



Movie Review Web-app

Internet and Web Programming - CSE3302

—
Under the guidance of - Dr. Arun Kumar G



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Submitted By-
Mihir S P - 19BCE2680
SriAdithya Ch - 19BCE0711

Abstract

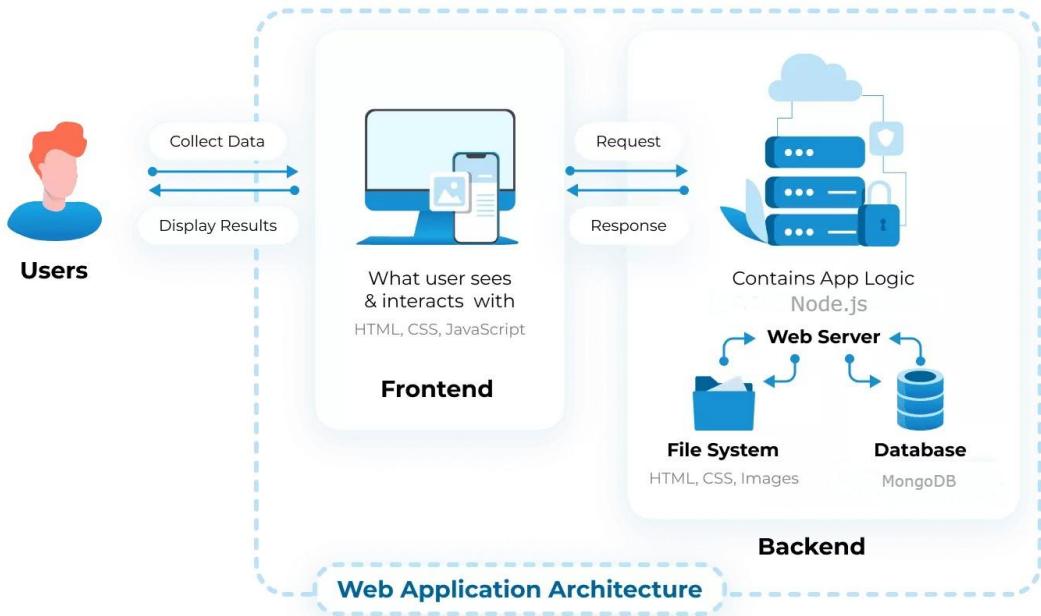
In this project we will use NO SQL technologies in developing a complete web-app for delivering reviews and comments on specific movies posted by users for users. This project is built on top of the MERN Stack using **React** and **Redux** for the front-end and **Node.js** for the backend and **MongoDB** as the Database. The application will have a key feature of user authentication and authorization on the posts and comments made by users. The application will make use of **TMDB's API** for getting movie data and **Ny Times API** for getting relevant movies news and reviews.

Some other packages that we will be using for development of the web app are Passport JS, BodyParser, Method Override, Mongoose and Connect Flash. All these frameworks will be downloaded and integrated by npm (node package manager). On the other hand, most of the front-end part will be done in CSS and bootstrap.

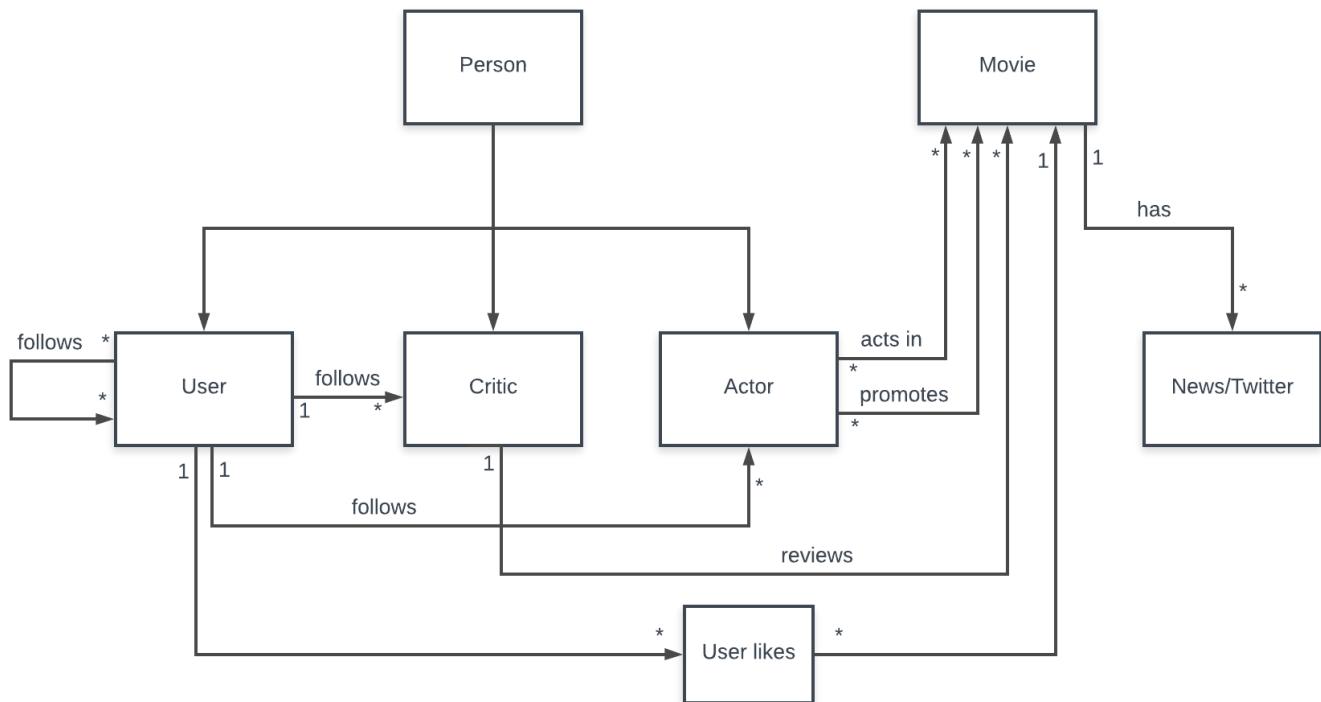
Most importantly, the web app will be RESTful Representational State Transfer) and CRUD. This allows users to Create, Read, Update or Modify and Delete their data in the Database any time.

Design or architecture

Architecture diagram



Flow Chart of the web application:



Methodology

The web application will be run by various APIs and open libraries including Express, Passport JS, Mongoose, etc. The complete project will be based entirely on JavaScript from the server side to the end. The web application will be dynamic i.e. A separate web server is a web page whose growth is restricted by an application server that handles a server-side script. In server side writing, the parameters determine how the integration of each new web page progresses, including multiple client side management settings.

We will use ReactJS for the front end. React makes it painless to create interactive and dynamic UIs.

Resources:

- Node.js
 - Previously, all JS had to run in the browser (which means it was all front-end code and not server-side). However, Node.js now allows JS to be run on the server-side.
- NPM (Node Package Manager)
 - To use libraries (e.g jQuery or Bootstrap's JS library) earlier, we used the <script> tag to enter the library. However, there is no HTML on the server side to perform these tasks. NPM allows us to place such libraries (a.k.a. "package") in the archives of the NPM website, and can be installed with its command line tool.
- ReactJS
 - React makes it painless to create interactive UIs. Design simple views for each state in your application, and React will efficiently update and render just the right components when your data changes.
- Express.js
 - Express is a web development framework, similar to a library / package in the sense that the framework is a set of external code included in our application.
- MongoDB
 - MongoDB is a popular NoSQL database. MongoDB is currently the most popular Node database as part of the "MEAN" stack, representing (1) MongoDB, (2) Express, (3) Angular, and (4) Node.
- Mongoose
 - Mongoose is an NPM package that helps us work with MongoDB within our JS files. Mongoose is known as the Object-Document Mapper (ODM), which means it is a way of writing JS to communicate with a database (e.g., a layer of JS above MongoDB). All its operation can be recorded without Mongoose;

however, Mongoose makes it easier to communicate with MongoDB (in the same way as jQuery makes it easier to communicate with DOM).

- TMDb's API
 - For movies. (<https://developers.themoviedb.org/3>)
- New York Times API
 - For news related to particular movies. (<https://developer.nytimes.com/apis>)
- Sessions
 - Authentication is made possible through "sessions." HTTP is supposed to be a stateless protocol, which means that when a request is made, it does not contain any information about your history of activity on the site (i.e., a request does not have a "state"; it is a one-time transaction). However, a session applies a persistent "state" to a user's HTTP requests when that user is logged in to the server, thereby allowing encrypted information about the user to be saved to each HTTP request. The passport will then translate that encrypted login information when configuring its HTTP response.
 - Express-Session is an npm package that facilitates session creation in Express apps.

API used for the Project (and why they are used):

For the Back end:

- "body-parser": "^1.18.3",
- "dotenv": "^10.0.0",
- "express": "^4.16.3",
- "express-session": "^1.15.6",
- "mongoose": "^5.2.6",
- "node-fetch": "^2.2.0"

For the Front end:

- "@material-ui/core": "^1.4.3",
- "bootstrap": "^4.1.3",
- "font-awesome": "^4.7.0",
- "lodash": "^4.17.10",
- "react": "^16.4.2",
- "react-dom": "^16.4.2",
- "react-dropdown-input": "^0.1.11",
- "react-redux": "^5.0.7",
- "react-responsive-carousel": "^3.1.41",
- "react-router-dom": "^4.3.1",
- "react-scripts": "1.1.4",
- "redux": "^4.0.0"



Features

- **User roles:**

- Regular user (Fan)
 - Regular users of a Fan can follow other users including critics and actors.
 - They can like a movie.
 - Events of whom they follow will be visible on those users who followed the user who liked the movie.
- Movie critic
 - A movie critic can post reviews on movies that would be visible on the movies page, his feed and on his followers feed.
- Actor
 - They can promote their movies by posting information related to their events on their feed.
 - This would also be visible on feeds of all users following this actor.
 - An actor can be reached by clicking links mentioned in the movie page.

- **APIs**

- TMDb for movies.
- New York Times API for news related to particular movies.

- **Homepage**

- This would be the starting page of our project.
- It would be different based on your user role (Fan, Critic, Actor).

- **Login / Register**

- Login/Register would allow the users to register and login.
- A user who can use the website anonymous without the need to login in. They could search movies, lookup movies of different genres/times/ratings etc. based on different filters. They can also view actors or critics or search other users.
- To view specific information and access the social network features a user has to log in.

- **Profile**

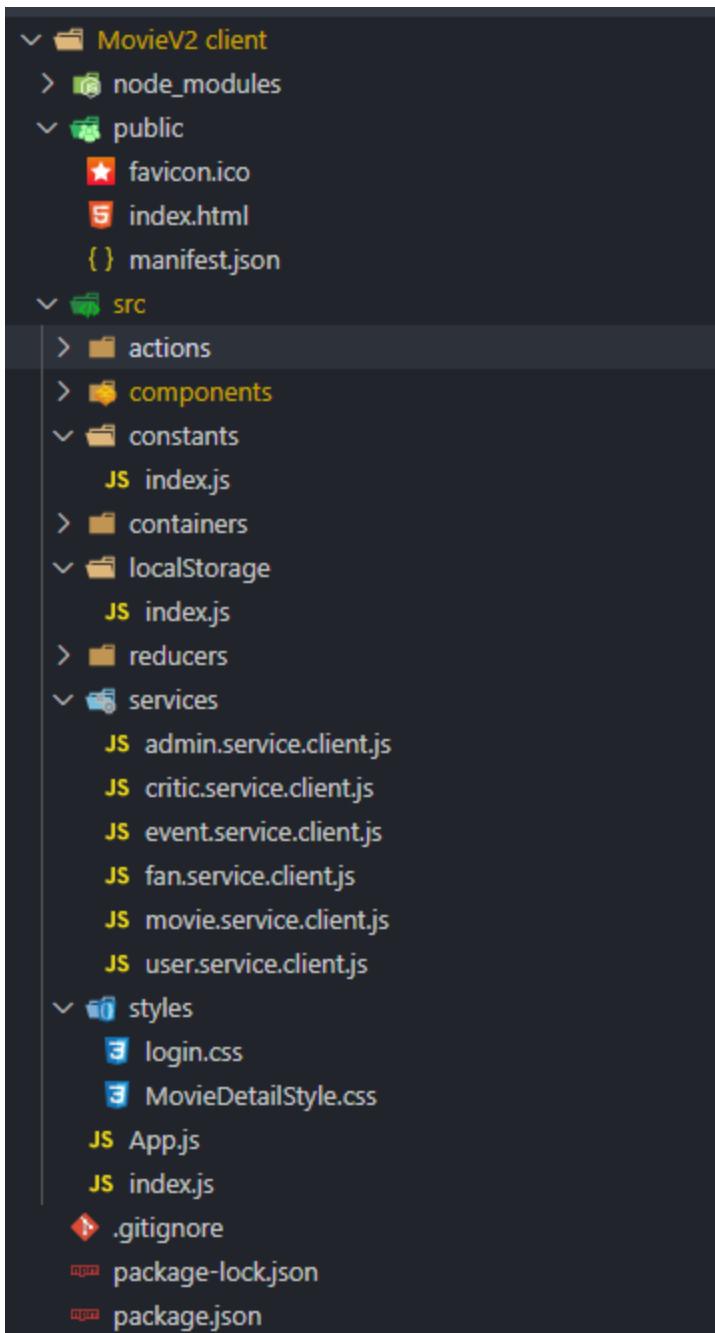
- Profiles of the different user roles would look different according to the features.
- It would allow them to edit their personal information and navigate to objects related to the user.
- Every user would be able to view a feed showing information relevant to them. (Regular users can view followed users' liked movies and critics'

reviews on movies; every user can view news articles regarding the latest movies or movies they liked/reviewed or acted in.)

- **Search / Search Results**
 - Allows users to search for a specific movie. Search results would be shown as a summarized list.
- **Details Page**
 - Details page shows detailed information related to the movie searched such as its trailer, description, rating, and reviews by critics etc.
 - Clicking on the critic that posted the review navigates to that critic's profile.
- **Social Networking**
 - Provides social networking features such as discovering other users, following other users, view others likes/comments etc.

Modules:

Front End:



actions	<ul style="list-style-type: none">JS actor.jsJS admin.jsJS fan.jsJS login.jsJS movie.jsJS news.jsJS review.js
containers	<ul style="list-style-type: none">JS ActorEventsContainer.jsJS ActorPageContainer.jsJS AdminPageContainer.jsJS AllFavoriteMoviesContainer.jsJS CriticPageContainer.jsJS CriticPageReviewContainer.jsJS CriticReviewsContainer.jsJS DiscoverMoviesContainer.jsJS EventContainer.jsJS ExploreUsersContainer.jsJS ExternalReviewsContainer.jsJS ExternalReviewsList.jsJS FanPageContainer.jsJS FavoriteMoviesContainer.jsJS FollowedFansContainer.jsJS HomePageContainer.jsJS LoginContainer.jsJS MovieDetailContainer.jsJS MovieList.jsJS NewsList.jsJS NewsPageContainer.jsJS NowPlayingList.jsJS PopularNewsContainer.jsJS PopularNewsList.jsJS ProfileContainer.jsJS RegistrationContainer.jsJS UpcomingMovieCarousel.jsJS WatchlistMovieContainer.js
components	<ul style="list-style-type: none">JS ActorEvent.jsJS ActorPage.jsJS AdminPage.jsJS AllFavoriteMovies.jsJS CriticPage.jsJS CriticPageReview.jsJS CriticPageReviewItem.jsJS CriticReviews.jsJS CriticReviewsListItem.jsJS EventList.jsJS EventListItem.jsJS ExploreUser.jsJS ExternalReviewsListItem.jsJS FanPage.jsJS FavoriteMovieItem.jsJS FavoriteMovies.jsJS FollowedFanItem.jsJS FollowedFans.jsJS Login.jsJS MovieCard.jsJS MovieCarouselItem.jsJS NavigationBar.jsJS NewsListItem.jsJS NowPlayingListItem.jsJS PopularNewsListItem.jsJS Profile.jsJS Registration.jsJS SearchNavBar.jsJS WatchlistMovieItem.jsJS WatchlistMovies.jsJS YoutubeWidget.js

Back End:

The screenshot shows a file explorer window with the following directory structure:

- MovieV2 server
 - models
 - event
 - fanFollowed
 - fanFollowed.model.server.js
 - fanFollowed.schema.server.js
 - likeMovie
 - likeMovie.model.server.js
 - likeMovie.schema.server.js
 - movie
 - movie.model.server.js
 - movie.schema.server.js
 - movieRecommended
 - movieRecommended.model.server.js
 - movieRecommended.schema.server.js
 - review
 - review.model.server.js
 - review.schema.server.js
 - user
 - user.model.server.js
 - user.schema.server.js
 - node_modules
 - services
 - admin.service.server.js
 - event.service.server.js
 - fan.service.server.js
 - movie.service.server.js
 - nyt.service.server.js
 - review.service.server.js
 - tmdb.service.server.js
 - user.service.server.js
 - .env
 - .gitignore
 - constants.js
 - package-lock.json
 - package.json
 - server.js

Code:

GitHub Lnk:

<https://github.com/mihirsp18/Moviemojo/tree/main>

To Run the project:

You will need Node.Js and NPM to be installed to the device.

For the Server:

- Create a file named ".env" in the server directory and add the following:

```
TMDB_API_KEY=<Your TMDB API Key>  
NYT_TOP_STORIES_API_KEY=<Your NYT API Key>  
Mongo_URL=<MongoDB Database URL>
```

- Run "**npm install**" in the server directory.
- After installing the dependencies run "**node server.js**" to start the server.

For the Client:

- Run "**npm install**" in the client directory.
- After installing the dependencies run "**npm start**" to start the react application.

Results:

Moviemoji

Search Movies

HOME DISCOVER NEWS TRENDING EXTERNAL REVIEWS Search SEARCH

FREE GUY

DUNE

ENCANTO

Explore Movies

Venom: Let There Be Carnage

Shang-Chi and the Legend of the Ten Rings

Red Notice

Now Playing

Shang-Chi and the Legend of the Ten Rings

Venom: Let There Be Carnage

Red Notice

Moviemoji

Search Movies

Sort By Revenue Order Descending Go

AVATAR

Avengers: Endgame

TITANIC

STAR WARS: THE FORCE AWAKENS

Avatar

Avengers: Endgame

Titanic

Star Wars: The Force Awakens

Vote Average: 7.5

Vote Average: 8.3

Vote Average: 7.9

Vote Average: 7.3

Moviemoji

localhost:3000/news/top

Moviemoji

Search Movies

HOME DISCOVER NEWS TRENDING EXTERNAL REVIEWS Search SEARCH

'House of Gucci' Review: Murder, Italian-Style
Lady Gaga, Adam Driver, Al Pacino and Jared Leto serve up a heaping platter of prosciutto in Ridley Scott's tale of family treachery.
11/23/2021
By A.O. Scott

The Best Thanksgiving Movies to Stream
First the food, then the movies. Here are five streaming suggestions for the holiday.
11/24/2021
By Amy Nicholson

'Encanto' Review: In This House, We Make Magic
Disney's new film, about a gifted family in Colombia, has stunning animation, a beautifully composed story and spellbinding songs by Lin-Manuel Miranda.
11/24/2021
By Maya Phillips

'Drive My Car' Review: A Director Takes Your Heart for a Spin
In this quiet masterpiece, Ryusuke Hamaguchi considers grief, love, work and the soul-sustaining, life-shaping power of art.
11/24/2021
By Manohla Dargis

Moviemoji

localhost:3000/news/reviews

Moviemoji

Search Movies

HOME DISCOVER NEWS TRENDING EXTERNAL REVIEWS Search SEARCH

'Writing With Fire' Review: Speaking Truth to Power
This rousing documentary follows the reporters of India's only all-women news outlet as they pivot to digital journalism while battling personal and political challenges.
11/25/2021
By Devika Girish

'Drive My Car' Review: A Director Takes Your Heart for a Spin
In this quiet masterpiece, Ryusuke Hamaguchi considers grief, love, work and the soul-sustaining, life-shaping power of art.
11/24/2021
By Manohla Dargis

'A Boy Called Christmas' Review: Kindling the Holiday Spirit
MPAA Rating: PG
Enchanting imagery elevates this Netflix holiday adventure about a boy who journeys to a magic elfin city.
11/24/2021
By Natalia Winkelman

'The Humans' Review: Reasons (Not) to Be Cheerful
MPAA Rating: R
Stephen Karam's film adaptation of his powerful play acquires a supernatural sheen as a family gathers for Thanksgiving dinner.
11/23/2021
By Jeannette Catsoulis

Moviemoji

Search Movies

Sort By

Order

Go

SHANG-CHI
THE LEGEND OF THE TEN RINGS

Shang-Chi and the Legend of the Ten Rings

Vote Average: 7.9

Moviemoji

Search Movies

Shang-Chi and the Legend of the Ten Rings (2021)

Score: 7.9

Overview
Shang-Chi must confront the past he thought he left behind when he is drawn into the web of the mysterious Ten Rings organization.

Genres
Action Adventure Fantasy

Runtime
132 mins

Original Language
en

HomePage
<https://www.marvel.com/movies/shang-chi-and-the-legend-of-the-ten-rings>

Top Cast

Critic Reviews

Review Title

Write Review

Write review

Submit

11/25/2021 | By

Shang-Chi and the Legend of the Ten Rings is a 2021 American superhero film based on Marvel Comics featuring the character Shang-Chi. Produced by Marvel Studios and distributed by Walt Disney Studios Motion Pictures, it is the 25th film in the Marvel Cinematic Universe (MCU). The film was directed by Destin Cretton, from a screenplay he wrote with Dave Callaham and Andrew Lanham, and stars Simu Liu as Shang-Chi alongside Awkwafina, Meng'er Zhang, Fala Chen, Florian Munteanu, Benedict Wong, Michelle Yeoh, Ben Kingsley, and Tony Leung. In the film, Shang-Chi is forced to confront his past when his father Wenwu (Leung), the leader of the Ten Rings organization, draws Shang-Chi and his sister Xialing (Zhang) into a search for a mythical village. A film based on Shang-Chi entered development in 2001, but work did not begin in earnest until December 2018 when Callaham was hired. Cretton joined in March 2019, with the project fast-tracked as Marvel's first film with an Asian lead. The film's title and primary cast were announced that July, revealing the film's connection to the Ten Rings organization, which previously appeared throughout the MCU, and its leader Wenwu. Shang-Chi and the Legend of the Ten Rings is the first Marvel Studios film with an Asian director and a predominantly Asian cast. Filming began in Sydney in February 2020 but was put on hold in March due to the COVID-19 pandemic. Production resumed in August before completing in October, with additional shooting occurring in San Francisco.

Recommendations

Moviemoji

Search Movies

Profile Fan2's Page Explore WatchList Logout

HOME DISCOVER NEWS TRENDING EXTERNAL REVIEWS SEARCH

Sort By Order Go

VENOM: LET THERE BE CARNAGE Venom: Let There Be Carnage ♥ ■	SHANG-CHI SHANG-CHI and the Legend of the Ten Rings ♥ ■	RED NOTICE Red Notice ♥ ■	NO TIME TO DIE No Time to Die ♥ ■
Vote Average: 7.2	Vote Average: 7.9	Vote Average: 6.9	Vote Average: 7.6

Moviemoji

localhost:3000/register

Moviemoji

Login Registration

Enter Username: Mihir

Enter Password: *****

Verify Password: *****

Enter User Type: Fan

Fan Actor Critic

Register

Moviemoji

localhost:3000/my-page-actor/create-event

Moviemoji

Profile of Act2:

This is a test Description!

Promotional Events

Create new events and promote your movies!

Manage events

Manage Events

All your promotional events in one place!

Create New Event

Enter Event name: New Event

Enter Venue Location:

Enter Event Date: dd-mm-yyyy

Enter Event Description:

Create Event

Your Promotional Events

Movie Event	New Event
test test Location: Bangalore Edit Delete Date: 2021-11-28	test Location: test Edit Delete Date: 2021-11-28

The image displays two screenshots of the Moviemoji application interface.

Fans Followed Page (localhost:3000/my-page/fans-followed):

- The title is "Moviemoji" at the top left.
- The top right features navigation links: Profile, Fan2's Page, Explore, WatchList, and Logout.
- The main heading is "Fans Followed" with the subtitle "All the fans you currently follow".
- A back button "← My Page" is present.
- Three user profiles are listed in cards:
 - Act1**: Unfollow button.
 - critic1**: Subtitle "I am a Cretic", Unfollow button.
 - Act2**: Subtitle "test", Unfollow button.

Explore Page (localhost:3000/explore):

- The title is "Moviemoji" at the top left.
- The top right features navigation links: Profile, Fan2's Page, Explore, WatchList, and Logout.
- The main heading is "All Fans and Actors in The Movie Network:".
- A back button "← My Page" is present.
- A list of users with their roles and subtitles, each with an "Explore Content" and "Follow" button:
 - Critic**: critic1, I am a Cretic, Follow button.
 - Fan**: Fan1, Follow button.
 - Actor**: Act1, Follow button.
 - Actor**: Act2, test, Follow button.
 - Fan**: Fan2, Follow button.
 - Fan**: Fan3, This is a test Description!, Follow button.

Moviemoji

Profile Fan2's Page Explore WatchList Logout

Username: Fan2

Firstname: Sam

Lastname: Ram

Email: test@email.com

Date of Birth: 01-02-2001

City: Bangalore

Phone Number: 9565645451

Description: This is a test Description!

Update

localhost:3000

Moviemoji

Profile critic1's Critic Page Logout

Profile of critic1:

test

Your Reviews

View and manage your reviews!

Manage reviews

Movie: Shang-Chi and the Legend of the Ten Rings
Posted on: 11/25/2021

Review:
Shang-Chi and the Legend of the Ten Rings is a 2021 American superhero film based on Marvel Comics featuring the character Shang-Chi. Produced by Marvel Studios and distributed by Walt Disney Studios Motion Pictures, it is the 25th film in the Marvel Cinematic Universe (MCU). The film was directed by Destin Daniel Cretton, from a screenplay he wrote with Dave Callaham and Andrew Lanham, and stars Simu Liu as Shang-Chi alongside Awkwafina, Meng'er Zhang, Fala Chen, Florian Munteanu, Benedict Wong, Michelle Yeoh, Ben Kingsley, and Tony Leung. In the film, Shang-Chi is forced to confront his past when his father Wenwu (Leung), the leader of the Ten Rings organization, draws Shang-Chi and his sister Xialing (Zhang) into a search for a mythical village. A film based on Shang-Chi entered development in 2001, but work did not begin in earnest until December 2018 when Callaham was hired. Cretton joined in March 2019, with the project fast-tracked as Marvel's first film with an Asian lead. The film's title and primary cast were announced that July, revealing the film's connection to the Ten Rings organization, which previously appeared throughout the MCU, and its leader Wenwu. Shang-Chi and the Legend of the Ten Rings is the first Marvel Studios film with an Asian director and a predominantly Asian cast. Filming began in Sydney in February 2020 but was put on hold in March due to the COVID-19 pandemic. Production resumed in August before completing in October, with additional shooting occurring in San Francisco.

Edit

Delete

The squeal of a equal
Movie: Venom: Let There Be Carnage
Posted on: 11/25/2021

Conclusion

This project was made as an attempt to create an entertainment network where movie lovers, actors and critics can come together and share opinions and can have a platform to express their fandom. The website also serves as a source of information for anything related to entertainment and also acts as a portal where fans can follow and keep up to date with their favorite actors. Overall this project helped us to learn a lot about web-development, various front end frameworks, building a backend API and working with third party API's.

Future enhancements

There are a few things left to do to polish out the website, there are a few of them:

- Improve the dynamic nature of the ui to make it easy to use in mobile devices.
- Add an admin user role to administer over everyone on the platform.
- Improve the Social-network aspect of the site allowing users to make posts and provide a better way for users to explore posts made by other users.

Original doc link:

https://docs.google.com/document/d/19hEFmPUoQZH34OjrMHICSY-7LBiVX8WqkTB6RIFVI_Mc/edit?usp=sharing