A Mini Project Synopsis on

Movie Recommender

T.E. - I.T Engineering

Submitted By

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CERTIFICATE

This to certify that the Mini Project report on **Movie Recommender** has been submitted by Atharv Joshi (19104036), Siddhesh Puranik (19104034) and Niranjan Ram (19104025) who are a Bonafede students at A. P. Shah Institute of Technology, Thane, Mumbai, as a partial fulfilment of the requirement for the degree in **Information Technology**, during the academic year **2021-2022** in the satisfactory manner as per the curriculum laid down by University of Mumbai.

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Chapter 1

Introduction

The project that we have worked on is Movie Recommender. In this project we made a simple website that takes in a quiz as input and based on that recommends the user a movie to watch. This is a simple premise but takes lot of backend work to get the proper desired results. This was a huge learning experience for the three of us. We divided the work according to our strengths and with the help of regular meetings and planning, reached an acceptable level.

1.1. Purpose:

The purpose of this project is to provide the user with appropriate movie recommendations based on the user's preferences. There are many such services available, but we still wanted to try our version of this concept and use this as a learning opportunity and learn HTML, CSS, and the use of React JS.

1.2. Objectives:

These are the objectives of our project for this semester:

i. To Provide the user with a good-looking UI

ii. To Take a quiz as input and recommend movies based on preferences.

iii. To Display the top movies on the front page

iv. To Track the progress of the movies watched

v. To create a Watchlist

The objectives are limited to the knowledge that we have in this semester, and we plan to add more functions and thus increasing the objectives of our project.

1.3. Scope:

The scope of this project is very broad. Any person who watches movies and has a browser can give the quiz and get recommendation for their next favourite movie. This can also be used by anyone to recommend a movie to someone else.

This is an easy-to-use project because all you need is the basic knowledge of movies as in what genre does a movie fall under. Even if you don’t know that our web app can tell you what genre the movie you have searched for falls under.

Chapter 2

Problem Definition

The problem for which we created this web app is that the user wants to know what to watch next based on their taste. Thus came the challenge to make a suitable recommendation to the user. For this we require some sort of input from the user's side so the solution that we came up with was to take input from the user in form of a quiz and store the preferences and then output a list of movies based on the said preferences. This will be explained in detail in the next chapter.

Chapter 3

Proposed System

Thus, the system that we have proposed is a web app that first asks the user to log in and if they don't have an account, presents the user with option to sign up. This information is stored in the database at the backend with the help of PostgreSQL. This information is used later for various purposes. After signing up and logging in, the user is presented with a landing page which by default presents the top-rated movies on IMDB.

The user has the option to search in the search for every movie which is available in the IMDB database along with the information related to it. This is further enhanced by the option to search by genre and even by year. The navigation menu gives you the option to take a quiz, learn about the creators of this web app and see top movies.

Once the user gives the quiz, the preferences are stored, and you are redirected to the main page. This part of implementation is not possible based on the current knowledge that we have but we plan on implementing it next semester by making use of Machine Learning and Neural Networks.

Here are the Features and Functionalities that we plan on implementing:

i. Feature 1: User login

   User can make an account and store their preferences. If the user has not created their account, they will be provided with the option to sign up and create their account.

ii. Feature 2: Quiz based recommendation

   User gives a quiz to find new movie recommendation. There will be an option for the user to in quote their preferences with the help of the quiz with the basic questions provided.

iii. Feature 3: Search option

User can search their favourite movies and see them on the screen. Option is provided on the main screen where the user can freely search for the movie of their choice an event search from the era that they have in mind.

iv. Feature 4: Movie Logs

User can save the movies that they have seen and want to see. With the help of the user's account, they can either like the movie or add it to their watch list. This will help the user to keep tabs on what movies they have already watched and what movies they want to watch next. This is a very useful feature that we have worked into this project.

Chapter 4

Project Outcomes

The main outcome of this project is to help the user find a movie that they would enjoy, based on their preferences. This is in fact a very difficult job to accomplish with the limited knowledge that we possess. That's why We have decided to implement only the front end and some part of backend which will allow the user to use the filtering options to find the favourite movies that they have, in the semester.

Our project makes use of the IMDb database, which is the largest collection of information which is easily accessible. This has made our project stand out from the comparison. The main outcome of this project is to provide the user with a very user-friendly interface and a very easy to access experience.

Another facet of this project is to store the users' preferences. We have made sure that the account is very secure, and the user can only access it with the correct password and email combination. After using this web app for an extensive period, we have concluded that this is a project which is still in need of improvement, but it was a learning experience for all the three of us to apply the knowledge that we had to make this project as advanced as possible. and it is for this reason a big technology stack.

Chapter 5

Technology Stack:

Technology stack is a very important aspect of a project. Thus, we have carefully selected the technology to our utmost ability.

Frontend:

1. HTML

   We have used HTML or hypertext markup language for the front end of our project. This has helped us create a good-looking UI with the help of some external libraries.

2. CSS

   CSS or cascading style sheet what is what we have used to style our project. We have used both external as well as in line along with internal style sheets.

3. ReactJS

   We have tried using reactors as a front-end element just to use for the quiz.

Backend:

1. Python Flask

   Basic structure of our project along with the implementation of IMDB database is done by using the modules available in the flask framework and library in Python. Python is a very easy to use language that's why we have selected it for the backend. it is also a very versatile language that's why it also suits backend development. since we plan on implementing machine learning from next semester

   my phone will be very useful for us to implement it. It will also be very easy to integrate in our project.

2. PostgreSQL as database

And finally, PostgreSQL as the database. here we will store all the user's information and the preferences that they have given as an input during the quiz.

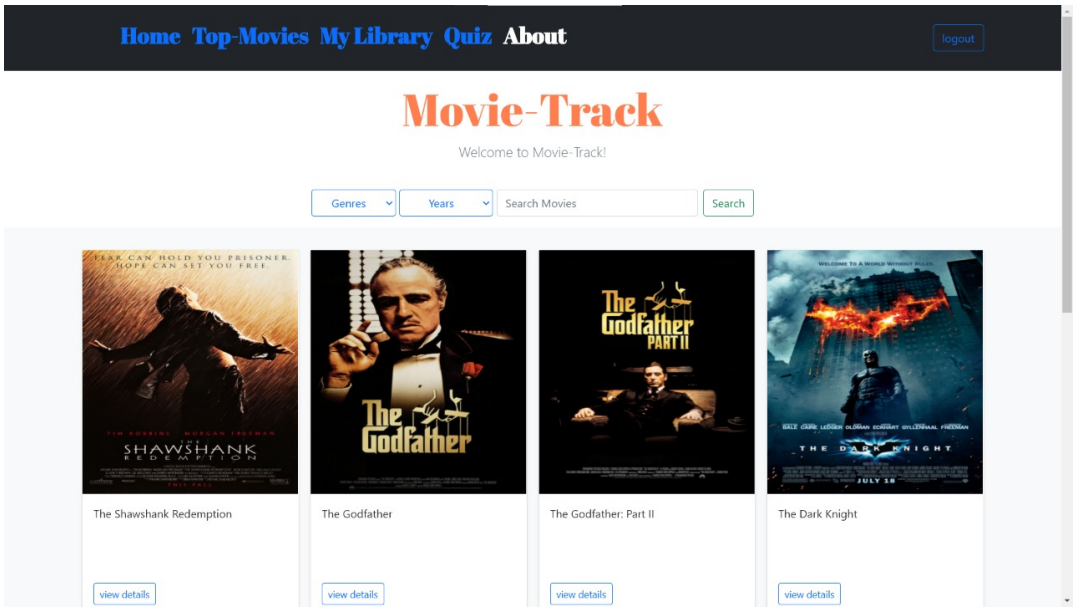
This technology stack is the culmination of all the previous sentence stores worth of knowledge that we have acquired we have made use of HTML, CSS, react, JavaScript and Python along with PostgreSQL.

Chapter 6

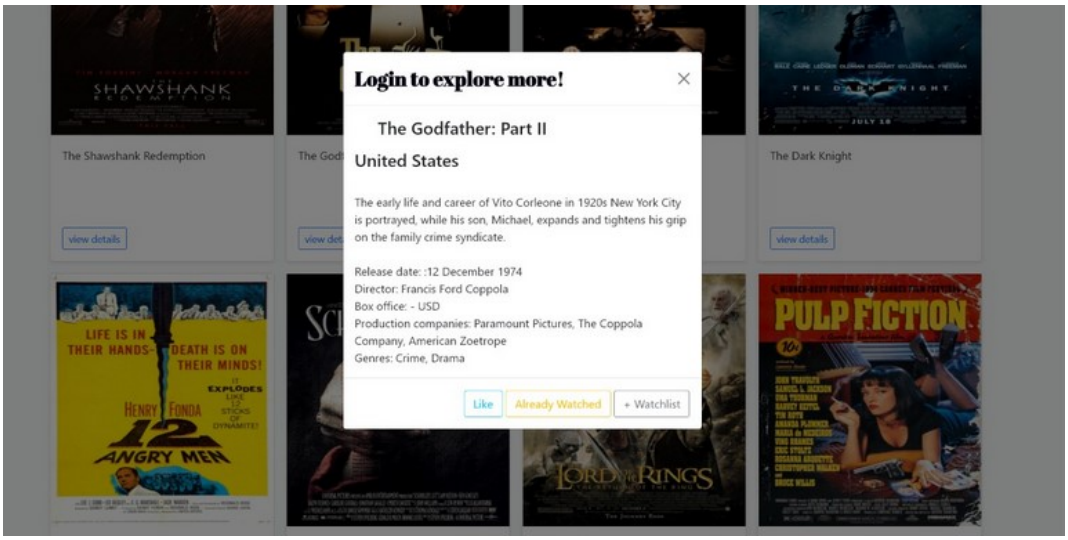
Project Design

Most of our front-end work is done so we can show you what we have done throughout the project.

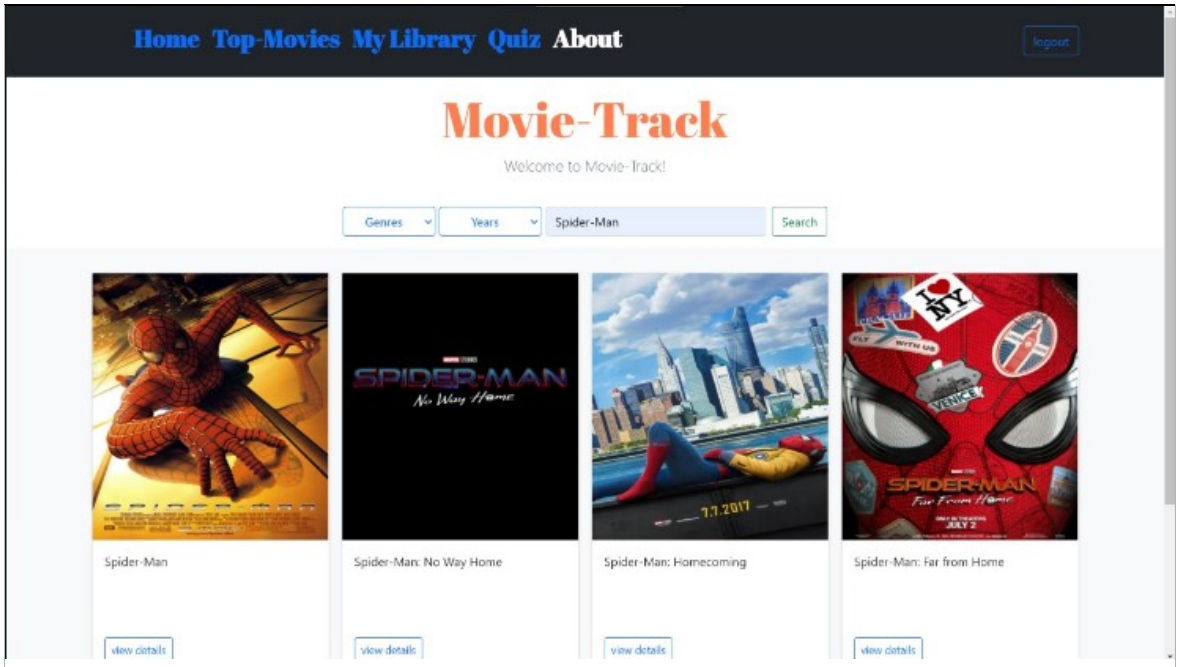
Here are some of the screenshots of the project:



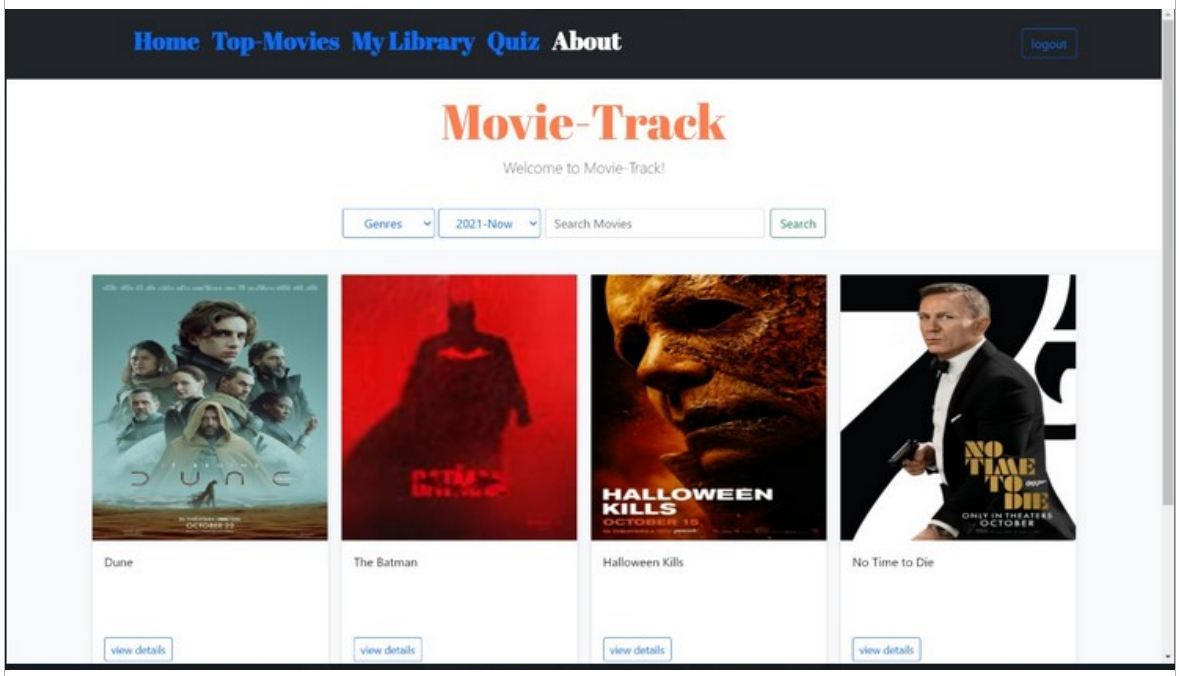
Screenshot1: This is the landing page of the website



Screenshot 2: This is the information Displayed.

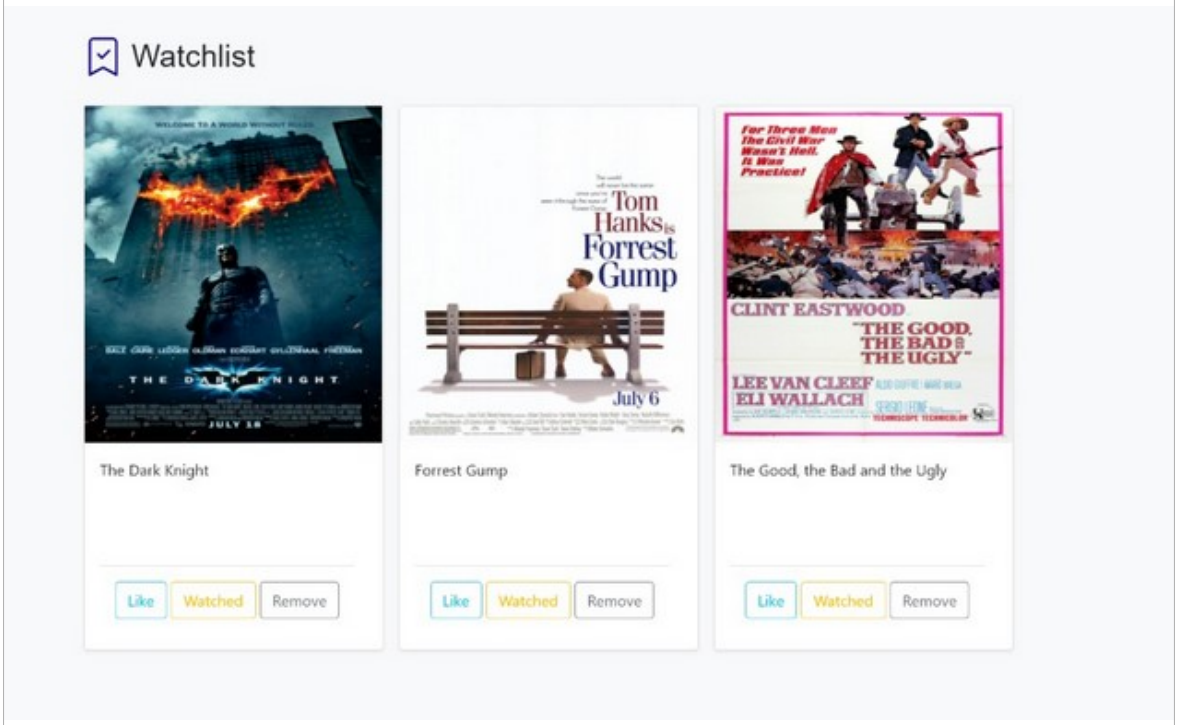


Screenshot 3: Searching by name



Screenshot 4: Searching by Year

Screenshot 5: Quiz question



Screenshot 6: Watchlist screen

Screenshot 7: Signup and Security

Chapter 7

Conclusion

This project has been an immense learning opportunity for all of us. In this project we used all the technologies that we have learned throughout or previous semesters and this semester in Internet programming lab. This was a fun experience for all of us but also challenging at times. This brought out innate leadership qualities between all of us. Everyone took charge of whatever thing that they specialised in. as the group leader, I had very less to do both of my team mates very capable of doing things on their own. The only thing I had to keep track of was time which we had in abundance. We took an initial meeting in which we divided the work which each of us had to do.

Thus, we successfully completed the project without any hitch. along with this project we learned ReactJS which was taught alongside as we were completing the project. This was a very interesting topic, but we are not trying to reinvent the wheel but just to learn how these apps work by the principle of learn by doing. We lack the knowledge to add the functions of smart recommendation which makes use of machine learning. We selected this topic so that it can be useful in the next semester and machine learning can be easily integrated in the future.

I would like to conclude this report by saying, this is still a project in the making was not a complete package. integration of machine learning can make this project into a real-life application. I would like to thank our guide for helping us throughout this journey thank you.

References:

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2. https://flask.palletsprojects.com/en/2.0.x/
3. https://medium.com/nerd-for-tech/simple-react-quiz-application-b9ac808e6100
4. https://developer.imdb.com/

Acknowledgment

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As a team leader would like to thank all my colleagues who have helped throughout the project by pouring all of their heart and soul into this and not ignoring anything. they dedicated their time to this project and in my opinion this shows. once again I would like to thank the information technology department for providing us with such an opportunity to learn by doing.