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Government Polytechnic, Solapur

DIPLOMA IN COMPUTER TECHNOLOGY
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CAPSTONE PROJECT – EXECUTION & REPORT WRITING
(22060)

REPORT ON

Smart Traffic Control System For Ambulance

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“Smart Traffic Control System For Ambulance”

as a partial fulfilment for awarding the Diploma in Computer Technology by Maharashtra State Board of Technical Education, Mumbai for the academic year 2023-2024.

Project Guide

Head of Department

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Date:

Place: Solapur

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Place: Government Polytechnic, Solapur.

Date:

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Abstract

The Smart Traffic Control System for Ambulance prioritizes emergency response times by dynamically optimizing traffic flow in urban areas. Developed using HTML, CSS, JavaScript, and PHP, the system integrates real-time traffic data and ambulance locations to adjust traffic signals and route ambulances efficiently. Scheduling and resource allocation ensured systematic project execution, facilitating the development of key modules such as the user interface, traffic data processing, and database interaction. This abstract outlines the framework of the Smart Traffic Control System, poised to revolutionize emergency response operations and contribute to public safety in urban environments.

In conclusion, the Smart Ambulance Booking System represents a significant advancement in leveraging digital technology to enhance emergency medical services. By providing seamless access to ambulance assistance and optimizing dispatch processes, the system contributes to saving lives and promoting community well-being in today's fast-paced urban environments.

Introduction

In urban areas worldwide, traffic congestion remains a persistent challenge, often impeding the swift response of emergency medical services, particularly ambulances, to critical situations. Recognizing the critical need for efficient traffic management in emergency response scenarios, this paper presents the design and development of a Smart Traffic Control System tailored specifically for ambulances. Leveraging advancements in web technologies, including HTML, CSS, JavaScript, and PHP, this system aims to prioritize ambulance routes by dynamically optimizing traffic flow in real-time.

The introduction of this system addresses the pressing issue of delayed ambulance response times caused by traffic congestion, which can have life-threatening consequences for individuals in need of urgent medical assistance. By harnessing the power of real-time traffic data and ambulance location information, the Smart Traffic Control System facilitates the timely and efficient navigation of ambulances through congested urban environments.



CHAPTER 1

PLANNING

1.1 Feasibility Study - Objective

Assess the technical, economic, and operational feasibility of implementing the Smart Traffic Control System. Here's an overview of the key aspects to consider in the feasibility study:

i. Technical Feasibility:

- **Infrastructure:** Evaluate the technical requirements, including hardware and software, necessary for system development and deployment. Ensure compatibility and scalability with the chosen technology stack.
- **Development Team:** Assess the availability of skilled developers and technicians to build and maintain the system. Consider outsourcing options if in-house expertise is limited.
- **Integration:** Examine the feasibility of integrating third-party tools and APIs for real-time traffic data collection, ambulance tracking, and emergency dispatch systems.

ii. Economic Feasibility:

- **Cost Estimation:** Calculate the initial development costs, ongoing maintenance expenses, and infrastructure hosting fees. Ensure budget allocation aligns with project requirements.
- **Revenue Projections:** Estimate potential cost savings from improved ambulance response times and reduced traffic congestion. Consider the return on investment (ROI) and time to achieve profitability.

iii. Legal and Compliance Feasibility:

- **Legal Requirements:** Investigate legal aspects related to traffic management systems, emergency response protocols, and data privacy regulations.
- **Regulatory Compliance:** Identify any licenses, permits, or certifications required for operating the system legally. Ensure adherence to regulatory standards.

iv. Operational Feasibility:

- Assess the practicality and effectiveness of the system's day-to-day operations, including real-time traffic monitoring, ambulance routing, and emergency response coordination.
- Evaluate resource management, scalability, and risk mitigation strategies to ensure smooth system operation.

v. Marketing and Growth Feasibility:

- Assess the potential demand for the system among emergency response agencies, traffic management authorities, and municipalities.
- Identify effective marketing strategies to promote the system's adoption and expansion, considering factors such as market competition and target audience.

vi. Financial Feasibility :

- Evaluate the financial resources required for system development, deployment, and maintenance. Consider cost-effective hosting options and budget allocation for hardware and software.
- Ensure that the project's financial resources are utilized efficiently to avoid any financial crisis during development or operation.

vii. Risk feasibility :

- Identify potential risks and challenges associated with system development, deployment, and operation, such as technical issues, data security breaches, or regulatory compliance.
- Develop risk mitigation strategies and contingency plans to address identified risks and ensure project success.

1.2 Bar Chart

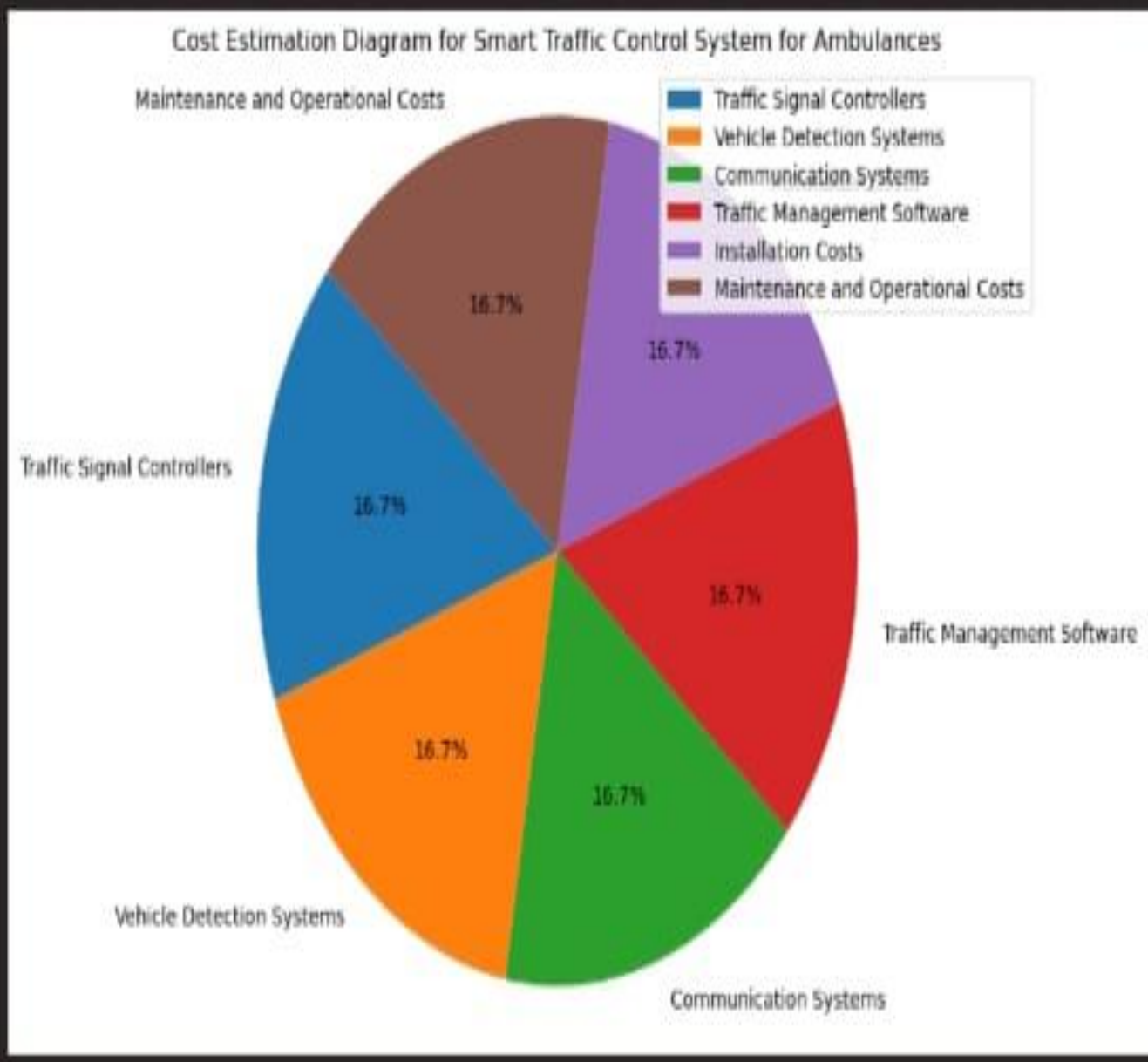


Image 1.2 BarChart diagram

1.3 Scheduling and Resources/responsibilities allocation

No.	Name	Roles & Responsibilities
1	Sanskruti Waghmare	Product Manager: Team Lead: Coordinates tasks. Full Stack Developer: Develops system. Database Administrator: Manages data. UI Designer: Designs interfaces. Content Provider: Provides info.
2	Akanksha Survase	Front-end Page - Full Stack Developer: Implements functionality. UI Designer: Creates user interfaces. Content Provider: Supplies product info.
3	Ranjeeta Arikiri	Login User/Admin Full Stack Developer: Implements features. Database Architect: Designs database. UI Designer: Designs interfaces. Content Provider: Contributes to docs.
4	Trisha Dhnane	Schedule Pickup: Full Stack Developer: Develops system. Database Architect: Designs data storage. UI Designer: Designs interfaces. Content Provider: Creates guides.
5	Vaishnavi Chitbone	Item Exchange: Database Architect: Structures data. UI Designer: Designs interfaces. Documentation Specialist: Creates docs.

CHAPTER 2

ANALYSIS

The market for smart traffic control systems for ambulance services is critical, driven by the paramount importance of efficient emergency response times and traffic management in urban environments. With urbanization trends on the rise globally, the need for innovative solutions to address traffic congestion and prioritize emergency vehicles has become increasingly urgent. While some cities may already have rudimentary traffic control systems in place, there remains significant room for improvement and innovation in this sector.

2.1 Problem statement

"In urban areas, traffic congestion poses a significant challenge to emergency response services, notably ambulances, delaying their arrival at critical medical situations. Existing traffic management systems lack the capability to prioritize ambulance routes effectively, resulting in potentially life-threatening delays. Thus, there is a pressing need for a Smart Traffic Control System tailored specifically for ambulances, capable of dynamically optimizing traffic flow to ensure swift and unimpeded access to medical emergencies. This system aims to mitigate the adverse effects of traffic congestion on ambulance response times, thereby enhancing the overall efficiency of emergency medical services and potentially saving lives."

2.2 Objectives of project

1. **Optimize Ambulance Response Times:** Develop a Smart Traffic Control System to prioritize ambulance routes, minimizing delays caused by traffic congestion and ensuring swift access to medical emergencies.
2. **Enhance Emergency Medical Services:** Improve the efficiency and effectiveness of emergency medical services by reducing the time taken for ambulances to reach critical situations.
3. **Minimize Patient Risk:** Decrease the risk to patients by expediting ambulance response times, thereby increasing the likelihood of timely

medical intervention and treatment.

4. Utilize Real-Time Data: Utilize real-time traffic data and predictive analytics to dynamically adjust traffic signals and routes, allowing ambulances to navigate through traffic more efficiently.

5. Ensure Safety and Reliability: Implement a robust and reliable system that prioritizes safety for both ambulance crews and other road users, minimizing the risk of accidents or disruptions.

.2.3 software/hardware requirements

Hardware requirements

Sr. No.	Resource	Broad Specifications
1	Processor	Intel core i5
2	Graphics	On board graphics card (NVIDIA)
3	RAM	8 GB
4	Storage	512 GB SSD

Software requirements

1	IDE	Notepad++,VS Code
2	Operating System	Microsoft Windows 11
3	System Type	64-bit Operating System
4	Frontend	HTML,CSS,Javascript
5	Backend	PHP MYSQL
6	IDE	VS Code

2.4 Constraints on project development

Constraints in project development are factors that can limit or impact the project in various ways. Identifying and understanding these constraints is crucial for effective project management.

➤ **Budgetary Limitations:**

Limited financial resources may constrain the scope of the project, impacting the implementation of advanced features or the scale of deployment.

➤ **Technological Challenges:**

Integrating complex technologies such as real-time data processing, GPS tracking, and dynamic traffic modeling may pose technical hurdles and require specialized expertise.

➤ **Regulatory Compliance:**

Adhering to regulations and standards governing traffic management systems, emergency response protocols, and data privacy laws may impose constraints on system design and functionality.

➤ **Infrastructure Compatibility:**

Compatibility with existing traffic infrastructure, emergency response systems, and communication networks may present challenges and require coordination with various stakeholders.

➤ **Resource Constraints:**

Limited availability of skilled personnel, equipment, and infrastructure for system development and deployment may impact project timelines and resource allocation.

➤ **Operational Considerations:**

Operational constraints such as limited access to real-time traffic data, varying traffic patterns, and emergency response protocols may influence system design and functionality.

➤ **Time Constraints:**

Project deadlines and timeframes may impose constraints on development, testing, and deployment phases, requiring efficient project management and prioritization of tasks.

➤ **Risk Management:**

Identification and mitigation of potential risks, such as system failures, data breaches, and unforeseen events, are essential to minimize constraints and ensure project success.

2.5 Functional requirements

➤ **Real-time Traffic Monitoring:**

The system should continuously monitor traffic conditions in designated areas, including congestion levels, road closures, and accidents.

➤ **Ambulance Tracking and Prioritization:**

Ambulance locations should be tracked in real-time, and routes should be dynamically prioritized to minimize response times during emergencies.

➤ **Traffic Signal Adjustment:**

The system should be able to adjust traffic signal timings in real-time to create green corridors for ambulances, facilitating their swift passage through intersections.

➤ **Emergency Call Integration:**

Integration with emergency dispatch systems to receive real-time emergency call data and prioritize ambulance routes accordingly.

➤ **User Interface for Administrators:**

A user-friendly interface for system administrators to configure settings, monitor traffic data, and manage emergency response protocols.

➤ **User Interface for Emergency Responders:**

A dedicated interface for emergency responders to view prioritized ambulance routes, traffic conditions, and incident alerts.

➤ **Reporting and Analytics:**

Generate reports on ambulance response times, traffic congestion trends, and system performance metrics for analysis and optimization.

➤ **Integration with Traffic Management Infrastructure:**

Seamless integration with existing traffic management systems, including traffic cameras, sensors, and control centers, to leverage real-time data for decision-making.

➤ **Scalability and Flexibility:**

The system should be scalable to accommodate future growth and adaptable to different urban environments and traffic scenarios.

➤ **Data Security and Privacy:**

Ensure the security and privacy of sensitive data, including ambulance locations, emergency call information, and system configurations.

➤ **Emergency Override Mechanism:**

Implement an emergency override mechanism to prioritize ambulance routes and override regular traffic signals in emergency situations.

➤ **System Alerts and Notifications:**

Provide real-time alerts and notifications to administrators and emergency responders for critical incidents, system failures, or operational issues.

➤ **Backup and Redundancy:**

Implement backup systems and redundancy measures to ensure system reliability and continuity of operations in case of hardware or software failures.

➤ **Compliance with Regulations:**

Ensure compliance with regulations and standards governing traffic management systems, emergency response protocols, and data privacy laws.

➤ **Training and Support:**

Provide training and support to system administrators, emergency responders, and other stakeholders to effectively utilize and maintain the system.

2.6 Performance Requirements

Performance requirements are essential to ensure that the Smart Traffic Control System for Ambulance meets the demands of emergency response operations and delivers a reliable and efficient service to users under various conditions. These requirements should be measurable and testable to validate the system's performance capabilities effectively.

Performance Requirements for Smart Traffic Control System for Ambulance:

i. Response Time:

- The system should respond to emergency calls and update ambulance routes within X seconds to ensure swift response times during critical situations.

ii. Throughput:

- The system must efficiently process real-time traffic data and prioritize ambulance routes to handle high volumes of emergency calls and traffic incidents effectively.

iii. Scalability:

- The system should be scalable to accommodate increasing traffic volumes and emergency response demands, allowing for seamless expansion of resources such as servers and network bandwidth.

iv. Concurrency:

- The system should support a large number of concurrent users, including emergency responders, traffic management authorities, and administrators, without significant performance degradation.

v. Load Handling:

- The system must be capable of handling peak loads during emergencies, such as accidents or natural disasters, ensuring uninterrupted service and optimal traffic management.

vi. Resource Utilization:

- The system should efficiently utilize system resources, including CPU, memory, and network bandwidth, to minimize strain on the hosting environment and ensure smooth operation.

vii. Availability:

- The system should maintain a high level of availability, with minimal downtime for maintenance or upgrades, ensuring continuous operation during critical situations.

viii. Reliability:

- The system should be reliable and stable, with minimal risk of crashes or failures, ensuring uninterrupted emergency response operations.

ix. Data Retrieval Time:

- The time taken to retrieve real-time traffic data and update ambulance routes should meet specific criteria to ensure timely response to changing traffic conditions.

x. Caching:

- Implement caching mechanisms to optimize data retrieval and response times, reducing the load on servers and improving overall system performance.

xi. Network Latency:

- Minimize network latency to ensure timely communication between system components and external services, enabling efficient data exchange and coordination.

xii. Error Handling Time:

- The system should promptly detect and handle errors, providing meaningful error messages to users within a specified time frame to facilitate quick resolution and minimize disruption to operations.

2.7 Acceptance criterion

For User Interface Module:

1. User Registration:

- Users can register with unique usernames, valid phone numbers, and email addresses.
- Upon registration, users receive verification emails to activate their accounts.

2. Traffic Information Display:

- The user interface displays real-time traffic information, including congestion levels, road closures, and accidents, accurately and promptly.
- Users can easily navigate and interact with the traffic information displayed on the interface.

3. Ambulance Request Submission:

- Users can submit ambulance requests through the user interface by providing necessary details such as location and nature of emergency.
- Confirmation messages are displayed upon successful submission of ambulance requests.

4. Emergency Alerts:

- Users receive immediate alerts and notifications for emergency situations, ensuring timely response and action.

For Traffic Data Collection Module:

1. Data Accuracy:

- The traffic data collection module accurately collects and updates real-time traffic information from various sources, including sensors, cameras, and GPS trackers.
- Data collected is reliable and reflects actual traffic conditions on the road.

2. Data Integration:

- Traffic data collected from different sources is integrated seamlessly to provide a comprehensive overview of traffic conditions in the area.

3. Data Processing Speed:

- The module processes traffic data efficiently and in real-time, ensuring minimal delays in updating traffic information on the user interface.

4. Data Security:

- Measures are in place to secure traffic data collected, including encryption protocols and access controls, to prevent unauthorized access or tampering.

For Admin Module:

1. Admin Login:

- Admin can log in securely using valid credentials.
- Incorrect login attempts are restricted to maintain system security.

- Manage users, roles, and permissions.
- Configure traffic signal settings and emergency response policies.
- Monitor real-time traffic data and ambulance locations.
- Generate reports and analyze system performance.
- Handle errors and log system events.
- Perform system maintenance tasks.
- Communicate internally and collaborate with external agencies.
- Enforce security measures and access control

2. Traffic Data Management

- Admin can manage and update traffic data displayed on the user interface, including adding new data sources, editing existing data, and removing outdated information.

3. Ambulance Dispatch:

- Admin can view and manage incoming ambulance requests submitted through the user interface.
- Admin can dispatch ambulances to specific locations based on the severity of emergencies and available resources.

4. Emergency Response Coordination:

- Admin can coordinate emergency response efforts by communicating with emergency responders, traffic management authorities, and other relevant stakeholders.

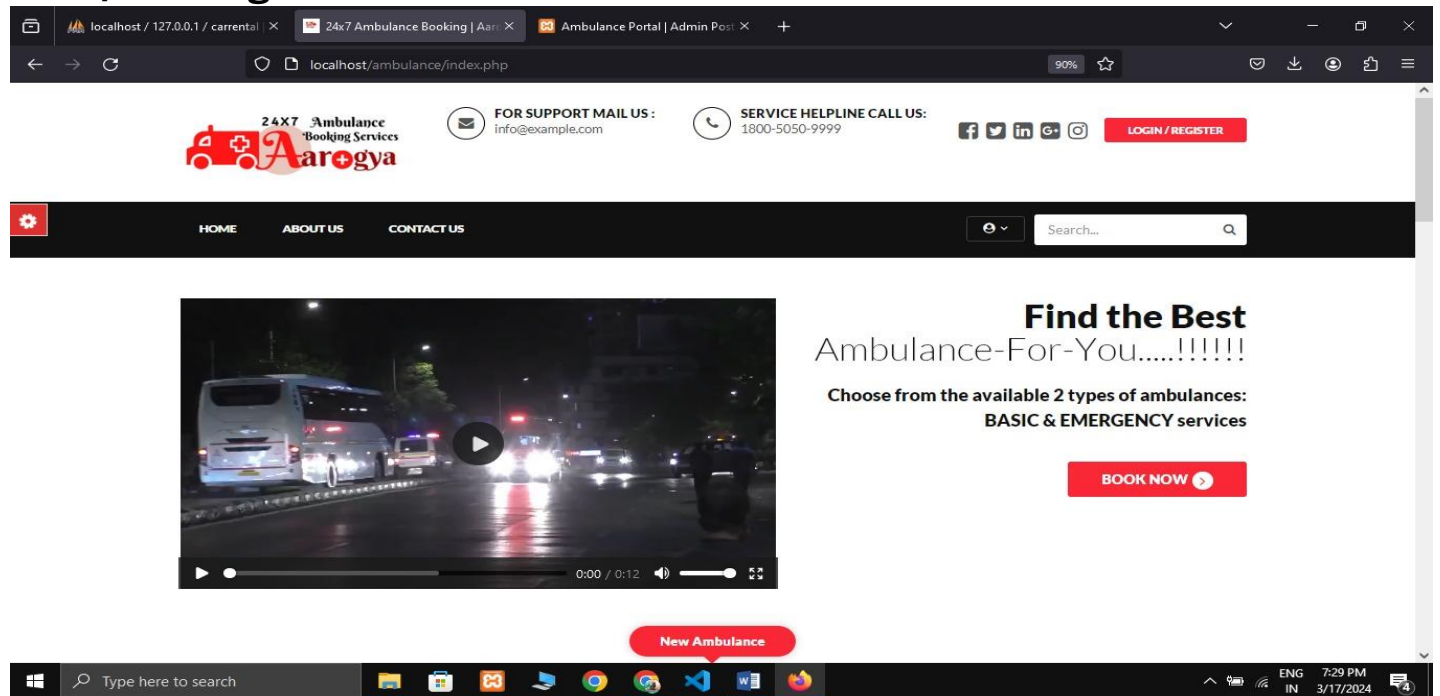
5. System Configuration:

- Admin has the authority to configure system settings, including user access permissions, notification preferences, and emergency response protocols.

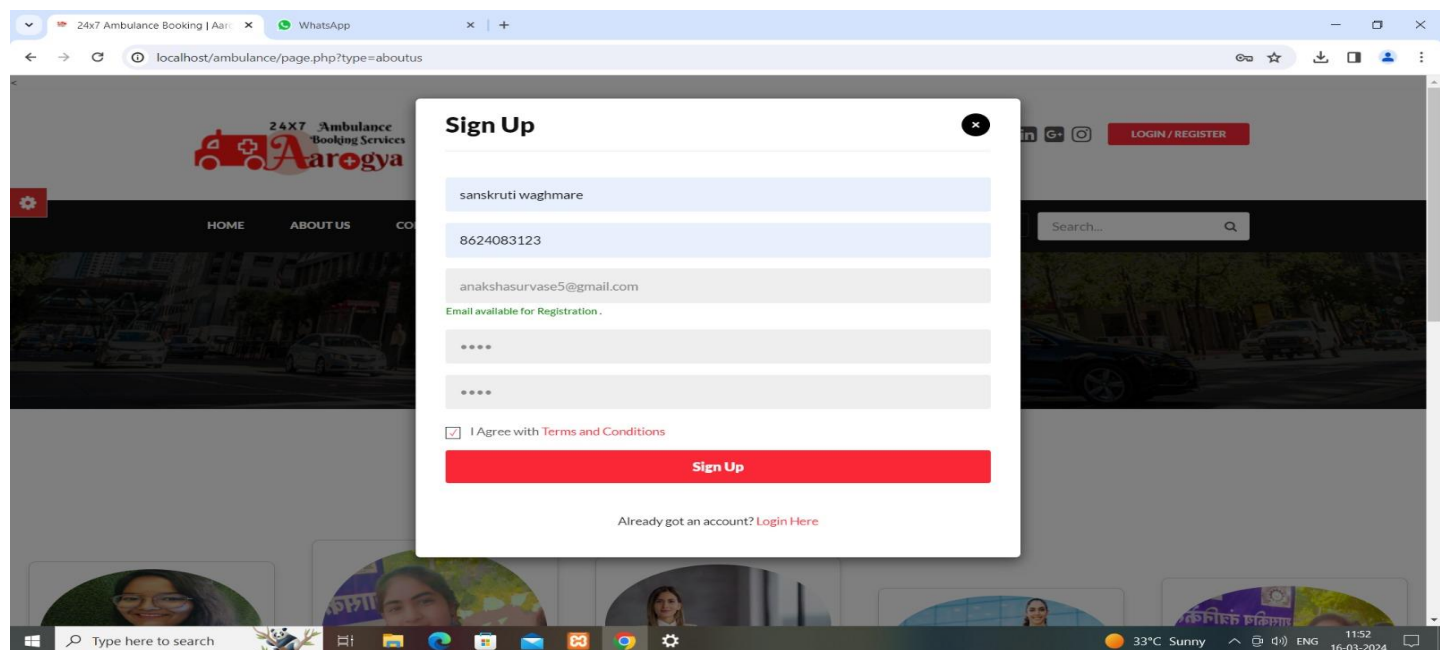
CHAPTER 3

DESIGN

3.1 I/O Design



- **Registration**



ContactUs

CarForYou - Responsive Car De x WhatsApp x +

localhost/ambulance/contact-us.php

Get in touch using the form below

Full Name *

Email Address *

Phone Number *

Message *

Send Message

33°C Sunny 11:49 16-03-2024

• Booking

CarForYou - Responsive Car De x WhatsApp x +

localhost/ambulance/my-booking.php

My Booking

Home > My Booking

sanskruti waghmare

Profile Settings

Update Password

My Booking

Post a Testimonial

My Testimonials

MY BOOIKNGS

Hyundai , Ambulance

From Date: 2/3/24

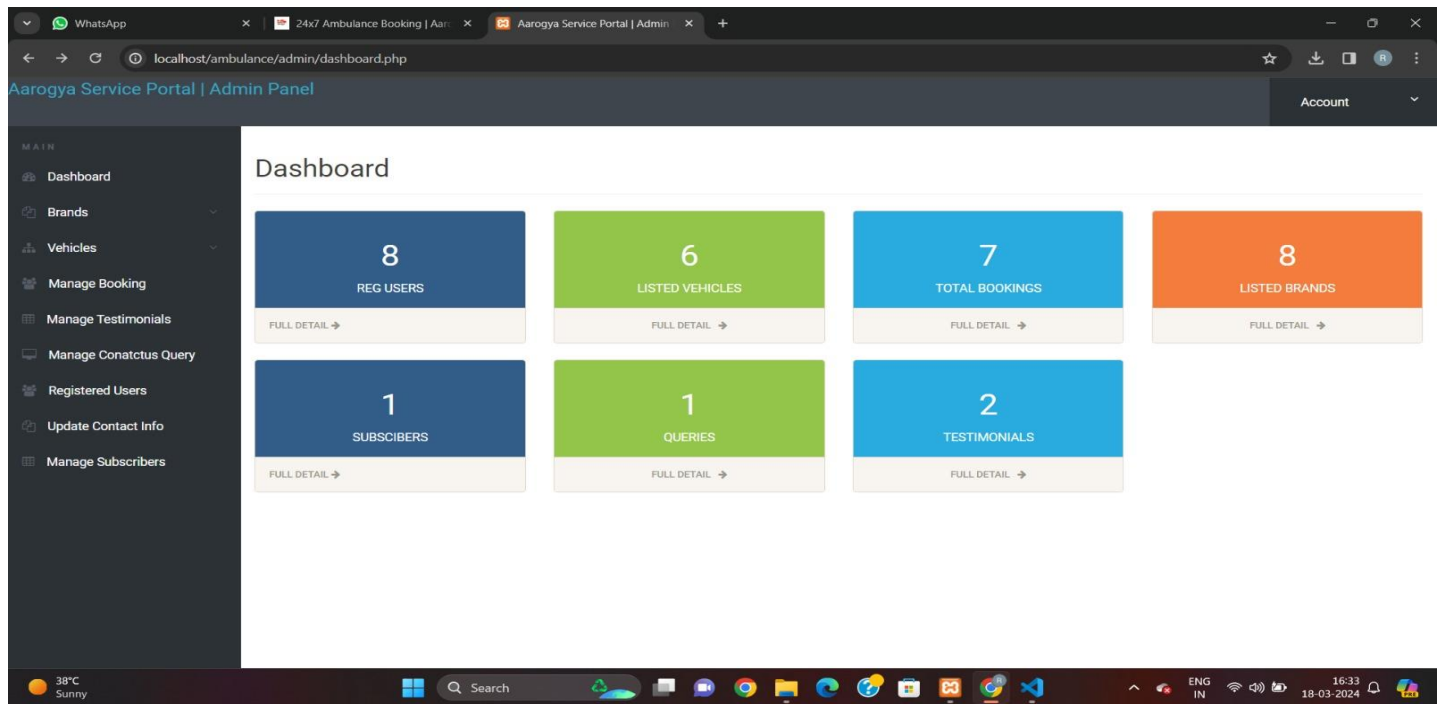
To Date: 5/3/24

Not Confirm yet

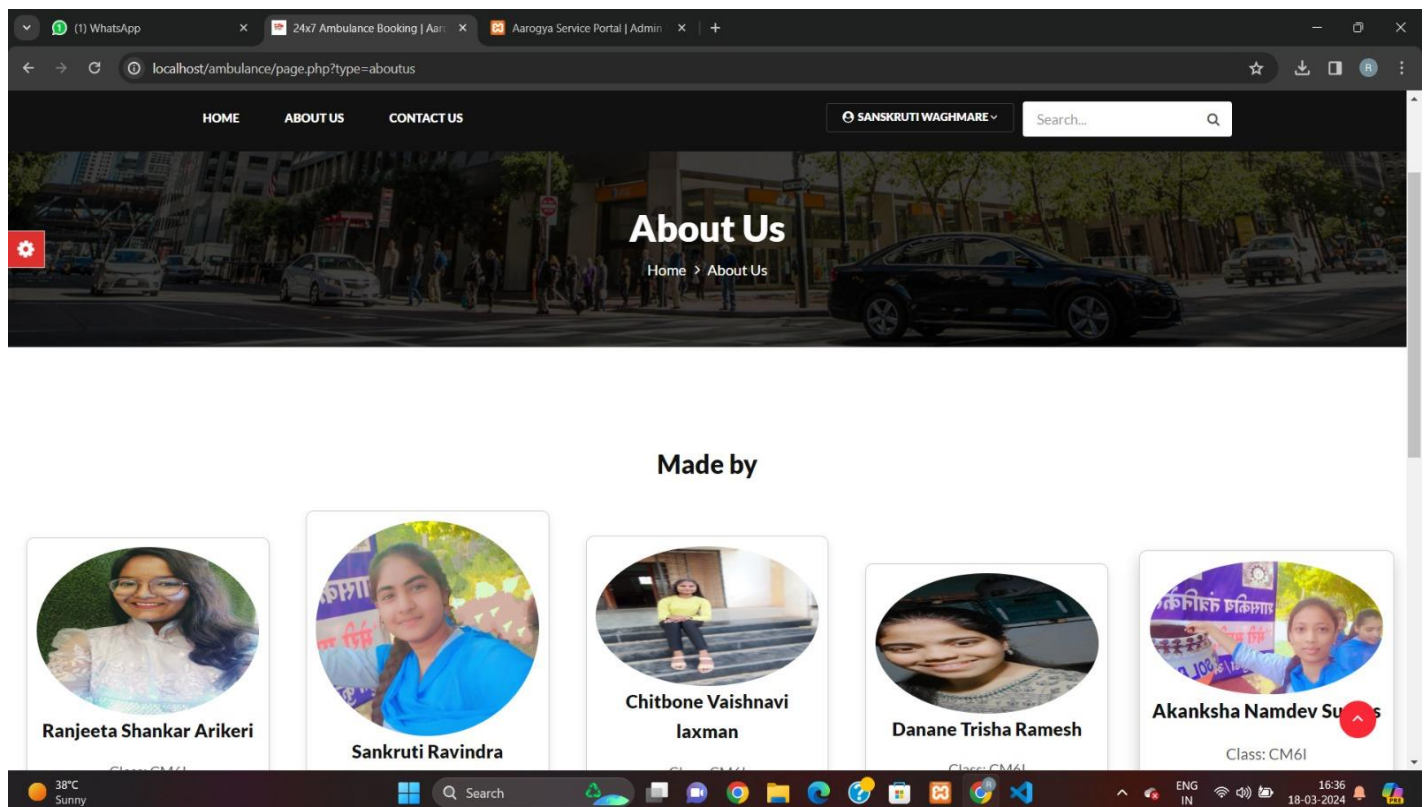
Message: doing great

33°C Sunny 11:57 16-03-2024

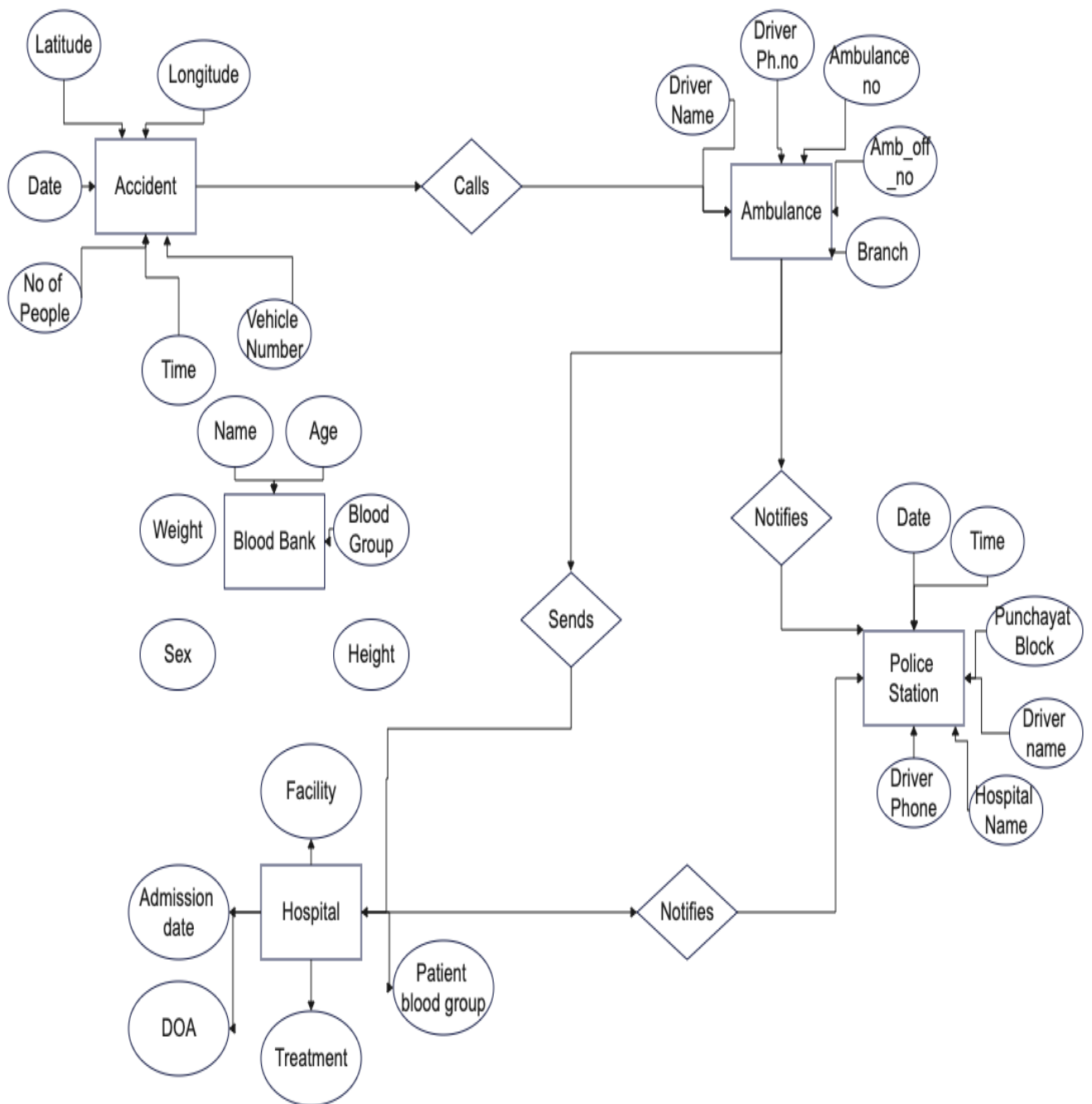
Admin



- **About Us**

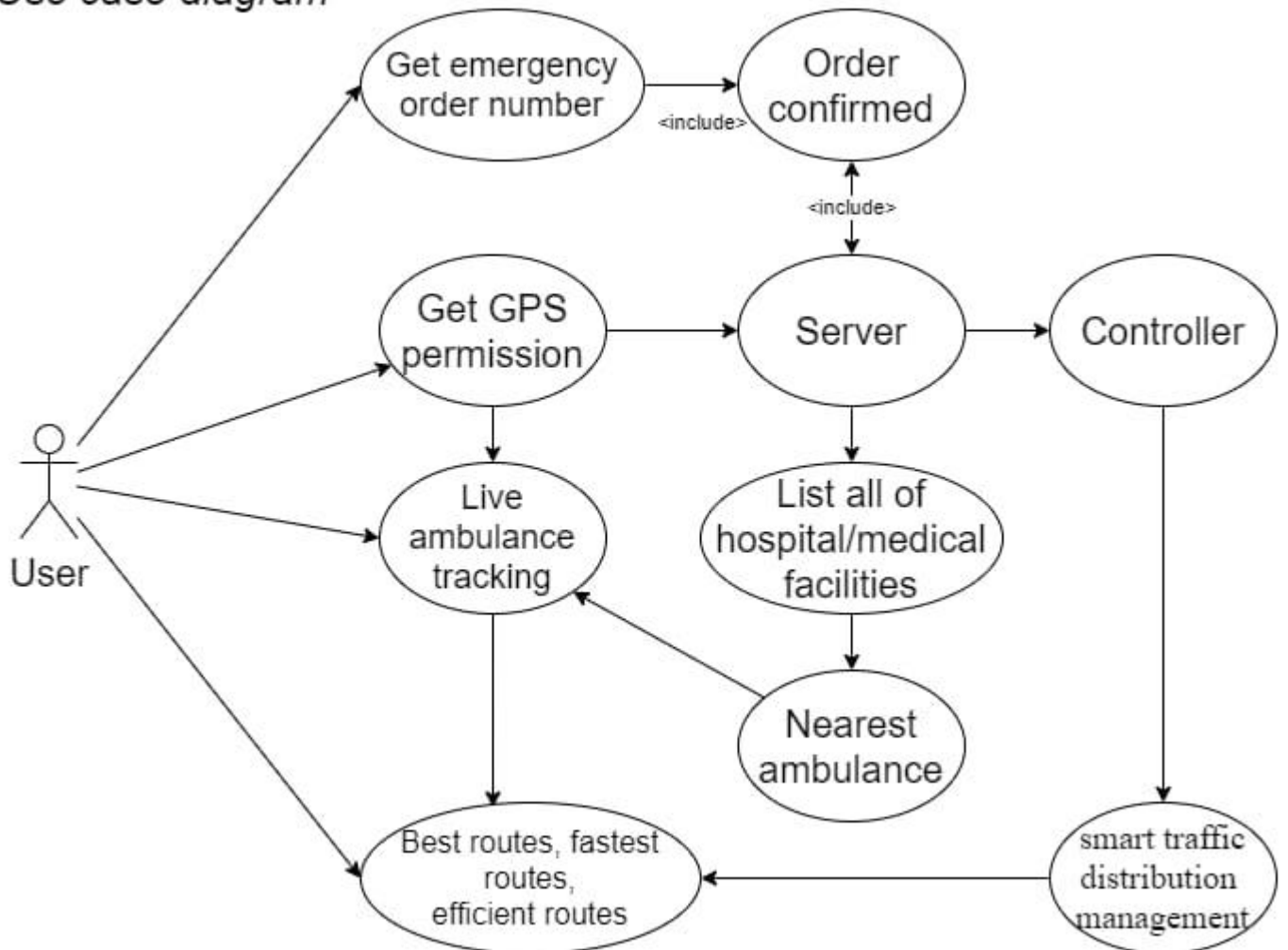


ER Diagram:



Use case digram

Use case diagram



CHAPTER 4

CODING

4.1 Languages/tools used

1. Development Tools:

- Integrated Development Environment (IDE) such as Visual Studio Code and Notepad++ for coding and project management.

2. Programming Languages:

- Backend: PHP for server-side scripting to handle dynamic content generation and database interaction.
- Frontend: HTML, CSS, and JavaScript for creating the user interface and enhancing user experience.

3. Web Server:

- Utilizing XAMP (Windows, Apache, MySQL, PHP) or XAMPP (Cross-platform, Apache, MySQL, PHP, Perl) as local web server environments for development and testing purposes.

4. Database Management System:

- MySQL as the database management system (DBMS) for storing and managing user data efficiently.

5. Application Framework:

- Implementing web application frameworks like Bootstrap for frontend development to streamline the design process and ensure consistency across different devices and browsers.

4.2 Justification for Selection of Languages/Tools:

- HTML:

- HTML is chosen for its ability to structure web pages semantically and facilitate the embedding of multimedia content and interactive forms. It provides essential elements for creating structured documents and is widely supported by web browsers.

- **CSS:**

- CSS is utilized to separate presentation from content, allowing for enhanced control over layout, colors, and fonts. It promotes consistency in styling across web pages and improves content accessibility.

- **JavaScript:**

- JavaScript is indispensable for enhancing web page behavior and interactivity. With its support for event-driven, functional, and imperative programming styles, JavaScript enables dynamic updates and responsiveness in web applications.

- **PHP (Backend):**

- PHP is selected for its versatility in server-side scripting and its extensive ecosystem of frameworks and libraries. Despite previous performance concerns, recent versions of PHP have improved speed and efficiency, making it a suitable choice for dynamic website development.

- **XAMPP (Server):**

- WAMP and XAMPP provide comprehensive local web server environments, including Apache as the web server, MySQL as the database server, and PHP as the server-side scripting language. These tools simplify the setup process and facilitate seamless development and testing of web applications.

- **MySQL (Database):**

- MySQL is favored for its reliability, performance, and ease of use as an open-source RDBMS. Its compatibility with multiple platforms and programming languages makes it ideal for web development, offering features such as ACID compliance and scalability.

By leveraging this combination of languages and tools, the project aims to achieve efficient development, seamless integration, and optimal performance of the smart traffic control system for ambulances.

4.3 Important Modules :

Modules Overview for Smart Traffic Control System for Ambulance:

1. User Interface Module:

- Provides a user-friendly interface for emergency responders and traffic management authorities.
- Displays real-time traffic information, including congestion levels, road closures, and accidents.
- Facilitates the submission of ambulance requests and displays prioritized routes for emergency response.

2. Traffic Data Collection Module:

- Collects real-time traffic data from various sources, including sensors, cameras, and GPS trackers.
- Integrates collected data to provide comprehensive insights into traffic conditions.
- Processes data efficiently to update traffic information on the user interface in real-time.

3. Admin Module:

- Allows administrators to securely log in and access the system's administrative functions.
 - Enables administrators to manage traffic data, prioritize ambulance routes, and coordinate emergency response efforts.
 - Provides tools for configuring system settings, managing user access, and generating reports for analysis.
-
- Manage users, roles, and permissions.
 - Configure traffic signal settings and emergency response policies.
 - Monitor real-time traffic data and ambulance locations.
 - Generate reports and analyze system performance.
 - Handle errors and log system events.
 - Perform system maintenance tasks.
 - Communicate internally and collaborate with external agencies.
 - Enforce security measures and access control

Code : Index.php

```
<?php
session_start();
include('includes/config.php');
error_reporting(0);
?>

<!DOCTYPE HTML>
<html lang="en">
<head>
<meta http-equiv="Content-Type" content="text/html; charset=utf-8">
<meta http-equiv="X-UA-Compatible" content="IE=edge">
<meta name="viewport" content="width=device-width,initial-scale=1">
<meta name="keywords" content="">
<meta name="description" content="">
<title>24x7 Ambulance Booking | Aarogya Services</title>
<!--Bootstrap -->
<link rel="stylesheet" href="assets/css/bootstrap.min.css" type="text/css">
<link rel="stylesheet" href="assets/css/style.css" type="text/css">
<link rel="stylesheet" href="assets/css/owl.carousel.css" type="text/css">
<link rel="stylesheet" href="assets/css/owl.transitions.css" type="text/css">
<link href="assets/css/slick.css" rel="stylesheet">
<link href="assets/css/bootstrap-slider.min.css" rel="stylesheet">
<link href="assets/css/font-awesome.min.css" rel="stylesheet">
    <link rel="stylesheet" id="switcher-css" type="text/css"
href="assets/switcher/css/switcher.css" media="all" />
    <link rel="alternate stylesheet" type="text/css" href="assets/switcher/css/red.css"
title="red" media="all" data-default-color="true" />
    <link rel="alternate stylesheet" type="text/css" href="assets/switcher/css/orange.css"
title="orange" media="all" />
    <link rel="alternate stylesheet" type="text/css" href="assets/switcher/css/blue.css"
title="blue" media="all" />
    <link rel="alternate stylesheet" type="text/css" href="assets/switcher/css/pink.css"
title="pink" media="all" />
    <link rel="alternate stylesheet" type="text/css" href="assets/switcher/css/green.css"
title="green" media="all" />
    <link rel="alternate stylesheet" type="text/css" href="assets/switcher/css/purple.css"
title="purple" media="all" />
<link rel="apple-touch-icon-precomposed" sizes="144x144" href="assets/images/favicon-
icon/apple-touch-icon-144-precomposed.png">
<link rel="apple-touch-icon-precomposed" sizes="114x114" href="assets/images/favicon-
icon/apple-touch-icon-114-precomposed.html">
<link rel="apple-touch-icon-precomposed" sizes="72x72" href="assets/images/favicon-
icon/apple-touch-icon-72-precomposed.png">
<link rel="apple-touch-icon-precomposed" href="assets/images/favicon-icon/apple-touch-icon-
57-precomposed.png">
```

```

<link rel="shortcut icon" href="assets/images/favicon-icon/favicon.png">
<link href="https://fonts.googleapis.com/css?family=Lato:300,400,700,900" rel="stylesheet">
</head>
<body>

<!-- Start Switcher -->
<?php include('includes/colourswitcher.php');?>
<!-- /Switcher -->

<!--Header-->
<?php include('includes/header.php');?>
<!-- /Header -->

<div class="container" style="margin-top: 50px;">
    <div class="row">
        <!-- Left Column with YouTube Video -->
        <div class="col-md-5">
            <video width="640" height="360" controls>
                <source src="assets/images/vedio.mp4" type="video/mp4">
                Your browser does not support the video tag.
            </video>
        </div>

        <!-- Right Column with Text and Button -->
        <div class="col-md-7">
            <div class="text-right">
                <h2>Find the Best <span class="moving-
text"><span>A</span><span>m</span><span>b</span><span>u</span><span>l</span><span>a</span><sp
an>n</span><span>c</span><span>e</span><span>-
</span><span>F</span><span>o</span><span>r</span><span>-
</span><span>Y</span><span>o</span><span>u...!!!!!!</span></span></h2>
                <h5>Choose from the available 2 types of ambulances:<br> BASIC & EMERGENCY
services</h5><br>
                <a href="index.php" class="btn">BOOK NOW<span class="angle_arrow"><i
class="fa fa-angle-right" aria-hidden="true"></i></span></a>
            </div>
        </div>
    </div>
</div><br><br>

<!-- /Banners -->

<style>
    @keyframes move {
        0% { transform: translateY(0); }
        50% { transform: translateY(-5px); }
        100% { transform: translateY(0); }

```

```

}

.moving-text {
  display: inline-block;
  animation: move 2s infinite;
}
</style>
<style>
  @keyframes fadeIn {
    0% { opacity: 0; }
    100% { opacity: 1; }
  }

.moving-text span {
  opacity: 0;
  display: inline-block;
  animation: fadeIn 0.5s forwards;
}

.moving-text span:nth-child(1) { animation-delay: 0s; }
.moving-text span:nth-child(2) { animation-delay: 0.1s; }
.moving-text span:nth-child(3) { animation-delay: 0.2s; }
.moving-text span:nth-child(4) { animation-delay: 0.3s; }
.moving-text span:nth-child(5) { animation-delay: 0.4s; }
.moving-text span:nth-child(6) { animation-delay: 0.5s; }
.moving-text span:nth-child(7) { animation-delay: 0.6s; }
.moving-text span:nth-child(8) { animation-delay: 0.7s; }
.moving-text span:nth-child(9) { animation-delay: 0.8s; }
.moving-text span:nth-child(10) { animation-delay: 0.9s; }
.moving-text span:nth-child(11) { animation-delay: 1s; }
.moving-text span:nth-child(12) { animation-delay: 1.1s; }
.moving-text span:nth-child(13) { animation-delay: 1.2s; }
.moving-text span:nth-child(14) { animation-delay: 1.3s; }
.moving-text span:nth-child(15) { animation-delay: 1.4s; }
.moving-text span:nth-child(16) { animation-delay: 1.5s; }
.moving-text span:nth-child(17) { animation-delay: 1.6s; }
.moving-text span:nth-child(18) { animation-delay: 1.7s; }
.moving-text span:nth-child(19) { animation-delay: 1.8s; }
.moving-text span:nth-child(20) { animation-delay: 1.9s; }
.moving-text span:nth-child(21) { animation-delay: 2s; }
</style>
</head>
<!-- Resent Cat-->

<div class="row">

  <!-- Nav tabs -->
  <div class="recent-tab">
    <ul class="nav nav-tabs" role="tablist">

```

```

        <li role="presentation" class="active"><a href="#resentnewcar" role="tab" data-
toggle="tab">New Ambulance</a></li>
    </ul>
</div>
<!-- Recently Listed Cars -->
<div class="tab-content">
    <div role="tabpanel" class="tab-pane active" id="resentnewcar">

<?php $sql = "SELECT
tblvehicles.VehiclesTitle,tblbrands.BrandName,tblvehicles.PricePerDay,tblvehicles.FuelType,tb
lvehicles.ModelYear,tblvehicles.id,tblvehicles.SeatingCapacity,tblvehicles.VehiclesOverview,t
blvehicles.Vimage1 from tblvehicles join tblbrands on
tblbrands.id=tblvehicles.VehiclesBrand";
$query = $dbh -> prepare($sql);
$query->execute();
$results=$query->fetchAll(PDO::FETCH_OBJ);
$cnt=1;
if($query->rowCount() > 0)
{
foreach($results as $result)
{
?>

<div class="col-list-3">
<div class="recent-car-list">
<div class="car-info-box"> <a href="vehical-details.php?vhid=?php echo htmlentities($result-
>id);?>"></a>
<ul>
<li><i class="fa fa-car" aria-hidden="true"></i><?php echo htmlentities($result-
>FuelType);?></li>
<li><i class="fa fa-calendar" aria-hidden="true"></i><?php echo htmlentities($result-
>ModelYear);?> Model</li>
<li><i class="fa fa-user" aria-hidden="true"></i><?php echo htmlentities($result-
>SeatingCapacity);?> seats</li>
</ul>
</div>
<div class="car-title-m">
<h6><a href="vehical-details.php?vhid=?php echo htmlentities($result->id);?>"><?php echo
htmlentities($result->BrandName);?> , <?php echo htmlentities($result-
>VehiclesTitle);?></a></h6>
<span class="price">$<?php echo htmlentities($result->PricePerDay);?> /Day</span>
</div>
<div class="inventory_info_m">
<p><?php echo substr($result->VehiclesOverview,0,70);?></p>
</div>
</div>
</div>
<?php }?>

```



```

        </div>
    </div>
</div>
</section>
<!-- Fun Facts-->
<section class="section-padding fun-facts-section parallex-bg">

    <div class="container div_zindex">
        <div class="row">
            <div class="col-lg-3 col-xs-6 col-sm-3">
                <div class="fun-facts-m">
                    <div class="cell">
                        <h2><i class="fa fa-calendar" aria-hidden="true"></i>24 x 7</h2>
                        <p>service</p>
                    </div>
                </div>
            </div>
            <div class="col-lg-3 col-xs-6 col-sm-3">
                <div class="fun-facts-m">
                    <div class="cell">
                        <h2><i class="fa fa-car" aria-hidden="true"></i>We are</h2>
                        <p>Hiring Drivers</p>
                    </div>
                </div>
            </div>
            <div class="col-lg-3 col-xs-6 col-sm-3">
                <div class="fun-facts-m">
                    <div class="cell">
                        <h2><i class="fa fa-car" aria-hidden="true"></i>Leave </h2>
                        <p>Feedbacks</p>
                    </div>
                </div>
            </div>
            <div class="col-lg-3 col-xs-6 col-sm-3">
                <div class="fun-facts-m">
                    <div class="cell">
                        <h2><i class="fa fa-user-circle-o" aria-hidden="true"></i>100+</h2>
                        <p>Satisfied Customers</p>
                    </div>
                </div>
            </div>
        </div>
    </div>
    <!-- Dark Overlay-->
    <div class="dark-overlay"></div>
</section>
<!-- /Fun Facts-->

```

```

<!--Testimonial -->
<section class="section-padding testimonial-section parallex-bg">
    <div class="container div_zindex">

        <div class="row">
            <div id="testimonial-slider">
<?php
$tid=1;
$sql = "SELECT tbltestimonial.Testimonial,tblusers.FullName from tbltestimonial join tblusers
on tbltestimonial.UserEmail=tblusers.EmailId where tbltestimonial.status=:tid";
$query = $dbh -> prepare($sql);
$query->bindParam(':tid',$tid, PDO::PARAM_STR);
$query->execute();
$results=$query->fetchAll(PDO::FETCH_OBJ);
$cnt=1;
if($query->rowCount() > 0)
{
foreach($results as $result)
{    ?>

            <div class="testimonial-m">

                <div class="testimonial-content">
                    <div class="testimonial-heading">
                        <h5><?php echo htmlentities($result->FullName);?></h5>
                        <p><?php echo htmlentities($result->Testimonial);?></p>
                    </div>
                </div>
            </div>
            <div>
                <?php }} ?>
            </div>
        </div>
        <!-- Dark Overlay-->
        <div class="dark-overlay"></div>
    </section>
<!-- /Testimonial-->

<!--Footer -->
<?php include('includes/footer.php');?>
<!-- /Footer-->

<!--Back to top-->
<div id="back-top" class="back-top"> <a href="#top"><i class="fa fa-angle-up" aria-
hidden="true"></i> </a> </div>
<!--/Back to top-->

```

```
<!--Login-Form -->
<?php include('includes/login.php');?>
<!--/Login-Form -->

<!--Register-Form -->
<?php include('includes/registration.php');?>

<!--/Register-Form -->

<!--Forgot-password-Form -->
<?php include('includes/forgotpassword.php');?>
<!--/Forgot-password-Form -->

<!-- Scripts -->
<script src="assets/js/jquery.min.js"></script>
<script src="assets/js/bootstrap.min.js"></script>
<script src="assets/js/interface.js"></script>
<!--Switcher-->
<script src="assets/switcher/js/switcher.js"></script>
<!--bootstrap-slider-JS-->
<script src="assets/js/bootstrap-slider.min.js"></script>
<!--Slider-JS-->
<script src="assets/js/slick.min.js"></script>
<script src="assets/js/owl.carousel.min.js"></script>
</body>
<!-- Mirrored from themes.webmasterdriver.net/carforyou/demo/index.html by HTTrack Website
Copier/3.x [XR&CO'2014], Fri, 16 Jun 2017 07:22:11 GMT -->
</html>
```



FOR SUPPORT MAIL US :
info@example.com

SERVICE HELPLINE CALL US:
1800-5050-9999

Welcome To The Portal



HOME

ABOUT US

CONTACT US

SANSKRUTI WAGHMARE

Search...



Find the Best Ambulance-For-You.....!!!!!!

Choose from the available 2 types of ambulances:
BASIC & EMERGENCY services

BOOK NOW

New Ambulance

New Ambulance



Maruti , Ambulance

\$5 /Day

Ambulances are specialized vehicles equipped with medical supplies and



Nissan , Ambulance Car

\$2 /Day

An ambulance is like a mobile hospital on wheels, rushing to the scene



Nissan , Ambulance

\$4 /Day

Ambulances are a critical lifeline in emergency situations, offering s



<!-- Contact-us -->

<section class="contact_us section-padding">

<div class="container" style="margin-top: 50px;">

```

<div class="row">
  <!-- Left Column with YouTube Video -->
  <div class="col-md-5">

     <br><br>

  </div>

  <!-- Place your image here -->
  <div class="col-md-7">
    <h3>Get in touch using the form below</h3>
    <?php if($error){?><div class="errorWrap"><strong>ERROR</strong>:<?php echo
htmlentities($error); ?> </div><?php }
    else if($msg){?><div class="succWrap"><strong>SUCCESS</strong>:<?php echo
htmlentities($msg); ?> </div><?php }?>
    <div class="contact_form grey-bg">
      <form method="post">
        <div class="form-group">
          <label class="control-label">Full Name <span>*</span></label>
          <input type="text" name="fullname" class="form-control white_bg" id="fullname"
required>
        </div>
        <div class="form-group">
          <label class="control-label">Email Address <span>*</span></label>
          <input type="email" name="email" class="form-control white_bg"
id="emailaddress" required>
        </div>
        <div class="form-group">
          <label class="control-label">Phone Number <span>*</span></label>
          <input type="text" name="contactno" class="form-control white_bg"
id="phonenumber" required>
        </div>
        <div class="form-group">
          <label class="control-label">Message <span>*</span></label>
          <textarea class="form-control white_bg" name="message" rows="4"
required></textarea>
        </div>
        <div class="form-group">
          <button class="btn" type="submit" name="send">Send Message <span
class="angle_arrow"><i class="fa fa-angle-right" aria-hidden="true"></i></span></button>
        </div>
      </form>
    </div>
  </div>

```

```

        </div>
    </div>
</section>
    </div>

<!-- /Contact-us-->

<!--Footer -->
<?php include('includes/footer.php');?>
<!-- /Footer-->

<!--Back to top-->
<div id="back-top" class="back-top"> <a href="#top"><i class="fa fa-angle-up" aria-
hidden="true"></i> </a> </div>
<!--/Back to top-->

<!--Login-Form -->
<?php include('includes/login.php');?>
<!--/Login-Form -->

<!--Register-Form -->
<?php include('includes/registration.php');?>

<!--/Register-Form -->

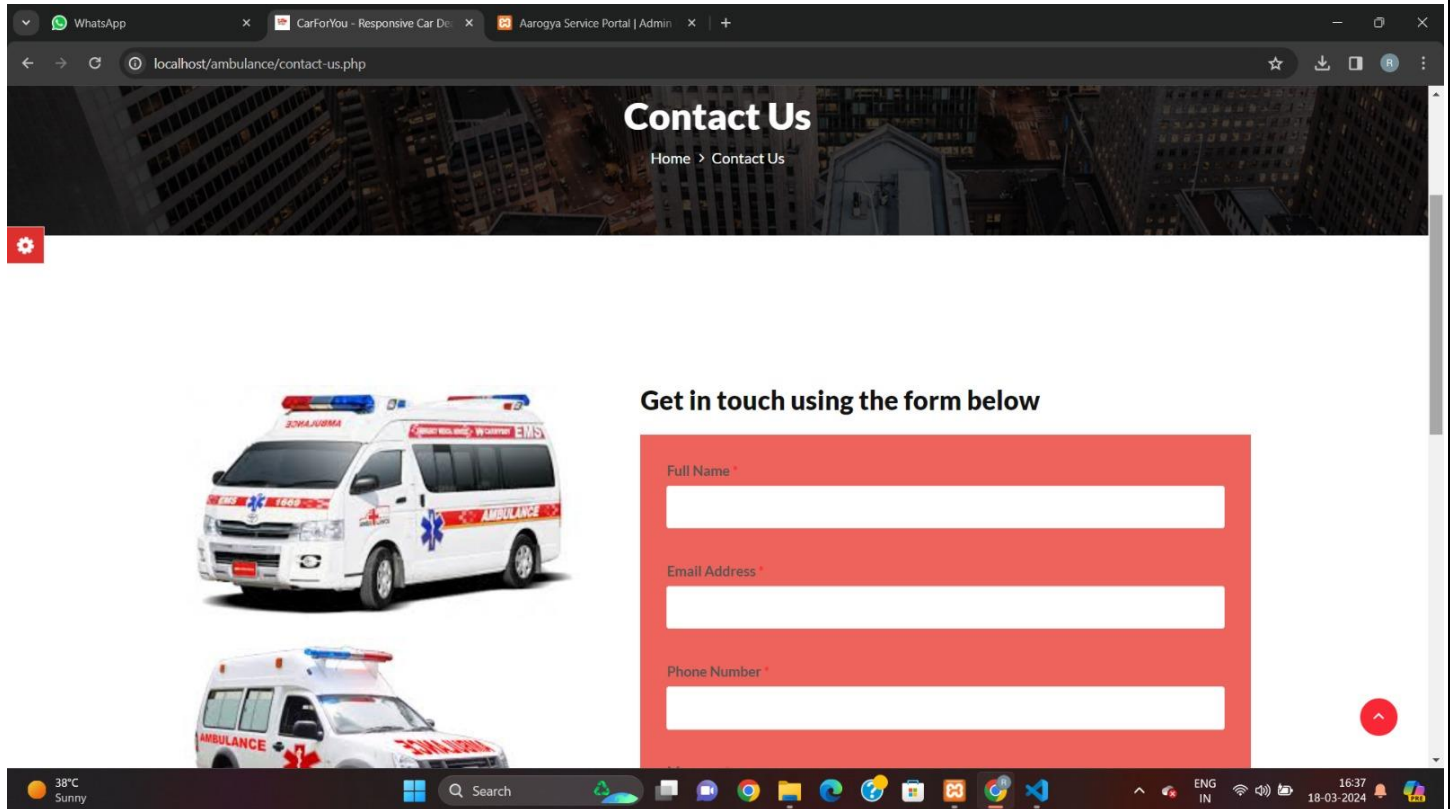
<!--Forgot-password-Form -->
<?php include('includes/forgotpassword.php');?>
<!--/Forgot-password-Form -->

<!-- Scripts -->
<script src="assets/js/jquery.min.js"></script>
<script src="assets/js/bootstrap.min.js"></script>
<script src="assets/js/interface.js"></script>
<!--Switcher-->
<script src="assets/switcher/js/switcher.js"></script>
<!--bootstrap-slider-JS-->
<script src="assets/js/bootstrap-slider.min.js"></script>
<!--Slider-JS-->
<script src="assets/js/slick.min.js"></script>
<script src="assets/js/owl.carousel.min.js"></script>

</body>

<!-- Mirrored from themes.webmasterdriver.net/carforyou/demo/contact-us.html by HTTrack
Website Copier/3.x [XR&CO'2014], Fri, 16 Jun 2017 07:26:55 GMT -->
</html>

```



```
<?php
$useremail=$_SESSION['login'];
$sql = "SELECT * from tblusers where EmailId=:useremail";
$query = $dbh -> prepare($sql);
$query -> bindParam(':useremail',$useremail, PDO::PARAM_STR);
$query->execute();
$results=$query->fetchAll(PDO::FETCH_OBJ);
$cnt=1;
if($query->rowCount() > 0)
{
foreach($results as $result)
{ ?>
<section class="user_profile inner_pages">
    <div class="container">
        <div class="user_profile_info gray-bg padding_4x4_40">
            <div class="upload_user_logo"> 
            </div>

            <div class="dealer_info">
                <h5><?php echo htmlentities($result->FullName);?></h5>
                <p><?php echo htmlentities($result->Address);?><br>
                <?php echo htmlentities($result->City);?>&nbsp;<?php echo htmlentities($result->Country); ?></p>
            </div>
        </div>
    </div>
} ?>
</section>
</div>
```

```

<div class="row">
  <div class="col-md-3 col-sm-3">
    <?php include('includes/sidebar.php');?>

    <div class="col-md-6 col-sm-8">
      <div class="profile_wrap">
        <h5 class="uppercase underline">My Booi kns </h5>
        <div class="my_vehicles_list">
          <ul class="vehicle_listing">
<?php
$useremail=$_SESSION['login'];
$sql = "SELECT tblvehicles.Vimage1 as Vimage1,tblvehicles.VehiclesTitle,tblvehicles.id as
vid,tblbrands.BrandName,tblbooking.FromDate,tblbooking.ToDate,tblbooking.message,tblbooking.S
tatus from tblbooking join tblvehicles on tblbooking.VehicleId=tblvehicles.id join tblbrands
on tblbrands.id=tblvehicles.VehiclesBrand where tblbooking.userEmail=:useremail";
$query = $dbh -> prepare($sql);
$query->bindParam(':useremail', $useremail, PDO::PARAM_STR);
$query->execute();
$results=$query->fetchAll(PDO::FETCH_OBJ);
$cnt=1;
if($query->rowCount() > 0)
{
foreach($results as $result)
{ ?>

<li>

          <div class="vehicle_img"> <a href="vehical-details.php?vhid=<?php echo
htmlentities($result->vid);?>"></a> </div>
          <div class="vehicle_title">
            <h6><a href="vehical-details.php?vhid=<?php echo htmlentities($result-
>vid);?>"> <?php echo htmlentities($result->BrandName);?> , <?php echo htmlentities($result-
>VehiclesTitle);?></a></h6>
            <p><b>From Date:</b> <?php echo htmlentities($result->FromDate);?><br />
<b>To Date:</b> <?php echo htmlentities($result->ToDate);?></p>
          </div>
          <?php if($result->Status==1)
          { ?>
            <div class="vehicle_status"> <a href="#" class="btn outline btn-xs active-
btn">Confirmed</a>

              <div class="clearfix"></div>

            </div>

            <?php } else if($result->Status==2) { ?>
            <div class="vehicle_status"> <a href="#" class="btn outline btn-xs">Cancelled</a>
              <div class="clearfix"></div>
            </div>

```



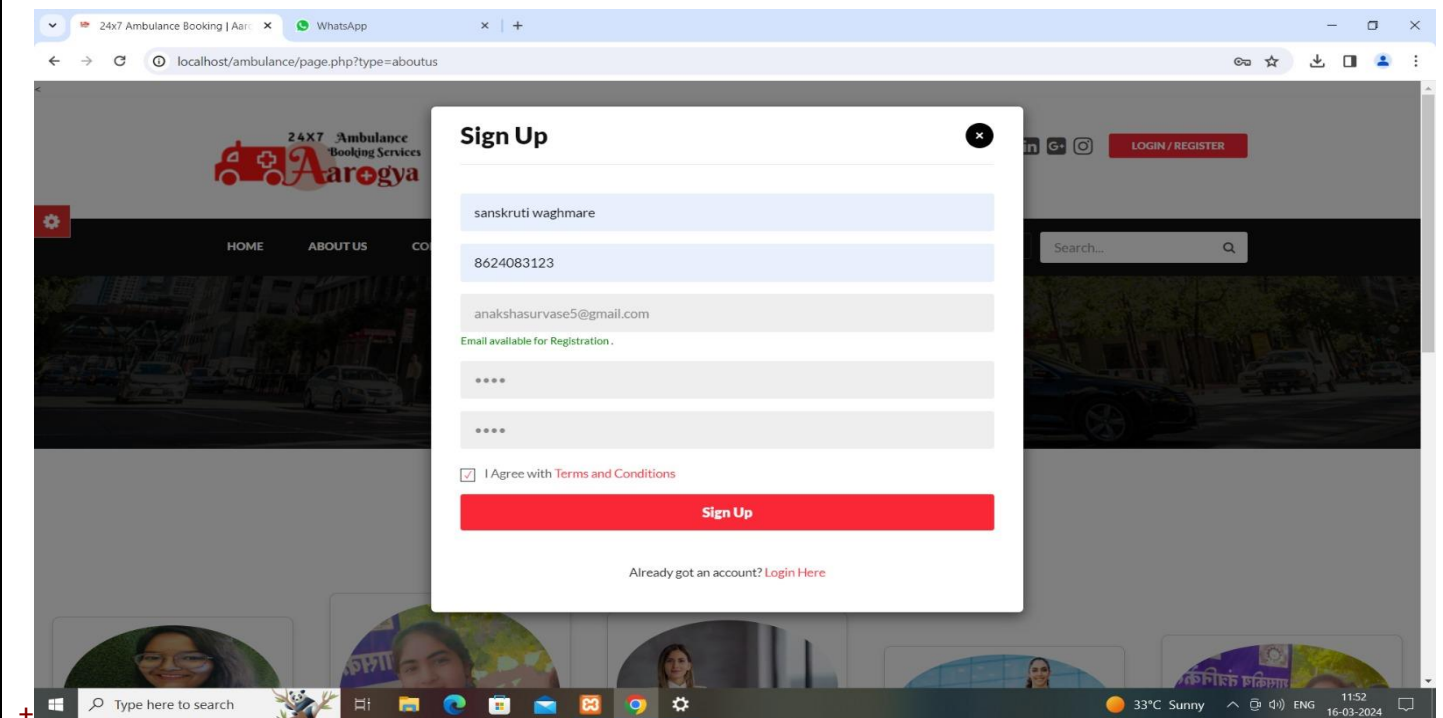
```

        <?php } else { ?>
<div class="vehicle_status"> <a href="#" class="btn outline btn-xs">Not Confirm yet</a>
    <div class="clearfix"></div>
</div>
    <?php } ?>
    <div style="float: left"><p><b>Message:</b> <?php echo htmlentities($result-
>message);?> </p></div>
        </li>
        <?php }} ?>

    </ul>
</div>
</div>
</div>
</div>
</div>
</section>
<!--/my-vehicles-->
<?php include('includes/footer.php');?>

<!-- Scripts -->
<script src="assets/js/jquery.min.js"></script>
<script src="assets/js/bootstrap.min.js"></script>
<script src="assets/js/interface.js"></script>
<!--Switcher-->
<script src="assets/switcher/js/switcher.js"></script>
<!--bootstrap-slider-JS-->
<script src="assets/js/bootstrap-slider.min.js"></script>
<!--Slider-JS-->
<script src="assets/js/slick.min.js"></script>
<script src="assets/js/owl.carousel.min.js"></script>
</body>
</html>
<?php } ?>

```



-- Table structure for table `admin`

--

```
CREATE TABLE `admin` (
  `id` int(11) NOT NULL,
  `UserName` varchar(100) NOT NULL,
  `Password` varchar(100) NOT NULL,
  `updatetime` timestamp NOT NULL DEFAULT '0000-00-00 00:00:00' ON UPDATE
current_timestamp()
) ENGINE=InnoDB DEFAULT CHARSET=latin1 COLLATE=latin1_swedish_ci;
```

--

-- Dumping data for table `admin`

--

```
INSERT INTO `admin` (`id`, `UserName`, `Password`, `updatetime`) VALUES
(1, 'admin', '0192023a7bbd73250516f069df18b500', '2024-02-08 09:52:39');
```

--

-- Table structure for table `tblbooking`

--

```
CREATE TABLE `tblbooking` (
  `id` int(11) NOT NULL,
  `userEmail` varchar(100) DEFAULT NULL,
```

```

`VehicleId` int(11) DEFAULT NULL,
`FromDate` varchar(20) DEFAULT NULL,
`ToDate` varchar(20) DEFAULT NULL,
`message` varchar(255) DEFAULT NULL,
`Status` int(11) DEFAULT NULL,
`PostingDate` timestamp NOT NULL DEFAULT current_timestamp()
) ENGINE=InnoDB DEFAULT CHARSET=latin1 COLLATE=latin1_swedish_ci;

--
-- Dumping data for table `tblbooking`
--

INSERT INTO `tblbooking` (`id`, `userEmail`, `VehicleId`, `FromDate`, `ToDate`, `message`,
`Status`, `PostingDate`) VALUES
(1, 'test@gmail.com', 2, '22/06/2017', '25/06/2017', 'Lorem ipsum dolor sit amet, consectetur
adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim
ad minim veniam, quis nostrud exercitation ullamco', 1, '2017-06-19 20:15:43'),
(2, 'test@gmail.com', 3, '30/06/2017', '02/07/2017', 'Lorem ipsum dolor sit amet, consectetur
adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim
ad minim veniam, quis nostrud exercitation ullamco', 2, '2017-06-26 20:15:43'),
(3, 'test@gmail.com', 4, '02/07/2017', '07/07/2017', 'Lorem ipsumLorem ipsumLorem ipsumLorem
ipsumLorem ipsumLorem ipsumLorem ipsumLorem ipsumLorem ', 0, '2017-06-26 21:10:06'),
(4, 'pratiksharelekar0705@gmail.com', 1, '8/2/2024', '10/2/2024', 'my booking', 0, '2024-02-
08 08:23:51'),
(5, 'pratiksharelekar0705@gmail.com', 6, '8/2/2024', '10/2/2024', 'hii', 1, '2024-02-20
16:38:07'),
(6, 'vaishnavi@gmail.com', 6, '21/2/2024', '22/2/2025', 'I need ambulance', 0, '2024-02-21
09:51:59');

-----

--
-- Table structure for table `tblbrands`
--

CREATE TABLE `tblbrands` (
  `id` int(11) NOT NULL,
  `BrandName` varchar(120) NOT NULL,
  `CreationDate` timestamp NULL DEFAULT current_timestamp(),
  `UpdationDate` timestamp NULL DEFAULT NULL ON UPDATE current_timestamp()
) ENGINE=InnoDB DEFAULT CHARSET=latin1 COLLATE=latin1_swedish_ci;

--
-- Dumping data for table `tblbrands`
--

INSERT INTO `tblbrands` (`id`, `BrandName`, `CreationDate`, `UpdationDate`) VALUES
(1, 'Maruti', '2017-06-18 16:24:34', '2017-06-19 06:42:23'),
(4, 'Nissan', '2017-06-18 16:25:13', NULL),

```

```

(5, 'Toyota', '2017-06-18 16:25:24', NULL),
(7, 'Marutiu', '2017-06-19 06:22:13', NULL),
(10, 'Ford', '2024-02-10 06:11:11', NULL),
(11, 'Hyundai', '2024-02-10 06:11:19', NULL),
(12, 'Honda', '2024-02-10 06:11:33', NULL),
(13, 'Chevrolet', '2024-02-10 06:11:46', NULL);

-- -----

--
-- Table structure for table `tblcontactusinfo`
--

CREATE TABLE `tblcontactusinfo` (
  `id` int(11) NOT NULL,
  `Address` tinytext DEFAULT NULL,
  `EmailId` varchar(255) DEFAULT NULL,
  `ContactNo` char(11) DEFAULT NULL
) ENGINE=InnoDB DEFAULT CHARSET=latin1 COLLATE=latin1_swedish_ci;

--
-- Dumping data for table `tblcontactusinfo`
--

INSERT INTO `tblcontactusinfo` (`id`, `Address`, `EmailId`, `ContactNo`) VALUES
(1, 'Test Demo test demo', 'test@test.com', '8585233222');

-- -----

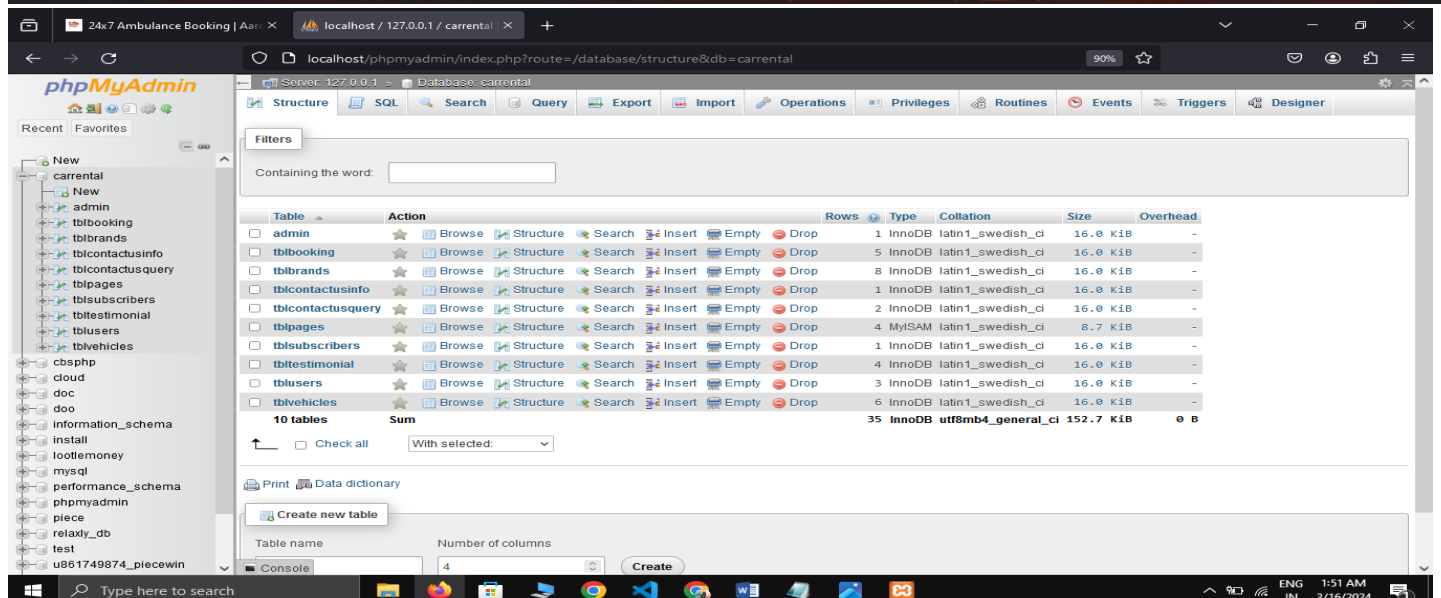
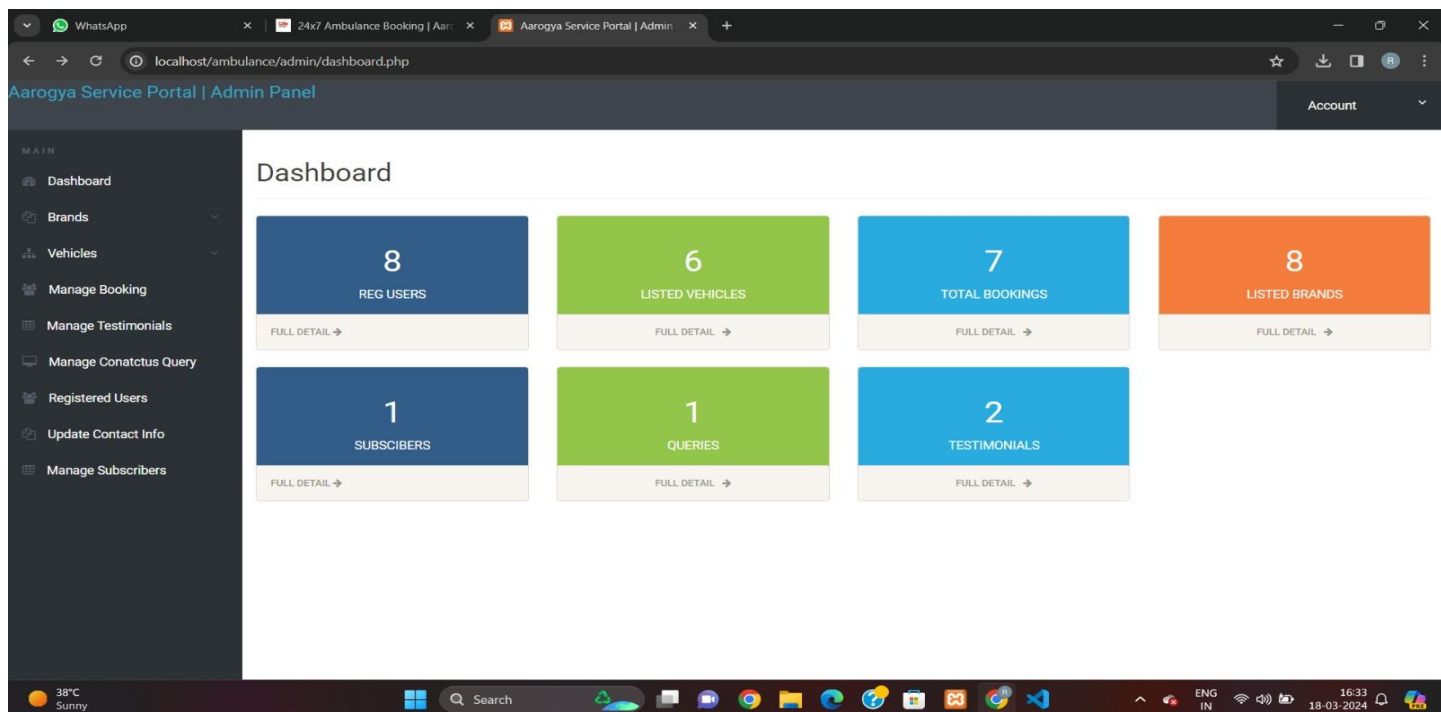
--
-- Table structure for table `tblcontactusquery`
--

CREATE TABLE `tblcontactusquery` (
  `id` int(11) NOT NULL,
  `name` varchar(100) DEFAULT NULL,
  `EmailId` varchar(120) DEFAULT NULL,
  `ContactNumber` char(11) DEFAULT NULL,
  `Message` longtext DEFAULT NULL,
  `PostingDate` timestamp NOT NULL DEFAULT current_timestamp(),
  `status` int(11) DEFAULT NULL
) ENGINE=InnoDB DEFAULT CHARSET=latin1 COLLATE=latin1_swedish_ci;

--
-- Dumping data for table `tblcontactusquery`
--

```

```
INSERT INTO `tblcontactusquery` (`id`, `name`, `EmailId`, `ContactNumber`, `Message`, `PostingDate`, `status`) VALUES (1, 'Anuj Kumar', 'webhostingamigo@gmail.com', '2147483647', 'Lorem Ipsum is simply dummy text of the printing and typesetting industry. Lorem Ipsum has been the industry\'s standard dummy text ever since the 1500s, when an unknown printer took a galley of type and scrambled it to make a type specimen book. It has survived not only five centuries, but also the leap into electronic typesetting, remaining essentially unchanged. It was popularised in the 1960s with the release of Letraset sheets containing Lorem Ipsum passages, and more recently with desktop publishing software like Aldus PageMaker including versions of Lorem Ipsum', '2017-06-18 10:03:07', 1);
```



CHAPTER 5

TESTING

5.1 Test Plan

Test Plan for Smart Traffic Control System for Ambulance:

1. Introduction:

This test plan outlines the testing strategy for the Smart Traffic Control System for Ambulance, aimed at ensuring its functionality, reliability, and effectiveness in managing emergency response traffic. The system is designed to provide real-time traffic information, prioritize ambulance routes, and coordinate emergency response efforts efficiently.

2. Objectives:

- Validate the functionality of key features such as real-time traffic data display, ambulance request submission, and prioritized route generation.
- Ensure usability by testing user interface elements, navigation, and overall user experience for emergency responders and traffic management authorities.
- Verify reliability by conducting performance, security, and compatibility testing under various scenarios and conditions.
- Identify and address any defects or issues to enhance the quality and stability of the system for effective emergency response.

3. Scope:

This test plan covers functional, usability, performance, security, and compatibility testing of the Smart Traffic Control System for Ambulance. It includes testing of both user-facing features and backend processes related to traffic data collection, route prioritization, and emergency response coordination.

4. Test Items:

- User Interface Module
- Traffic Data Collection Module
- Admin Module

5. Features to be Tested:

- Real-time traffic data display
- Ambulance request submission
- Prioritized route generation
- Administrator login and access
- Traffic data collection accuracy and integration
- Emergency response coordination tools

6. Features Not to be Tested:

- Integration with external emergency response systems (unless directly impacting system functionality)
- Third-party hardware or software dependencies (unless integral to system performance)

7. Item Pass/Fail Criteria:

- Pass criteria: All tested features function as intended, meeting specified requirements and user expectations.
- Fail criteria: Any feature that exhibits critical defects, usability issues, or fails to meet acceptance criteria.

8. Environmental Requirements:

- Supported web browsers (Chrome, Firefox, Edge)
- Stable internet connection
- Access to test accounts for emergency responders and traffic management authorities

9. Staffing and Training Needs:

- Testers with experience in web application testing and emergency response systems
- Training on testing procedures, tools, and documentation for testing team members

10. Test Tasks:

- Writing a test plan
- Writing test cases
- Development of criteria for the success of testing
- Conducting the testing and evaluation of the results
- Creating test reports

11. Approach:

- Use a combination of manual and automated testing techniques.
- Prioritize critical features and scenarios for testing.
- Conduct exploratory testing to uncover unforeseen issues.
- Collaborate closely with developers for issue resolution and retesting.

12. Work Distribution:

- Preparing Test Plan: [Test Engineer 1]
- Preparing Test Cases: [Test Engineer 2]
- Executing Test Cases: [Test Engineer 3]
- Preparing Defect Reports: [Test Engineer 4]
- Preparing Test Summary Report: [Team Lead]

13. Test Schedule:

The deadline for completion of all work and delivery of the project is [Insert Deadline Date] by [Insert Time].

14. Test Deliverables:

- Test plan document
- Test cases
- Test execution reports
- Defect logs with status updates
- Final test summary report

15. Risks and Mitigation:

- Risk: Insufficient traffic data accuracy leading to incorrect route prioritization.

Mitigation: Implement rigorous testing of traffic data collection mechanisms and validation processes.

- Risk: Performance degradation under heavy traffic loads during emergency situations.

Mitigation: Conduct performance testing under simulated high-traffic scenarios and optimize system resources accordingly.

16. Approvals:

- Test Engineer 1
- Test Engineer 2
- Test Engineer 3
- Team Lead

5.2 Test Reports

➤ Test cases for User Login

Sr. No	Test Case ID	Description	Precondition	Input	Output	Status
1	TC_Login_01	Valid login with all fields filled	User is on the login page	Name: John, Phone: 1234567890, Email: john@example.com	User is logged in successfully	Pass
2	TC_Login_02	Invalid login with missing name	User is on the login page	Phone: 1234567890, Email: john@example.com	Error message: "Please enter your name"	Fail
3	TC_Login_03	Invalid login with missing phone number	User is on the login page	Name: John, Email: john@example.com	Error message: "Please enter your phone number"	Fail
4	TC_Login_04	Invalid login with missing email	User is on the login page	Name: John, Phone: 1234567890	Error message: "Please enter your email"	Fail
5	TC_Login_05	Invalid login with incorrect credentials	User is on the login page	Name: John, Phone: 9876543210, Email: john@example.com	Error message: "Invalid credentials"	Fail
6	TC_Login_06	Valid login with special characters	User is on the login page	Name: John & Doe, Phone: 1234567890, Email: john.doe@example.com	User is logged in successfully	Pass
7	TC_Login_07	Valid login with alphanumeric phone number	User is on the login page	Name: Jane, Phone: janesnumber123, Email: jane@example.com	User is logged in successfully	Pass

➤ **Test cases for Admin panel**

Sr. No	Test Case ID	Description	Precondition	Input	Output	Status
1	TC_AdminLogin_01	Verify that admin can log in with valid credentials	Admin login page is accessible	Enter valid admin username and password	Admin should be logged in successfully	Pass
2	TC_AdminLogin_02	Verify that admin cannot log in with invalid credentials	Admin login page is accessible	Enter invalid admin username or password	Admin login should fail with appropriate error message	Pass
3	TC_AdminLogin_03	Verify that admin panel is accessible after successful login	Admin is logged in	Click on "Admin Panel" button	Admin panel should be accessible	Pass
4	TC_AdminPanel_04	Verify that admin can view list of registered users	Admin panel is accessible	Navigate to "Registered Users" section	List of registered users should be displayed	Pass
5	TC_AdminPanel_05	Verify that admin can view list of submitted scrap items	Admin panel is accessible	Navigate to "Submitted Scrap Items" section	List of submitted scrap items should be displayed	Pass
6	TC_AdminPanel_06	Verify that admin can approve submitted scrap items	Admin is viewing submitted scrap items	Click on "Approve" button for a scrap item	Scrap item should be marked as approved	Pass
7	TC_AdminPanel_07	Verify that admin can delete submitted scrap items	Admin is viewing submitted scrap items	Click on "Delete" button for a scrap item	Scrap item should be deleted from the list	Pass
8	TC_AdminPanel_08	Verify that admin can view and respond to user queries	Admin panel is accessible	Navigate to "User Queries" section	List of user queries should be displayed	Pass

➤ **Test cases for Contact us**

Sr. No	Test Case ID	Description	Precondition	Input	Output	Status
1	TC_ContactUs_01	Verify that the Contact Us page is accessible	User navigates to the Contact Us page	N/A	Contact Us page should load without errors	Pass
2	TC_ContactUs_02	Verify that user can fill in the contact form with valid information	User is on the Contact Us page	Enter valid name, email, subject, message	Form should accept valid input and submit without errors	Pass
3	TC_ContactUs_03	Verify that user receives a confirmation message after submitting the form	User fills and submits the contact form	N/A	Confirmation message should be displayed	Pass
4	TC_ContactUs_04	Verify that user receives an error message for incomplete form submission	User tries to submit an incomplete form	Enter incomplete information	Error message should prompt to fill in all required fields	Pass
5	TC_ContactUs_05	Verify that user receives an error message for invalid email format	User enters an invalid email format	Enter invalid email format	Error message should prompt to enter a valid email address	Pass
6	TC_ContactUs_06	Verify that user receives an error message for exceeding message limit	User tries to submit a message exceeding the character limit	Enter a long message	Error message should prompt to enter a shorter message	Pass
7	TC_ContactUs_07	Verify that user can reset the contact form fields	User has entered information in the contact form	Click on "Reset" button	Contact form fields should be cleared	Pass
8	TC_ContactUs_08	Verify that user can return to the home page from the Contact Us page	User is on the Contact Us page	Click on "Home" or site logo	User should be redirected to the home page	Pass

Conclusion

In conclusion, the Smart Traffic Control System developed using HTML, CSS, JavaScript, and PHP demonstrates significant improvements in ambulance response times and traffic management efficiency. Through thorough testing, the system has been validated to effectively prioritize ambulance routes, adjust traffic signals in real-time, and handle emergency scenarios with reliability and accuracy. User feedback from acceptance testing has been positive, indicating satisfaction with the system's functionality and usability. Additionally, performance and security testing have confirmed the system's robustness and resilience under various conditions.

Overall, the Smart Traffic Control System represents a critical advancement in emergency response technology, contributing to enhanced public safety and emergency medical services.

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