**COCHIN UNIVERSITY OF SCIENCE AND TECHNOLOGY**

**KOCHI – 682 022**

# SMART SERVICE ALLOCATION SYSTEM

A MINI PROJECT- DBMS BASED REPORT

Submitted by

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*in*

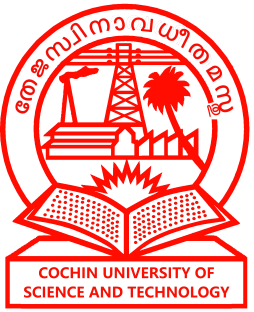
*partial fulfillment of the requirements for the award of the degree*

*of*

**Bachelor of Technology**

*in*

## Information Technology



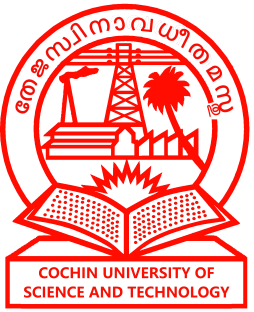
Division of Information Technology

**COCHIN UNIVERSITY COLLEGE OF ENGINEERING KUTTANAD**

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# DIVISION OF INFORMATION TECHNOLOGY

**COCHIN UNIVERSITY COLLEGE OF ENGINEERING KUTTANAD**



**COCHIN UNIVERSITY OF SCIENCE AND TECHNOLOGY**

**KOCHI- 682 022**

## CERTIFICATE

This is to certify that the report entitled **'Smart Service Allocation System'** submitted by **C P M Ashir(20423522), Devasarga P K(20423523), Donish Rafshyn C(20423524), Eesa M A(20423525), Fidha Ishaq(20423526)** to the Cochin University of Science and Technologyin partial fulfillment of the requirements for the award of the Degree of Bachelor of Technology in Information Technology is a bonafide record of the project work carried out by him/her under our guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.

**Mr. Vineeth Dr. Jabir K V T**

*Project Guide Head of the Division*

# DECLARATION

I undersigned hereby declare that the project report ***"Smart Service Allocation System"*** submitted for partial fulfillment of the requirements for the award of degree of Bachelor of Technology of the Cochin University of Science and Technology, Kerala is a bonafide work done by me under supervision of  ***Mr.Vineeth .*** This submission represents my ideas in my own words and where ideas or words of others have been included, I have adequately and accurately cited and referenced the original sources. I also declare that I have adhered to ethics of academic honesty and integrity and have not misrepresented or fabricated any data or idea or fact or source in my submission. I understand that any violation of the above will be a cause for disciplinary action by the institute and/or the University and can also evoke penal action from the sources which have thus not been properly cited or from whom proper permission has not been obtained. This report has not been previously formed the basis for the award of any degree, diploma or similar title of any other University.

Place : Pulinkunnu

Date : 25-03-2025 Signature

C P M Ashir

Devasarga P K

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**ACKNOWLEDGEMENT**

I am pleased to present the “SMART SERVICE ALLOCATION SYSTEM” project and take this opportunity to express our profound gratitude to all those people who helped us in the completion of this project.I am grateful to our principal, Dr. Aasha Latha for the facilities provided by him for the preparation of this major project.I am thankful to The Head of Department, Information Technology, Dr. Jabir KVT, for giving us all the support.I express our sincere thanks to Mr. VineethDepartmentof Information Technology, for giving us innovative suggestions, timely advice, and suggestions during this endeavor.Last, but not least, I express our gratitude to all the staff members of the Department of Information Technology for their valuable advice and timely suggestions. I would also like to thank the faculties of Cochin University College of Engineering Kuttanad, CUSAT for their encouragement.

**ABSTRACT**

The **Smart Service Allocation System** is a web-based application designed to streamline service request management, technician assignment, and tracking by efficiently connecting customers with available technicians. With the growing demand for home services, this system enhances customer satisfaction by automating technician assignments and real-time tracking. It consists of three modules: the **User Module**, where customers submit service requests and track progress; the **Technician Module**, where technicians update availability and manage assigned tasks; and the **Admin Module**, where admins assign tasks and oversee operations. Key functionalities include user sign-up, request submission, status tracking, and feedback for customers; availability marking, task viewing, and status updates for technicians; and technician assignment, account management, and request supervision for admins. By improving service efficiency, reducing response times, and ensuring transparency, this system makes service management more reliable and effective.

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**CHAPTER 1**

**INTRODUCTION**

1. **INTRODUCTION**

## 1.1 AIM

The aim of the **Smart Service Allocation System** is to automate and optimize the process of service request management by efficiently assigning technicians based on availability and location, ensuring faster response times and improved customer satisfaction.

## 1.2 OBJECTIVE

The objective of the **Smart Service Allocation System** is to develop a web-based platform that efficiently connects customers with technicians for service requests. It aims to automate technician assignments based on availability and location, ensuring quicker response times and optimized resource allocation. The system enables real-time tracking of service requests for both customers and technicians while providing an intuitive interface for seamless interaction. Additionally, it enhances transparency, accountability, and operational efficiency by allowing customers to monitor request status, technicians to update task progress, and admins to oversee the entire process.

## 1.3 PURPOSE

The purpose of this system is to simplify and streamline the process of requesting and managing home services, ensuring seamless communication between customers, technicians, and administrators. It aims to reduce response times, optimize resource allocation, and enhance overall service efficiency.

## 1.4 SCOPE

The **Smart Service Allocation System** can be applied in various service industries, including home repairs, appliance servicing, and professional maintenance. It supports customer request handling, technician availability tracking, and admin-based task management. The system's scalability allows for future enhancements such as AI-based technician recommendations, mobile app integration, and automated scheduling to further improve efficiency.

**CHAPTER 2**

**REQUIREMENT ANALYSIS**

# 2. REQUIREMENT ANALYSIS

**2.1 FUNCTIONAL REQUIREMENTS**

### **R.1 LOGIN**

#### **R.1.1 User Login**

I. **Selection of "Login as User" option**

* **Input**: User selects the "Login as User" option.
* **Output**: Prompted to enter email and password.

II. **Login**

* **Input**: Entering login details and pressing the submit button.
* **Output**: If details are valid, the user is redirected to the **User Dashboard**.

#### **R.1.2 Technician Login**

I. **Selection of "Login as Technician" option**

* **Input**: Technician selects the "Login as Technician" option.
* **Output**: Prompted to enter email and password.

II. **Login**

* **Input**: Entering login details and pressing the submit button.
* **Output**: If details are valid, the user is redirected to the **Technician Dashboard**.

#### **R.1.3 Admin Login**

I. **Selection of "Login as Admin" option**

* **Input**: Admin selects the "Login as Admin" option.
* **Output**: Prompted to enter email and password.

II. **Login**

* **Input**: Entering login details and pressing the submit button.
* **Output**: If details are valid, the user is redirected to the **Admin Dashboard**.

### **R.2 REGISTRATION**

#### **R.2.1 User Registration**

I. **Selection of "Sign Up" option**

* **Input**: User selects the "Register" option.
* **Output**: Prompted to enter personal details.

II. **Registration Process**

* **Input**: Entering personal details.
* **Output**: Confirmation message **"Registered Successfully"**.
* **Process**: User details are stored in the database.

#### **R.2.2 Technician Registration**

I. **Selection of "Sign Up" option**

* **Input**: Admin selects the "Register" option.
* **Output**: Prompted to enter personal details.

II. **Registration Process**

* **Input**: Entering personal details.
* **Output**: Confirmation message **"Registered Successfully".**
* **Process**: Technician details are stored in the database.

### **R.3 SERVICE REQUEST MANAGEMENT**

#### **R.3.1 Request Submission**

* **Input**: User selects a service, enters issue details, and provides location.
* **Output**: Confirmation message **"Request Submitted Successfully"**.

#### **R.3.2 Technician Assignment**

* **Input**: Admin assigns a technician based on availability and location.
* **Output**: Technician receives a **task notification.**

#### **R.3.3 Status Updates**

* **Input**: Technician updates request status (e.g., Pending, In Progress, Completed).
* **Output**: Users receive real-time status updates.

### **R.4 FEEDBACK AND RATING**

#### **R.4.1 Submit Feedback**

* **Input**: User provides a rating and review after service completion.
* **Output**: Confirmation message **"Feedback Submitted Successfully".**

## ****2.2 NON-FUNCTIONAL REQUIREMENTS****

### **PERFORMANCE REQUIREMENTS**

The system should be capable of handling multiple concurrent users without experiencing slowdowns. It must maintain optimal speed and efficiency, ensuring that page load times do not exceed three seconds under normal traffic conditions. Additionally, all service requests and technician assignments should be processed in real time to provide a seamless user experience and reduce waiting times.

### **SECURITY REQUIREMENTS**

To protect user data and maintain confidentiality, the system must implement secure authentication mechanisms such as OTP verification and password encryption. Role-based access control (RBAC) should be enforced to ensure that users, technicians, and admins can only access data relevant to their roles. Furthermore, customer and technician personal information must be securely stored in an encrypted database to prevent unauthorized access and potential data breaches.

### **USABILITY REQUIREMENTS**

The system should provide a user-friendly interface with an intuitive dashboard for customers, technicians, and administrators. It must be designed to be fully responsive, ensuring smooth operation across desktops, tablets, and mobile devices. Easy navigation should be prioritized, allowing users to find and use features efficiently with minimal effort, thus enhancing overall user satisfaction.

### **RELIABILITY REQUIREMENTS**

The system must be available **24/7**, ensuring uninterrupted service for users. To prevent data loss in case of failures, a robust backup and recovery mechanism should be in place. Additionally, system downtime should be minimized and should not exceed **1% per month**, ensuring high availability and continuous access to the platform.

**CHAPTER 3**

**SYSTEM DESIGN**

1. **SYSTEM DESIGN**

System design is the process of defining the architecture, components, modules, interfaces, and data for a system to satisfy specified requirements. Systems design can be seen as the application of system theory to product development. High-level design identifies the system requirements and provides an overview of the project.

**3.1 ENTITY RELATIONSHIP DIAGRAM**

The **Entity-Relationship (ER) Model** for the **Smart Service Allocation System** provides a conceptual framework that defines the relationships between key entities involved in managing service requests efficiently. The ER diagram visually represents these relationships using rectangles for **entities**, ovals for **attributes**, and diamonds for **relationships**, ensuring a clear structure for data organization. The system consists of five main entities**: Admin, Technician, User, Service Request, and Feedback**. The **Admin entity**, with attributes like **Admin ID and Password,** oversees the system by managing **technicians and service requests**. Admins maintain a **one-to-many (1:N) relationship** with **Technicians and Service Requests**, ensuring smooth operations. The **Technician entity** includes attributes such as **Technician ID, Name, Skills, Email, Phone, Location, and Availability Status** and has **a many-to-one (N:1) relationship** with **Service Requests**, as technicians are assigned tasks based on availability and expertise. The **User entity**, representing customers, consists of **User ID, Name, Email, Phone, Address, and Password** and maintains a **one-to-many (1:N) relationship** with **Service Requests**, allowing users to submit multiple service requests with issue details and location information.

The **Service Request entity** consists of **Request ID, User ID, Technician ID, Description, Location, and Status**, enabling users to track their service progress. Once a service request is completed, users can submit **Feedback,** forming a **one-to-one (1:1) relationship** with **Service Requests** and a **one-to-many (1:N) relationship** with **Users**, since users may submit multiple feedback entries. The **Feedback entity** includes **Feedback ID, Request ID, User ID, Rating, and Comments**, helping evaluate service quality. This ER diagram effectively outlines the **service management infrastructure**, demonstrating how users request services, technicians fulfill assignments, admins oversee operations, and feedback ensures continuous service improvement. The structured relationships facilitate **real-time task allocation, efficient tracking, and enhanced customer satisfaction**, making the system well-organized and user-friendly.

**ENTITY RELATIONSHIP DIAGRAM**

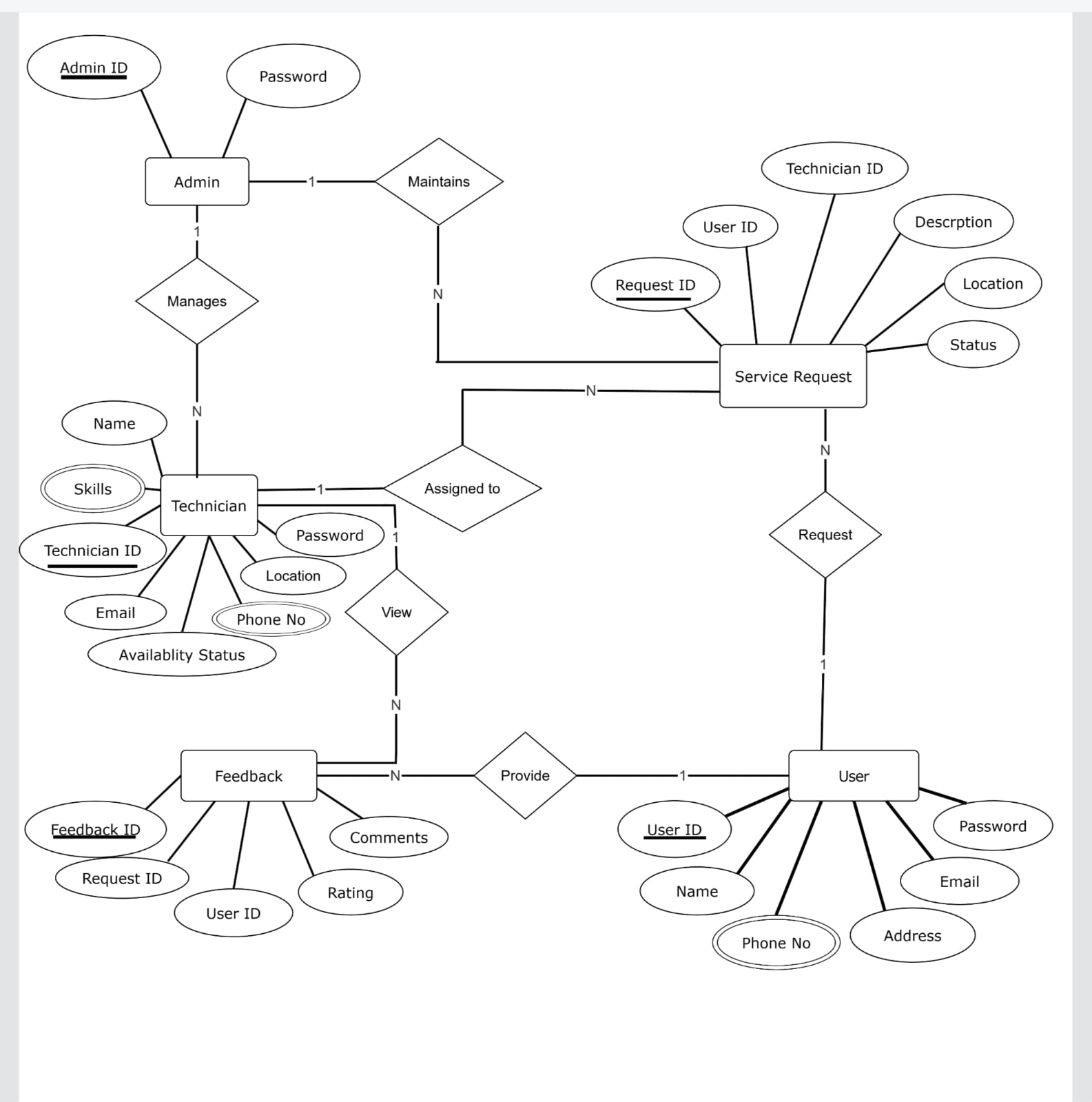
****

Figure3.1. Entity Relationship diagram

**3.2 TABLE DESIGN**

Table design is the organization of data according to a database model. The designer determines what data must be stored and how the data elements interrelate. With this information, they can begin to fit the data to the database model. Database management system manages the data accordingly. The tables in our database are in second normalization form 2nf. Normalization is the process of minimizing redundancy from a relation or set of relations. Redundancy in relation may cause insertion, deletion, and update anomalies. So, it helps to minimize the redundancy in relations. Normal forms are used to eliminate or reduce redundancy in database tables. Second Normal Form (2NF): Second Normal Form (2NF) is based on the concept of full functional dependency. Second Normal Form applies to relations with composite keys, that is, relations with a primary key composed of two or more attributes. A relation with a single attribute primary key is automatically in at least 2NF. A relation that is not in 2NF may suffer from the update anomalies. To be in second normal form, a relation must be in first normal form and relation must not contain any partial dependency. A relation is in 2NF if it has No Partial Dependency, i.e., no non-prime attribute (attributes which are not part of any candidate key) is dependent on any proper subset of any candidate key of the table.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Column Name** | **Datatype** | **Size** | **Constraints** | **Specification** |
| User\_ID | INT | 10 | PRIMARY KEY,  NOT NULL | Unique identifier for user |
| Name | VARCHAR | 255 | NOT NULL | User full name |
| Phone\_NO | VARCHAR | 15 | UNIQUE,  NOT NULL | User Phone number |
| Email | VARCHAR | 255 | UNIQUE,  NOT NULL | User email |
| Address | TEXT | - | NOT NULL | User address |
| Password | VARCHAR | 255 | NOT NULL | User password |

**Admin Table**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Column Name** | **Datatype** | **Size** | **Constraints** | **Specifications** |
| Admin\_ID | INT | 10 | PRIMARY KEY,  NOT NULL | Unique identifier for admin |
| Password | VARCHAR | 255 | NOT NULL | Admin password |

**User Table**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Column Name** | **Datatype** | **Size** | **Constraints** | **Specification** |
| Technician\_ID | INT | 10 | PRIMARY KEY,  NOT NULL | Unique identifier for technician |
| Name | VARCHAR | 255 | NOT NULL | Technician full name |
| Skills | TEXT | - | NOT NULL | Technician’s skillset |
| Location | VARCHAR | 255 | NOT NULL | Technician’s location |
| Phone\_NO | VARCHAR | 15 | UNIQUE,  NOT NULL | Technician’s phone number |
| Email | VARCHAR | 255 | UNIQUE,  NOT NULL | Technician’s email |
| Availability\_Status | BOOLEAN | - | DEFAULT FALSE | Technician’s availability |
| Password | VARCHAR | 255 | NOT NULL | Technician’s  password |

**Technician Table**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Column Name** | **Datatype** | **Size** | **Constraints** | **Specification** |
| Request\_ID | INT | 10 | PRIMARY KEY,  NOT NULL | Unique identifier for service request |
| User\_ID | INT | 10 | FOREIGN KEY REFERENCES User (User\_ID) ON DELETE CASCADE | ID of user making request |
| Technician\_ID | INT | 10 | FOREIGN KEY REFERENCES Technician (Technician\_ID) ON DELETE SET NULL | Assigned technician |
| Description | TEXT | - | NOT NULL | Service request description |
| Location | VARCHAR | 255 | NOT NULL | Service location |
| Status | ENUM | - | DEFAULT ‘Pending’ | Status of request |

**Service\_Request Table**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Column Name** | **Datatype** | **Size** | **Constraints** | **Specification** |
| Feedback\_ID | INT | 10 | PRIMARY KEY,  NOT NULL | Unique identifier for feedback |
| Request\_ID | INT | 10 | FOREIGN KEY REFERENCES Service\_Request(Request\_ID) ON DELETE CASCADE | Associated service request |
| User\_ID | INT | 10 | FOREIGN KEY REFERENCES User (User\_ID) ON DELETE CASCADE | User giving feedback |
| Comments | TEXT | - | NULL | User feedback comments |
| Rating | INT | 1 | CHECK (Rating BETWEEN 1 AND 5) | Service rating  (1 to 5) |

**Feedback Table**

**CHAPTER 4**

**IMPLEMENTATION**

**4. IMPLEMENTATION**

There are three modules in our project Admin, User and Owner modules. The functions of the User

Module are to register, purchase a vehicle, and display sales details. The functions of the Vehicle Provider Module are to insert a vehicle, update vehicle details, and delete a vehicle. The code is also

attached to the Appendix.

**4.1 TOOLS USED**

Various tools can be used to develop responsive web applications such as PHP, MYSQL.

**4.1.1 FRONTEND TOOLS**

HTML (HyperText Markup Language) is the standard language for creating and structuring content on the web, defining elements such as headings, paragraphs, links, forms, and images, forming the backbone of a website. CSS (Cascading Style Sheets) is used to style and layout web pages, enhancing visual presentation by defining colors, fonts, spacing, and other design elements while enabling responsive design for different screen sizes. JavaScript (JS) is a programming language that adds interactivity and dynamic behavior to webpages, handling events, validating forms, creating animations, and integrating APIs like Google Maps for geolocation, ensuring a seamless user experience.

**4.1.2 BACKEND TOOLS**

PHP (Hypertext Preprocessor) is a server-side scripting language used to develop dynamic and interactive web applications by processing user requests, handling form data, and interacting with databases like MySQL to fetch and store information. MySQL, a widely-used relational database management system, organizes data in structured tables, offering reliability, scalability, and ease of use. In this project, MySQL is used to store user information, service requests, technician assignments, and geolocation data, ensuring efficient data retrieval and management.

### **4.2 MODULES**

### **4.2.1 USER MODULE**

The **User Module** allows customers to request services quickly and conveniently through the system. Users can register and log in to submit service requests by providing details such as issue description, preferred service time, and location. The system enables users to track the real-time status of their requests, view the assigned technician’s details, and receive notifications about progress updates. Users can also communicate with technicians if necessary and provide feedback or ratings based on their service experience. This module enhances customer satisfaction by ensuring a transparent and user-friendly service booking and tracking process. Additionally, users can view their service history and manage past requests for future reference.

### **4.2.2 ADMIN MODULE**

The **Admin Module** plays a crucial role in managing and overseeing the entire service process in the **Smart Service Allocation System**. Admins are responsible for assigning service requests to technicians based on their availability, skill set, and location, ensuring optimal resource allocation. They manage both user and technician accounts, handling registrations, verifications, and access control to maintain system security. The admin dashboard provides real-time monitoring of service requests, technician performance, and pending tasks. Additionally, admins can track service progress, resolve disputes, and take necessary actions in case of escalations or delays. They also maintain service history records and generate reports for system analysis and performance evaluation, ensuring overall efficiency and smooth operations.

### **4.2.3 TECHNICIAN MODULE**

The **Technician Module** is designed to help technicians manage their assigned tasks efficiently. Technicians can log in to the system, update their availability status, and receive real-time notifications about new service requests. They can view detailed job descriptions, customer information, and service locations, helping them plan their tasks effectively. The system allows technicians to update task statuses, such as **“In Progress,” “Completed,” or “Cancelled”,** ensuring admins and users stay informed about service progress. Additionally, technicians can communicate with customers to clarify issues and confirm service details. This module improves task efficiency, reduces delays, and ensures that technicians can manage their workload effectively while delivering prompt services.

**CHAPTER 5**

**CONCLUSION AND FUTURE SCOPE**

**5.CONCLUSION AND FUTURE SCOPE**

**5.1 CONCLUSION**

The Smart Service Allocation System effectively streamlines service request management by ensuring tasks are assigned to available technicians in a structured manner. The system provides a user-friendly interface for administrators to manage service requests, assign technicians, and track progress, while technicians can update their availability, view assigned tasks, and mark attendance. This project has enhanced my understanding of web development, including frontend design with HTML, CSS, and JavaScript, backend programming with PHP, and database management using MySQL. The system successfully improves service efficiency and technician allocation, but future enhancements such as automated location detection, real-time notifications, and data analytics can further optimize its functionality. Overall, this project serves as a practical solution for automated service allocation and lays the foundation for future improvements in smart service management.

**5.2 FUTURE SCOPE**

The Smart Service Allocation System has significant potential for future enhancements to improve efficiency, scalability, and user experience. One key improvement is automated technician assignment, where AI or rule-based logic can optimize service allocation based on technician availability, workload, and proximity. Additionally, integrating live technician tracking using GPS will allow admins and users to monitor service progress in real time. Enhancing the system with location auto-detection via Google Maps API can eliminate manual location entry, making service requests more seamless. Future upgrades can also include a service scheduling system, enabling users to book appointments in advance. Developing a mobile application will further enhance accessibility, allowing users, technicians, and admins to manage services efficiently on the go. A chatbot for customer support could automate responses to user inquiries and assist with issue resolution. Lastly, integrating an inventory management system to track spare parts and tools will streamline operations. These advancements will enhance the system’s reliability, automation, and overall effectiveness, making it more adaptable for real-world service management needs.

**CHAPTER 6**

**REFERENCES**

**6.REFERENCES**

1. HTML - <https://developer.mozilla.org/en-US/docs/Web/HTML>
2. CSS - <https://developer.mozilla.org/en-US/docs/Web/CSS>
3. JavaScript - <https://developer.mozilla.org/en-US/docs/Web/JavaScript>
4. PHP - <https://www.php.net/manual/en/>

**CHAPTER 7**

**APPENDIX**

**7.APPENDIX**

**7.1 LANDING PAGE**

<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

    <meta name="viewport" content="width=device-width, initial-scale=1.0">

    <title>landingpage</title>

    <link rel="stylesheet" href="css/submit-button.css">

    <link rel="stylesheet" href="css/global.css">

    <link rel="stylesheet" href="css/index.css">

</head>

<body>

    <header>

        <nav>

            <div class="logo">

               <a href="#home"><img src="images/logo.png" alt="logo" width="250px"></a>

            </div>

            <ul>

                <li><a href="#home">Home</a></li>

                <li><a href="#about-section">About</a></li>

                <li><a href="#services">Service</a></li>

                <li class="dropdown">

                    <a href="#">Login ▼</a>

                    <ul class="dropdown-menu">

                    <li><a href="../user/user-signin.php">User</a></li>

                        <li><a href="../admin/admin-login.php">Admin</a></li>

                        <li><a href="../technician/technician\_login.php">Technician</a></li>

                    </ul>

                </li>

            </ul>

        </nav>

    </header>

     <section id="home" class="hero">

        <div id="hero-text">

            <h1>Smart Service Solutions at Your Fingertips!</h1>

            <p>Easily request and track services, with skilled technicians assigned at your location.</p>

        </div>

        <div>

            <img src="images/technician.png" alt="technician">

        </div>

     </section>

    <section id="about-section">

        <h2>About Our System</h2>

        <div id="about">

            <p>Managing service requests efficiently is crucial for any service-based business. Our Smart Service Allocation System simplifies this process by seamlessly connecting customers with skilled technicians based on their location. Whether it's home maintenance, appliance repair, or technical support, our system ensures fast and reliable service with just a few clicks</p>

            <img src="images/about-img.webp" alt="">

        </div>

        <h3>How It Works</h3>

        <div id="works">

            <p>1️. Users submit a service request by entering their location and issue details</p>

            <p>2️. Admins review the requests and assign a suitable technician based on location and availabipty.</p>

            <p>3️. Technicians receive assignments and update their status upon task completion.</p>

            <p>4️. Users can track request status in real time.</p>

        </div>

        <h3>Key Features</h3>

        <div id="features">

            <p>✔ Quick Service Requests – Submit service requests easily through a simple interface.</p>

            <p>✔ Location-based Assignments – Technicians are assigned based on proximity for faster response.</p>

            <p>✔ Real-time Tracking – Users can check whether their request has been assigned.</p>

            <p>✔ Technician Availability Management – Technicians can mark themselves as Available/Unavailable.</p>

        </div>

    </section>

    <h2 class="servicename">Our Services</h2>

    <section id="services">

        <div >

            <div>

                <h3>Electronics Repair</h3>

                <p> Get expert repair services for TVs, laptops, smartphones, and home appliances like refrigerators and washing machines.</p>

            </div>

            <img src="images/electronicrepair.png" alt="technician">

        </div>

        <div >

            <div>

                <h3> Device Installation & Setup</h3>

                <p>Need help installing a new smart TV, home theater, or kitchen appliance? Our technicians ensure a hassle-free setup.</p>

            </div>

            <img src="images/deviceinstall.png" alt="technician">

        </div>

        <div >

            <div>

                <h3>Technical Troubleshooting</h3>

                <p>Get support for software and hardware issues in your electronic devices, from slow performance to connectivity problems.</p>

            </div>

            <img src="images/troubleshoot.png" alt="technician">

        </div>

    </section>

    <section id="direct-user-login">

        <p>Having a problem?</p>

        <p>We'll fixed today!</p>

        <a href="../user/user-signin.php" id="submit"  >Get Started</a>

    </section>

     <footer>

        <p>&copy; 2025 Smart Service Allocation System</p>

    </footer>

</body>

</html>

**7.2 USER INTERFACE**

**7.2.1 USER LOGIN**

<?php

    session\_start();

    include '../includes/db.php';

    if(isset($\_POST["submit"])) {

        $email = $\_POST["useremail"];

        $password = $\_POST["userpassword"];

        $sql = "SELECT \* FROM user WHERE Email = '$email'";

        $result = mysqli\_query($conn, $sql);

        if ($row = mysqli\_fetch\_assoc($result)) {

            if($password == $row["Password"]) {

                $\_SESSION["userid"] = $row["user\_ID"];

                $\_SESSION["username"] = $row["Name"];

                $\_SESSION["useremail"] = $row["Email"];

                header("Location: user-dash.php");

                //exit();

            } else {

                echo "<script>alert('Incorrect password!'); window.location.href='user-signin.php';</script>";

            }

        } else {

            echo "<script>alert('User not found! Please sign up first.'); window.location.href='user-account.php';</script>";

        }

    }

?>

<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

    <meta name="viewport" content="width=device-width, initial-scale=1.0">

    <title>sign-in</title>

    <link rel="stylesheet" href="../public/css/global.css">

    <link rel="stylesheet" href="css/signin.css">

    <link rel="stylesheet" href="../public/css/form.css">

    <link rel="stylesheet" href="../public/css/submit-button.css">

</head>

<body>

    <header>

        <h1>SMART SERVICE ALLOCATION SYSTEM</h1>

    </header>

    <form action="user-signin.php" method="post">

        <table>

            <tr>

                <th colspan="2">SIGN IN/SIGN UP</th>

            </tr>

            <tr>

                <td><label for="useremail">Email id:</label></td>

                <td><input type="email" id="useremail" name="useremail" required></td>

            </tr>

            <tr>

                <td><label for="userpassword">Password:</label></td>

                <td><input type="password" id="userpassword" name="userpassword"></td>

            </tr>

            <tr>

            </tr>

            <tr>

            <td colspan="2">

                <center><input type="submit" value="Sign In" id="submit" name="submit"></center>

            </td>

            </tr>

            <tr>

               <td colspan="2"><center><a href="../user/user-verify.php" >Forgotten your password?</a></center></td>

            </tr>

            <tr>

                <td colspan="2"><center><a href="../user/user-account.php">Don't have an account?</a></center></td>

            </tr>

        </table>

    </form>

</body>

</html>

**7.2.2 USER REGISTRATION**

<?php

include '../includes/db.php';

if(isset($\_POST["submit"])) {

    $name = $\_POST["user-name"];

    $email = $\_POST["user-email"];

    $phoneno = $\_POST["user-phone"];

    $house = $\_POST["house"];

    $street = $\_POST["street"];

    $city = $\_POST["city"];

    $pincode = $\_POST["pincode"];

    $address = $house . ", " . $street . ", " . $city . " - " . $pincode;

    $password = $\_POST["user-password"];

    $confirmpassword = $\_POST["confirm-password"];

    if ($password !== $confirmpassword) {

        echo "<script>alert('Passwords do not match.');</script>";

    } else {

        $sql = "INSERT INTO user (Name, Email, Phone\_No,Address, Password)

                VALUES ('$name', '$email', '$phoneno', '$address', '$password')";

        if (mysqli\_query($conn, $sql)) {

            echo "<script>alert('Account created successfully!'); window.location.href='user-signin.php';</script>";

            exit();

        } else {

            $error = "Error: " . mysqli\_error($conn);

        }

    }

}

?>

<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

    <meta name="viewport" content="width=device-width, initial-scale=1.0">

    <title>Create Account</title>

    <link rel="stylesheet" href="../public/css/global.css">

    <link rel="stylesheet" href="../user/css/account.css">

    <link rel="stylesheet" href="../public/css/form.css">

    <link rel="stylesheet" href="../public/css/submit-button.css">

</head>

<body>

    <header>

        <h1>Smart Service Allocation System</h1>

    </header>

    <main class="create-form">

        <form action="user-account.php" method="post">

            <table>

                <tr>

                    <th colspan="2">Create Account</th>

                </tr>

                <tr>

                    <td><label for="user-name">Name:</label></td>

                    <td><input type="text" name="user-name" id="user-name" placeholder="john" required></td>

                </tr>

                <tr>

                    <td><label for="user-email">Email ID:</label></td>

                    <td><input type="email" name="user-email" id="user-email" placeholder="john@gmail.com" required></td>

                </tr>

                <tr>

                    <td><label for="user-phone">Phone no:</label></td>

                    <td><input type="tel" name="user-phone" id="user-phone" placeholder="123-456-7890" pattern="[0-9]{10}" required></td>

                </tr>

                <tr>

                    <td rowspan="4"><label for="user-location">Location:</label></td>

                    <td><input type="text" name="house" id="house" placeholder="House no and house name" required></td>

                </tr>

                <tr>

                    <td><input type="text" name="street" id="street" placeholder="Street name" required></td>

                </tr>

                <tr>

                    <td><input type="text" name="city" id="city" placeholder="City name" required></td>

                </tr>

                <tr>

                    <td><input type="number" name="pincode" id="pincode" placeholder="Postal code" required></td>

                </tr>

                <tr>

                    <td><label for="user-password">Password:</label></td>

                    <td><input type="password" name="user-password" id="user-password" placeholder="create a strong password" required></td>

                </tr>

                <tr>

                    <td><label for="confirm-password">Confirm Password:</label></td>

                    <td><input type="password" name="confirm-password" id="confirm-password" placeholder="Enter password again" required></td>

                </tr>

                <tr>

                    <td colspan="2"><center><input type="submit" value="Create account" id="submit" name="submit"></center></td>

                </tr>

                <tr>

                    <td colspan="2">Have an account already? <a href="../user/user-signin.php">Login</a></td>

                </tr>

            </table>

        </form>

    </main>

</body>

</html>

**7.2.3 USER DASHBOARD**

<?php

    session\_start();

    include("../includes/db.php");

    $user\_id = $\_SESSION['userid'];

    $total\_orders\_query = "SELECT COUNT(\*) AS total FROM service\_request WHERE User\_ID = $user\_id";

    $total\_orders\_result = mysqli\_query($conn, $total\_orders\_query);

    $total\_orders = mysqli\_fetch\_assoc($total\_orders\_result)['total'];

    $pending\_orders\_query = "SELECT COUNT(\*) AS pending FROM service\_request WHERE User\_ID = $user\_id AND status = 'Pending'";

    $pending\_orders\_result = mysqli\_query($conn, $pending\_orders\_query);

    $pending\_orders = mysqli\_fetch\_assoc($pending\_orders\_result)['pending'];

?>

<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

    <meta name="viewport" content="width=device-width, initial-scale=1.0">

    <title>USER DASHBOARD</title>

    <link rel="stylesheet" href="../public/css/global.css">

    <link rel="stylesheet" href="../public/css/submit-button.css">

    <link rel="stylesheet" href="../user/css/dash.css">

</head>

<body>

    <div class="sidebar" id="sidebar">

        <h2>Dashboard</h2>

        <ul>

            <li><a href="../public/index.php">Home</a></li>

            <li><a href="../user/user-request.php">Request a Service</a></li>

            <li><a href="../user/track-service.php">Track Your Service Status</a></li>

            <li><a href="../user/user-feedback.php">Rating and Feedback</a></li>

        </ul>

        <form action="../includes/logout.php" method="POST">

            <button class="logout" name="logout">Logout</button>

        </form>

    </div>

    <div class="main-content">

        <div class="topbar">

            Welcome, <?php echo isset($\_SESSION["username"]) ? $\_SESSION["username"] : "User"; ?>

        </div>

        <div class="cards">

            <div class="card">

                <h3>Total Orders</h3>

                <p><?php echo $total\_orders; ?></p>

            </div>

            <div class="card">

                <h3>Pending Orders</h3>

                <p><?php echo $pending\_orders; ?></p>

            </div>

        </div>

    </div>

</body>

</html>

**7.2.4 SERVICE REQUEST**

<?php

    session\_start();

    if (!isset($\_SESSION["userid"])) {

        echo "<script>alert('User not logged in. Please log in first.'); window.location.href='../user/user-signin.php';</script>";

        exit();

    }

    include '../includes/db.php';

    if(isset($\_POST["submit"])) {

        $servicetype = $\_POST["serviceType"];

        $description = $\_POST["description"];

        $location = $\_POST["location"];

        $mobileno = $\_POST["mobile"];

        if(isset($\_SESSION["userid"])) {

            $userID = $\_SESSION["userid"];

        }

        $sql = "INSERT INTO service\_request (Description, Location, Status, User\_ID)

                VALUES ('$description', '$location', 'Pending', '$userID')";

        $result = mysqli\_query($conn, $sql);

        if($result) {

            echo "<script>

                    alert('Your service request has been submitted successfully!');

                    window.location.href = '../user/user-dash.php';

                  </script>";

        } else {

            echo "Error: " . mysqli\_error($conn);

        }

    }

?>

<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

    <meta name="viewport" content="width=device-width, initial-scale=1.0">

    <title>Service Request</title>

    <style>

        body {

            font-family: Arial, sans-serif;

            margin: 0;

            padding: 20px;

            background-color: #f4f4f4;

        }

        .container {

            max-width: 500px;

            margin: auto;

            background: white;

            padding: 20px;

            border-radius: 10px;

            box-shadow: 0 0 10px rgba(0, 0, 0, 0.1);

        }

        h2 {

            text-align: center;

        }

        label {

            font-weight: bold;

        }

        input, textarea, select {

            width: 100%;

            padding: 10px;

            margin: 10px 0;

            border: 1px solid #ccc;

            border-radius: 5px;

        }

        button {

            width: 100%;

            padding: 10px;

            background: #28a745;

            color: white;

            border: none;

            border-radius: 5px;

            cursor: pointer;

        }

        button:hover {

            background: #218838;

        }

    </style>

</head>

<body>

    <div class="container">

        <h2>Service Request Form</h2>

        <form action="user-request.php" method="POST" id="serviceForm">

            <label for="serviceType">Type of Service:</label>

            <select id="serviceType" name="serviceType" required>

                <option value="">Select</option>

                <option value="electronics-repair">Electronics Repair</option>

                <option value="device-installation">Device Installation & Setup</option>

                <option value="technical-troubleshooting">Technical Troubleshooting</option>

            </select>

            <label for="description">Service Description:</label>

            <textarea id="description" name="description" required></textarea>

            <label for="location">District:</label>

            <select id="location" name="location" required>

                <option value="">Select District</option>

                <option value="Thiruvananthapuram">Thiruvananthapuram</option>

                <option value="Kollam">Kollam</option>

                <option value="Pathanamthitta">Pathanamthitta</option>

                <option value="Alappuzha">Alappuzha</option>

                <option value="Kottayam">Kottayam</option>

                <option value="Idukki">Idukki</option>

                <option value="Ernakulam">Ernakulam</option>

                <option value="Thrissur">Thrissur</option>

                <option value="Palakkad">Palakkad</option>

                <option value="Malappuram">Malappuram</option>

                <option value="Kozhikode">Kozhikode</option>

                <option value="Wayanad">Wayanad</option>

                <option value="Kannur">Kannur</option>

                <option value="Kasaragod">Kasaragod</option>

            </select>

            <label for="mobile">Mobile Number:</label>

            <input type="tel" id="mobile" name="mobile" pattern="[0-9]{10}" placeholder="Enter 10-digit mobile number" required>

            <button type="submit" id="submit" name="submit">Submit Request</button>

        </form>

    </div>

</body>

</html>

**7.2.4 TRACK SERVICE**

<?php

    session\_start();

    include("../includes/db.php");

    $user\_id = $\_SESSION['userid'];

    $query = "SELECT Request\_ID, description, status FROM service\_request WHERE User\_ID = $user\_id";

    $result = mysqli\_query($conn, $query);

?>

<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

    <meta name="viewport" content="width=device-width, initial-scale=1.0">

    <title>Track Service</title>

    <link rel="stylesheet" href="../public/css/global.css">

    <link rel="stylesheet" href="../user/css/track-service.css">

</head>

<body>

    <div class="container">

        <h2>Track Your Service Status</h2>

        <table>

            <tr>

                <th>Request ID</th>

                <th>Description</th>

                <th>Status</th>

            </tr>

            <?php while ($row = mysqli\_fetch\_assoc($result)) { ?>

                <tr>

                    <td><?php echo ($row['Request\_ID']); ?></td>

                    <td><?php echo ($row['description']); ?></td>

                    <td><?php echo ($row['status']); ?></td>

                </tr>

            <?php } ?>

        </table>

    </div>

</body>

</html>

**7.2.5 USER FEEDBACK**

<?php

include '../includes/db.php';

session\_start();

$user\_id = $\_SESSION["userid"];

$query = "SELECT Request\_ID, Description FROM service\_request WHERE User\_ID = '$user\_id' AND Status = 'Completed'";

$result = mysqli\_query($conn, $query);

if ($\_SERVER["REQUEST\_METHOD"] == "POST") {

    $request\_id = $\_POST['request\_id'];

    $rating = $\_POST['rating'];

    $comments = $\_POST['comments'];

    $sql = "INSERT INTO feedback (User\_ID, Request\_ID, Rating, Comments)

            VALUES ('$user\_id', '$request\_id', '$rating', '$comments')";

    if (mysqli\_query($conn, $sql)) {

        echo "<script>alert('Feedback submitted successfully!'); window.location='user-dash.php';</script>";

    } else {

        echo "Error: " . mysqli\_error($conn);

    }

}

?>

<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

    <meta name="viewport" content="width=device-width, initial-scale=1.0">

    <title>Feedback</title>

    <style>

        body { font-family: Arial, sans-serif; padding: 20px; }

        form { width: 50%; margin: auto; border: 1px solid #ccc; padding: 20px; border-radius: 10px; }

        label { font-weight: bold; display: block; margin-top: 10px; }

        select, textarea, button { width: 100%; padding: 10px; margin-top: 5px; }

        button { background-color: #007bff; color: white; border: none; cursor: pointer; }

        button:hover { background-color: #0056b3; }

    </style>

    <script>

        function showServiceDetails() {

            let serviceDetails = document.getElementById("serviceDetails");

            let selectedOption = document.getElementById("request\_id").selectedOptions[0];

            serviceDetails.innerText = "Service Description: " + selectedOption.getAttribute("data-desc");

        }

    </script>

</head>

<body>

<h2>Submit Feedback</h2>

<form method="POST" action="">

    <label>Select Service:</label>

    <select name="request\_id" id="request\_id" onchange="showServiceDetails()" required>

        <option value="">-- Select Service --</option>

        <?php while ($row = mysqli\_fetch\_assoc($result)) { ?>

            <option value="<?php echo $row['Request\_ID']; ?>" data-desc="<?php echo $row['Description']; ?>">

                <?php echo "Request #" . $row['Request\_ID']; ?>

            </option>

        <?php } ?>

    </select>

    <p id="serviceDetails" style="font-style: italic; color: gray;"></p>

    <label>Rating (1-5):</label>

    <select name="rating" required>

        <option value="1">1 - Poor</option>

        <option value="2">2 - Fair</option>

        <option value="3">3 - Good</option>

        <option value="4">4 - Very Good</option>

        <option value="5">5 - Excellent</option>

    </select>

    <label>Comments:</label>

    <textarea name="comments" required></textarea>

    <button type="submit">Submit Feedback</button>

</form>

</body>

</html>

**7.3 ADMIN INTERFACE**

**7.3.1 ADMIN LOGIN**

<?php

    session\_start();

    include '../includes/db.php';

    if(isset($\_POST["submit"])) {

        $adminid = $\_POST["admin-id"];

        $password = $\_POST["admin-pass"];

        $sql = "SELECT \* FROM admin WHERE Admin\_ID = '$adminid'";

        $result = mysqli\_query($conn,$sql);

        if($row = mysqli\_fetch\_assoc($result)) {

            if($password == $row["password"]) {

                $\_SESSION["Admin\_ID"] = $row["Admin\_ID"];

                header("Location: admin-dash.php");

                exit();

            } else {

                echo "<script>alert('Incorrect password!');window.location.href='admin-login.php';</script>";

            }

        } else {

            echo "<script>alert('Invalid login credentials');window.location.href='admin-login.php';</script>";

        }

    }

?>

<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

    <meta name="viewport" content="width=device-width, initial-scale=1.0">

    <title>ADMIN LOGIN</title>

    <link rel="stylesheet" href="../public/css/global.css">

    <link rel="stylesheet" href="../admin/css/admin-login.css">

    <link rel="stylesheet" href="../public/css/form.css">

    <link rel="stylesheet" href="../public/css/submit-button.css">

</head>

<body>

    <header>

    <h1><center> ADMIN LOGIN </center></h1>

    </header>

    <section class="log-sec">

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

            <table>

                <tr>

                    <th colspan="2">ADMIN LOGIN</th>

                </tr>

                <tr>

                    <td><label for="admin-mail">ADMIN ID:</label></td>

                    <td><input type="number" name="admin-id" id="admin-id" required></td>

                </tr>

                <tr>

                    <td><label for="admin-pass">Password:</label></td>

                    <td><input type="password" name="admin-pass" id="admin-pass"  required></td>

                </tr>

                <tr>

                    <td colspan="2"><center><a href="../admin/verify-admin.php" >Forgotten your password?</a></center></td>

                </tr>

                <tr>

                    <td colspan="2"><center><input type="submit" value="LOGIN" id="submit" name="submit"></center></td>

                </tr>

            </table>

        </form>

    </section>

</body>

</html>

**7.3.2 ADMIN DASHBOARD**

<?php

    session\_start();

    include '../includes/db.php';

    $userQuery = "SELECT COUNT(\*) AS user\_ID FROM user";

    $userResult = $conn->query($userQuery);

    $userRow = $userResult->fetch\_assoc();

    $totalUsers = $userRow['user\_ID'];

    $activeServicesQuery = "SELECT COUNT(\*) AS Request\_ID FROM service\_request WHERE Status != 'Completed'";

    $activeServicesResult = $conn->query($activeServicesQuery);

    $activeServicesRow = $activeServicesResult->fetch\_assoc();

    $activeServices = $activeServicesRow['Request\_ID'];

    $pendingRequestsQuery = "SELECT COUNT(\*) AS Request\_ID FROM service\_request WHERE Status = 'pending'";

    $pendingRequestsResult = $conn->query($pendingRequestsQuery);

    $pendingRequestsRow = $pendingRequestsResult->fetch\_assoc();

    $pendingRequests = $pendingRequestsRow['Request\_ID'];

?>

<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

    <meta name="viewport" content="width=device-width, initial-scale=1.0">

    <link rel="stylesheet" href="../public/css/global.css">

    <title>Admin Dashboard</title>

    <style>

        body {

            font-family: Arial, sans-serif;

            margin: 0;

            padding: 0;

            display: flex;

        }

        .sidebar {

            width: 200px;

            height: 100vh;

            background: #333;

            color: white;

            padding: 20px;

            position: fixed;

        }

        .sidebar h2 {

            text-align: center;

        }

        .sidebar ul {

            list-style: none;

            padding: 0;

        }

        .sidebar ul li {

            padding: 15px;

            border-bottom: 1px solid #444;

        }

        .sidebar ul li a {

            color: white;

            text-decoration: none;

            display: block;

        }

        .sidebar ul li:hover {

            background: #444;

        }

        .main-content {

            margin-left: 260px;

            padding: 20px;

            width: 100%;

        }

        .dashboard-cards {

            display: flex;

            gap: 20px;

        }

        .card {

            background: white;

            padding: 20px;

            border-radius: 10px;

            box-shadow: 0px 0px 10px gray;

            flex: 1;

            text-align: center;

        }

        .logout {

            position: absolute;

            bottom: 45px;

            left: 50%;

            transform: translateX(-50%);

            background: red;

            padding: 10px;

            color: white;

            text-align: center;

            border-radius: 5px;

            cursor: pointer;

            border: none;

        }

    </style>

</head>

<body>

    <div class="sidebar">

        <h2>Admin Panel</h2>

        <ul>

            <li><a href="#home">Dashboard</a></li>

            <li><a href="../admin/service-manage.php">Manage Services</a></li>

            <li><a href="../admin/technician-create.php">Add Technician</a></li>

            <li><a href="../admin/admin-feedback.php">Feedbacks</a></li>

        </ul>

        <form action="../includes/logout.php" method="POST">

            <button class="logout" name="logout">Logout</button>

        </form>

    </div>

    <div class="main-content" id="home">

        <h1>Welcome, Admin</h1>

        <div class="dashboard-cards">

            <div class="card">

                <h3>Total Users</h3>

                <p><?php echo $totalUsers; ?></p>

            </div>

            <div class="card">

                <h3>Active Services</h3>

                <p><?php echo $activeServices; ?></p>

            </div>

            <div class="card">

                <h3>Pending Requests</h3>

                <p><?php echo $pendingRequests; ?></p>

            </div>

        </div>

    </div>

</body>

</html>

**7.3.3 MANAGE SERVICE**

<?php

    session\_start();

    include '../includes/db.php';

    if (isset($\_POST['assign\_technician'])) {

        $request\_id = $\_POST['request\_id'];

        $technician\_id = $\_POST['technician\_id'];

        $assignQuery = "UPDATE service\_request

                        SET Techinician\_ID = '$technician\_id', Status = 'In Progress'

                        WHERE Request\_ID = '$request\_id'";

        if (mysqli\_query($conn, $assignQuery)) {

            echo "<script>alert('Technician Assigned Successfully!'); window.location.href='service-manage.php';</script>";

        } else {

            echo "<script>alert('Error Assigning Technician');</script>";

        }

    }

?>

<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

    <meta name="viewport" content="width=device-width, initial-scale=1.0">

    <title>Manage Service Requests</title>

    <link rel="stylesheet" href="../public/css/global.css">

    <style>

        body {

            font-family: Arial, sans-serif;

            margin: 0;

            padding: 20px;

            background-color: #f4f4f4;

        }

        .container {

            max-width: 900px;

            margin: auto;

            background: white;

            padding: 20px;

            border-radius: 10px;

            box-shadow: 0 0 10px rgba(0, 0, 0, 0.1);

        }

        h2 {

            text-align: center;

        }

        table {

            width: 100%;

            border-collapse: collapse;

            margin-top: 20px;

        }

        th, td {

            border: 1px solid #ccc;

            padding: 10px;

            text-align: left;

        }

        th {

            background-color: #28a745;

            color: white;

        }

        select, button {

            padding: 10px;

            margin-top: 5px;

            border-radius: 5px;

            width: 100%;

        }

        button {

            background: #007bff;

            color: white;

            border: none;

            cursor: pointer;

        }

        button:hover {

            background: #0056b3;

        }

    </style>

</head>

<body>

    <div class="container">

        <h2>Manage Service Requests</h2>

        <table>

            <tr>

                <th>Request ID</th>

                <th>Customer Name</th>

                <th>Service Description</th>

                <th>Location</th>

                <th>Assign Technician</th>

                <th>Action</th>

            </tr>

            <?php

                $query = "SELECT sr.Request\_ID, u.name, sr.Description, sr.Location, sr.Techinician\_ID

                          FROM service\_request sr

                          JOIN user u ON sr.User\_ID = u.user\_ID

                          WHERE sr.Status = 'Pending'";

                $result = mysqli\_query($conn, $query);

                while ($row = mysqli\_fetch\_assoc($result)) {

                    echo "<tr>

                        <td>{$row['Request\_ID']}</td>

                        <td>{$row['name']}</td>

                        <td>{$row['Description']}</td>

                        <td>{$row['Location']}</td>

                        <td>

                            <form method='POST' action=''>

                                <input type='hidden' name='request\_id' value='{$row['Request\_ID']}'>

                                <select name='technician\_id' required>

                                    <option value=''>Select Technician</option>";

                                    $loc = $row['Location'];

                                    echo $loc;

                                    $techQuery = "SELECT Techinician\_ID, Name FROM technician WHERE Availability\_Status = 1 AND Location LIKE '%$loc%'";

                                    $techResult = mysqli\_query($conn, $techQuery);

                                    while ($tech = mysqli\_fetch\_assoc($techResult)) {

                                        echo "<option value='{$tech['Techinician\_ID']}'>{$tech['Name']}</option>";

                                    }

                    echo "          </select>

                        </td>

                        <td><button type='submit' name='assign\_technician'>Update</button></td>

                            </form>

                        </tr>";

                }

            ?>

        </table>

    </div>

</body>

</html>

**7.3.4 REGISTER TECHNICIAN**

<?php

    include '../includes/db.php';

    if(isset($\_POST["submit"])) {

        $name = $\_POST["tech-name"];

        $email = $\_POST["tech-mail"];

        $phoneno = $\_POST["tech-phone"];

        $house = $\_POST["house"];

        $street = $\_POST["street"];

        $city = $\_POST["city"];

        $pincode = $\_POST["pincode"];

        $address = $house . ", " . $street . ", " . $city . " - " . $pincode;

        $skills = $\_POST["tech-skill"];

        $password = $\_POST["technicain-password"];

        $confirmpassword = $\_POST["confirm-password"];

        if ($password !== $confirmpassword) {

            echo "<script>alert('Passwords do not match.');</script>";

        } else {

            $sql = "INSERT INTO technician (Name, Skills, Location, Phone\_No, Email, Password)

            VALUES ('$name','$skills','$address','$phoneno','$email','$password')";

        if (mysqli\_query($conn, $sql)) {

            echo "<script>alert('Account created successfully!');window.location.href='admin-dash.php';</script>";

            exit();

        } else {

            $error = "Error: " . mysqli\_error($conn);

        }

    }

}

?>

<meta name="viewport" content="width=device-width, initial-scale=1.0">

<title>Technician Management</title>

    <link rel="stylesheet" href="../public/css/global.css">

    <link rel="stylesheet" href="../admin/css/admin-login.css">

    <link rel="stylesheet" href="../public/css/form.css">

    <link rel="stylesheet" href="../public/css/submit-button.css">

</head>

<body>

    <header>

    <h1><center> Register Technician </center></h1>

    </header>

    <section class="create-tech">

        <form action="" method="post">

            <table>

                <tr>

                    <th colspan="2">Register Technician</th>

                </tr>

                <tr>

                    <td><label for="techname">Technician Name:</label></td>

                    <td><input type="text" name="tech-name" id="tech-name" required></td>

                </tr>

                <tr>

                    <td><label for="skills">Skills:</label></td>

                    <td><input type="text" name="tech-skill" id="tech-skill" required></td>

                </tr>

                <tr>

                    <td rowspan="4"><label for="tech-location">Location:</label></td>

                    <td><input type="text" name="house" id="house" placeholder="house no and house name" required></td>

                </tr>

                <tr>

                    <td><input type="text" id="street" name="street" placeholder="street name" required></td>

                </tr>

                <tr>

                    <td><input type="text" name="city" id="city" placeholder="city name" required></td>

                </tr>

                <tr>

                    <td><input type="number" name="pincode" id="pincode" placeholder="postal code" required></td>

                </tr>

                <tr>

                    <td><label for="techphone">Phone NO:</label></td>

                    <td><input type="text" name="tech-phone" id="tech-phone" required></td>

                </tr>

                <tr>

                    <td><label for="techmail">Email:</label></td>

                    <td><input type="text" name="tech-mail" id="tech-mail" required></td>

                </tr>

                <tr>

                    <td><label for="technician-pass">Password:</label></td>

                    <td><input type="password" name="technicain-password" id="technician-password"  required></td>

                </tr>

                <tr>

                    <td><label for="confirm-password">Confrim-password</label></td>

                <td><input type="password" name="confirm-password" id="confirm-password"  required></td>

                </tr>

                <tr>

                    <td colspan="2"><center><input type="submit" value="CREATE ACCOUNT" id="submit" name="submit"></center></td>

                </tr>

            </table>

        </form>

    </section>

</body>

</html>

**7.3.5 VIEW FEEDBACKS**

<?php

include '../includes/db.php';

session\_start();

if (!isset($\_SESSION["Admin\_ID"])) {

    header("Location: admin-login.php");

    exit();

}

$query = "SELECT f.Feedback\_ID, f.Comments, f.Rating, f.Request\_ID, u.Name AS User\_Name, t.Name AS Technician\_Name

          FROM feedback f

          JOIN service\_request s ON f.Request\_ID = s.Request\_ID

          JOIN user u ON f.User\_ID = u.user\_ID

          JOIN technician t ON s.Techinician\_ID = t.Techinician\_ID";

$result = mysqli\_query($conn, $query);

?>

<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

    <meta name="viewport" content="width=device-width, initial-scale=1.0">

    <title>Admin - View Feedback</title>

    <style>

        body { font-family: Arial, sans-serif; padding: 20px; }

        h2 { text-align: center; }

        table { width: 100%; border-collapse: collapse; margin-top: 20px; }

        th, td { border: 1px solid #ddd; padding: 10px; text-align: left; }

        th { background-color: #007bff; color: white; }

        tr:nth-child(even) { background-color: #f2f2f2; }

        .back-btn { display: block; margin: 10px auto; padding: 8px 15px; background: #007bff; color: white; text-align: center; text-decoration: none; width: 150px; border-radius: 5px; }

    </style>

</head>

<body>

<h2>All Feedback</h2>

<table>

    <tr>

        <th>Feedback ID</th>

        <th>User</th>

        <th>Technician</th>

        <th>Request ID</th>

        <th>Rating</th>

        <th>Comments</th>

    </tr>

    <?php while ($row = mysqli\_fetch\_assoc($result)) { ?>

    <tr>

        <td><?php echo $row['Feedback\_ID']; ?></td>

        <td><?php echo $row['User\_Name']; ?></td>

        <td><?php echo $row['Technician\_Name']; ?></td>

        <td><?php echo $row['Request\_ID']; ?></td>

        <td><?php echo $row['Rating']; ?> / 5</td>

        <td><?php echo $row['Comments']; ?></td>

    </tr>

    <?php } ?>

</table>

<a href="admin-dash.php" class="back-btn">Back to Dashboard</a>

</body>

</html>

**7.4 TECHNICIAN INTERFACE**

**7.4.1 TECHNICIAN LOGIN**

<?php

    session\_start();

    include '../includes/db.php';

    if(isset($\_POST["submit"])) {

        $techncianemail = $\_POST["techemail"];

        $password = $\_POST["techpassword"];

        $sql = "SELECT \* FROM technician WHERE Email = '$techncianemail'";

        $result = mysqli\_query($conn, $sql);

        if (!$result) {

            die("Database query failed: " . mysqli\_error($conn));

        }

        if ($row = mysqli\_fetch\_assoc($result)) {

            if ($password === $row["Password"]) {

                $\_SESSION["technicianid"] = $row["Techinician\_ID"];

                $\_SESSION["name"] = $row["Name"];

                $\_SESSION["technicianemail"] = $row["Email"];

                header("Location: technician-dashboard.php");

                exit();

            } else {

                echo "<script>alert('Incorrect password!'); window.location.href='technician\_login.php';</script>";

            }

        } else {

            echo "<script>alert('Technician not found!'); window.location.href='technician\_login.php';</script>";

        }

    }

?>

<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

    <meta name="viewport" content="width=device-width, initial-scale=1.0">

    <title>TECHNICIAN LOGIN</title>

    <link rel="stylesheet" href="../public/css/global.css">

    <link rel="stylesheet" href="../technician/css/signin.css">

    <link rel="stylesheet" href="../public/css/form.css">

    <link rel="stylesheet" href="../public/css/submit-button.css">

</head>

<body>

    <h1>TECHNICIAN LOGIN</h1>

    <form action="technician\_login.php" method="post">

        <table>

            <tr>

                <th colspan="2">SIGN IN</th>

            </tr>

            <tr>

                <td><label for="techemail">Email id:</label></td>

                <td><input type="email" id="techemail" name="techemail" required></td>

            </tr>

            <tr>

                <td><label for="techpassword">Password:</label></td>

                <td><input type="password" id="techhpassword" name="techpassword"></td>

            </tr>

            <tr>

            </tr>

            <tr>

                <td><p id="techloginerror" name="techloginerror"></p></td>

            </tr>

            <tr>

            <td colspan="2">

                <center><input type="submit" value="Sign In" id="submit" name="submit"></center>

            </td>

            </tr>

            <tr>

               <td colspan="2"><center><a href="../technician/verify-technician.php" >Forgotten your password?</a></center></td>

            </tr>

        </table>

    </form>

</body>

</html>

**7.4.2 DASHBOARD**

<?php

session\_start();

?>

<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

    <meta name="viewport" content="width=device-width, initial-scale=1.0">

    <title>Technician Dashboard</title>

    <link rel="stylesheet" href="../public/css/global.css">

    <link rel="stylesheet" href="../technician/css/dashboard.css">

</head>

<body>

    <div class="tech\_dahboard">

        <div class="sidebar">

            <h2>Technician Panel</h2>

            <a href="#">Dashboard</a>

            <a href="../technician/assignedtask.php">Assigned Tasks</a>

            <a href="../technician/view-feedback.php">Feedbacks</a>

            <form action="../includes/logout.php" method="POST">

            <button class="logout" name="logout">Logout</button>

        </form>

        </div>

        <div class="content">

            <h2>Welcome, Technician</h2>

            <div class="card-container">

                <div class="card">

                    <h5>Assigned Tasks</h5>

                    <p>10</p>

                </div>

                <div class="card">

                    <h5>Completed Tasks</h5>

                    <p>7</p>

                </div>

            </div>

        </div>

        <div class="techside">

            <h2>profile</h2> <br>

            <i class="fa-regular fa-user"></i> <br>

            <p id="techeid">Technician id:<?php echo isset($\_SESSION["technicianid"]) ? $\_SESSION["technicianid"] : "Technician-ID"; ?></p> <br>

            <p id="techname" name="techname"><?php echo isset($\_SESSION["name"]) ? $\_SESSION["name"] : "Technician"; ?></p>

            <button class="attendance-button" id="attendanceBtn">Unavailable</button>

        </div>

    </div>

    <script src="https://kit.fontawesome.com/781c7c7d6c.js" crossorigin="anonymous"></script>

    <script src="../technician/js/attendancebtn.js"></script>

    <script>

    document.getElementById("attendanceBtn").addEventListener("click", function () {

        let btn = this;

        fetch("../technician/attendance.php", {

            method: "POST"

        })

        .then(response => response.text())

        .then(data => {

            if (data === "1") {

                btn.innerHTML = "Available";

                btn.style.backgroundColor = "green";

            } else if (data === "0") {

                btn.innerHTML = "Unavailable";

                btn.style.backgroundColor = "red";

            } else {

                console.error("Error updating status");

            }

        })

        .catch(error => console.error("Fetch Error:", error));

    });

</script>

</body>

</html>

**7.4.3 ASSIGNED TASKS**

<?php

session\_start();

include '../includes/db.php';

$technician\_id = $\_SESSION["technicianid"];

$query = "SELECT r.Request\_ID, u.name AS customer\_name,

                 u.Address, u.Phone\_NO, r.Status

          FROM service\_request r

          JOIN user u ON r.User\_ID = u.user\_ID

          WHERE r.Techinician\_ID = $technician\_id

          AND r.Status != 'Completed'";

$result = mysqli\_query($conn, $query);

?>

<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

    <meta name="viewport" content="width=device-width, initial-scale=1.0">

    <title>Technician Panel</title>

    <style>

        body {

            font-family: Arial, sans-serif;

            margin: 0;

            padding: 20px;

            background-color: #f4f4f4;

        }

        .container {

            max-width: 900px;

            margin: auto;

            background: white;

            padding: 20px;

            border-radius: 10px;

            box-shadow: 0 0 10px rgba(0, 0, 0, 0.1);

        }

        h2 {

            text-align: center;

        }

        .table-container {

            overflow-x: auto;

        }

        table {

            width: 100%;

            border-collapse: collapse;

            margin-top: 20px;

        }

        th, td {

            border: 1px solid #ccc;

            padding: 10px;

            text-align: left;

        }

        th {

            background-color: #007bff;

            color: white;

        }

        select, button {

            padding: 10px;

            margin-top: 10px;

            border-radius: 5px;

            width: 100%;

        }

        button {

            background: #28a745;

            color: white;

            border: none;

            cursor: pointer;

        }

        button:hover {

            background: #218838;

        }

    </style>

</head>

<body>

    <div class="container">

        <h2>Technician Panel - Assigned Requests</h2>

        <div class="table-container">

            <table>

                <tr>

                    <th>Request ID</th>

                    <th>Customer Name</th>

                    <th>Location</th>

                    <th>Mobile Number</th>

                    <th>Status</th>

                    <th>Action</th>

                </tr>

                <?php while ($row = mysqli\_fetch\_assoc($result)) { ?>

                <tr>

                    <td><?php echo $row['Request\_ID']; ?></td>

                    <td><?php echo $row['customer\_name']; ?></td>

                    <td><?php echo $row['Address']; ?></td>

                    <td><?php echo $row['Phone\_NO']; ?></td>

                    <td>

                        <form action="update\_status.php" method="POST">

                            <input type="hidden" name="request\_id" value="<?php echo $row['Request\_ID']; ?>">

                            <select name="status" required>

                                <option value="" disabled selected>Select </option>

                                <option value="Accepted" <?php if ($row['Status'] == 'Accepted') echo 'selected'; ?>>Accepted</option>

                                <option value="Completed" <?php if ($row['Status'] == 'Completed') echo 'selected'; ?>>Completed</option>

                            </select>

                    </td>

                    <td><button type="submit">Update</button></td>

                    </form>

                </tr>

                <?php } ?>

            </table>

        </div>

    </div>

</body>

</html>

**7.4.4 VIEW FEEDBACK**

<?php

include '../includes/db.php';

session\_start();

if (!isset($\_SESSION["technicianid"])) {

    header("Location: login.php");

    exit();

}

$technician\_id = $\_SESSION["technicianid"];

$query = "SELECT f.Feedback\_ID, f.Comments, f.Rating, f.Request\_ID, u.Name AS User\_Name

          FROM feedback f

          JOIN service\_request s ON f.Request\_ID = s.Request\_ID

          JOIN user u ON f.User\_ID = u.user\_ID

          WHERE s.Techinician\_ID = '$technician\_id'";

$result = mysqli\_query($conn, $query);

?>

<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

    <meta name="viewport" content="width=device-width, initial-scale=1.0">

    <title>Technician Feedback</title>

    <style>

        body { font-family: Arial, sans-serif; padding: 20px; }

        h2 { text-align: center; }

        table { width: 100%; border-collapse: collapse; margin-top: 20px; }

        th, td { border: 1px solid #ddd; padding: 10px; text-align: left; }

        th { background-color: #007bff; color: white; }

        tr:nth-child(even) { background-color: #f2f2f2; }

        .back-btn { display: block; margin: 10px auto; padding: 8px 15px; background: #007bff; color: white; text-align: center; text-decoration: none; width: 150px; border-radius: 5px; }

    </style>

</head>

<body>

<h2>Feedback for Your Services</h2>

<table>

    <tr>

        <th>Feedback ID</th>

        <th>User</th>

        <th>Request ID</th>

        <th>Rating</th>

        <th>Comments</th>

    </tr>

    <?php while ($row = mysqli\_fetch\_assoc($result)) { ?>

    <tr>

        <td><?php echo $row['Feedback\_ID']; ?></td>

        <td><?php echo $row['User\_Name']; ?></td>

        <td><?php echo $row['Request\_ID']; ?></td>

        <td><?php echo $row['Rating']; ?> / 5</td>

        <td><?php echo $row['Comments']; ?></td>

    </tr>

    <?php } ?>

</table>

<a href="technician-dashboard.php" class="back-btn">Back to Dashboard</a>

</body>

</html>