

Movie Recommendation **System**

Machine learning project

objective

This is machine learning project which consist of movie data set refer from imdb,Kaggle and other dataset.Here in this project You can get the full information of the movie,cast and similar suggestion movie based on content based filtering.And also we used flask python where I connect the data base into local server.Here we used machine learning supervised classification algorithm to analyse the data set and make a movie recommendation system.

About : Movie Recommendation System

- Recommender System is a system that seeks to predict or filter preferences according to the user's choices, by their searching behaviours.

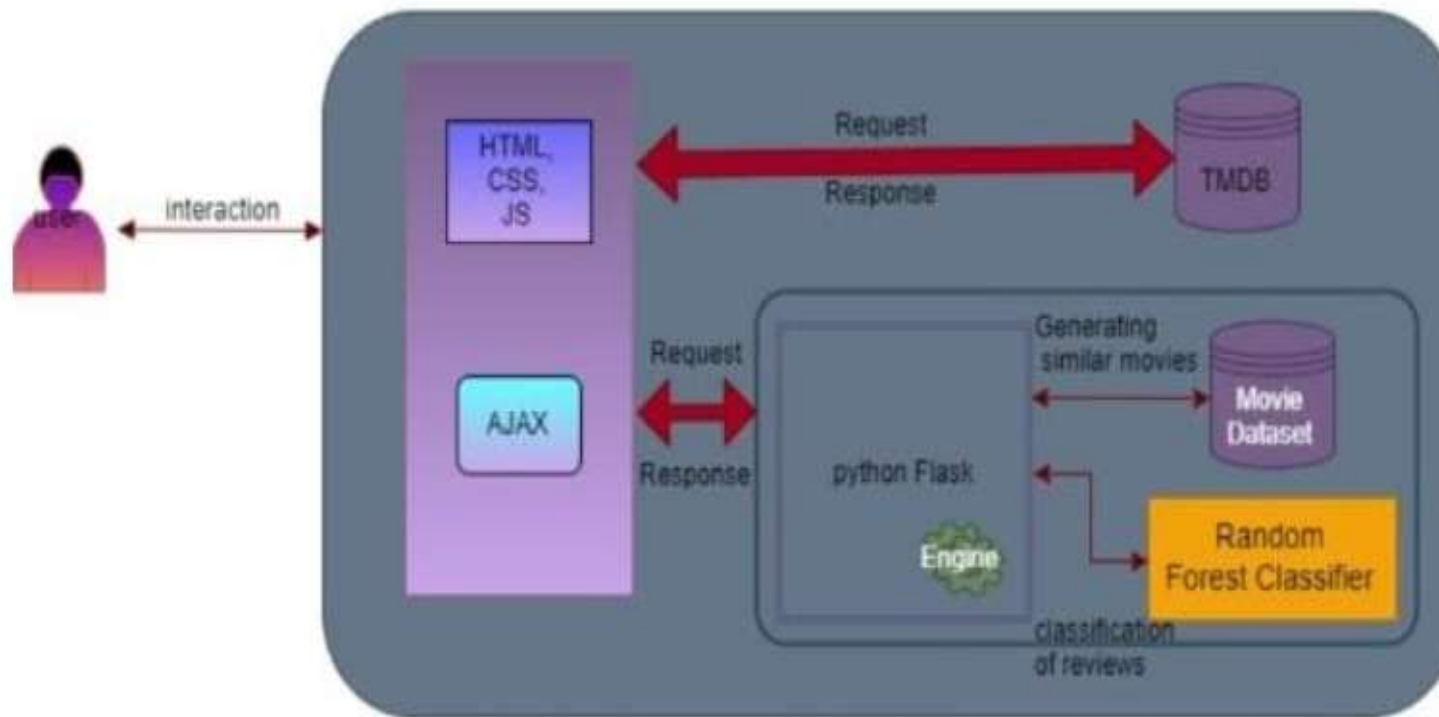
Here we are using two types of filtering

- **Collaborative filtering:** Collaborative filtering approaches build a model from user's past behavior as well as similar decisions made by other users. This model is then used to predict items that user may have an interest in.
- **Content-based filtering:** Content-based filtering approaches use a series of discrete characteristics of an item in order to recommend additional items with similar properties. Content-based filtering methods are totally based on a description of the item and a profile of the user's preferences. It recommends items based on user's past preferences.

Libraries used

- `import numpy as np`
- `import pandas as pd`
- `from flask import Flask, render_template, request`
- `from sklearn.feature_extraction.text import CountVectorizer`
- `from sklearn.metrics.pairwise import cosine_similarity`
- `import json`
- `import bs4 as bs`
- `import urllib.request`
- `import pickle`
- `import requests`

Architecture



Multinomial Naive Bayes Algorithm

The multinomial Naive Bayes classifier is suitable for classification with discrete features (e.g., word counts for text classification). The multinomial distribution normally requires integer feature counts. It is one of the most popular **supervised** learning classifications that is used for the analysis of the categorical text data.

Equation for Bayes theorem

$$P(A|B) = \frac{P(B|A) * P(A)}{P(B)}$$

Flask Python

Flask is a web application framework written in **Python**. Flask is a web framework that provides libraries to build lightweight web applications in python. Flask is considered as a micro framework. It is classified as a micro-framework because it does not require particular tools or libraries.

It has no database abstraction layer, form validation, or any other components where pre-existing third-party libraries provide common functions.

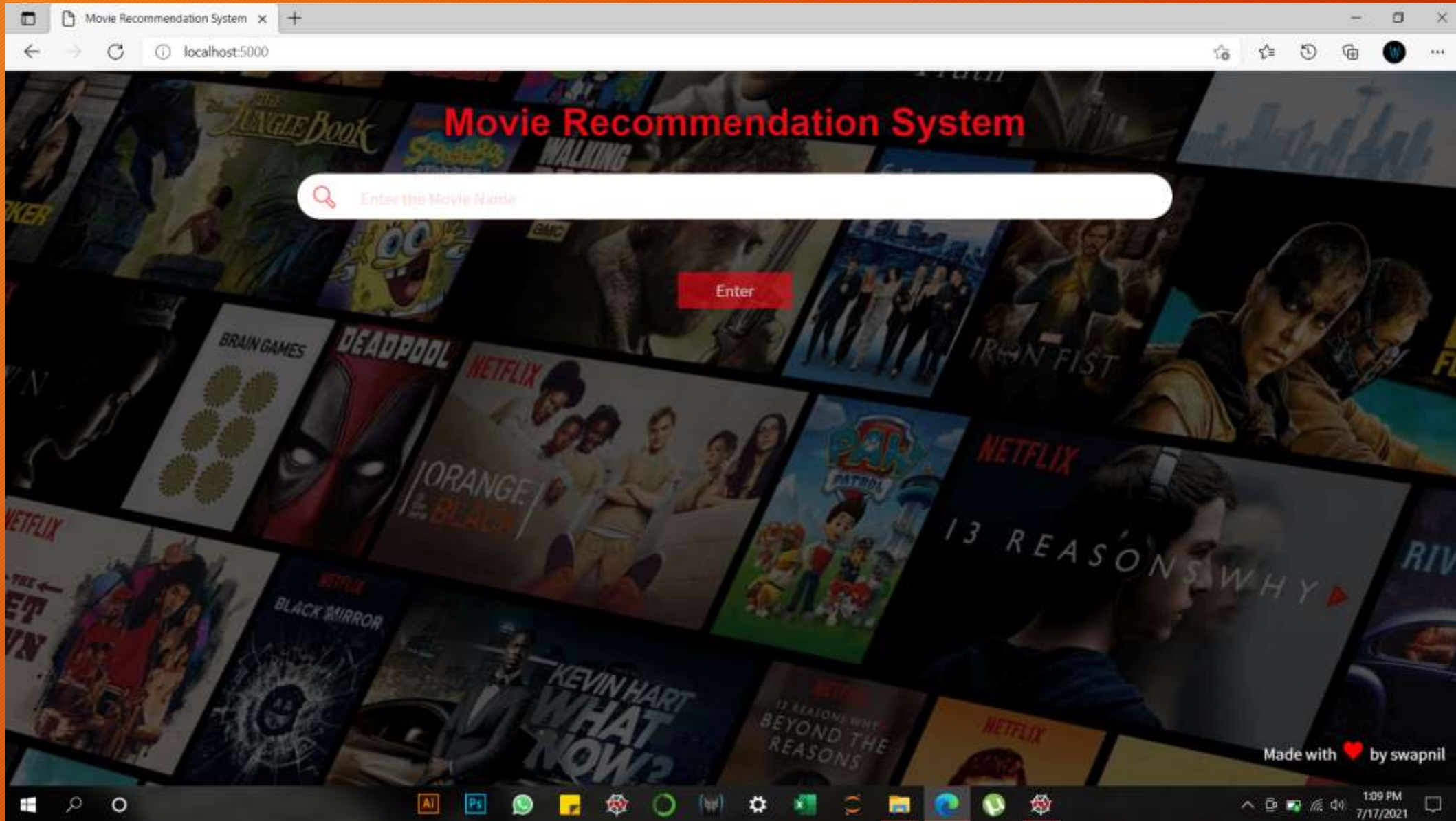
However, Flask supports extensions that can add application features as if they were implemented in Flask itself. Extensions exist for object-relational mappers, form validation, upload handling, various open authentication technologies and several common framework related tools.

Conclusion

Here I made a movie recommendation system by using multinomial naive bayes algorithm and also used flask python for deployment of the project in local server.

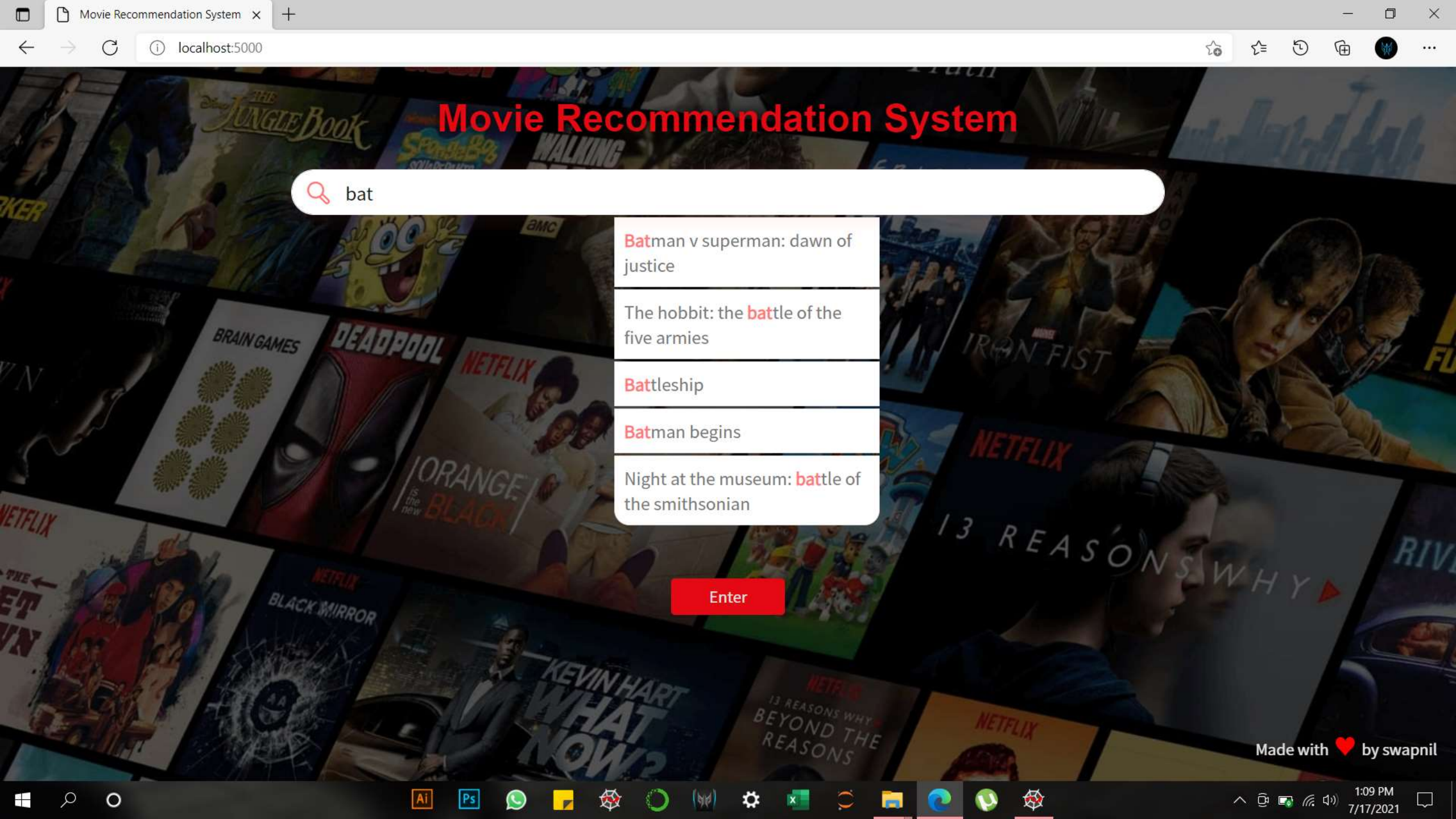
The data set taken from imbd, Kaggle and other movie data sets which available on internet.

In this project you can get the information of the movie ,and their cast with also it will give similar suggestions by using content based filtering.



Outputs





Movie Recommendation System

bat

Batman v superman: dawn of justice

The hobbit: the battle of the five armies

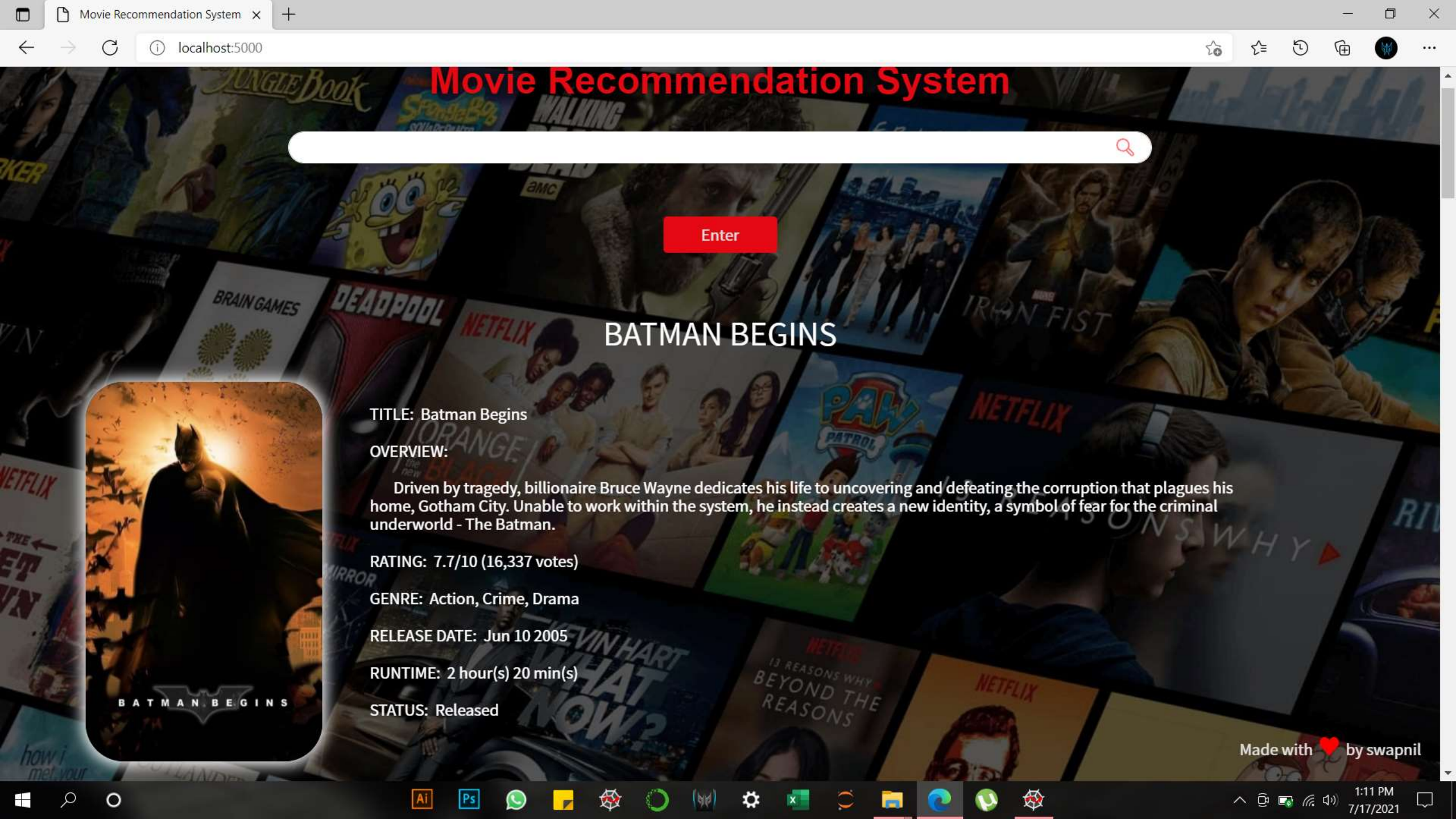
Battleship

Batman begins

Night at the museum: battle of the smithsonian

Enter

Made with ❤ by swapnil



Movie Recommendation System

Enter

BATMAN BEGINS



TITLE: Batman Begins

OVERVIEW:

Driven by tragedy, billionaire Bruce Wayne dedicates his life to uncovering and defeating the corruption that plagues his home, Gotham City. Unable to work within the system, he instead creates a new identity, a symbol of fear for the criminal underworld - The Batman.

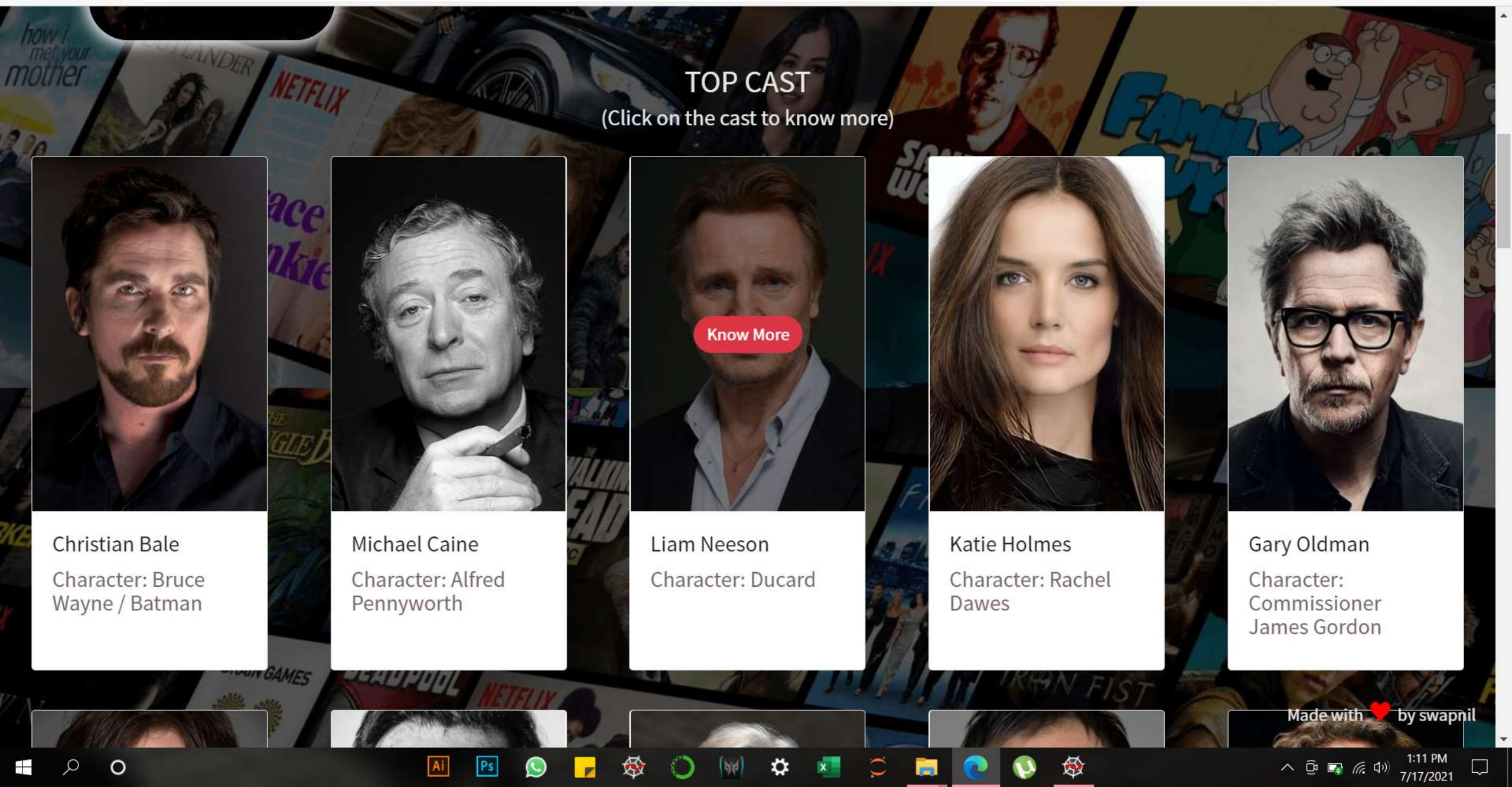
RATING: 7.7/10 (16,337 votes)

GENRE: Action, Crime, Drama

RELEASE DATE: Jun 10 2005

RUNTIME: 2 hour(s) 20 min(s)

STATUS: Released



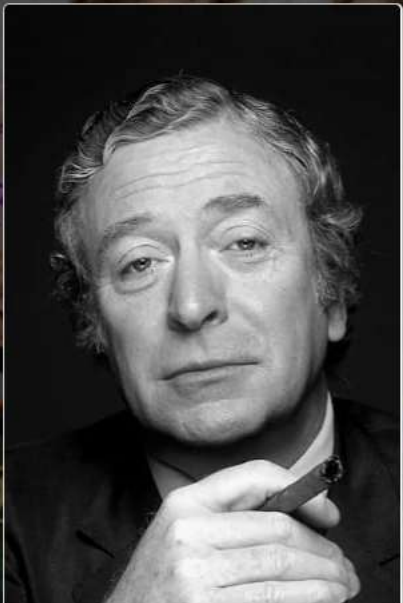
TOP CAST

(Click on the cast to know more)



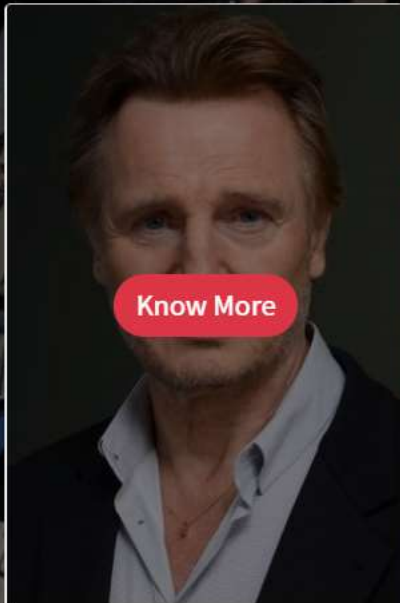
Christian Bale

Character: Bruce Wayne / Batman



Michael Caine

Character: Alfred Pennyworth



Know More

Liam Neeson

Character: Ducard



Katie Holmes

Character: Rachel Dawes



Gary Oldman

Character: Commissioner James Gordon



Christian Bale

Character: Bruce Wayne / Batman



Liam Neeson

Birthday: Jun 07 1952

Place of Birth: Ballymena, County Antrim, Northern Ireland, UK

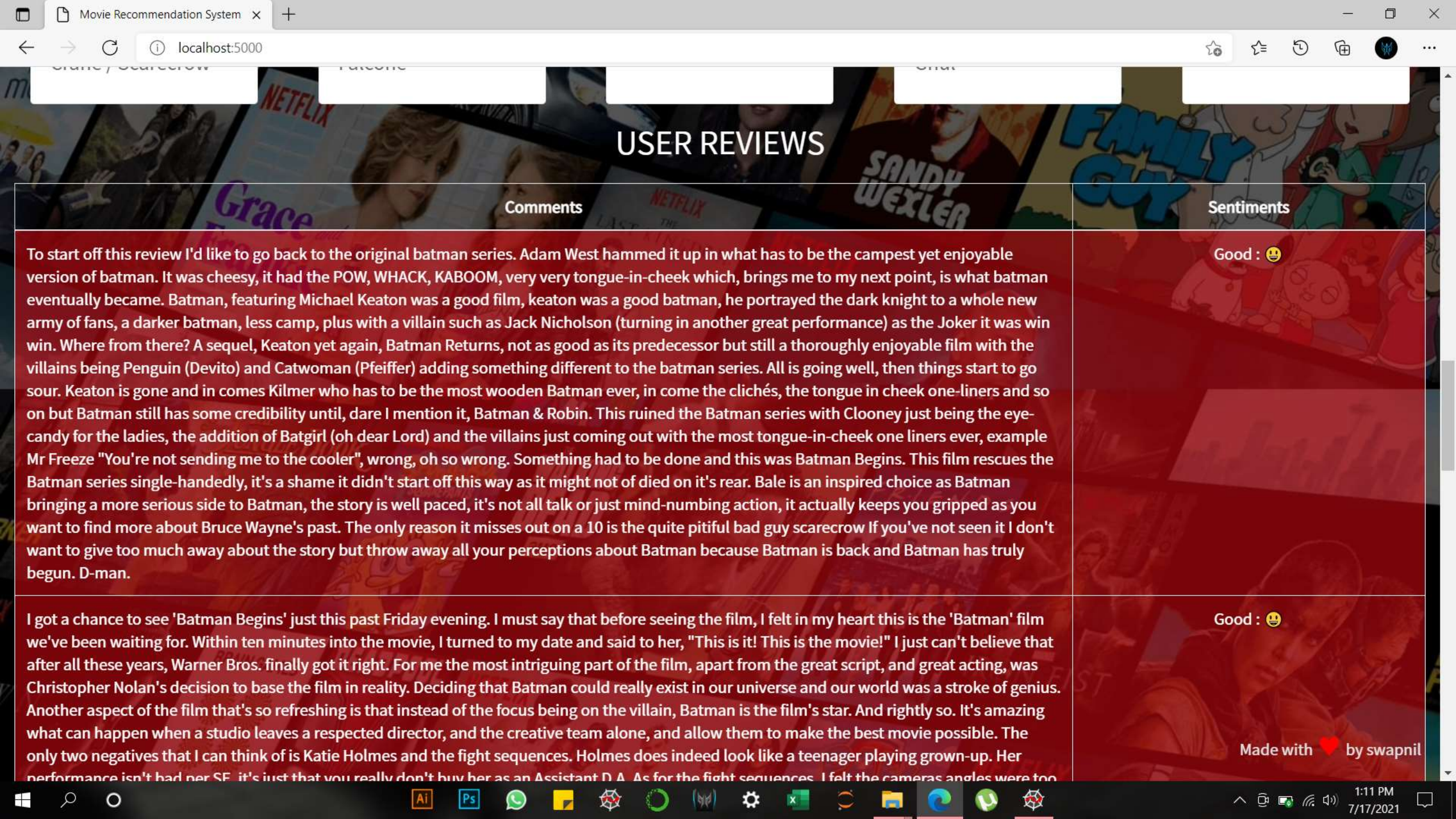
Biography:

An Irish actor who has been nominated for an Oscar, a BAFTA and three Golden Globe Awards. He has starred in a number of notable roles including Oskar Schindler in Schindler's List, Michael Collins in Michael Collins, Peyton Westlake in Darkman, Jean Valjean in Les Misérables, Qui-Gon Jinn in Star Wars Episode I: The Phantom Menace, Alfred Kinsey in Kinsey, Ras Al Ghul in Batman Begins and the voice of Aslan in The Chronicles of Narnia film series. He has also starred in several other notable films, from major Hollywood studio releases (ie. Excalibur, The Dead Pool, Nell, Rob Roy, The Haunting, Love Actually, Kingdom of Heaven, Taken, Clash of the Titans, The A-Team, Unknown) to smaller arthouse films (ie. Deception, Breakfast on Pluto, Chloe). He was born in Ballymena, County Antrim, Northern Ireland and educated at Saint Patrick's College, Ballymena Technical College and Queen's University Belfast. He moved to Dublin after university to further his acting career, joining the renowned Abbey Theatre. In the early 1990s, he moved again to the United States, where the wide acclaim for his performance in Schindler's List led to more high-profile work. He is widowed and lives in New York with his two sons. Description above from the Wikipedia article Liam Neeson, licensed under CC-BY-SA, full list of contributors on Wikipedia.



Gary Oldman

Character: Commissioner James Gordon



USER REVIEWS

Comments

To start off this review I'd like to go back to the original batman series. Adam West hammed it up in what has to be the campest yet enjoyable version of batman. It was cheesy, it had the POW, WHACK, KABOOM, very very tongue-in-cheek which, brings me to my next point, is what batman eventually became. Batman, featuring Michael Keaton was a good film, keaton was a good batman, he portrayed the dark knight to a whole new army of fans, a darker batman, less camp, plus with a villain such as Jack Nicholson (turning in another great performance) as the Joker it was win win. Where from there? A sequel, Keaton yet again, Batman Returns, not as good as its predecessor but still a thoroughly enjoyable film with the villains being Penguin (Devito) and Catwoman (Pfeiffer) adding something different to the batman series. All is going well, then things start to go sour. Keaton is gone and in comes Kilmer who has to be the most wooden Batman ever, in come the clichés, the tongue in cheek one-liners and so on but Batman still has some credibility until, dare I mention it, Batman & Robin. This ruined the Batman series with Clooney just being the eye-candy for the ladies, the addition of Batgirl (oh dear Lord) and the villains just coming out with the most tongue-in-cheek one liners ever, example Mr Freeze "You're not sending me to the cooler", wrong, oh so wrong. Something had to be done and this was Batman Begins. This film rescues the Batman series single-handedly, it's a shame it didn't start off this way as it might not of died on it's rear. Bale is an inspired choice as Batman bringing a more serious side to Batman, the story is well paced, it's not all talk or just mind-numbing action, it actually keeps you gripped as you want to find more about Bruce Wayne's past. The only reason it misses out on a 10 is the quite pitiful bad guy scarecrow If you've not seen it I don't want to give too much away about the story but throw away all your perceptions about Batman because Batman is back and Batman has truly begun. D-man.

I got a chance to see 'Batman Begins' just this past Friday evening. I must say that before seeing the film, I felt in my heart this is the 'Batman' film we've been waiting for. Within ten minutes into the movie, I turned to my date and said to her, "This is it! This is the movie!" I just can't believe that after all these years, Warner Bros. finally got it right. For me the most intriguing part of the film, apart from the great script, and great acting, was Christopher Nolan's decision to base the film in reality. Deciding that Batman could really exist in our universe and our world was a stroke of genius. Another aspect of the film that's so refreshing is that instead of the focus being on the villain, Batman is the film's star. And rightly so. It's amazing what can happen when a studio leaves a respected director, and the creative team alone, and allow them to make the best movie possible. The only two negatives that I can think of is Katie Holmes and the fight sequences. Holmes does indeed look like a teenager playing grown-up. Her performance isn't bad per SE, it's just that you really don't buy her as an Assistant D.A. As for the fight sequences, I felt the cameras angles were too

Sentiments

Good : 😊

Good : 😊

Made with ❤️ by swapnil

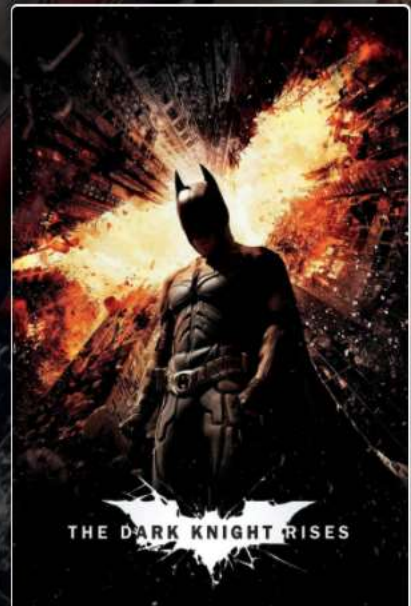
not tie into that of the other movies in the series. This is however not a disappointing feature, in fact it seems to breathe new life into this timeless classic. So for all of us who have followed the Dark Knight's journey's, strap yourself in for a wild and inspiring ride.

RECOMMENDED MOVIES FOR YOU

(Click any of the movies to get recommendation)



The dark knight



The dark knight rises



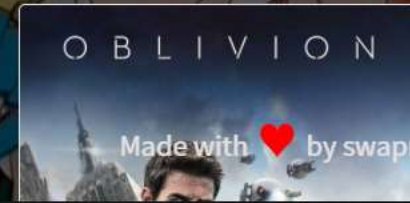
Terminator salvation



Wrath of the titans



Krull



Thank you