**Scope Definition:**

The scope of The Car Rental System project can be described as the implementation of a full-fledged software that incorporates all the functionalities required for renting of vehicles and its management. The system will allow clients to search vehicle information, create bookings, and to complete transactions. To help the employees with the vehicle inventory management, rentals and reporting.

**Entities and Attributes:**

**Customer:**

Attributes:

ID (Unique codes to each customer)

Name (Customer's full name)

Contact (Customer's contact number)

Address (Customer's address)

License Number（Customer's driver 's license number）

**Car:**

Attributes:

ID (Uniquely a car have a serial number)

Model (Car model)

Make (Car manufacturer)

Year (Year of manufacture)

Color (Car color)

Cost (Base rate, per day, for the rent of the rented car)

**Rental:**

Attributes:

ID (Unique identification for each rental transaction).

Client ID (Id used for identification of the customer renting the car).

Rental ID (the ID number from the rented car reservation)

Start Date of Rental (Date from which renter is given the possession of rented property)

Rental End Date(End Date when Rental Time Period ends)

Total amount (Total cost of the rental agreement)

**Payment:**

Attributes:

Identity (It’s an individual identifier for each payment transaction.)

Rendal ID (Transaction ID of which rental you just paid for)

Due Date (The date when payment happens)

Rent Type (Amount to be paid for the vehicle rental)

Payment Mode (Payment Mode that used, e.g., credit card or cash)

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| --- | --- | --- |
| PHASE | STEPS IMPLEMENTED | TIMELINE |
| Research and planning | * Conduct research and user surveys. * Define project requirements and objectives. * Develop a detailed project plan. | First Month |
| Development | * Design the database schema for storing car and rental information. * Develop user interfaces for customers to browse cars and make reservations. * Implement backend functionality for managing car inventory, rental transactions, and payments. * Conduct regular testing and debugging to ensure functionality and reliability. | Second to Third Month |
| Testing and Refinement | * Conduct comprehensive testing of the system to identify and fix any bugs or errors. * Gather feedback from test users and make necessary refinements to improve usability and performance. * Perform stress testing to assess system scalability and performance under load | Forth Month |
| Launch | * Prepare for the official launch of the Car Rental System. * Finalize documentation and user guides for customers and employees. * Deploy the system to production servers and ensure proper configuration and security measures are in place. * Conduct training sessions for employees on using the system effectively. * Monitor system performance and address any issues that arise during the initial launch period. |  |
| Maintenance | * Provide ongoing maintenance and support to address any issues or concerns raised by users. * Release updates and enhancements based on user feedback and emerging requirements. * Regularly review and optimize system performance and security measures. |  |

**SCHEDULE:**