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Department of Information Technology

(NBA Accredited)

Movie Recommendation System

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Project Guide

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1. Introduction

- A movie recommendation system, or a movie recommender system, is a ML-based approach to filtering or predicting the users' film preferences based on their past choices and behavior.
- Problem Identified :

  It becomes hard for the system to determeine if the user liked the movie they watch or they never liked it because user never left any ratings.
- Solution Proposed :

  Movie recommandation system will suggest the movie that matches the similarities of previous watched movies.

2. Objectives

1. To find the best algorithm that will recommend movies based on their ratings.
2. To make the system in such a way that it will has easy to use user interface.
3. To provide a mechanism to assist users in classifying users with similar interests.
4. To create a platform which includes reviews, rating and can make comaprisions on movies.
5. To let the user have a login user id and password to secure their account.
6. Providing a streaming websites which totally free of cost which has free subscription.

3. Scope

1. The primary goal of movie recommendation systems is to filter and predict only those movies that a corresponding user is most likely to want to watch.
2. The ML algorithms for these recommendation systems use the data about this user from the system's database. This data is used to predict the future behavior of the user concerned based on the information from the past.
3. The target of our proposed system is to recommend appropriate movies to the users according to the ratings of the other users provided they are in same cluster.

4. Literature Survey

Sr.no	Title	Author(s)	Year	Algorithm	Limitations	Result
1	An improved collborative Movie Recommendation System using Computational Intelligence,	Zang Wang et. al	2014	Content-Based Filtering	The study did not mention any evaluation metrics or experiments to validate the effectiveness and accuracy of their recommendation system.	Hybrid approach reduces computation complexity by date reduction technique Fuzzy weighting is fast ,effective and improves performance of CRC.
2	Content-Based Movie Recommendation	Shaili Sen1, Prof. Pradeep Tripathi.	2021	Genre based filtering	The study did not evaluate the system's scalability and efficiency in handling a large number of customers and cake options. As the number of customers and cakes increases, the recommendation system's performance and accuracy may decrease, which can affect the user experience and the system's adoption rate.	The distribution method adopted to implement this is focused on genrebased filtering. In this case, the dataset that was used for the project is Movie Lens. Python is the research software used
3	FARS: Fuzzv Ant based Recommender System	Ming He ,Bo Wang	20111	Genre based filtering	Customers may forget to update their preferences or may not be aware of the new cake options that match their occasions. The recommendation system's accuracy may be limited by the reliability of customers' self-reported data.	It is a data-driven recommendation system that delivers recommendations to customers, such as books, films, etc. Most movie recommendation systems normally base user preferences on similar films.

5. Algorithm Used

Collaborative filtering

Collaborative filtering is a technique that relies on the behavior and preferences of users to make recommendations. It analyzes the past behavior of users, such as their ratings or purchases, and looks for patterns and similarities between users to recommend items. For example, if a user has a history of watching action movies, the system might recommend other action movies with similar characteristics.

6. Proposed System

Problem Statement:

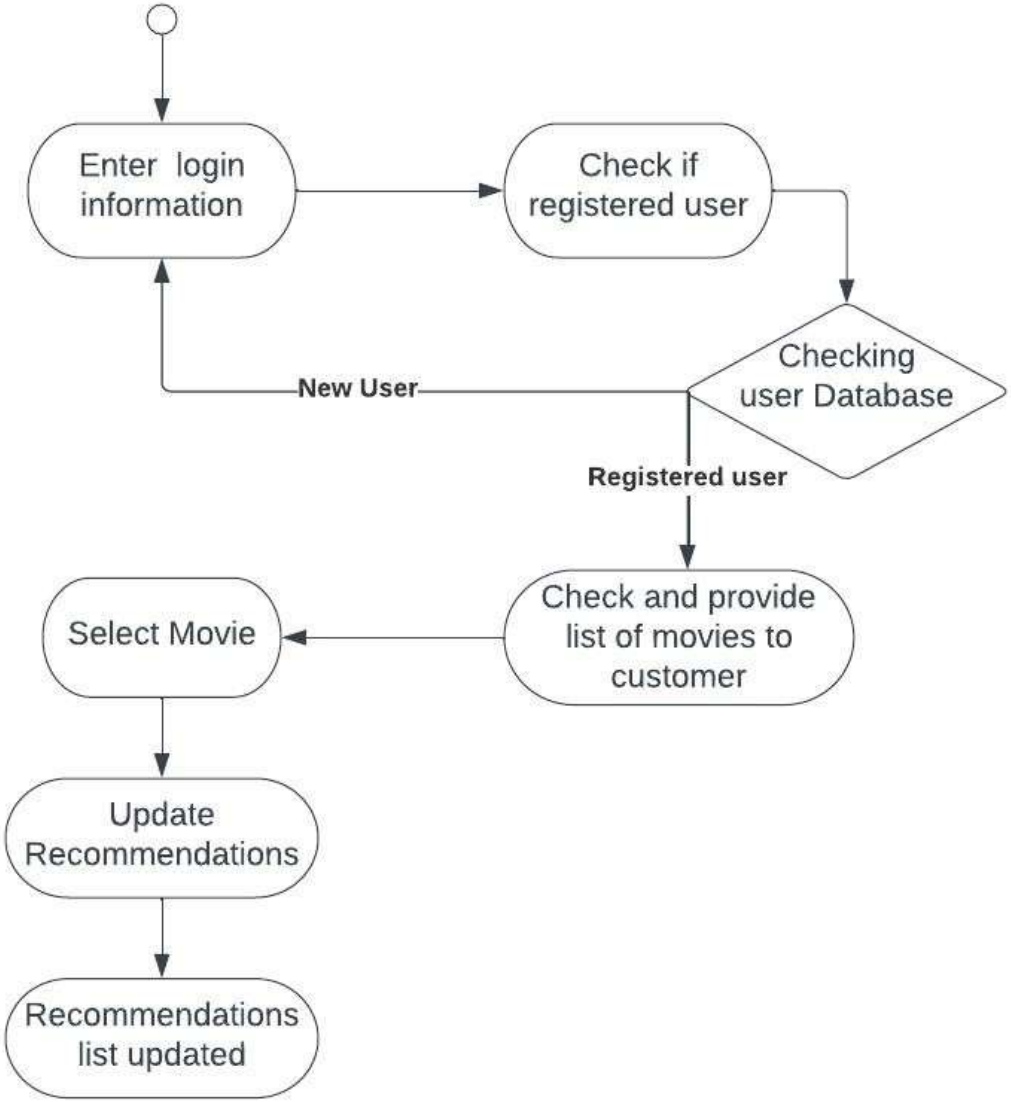
- Online streaming services have become increasingly popular over the past few years, providing users with a vast selection of movies and TV shows. However, with so many options available, it can be overwhelming for users to find content that suits their preferences.

- The goal is to design and develop a user-friendly streaming website that utilizes recommendation algorithms to help users discover new and relevant content, while also providing them with a seamless viewing experience.

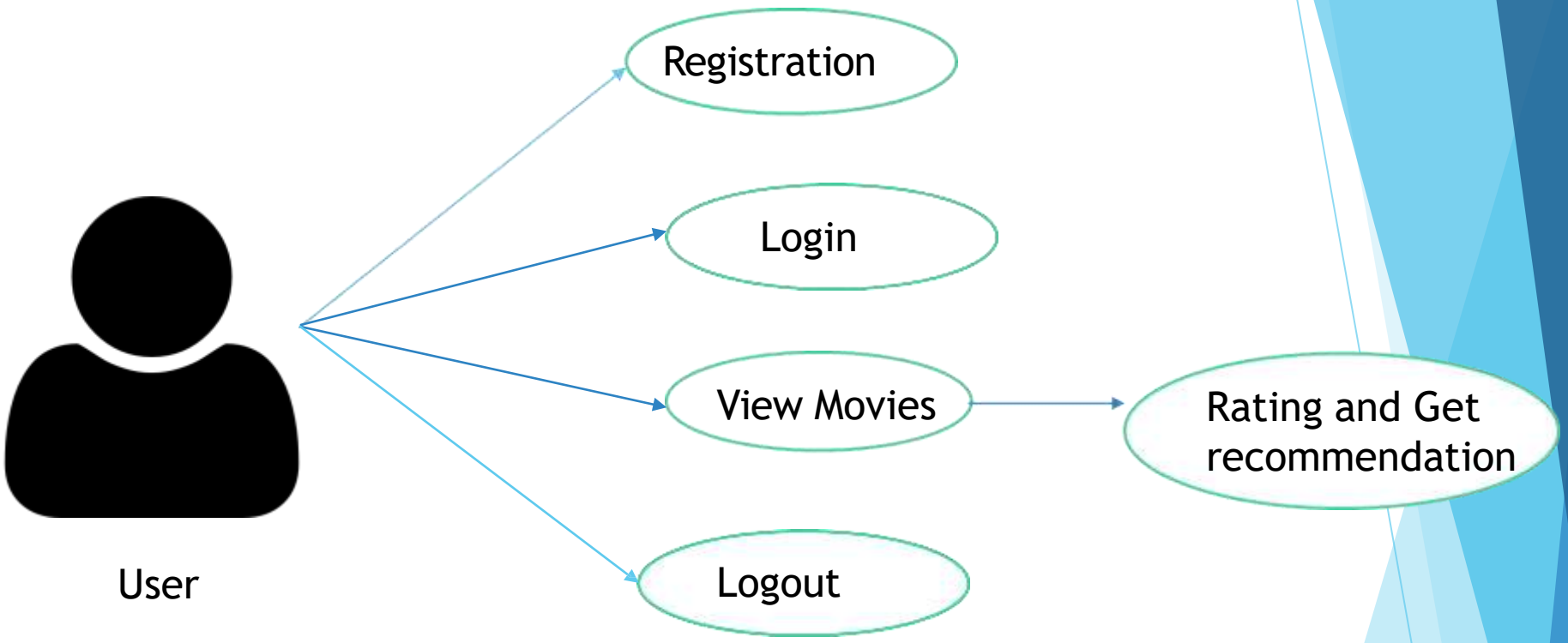
7. Project Outcomes:

- User can register and login themselves
- Improved user engagement, retention and experience.
- The user can watch the movies and content media as per interest
- Media contains the varieties of movies, devotional, cartoons, series, inspirational video
- The user will have recommendation updates as per their interest according to their watch history & preferences.
- The User can also submit their grievance and feedbacks.*

8. Flow chart


Enter login information
Check if registered user
Checking user Database
New User
Registered user
Check and provide list of movies to customer
Select Movie
Update Recommendations
Recommendations list updated

9.Use Case Diagram:



10. Technology Stack :

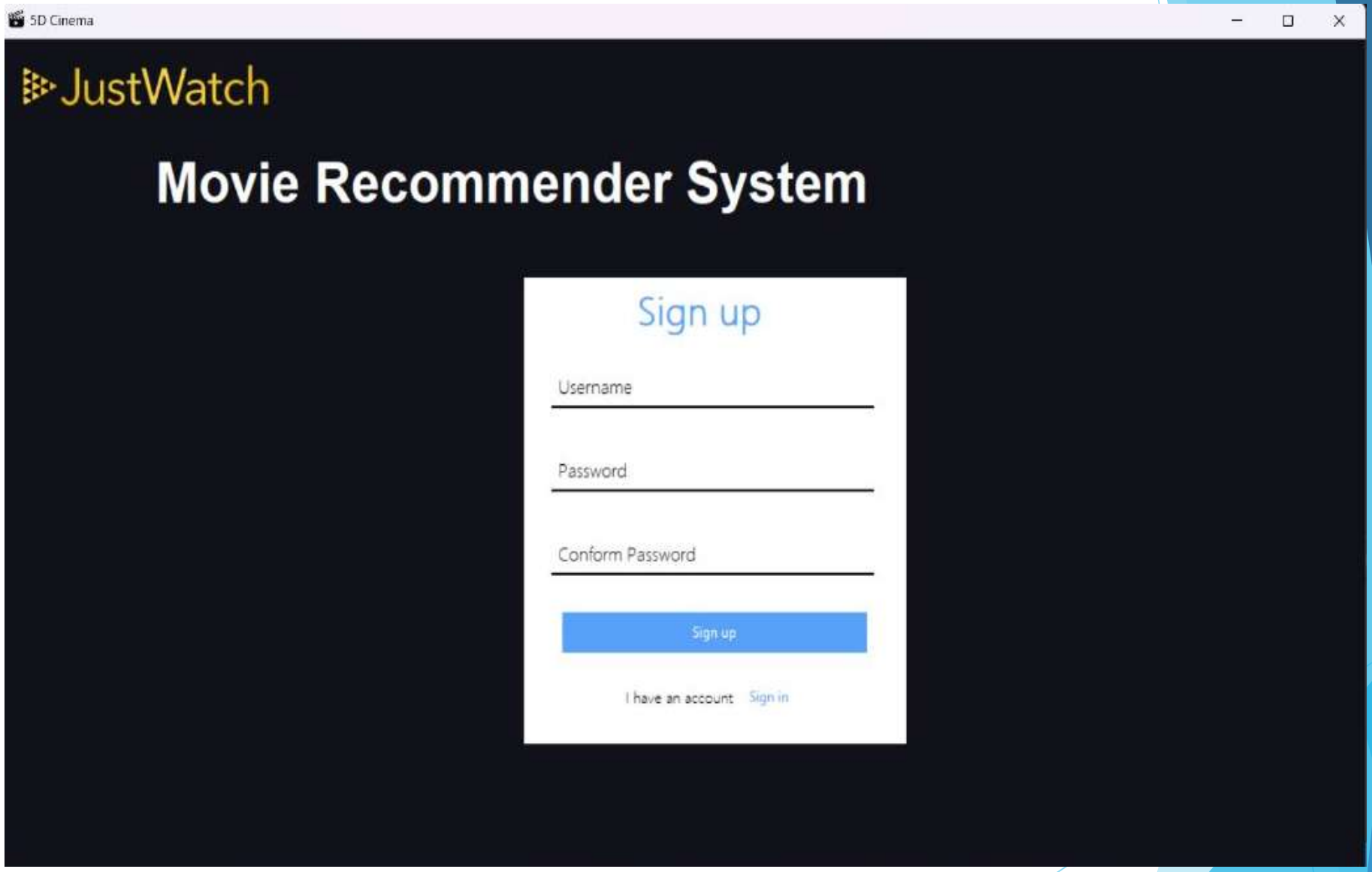
Web Technologies

- Python
- Tkinter
- Javascript

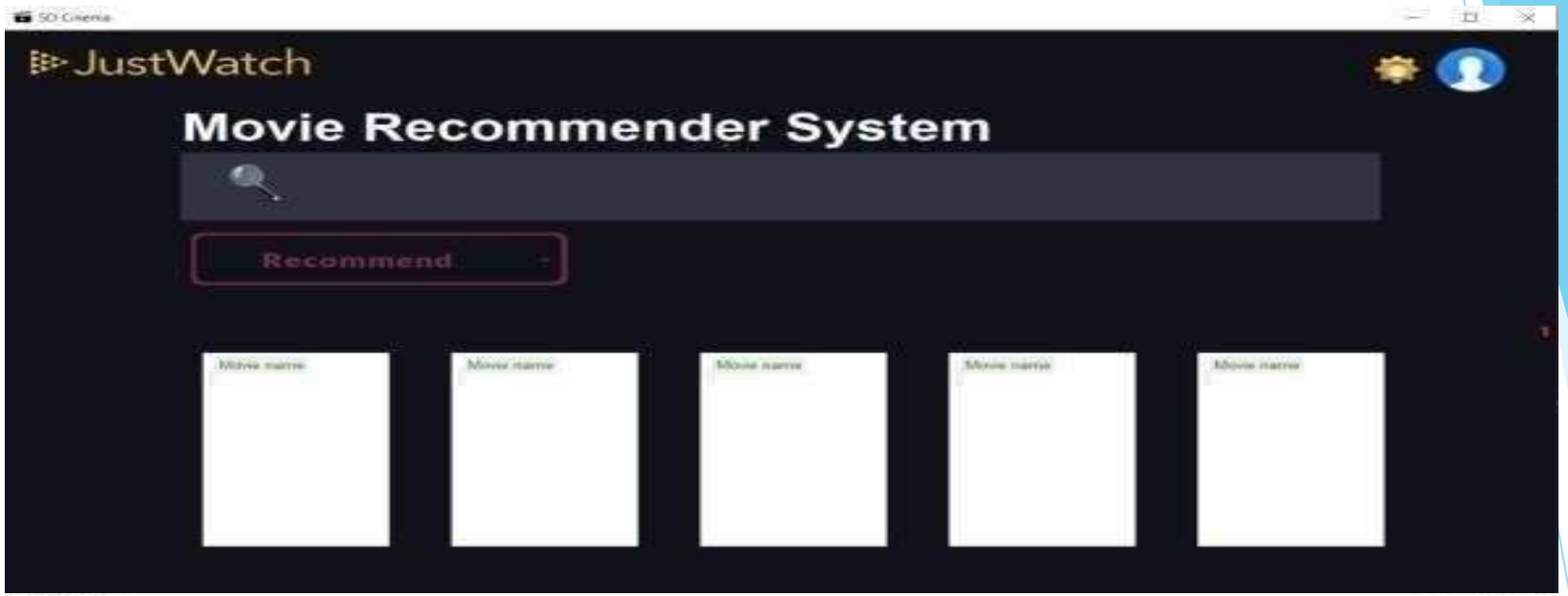
Machine Learning in libraries used in python:-

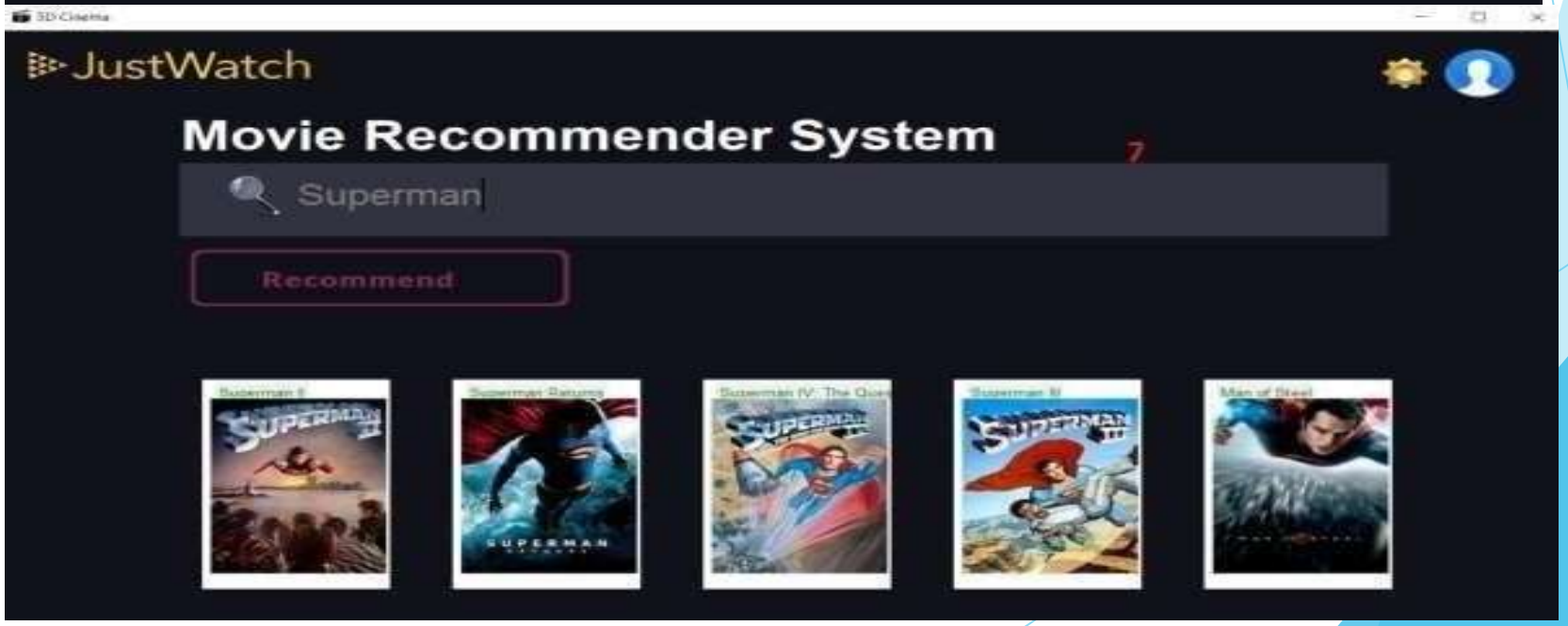
- Numpy, Pandas, Scipy
- ML (Visual Studio)

Login.py

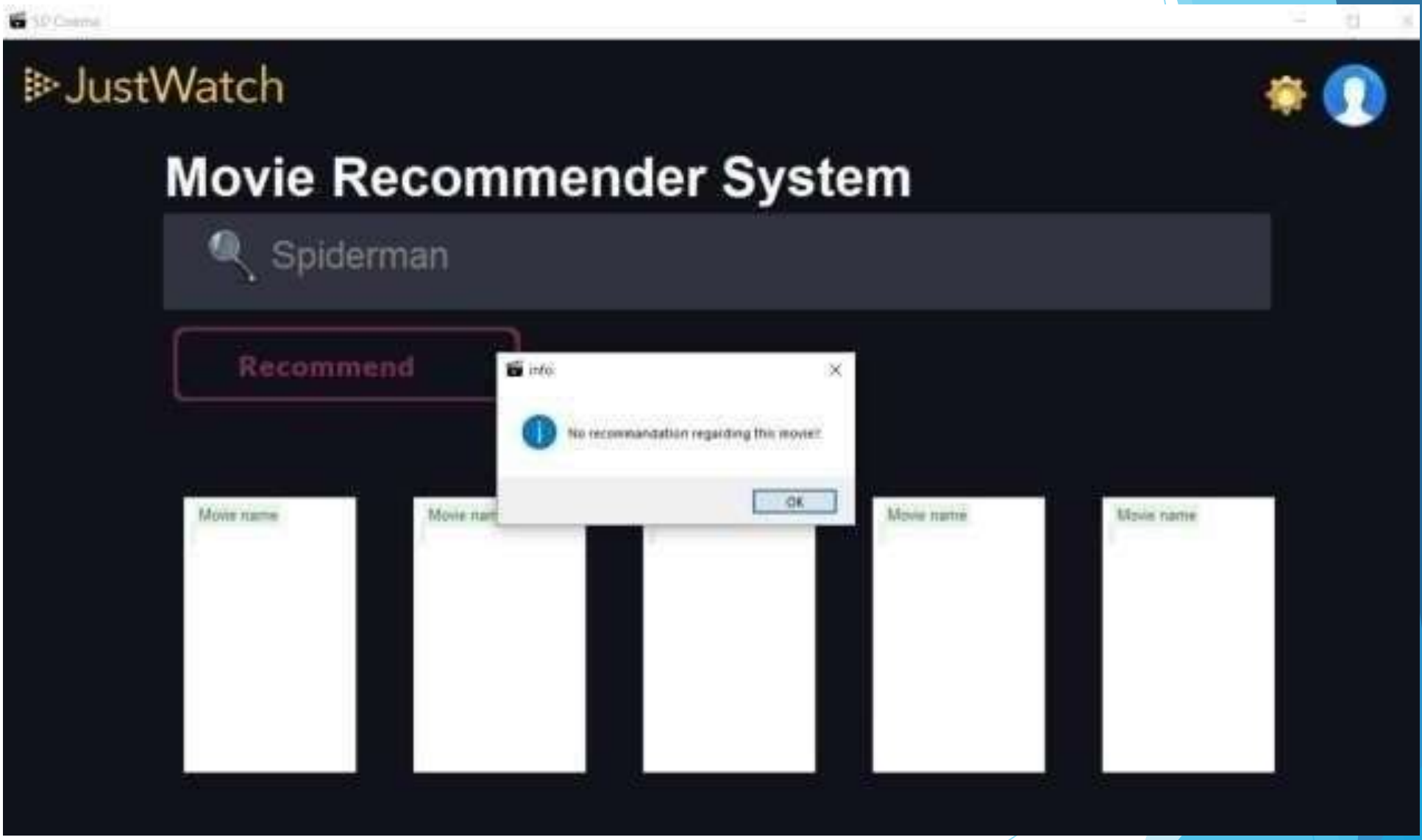

5D Cinema
JustWatch
Movie Recommender System
Sign up
Username
Password
Conform Password
Sign up
I have an account
Sign in

Main.py


JustWatch
Movie Recommender System
Recommend
Movie name
Movie name
Movie name
Movie name
Movie name


JustWatch
Movie Recommender System
Superman
Recommend

Main.py


JustWatch
Movie Recommender System
Spiderman
Recommend
Info
No recommendation regarding this movie!
OK
Movie name
Movie name
Movie name

Thank You...!!