



**AMERICAN INTERNATIONAL UNIVERSITY-BANGLADESH (AIUB)**

**Faculty of Science & Technology**

**Department of Computer Science**

## **OBJECT ORIENTED PROGRAMMING 2**

**FALL 2023-2024**

**Section: I Group: 05**

**PROJECT REPORT ON**

### **THE MEDIA LIBRARY**

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## **Introduction:**

Introducing "The Media Library," an innovative offline streaming application that brings the joy of entertainment right to your fingertips. Imagine a world where you can enjoy a vast collection of movies at your convenience, without the need for an internet connection. Let's embark on a user journey through this exciting platform.

## **User Story:**

**Creating an Account:** Welcome to "The Media Library" - where your offline entertainment journey begins! To embark on this adventure, users are required to create an account, ensuring a personalized and secure experience.

### **1. Sign-Up Form:**

- o Users initiate the account creation process by filling out a sign-up form.
- o The form requires essential information:
  - First Name
  - Last Name
  - Gender
  - Date of Birth
  - Email (used as a unique identifier)

### **2. Password Creation:**

- o To fortify account security, users are prompted to create a robust 7-digit password.
- o The password complexity ensures a secure environment for their media exploration.

**Logging In:** For those returning users, a smooth login process awaits. Once logged in, the home screen unfolds, revealing a vast array of movies, ready to be explored.

**Browsing and Watching:** Users can pick a movie of their choice, utilizing a seamless search feature. Clicking on a movie, they are taken to a video player with options like time skip for 5 seconds, volume control, mute, play, and pause. The user is in complete control of their viewing experience.

**Admin Privileges:** For those with administrative rights, a world of possibilities opens up. Admins not only enjoy the same features as regular users but also have additional privileges. They can upload new videos, expanding the library for all users to enjoy.

**Logging Out:** After a satisfying movie session, users can seamlessly log out with the click of a button. It's right there, waiting for them, ensuring a smooth exit from "The Media Library" universe.

As users reflect on their experience, they can't help but appreciate the user-friendly interface, diverse movie collection, and thoughtful features that make "The Media

"Library" a promising platform for future cinematic escapades. Get ready for a movie journey like no other, where entertainment is truly at your fingertips, even without an internet connection.

## **Features:**

### **1. Diverse Content Collection:**

- Inclusion of movies, documentaries, and other forms of media content.

### **2. User Authentication:**

- Secure user accounts to personalize the viewing experience.

### **3. Search Functionality:**

- User-friendly search feature for easy content discovery.

### **4. Content Categorization:**

- Organizing content into categories and genres for efficient browsing.

### **5. User Ratings and Reviews:**

- Allow users to rate and review content, enhancing community engagement.

### **6. Responsive User Interface:**

- Intuitive and visually appealing design for a seamless user experience across devices.

### **11. User**

These features contribute to creating a comprehensive media library that caters to the preferences and convenience of its users. Depending on the specific goals and target audience of the media library project, additional features may be considered.

## USE CASE:

The use case centers around the User Registration and Video Watching features of a locally hosted C# application, aiming to emulate a Netflix-like experience. The primary actor in this narrative is the User, with the admin serving as a supporting actor responsible for video uploads. The scenario unfolds within the context of a functional system, ensuring the user's access to the application, and begins with the precondition that the user is not logged in.

The User Registration process commences as the user launches the application and chooses to register. The system, in response, presents a registration form soliciting vital details: username, email, password, and preferred video categories like horror, romantic, funny, and action. Post form submission, the system meticulously validates the provided information. Upon successful validation, a new user account is instantiated, and the relevant details are securely stored in the database. The user is then sent a confirmation message, culminating in the finalization of the registration process.

After registration, the user proceeds to log in. Entering credentials in a designated login form, the system diligently verifies these against the stored user data in the database. Successful authentication leads to the user gaining access to the application's features and being directed to a personalized home screen.

Within this personalized space, the user encounters various video categories. These encompass genres such as horror, romantic, funny, and action, allowing users to explore diverse content options. Further exploration within a chosen category unveils a list of available videos. The user can effortlessly scroll through this list to find a specific video of interest.

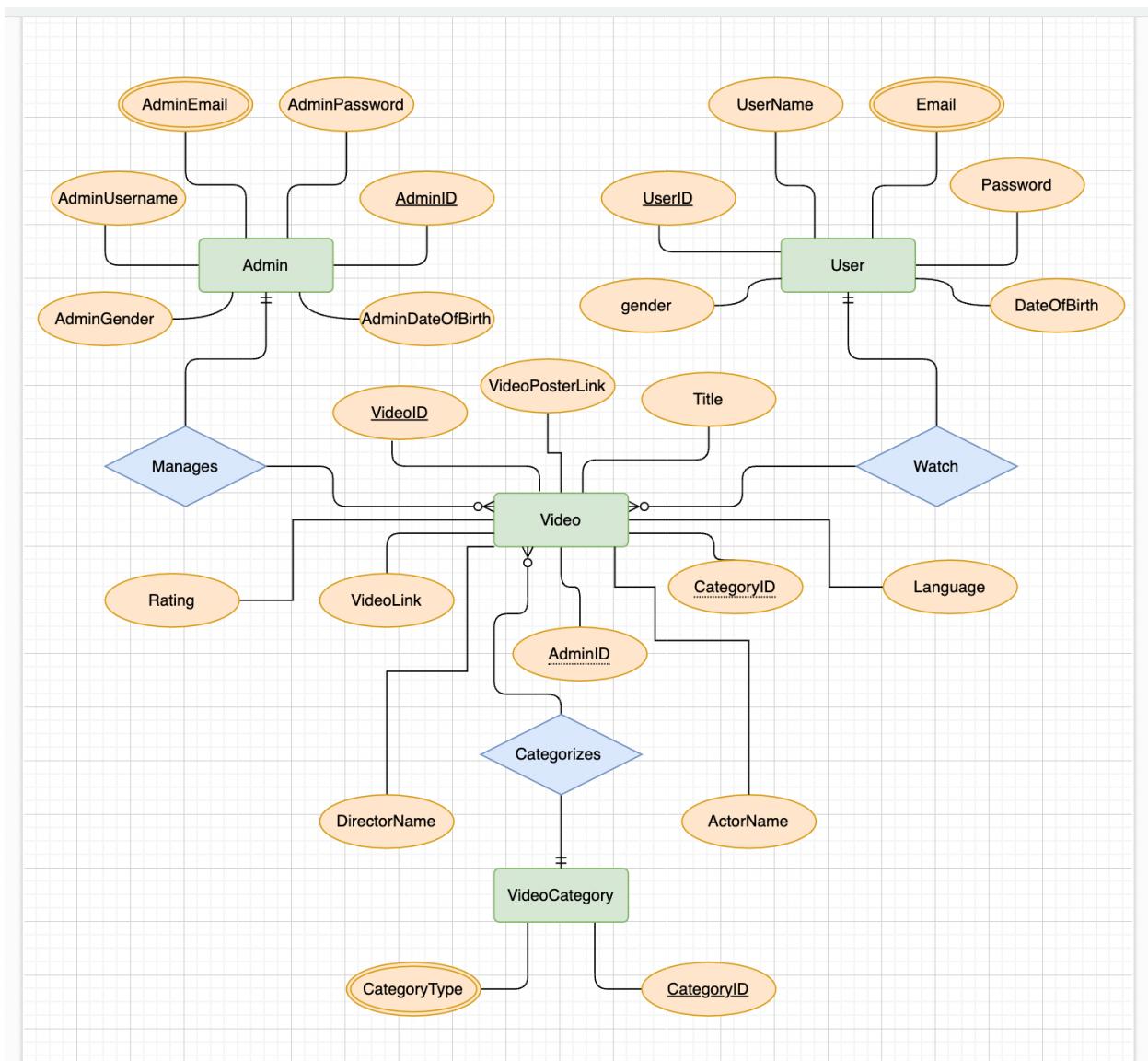
Engaging in the act of watching a video involves the user selecting their desired content. The system, in response, retrieves the associated video link from the database and presents it through an integrated video player interface. This facilitates a seamless and enjoyable viewing experience for the user.

The alternative flows cater to instances where the user provides invalid registration information, prompting a correction, or when incorrect login credentials are entered, necessitating a retry. Additionally, if a user attempts to watch a video without being logged in, the system prompts them to log in first.

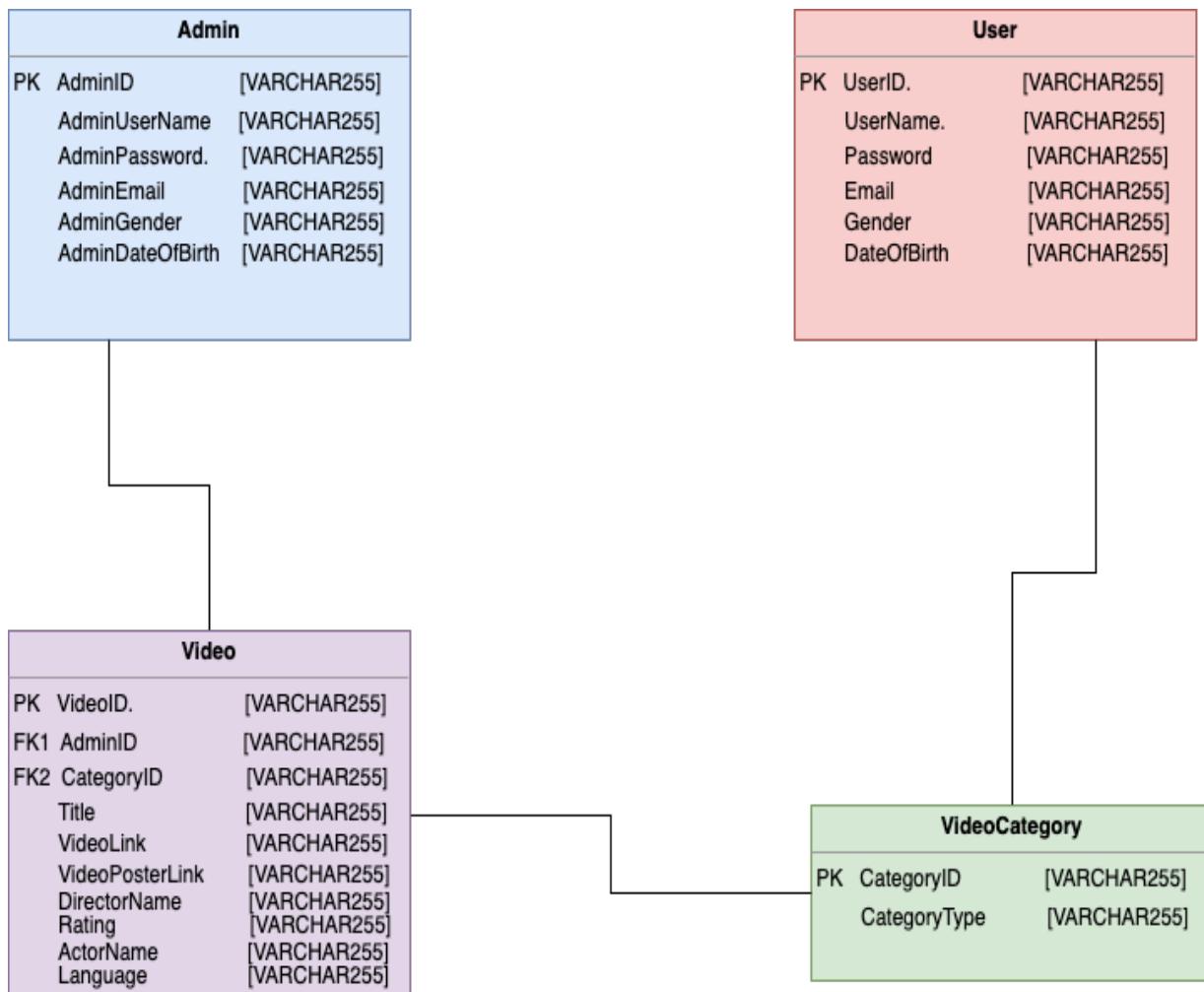
In postconditions, successful user registration and login grant access to personalized content recommendations. Exceptional flows, marked by technical issues, prompt the

system to furnish clear error messages, guiding the user through a systematic retry process.

## Entity Relationship Diagram:



## Table Schema of Database:



## Tables:

### ADMIN TABLE

AdminID,  
AdminUserName,  
AdminEmail,  
AdminPassword  
~~AdminDateOfBirth~~  
AdminGender

 Purpose: Manages Admin Credentials For Secure Access, Facilitates Video Uploads.

AdminUserName	AdminEmail	AdminPassword	Admin_Date_of_birth	Admin_gender
admin	myadmin@gmail.com.admin	admin123	16/04/2000	male
swajan	admin	admin	16/04/2000	male
ainea	ainea@gmail.com	pass123	26/01/2001	female
Rafi	rafi@gmail.com	pass123	12/12/2001	male
NULL	NULL	NULL	NULL	NULL

## USER TABLE

UserID,  
UserName,  
Email,  
Password,  
DateOfBirth

 Purpose: Stores User Info, Used In Registration, Enables Personalized Recommendation

	user_id	user_name	user_email	user_password	user_date_of_birth	User_gender
▶	3445	hbncvhb dsfgsdg	sdfgsggdgdsg	aaaaaaaa	12/04/2023	male
	3446	Swajan Barua	swajanbarua09@gmail.com	aaaaaaaa	12/16/2000	male
	3447	user name	email	qqqqqqq	12/16/2023	male
	3448	Arya stark	got@gmail.com	wwwwwww	12/16/2005	female
	3449	user 3	sdffafffs	aaaaaaaa	12/16/2023	other
	3450	Ainea Esrat Esika	myemail@gmail.com	ttttttt	01/26/2001	female
	3451	Rafiq Hasan	tuetexo@gmail.com	janinah123	08/15/2000	other
*	3452	joti moy	joti@gmail.com	12345678	12/25/2002	Male
*		NULL	NULL	NULL	NULL	NULL

## CATEGORIES TABLE

CategoryID,  
CategoryType

 Purpose: Manages Distinct Video Categories, Organizes And Categorizes Videos.

	CategoryID	CategoryType
▶	1	Action
	2	Comedy
	3	Romance
	4	Thriller
	5	Horror
	6	Sci-fi
	7	Drama
	8	Documentary
	9	Animation
	10	War
*	NULL	NULL

**VIDEO TABLE**

VideoID	Title	videolink	AdminID	CategoryID	video_poster_link	director_name	ratings	actor_name	Language
1	Interstellar	C:\Users\pc\Desktop\server\Media\Interstellar....	121	6	C:\Users\pc\Desktop\server\Poster\Interstellar....	NULL	NULL	NULL	NULL
3	Iron_Man	C:\Users\pc\Desktop\server\Media\Iron_Man.mp4	121	1	C:\Users\pc\Desktop\server\Poster\Iron_man.jpg	NULL	NULL	NULL	NULL
4	Oppenheimer	C:\Users\pc\Desktop\server\Media\Oppenheim...	121	6	C:\Users\pc\Desktop\server\Poster\Oppenhei...jpg	NULL	NULL	NULL	NULL
6	Loki	C:\Users\pc\Desktop\server\Media\Loki.mp4	121	6	C:\Users\pc\Desktop\server\Poster\loki.jpg	NULL	NULL	NULL	NULL
7	TENET	C:\Users\pc\Desktop\server\Media\TENET.mp4	121	6	C:\Users\pc\Desktop\server\Poster\tenet.jpg	NULL	NULL	NULL	NULL
9	Spider-Man: NoWay Home	C:\Users\pc\Desktop\server\Media\Spider_Man....	121	6	C:\Users\pc\Desktop\server\Poster\spider_man....	NULL	NULL	NULL	NULL
10	Avengers: Infinity War	C:\Users\pc\Desktop\server\Media\Avengers-....	121	6	C:\Users\pc\Desktop\server\Poster\avengers_....	NULL	NULL	NULL	NULL
8	Avatar_2	C:\Users\pc\Desktop\server\Media\Avatar_2.mp4	121	6	C:\Users\pc\Desktop\server\Poster\water.jpg	A	B	C	D
30	Godzilla vs Kong	C:\Users\pc\Desktop\Rafi\Action\Godzilla vs_ Ko...	121	1	C:\Users\pc\Desktop\server\Poster\kledir790...	Adam Wingard	6.3	Alexander Sk...	English
36	THE EQUALIZER_ 3	C:\Users\pc\Desktop\Rafi\Action\THE EQUALIZ...	121	1	C:\Users\pc\Desktop\server\Poster\WV3ODC...	Antoine Fuqua	8.3	Denzel Wash...	English
37	Mission_ Impossible – Dead...	C:\Users\pc\Desktop\Rafi\Action\Mission_ Impo...	121	1	C:\Users\pc\Desktop\server\Poster\13371616.jpg	Bruce Geler	9.4	Tom Cruise	English
32	John Wick_ Chapter 4 (20...	C:\Users\pc\Desktop\Rafi\Action\John Wick_ C...	121	1	C:\Users\pc\Desktop\server\Poster\jw4.jpg	Char Stahelski	7.7	Keanu Reeve...	English
35	THE KILLER	C:\Users\pc\Desktop\Rafi\Action\THE KILLER_ ...	121	1	C:\Users\pc\Desktop\server\Poster\WV3WV1Z...	David Fincher	6.8	Michael Fass...	English
39	Grown Ups 2	C:\Users\pc\Desktop\Rafi\Comedy\Grown Ups ...	121	2	C:\Users\pc\Desktop\server\Poster\pg670463...	Dennis Dugan	5.4	Adam Sandler	English
24	Five Nights At Freddy's	C:\Users\pc\Desktop\Rafi\Horror\Five Nights At...	121	5	C:\Users\pc\Desktop\server\Poster\inxasdef...	Emma Tamm	5.5	Josh Hutcherso...	English
23	Deliver Us From Evil	C:\Users\pc\Desktop\Rafi\Horror\Deliver Us Fro...	121	5	C:\Users\pc\Desktop\server\Poster\1_131149...	Hong won-chan	6.8	Hwang Jung...	South Korean
28	Die Hard 30th Anniversary	C:\Users\pc\Desktop\Rafi\Action\Die Hard_ 30...	121	1	C:\Users\pc\Desktop\server\Poster\11729886...	John McTiernan	8.2	Alan Redman...	English
26	THE POPE'S EXORCIST	C:\Users\pc\Desktop\Rafi\Horror\THE POPE'S E...	121	5	C:\Users\pc\Desktop\server\Poster\99316d69d...	Julia Avery	6.1	Alex Esso...	English
20	A Haunting In Venice	C:\Users\pc\Desktop\Rafi\Horror\A Haunting In...	121	5	C:\Users\pc\Desktop\server\Poster\p24133539...	Kenneth Branagh	7.5	Hercole Poirot	English, Italian
25	Insidious Chapter 3	C:\Users\pc\Desktop\Rafi\Horror\Insidious_ Ch...	121	5	C:\Users\pc\Desktop\server\Poster\insidious-ch...	Leigh Whannell	7.0	Dermot Muto...	English

**Purpose:** Stores Video Details, Supports Retrieval Based On Preferences, Facilitates Video Presentation

# RELATIONSHIPS

 User and Admin tables are independent.

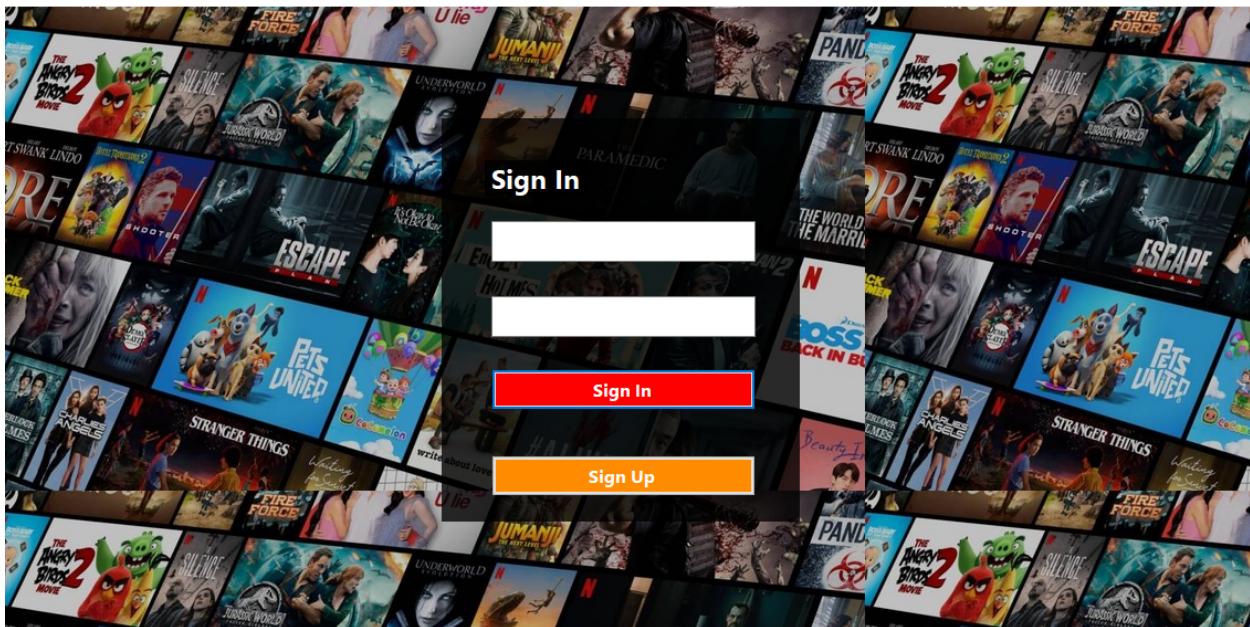
 Video table linked to User (preferences) and Categories tables.

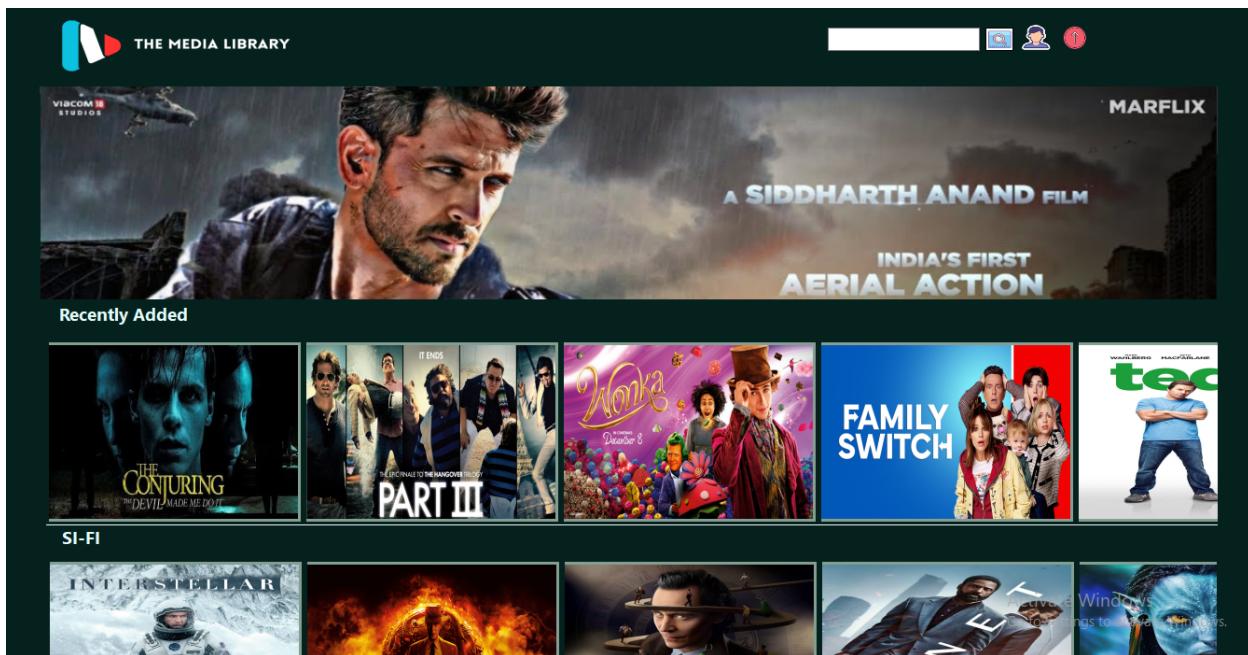
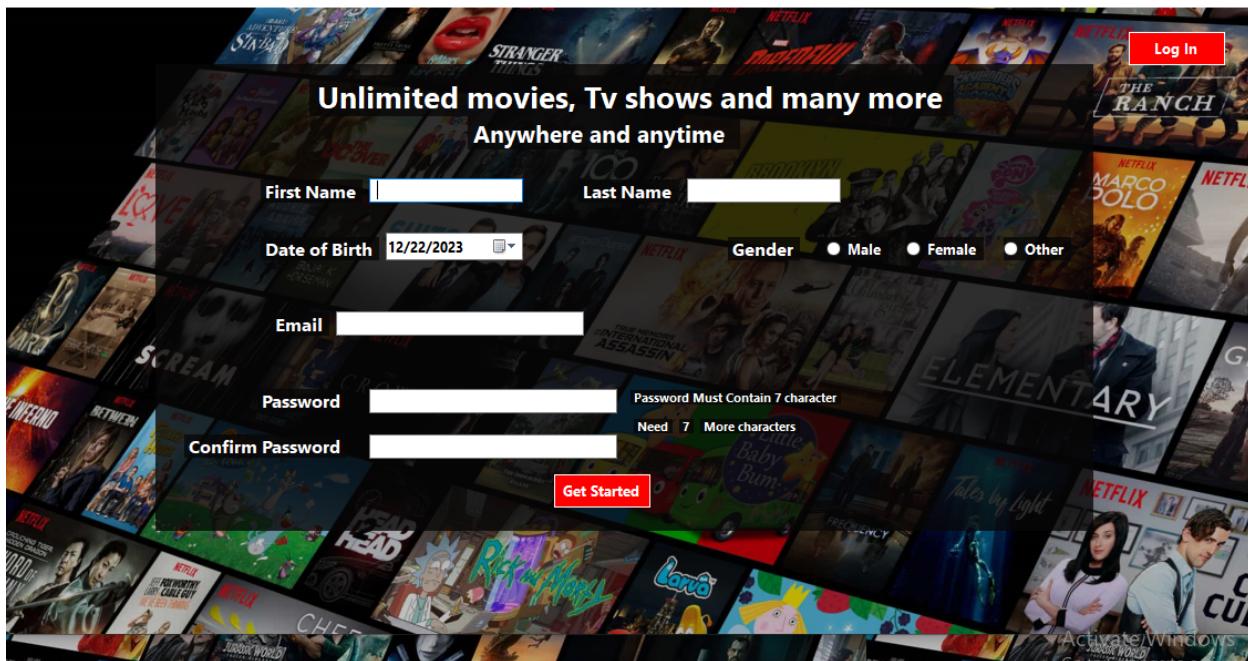
 Categories table organizes videos into genres.

## Implementation Details:

The media library project is implemented through planning, requirements analysis, system architecture design, selection of a suitable technology stack, and development of both backend and frontend components. Integration with third-party services, rigorous testing, and deployment are considered crucial steps. A successful launch is ensured through continuous monitoring, user training, and documentation. Post-launch, feedback is collected, security measures are enacted, compliance checks are performed, and iterative improvements are made to contribute to the ongoing success of the platform.

## Form Images:





## Conclusion:

The report concludes with an assurance of the team's dedication to delivering a high-quality streaming platform. The Media Library project aims to meet the diverse needs of users, providing a personalized and enjoyable media experience. Further updates will be provided as development continues.

