M.KUMARASAMY
COLLEGE OF ENGINEERING
NAAC Accredited Autonomous Institution
Approved by AICTE & Affiliated to Anna University
ISO 9001:2015 & ISO 14001:2015 Certified Institution
Thalavapalayam, Karur – 639 113.

A Minor Project Report

on

TAXI BOOKING SYSTEM

Submitted in partial fulfilment of requirements for the award of the degree

of

BACHELOR OF ENGINEERING

in

COMPUTER SCIENCE AND ENGINEERING

Under the guidance of

Ms. K. JOSE TRINY, M.E.,

Assistant Professor/CSE

Submitted By

T.GOKULVASAN (18BCS4022)

N.HISHORE (18BCS4028)

M.KARTHI (18BCS4033)

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

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(Autonomous Institution affiliated to Anna University, Chennai)

KARUR – 639113

BONAFIDE CERTIFICATE

Certified that this minor project report "**TAXI BOOKING SYSTEM**" is the bonafide work of "**T.GOKULVASAN (18BCS4022), N.HISHORE (18BCS4028), M.KARTHI (18BCS4033), S.KARTHIKEYAN (18BCS4035), P.KAVIN (18BCS4037), P.KAVYADHARSINI (18BCS4038)** "who carried out the project work during the academic year 2020-2021 under my supervision.

Signature

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

VISION OF THE INSTITUTION

To emerge as a leader among the top institutions in the field of technical education

MISSION OF THE INSTITUTION

- Produce smart technocrats with empirical knowledge who can surmount the global challenges
- Create a diverse, fully-engaged, learner-centric campus environment to provide quality education to the students
- Maintain mutually beneficial partnerships with our alumni, industry, and Professional associations

VISION OF THE DEPARTMENT

To achieve education and research excellence in Computer Science and Engineering

MISSION OF THE DEPARTMENT

- To excel in academic through effective teaching learning techniques
- To promote research in the area of computer science and engineering with the focus on innovation
- To transform students into technically competent professionals with societal and ethical responsibilities

PROGRAM EDUCATIONAL OBJECTIVES (PEOs)

PEO 1: Graduates will have successful career in software industries and R&D divisions through continuous learning.

PEO 2: Graduates will provide effective solutions for real world problems in the key domain of computer science and engineering and engage in lifelong learning.

PEO 3: Graduates will excel in their profession by being ethically and socially responsible.

PROGRAM OUTCOMES (POs)

Engineering students will be able to:

1. **Engineering knowledge:** Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
2. **Problem analysis:** Identify, formulate, review research literature, and analyse complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
3. **Design/development of solutions:** Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
4. **Conduct investigations of complex problems:** Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
5. **Modern tool usage:** Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.
6. **The engineer and society:** Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
7. **Environment and sustainability:** Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
8. **Ethics:** Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
9. **Individual and team work:** Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
10. **Communication:** Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

11. **Project management and finance:** Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.
12. **Life-long learning:** Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

PROGRAM SPECIFIC OUTCOMES (PSOs)

- **PSO1: Professional Skills:** Ability to apply the knowledge of computing techniques to design and develop computerized solutions for the problems.
- **PSO2: Successful career:** Ability to utilize the computing skills and ethical values in creating a successful career.

ABSTRACT WITH PO AND PSO MAPPING

ABSTRACT	POs MAPPED	PSOs MAPPED
This project showcases the development of an interactive website which functions as a Cab Booking System for customers to effortlessly book cabs for travel, the system is named SpotRider Cabs. It is an online portal through which customers can register the cab and book cabs. Separate database is maintained to handle all the details required for the correct statement calculation and generations. This project intends to introduce more user-friendly approach in the various activities such as record updating, maintenance, and searching. Standard Web development languages like React JS, Node JS were used for Front-end and Back-end development respectively. A computer-based management system is designed to handle the entire primary Information required to manage the whole cab booking procedure. Currently, customers call or walk in order to rent/ reserve a vehicle. The software will check their file to see which vehicle is available for rental. The current system is too much error prone and customers are dissatisfied to an extent. The goal of our project is to automate vehicle rental and reservation so that customers do not need to walk-in or call in order to reserve/book vehicle. They can easily book their cab without making a call. Overall we used Jile platform to implement our project.	**PO1 (3)** **PO2 (3)** **PO3 (3)** **PO 4 (3)** **PO 5 (3)** **PO 6 (3)** **PO 9 (3)** **PO 10 (2)** **PO 11 (3)** **PO 12 (3)**	**PSO1 (2)** **PSO2 (2)**

Note: 1- Low, 2-Medium, 3- High

SUPERVISOR **HEAD OF THE DEPARTMENT**

ABSTRACT

This project showcases the development of an interactive website which functions as a Cab Booking System for customers to effortlessly book cabs for travel, the system is named SpotRider Cabs. It is an online portal through which customers can register the cab and book cabs. Separate database is maintained to handle all the details required for the correct statement calculation and generations. This project intends to introduce more user-friendly approach in the various activities such as record updating, maintenance, and searching. Standard Web development languages like React JS, Node JS were used for Front-end and Back-end development respectively. A computer-based management system is designed to handle the entire primary Information required to manage the whole cab booking procedure. Currently, customers call or walk in order to rent/ reserve a vehicle. The software will check their file to see which vehicle is available for rental. The current system is too much error prone and customers are dissatisfied to an extent. The goal of our project is to automate vehicle rental and reservation so that customers do not need to walk-in or call in order to reserve/book vehicle. They can easily book their cab without making a call. Overall we used Jile platform to implement our project.

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CHAPTER 1

INTRODUCTION

Transport is an integral part of our social living. The modern society cannot run without transport facilities. There are many companies who give transport services to the individual and corporate clients. In the current system, the client first contacts with the transport company for getting transport service. The company then books the vehicle for him on the requested date and time and then sends the vehicle to his place at the time. The Online taxi booking system is the online service which will automate the process of booking a taxi and will facilitate both the client and the company with reduced time and efforts. First the company will register his vehicles and the vehicles to the system. Then the client will request for booking a vehicle on his required date and time, providing all necessary information. The fare will be calculated and client should confirm it. Then the employee will serve the client on the specific date and time. Finally, the client will have an opportunity to give a feedback for the service he got. The company can check it and take appropriate action for the future improvements. Jile is an agile platform for product-centric delivery that supports agile methodologies, scrum and Kanban. We used Jile to implement our project.

1.1 BACKGROUND

The main goal of this project is to develop functional Taxi Service webpage. It allows users to book their cabs through online web page. User are allowed to contact us at any time as mobile number is provided in the web page. Regular updates are provided to the customer. The user can also drop in their suggestions or queries in the feedback form. Customers will be able to order a taxi through a web page. After the order has been received, the main server will determine the zone from which the order has been made and then select the first taxi from the virtual queue of the appropriate zone to dispatch to the order location.

The customer will receive various information about the taxi which will pick him or her up (position in the map, name estimation time of arrival), as soon as the driver of the taxi accepts the order from the main server through their custom Android application. If the taxi driver rejects the order or doesn't respond to it in a certain amount of time, the taxi will be put at the end of the queue and the order will be forwarded to the next taxi in the queue.

While driving through the city, the taxies will change virtual queues as they change zones, they are driving in. The taxi will be removed from the old queue and put at the end of a new one. The integration strategy of the system will be feature – based. The development will begin with the core functionality and new features will be added with time. There will be several milestones and new features will be introduced in each of those

1.2 PROBLEM STATEMENT

Existing Online Cab Booking project system requires lots of physical and mental efforts as cabs are booked manually on call. Many chances of human errors such as wrong entry of journey date, time and location are recorded manually in a register by an employee thereby increasing chances of mis registration. No clear communication among drivers, passengers and the office leading to a denial of service.

Punctuality is not maintained and faster accessibility of cabs is not possible due to traffic and miscommunication issues. Level of sharing of information is weak. Customers suffer a lot in terms of comfort and safety. Maintaining and assigning responsibilities to the cab drivers by the service providers becomes difficult in the long run. Taxi booking via phone calls is a manual process that requires staff to maintain back-end processes.

Poor Customer experience, takes more time, between customer and driver. A Cab Booking/Hiring is a system that can be used temporarily for a period of time with a fee. Hiring a car assists people to get around even when they do not have access to their own personal vehicle or don't own a vehicle at all.

The individual who want to hire/rent a car must first contact the cab hiring company for the desire vehicle. This can be done online. At this point, this person has to supply some information such as: dates of rental, and type of car. After these details are worked out, the individual renting the car must present a valid Identification Card. Most companies throughout the industry make a profit based of the type of cars.

1.3 OBJECTIVES OF STUDY

Group bookings: Allows the customer to book space for a group in the case of weeding or corporate parties or meetings.

Eco-friendly: The monitoring of the vehicle activity and the overall business becomes easy and includes the least of paper work.

Availability: The software acts as an office that is open 24/7.

Efficient: It increases the efficiency of the management at offering quality services to the customers.

Reach to geographically scattered clients: One of the important objectives of the online booking system is communicate with all the clients scattered geographically.

Automate the process of booking: The system will reduce the time and effort of the clients and employees and automate the process of booking.

Reduced manpower: Reduce the manpower needed to perform the booking and serving clients.

Cost cutting: Reduce the cost involved in the booking process.

Operational efficiency: Improve the operational efficiency by improving quality of the process.

CHAPTER 2

LITERATURE SURVEY

A literature review is a search and evaluation of the available literature in your given subject or chosen topic area. It documents the state of the art with respect to the subject or topic you are writing about. It surveys the literature in your chosen area of study. It synthesises the information in that literature into a summary. It critically analyses the information gathered by identifying gaps in current knowledge; by showing limitations of theories and points of view; and by formulating areas for further research and reviewing areas of controversy. Mostly peoples use cab service for their daily transportations need. The company must be registered and fulfils all the requirements and security standards set by the transport department. The platform should offer an administration interface where the taxi company can manage the content, and access all bookings and customer information.

Table 2.1 Literature Survey of taxi booking system

REFERENCE LINKS	DRAWBACK	OVERCOME
https://www.savaari.com	Plain design	Attractive design
https://www.droptaxi24x7.com/	sequential page concept is used	dynamic page concept is used

CHAPTER 3

FEASIBILITY STUDY

3.1 GANTT CHART

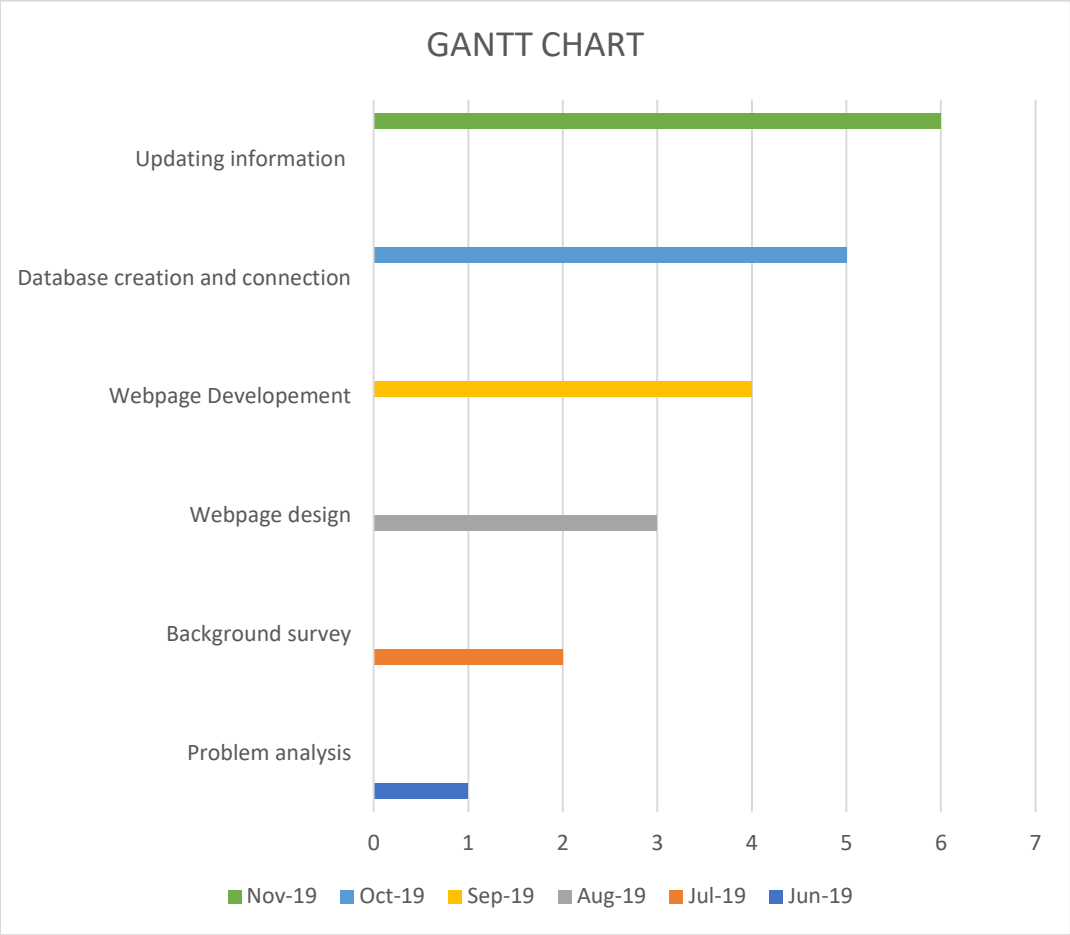

Figure 3.1 Gantt Chart of taxi booking system

Gantt Chart shown in Fig. 3.1 gives the details of project development in the month of June, July, August, September, October and November of 2020.

Problem analysis

During the month of June, we have analysed about what are all the problems faced by the customers in the existing system and also we have analysed

how we are going to solve those problems through our project. some of the problems are,

Poor Customer experience

Takes more time

Controversy between customer and driver.

Background survey

In order to do this survey, we have spent the whole July itself because the background of the project is very important. The main goal of this project is to develop functional Taxi Service webpage. It allows users to book their cabs through online web page. User are allowed to contact us at any time as mobile number is provided in the web page. Regular updates are provided to the customer. Customers will be able to order a taxi ride through a web page. After the order has been received, the main server will determine the zone from which the order has been made and then select the first taxi from the virtual queue of the appropriate zone to dispatch to the order location.

Webpage design

For this webpage design, it took whole August itself. Our webpage is having attractive design with dynamic page concept. Navbar will be very useful in order to do this dynamic page.

Webpage development

Throughout the month of September, we have developed our website. Our webpage is being developed with Eight modules namely,

Home (reservation)

Signup

Login

Logout

Drive

About

Gallery

Contacts

Database creation and connection

We have created and connected the database to the webpage during the month of October. Here we have created separate databases for both reservation details and feedback given by customers. The database used here is Mongo DB. Here Node.js will be very useful for connecting the Mongo DB and the React JS website.

Updating information

After creating and connecting database to the webpage, we need to update the information given by the customers. This has been done during the month of November. The reason for updating the details given by customer is to maintain these details for future purpose.

The reservation details like their journey date and time, origin, pick-up point, destination, the drop-of point and e-mail id have been updated into a separate database. Then the feedback form details given by the customers is also maintained by another database. The feedback is being given through the email address.

CHAPTER 4

PROJECT METHODOLOGY

It allows users to book their cabs through online web page. User are allowed to contact any time as mobile number is provided in the web page. Regular updates are provided to the customer. This Cab Booking project deals with a web page designed for booking cabs as per the requirements of the customers at their convenience.

We give customer satisfaction, the utmost priority and so give ample options to book cab. The user can also drop in their suggestions or queries in the feedback form. Here the dynamic page concept is used. Here there are 5 modules available. The home page itself contains the reservation tab which is used to reserve the cab. Through contacts page we can able to give feedback easily.

Here feedback is being given through email. Separate database is being used to store the feedback given by the customers. The customers reservation details are also being maintained by storing it in another separate database. Whenever we want, we can easily able to access the both feedback and reservation databases.

4.1 BLOCK DIAGRAM OF PROPOSED SYSTEM

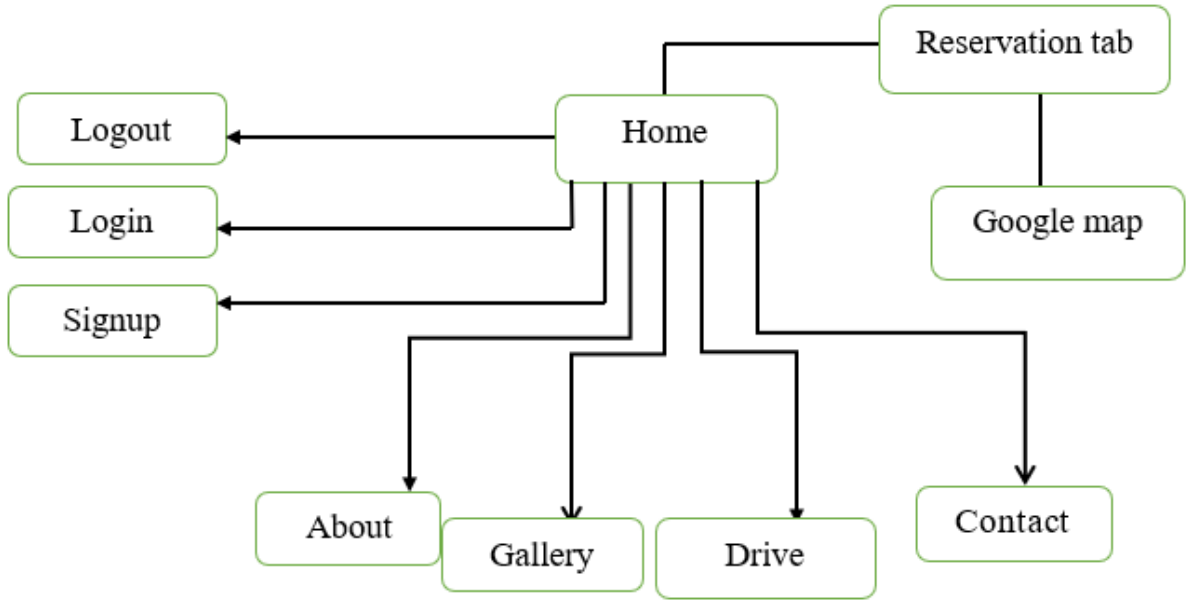

Figure 4.1 Block Diagram of taxi booking system

The block diagram in the Fig. 4.1 gives the details about the working flow of the project. As the dynamic page concept is used in this web page development project, we can only able to go to other pages from the home page only. The home page itself contains the reservation tab. So, after opening the webpage itself customers can able to directly reserve the taxi ride. In the signup module customer can able to register their details and create an account for them. The login module is used to sign-in to their corresponding accounts and register their cabs.

In the drive module, the driver can register their details and create account for them. The about module contains the get details page. This page shows the details about the online taxi booking briefly. Gallery page contains images of the various taxies. At last the contact page contains the feed-back form through which the customers can give their feedback.

4.2 DESCRIPTION OF WORKING FLOW OF PROPOSED SYSTEM

This project contains five modules/pages. The working flow of this project is based on these modules only. The Eight modules are namely,

Home (reservation)

About

Signup

Login

Logout

Drive

Gallery

Contacts

Home Module

This home module contains reservation tab. In the reservation tab we want to enter details like pick-up point, destination, the timing. In order to maintain these details a database is being created and updated with these details.

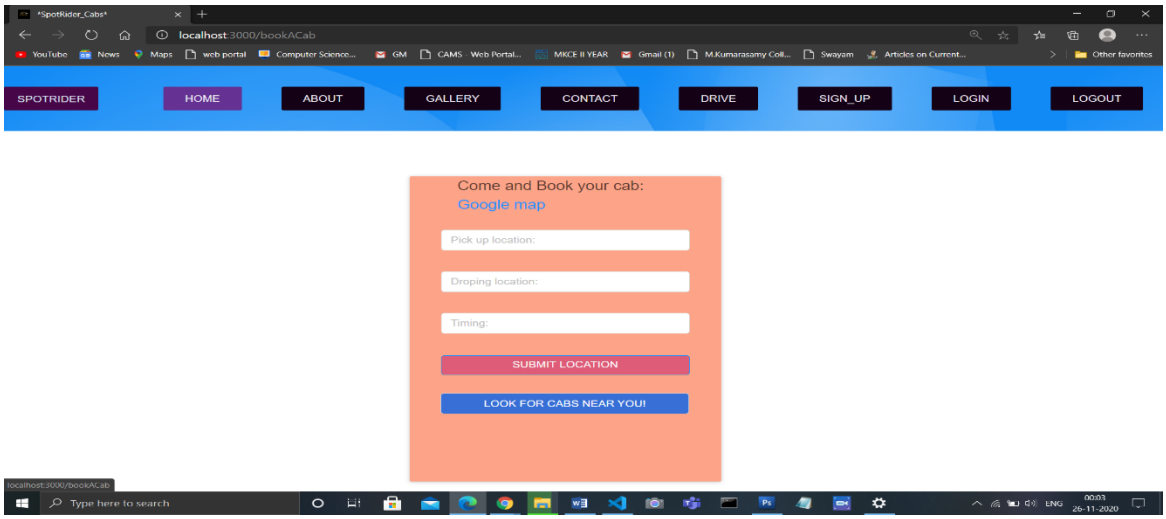

Figure 4.2 Home page

About Module

In this module the details about this taxi booking system are available. The details are available in the get details page.

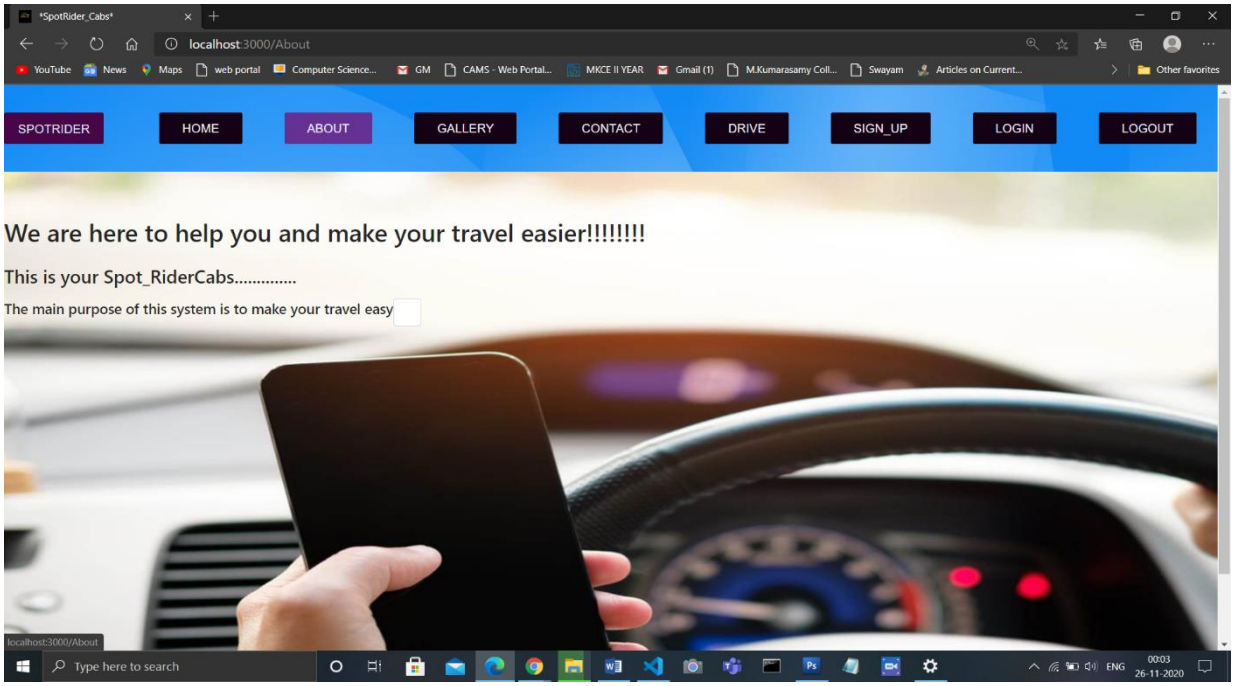

Figure 4.3 About page

Sign-up module:

In the signup module customer can able to register their details and create an account for them. The details which are need to be entered are name, e-mail and password.

This module provides a conceptual framework for entering data on those customers in a way that eases data entry & accuracy by matching entry to the data source (usually paper files created at point of care), ties easily back to individual customer records to connect registers to customer data.

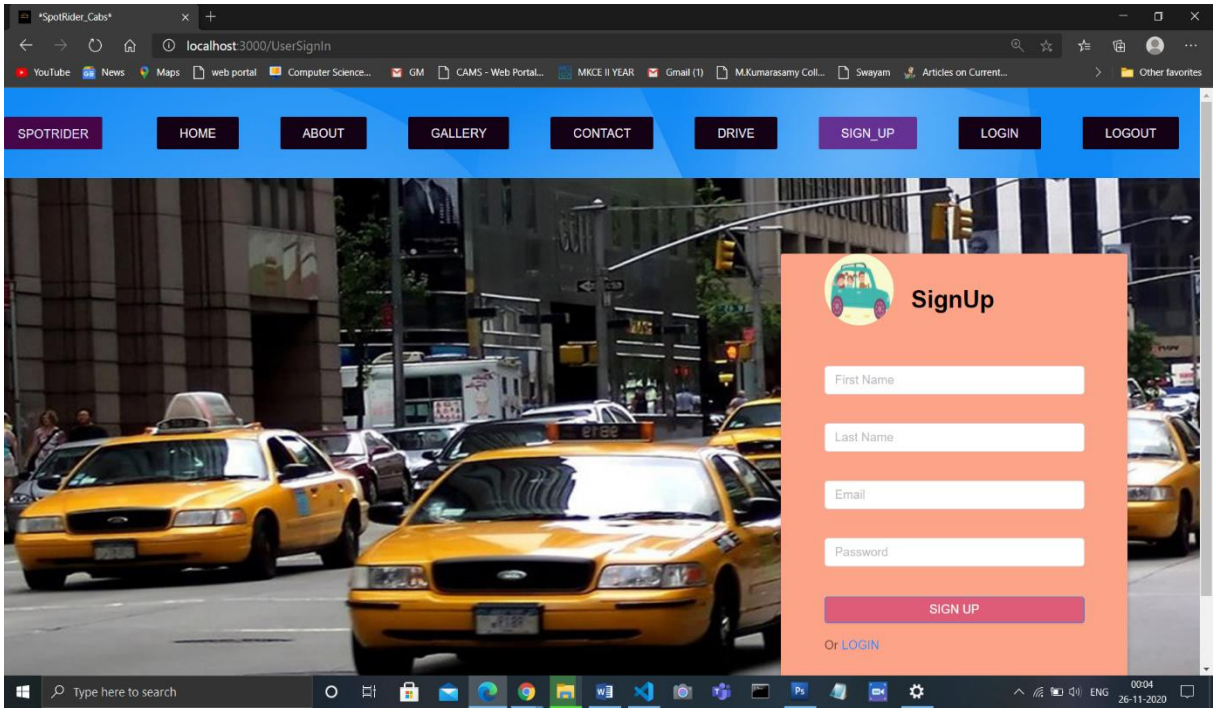

Figure 4.4 Sign-up page

Login module:

The login module is used to sign-in to their corresponding accounts and register their cabs. You can use your name and password to login to your account.

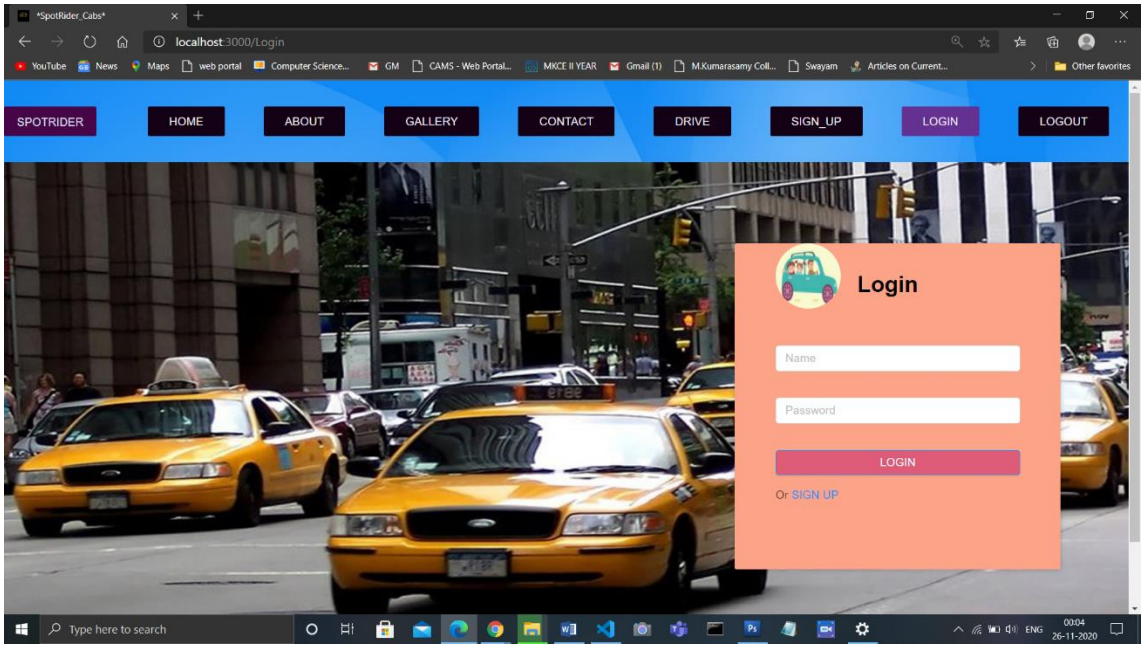

Figure 4.5 Log-in page

Logout module:

Logging out means to end access to a computer system or a website. Logging out informs the computer or website that the current user wishes to end the login session. Log out is also known as log off, sign off or sign out.

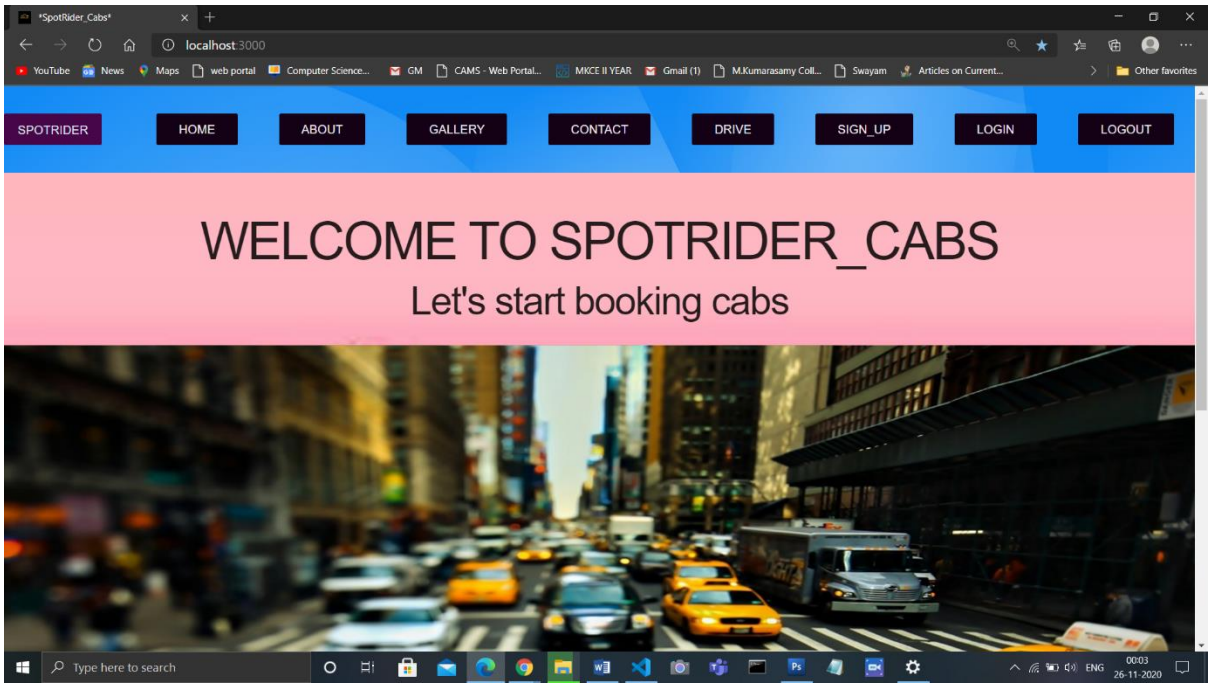

Figure 4.6 Log-out page

Drive module:

In the drive module, the driver can register their details and create account for them. Here the driver needs to give his/her details like name, e-mail id, vehicle type, vehicle registration number and vehicle capacity.

Drivers get the notification about latest booking, canceled rides, and other activities done by users and admin. Drivers are allowed to change their availability status from available to busy and vice versa.

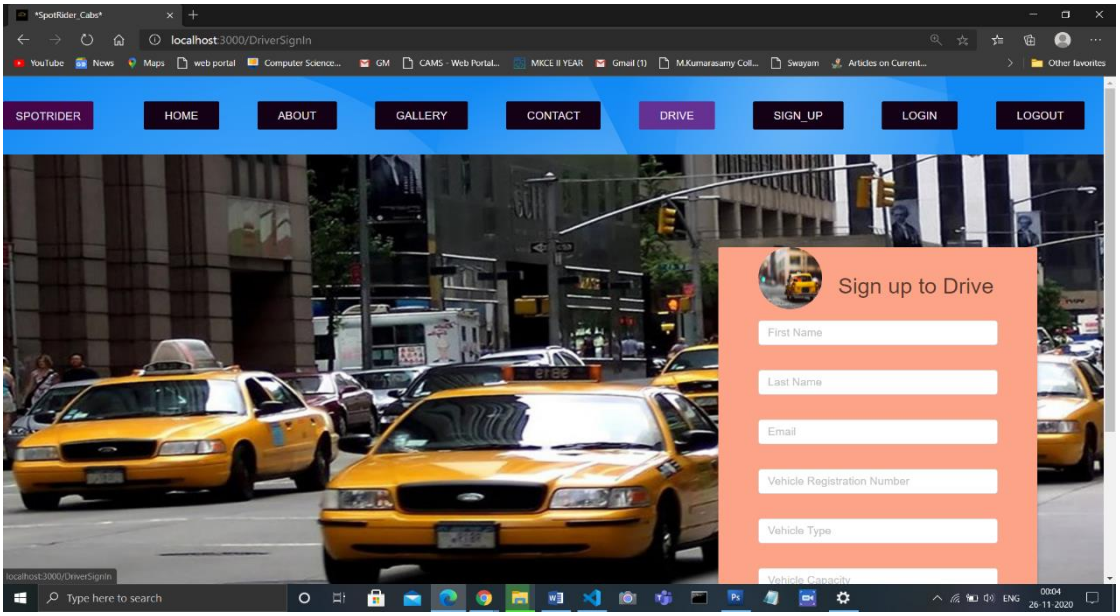

Figure 4.7 About page

Gallery Module

The images of various types of cab/taxi photos are available in this module.

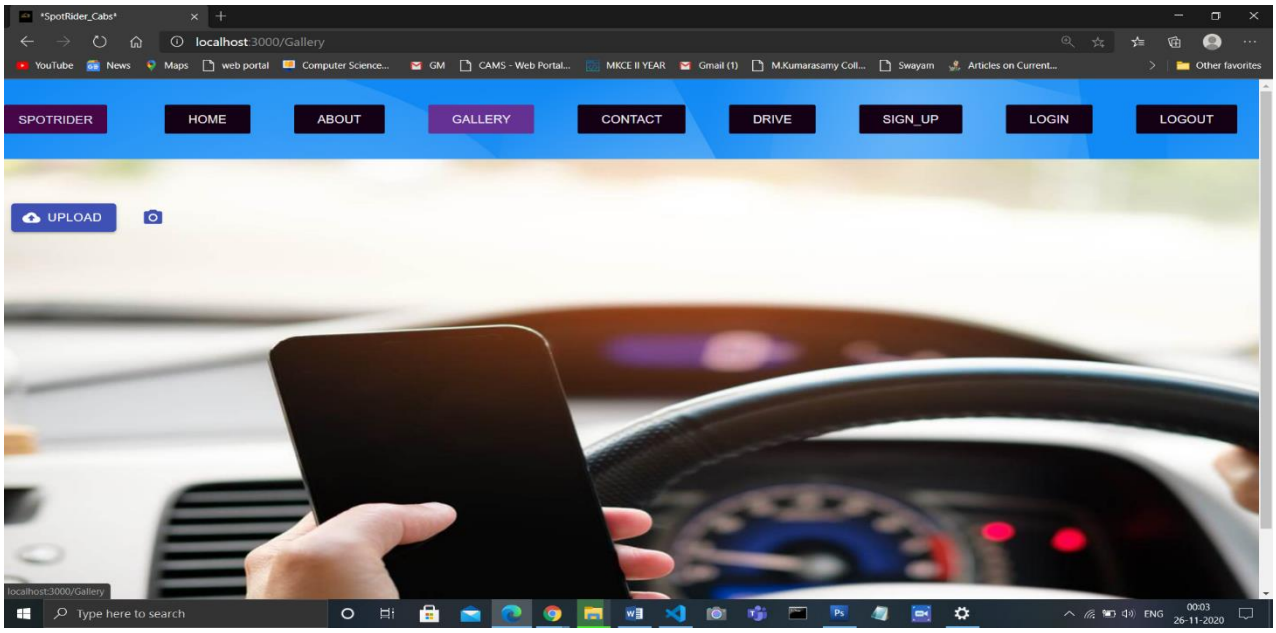

Figure 4.8 Gallery page

Contacts Module

In this module the user can also drop their suggestions or queries in the feedback form present in this web page. The feedback is being given through email. Separate database is being maintained to keep the feedback given by the customers

Hardware Requirement:

System with 2GB

Software Requirement:

OS: Windows 7/8/10

Platform editor: Visual studio

Database: Mongo DB

Platform: Node.js

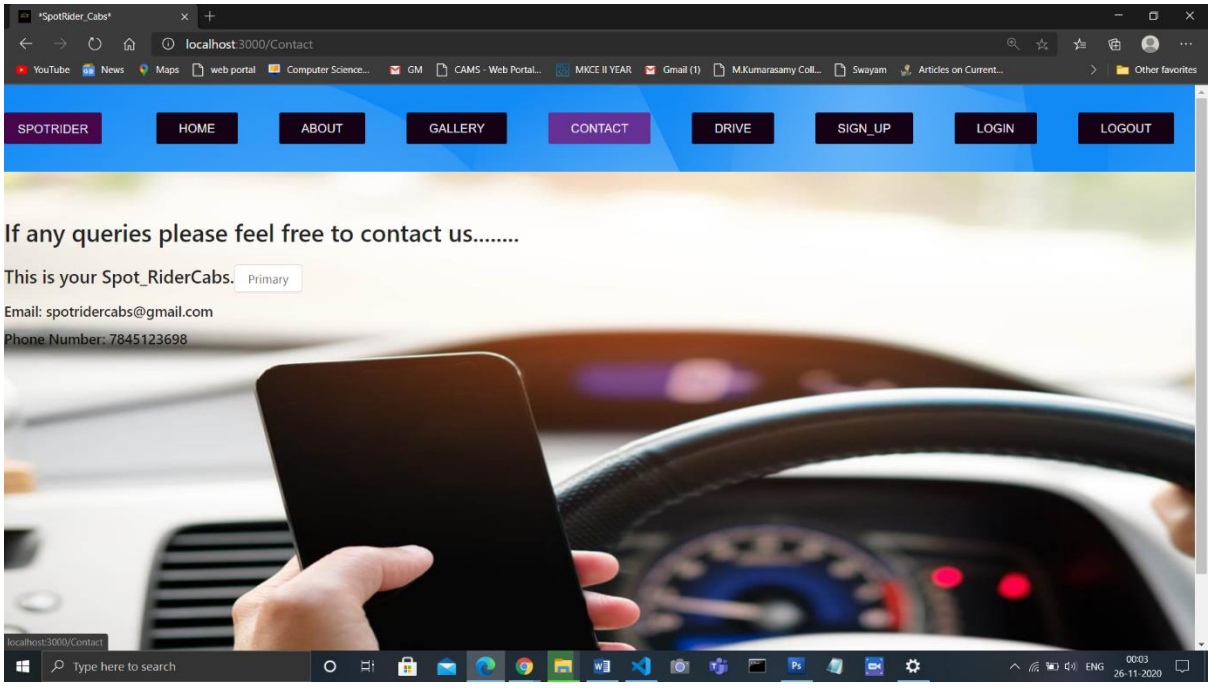

Figure 4.9 Contact page

CHAPTER 5

RESULT AND DISCUSSION

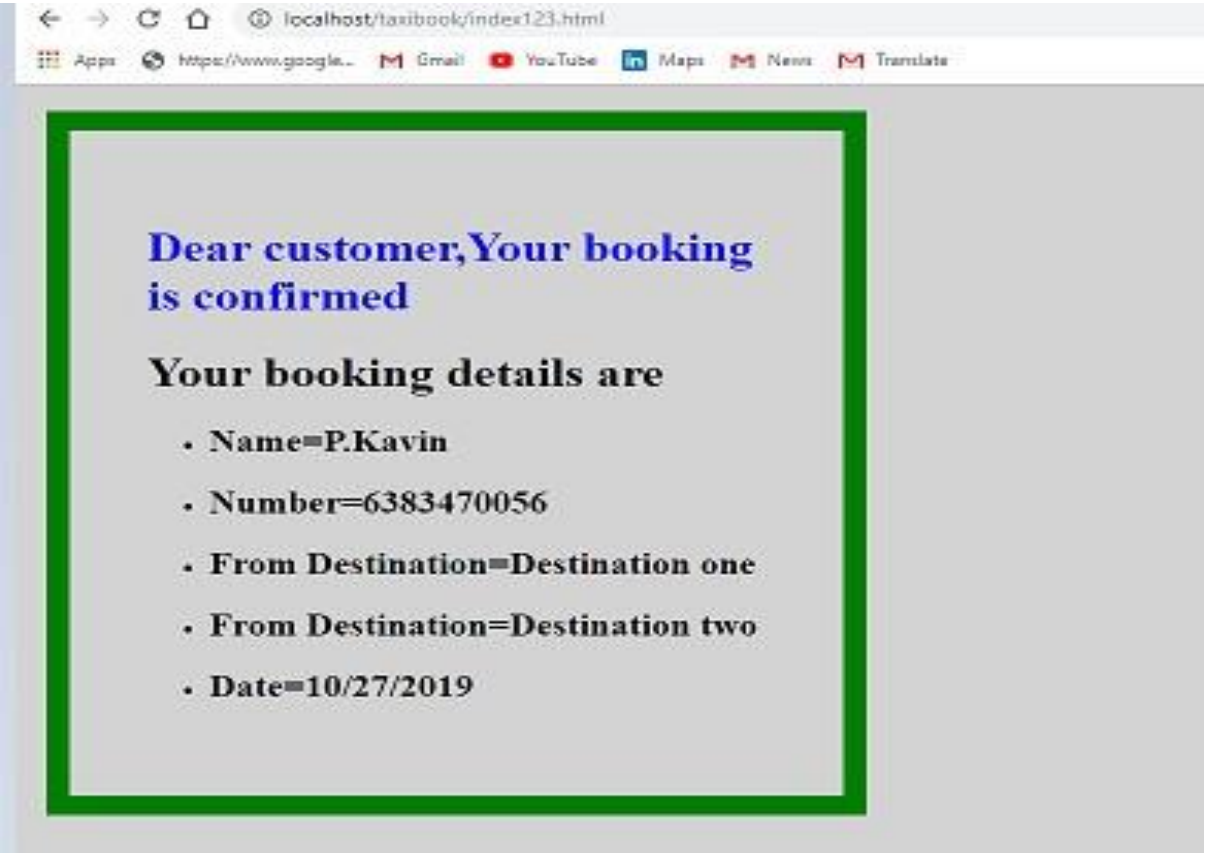

Figure 5.1 Result

We have created the cab booking webpage in a way to access in an easy manner with five modules. Here the cab booking tab is available in the home page itself. In future we would like to implement admin and manage booking modules.

CHAPTER 6

CONCLUSION

Even now, in many rural areas they are not aware of cab booking system. So, we have created a simple website which can be easily accessed to book a cab. Using this system many car-booking agencies are moving ahead to become a pioneer in the vehicle rental industry by completely focusing on customers. Using this system, it is very easy for customer to book a car online and car-booking agency can also track their booking online. So, it is also very useful for car booking agency. It is an online system through which customers can view available cabs; register the cabs, view profile and book cabs. Mostly peoples use cab service for their daily transportations need.

REFERENCES

https://www.w3schools.com/

https://stackoverflow.com/questions/48125093/xampp-localhost-dashboard

https://reactjs.org/

APPENDIX

```
import React, { Component } from "react";
import axios from "axios";
import "antd/dist/antd.css";
import "./Example.css";
import Paper from 'material-ui/Paper';
import Avatar from 'material-ui/Avatar';
import DriverImage from './Images/driver.jpg';
import { Form, Input, Button } from "antd";
//import { locales } from "moment";
import TextField from '@material-ui/core/TextField';


const stylePaper = {
  height: '320px',
  width: '375px',
  background: '#f1d1cf',
  background: '#fda488',
  position: 'fixed',
  marginLeft:'20px',
  marginTop: '20px'
};
```

```
const styleText = {
    marginLeft: '20px',
    marginTop: '20px',
    fontSize: '1.21429rem',
    fontFamily: 'ff-clan-web-pro,"Helvetica Neue",Helvetica,sans-
serif!important',
    fontWeight: '400'
};
const FormItem = Form.Item;
class Signup extends Component {
  state = {
    res: {},
    res_received: false
  };
  handleSubmit = e => {
    e.preventDefault();
    this.props.form.validateFields((err, fieldsValue) => {
      if (!err) {
        const values = {
          ...fieldsValue,
          role: 'driver'
```

```
};
//delete values[""];
console.log("Received values of form: ", values);
alert('Your booking is done. You will get an notification about the car and driver contact...')
axios
 .post("https://api.crossfire37.hasura-app.io/signup",
  {
   "user": {
   "provider": "username",
   "data": {
   "username": values.firstname,
   "password": values.password
   }
  },
   "role": values.role,
   "firstname": values.firstname,
   "lastname": values.lastname,
   "regno": values.vehicleregistrationnumber,
   "type": values.vehicletype,
   "capacity": values.vehiclecapacity,
   "city": values.city
```

```
      }
       )
        .then(response => {
        console.log(response);
        localStorage.setItem('AuthToken' ,response.data.auth_token)
        this.setState({ res: response.data });
        this.setState({ res_received: true });
       })
       .catch(error => {
         alert(" Check you mail for confirmation of booking..")
         console.log(error);
       });
    }
  });
};
render() {
  const { getFieldDecorator } = this.props.form;
  let result = null;
  if (this.state.res_received) {
    alert('Sign Up Succesful!');
    console.log(this.state.res_recieved);
  }
```

```
return (
  <Paper style={stylePaper}>
    <Form onSubmit={this.handleSubmit} className="signup-form">
      <div style={{marginTop: '20px', marginBottom: '20px'}}>
        <div style={styleText}>
          To find Pick up and Destination of your location:
          <a href="https://www.google.com/maps"> Google Maps</a>
        </div>
      </div>
      <div>
      </div>
      <FormItem>
        {getFieldDecorator("Starting place", {
          rules: [{ required: true, message: "Pick up location:" }]
        })(<Input placeholder="PickUp Location:" />)}
      </FormItem>
      <FormItem>
        {getFieldDecorator("Destination location", {
          rules: [{ required: true, message: "Destination location:" }]
        })(<Input placeholder="Destination:" />)}
      </FormItem>
      <FormItem>
```

```
            <Button
              type="primary"
              htmlType="submit"
              className="signup-form-button
            >
              BOOK YOUR CAB
            </Button>
          </FormItem>
          {result}
        </Form>
      </Paper>
    );
  }
}
const Sign_up = Form.create()(Signup);
export default Sign_up;
```