FULL-STACK DEVELOPMENT

A INTERNSHIP REPORT

Submitted by

SELOT NIRMALKUMAR VINUBHAI

[200550107511]

In partial fulfillment for the award of the degree of

BACHELOR OF ENGINEERING

In

Computer Engineering

Engineering College Tuwa, Godhra

Gujarat Technological University, Ahmedabad

May, 2023

Engineering College Tuwa

AT. & POST: TUWA TALUKA: GODHRA

DISTRICT: Panchmahal, Godhra, Gujarat 388713

CERTIFICATE

This is to certify that the project/internship report submitted along with the project entitled "FULL-STACK DEVELOPMENT" has been carried out by **Selot Nirmalkumar Vinubhai (200550107511)** under my guidance in partial fulfillment for the degree of Bachelor of Engineering in Computer Engineering, 8th Semester of Gujarat Technological University, Ahmadabad during the academic year 2022-23.

Ms. Bhargavi Patel	**Ms. Bhargavi Patel**
Internal Guide	Head of the Department

Engineering College Tuwa

AT. & POST: TUWA TALUKA: GODHRA

DISTRICT: Panchmahal, Godhra, Gujarat 388713

DECLARATION

We hereby declare that the Internship / Project report submitted along with the Internship / Project entitled "Full-Stack Development" submitted in partial fulfillment for the degree of Bachelor of Engineering in Computer Engineering to Gujarat Technological University, Ahmedabad, is a bonafide record of original project work carried out by me / us at **V-EX Tech** under the supervision of Mr. Himanshu Agraval and that no part of this report has been directly copied from any students' reports or taken from any other source, without providing due reference.

	Name of the Student	Sign of Student
1	Selot Nirmalkumar Vinubhai	_____

COMPLETION CERTIFICATE

V-Ex Tech
SOLUTION

Software Solution

To,
HeadofDepartment
Bachlor Of
Engineering(CE)
Tuwa,
Godhra ,

Date: 31/05/2023

Subject: Internship Completion Letter

As per the requirement from the college regarding the Internship, we have provided an internship to **Selot Nirmalkumar Vinubhai (Enr. No.: 200550107511)** student of **Bachelor Of Engineering(CE), Engineering College Tuwa,Godhra** as per our company rules for the period of 06-02-2023 to 07-05-2023. During the internship, he Learned HTML,CSS,Javascript,React Js, Node Js,Express Js,Mongo Db & many more related concepts which require in Full Stack Developer. We found him responsible, enthusiastic, and hard-working during his working tenure. he is a dedicated worker and possesses a pleasant manner.

We wish him all the best in his future endeavor.

SOFTWARE SOLUTION V-EX TECH

HIMANSHU
Director & CEO.

Kunal Complex-101,First Floor,Oppsite Passport Office,Beside Bank Of Baroda,Nizampura-390002.

+91 9664768292

ACKNOWLEDGEMENT

"I wish to extend my special thanks to V-Ex Tech for giving me an opportunity to do this wonderful Internship on Full-Stack Development.

This is My Internship Training Report after Completion of Internship Training at **V-EX Tech Solution**. I wish to express My Sincere thanks to my Internal Guide Ms. Bhargavi Patel, Head of the Department of Computer Engineering for giving me support and the necessary suggestions and advices.

I Especially Thank My Supervisor, **Mr. Himanshu Aggarwal Sir**, for constantly guiding and supporting me throughout the Training. My Heartfelt Gratitude also goes out to all the staff and employees **V-EX Tech Solution** for Cooperating with me and guiding me throughout My Internship.

"And I would also like to thank my parents and friends who helped me a lot in finalizing this project within the limited time frame. I appreciate the guidance given by **The Team V-Ex Tech** for the internship"

Thank you!!!

Nirmalkumar Vinubhai Selot

(200550107511)

ABSTRACT

This report outlines my experience as a Full-Stack Development Intern. The internship provided me with the opportunity to work on Both Frontend and Backend of Website and gain hands-on experience in designing, developing, and deploying.

As a Full-stack Development Intern, Firstly I was tasked to design website template and simple website which have basic functionality. The report covers the project's goals, development process, and technologies used, including ReactJS, Node.js, and MongoDB.

The internship also highlights the key features of the final Project Smart Cab Point, the smart cab point is online platform that allows users to book taxis or cabs online using their computers, laptops or mobile devices. A smart cab booking website typically includes features user registration. The smart cab booking website' s design and functionality should be user-friendly and enabling users to quickly and book a ride. Users can book a cab for trip from anywhere at any time, eliminating the to wait on the street for cab.

Overall, a smart cab booking website provides users with a hassle-free and convenient way to book cab services and helps them save time and money by comparing prices and choosing the best cab service available.

LIST OF FIGURES

TABLE OF CONTENTS

CHAPTER 1: OVERVIEW OF THE COMPANY

1.1: COMPANY PROFILE

Company Name: V-Ex Tech

Website: https://V-Ex Tech software solution

Email id: himanshu0409agraval@gmsail.com

Address: 101, First Floor, Kunal Complex, Delux Char Rasta, Opposite Passport Office, Nizampura, Vadodara, Gujarat 390002

1.2: ABOUT COMPANY

V-Ex Tech is an ISO Certified software consulting & service Company. V-Ex tech is Having Strong Experience of 16+ Years in designing software & create dynamic web pages, creating admin penal with back-end.

It Is a part of V-Ex tech, which is in existence since 2001.it is having software company in Vadodara (Gujarat).

They have Specialties on Time Punctuality, Easy to Use, Best Management, Good Concept, Web Development, Front-End / Back-End and Full Stack and Data Analytics.

V-Ex Tech is delivering software solutions across industry verticals like banking, finance, spanning from large multinational corporation to small, medium & large enterprises located in USA, Canada, UK, Europe, Africa and Australia.

1.3: SERVICE OF COMPANY

Full-Stack Development: V-EX Tech Solution is a leading provider of full stack developer services, offering clients end-to-end development solutions for web and mobile applications. The company is headquartered in Vadodara, with a team of experienced developers and designers who specialize in building custom applications using the latest technologies and frameworks.

Data Analytics: V-Ex Tech Solution also provides services of data analytics. Data analytics typically involves four main stages: data collection, data processing, data analysis, and data visualization.

Python Programming: V-EX Tech Solutions is a software development company that provides Python programming services to clients worldwide. The company has a team of experienced Python developers who specialize in building high-quality, scalable, and robust software solutions.

Web Design and Development: The company's web development services include front-end and back-end development, e-commerce development, and CMS development. They have experience working with a variety of content management systems.

PHP Laravel: V-EX Tech Solution offers a wide range of PHP Laravel services, including custom web application development, e-commerce development, CMS development, and API development.

React JS or Node JS Development: V-EX Tech Solution is a company that provides ReactJS and NodeJS services is likely a web development company that specializes in building web applications using these technologies. ReactJS is a JavaScript library that is used for building user interfaces, while NodeJS is a runtime environment for executing JavaScript code outside of a web browser

1.4 SCOPE OF WORK

They provide reasonably priced services for web development, eCommerce website design, website makeover, SEO, and email marketing. Their goal is to create a website that is usable in a variety of settings that is professional, creative, and user-friendly.

They are here to assist you in getting a high-quality, inexpensive website that is simple to update. Their clients can manage their own web updates from anywhere in the world using their easy-to-use online content management system (CMS), even without any prior knowledge of website design.

1.5 VALUES

Innovation: It often prioritize innovation and pushing the boundaries of what is possible with technology. This may involve experimenting with new technologies or finding creative solutions to problems.

Customer-centricity: Many companies prioritize their customers' needs and strive to provide excellent customer service. They may seek feedback and adjust their products or services accordingly to meet their customers' needs.

Collaboration: It often value collaboration and teamwork. This may involve working across different departments, partnering with other companies, or collaborating with customers.

Social responsibility: Social responsibility and may take steps to reduce their environmental impact, promote diversity and inclusion, or support local communities.

CHAPTER 2: INTRODUCTION TO INTERNSHIP

2.1: Internship Summary

As a Full Stack Development Intern, my primary responsibility was to work on developing web applications. During my internship, I gained hands-on experience in different programming languages and frameworks, such as HTML, CSS, JavaScript, ReactJS, Node.js, and Express.js.

During the starting of internship, I learned HTML, CSS, JavaScript and creating landing Page of food shop and simple functionality website as tasks. Then I worked on project which created using ReactJS, Node.js, Express.js. In Front-end using ReactJS I learned to develop dynamic and interactive user interfaces using JSX, React Components, and React Router. I also gained experience in backend technologies, including Node.js and MongoDB. I worked on projects that involved building RESTful APIs using Node.js and Express.js, integrating databases, and performing CRUD operations on data. I also gained experience in designing and implementing database schemas using MongoDB.

Throughout my internship, I collaborated with the team to understand client requirements, create detailed project plans, and implement best practices in software development.

Overall, my Full Stack Development Internship provided me with a comprehensive understanding of the development process and helped me gain valuable skills that I will be able to apply in my future career as a software developer.

2.2 PURPOSE

- To provide you with practical experience in developing and deploying web applications using modern frontend and backend technologies.
- To help you gain proficiency in ReactJS, Redux, Node.js, and MongoDB, which are popular and in-demand technologies in the web development industry.
- To help you understand how to design and implement robust and scalable backend systems using Node.js and MongoDB.
- To help you develop a strong understanding of modern web development best practices, including responsive design, accessibility, and security.

2.3: OBJECTIVES

- To gain experience in front-end and back-end web development, including programming languages such as HTML, CSS, JavaScript, ReactJS, Node.js, and Express.js and learn how to connect and use MongoDB database
- To gain practical experience in developing web applications, including designing, testing, and deploying scalable and performant applications.
- To learn about emerging trends and best practices in full-stack development, including new technologies, tools, and frameworks.

2.4: SCOPE

- Learning and applying front-end and back-end development skills
- Working on projects and gaining hands-on experience
- Collaborating with cross-functional teams
- Improving project management skills
- Building a portfolio of projects

2.5: MY ROLE

- ReactJS: Developed the user interface using ReactJS, a popular front-end JavaScript library.
- Backend Development: Worked on the backend development of the application, including building and managing RESTful APIs using Node.js and MongoDB.
- Problem-Solving: Demonstrated strong problem-solving and analytical skills to overcome technical challenges.
- Continuous Learning: Pursued continuous learning through Google, documentation.
- Performance Optimization: Optimized the application's performance and scalability for improved user experience.

2.6 TECHNOLOGIES USED

- Frontend: ReactJS, React Router, HTML/CSS/JavaScript
- Backend: Node.js, Express.js, MongoDB
- Development Tools: Visual Studio Code
- Deployment: Netlify

2.7 INTERNSHIP PLANNING

2.7.1 Internship Development Approach and Justification

- Before The Starting of Internship, Interns should have the knowledge about His choosed Technology.
- A Successful Internship requires not only a good deal of effort on the side of The Intern, but managers and supervisors most also put in some work to ensure that the Intern gets a meaningful experience.
- The Key is to Accept Responsibility when things don't go as planned. taking ownership and articulating possible solutions will result in faster resolution and enable others to see us as a Leader.
- On behalf of students, we are always working with them on things they can do to become a better intern. For example, we talk about the values and skills that employers look for in a good intern

2.7.2 Internship Effort and Time

- As an Intern, I have gained the experience of Live Project & How to work in Hectic Situation.
- I conduct Myself in a professional manner at all times and this is the role and responsibility of an Intern.
- Develop a respectful and co-operative relationship with the company mentors and the other interns at the working place.
- Always be punctual to work and always behave in an ethical manner.
- Completed My Internship in Full-Stack development in 12 weeks of time period.

CHAPTER 3: WORK OF INTERNSHIP

3.1 TASK 1: LANDING PAGE

3.1.1 Output:

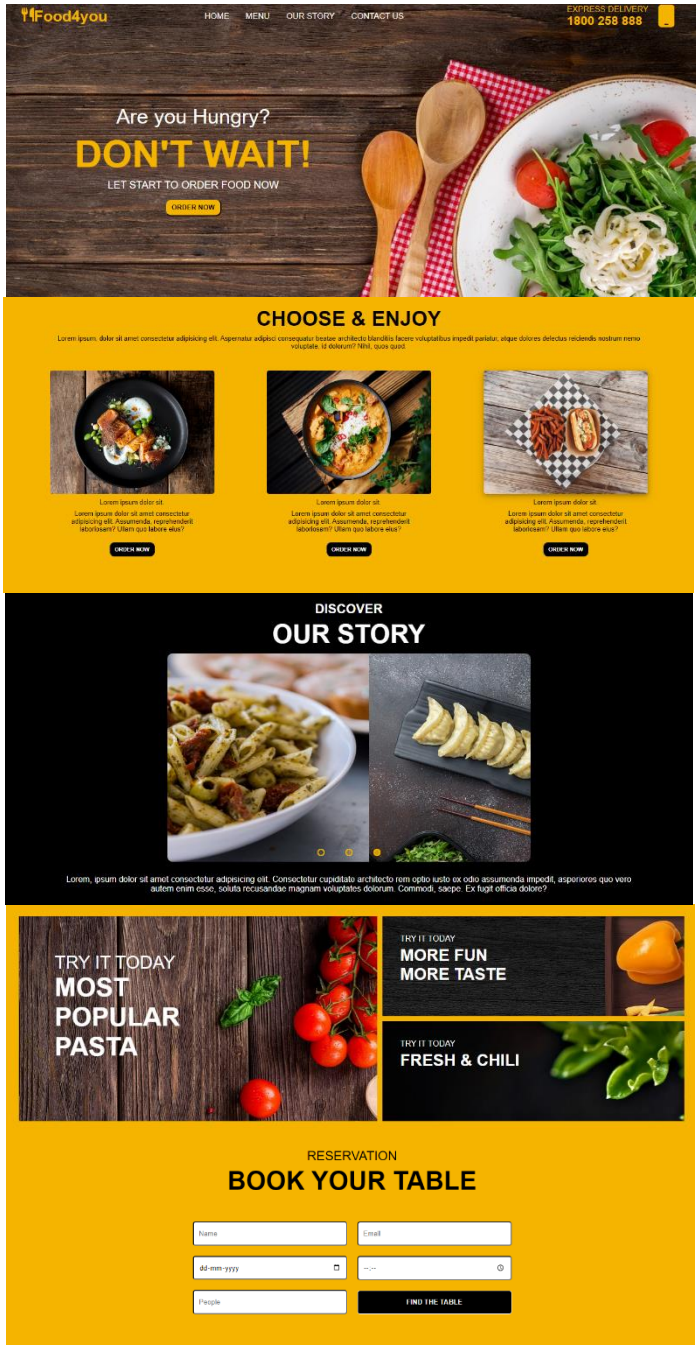


Fig 3.1.1 Landing Page

3.1.1 Explanation:

- This task of Landing Page creates using HTML, CSS, and JavaScript.
- Landing Page involved navigation bar, main page, simple slider, form section, and footer part.
- By creating this landing page I learned important concepts of HTML, and CSS such as HTML form, flexbox css, slider by JavaScript etc.

3.2 TASK 2: SIMPLE WEBSITE

3.2.1 Output:

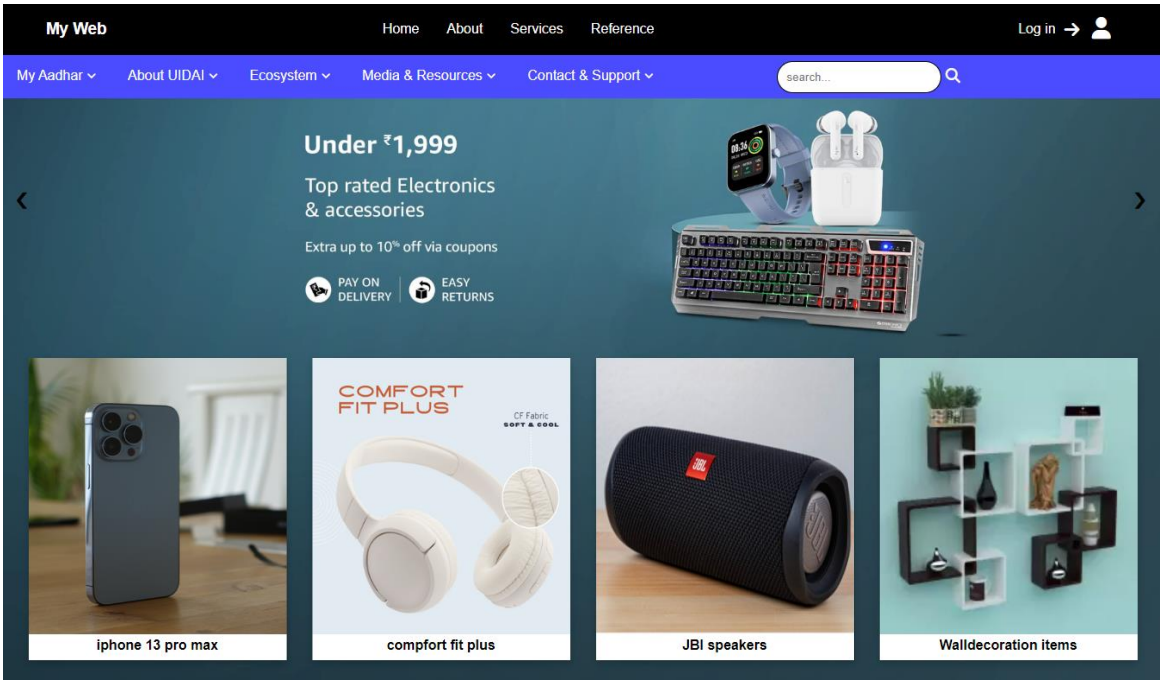


Fig 3.1.2 simple website

- This task of creating website includes the navigation bar, sub navigation, background-image slider, cards on slider which flip when hover the cursor.

- sub navigation list-item open the division which create using table when hover the cursor.
- Creating this I learned more concept of CSS and HTML.

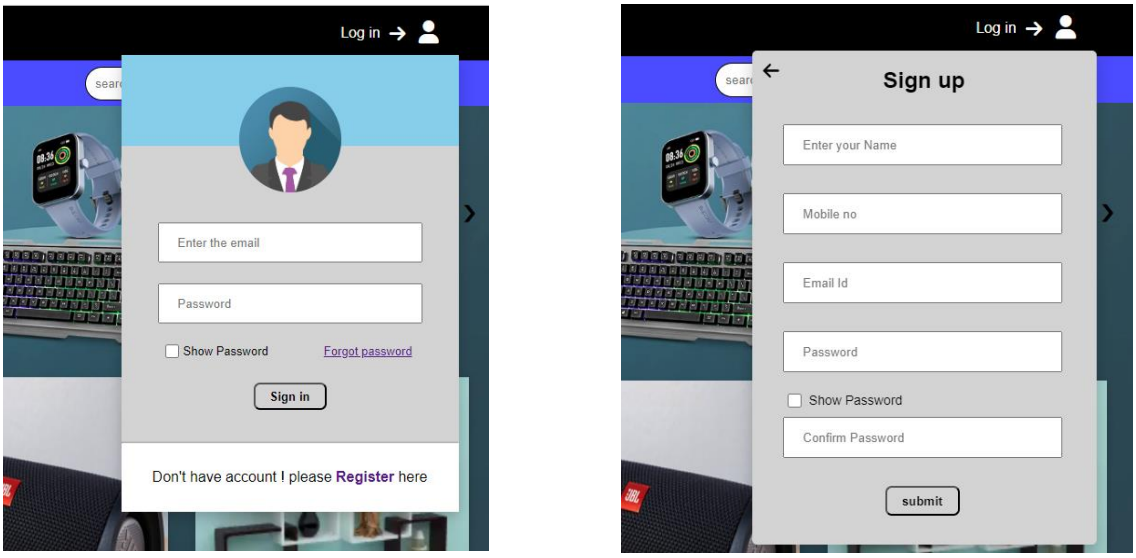


Fig 3.3.3 sign in &sign up

- By adding Icon on in navigation learned how to add icon by external link.

- When hover the user icon open the popup of sign-in and this popup have link of register or signup popup.

- Using JavaScript event and function give the required validation when user submit the form.

CHAPTER 4: SYSTEM ANALYSIS OF PROJECT

4.1 IDENTIFYING PROJECT PROCESS

- The Smart Cab booking website is built using the MERN stack, which includes MongoDB, Express.js, ReactJS, and Node.js.
- This website allows users to book taxis or cabs online using their computers, laptops or mobile devices. A smart cab booking website typically includes features user registration, user authentication and authorization, allowing users to sign up, log in, and manage their bookings etc.
- Simple and user-friendly interface that enables customers to easily book cab services online.
- The website should allow customers to select their pick-up and drop-off locations, choose the type of vehicle they need, and schedule their ride at their preferred time.
- The website utilizes MongoDB as the database to store and manage room and booking data.

4.2 PURPOSE

- to provide an online platform for customers to book a cab or taxi easily and conveniently.
- The website should allow customers to select their pick-up and drop-off locations, choose the type of vehicle they need, and schedule their ride at their preferred time.
- The website should also provide real-time information on the availability of cabs and estimated fares for the chosen route.

4.3 OBJECTIVE

- **Online Platform:** To provide a seamless and convenient online platform for customers to book cab services.
- **Easy and convenient booking process:** Simple and user-friendly interface that enables customers to easily book cab services online.
- **24/7 customer support**

4.4 PROBLEM AND WEAKNESS OF PROJECT PROCESS

- Scalability: Depending on the complexity and size of the application, the current system may not be able to handle a large number of users or bookings. This could result in slow performance and/or system crashes.
- Security: As the app includes features such as user authentication and authorization, it is important to ensure that the system is secure and protected against potential cross-site scripting attacks, and unauthorized access.
- Data management: As the app relies on MongoDB as the database, it is important to ensure that data is properly managed and stored to avoid data loss, data corruption, or other data-related issues.
- Technical limitations: The app may face limitations based on the capabilities of the MERN stack, such as the ability to support certain features or scale to accommodate a large number of users.

CHAPTER 5: SYSTEM DESIGN / IMPLEMENTATION

5.1 OUTLINING THE PROCESS

- Visit the cab booking website: Visiting the cab booking website on your web browser.
- User registration: The user creates an account on the app by providing their personal information such as name, email, and password.
- User authentication: The user logs in to the app using their email and password or through social media logins.
- Enter your pickup and drop-off locations: Once you're logged in, enter your pickup location and drop-off location in the appropriate fields. You can also choose the date and time for your ride.
- Choose the type of cab: Depending on the cab booking website, you may have different options for the type of cab you want to book.
- Receive confirmation: Once you've confirmed your booking, you will receive a confirmation message or email from the cab booking website.
- User feedback: The app allows users to provide feedback on their experience, which can be used to improve the app's functionality and user experience.

5.2 HOME PAGE

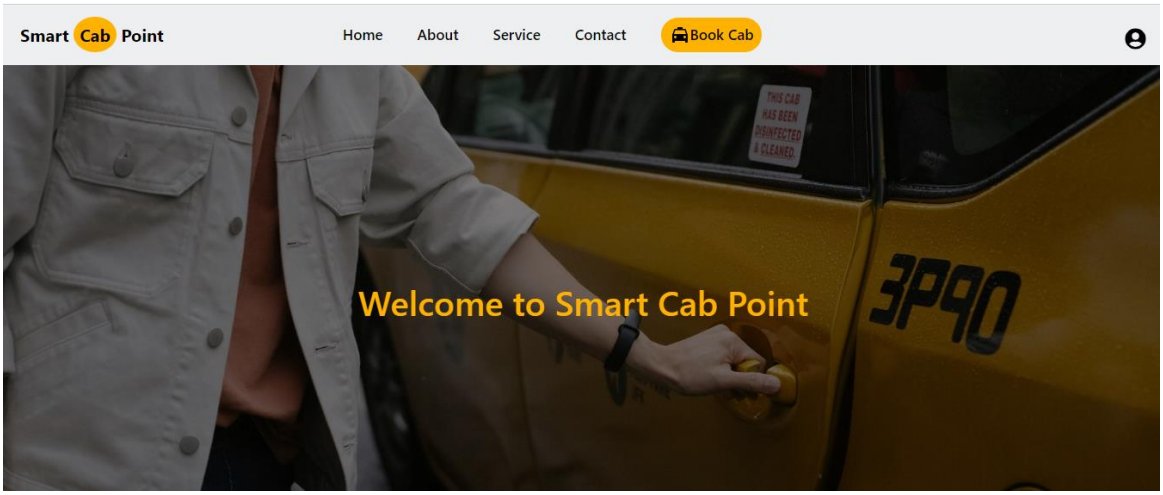


fig 5.3 Home Page

- Home Page Component include many components. This above fig. have two components. Mynavbar.js and slider.js components.

5.2.1 How React app Render

```
<body>
  <noscript>You need to enable JavaScript to run this app.</noscript>
  <div id="root"></div>

</body>
```

fig 5.2.1.1 Index.html

```
import React from 'react';
import ReactDOM from 'react-dom/client';
import App from './App';
import reportWebVitals from './reportWebVitals';

const root = ReactDOM.createRoot(document.getElementById('root'));
root.render(
  <React.StrictMode>
    <App />
  </React.StrictMode>
);

reportWebVitals();
```

fig 5.2.1.2 Index.js

- In Index.html file by id of division the App.js component run in the Index.js.

In Navbar using React Router Dom users can easily route multiple pages in single page application by installing npm (node package manager).

- React Router DOM is a popular library used in React applications for client-side routing. It provides a way for developers to create and manage multiple pages or views within a single-page application.

```
import { Route,BrowserRouter as Router, Routes } from "react-router-dom";
import Mynavbar from "./Mycomponents/Mynavbar";
import Home from "./React_Routing/Home";
import About from "./React_Routing/About";
import Service from "./React_Routing/Service";
import Contact from "./React_Routing/Contact";
import Login from "./Mycomponents/LOGIN/Login";
import Register from "./Mycomponents/LOGIN/Register";
import Common from "./React_Routing/COMMON/Common";
import ScrollToTop from "react-scroll-to-top";
import NorthIcon from '@mui/icons-material/North';
import "./React_Routing/HOME/home.css"
import TaxiBookForm from "./React_Routing/TaxiBookForm";
import Cart from "./React_Routing/Cart";


function App() {
  return (
    <div className="App">
          <Router>
            <Mynavbar/>
              <Routes>
                <Route path="/" element={<Home/>}/>
                <Route path="/home" element={<Home/>}/>
                <Route path="/about" element={<About/>}/>
                <Route path="/service" element={<Service/>}/>
                <Route path="/contact" element={<Contact/>}/>
                <Route path="/cart" element={<Cart/>}/>
                <Route path="/login" element={<Login/>}/>
                <Route path="/register" element={<Register/>}/>
                <Route path="/booking" element={<TaxiBookForm/>}/>
              </Routes>
              <ScrollToTop  smooth component={<i><NorthIcon className='si'/></i>}/>
              <Common/>
          </Router>
    </div>
  );}

export default App;
```

fig 5.2.1.3React Router Dom

- React Router DOM is a powerful and flexible library that can help developers manage the routing logic in their React applications. Its support for client-side routing, declarative routing, nested routing, and history management makes it a popular choice among React developers.
- Using Router, Routes and Route we can mange the component of website in routing.

5.2.2 Other Component of Home Page

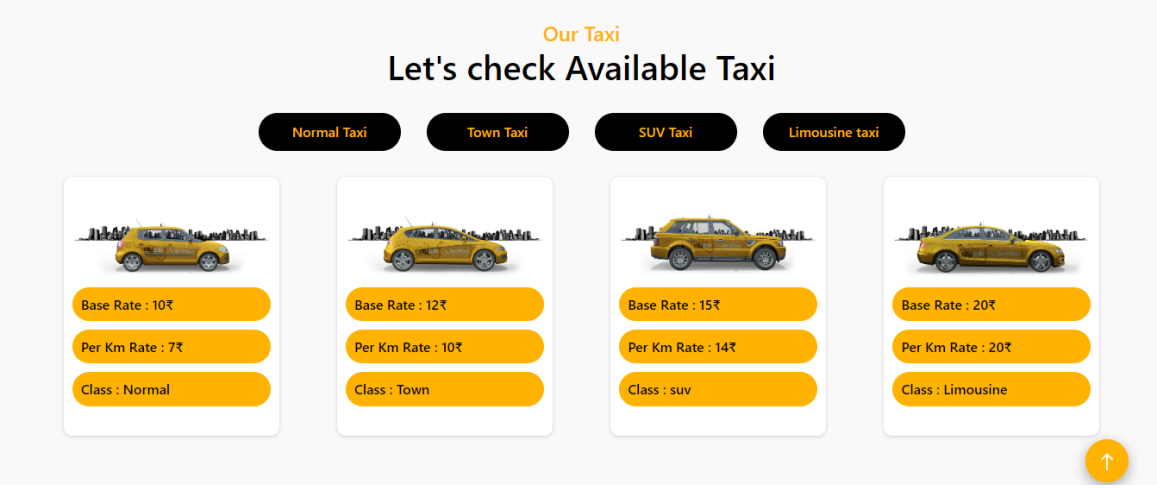


Fig 5.2.2.1 Ourtaxi component

- This Component show the available taxi for booking the ride.
- This taxi cards also show the base rate, rate per km and class of taxi.
- These cards creating by digital json data through Api calling and grid css.

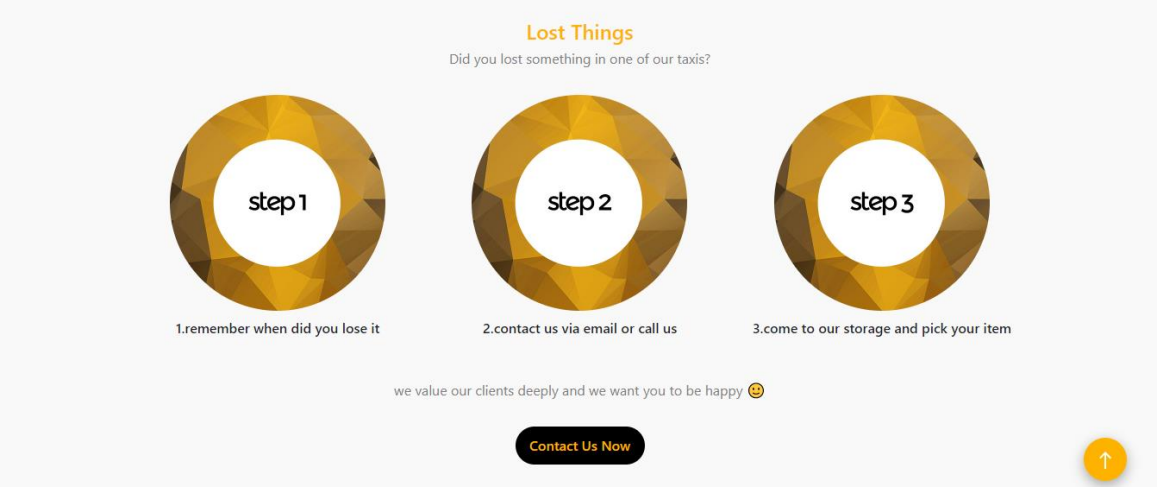


fig 5.2.2.2 Lostthings comp.

- This Component ‘s details and functionality help the customers when they lost things in cab.
- By following step, the user can click on button easily redirect on the contact page.

5.3 User Login and Register Page

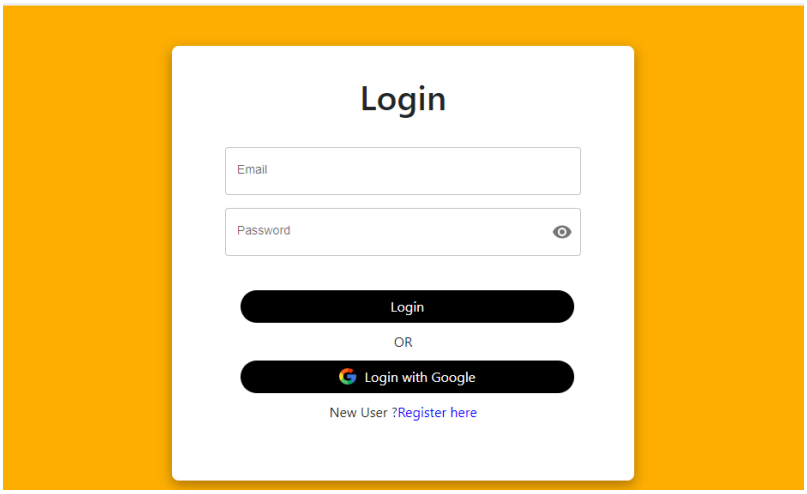


Fig 5.3.1 Login page

- This login form has required validation by using Formik and Yup.
- This form created using Material Ui which is used for attractive interface.
- User account creation: The app should allow users to create an account with their email address. This can help users save time when making future bookings, as their personal information will already be stored in the app.
- Before login user can redirect on the register page.

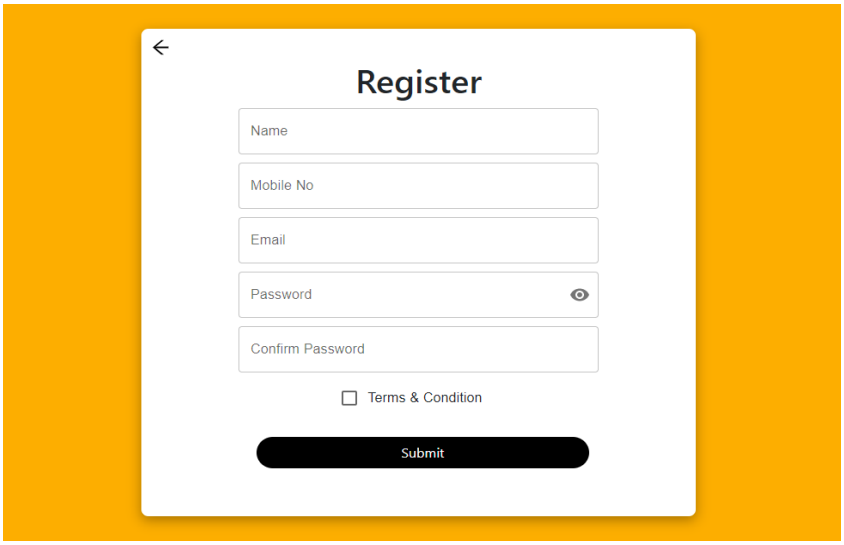
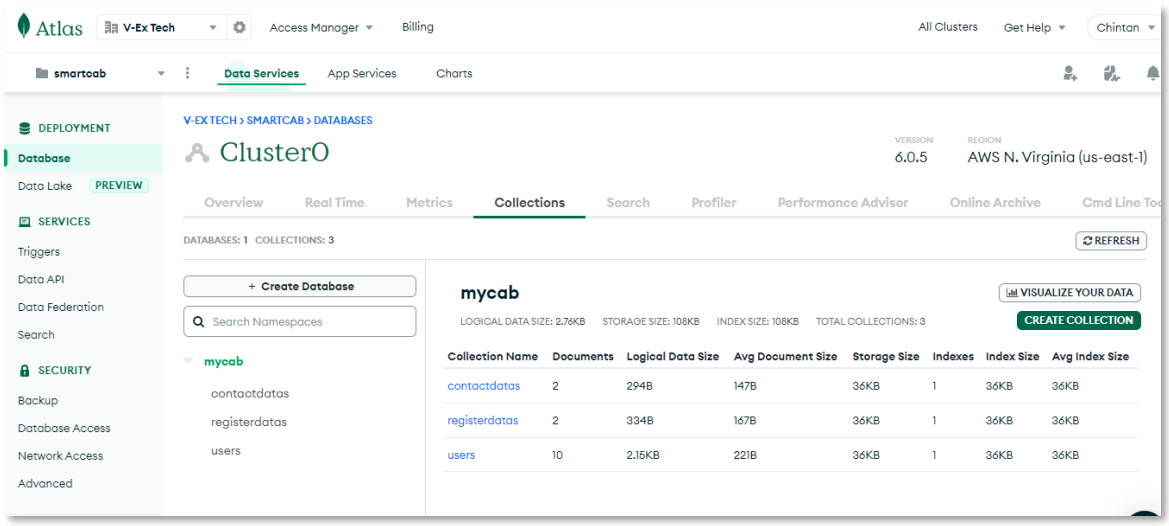


Fig 5.3.2 Register page

- Register Data can store in MongoDB atlas cloud Database.



5.3.3 Mongodb atlas

- MongoDB Atlas is a fully managed cloud-based database service offered by MongoDB
- MongoDB Atlas runs on Amazon Web Services, Microsoft Azure, and Google Cloud Platform.
- It allows users to deploy, manage, and scale MongoDB databases with ease.

5.4 BOOK CAB PAGE

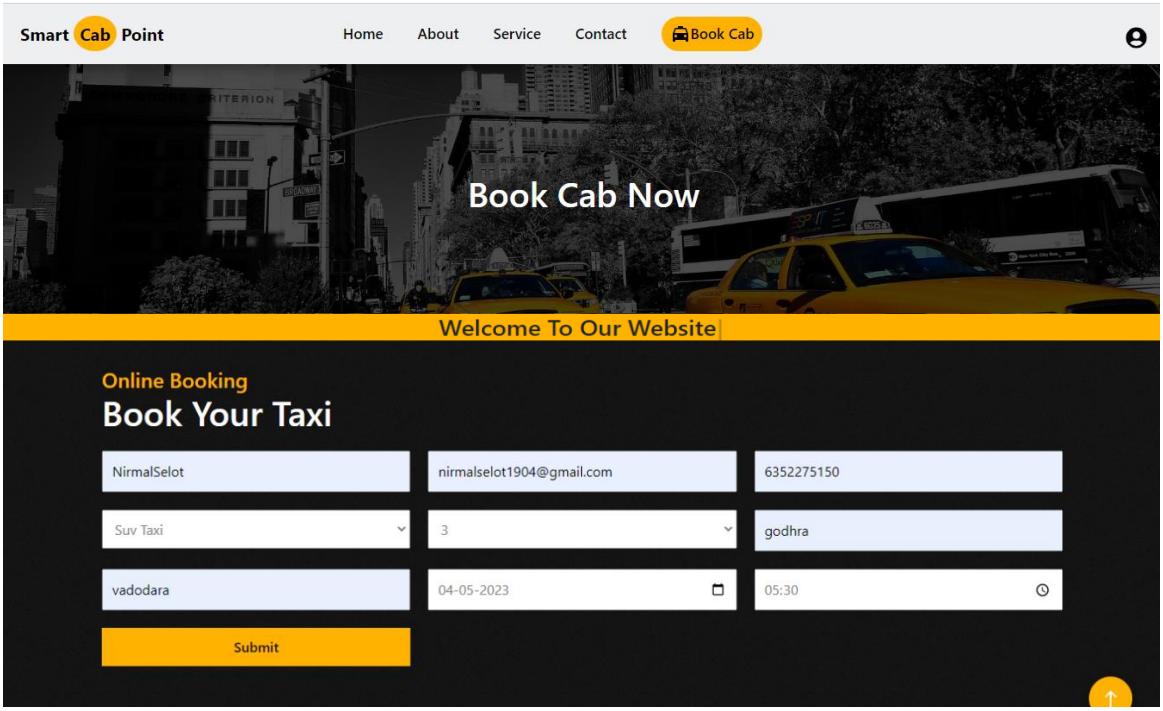


fig 5.4.1 book cab page

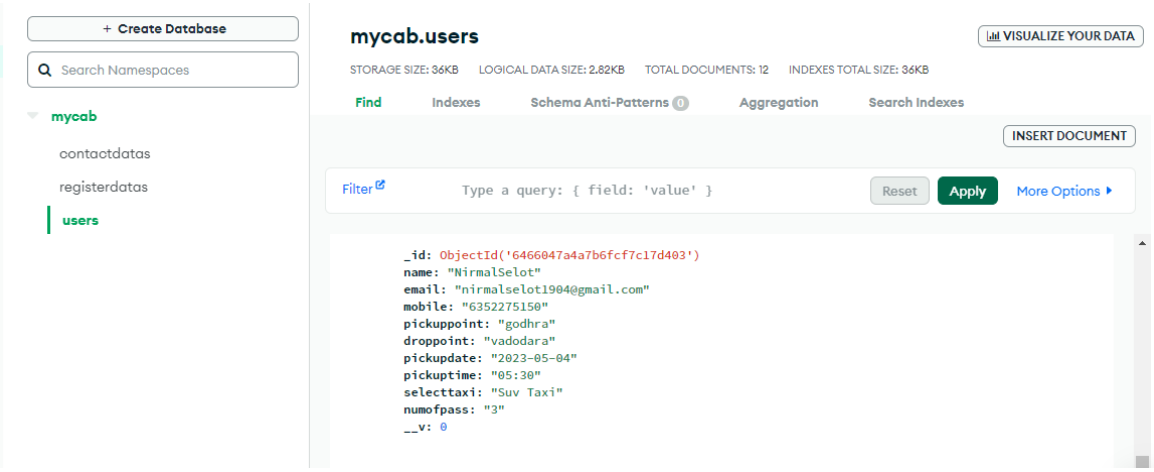


fig 5.4.2 book data store in Mongodb atlas

- Book Page has the TaxiBookform.js component which include form and form includes the field such as name, email, mobile no, type of taxi, no. of passengers select field, enter start and end location field, date and time select field.

- Each input has required validation given by JavaScript using the Formik and yup.
- Formik and yup are open-source libraries that work together to simplify form handling and validation in React applications.

- Using this form component user booking the cab and got the conformation message and get the booking information.
- This page also has type-writer effect in heading above the booking form.

5.5 ABOUT US PAGE

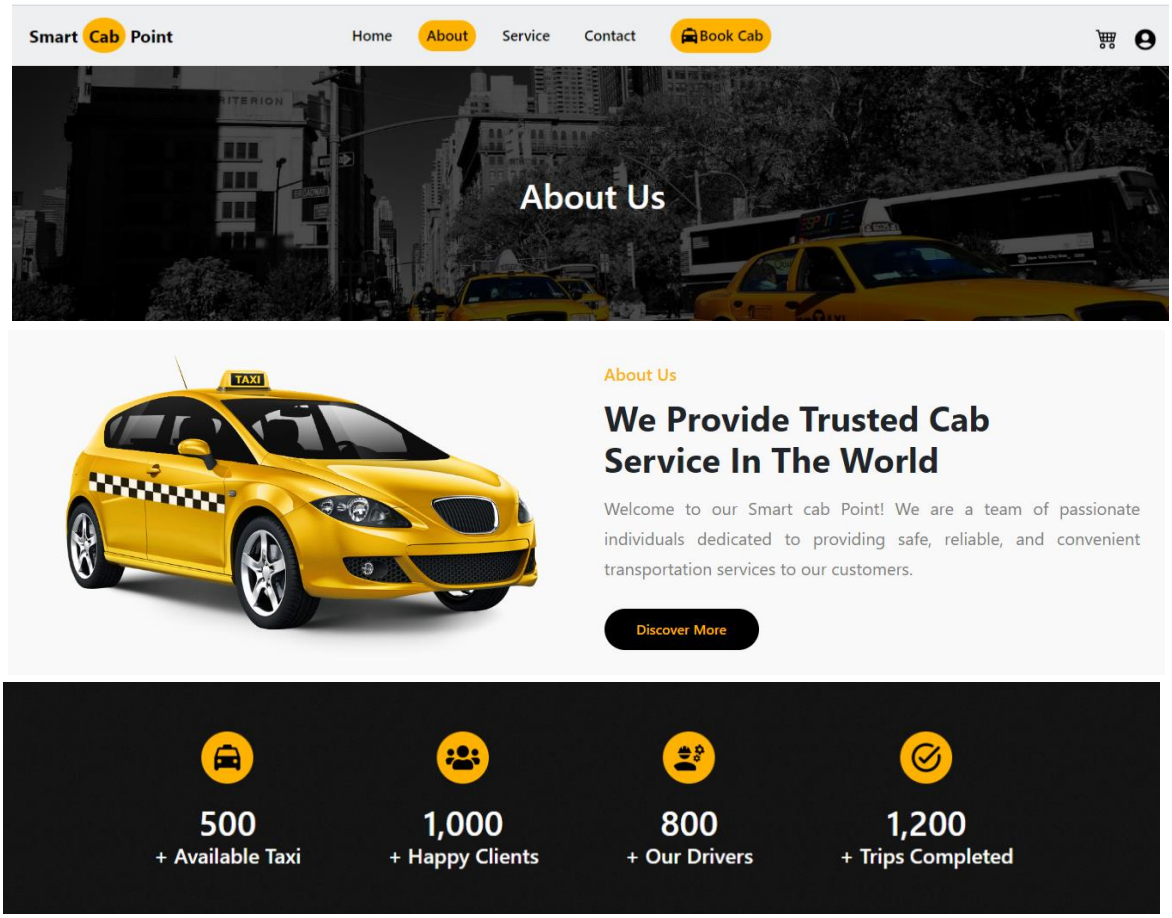


Fig 5.5.1 about page

- About us page includes the details about the Smart cab point and also has component of the count up the number of the available taxi, happy client, our drivers and trips complete etc.
- This include using the count-up npm.

5.5.1 Other Component of the About Page

- Other component includes the Team of smart cab taxi drivers. These driver cards also created with json data through api calling.
- These drivers' cards have contact details of the drivers.

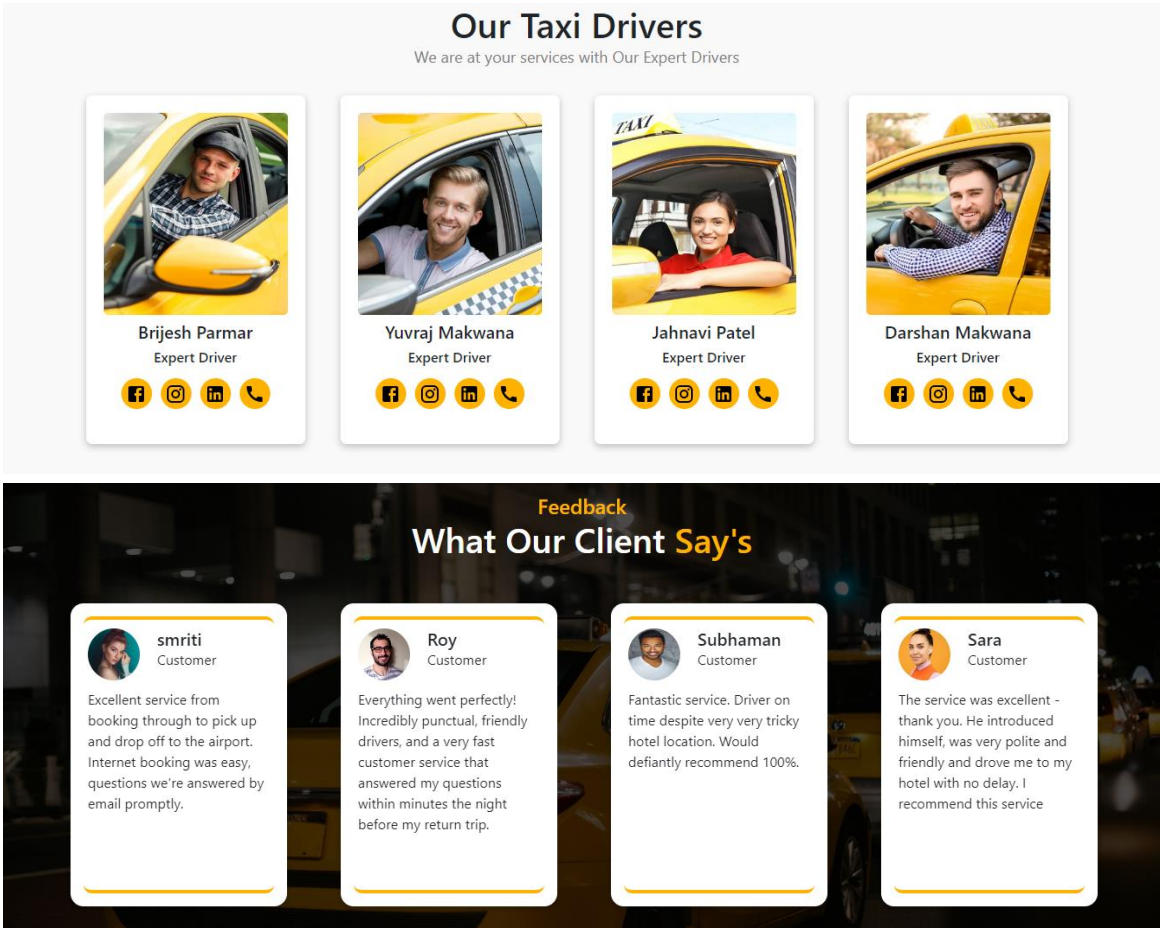


Fig 5.5.2 about feedback comp.

- This page also includes the feedback of our client component.
- Feedback or reviews: Share some feedback or reviews from satisfied customers. This can help to build trust with potential customers and demonstrate the value of the cab booking service.
- Customer feedback slider created using the react-multi-carousal npm and creating responsive slider.
- And slider also custom by some modification in component.

5.6 CONTACT PAGE

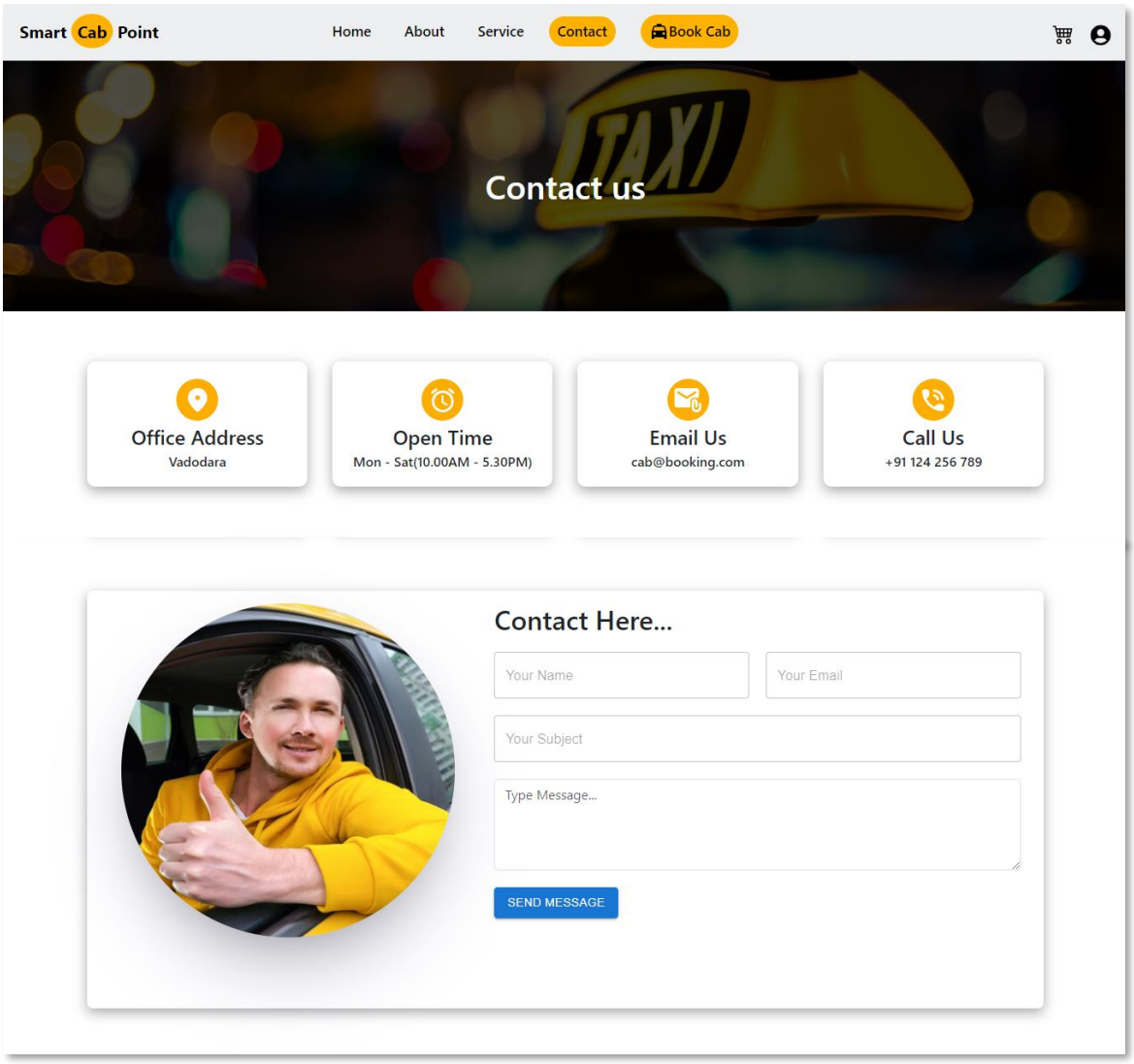


Fig 5.6.1 contact page

- The Contact page on a cab booking website is an important section that provides information about how customers can get in touch with the company.
- This Contact form also includes some details like office address, open time Email address, phone no etc.
- The feedback of customer also stores in Mongodb atlas.
- Overall, the contact page should provide customers with a variety of ways to get in touch with the company, whether they have a question, concern, or feedback. It's important to make the contact process as simple and convenient as possible.

5.7 SERVICE PAGE

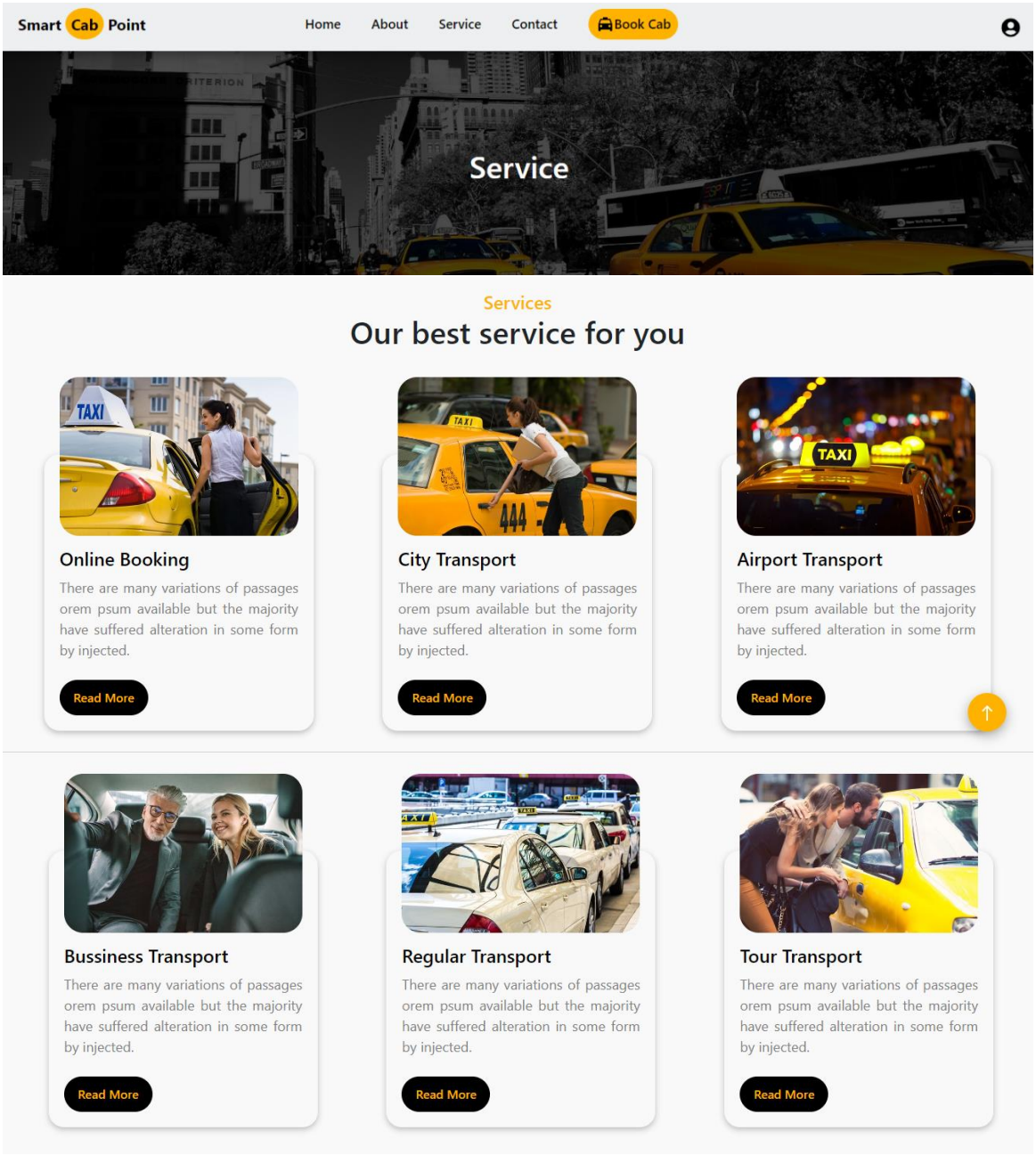


Fig 5.7.1 service page

- The service page on a cab booking website is an important section that provides detailed information about the services offered by the company.
- The different type cards creating and manage by grid css.
- This component shows the service which provide by smart cab point.

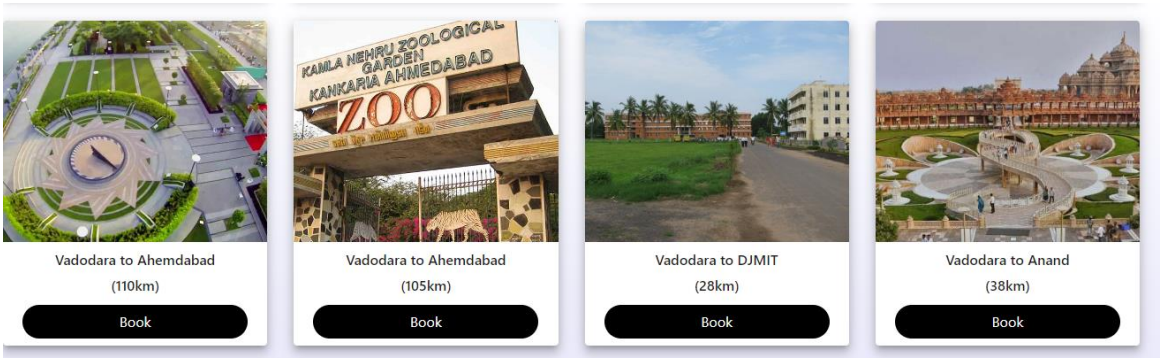


Fig 5.7.2 trip cards

- This is the component of the trip cards by place cards you can choose your place for trip and book cab from that and check the Price also.

5.8 FOOTER PART

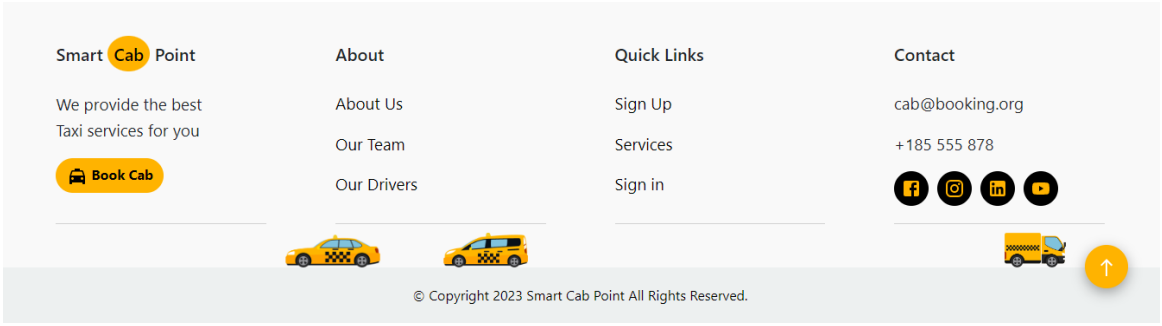


Fig 5.8.1 footer part

- The footer part of smart cab point includes the quick links of the pages such as login page, register page, booking cab page, contact us page, social media link etc.

- When click on the arrow icon which place on bottom-right screen scroll to top smoothly.

- In the bottom the footer part has copyright part and also have moving taxi-animation for the attractive user interface using animation css.

5.9 MOBILE VIEW & TABLET VIEW

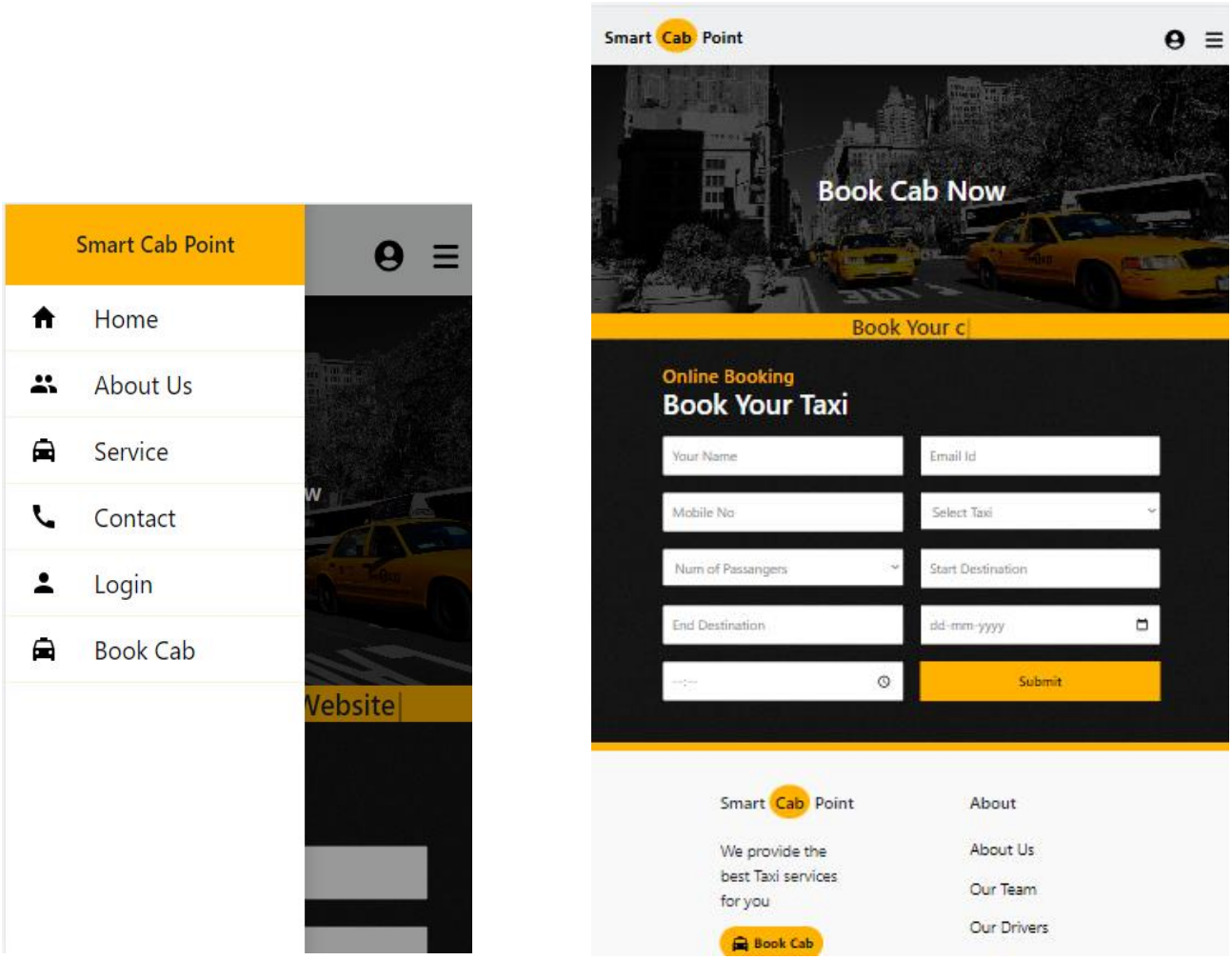


Fig 5.9.1 mobile & tablet view

- The Smart Cab Point website responsive in all devices such as mobiles, laptops, and Tablets. By using media query this was possible.

CHAPTER 6: TESTING

6.1 THE IMPORTANCE OF TESTING

Testing is an essential part of software development that ensures the quality, reliability, and functionality of a product. It is important because it helps identify bugs, errors, and defects in the system.

Testing also helps to improve the overall user experience by identifying areas of the product that could be improved or optimized. In addition, testing helps to reduce the cost of development by identifying issues early on in the process, before they become more costly to fix.

6.2 TESTING STRATEGY

A testing strategy is a systematic approach that outlines the testing approach, methodologies, tools, and resources required to verify the functionality, performance, and quality of a software application.

6.2.1 UNIT TESTING

Unit testing involves testing individual units of code, such as functions or classes, in isolation to ensure they are functioning correctly. The goal is to identify and fix bugs early in the development process. Unit tests can be automated, and test frameworks like Jest or Mocha can be used for this type of testing.

6.2.2 INTEGRATION TESTING

Integration testing verifies that the different components of the app are working together correctly. This type of testing is done after unit testing and involves testing the interaction between components. Automated testing tools such as Cypress or Selenium can be used for integration testing.

6.2.3 PERFORMANCE TESTING

Performance testing ensures that the app can handle a high volume of traffic and requests without slowing down or crashing. This type of testing is done to identify bottlenecks in the system and optimize its performance. Tools such as LoadRunner or JMeter can be used for performance testing.

CHAPTER 7: CONCLUSION

ANALYSIS / SUMMARY OF INTERNSHIP

To summarize, this internship was a very fruitful one. During my internship, I worked on developing a booking cab app using the MERN stack. The objective of the project was to create an app that allows users to book taxis or cabs online using their computers, laptops or mobile devices. A smart cab booking website typically includes features user registration, allowing users to sign up, log in, and manage their bookings.

To achieve this, I first created two websites as tasks for learning basics and important concepts of HTML, CSS, JavaScript. Then I learn and implement the full-stack cab booking website.

Throughout the development process, I followed a rigorous testing strategy that involved unit testing, integration testing, and performance testing. This helped to ensure that the app was functioning as expected and provided a seamless user experience.

Overall, my internship on the cab booking app allowed me to gain valuable experience in developing a full-stack web application using modern technologies, as well as in software testing and analysis. I am confident that the app I developed provides a valuable service to users looking to book taxis, and I am proud of the work that I have accomplished during my internship.

REFERENCE

- **React Js Documentation:** https://reactjs.org/docs/getting-started.html
- **React Router DOM :-** https://reactrouter.com/en/main/start/tutorial
- **Nodejs :-** https://nodejs.org/en
- **Mongo DB:-** https://www.mongodb.com/
- **Material Ui:** https://mui.com/
- **React icon:** https://react-icons.github.io/react-icons/
- **Formik :** https://formik.org/docs/guides/validation
- **Yup :** https://www.npmjs.com/package/yup
- **W3school:** https://www.w3schools.com/
- **Website:** https://V-Ex Tech software solution