**Presentation Report: Car Rental Service Project**

**Introduction**

**Project Name**: Car Rental Service Management System

**Technologies Used**:

* **Frontend**: HTML, CSS, JavaScript
* **Backend**: PHP, MongoDB,PHP-MongoDB libraries,XAMPP Server.
* **Email Service**: PHPMailer

**Project Overview**: The Car Rental Service Management System is designed to manage car rentals efficiently. It provides functionalities for both regular users and administrators, including user registration, car booking, payment processing, and detailed analytics reporting.

**Features and Functionalities**

**1. User Management**:

* **Registration and Login**: Users can register and log in using their username and password.There are separate login processes for regular users and administrators.
* **Session Management**: Sessions are used to track user activities and ensure security.
* **Password Management**: Users can change their password through a secure process.

**2. Car Management**:

* **Admin Operations**: Administrators can add, update, delete cars, and view the list of available cars.
* **Booking Management**: Users can search for available cars and book them.

**3. Booking and Payment**:

* **Order ID**: Unique order\_id is generated for each booking in the format order\_{13}.
* **Payment Processing**: Handles the payment process and confirms bookings.

**4. Email Notifications**:

* **PHPMailer Integration**: Sends confirmation emails for bookings and cancellations.

**5. Analytics Reporting**:

* **Date Range Earnings Report**: Generates a report showing the total earnings for particular car type within a specified date range.
* **Car Type Wise Earnings Report:** Generates a report showing the total earnings for each car type.

**Implementation Details**

**User Registration and Login**:

* Users register and log in with their password and username.
* User sessions are maintained using PHP sessions.
* Passwords are securely hashed before storage.

**Car Booking**:

* Users can browse available cars and make bookings.
* Each booking generates a unique order\_id to ensure traceability.

**Booking Cancellation**:

* Users can cancel bookings through a confirmation prompt.
* On cancellation, the system deletes the booking from the database and sends an email notification.

**Analytics Reporting**:

* Uses MongoDB aggregation framework to generate earnings reports based on car type and date range.
* Displays the results in a clean, tabular format on the frontend.

**Conclusion**

This project successfully implements a comprehensive car rental service management system. It addresses key functionalities such as user management, car booking, payment processing, booking cancellations, and detailed analytics reporting. The use of MongoDB for data storage and PHPMailer for email notifications ensures robust and efficient operations.

FLOW-CHART:

LOGIN



REGISTER NEW USER

ADMIN\_USE

|  |  |  |  |
| --- | --- | --- | --- |
| RENT A CAR | CANCEL  BOOKING | VIEW  PROFILE AND CHANGE  PASSWORD | LOGOUT |



|  |
| --- |
| ADD A CAR |
| UPDATE A CAR |
| DELETE A CAR |
| VIEW ALL CARS |
| ANALYTICS |
| ALL CAR TYPES REPORTS |
| LOGOUT |

|  |
| --- |
| SUCCESSFUL LOGIN |