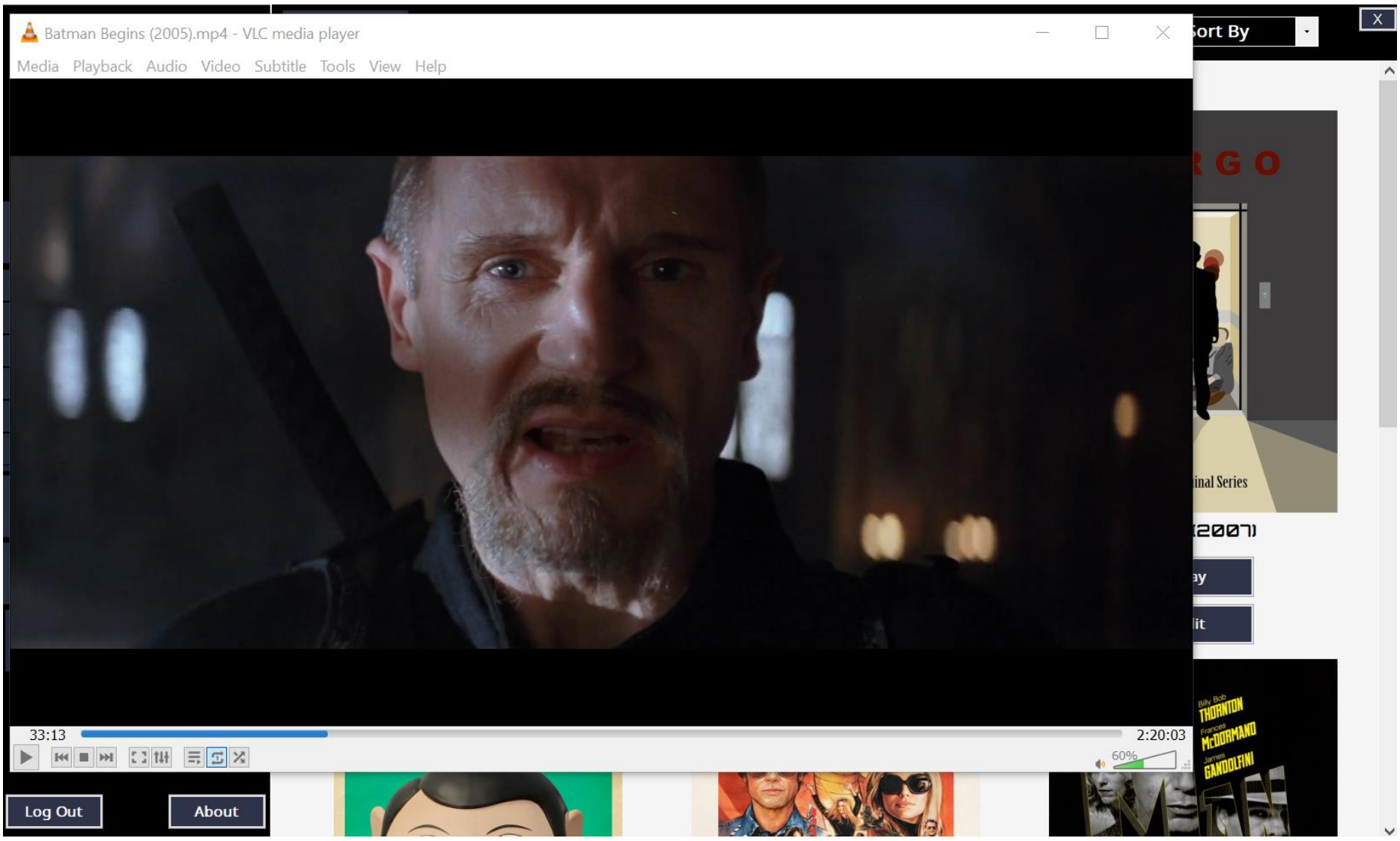


Screenshot 2:



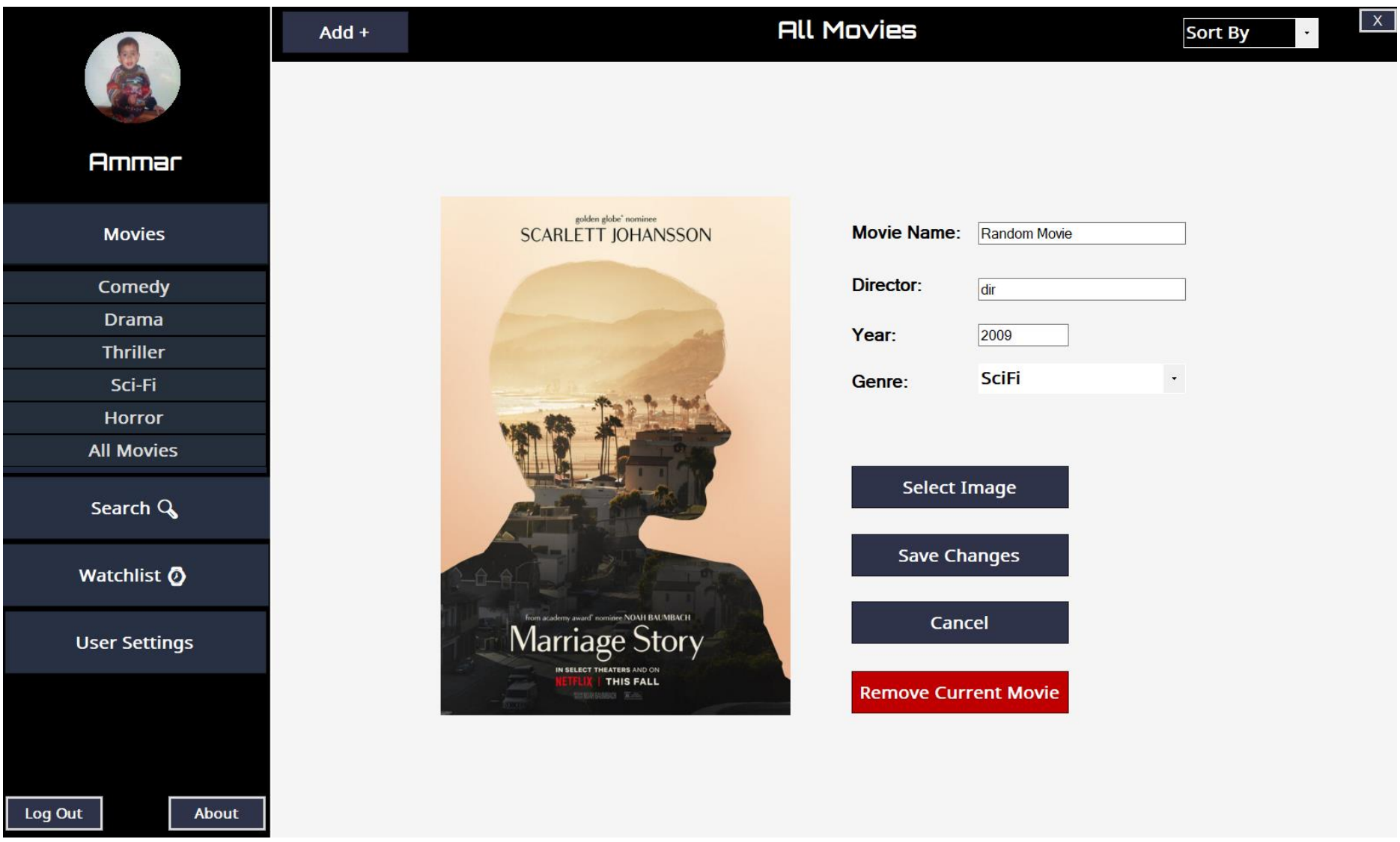
Playing a specific movie:

You can also play a movie from your collection of movies by pressing the “PLAY” button.



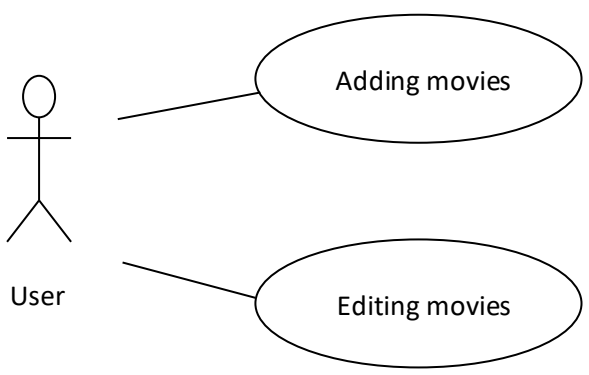
Editing a movie:

You can edit a particular movie. The user can modify the movie name, date, genre and the thumbnail for the movie.



2. **Organizing Movies**

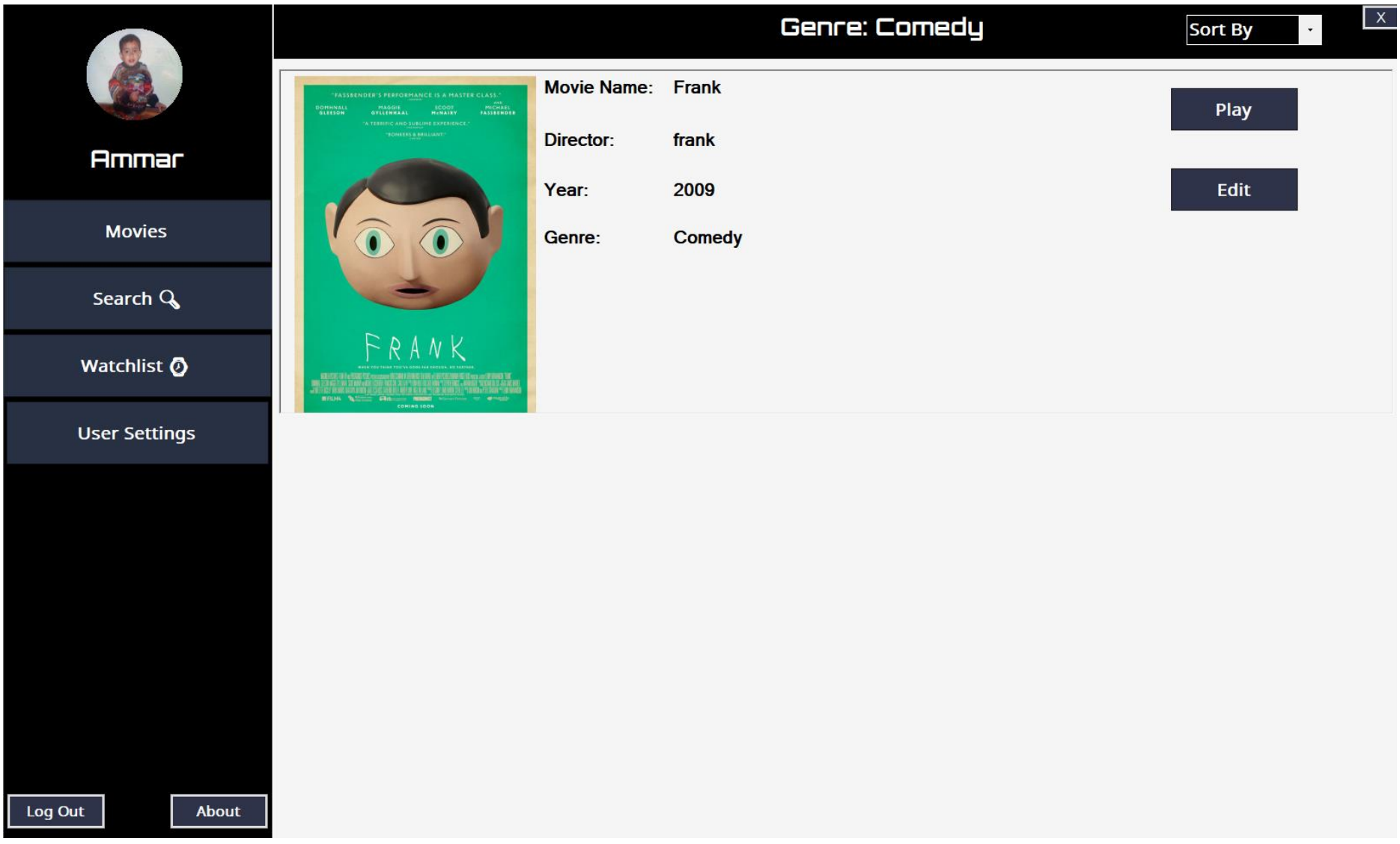
Use Case Name	Organizing movies (Adding, removing, editing)
Trigger	The user can add movies with their information. And later can modify the information.
Precondition	The user must be logged in.
Basic Path	• The User can add movies using the "Add +" button in the top left corner. • The user is then provided the interface for adding movie's information, such as choosing thumbnail of the movie, choosing movie's source, providing movie name, director name, the release date, and the genre. • After the movie is added, the user can play the movie or edit it. • If the user plays the movie, then the default video player of the operating system is used to open the movie from its source. • If the user edits the movie, then they are provided with the edit interface. The user can edit movie name, genre, release date, director, thumbnail, and the movie source.
Postcondition	The user has to click "Save Changes" button to save the information either while adding the movie or editing the movie.
Exception Paths	The user may close the application at any time, without losing the data.



Genre Selection

You can select a specific genre and search through the specific genre movies. You can play or edit the movies.

Comedy Genre:



Thriller Genre:

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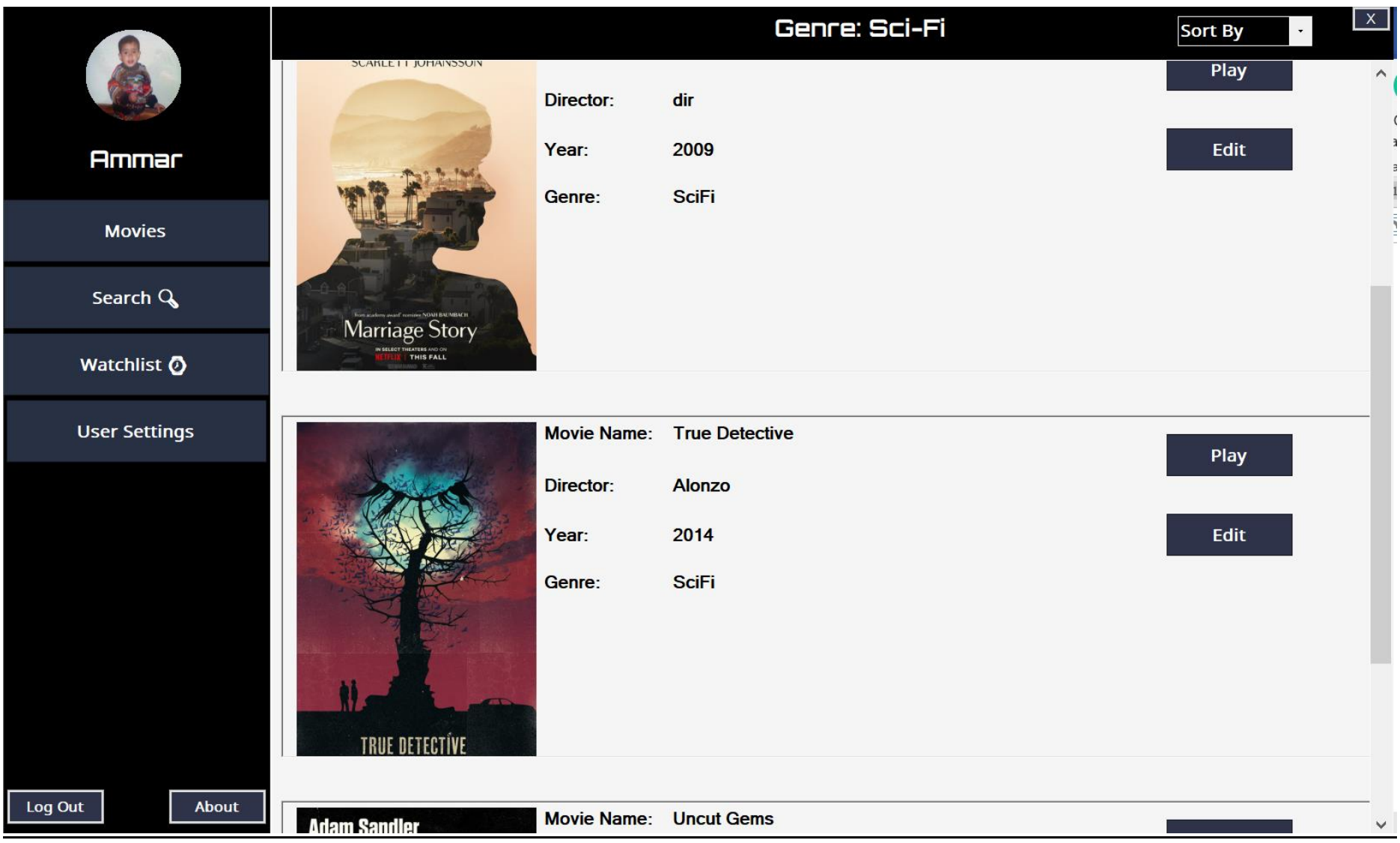
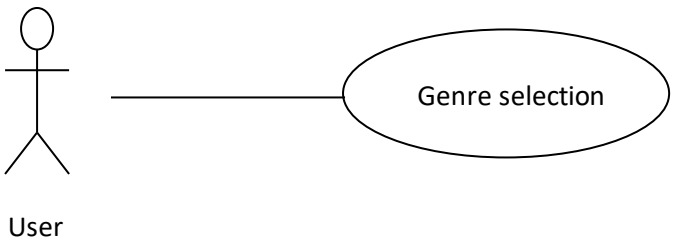


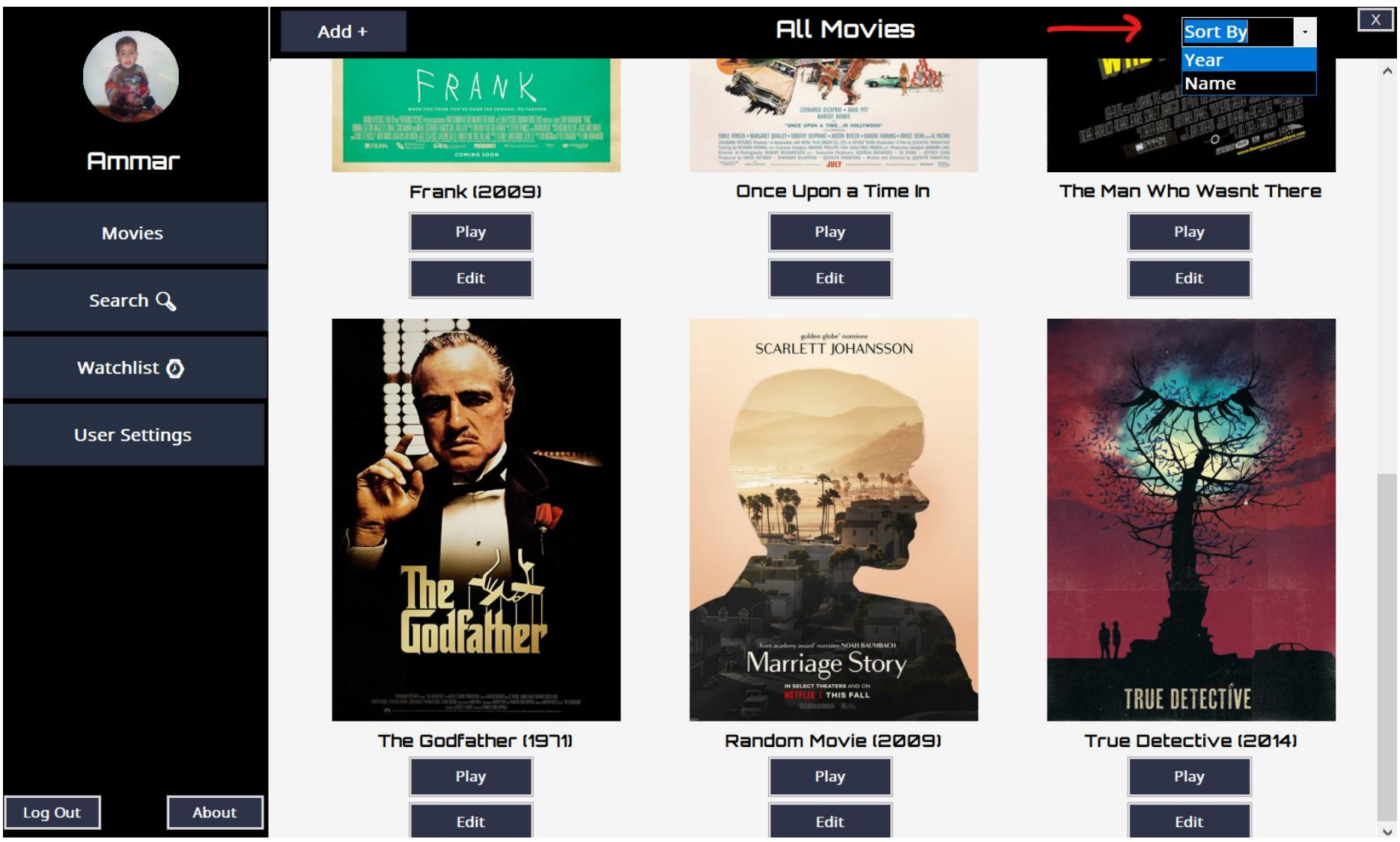
3. **Genre Selection**

Use Case Name	Selection of genre (Adding, removing, editing)
Trigger	The user can select specific genre that they are interested in.
Precondition	The user must be logged in.
Basic Path	• The user can scan through the selected genre movies. • The user can play the specific movie from the selected genre • If the user plays the movie, then the default video player of the operating system is used to open the movie from its source. • If the user edits the movie, then they are provided with the edit interface. The user can edit movie name, genre, release date, director, thumbnail, and the movie source.
Postcondition	The user has to click "Save Changes" button to save the information either while adding the movie or editing the movie.
Exception Paths	The user may close the application at any time, without losing the data.

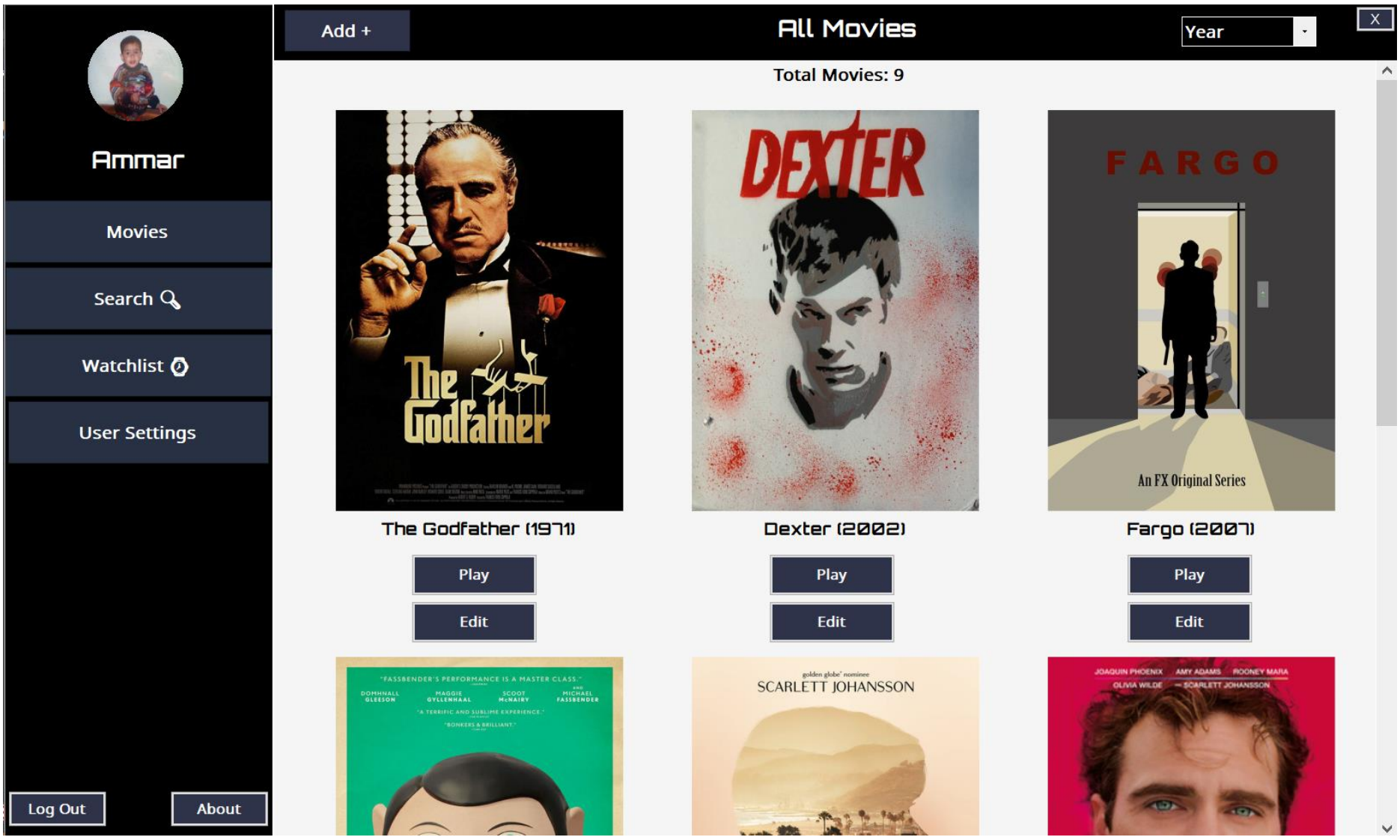


Sorting Movies by Year or by Name

Sorting by Year:

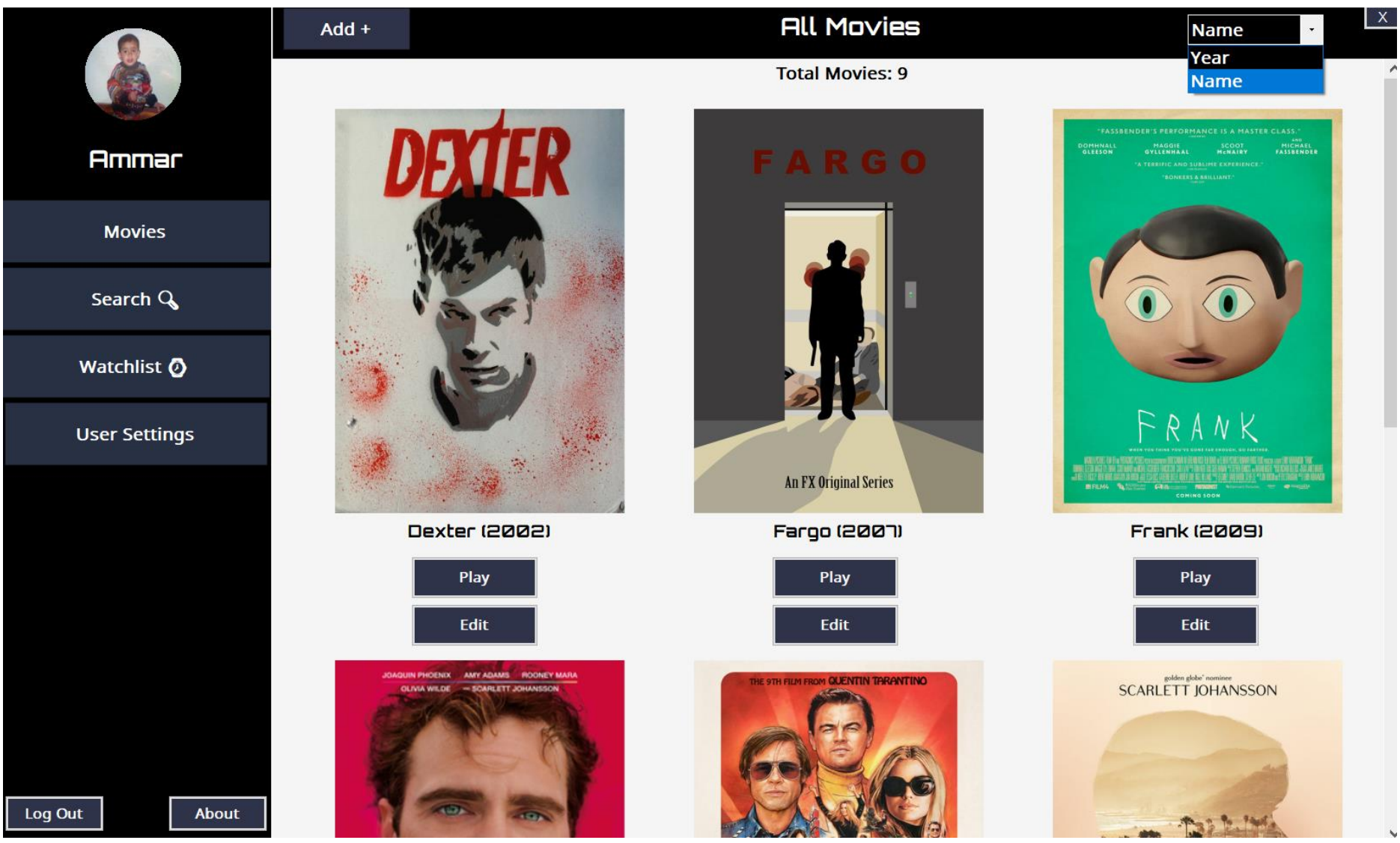


After sorting by year:



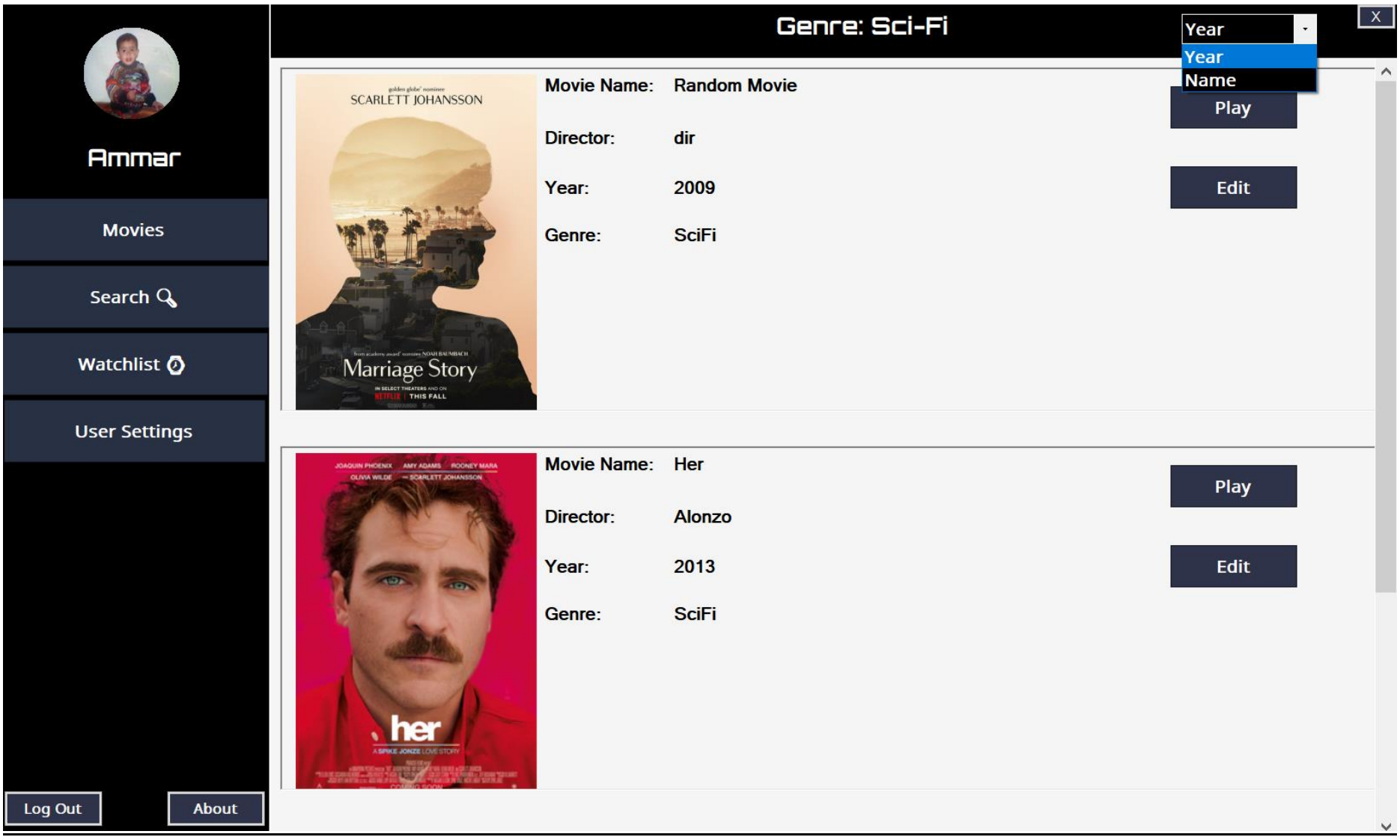
Note that the movies are displayed in ascending order by their year.

Sorting by Name:



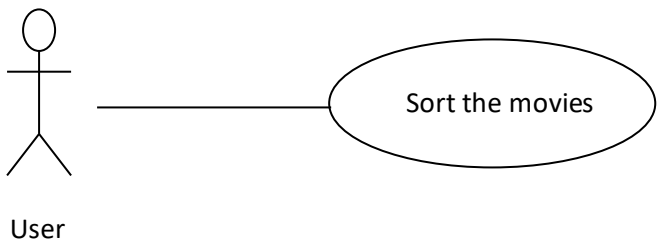
Note that movies are displayed by their name in ascending order.

You can also sort the movies in genre interfaces:



4. **Sorting Movies**

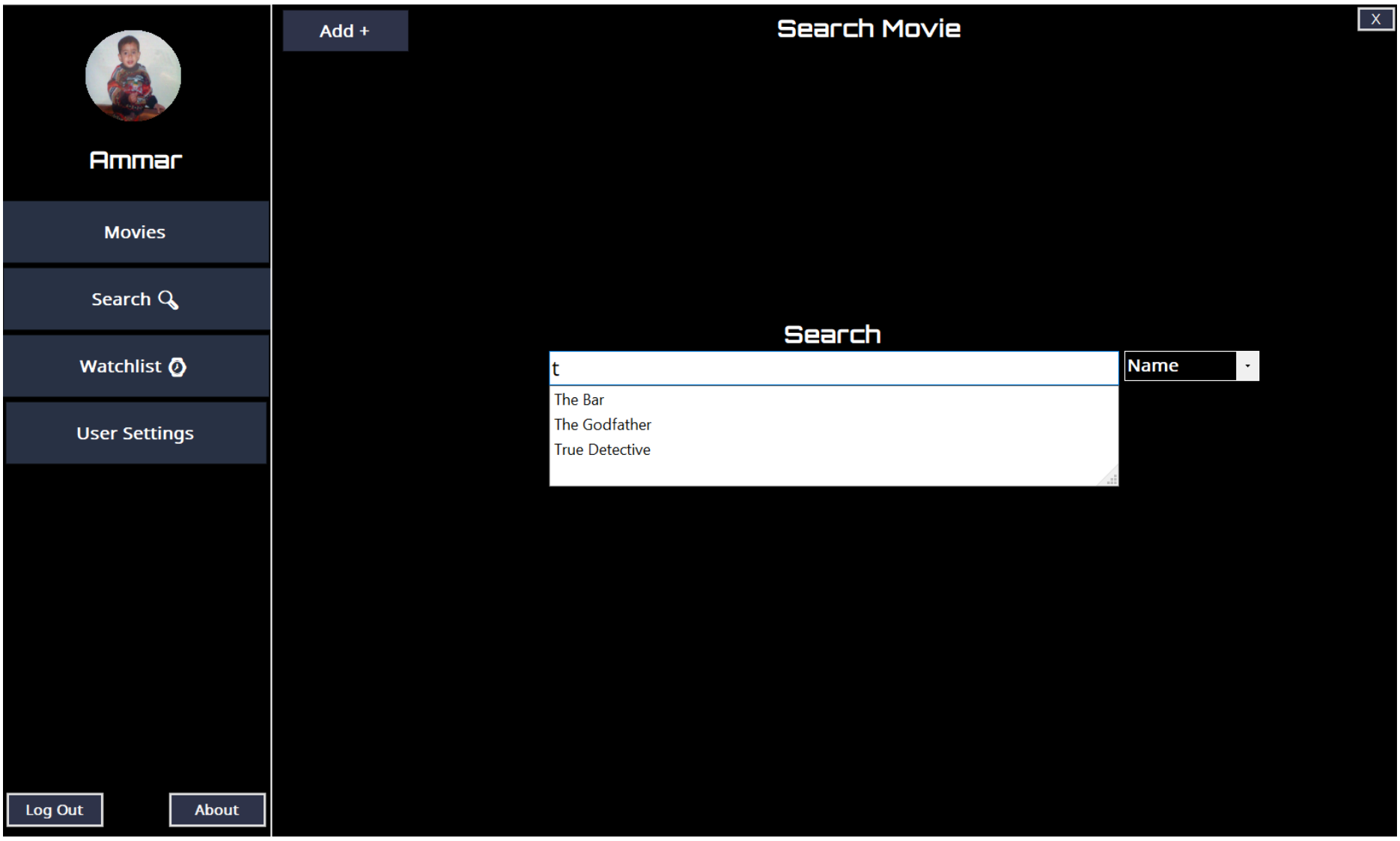
Use Case Name	Sorting by name or by year
Trigger	The user can sort the movies by year or by name.
Precondition	There should be at least one movie present.
Basic Path	• The User specifies whether to sort the movies by year or by name. • If the user chooses to sort the movies by year, then the movies are displayed in ascending order of their year. • If the user chooses to sort the movies by name, then the movies are displayed in ascending order of their names.
Postcondition	There is none.
Exception Paths	The user may close the application at any time, without losing the data.



Searching Movies

Searching movies through name:

The user can search a particular movie by their name. Note that the user is provided with autocomplete functionality. The user is displayed auto suggestions as the user is typing the movie name.

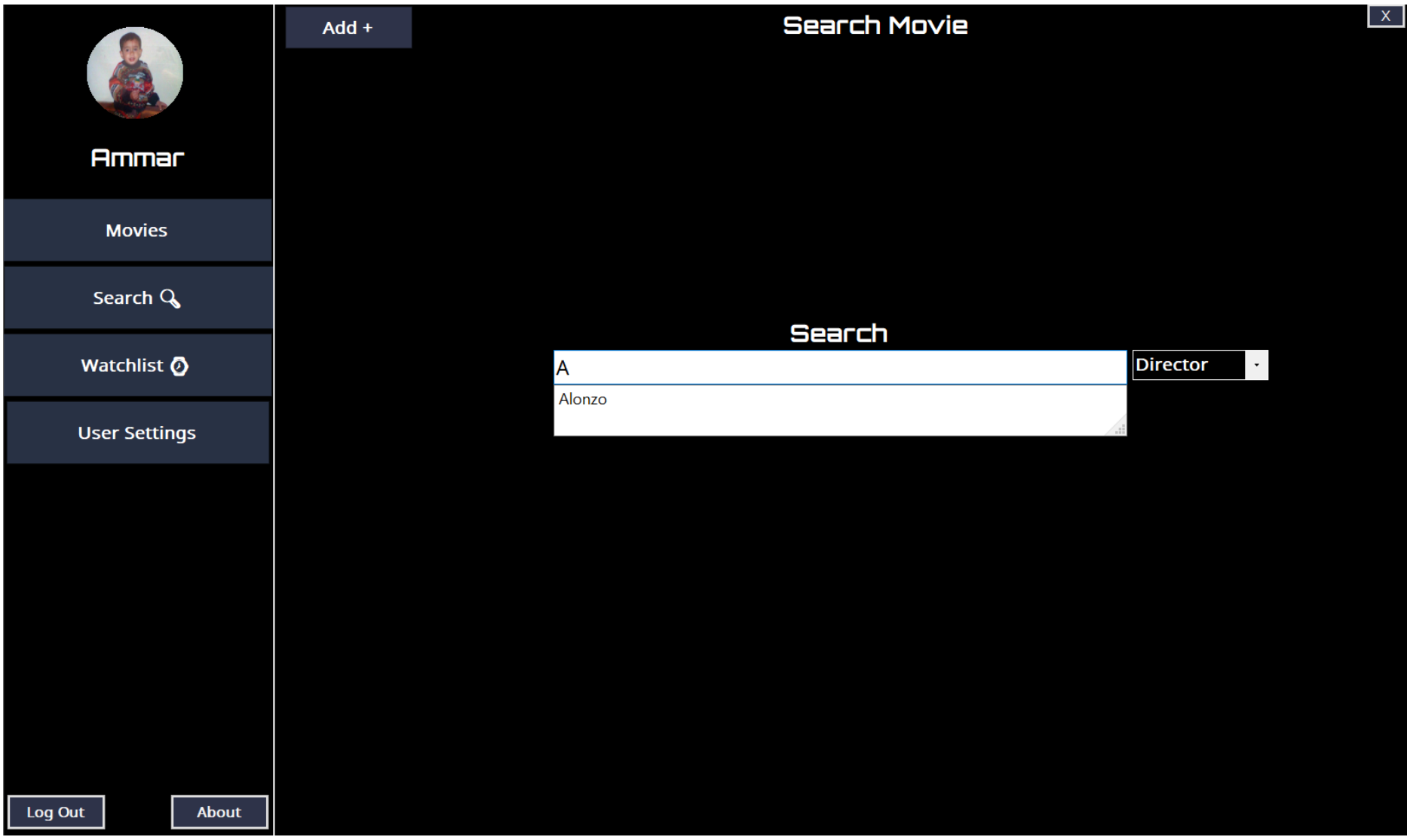


After Search:

The user can see the information about the searched movie such as year, name, director, and duration of the movie. The user can also play the searched movie as well as edit it.

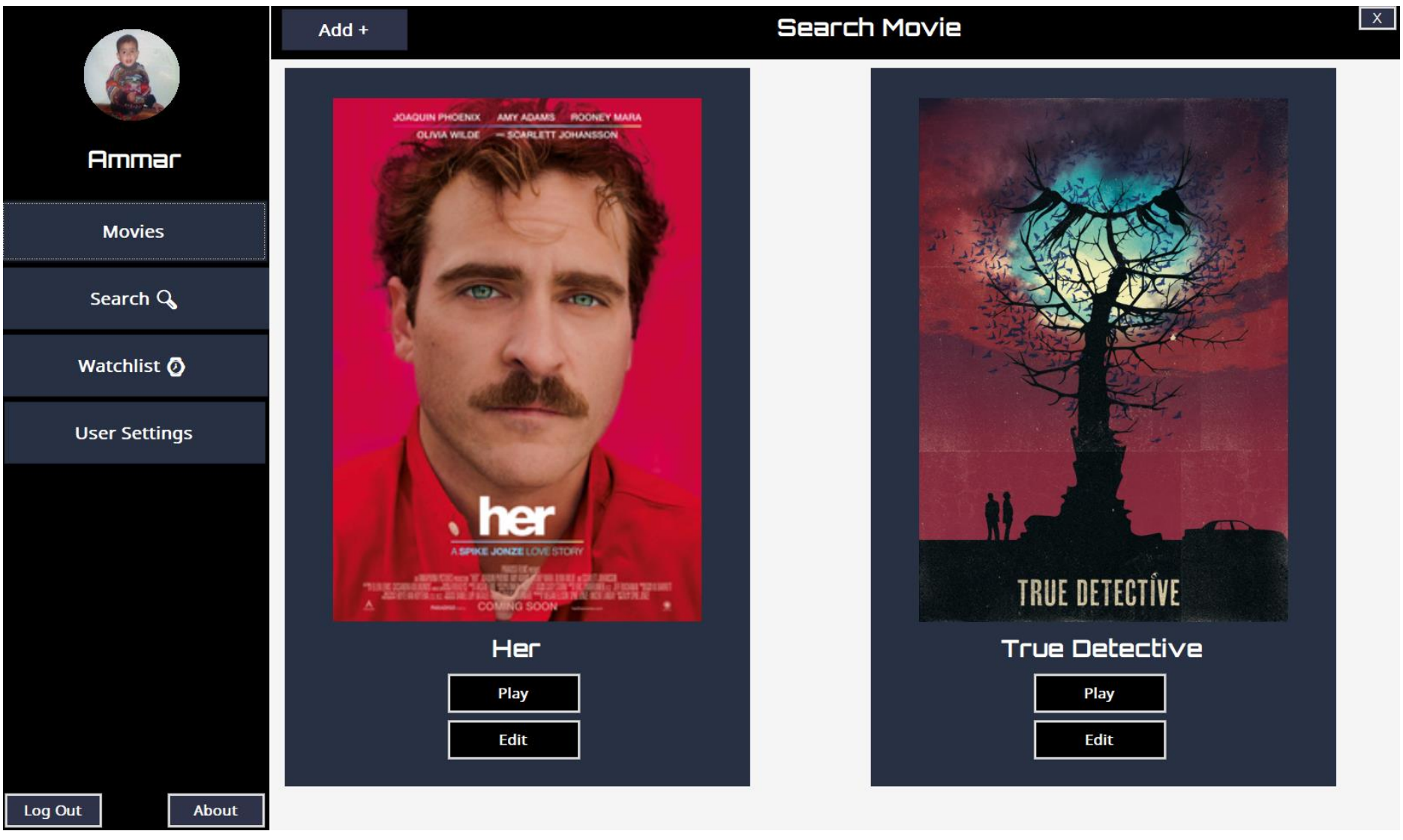
Searching movies through director name:

The user can search a particular movie by the movie's director name. Note that the user is provided with autocomplete functionality. The user is displayed auto suggestions as the user is typing the movie name.



Search Results:

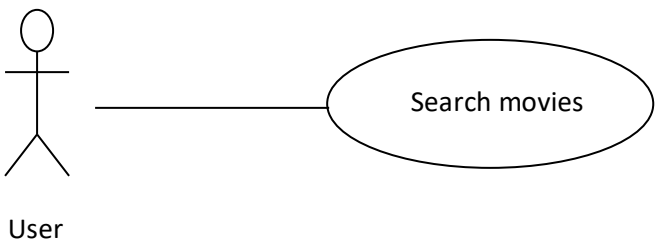
The director named Alonzo has two movies in the user's collection:



The user can also play the searched movie as well as edit it.

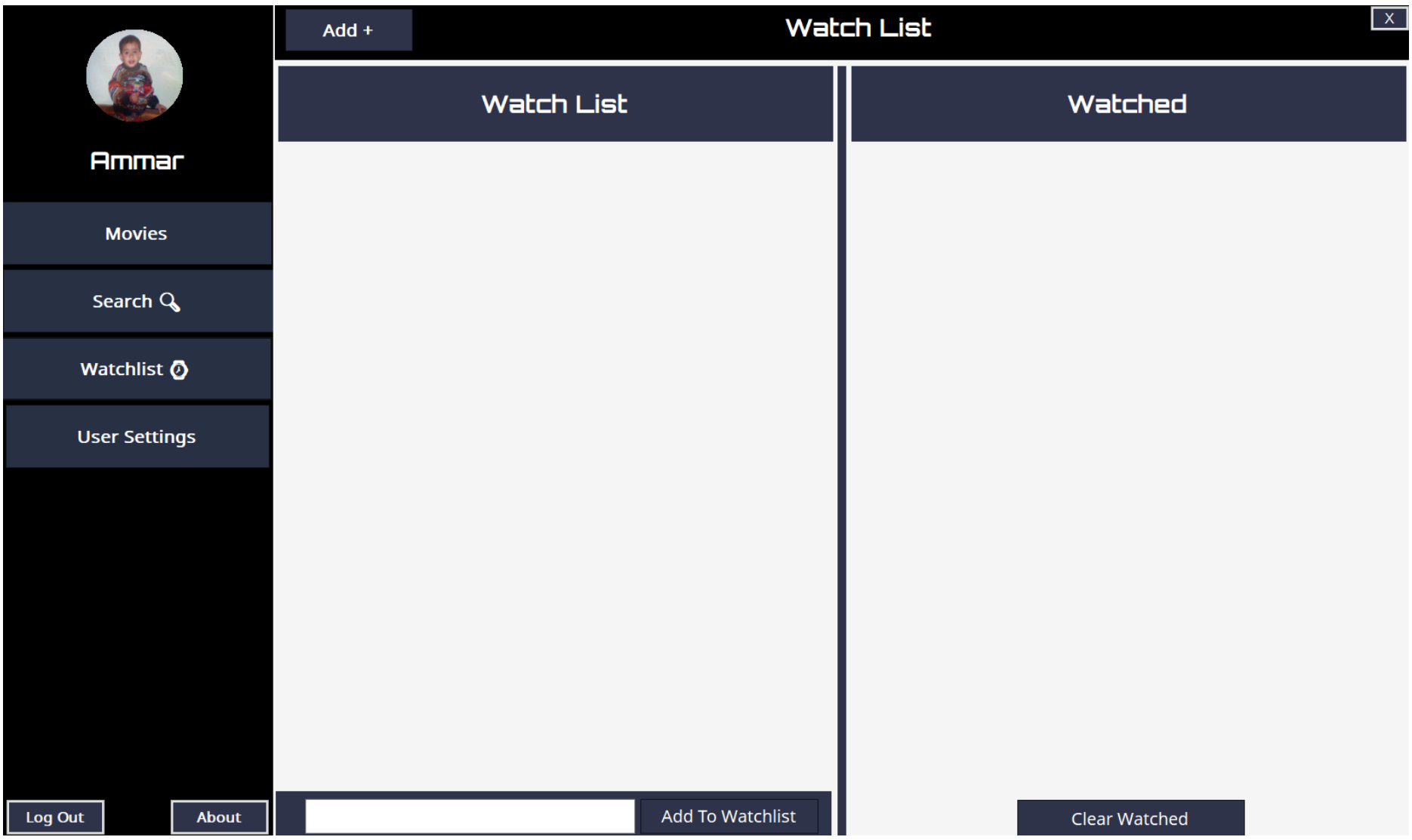
5. **Searching Movies**

Use Case Name	Searching movies by name or by movie director name.
Trigger	The user can search the movies by director name or by movie's name.
Precondition	The user must be logged in.
Basic Path	• The User specifies whether to search the movie by name or by director name. The user can choose this option through drop down combo box. • If the user chooses to search the movie by name, then the user is displayed the searched movie with all the information as well as its duration. • If the user chooses to search the movie by director name, then all the movies directed by that director in the user's collection are displayed. • In both of these options user can play as well as edit the searched movies.
Postcondition	If the user chooses to edit the movie, then the user must "Save Changes" before closing the application.
Exception Paths	The user may close the application at any time, without losing the data.

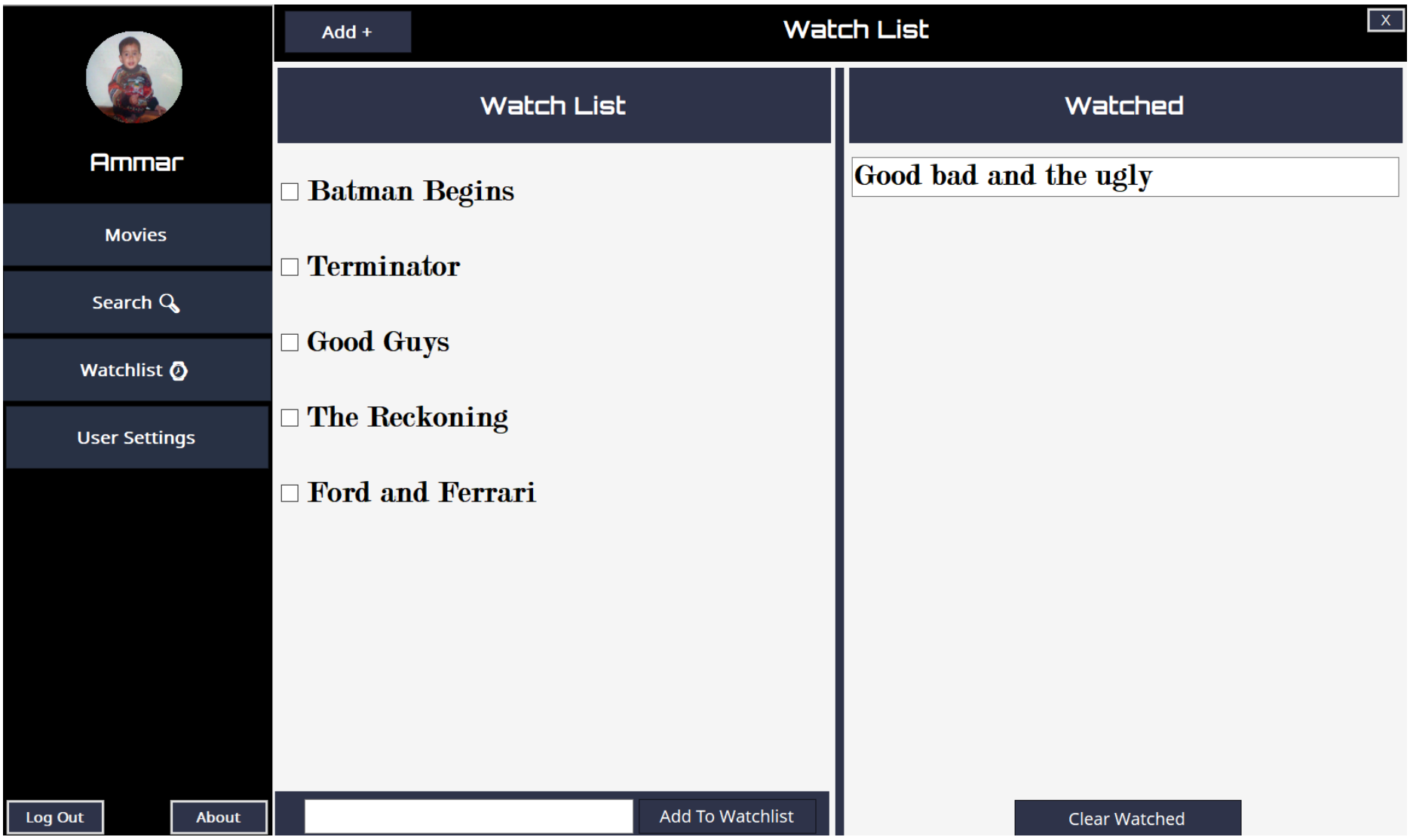


Watchlist Feature

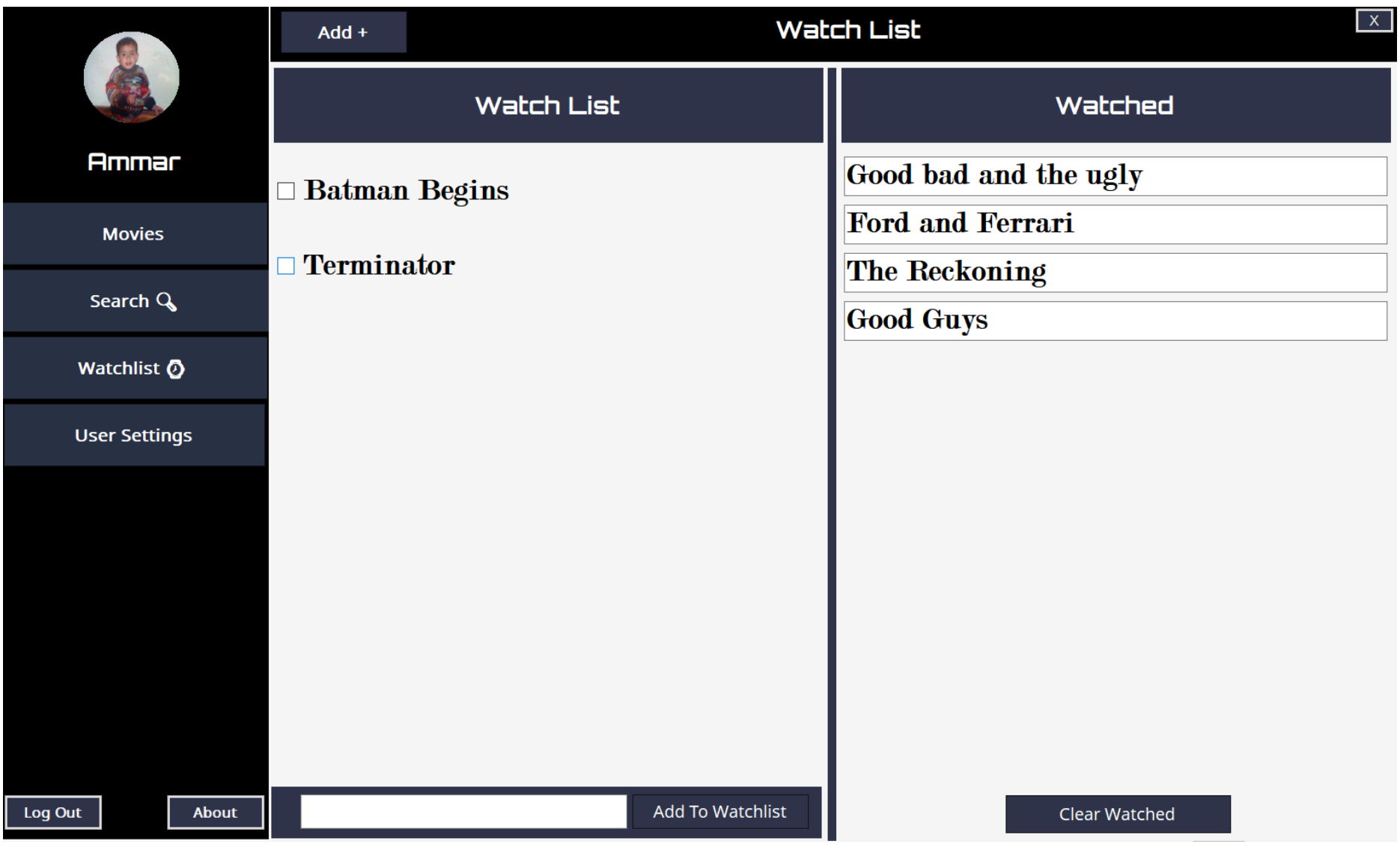
In the Watchlist feature, there are two panels. The first panel is used for user to add the movies that the user wishes to watch later. The second panel is used to keep track of the movies that have been watched by the user.



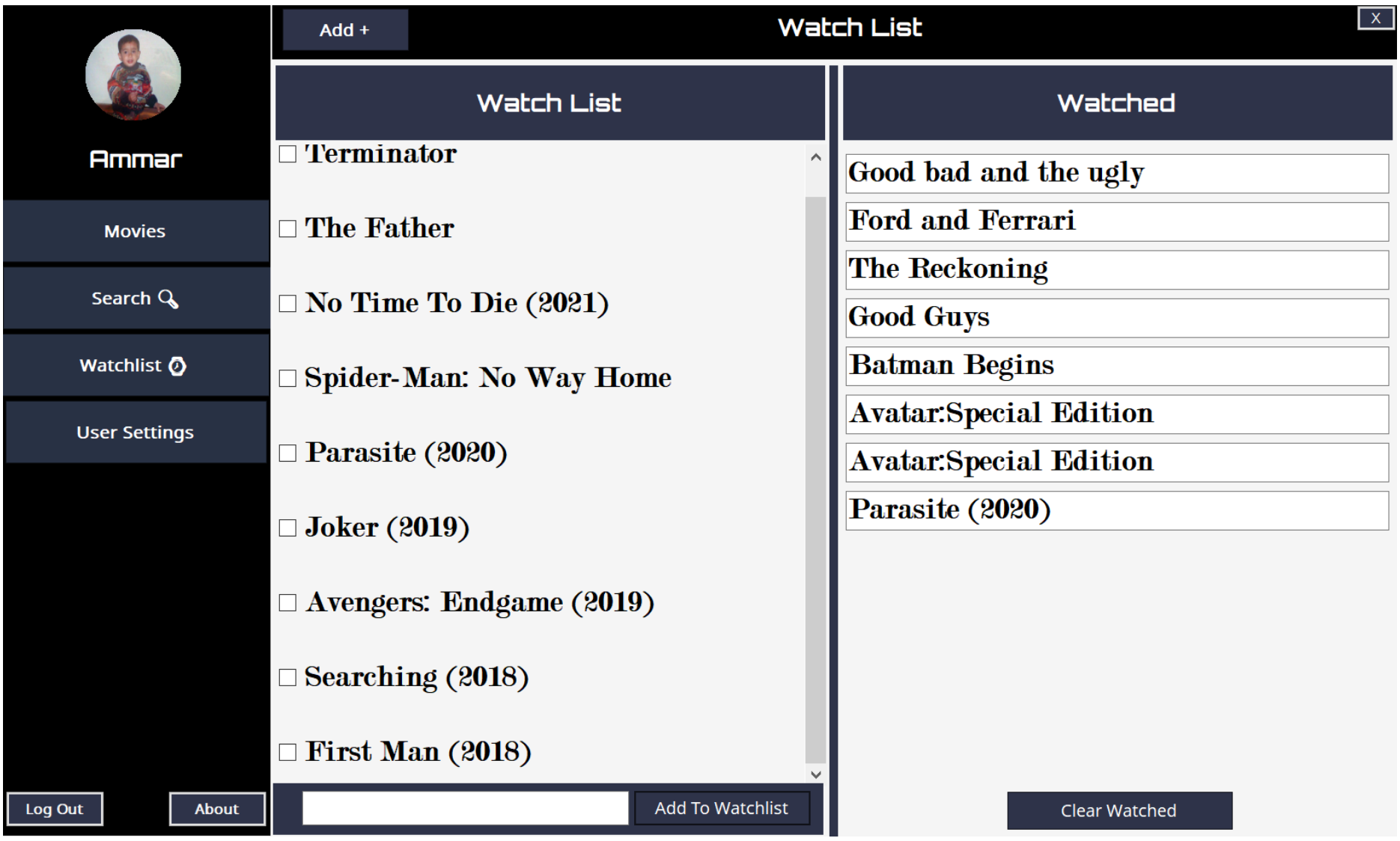
After adding some movies to watchlist:



Checking off the movies that have been watched:

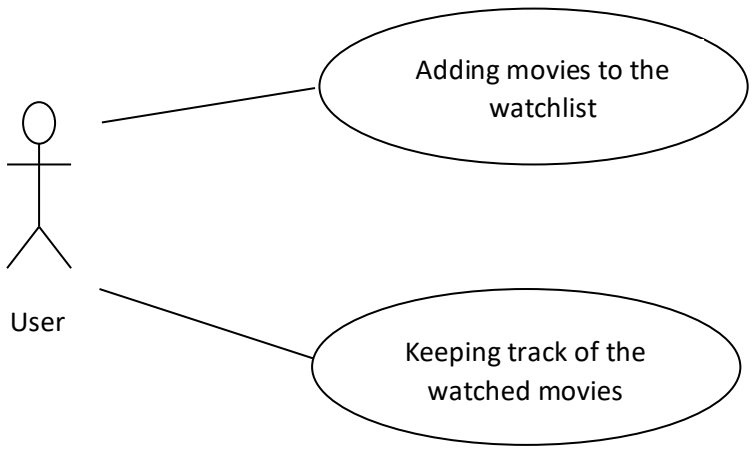


You can clear the "Watched" panel as well.



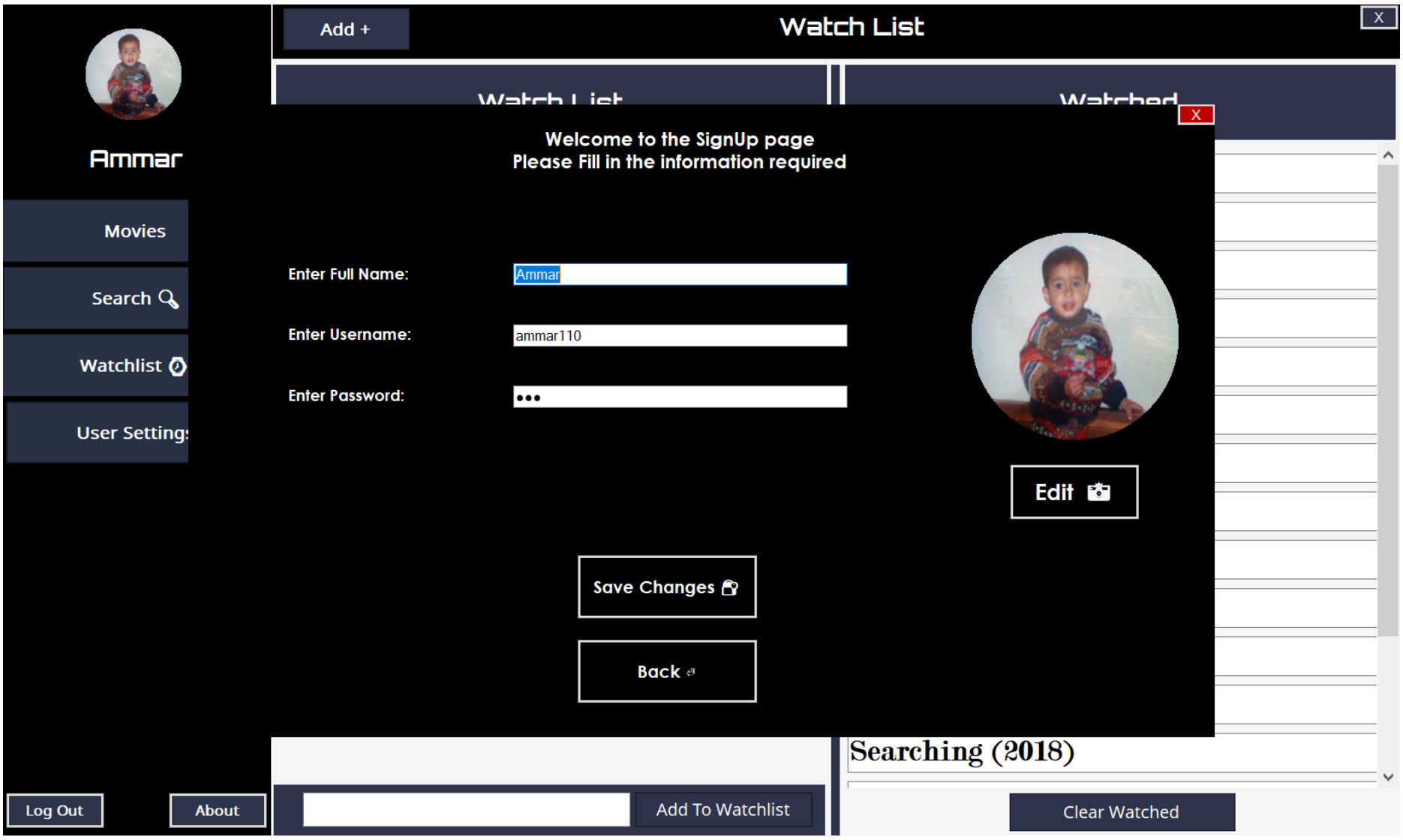
6. **Watchlist Feature**

Use Case Name	Add movies to the watchlist and see watched movies.
Trigger	User can add movies to their watchlist and keep track of the watched movies.
Precondition	The user must be logged in.
Basic Path	• The User writes the name of the movie in the textbox and clicks on the "Add" button to add the movie in the watchlist. • When the user check marks a particular movie from the watchlist section, that movie is moved to the "Watched" section. • The user can clear the watched section.
Postcondition	There is none.
Exception Paths	The user may close the application at any time, without losing the data.

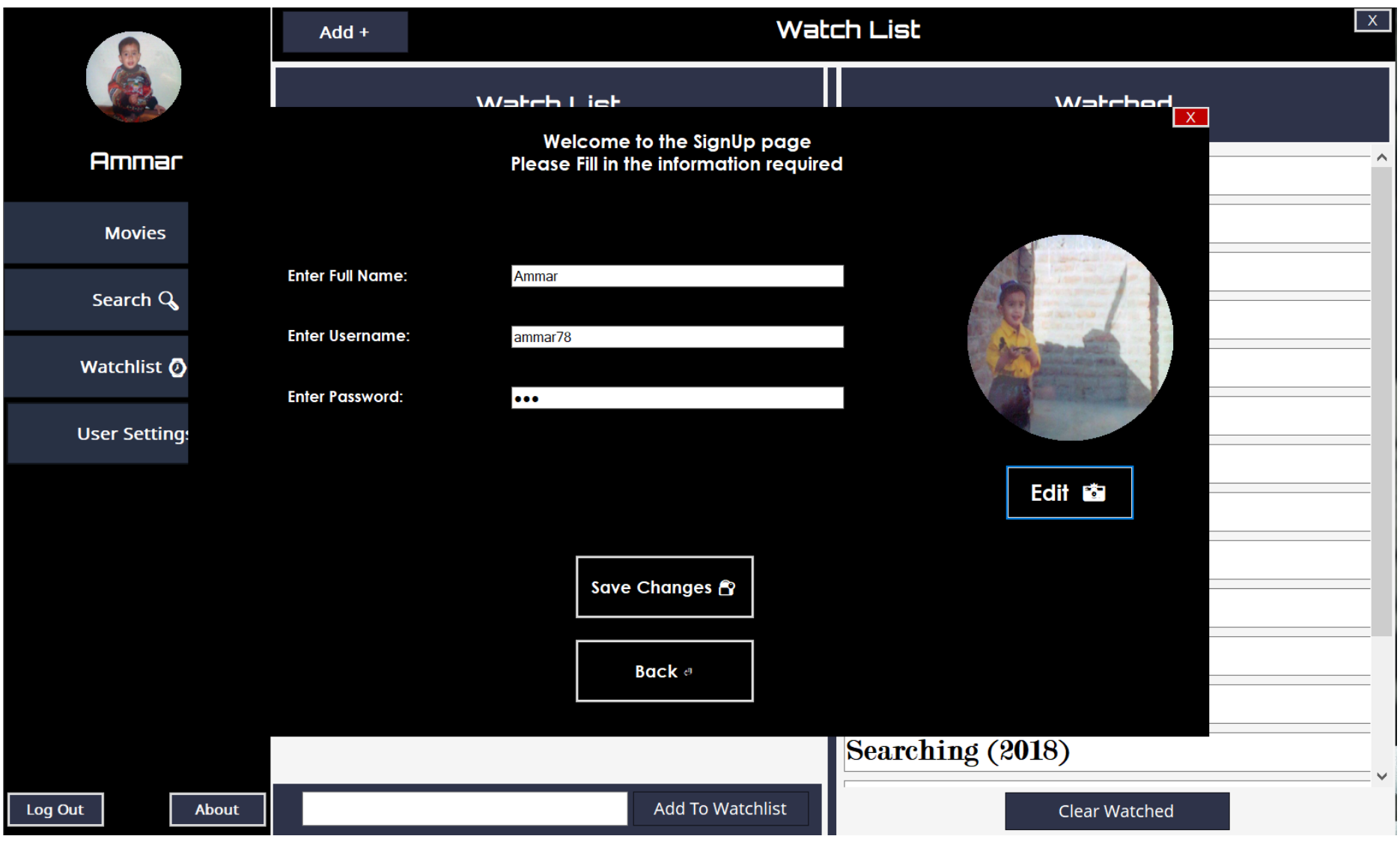


User Settings

The user can modify their information such as username, full name, password, and their profile picture.



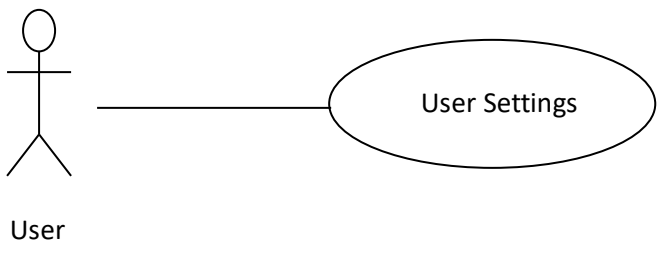
Changing username and profile picture:



After saving changes:

7. **User Settings**

Use Case Name	User edits their profile information.
Trigger	The user can change their name, username, password, or their profile picture.
Precondition	The user must be logged in.
Basic Path	• The user clicks on the "User Settings" button • Makes the desired changes. • Clicks on the save changes button.
Postcondition	The user must save the changes before exiting for the changes to take effect.
Exception Paths	The user may close the application at any time, without losing the data.



Conclusion:

This modern movie manager provides a robust and good-looking interface to the users so that they can maintain their movie collection in a single application. This application frees users from having to look up for movies in folders. Furthermore, users have many other features such as searching by director name, sorting movies by year or by name, choosing their own thumbnails, and organizing movies into their genres.

END