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AUTOWALA.com: Autowala – Your One-Stop Transport Booking Solution

A CAPSTONE PROJECT REPORT

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DECLARATION

We, **G.Narendra Reddy, Ch.Pradeep, Ch.Lakshmi Nandan**, students of **Bachelor of Engineering in the Department** of Computer Science and Engineering, Saveetha Institute of Medical and Technical Sciences, Simats Engineering, Chennai, hereby declare that the work presented in this Capstone Project Work entitled **AUTOWALA.com: Autowala – Your One-Stop Transport Booking Solution** is the outcome of our own bonafide work and is correct to the best of our knowledge and this work has been undertaken taking care of Engineering Ethics.

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CERTIFICATE

This is to certify that the project entitled “**AUTOWALA.com: Autowala – Your One-Stop Transport Booking Solution** ” submitted by **G.Narendra Reddy, Ch.Pradeep, Ch.Lakshmi Nandan**, has been carried out under my supervision. The project has been submitted as per the requirements in the current semester of B.E Computer Science Engineering.

Teacher-in-charge

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Abstract

AUTOWALA. com is providing a change to the conventional modes of transport in urban areas through offering a one stop solution that has cabs, autos and bike facilities necessary with the increasing city traffic. As a novel, this new service offers the customer a choice in their modes of transport, and optimizes the demand and supply of transportation, thereby cutting down on congestion in most cities. One of the components of AUTOWALA is critical. Com's strategy is that it supports environmentally friendly means of transport with an emphasis on car-sharing to reduce the negative effects on the environment. In this regard, the platform backs it up with undertakings like integration of electric and hybrid automobiles as well as compliance with local authorities on environmental concerns. Additionally, AUTOWALA. Accounts receivable for com are achieved through compensation structures that are aligned with respect to fairness to both drivers and passengers, novel technology, the ability to track fares, and safe means of payment. Therefore, by satisfying and creating more value for all the stakeholders, AUTOWALA. com makes transportation safe, comfortable and Secured hence enhances Urban mobility by boosting sustainability and efficiency.

Introduction

As more people migrate to urban areas and cities become more established, there is an unprecedented demand for enhanced and adaptable transportation systems Other modes of transport like passenger cars and public transport like buses cannot effectively deal with the challenges of modern society. This has led to the emergence of a great demand for solutions that can satisfy the mobility needs of citizens in the urban environment while not endangering the planet. com has disruptively entered this landscape through the amalgamation of various modes of transport into a single interface. Affording cab services, auto services, bike services, etc. , AUTOWALA. com is a cost-effective business model which is efficient enough to handle the diverse demands of the people in the urban area. In addition, it also offers greater flexibility and convenience alongside reducing traffic problems and dependence on private cars.

Apart from enhancing mobility, AUTOWALA. Sustainability is very important to Com. The platform supports the transport of individuals using environment friendly vehicles and also supports shared transport hence reducing the overall emission rates of urban transport. This commitment to sustainability is in line with the global fight against climate change and contributes to changing unsustainable patterns in urban mobility. com majorly aims at improving the experience of both the driver and the passengers. By integrating helpful technologies, real-time monitoring, and safe payment systems, the platform provides a constructive and fun commutation experience. Such a comprehensive strategy is beneficial not only for today's problems of urban transport but also contributes to the formation of a more effective system of mobility in cities of the future.

In conclusion, AUTOWALA.com also brings cabs, autos, and bikes on a single interface that defies the conventional modes of city transport, making it easier for the residents of the city to travel. In addition to aspects of flexibility and sustainability, it is necessary to note that AUTOWALA, a New York-based company, revolutionizes travel through a design that caters for future mobility frameworks of urban centers. It is not just a logical progression of design to improve operation by efficiency but also a leading edge concept of convenience and responsibility in moving people and goods in cities: ahead in looking at the future focused on smarter and greener transport

Project Description

AUTOWALA.com is an international urban mobility start-up that was developed to transform the way people move around cities in cabs, autos, and bikes. It solves the problems of a modern city and provides the population with a convenient and comfortable means of transportation.

Key Features and Objectives:

Holistic Transportation Integration: AUTOWALA.com can be noted to stand out in that their service integrates what may typically be separate modes of transport into one easily navigable app. This integration allows the user to switch conveniently between cabs, autos, and bikes in accordance with the specified mode of transport.

Commitment to Sustainability: By pointing out the focus on the environmental aspect of responsibility, which is authoritative, it becomes evident that AUTOWALA.com does support the application of environmentally friendly vehicles and people sharing them. Thus, literally, the platform has a great impact in changing the face of cities as much as it enhances the reduction of carbon emissions that are caused by travel in congested cities.

Enhanced Efficiency: It will allow people to track the movement of a car or a bus in a big city; integrate the possibility of secure payments based on different methods; and have an unproblematic interface. Such features eliminate waste, decrease times spent in transit, and make the travel experience for each user to be coordinating and efficient.

Cost-Effective Solutions: AUTOWALA.com has a variety of cheap means of transport, due to which it caters to the masses and provides the facility of urban transport. It promises to be a cost leader while at the same time seeking to deliver affordable services that are equally efficient.

Reduction in Congestion: In this way, by providing a broad range of choices for the transportation possibilities and encouraging people to share a ride, thus the development of the AUTOWALA. Such a business model, which increases the usage of public transport and, therefore, the necessity of personal vehicles, can be applied to the prescribing of AUTOWALA.com, which gives relief to the daily traffic jam situation. This approach also enhances the objective of optimizing travel while at the same time discouraging the use of exclusive car travel.

Impact and Vision:

AUTOWALA.com is all set to revolutionize the means of transport what the citizens of a city need—something economical, efficient, and environment-friendly. This approach helps to solve the many-sided problem of mobility in cities and promote further development of new and more intelligent, environmentally friendly, and effective means of transportation. Thus, embracing the changes necessary to correspond with the needs of contemporary cities, AUTOWALA.com is determined to set the pace needed to revolutionize travel within urban areas to a better state of the art.

Problem Description

Objective:

Design a scalable web-based solution with PHP for managing new-age city transport with cabs, autos, and bikes under one single roof. It is a way of creating user-focused applications that will impose solutions to current issues in maneuvering through traffic and improving the general transport sector.

Key Challenges to Address:

Seamless Mode Integration: Create a fairly complex design that enables the users to switch from the cab to auto and to bike in a blink of an eye. This integration should give a continuous interface to the user where he or she is bringing the choices of transportation in front of him or her, and at the same time it should be adaptive where choices should vary with the need of the user or the condition of the place.

Dynamic Pricing and Cost Transparency: Implement a tiered mechanism of fare charged depending on the demand, distance, and at what time, among others. Bring down travel costs by providing the users with forms that outline the prices they are likely to incur before making their booking and increase the level of trust and satisfaction.

Enhanced Real-Time Capabilities: Synchronized messaging and real-time status reporting tools should give users exact information on the location of a car, its ETA, and its status. These include integrating modern notification systems that will help notify the users as they go through their journey.

Advanced Payment Solutions: Implement mobile payments, cryptocurrencies, or such payment features as instant payment. Guarantee customers' safe, convenient, and adaptive payment solution that is compliant with consumers' needs.

AI-Driven Customer Support: Introduce AI-based chatbots and virtual assistants to escalate constant, round-the-clock client care service. They should be able to address frequently asked questions, resolve challenges that a client might be facing, and ease a client through the booking process.

Scalability and Future-Proofing: Make the system expandable to accommodate larger amounts of users as well as changing trends in transportation. Design for modularity so that future improvements and evolution into different technical structures can be facilitated.

Tool Description

AUTOWALA.com is a modern urban transport management platform whose primary aim is to optimize the city's traffic by joining established cab, auto, and bike services under one application. This tool helps question and develop intelligent travel experiences with technology as a driving force and sustainability as a core goal.

Smart Ride Matching: Leverages complex computation to suggest the most appropriate carriage services regardless of the user's desire, need, current position, and situation in the social setting.

Dynamic Pricing Engine: Has an automated mechanic where prices of services vary with speed, distance for a service, and also time for the service with the aim of providing cheap services while at the same time staying truthful in their prices.

Real-Time Data Integration: specializes in real-time tracking and notification, which helps to keep the users informed on the status of their car and eliminates guesswork.

Advanced Payment Systems: Contacts as payments, digital wallets, cryptocurrencies, enabling a variety of payment options and secure payments.

Data Analytics Dashboard: Affords administrators comprehensive statistical information they can use to assess performance, users' activity, and overall organizational parameters and make the right decisions toward improving the environment and conditions on an ongoing basis.

User Interface Features:

Interactive Maps: Offers search engine-based, application-based dynamic maps that help to track the vehicles, plan routes, and get instantaneous feedback about the transport facilities available at that point in time.

Personalized User Profiles: Enables users to create, modify, and input personal information, settings, and generate and display ride suggestions and archives, all relevant and specific.

Real-Time Notifications: Gives notification on the status of the ride, the arrival time of the driver, and any change, and thus keeps the users active during the journey.

Responsive Layout: It is well optimized for different devices and screen resolutions with quality displays supporting easy operation on a desktop, tablet, or smartphone.

Accessibility Features: High Contrast Mode: The use of keyboard-only navigation and compatibility with screen readers for the disabled users.

Operations

Backend Operations

Registration: Concerning users, inputting of personal details, authentication, and application account creation.

Login/Logout: Authentication and session management of the users, such as handling user sessions and other security-related issues.

Profile Management: Functions such as viewing and editing of profile details, preferences that they have, and payment details.

Booking: Ride management with options like urging an accessible route, cab, auto, or bike, entering the pickup and drop points, and confirming orders.

Real-Time Tracking: Ensuring the availability of booked vehicles, monitoring their location, and giving real-time information to the users.

Ride History: Having records of previous rides that may be useful to the users in case they want to search for similar experiences.

Transaction Management: Responsible for matters concerning payment of fares, the transactions in charge, refunds, and storing of the payment records.

Integration with Payment Gateways: Maintaining and safeguarding transactions that include credit/debit card payments, digital wallets, and cryptocurrencies.

Fare Calculation: Adjusting prices dynamically by using distance, demand, time, and other related factors as its parameters.

Price Updates: Setting prices that are concurrent with the current environment and making them known to the clients to avoid any manipulation.

Database Operations: Data storage and manipulation of data that concern the users, vehicles, rides, and transactions in terms of CRUD operations.

Analytics and Reporting: Collating reports and trending for operations and understanding users' and services' behavior.

Admin Controls

Dashboard Management: The main is to offer the functionalities for administrators that will help to track the activities of the users, the requests for the rides, as well as the performance of the system.

System Configuration: Management of settings associated with service characteristics, tariff structures, and operating regulations.

Frontend Operations

Booking Interface: Enabling people to input rides' information, choose means of transport, and confirm reservations in a convenient chatting-style environment.

Real-Time Updates: Including real-time tracking, notification, and alert features that are associated with the status of a ride and system updates.

Interactive Maps: Available options for map-based navigation to choose the pickup and drop-off points, see the status of the car, and plan routes.

Search Functionality: Allowing users to search successfully the transportation near them, how to get there, as well as the addresses themselves.

Help and Support: Allowing customers to request assistance, check Frequently Asked Questions, and use support service via chatbots or voice service or through filling in the contact form.

Feedback Collection: Enabling the users to give feedback, rate the services they have gotten, and report any problem so that more improvement is made.

Approach / Module Description / Functionalities

To bring AUTOWALA.com to life, our approach centers on a modular design where each core functionality is encapsulated in a distinct, high-performance module. This architecture allows for seamless integration and scalability, enabling the platform to adapt to the evolving needs of urban transportation. Each module—ranging from user management and ride management to payment processing and dynamic pricing—operates independently yet harmoniously within the system. This design ensures that each function, such as secure user authentication, real-time ride tracking, and adaptive fare calculations, performs optimally, providing users with a fluid and responsive experience. By leveraging modularity, we not only enhance the platform's efficiency but also simplify future updates and expansions.

Our modules deliver a suite of unique functionalities tailored to revolutionize urban mobility. The User Management Module offers intuitive registration, personalized profile management, and secure password recovery. The Ride Management Module facilitates effortless booking, real-time tracking, and historical ride management. Dynamic pricing algorithms in the Pricing Module ensure that fare adjustments reflect real-time conditions, while the Payment Processing Module guarantees secure transactions and transparent pricing. The Data Management Module supports in-depth analytics and robust data protection, while the Admin Controls Module provides comprehensive oversight of platform operations. The frontend interface integrates an adaptive design with interactive maps and responsive support, ensuring a superior user experience. Lastly, the Accessibility and Responsiveness Module ensures that the platform is usable and accessible across all devices and for users with varying needs, setting a new benchmark in urban transportation solutions.

Implementation:

Registration:

The user fills out a registration form on the frontend (HTML/CSS/JS).

The form data is sent to the web server (PHP) via an HTTP POST request.

The PHP script validates the data and inserts the user information into the database.

Login:

The user enters their credentials on the login form on the frontend.

The credentials are sent to the web server (PHP) via an HTTP POST request.

The PHP script verifies the credentials against the database and sets a session if successful.

Cab Booking:

The logged-in user selects cab booking options on the frontend.

The booking details are sent to the web server (PHP) via an HTTP POST request.

The PHP script processes the booking, stores the details in the database, and may interact with a cab service API if necessary.

LOGIN PAGE CODE:

```
<html >
```

```
<head>
```

```
    <title>AUTOWALA.com</title>
```

```
    <style>
```

```
    * {
```

```
        margin: 0;
```

```
        padding: 0;
```

```
        box-sizing: border-box;
```

```
        transition: 0.2s linear;
```

```
        text-transform: none; /* Removed capitalize to use natural text case */
```

```
    }
```

```
    html {
```

```
        font-size: 62.5%;
```

```

    overflow-x: hidden;
    scroll-behavior: smooth;
}

body {
    background: url('images/background.png') no-repeat center center fixed;
    background-size: cover;
    height: 100vh;
    font-family: Arial, sans-serif;
    color: white;
}

.header {
    display: flex;
    justify-content: space-between;
    width: 100%;
    padding: 2rem 7%;
    align-items: center;
    background: rgba(0, 0, 0, 0.7); /* Background for header */
}

.header .navbar a {
    font-size: 1.7rem;
    margin-left: 1rem;
    color: white;
}

.header .navbar a:hover {
    background: #ffc61a;
    padding: 0.5rem 3rem;
    border-radius: 15px;
}

#menu-bars {
    color: white;

```

```

    font-size: 2rem;
    display: none;
}
.navbar.active {
    top: 10%;
}
.logo-text h2 {
    color: white;
    font-size: 50px;
    position: absolute;
}
.logo-text h2 span {
    color: #ffc61a;
}
@media (max-width: 768px) {
    html {
        font-size: 50%;
    }
    #menu-bars {
        display: initial;
    }
    .navbar {
        position: absolute;
        top: -100%;
        right: 0;
        left: 0;
        background: rgba(0, 0, 0, 0.9); /* Background for mobile menu */
    }
    .navbar a {
        display: block;

```

```

    font-size: 1.5rem;
    background: #ffc61a;
    margin: 1rem;
    padding: 1rem;
}

.header {
    padding: 2rem;
}
}

.body-structure {
    display: flex;
    justify-content: center;
    align-items: center;
    height: 100vh;
    width: 100%;
    background: rgba(0, 0, 0, 0.5); /* Slightly darker background for better form visibility */
}

.form-container {
    background-color: rgba(255, 255, 255, 0.9); /* Light transparent background */
    padding: 50px;
    border-radius: 10px;
    box-shadow: 0 0 10px rgba(0, 0, 0, 0.5);
    text-align: center;
    color: #333; /* Darker text color for readability */
    width: 100%;
    max-width: 500px; /* Set a max width for larger screens */
}

h1 {
    margin-bottom: 20px;

```

```

    color: #333; /* Darker color for better readability */
}

hr {
    border: 0;
    border-top: 1px solid #ccc; /* Light gray border for the line */
    margin: 20px 0;
}

.form-group {
    margin-bottom: 15px;
    text-align: left;
}

label {
    display: block;
    margin-bottom: 5px;
    font-size: 20px;
}

input[type="text"],
input[type="password"] {
    width: calc(100% - 20px); /* Adjust width to fit container */
    padding: 10px;
    margin-bottom: 10px;
    border: 1px solid #ccc;
    border-radius: 5px;
}

input[type="submit"] {
    background-color: #ffc61a;
    color: #333; /* Darker text for contrast */
    padding: 10px 20px;
    border: none;
    border-radius: 5px;
}

```

```

    cursor: pointer;

    font-size: 20px;

    transition: background-color 0.3s ease, transform 0.3s ease;
}

input[type="submit"]:hover {

    background-color: #e0a800; /* Slightly darker on hover */

    transform: scale(1.05);
}

.register {

    display: block;

    margin-top: 10px;

    color: #ADD8E6; /* Light blue color for the register link */

    text-decoration: none;

    font-size: 20px;
}

.register:hover {

    text-decoration: underline;
}

</style>

</head>

<body>

    <header class="header">

        <div class="logo-text">

            <h2>AUTOWALA <span>.com</span></h2>

        </div>

        <nav class="navbar">

            <a href="index.html">Home</a>

            <a href="register.html">Register</a>

            <a href="login.html">Login</a>

            <a href="about.html">About</a>

```

```

        <a href="contact.html">Contact</a>

    </nav>

    <a href="#" id="menu-bars" class="fas fa-bars"></a>

</header>

<div class="body-structure">

    <div class="form-container">

        <h1>Login Page</h1>

        <hr>

        <form action="login.php" method="post">

            <div class="form-group">

                <label for="uname">Username:</label>

                <input type="text" id="uname" name="uname" required>

            </div>

            <div class="form-group">

                <label for="pass">Password:</label>

                <input type="password" id="pass" name="pass" required>

            </div>

            <input type="submit" value="Login">

        </form>

        <a class="register" href="register.html">Register</a>

    </div>

</div>

</body>

</html>

```

LOGIN.PHP:

```

<?php

$servername="localhost";

$username="root";

$password="";

$dbname="autowala";

```



```

$con=new mysqli($servername,$username,$password,$dbname);
if($con->connect_error)
{
die("connection failed".con->connect_error);
}
else
{
echo "connected successfully<br>";
}
$username=$_POST["uname"];
$password=$_POST["pass"];
$sql="SELECT username,password FROM users where username='{$username}'";
$result=$con->query($sql);
if($result ->num_rows>0){
while($row=$result->fetch_assoc())
{
if($row["username"]==$username && $row["password"]==$password)
{
echo "You have been Successfully validated";
header("refresh:3,url=services.html"); }
else
{
echo "Credentials Wrong, Try again";
header("refresh:3,url=login.html");
}
}
}
else
{
echo "User name given was not exist";
}

```

```
header("refresh:3,url=login.html");
}
$con->close();
?>
```

Output



Fig1:HomePage

Fig:2:Registration page

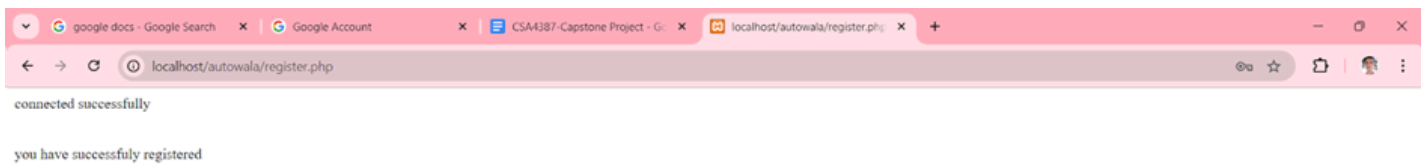


Fig3:Server Response

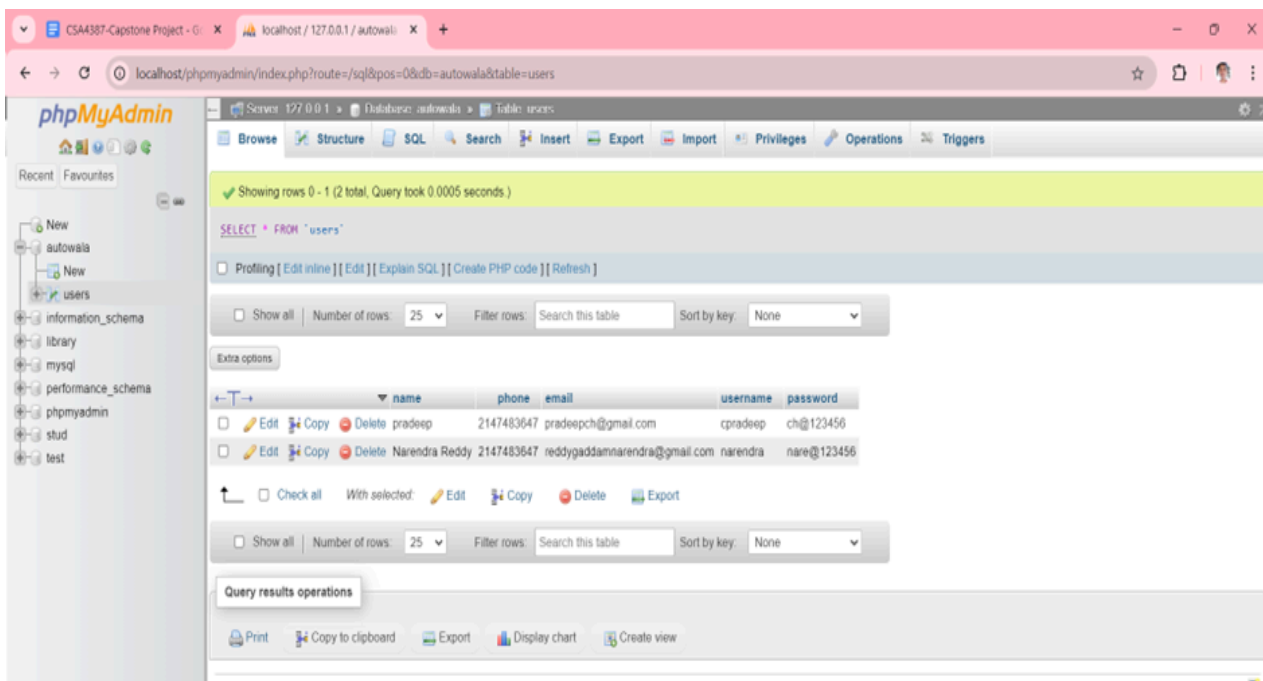


Fig4:Store DataBase

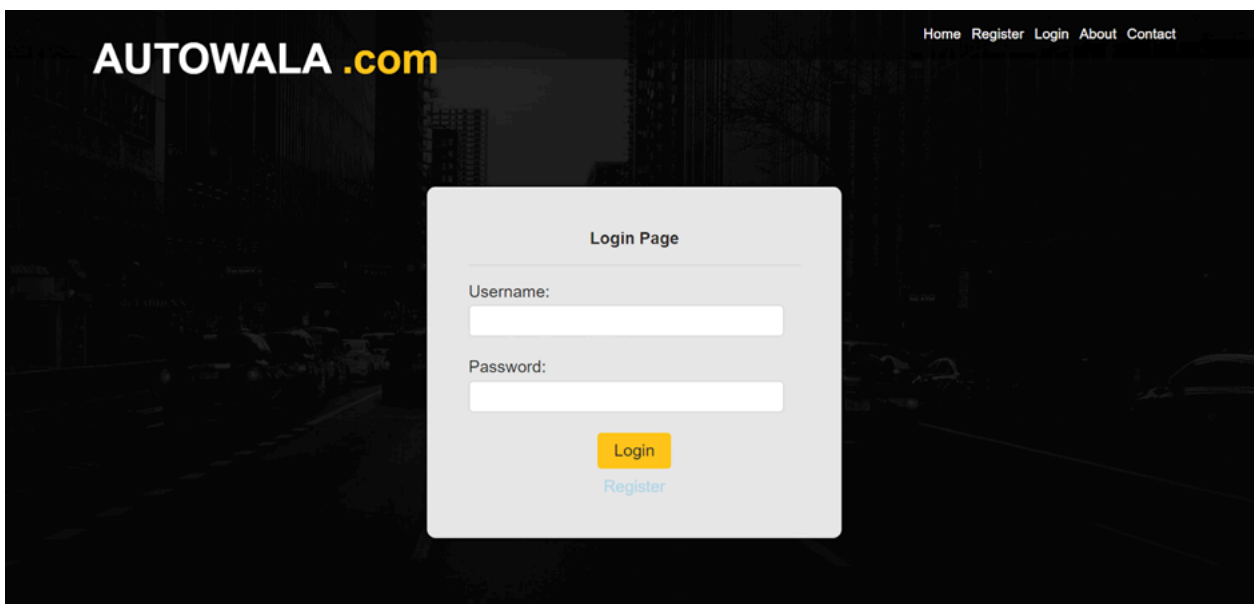


Fig5:Login Page

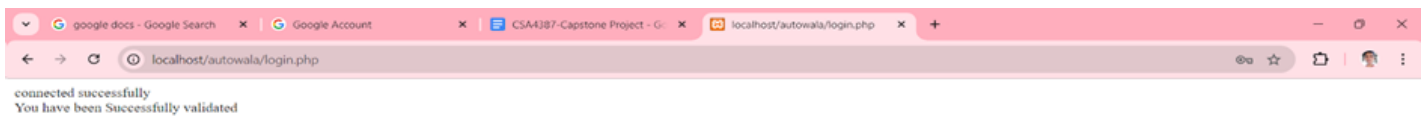


Fig6:Login Server Response

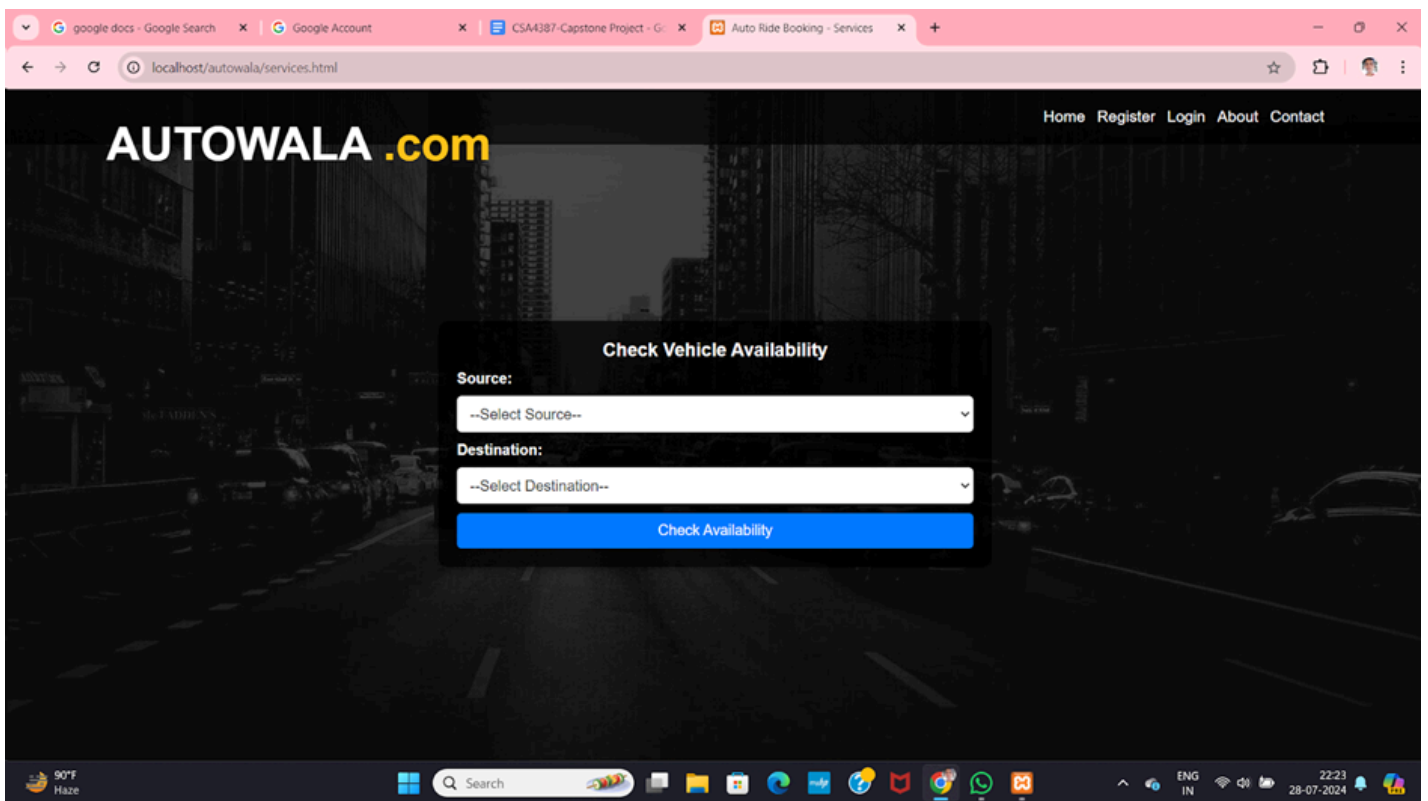


Fig7:Service Page

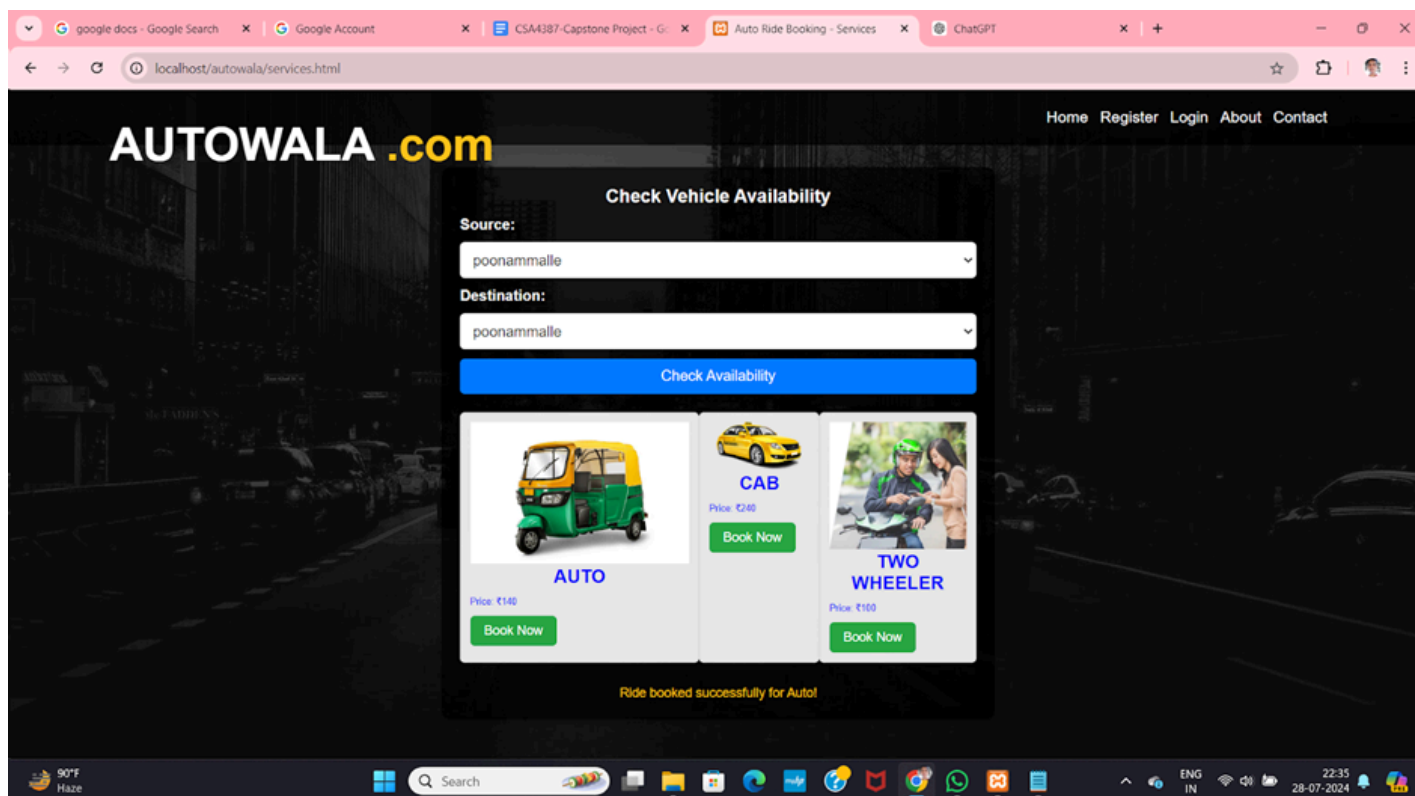


Fig8:Booking Page

Conclusion

AUTOWALA.com stands at the forefront of urban transportation innovation, offering a unified and dynamic platform that integrates cabs, autos, and bikes into a seamless user experience. By leveraging a modular design, the platform ensures high efficiency, flexibility, and scalability, addressing both current and future mobility needs. Its advanced features—such as real-time tracking, dynamic pricing, and secure payment processing—combine to deliver a superior travel experience while tackling urban congestion and environmental impact. As it stands, AUTOWALA.com not only meets but exceeds the demands of modern city commuters, setting a new standard in urban transportation management.

Future Enhancement

Looking ahead, AUTOWALA.com envisions expanding its capabilities to further revolutionize urban mobility. Future enhancements will focus on integrating emerging technologies such as autonomous vehicles and smart infrastructure to offer even more efficient and sustainable transportation solutions. We plan to incorporate machine learning algorithms for predictive analytics, allowing for smarter ride matching and dynamic route optimization. Additionally, expanding our platform to support multi-modal transport integrations, including electric scooters and shared mobility options, will cater to a broader range of user preferences and environmental goals. By continually evolving and embracing cutting-edge technology, AUTOWALA.com aims to stay ahead of the curve, ensuring it remains an indispensable tool for modern urban transportation.

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