Project Documentation: InfiniteMiles

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1. Introduction

InfiniteMiles is a web application that enables users to book rental cars and allows agencies to manage their car listings. This project documentation provides an overview of the application, its features, and the technologies used.

2. Project Overview

InfiniteMiles is a multi-role web application designed for both customers and agencies. Customers can book rental cars, view their bookings, and cancel them, while agencies have access to an admin panel where they can manage their car listings. The project is built using HTML, CSS, JavaScript, PHP, and MySQL.

3. Features

- User Authentication: Provides an authentication page for users with roles as customers and agencies.
- Admin Panel: Agencies can perform CRUD operations on their car listings and view bookings.
- Bookings Table: Displays car model, customer name, days, and date.
- Role-Based Access: Agencies are not allowed to book cars, and customers cannot access the admin panel.
- Authorization Alerts: Unauthorized access results in alerts and prompts users to log in with the correct role.
- Logout: After login, the "Sign In" link in the main navigation is converted to a "Sign Out" button.
- Role-Based Registration: Users can create accounts with specific roles.
- Proper Authentication: Users can only log in with their designated role and the correct credentials.

4. Technologies Used

- HTML
- CSS
- JavaScript
- PHP
- MySQL

5. Database Schema

Tables

- `vehicle`: Stores vehicle information, including ID, model, number, capacity, rent/day, and agent ID.
- `customer`: Contains customer details such as ID, name, email, password, and mobile number.
- `agent`: Stores agency information, including ID, name, email, password, and mobile number.
- `booking`: Manages booking records with fields for ID, model, customer name, agent ID, customer ID, days, and date.

6. Authentication

The application includes a single authentication page where users can log in with their email and password. Based on their role, they are redirected to the appropriate page (customer or agency).

7. User Roles

- **Customer**: Can book cars, view their bookings, and cancel bookings.
- **Agency**: Has an admin panel to manage car listings. Can perform CRUD operations on their listings and view bookings.

8. Pages and Functionality

- **Main Page**: Displays all available vehicles. If booked, it shows as "Booked"; otherwise, it allows users to "Rent Now."
- **Car Card**: Shows car model, number, capacity, rent/day, input fields for days and date, and a "Rent" button.
- **Admin Panel**: For agencies, this page provides the ability to add, update, and delete car listings, as well as view bookings.
- **My Booking Page**: For customers, this page displays details of their bookings, including car model, date, days, and a "Cancel" button.

9. Installation and Setup

1. Set up a web server with PHP and MySQL support.
2. Import the provided database schema.
3. Copy the project files to the web server directory.

4. Update the database configuration in the PHP files.
5. Ensure proper folder and file permissions.

10. Usage

- ⑩ Access the InfiniteMiles website.
- ⑩ Sign in as a customer or agency.
- ⑩ Enjoy role-specific features such as booking cars, managing listings, and viewing bookings.

11. Conclusion

InfiniteMiles is a versatile web application that caters to the needs of both customers and agencies in the car rental industry. It ensures proper user authentication and role-based access, enhancing the user experience and providing agencies with the tools they need to manage their car listings effectively. This project documentation serves as a guide for developers and users alike, enabling them to understand and use InfiniteMiles effectively.