Industry Project Report On Web Page Development Using React Js

Developed By: -

Tanishk Patel (20162121020)

Guided By:-

Prof. Neha Sisodiya (Internal)

Submitted to
Department of Computer Science & Engineering Institute of
Computer Technology



Year: 2024



CERTIFICATE

This is to certify that the **Industry** Project work entitled "**Web Page Development Using React Js**" by Tanishk Patel (20162121020) of Ganpat University, towards the partial fulfillment of requirements of the degree of Bachelor of Technology – Computer Science and Engineering, carried out by them in the CSE(BDA) Department. The results/findings in this Project have not been submitted in part or full to any other University / Institute for the award of any other Degree/Diploma.

Name & Signature of Internal Guide

Name & Signature of Head

Place: ICT - GUNI

Date:



Internship Completion Certificate

This is to certify that Patel Tanishkkumar Ashokkumar successfully completed an internship as a Frontend Developer at AttackBox from January 1, 2024 to April 30, 2024.

During the internship period, Mr. Patel demonstrated exceptional dedication, creativity, and proficiency in fulfilling the responsibilities assigned. He actively collaborated with the development team, contributing to the creation of intuitive and visually appealing user interfaces for web applications. Mr. Patel played a crucial role in assisting the design and implementation of responsive web applications, showcasing his skills and expertise in frontend development.

Mr. Patel effectively debugged and troubleshooted frontend issues, ensuring the optimal performance of the applications. He remained updated with industry trends and consistently contributed innovative ideas to enhance our projects.

We hereby acknowledge Mr. Patel's valuable contributions to our team during the internship period. We believe that he has gained valuable real-world experience and has significantly enhanced his skills and knowledge in frontend development.

Kushlendra Singh Founder & CEO, AttackBox,

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ACKNOWLEDGEMENT

The Industry project is a golden opportunity for learning and self-development. I consider myself very lucky and honored to have so many wonderful people lead me through the incompletion of this project. First and foremost, I would like to thank Dr. Rohit Patel, Principal, ICT, and Prof. Dharmesh Darji, Head, ICT who gave us an opportunity to undertake this project. The CSE department monitored our progress and arranged all facilities to make life easier. We choose this moment to acknowledge their contribution gratefully.

Tanishk Patel (Enrollment No:20162121020)

ABSTRACT

This project studies frontend development with React JS to create a dynamic and user-friendly internet application. The project employs React's component-based architecture and virtual DOM to provide reusable UI components, fast state management, and seamless integration with external APIs. The objective is to produce a responsive and performant application after extensive testing and optimization. Collaboration with backend engineers ensures that data flows smoothly and integrates properly. The project resulted in a feature-rich front-end application that met project criteria and user expectations, hence contributing to a great user experience. Feedback and iteration promote continual improvement to match with changing demands and standards.

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CHAPTER 1: INTRODUCTION

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React JS has changed the landscape of front-end web development by providing a powerful toolbox for constructing dynamic and interactive user experiences. This project digs into front-end programming with React JS, a powerful JavaScript toolkit built to create contemporary, reusable UI components.

Facebook pioneered React JS, which has become a popular choice among front-end developers due to its:

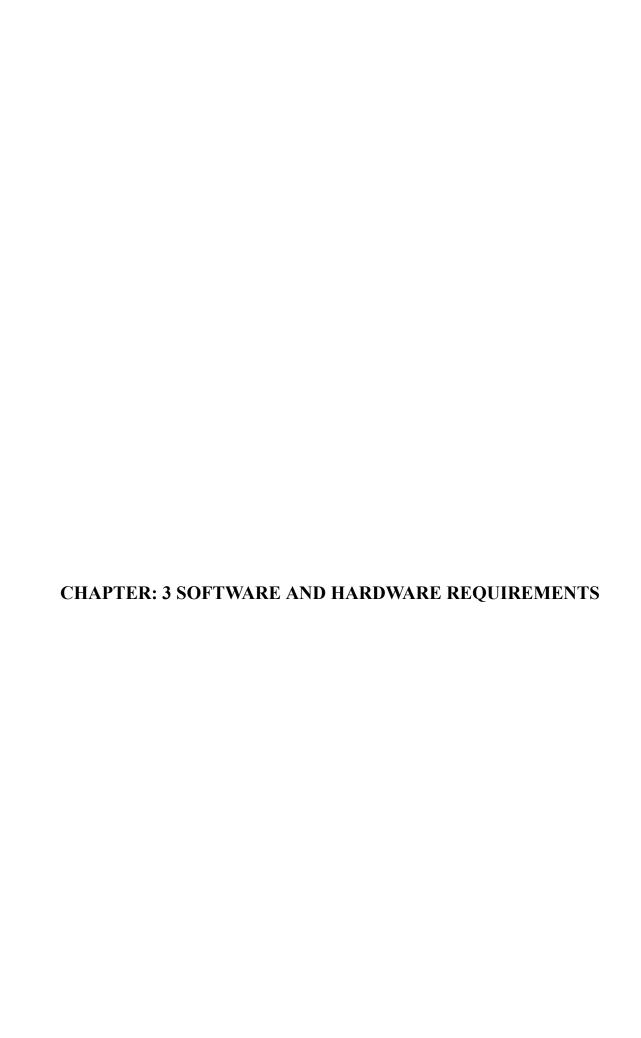
- Component-Based Architecture: React promotes the creation of modular, reusable UI components, fostering code maintainability and scalability. Each component encapsulates its logic and presentation, making it a breeze to build complex interfaces by assembling smaller, independent building blocks.
- Virtual DOM (Document Object Model): React employs a virtual DOM, an in-memory representation of the actual DOM. When data changes within a component, React efficiently calculates the minimal set of updates required, optimizing performance and minimizing browser reflows.
- JSX (JavaScript XML): JSX simplifies the process of writing UI components by allowing you to blend HTML-like syntax with JavaScript, enhancing the readability and maintainability of code that deals with UI structure.
- Unidirectional Data Flow: React enforces a unidirectional data flow, where data is passed down
 from parent to child components via props. This one-way communication stream promotes
 clarity and predictability in application state management.

By leveraging React JS, you can create a seamless and responsive user experience, enhancing engagement and satisfaction. Its flexibility and scalability empower developers to iterate rapidly and adapt to evolving requirements, ensuring the success of your social media platform in the competitive digital landscape.

CHAPTER: 2 PROJECT SCOPE

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The project scope entails the development of a front-end application using React JS, encompassing various essential aspects of modern web development. It involves designing and implementing an intuitive and visually appealing user interface, comprising reusable UI components like navigation bars, forms, and modals. The application's functionality will be enhanced through efficient state management and seamless integration with external APIs to fetch and display dynamic data. Additionally, client-side routing will enable smooth navigation between different views or pages. Emphasis will be placed on ensuring device responsiveness, comprehensive testing for functionality and reliability, and proper documentation. Collaboration with backend developers and stakeholders will ensure the successful integration of the front end with the overall project objectives.



CHAPTER: 3 SOFTWARE AND HARDWARE REQUIREMENTS

Minimum Hardware Requirements

Processor	2.0 GHz
RAM	4GB
HDD	512GB

3.1 Minimum Hardware Requirements

Minimum Software Requirements

Operating System	Any operating system that can support an internet browser.
Programming language	CSS, HTML, React Js
Other tools & tech	Internet browser

3.2 Minimum Software Requirements

CHAPTER: 4 PROJECT PLAN

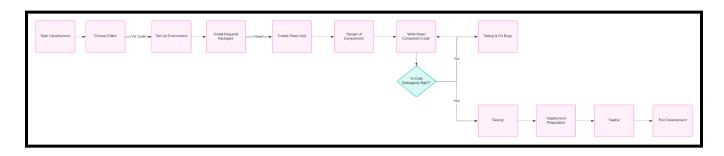
CHAPTER: 4 PROJECT PLAN

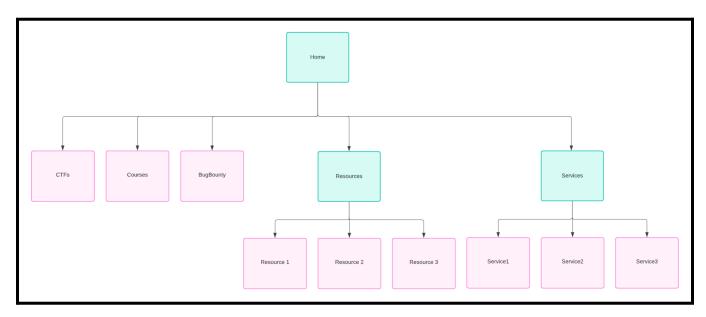
- Requirement Gathering and Analysis.
- Design Phase.
- Development.
- Testing.
- Optimization and Performance Tuning.
- Documentation.
- Deployment.
- Post-Deployment Support and Maintenance.

CHAPTER: 5 IMPLEMENTATION DETAILS

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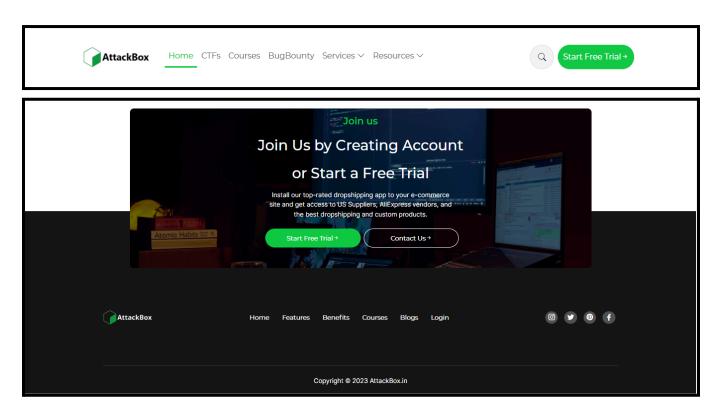
5.1 Flowcharts

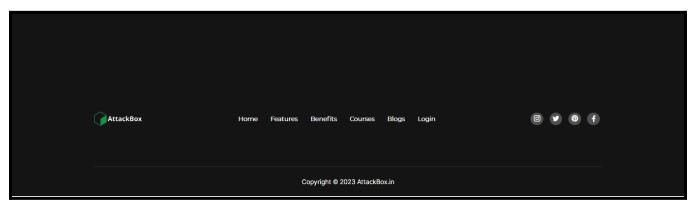


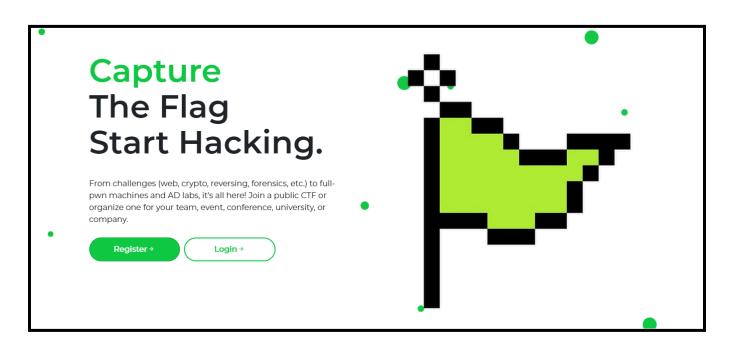


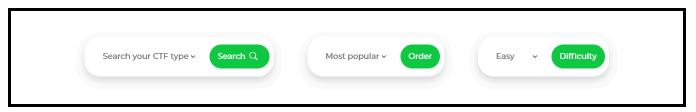
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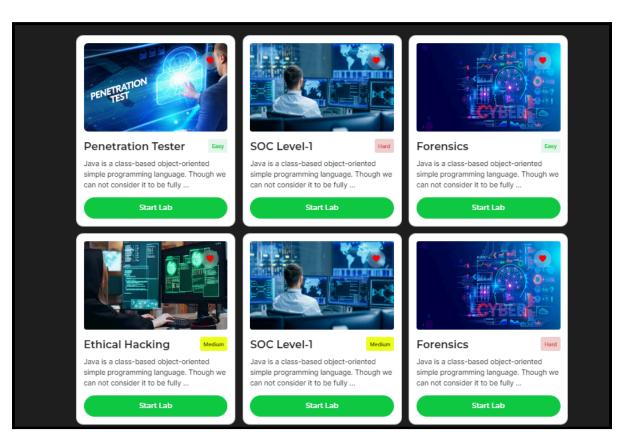
5.2 Screenshots

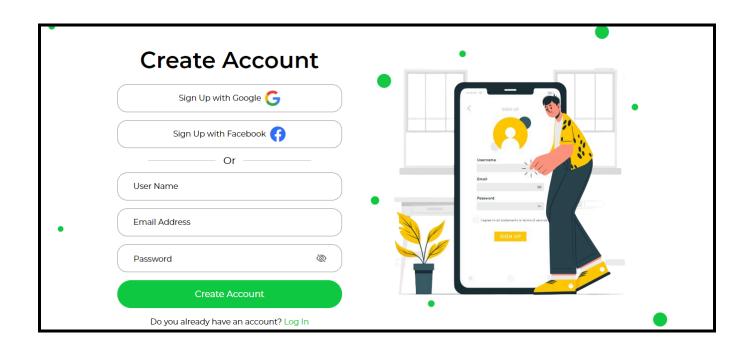


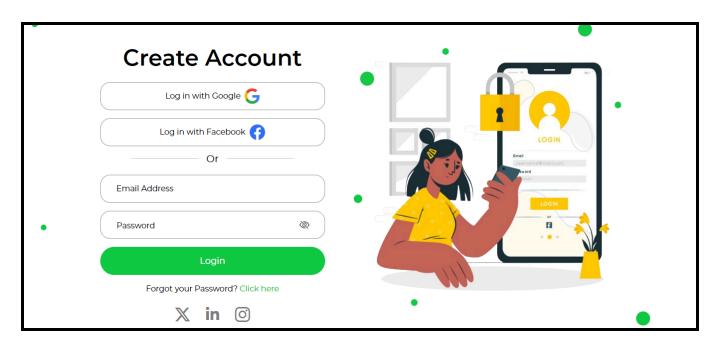


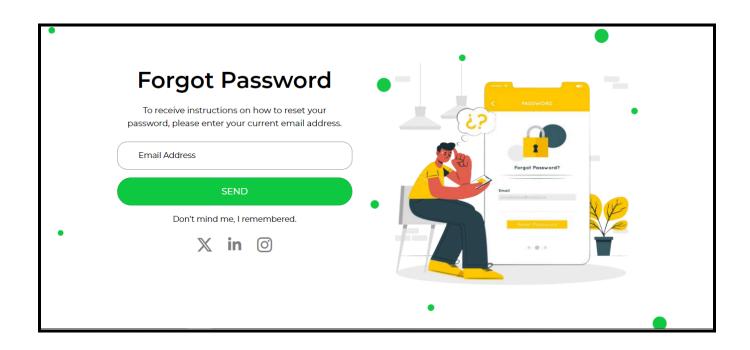


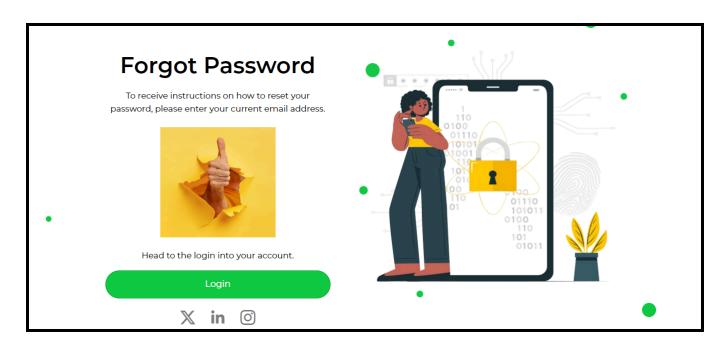




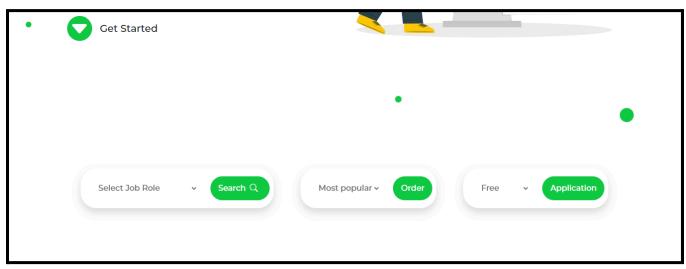


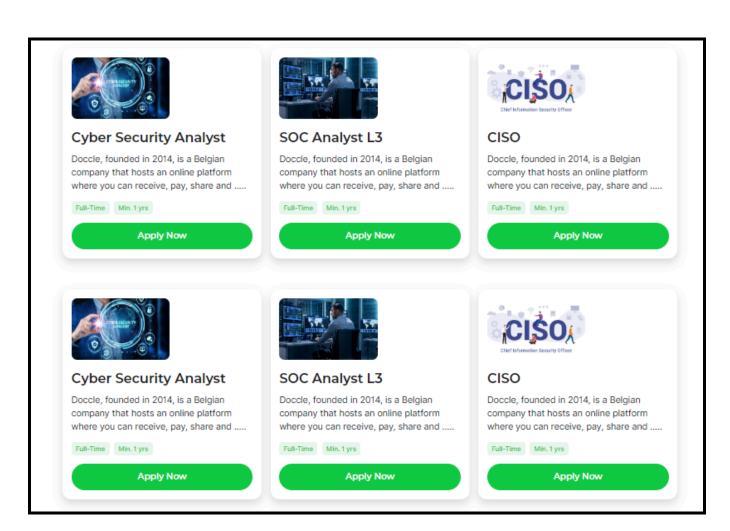












CHAPTER 6: CONCLUSION AND FUTURE WORK

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- Live Page Hosting.
- Make it responsive.
- Dashboard development.

CHAPTER 7: REFERENCE

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https://getbootstrap.com/

https://www.w3schools.com/

https://icons.getbootstrap.com/

https://fontawesome.com/