

INTERNSHIP
AT
JPG TECHNOLOG

In partial fulfillment of the requirements for the award of the Degree
Of Bachelor of Technology
In
Computer Science and Engineering

Submitted By

KUNAL GUPTA

University. Roll No. 2004740100013



Department of Computer Science and Engineering
Shri Siddhi Vinayak Institute of Technology,
Bareilly (U.P.)

CERTIFICATE OF ORIGINALITY OF WORK

I **Kunal Gupta** University Roll No. **2004740100013** Student of the Computer Science Branch in my final year have undergone a six-month internship at JPG Technosoft. I have worked on many projects during my internship period.

I hereby declare that the work is an original one and has not been submitted earlier to this university or any other institution for fulfillment of the requirement of a course of study.

Name: Kunal Gupta

Univ. Roll No.: 2004740100013

Branch: Computer Science and Engineering

Semester: VIIth

ACKNOWLEDGEMENT

I am highly grateful to the people who provided their valuable time, acquaintance, and support during my internship. This period of internship has been a great time of learning and observation for me and the below-mentioned people were some of the few who played a significant role in making it so.

I am grateful for giving me all valuable knowledge about the topic and guiding me in the best possible way during the session. Last but not least, we wish to thank our parents for financing our studies in this college as well as for constantly encouraging us to learn engineering. Their sacrifice in providing this opportunity to learn engineering is gratefully acknowledged.

Kunal Gupta

ABOUT THE TRAINING

The internship was regarding Web and Software Development. The duration was about 6 months and I learned the following concepts in my training:

1. HTML.
2. CSS.
3. Java Script.
4. PHP.
5. WordPress.

Certificate of Completion of the Internship



JPG Technosoft Pvt Ltd

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Pan No AACCJ0290N Corporate Id Registration No U72300UP2008PTC035320 GST In : 09AACCJ0290N1ZA

INTERNSHIP CERTIFICATE

September 5, 2023

To whom it may concern

This certification proves that Kunal Gupta has completed the internship program at JPG Technosoft Private Limited as a Software Developer. Kunal Gupta started joining the program from Mar 1, 2023 until Aug 30, 2023.

During his stay in the company as an Intern, he displays enthusiasm, leadership, Self-discipline, and self-motivation.

We are lucky to have him as one of our interns before and we would like to wish him all the best.

Sincerely,




MANISH GUPTA (DIRECTOR)

For M/s. JPG TECHNOSOFT PRIVATE LIMITED

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DESCRIPTION

REACT

Introduction

React is an open-source JavaScript library for building user interfaces, primarily for single-page applications where the user interacts with the page and the content dynamically updates without needing to reload the entire page. Developed and maintained by Facebook, React has gained widespread adoption in the web development community due to its efficiency and declarative approach to building UIs.

Here are some key concepts and features of React:-

1. Declarative Syntax
2. Component-Based Architecture
3. Virtual DOM
4. JSX (JavaScript XML)
5. Unidirectional Data Flow
6. React Router
7. State and Props
8. Hooks

To get started with React, you typically create a new React application using tools like Create React App, define components, manage state and props, and use JSX to structure your UI. React is often used in combination with other libraries and tools, such as Redux for state management or React Router for navigation, to build robust and scalable applications.

HISTORY OF REACT

Certainly! Here are the major events in the history of React:

Development Begins (2011):

- React's development initiated at Facebook to address challenges in building large-scale, dynamic user interfaces.

First Internal Deployment (2012):

- React was deployed on Facebook's newsfeed to enhance performance and modularity.

Open Sourcing (May 2013):

- React was open-sourced, allowing external developers to contribute and use it in their projects.

Introduction of JSX (May 2013):

- JSX, a syntax extension for JavaScript, was introduced alongside the open-sourcing of React.

React Native (January 2015):

- React Native was introduced, extending React to enable the development of native mobile applications.

React 0.14 and Stateless Functional Components (October 2015):

- React 0.14 brought improvements, including the introduction of stateless functional components.

React 15.0 (April 2016):

- React 15.0 introduced the Fiber architecture and improved error handling capabilities.

React 16.0 (September 2017):

- React 16.0 included major updates such as the Fiber architecture becoming default and the introduction of the Hooks API.

React 17.0 (October 2020):

- React 17.0 focused on gradual upgrades, with features like forward refs and improvements to event delegation.

React Server Components (2021 - Experimental):

- React Server Components were announced as an experimental feature, aiming to enhance data fetching and rendering.

These events highlight React's journey from an internal tool at Facebook to an open-source library widely used for building dynamic and scalable user interfaces

ADVANTAGES AND DISADVANTAGES OF REACT

Advantages :-

React has the following advantages.

1. High performance:

React uses a virtual DOM, which is a lightweight representation of the real DOM. This makes it very efficient at updating the UI, as only the parts of the DOM that have changed need to be re-rendered.

2. Easy to learn:

React has a simple and straightforward API, which makes it easy to learn and use, even for beginners.

3. Flexible:

React can be used to build a wide variety of applications, from simple websites to complex single-page apps.

4. Component-based:

React apps are made up of components, which are reusable pieces of code that can be combined to create complex UIs. This makes it easy to develop and maintain large apps.

5. Large community:

React has a large and active community, which means there are plenty of resources available to help you learn and use React.

Disadvantages :-

1) Steep learning curve:

- i) React has a unique syntax and ecosystem that can be difficult to learn for developers who are not familiar with it.

2) Performance issues:

- i) React applications can be slow to render, especially if they are complex.

3) Limited SEO:

- i) React applications are not always SEO-friendly, as they are typically rendered on the client-side.

4) Ecosystem complexity:

- (1) The React ecosystem can be complex and overwhelming, with many different libraries and tools to choose from.

5) Lack of support for mobile devices:

- i) React is not specifically designed for mobile devices, so developers may need to use additional libraries and tools to create mobile-friendly applications.

6) Compatibility issues:

- (1) React applications may not be compatible with all browsers and devices.

Overall, React is a powerful and popular JavaScript library, but it is important to be aware of its disadvantages before using it in a project.

Famous Applications using React :-

1) **Facebook:**

- a) Utilizes ReactJS for its webpage and React Native for the mobile app. Facebook created React and uses it for its apps, even introducing a new version called React Fiber.

2) **Instagram:**

- a) Heavily relies on ReactJS, incorporating features like geolocations, Google Maps APIs, and dynamic tags. The app is entirely based on ReactJS.

3) **Netflix:**

- a) Implements React in their platform "Gibbon" for TV devices, improving startup speed, runtime performance, and modularity.

4) **New York Times:**

- a) Created a project with React for simulating different celebrity looks on the Oscar red carpet, showcasing React's re-rendering capability.

5) **Yahoo! Mail:**

- a) Owned by Facebook, Yahoo! Mail integrates React for unified architecture and easier code management.

6) **Khan Academy:**

- a) Many parts of Khan Academy use React for its efficient element changing and elimination of unnecessary re-renders, an upgrade from Backbone.

7) **WhatsApp:**

- a) Uses ReactJS for building user interfaces, both for its main app and the WhatsApp Web app.

8) **Vivaldi Browser:**

- a) The Vivaldi Browser incorporates ReactJS as one of its underlying technologies for UI development.

9) **Codecademy:**

- a) Fully incorporates ReactJS, appreciating its battle-tested nature, SEO-friendliness, and compatibility with legacy code.

10) **Dropbox:**

- a) Adopted ReactJS to take advantage of its efficient resources, contributing to the success of their cloud-based storage and backup service.

Project

Moviestram

React Movie Database Explorer" is a dynamic and user-friendly website that allows users to explore a vast collection of movies and TV shows. Leveraging the power of React.js and The Movie Database (TMDb) API, this platform provides a seamless and engaging experience for movie enthusiasts.

Key Features:-

1) Browse and Search:

- a) Users can easily browse through an extensive catalog of movies and TV shows. A search functionality is implemented, enabling users to find their favorite content quickly.

2) Detailed Information:

- a) Each movie or TV show page displays comprehensive details, including the synopsis, release date, genre, rating, and cast information. High-quality posters and images enhance the visual experience.

3) Responsive Design:

- a) The website is designed to be responsive, ensuring a seamless experience across various devices, including desktops, tablets, and smartphones.

4) Pagination :

- a) To manage large amounts of data, the website implements pagination or infinite scroll, optimizing performance and user experience.

5) Dynamic Routing:

- a) React Router is utilized to implement dynamic routing, enabling users to share or bookmark specific movie or TV show pages.

6) Error Handling:

- a) Graceful error handling is incorporated to manage scenarios where data retrieval from the TMDb API fails, ensuring a smooth user experience.

7) Stream Movies:

- a) Graceful error handling is incorporated to manage scenarios where data retrieval from the TMDb API fails, ensuring a smooth user experience.

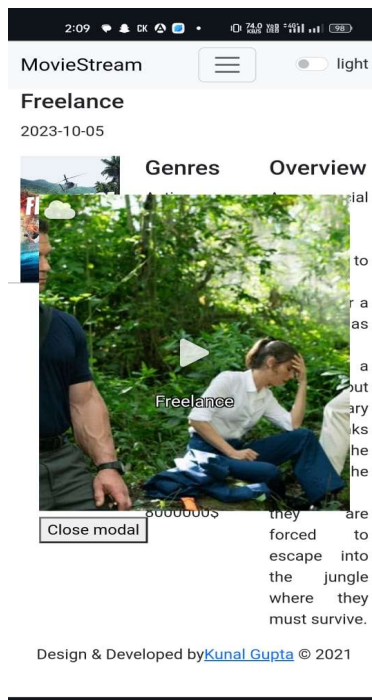
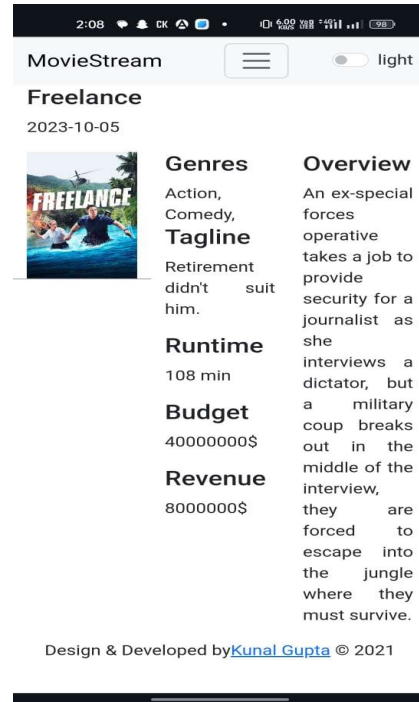
Technologies Used:-

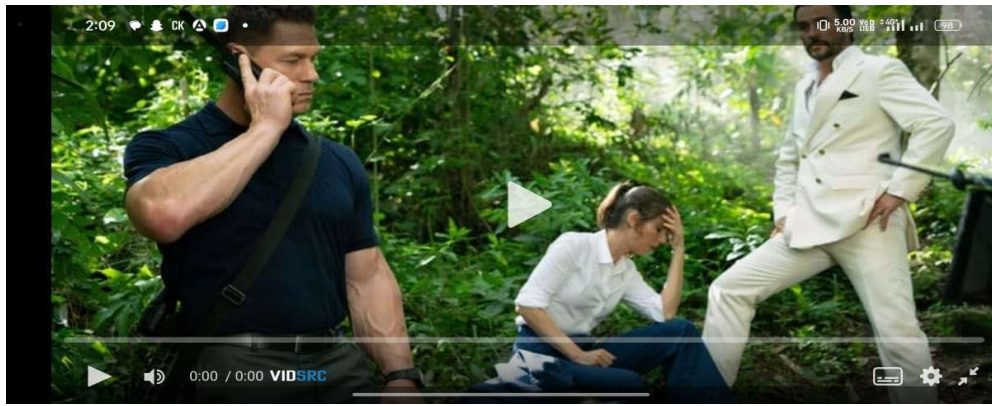
- React.js
- React Router
- TMDb API
- JavaScript
- HTML/CSS
- Responsive Design Techniques

"React Movie Database Explorer" aims to provide a rich, interactive, and visually appealing platform for movie enthusiasts, leveraging the power of React and the extensive movie data available through the TMDb API.

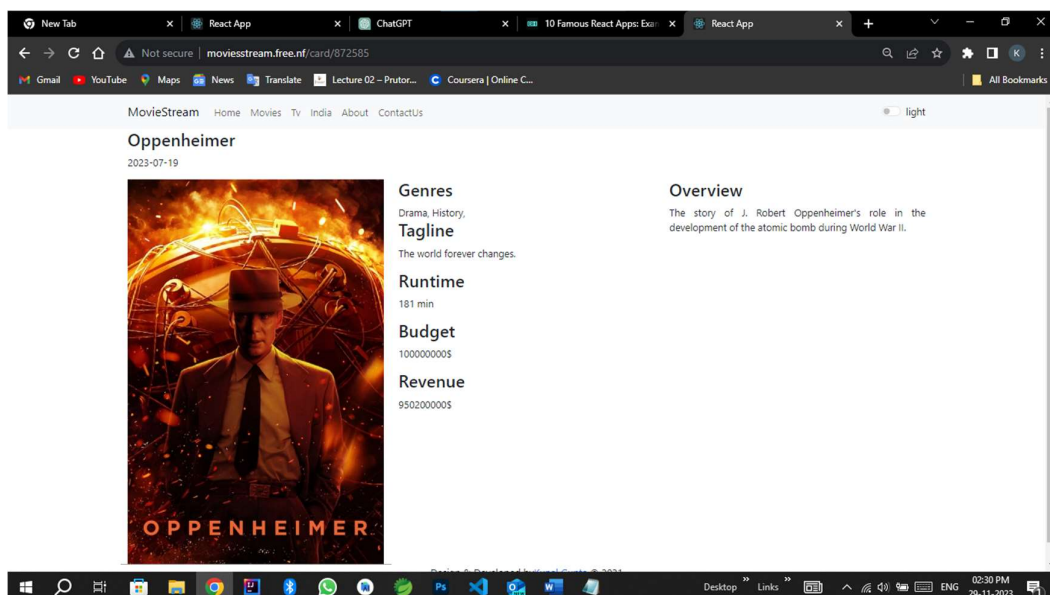
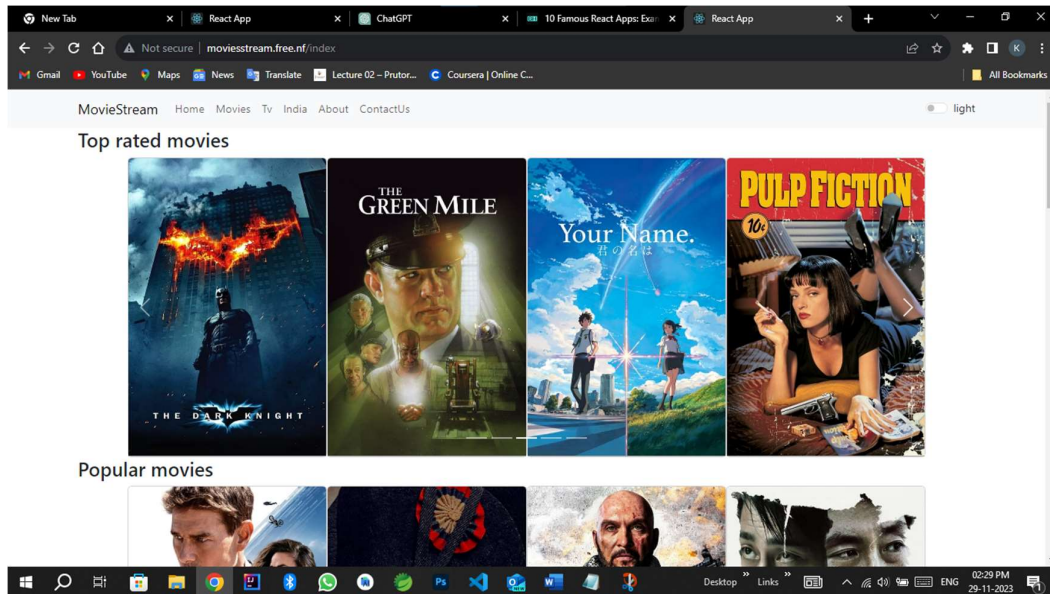
SNAPSHOTS

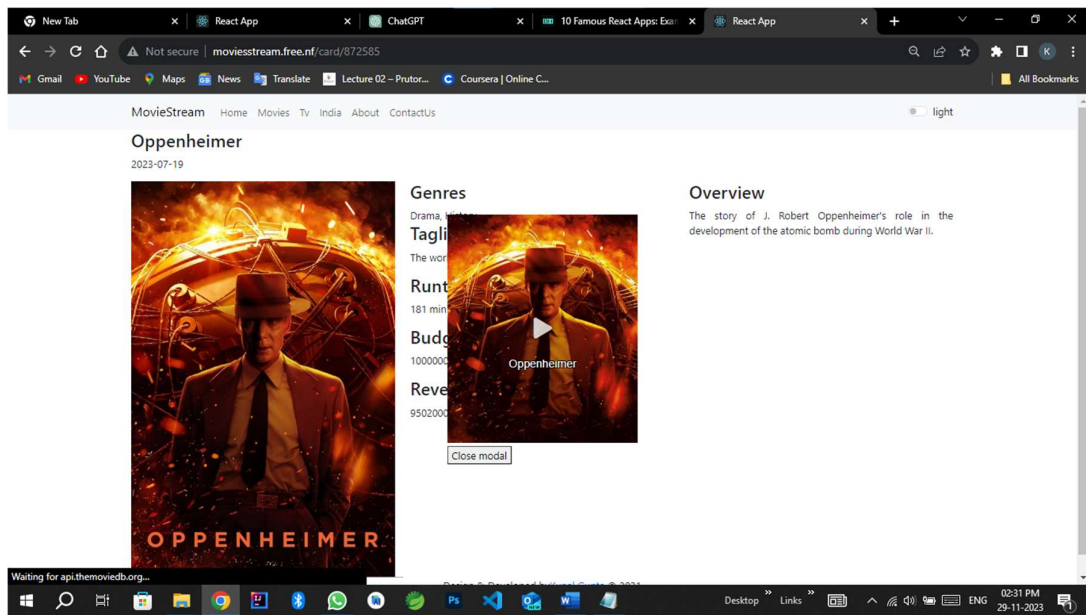
Smartphone View:-



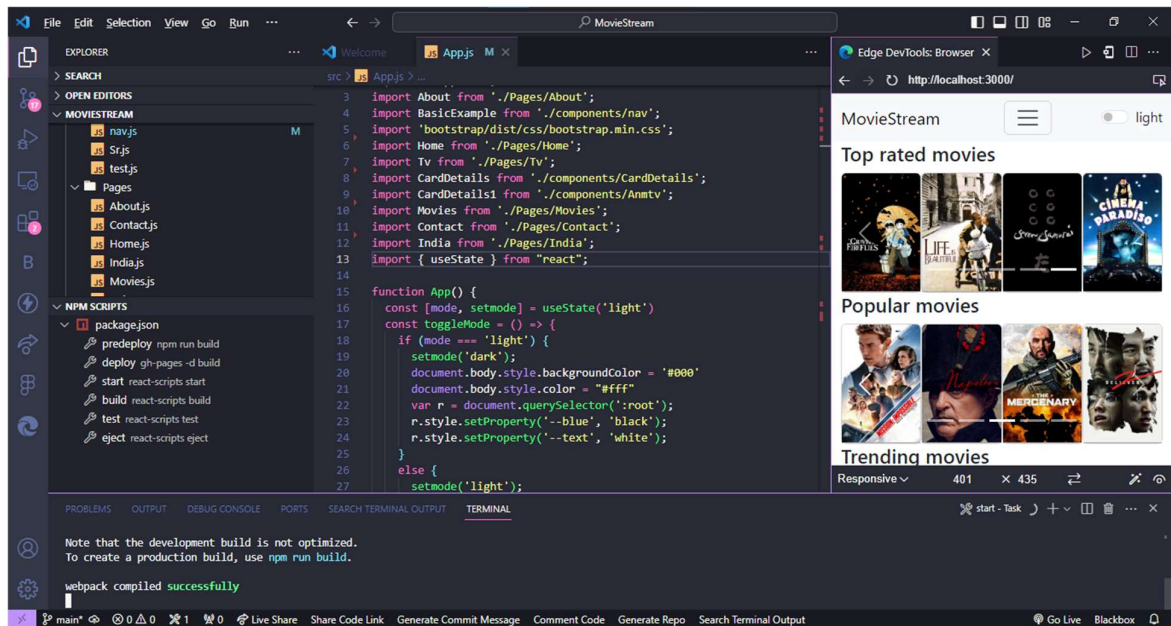


Full View:-





IDE View :-



File View->

