**PROJECT REPORT**

**Theatplay – Online Movie watching website(like YouTube)**



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**Introduction**

“theatPLAY” is a fully-fledged movie website with various features to indulge the users in watching movie. Video streaming help users around the globe to watch movie of their own interest from the comfort of their homes. For today’s user it is all about Immediacy and mobility. The content they are looking for must be just a click away to fit their needs. All of these demands are being fulfilled with the help of video streaming website.

# **Objective**

Now a days life is becoming very tough. The main objective of our project is to provide an online platform to the people who want to watch movie online and keep themselves entertained. It can be used anytime and anywhere with decent internet connection. We can showcase nice cartoon movie specially for kids to keep them entertained during this pandemic, when social distancing is the norm. Using this site user can also get to know about the latest movie, highest rated movie and many more filters are included to help in the selection.

# **Tech stacks used:**

1. **Frontend Part-**

* **JavaScript** for performing various array operations and making functions etc.
* **HTML/CSS** for designing the front-end part
* **React–** JavaScript framework for making single page application
* **React-scripts -** react-scripts is a set of scripts from the create-react-app starter pack.
* **React DOM –** managing DOM elements of the web page
* **React – router** – standard routing library for react to keep UI in sync with the URL.
* **Axios** – library that helps us to make http request for external resources
* **framer-motion** – Framer Motion is a relatively new and popular open-source React animation library, aimed at creating production-ready animation
* **react-alice-carousel** – React Alice Carousel is a React component for building content galleries, content rotators and any React carousels.
* **web-vitals –** Web Vitals are a set of useful metrics that aim to capture the user experience of a web page.
* **emotions -** Emotion is a library designed for writing CSS styles with JavaScript.
* **Material-UI** - Material UI is the most powerful and efficient tool to build an application by adding Designs and Animations.
* **Chakra UI** - Chakra UI is a simple, modular and accessible component library.

1. **Backend Part-**

* **Node.js** as a backend language for the project
* **Express.js**, a node.js framework to create a server and make API’s
* **MongoDB-** to store the user data, movie data, and other comments (if any)
* **Body – parser** – it is responsible for parsing the incoming request bodies in a middleware.
* **Express**-**validator** – is a set of express.js middleware that wrap validator
* **Mongoose**- a MongoDB framework to get more functionalities to retrieve and manipulate data.
* **JWT -**(jsonwebtoken) for user authentication
* **Bcryptjs -** for password encryption
* **TMBD API –** With the TMBD API we can add a variety of features like – trending videos, movies , TV series etc.
* **Concurrently -** To make concurrently work with React and Node, we have to add some script in package. Json.
* **Dotenv -** Dotenv is a module that we will use to access environment variables in our application.
* **express-async-handler -** Simple middleware for handling exceptions inside of async express routes and passing them to your express error handlers.
* **Nodemon -** nodemon is a tool that helps develop node. js based applications by automatically restarting the node application when file changes.

# **What all features are included in “theatPLAY”?**

* **User Signup** – “TheatPLAY” uses a signup form where it takes your Full name, email, password and confirm password.
* **User Login** – The login section in pretty easy to use. User will have to enter registered email id and password.
* **User home page** – After a successful signup and login, the page will redirect to the user page, and gets access to his profile, video and the logout button.
* **Category filter** – A categories filter is provided on the top of the movie listing section through which the user can filter out the movie as per the category of their choice and continue browsing the movie.

# **Benefits of Project**

This project really helped in understanding the underlying concepts of frontend and backend environment very deeply. Reacts and Node.js are really fantastic language. With all its inbuilt libraries and NPM package support, it becomes even more powerful. **React JS** is a JavaScript library **used** in web development to build interactive elements on websites. Concepts related to Authentication, securing password, defining user roles (authorisation) and saving data securely to database are crystal clear after getting my hands dirty on this project. Although it is a backend project, yet the user interface made me learn many front-end topics as well, I feel empowered with the front-end tools and concepts too. It was really a very great experience for me and I have put my heart and soul to make this project live just in time.