



NATIONAL UNIVERSITY OF MODERN LANGUAGES
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FEATURE ANALYSIS DOCUMENT

Project Title: CarRental-Software




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 **Github-Project-Link**

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1. Introduction:

This document has been created to provide an in-depth Feature Analysis Document for a web-based application called the **"Car Rental Management System."** It begins by outlining the system's purpose and scope. A Feature Analysis document provides a comprehensive overview of the features of a system, detailing its functionalities for users and administrators.

1.1 Purpose:

The purpose of the **"Car Rental Software"** is to streamline the process of renting vehicles for both customers and rental managers. It aims to provide a user-friendly interface for searching, booking, managing bookings, and maintaining vehicle inventory. Additionally, the software facilitates administrative tasks for rental managers, enabling them to efficiently handle bookings, monitor revenue, manage inventory, and generate reports.

1.2 Project scope:

The proposed Car Rental Management System will be a comprehensive web-based application aimed at streamlining the car rental process for both customers and rental managers. Users will have access to a variety of features, including the ability to explore available cars, search for specific models, and view detailed information about each vehicle. They can apply filters based on criteria such as brand, model, and price to narrow down their search and make informed decisions. Additionally, customers will be able to view rental rates, terms and conditions, and privacy policy before making a booking. The system will enable users to make reservations, manage their personal information, and access their transaction history, providing a seamless booking experience. Rental managers, on the other hand, will have access to a dashboard where they can monitor total rentals, revenue details, and rental statistics. They can efficiently manage car inventory by adding, editing, or deleting cars as needed and handle bookings with ease. Advanced features such as vehicle tracking, dynamic pricing, and employee management tools will optimize operations and enhance efficiency. Super admins will oversee system-wide activities, including managing user accounts, car rental companies, and system settings.

1.3 Intended Stakeholders:

- Product Owner
- Business Analyst
- Project Manager (Development Team Lead)
- Developer Team
- Testers (Quality Assurance Team)
- Visitor Registered User/ Attendee
- Car Rental Manager
- Car Rental Admin
- Car Rental Companies

2. Features:

2.1 Visitor Features:

2.1.1 View FAQ section

2.1.2 View terms and conditions section

2.1.3 Explore car rental section

2.1.3.1 Search cars

2.1.3.2 Apply filters on searched records (e.g., by brand, model, price)

2.1.3.3 View car details

2.1.4 View rental rates

2.1.5 Find car rental companies through search

2.1.6 View about us section

2.1.7 Get help from help center

2.1.8 View privacy policy

2.1.9 View testimonials

2.1.10 View cookie settings

2.1.11 Interactive Map Integration (Allow visitors to visually explore rental locations)

2.1.12 Language Selection (Provide language options for international users)

2.1.13 Car Comparison (Enable visitors to compare multiple cars side by side)

2.1.14 Live Chat Support (Offer real-time assistance for inquiries)

2.2 Customer/Registered User Features:

2.2.1 Sign up

2.2.1.1 Sign up by submitting a form (name, email, phone number, confirm password)

2.2.1.2 Sign up with social media accounts (e.g., Facebook, Google)

2.2.2 Login

2.2.2.1 Login with credentials (email/phone number and password)

2.2.2.2 Login with social media accounts

2.2.3 Forget password

2.2.4 View homepage

2.2.4.1 View featured cars

2.2.4.2 View recommended cars

2.2.4.3 View testimonials

2.2.5 Manage personal information

2.2.5.1 View, add, edit personal details

2.2.6 Account settings

2.2.6.1 Notification settings

2.2.6.2 Change password

2.2.7 View transaction history

2.2.8 View all booked rentals (upcoming and past)

2.2.8.1 Download booking details

2.2.8.2 View booking status

2.2.9 Search cars

2.2.9.1 Apply filters on searched records

2.2.9.2 View car details page

2.2.9.3 Make a reservation

2.2.10 View car rental companies

2.2.10.1 View company details

2.2.10.2 View available cars by company

2.2.11 Rental Insurance Options (Provide information and options for rental insurance.)

2.2.12 Loyalty Program (Implement a loyalty rewards system for frequent users.)

2.2.13 Rate & Review (Allow customers to rate and review their rental experience.)

- 2.2.14 Enable users to save preferred cars for future bookings.
- 2.2.15 Emergency Assistance (Provide access to emergency services or roadside assistance)
- 2.2.16 Late Return Fee (If you bring the car back late, there's an extra charge)
 - 2.2.16.1 How It's Calculated (The fee depends on the type of car you rented and how many extra days you keep it)
- 2.2.17 Logout

2.3 Car Rental Manager Features

- 2.3.1 Login
- 2.3.2 Forget password
- 2.3.3 View dashboard
 - 2.3.3.1 View total rentals
 - 2.3.3.2 View revenue details
 - 2.3.3.3 View rental statistics
- 2.3.4 Manage car inventory
 - 2.3.4.1 Add new cars
 - 2.3.4.2 Edit car details
 - 2.3.4.3 Delete cars
- 2.3.5 Manage bookings
 - 2.3.5.1 View upcoming bookings
 - 2.3.5.2 View past bookings
 - 2.3.5.3 Mark bookings as complete
- 2.3.6 Generate rental reports
 - 2.3.6.1 View rental history
 - 2.3.6.2 View revenue reports
- 2.3.7 Account settings
 - 2.3.7.1 Notification setting
 - 2.3.7.2 Change password
- 2.3.8 Vehicle Tracking (Track maintenance schedules and service history for each vehicle)
- 2.3.9 Dynamic Pricing (Implement dynamic pricing based on demand and availability)

2.3.10 Employee Management (Manage staff accounts and permissions for operational tasks)

2.3.11 Automated Notifications (Set up automated notifications for bookings, maintenance,)

2.3.12 Logout

2.4 Return Car Feature

2.4.1 Return Location (Provide clear instructions on where and how to return the car).

2.4.2 Return Inspection (Allow users to perform a quick inspection of the car to note any damages or issues).

2.4.3 Return Confirmation (Provide a confirmation message or email once the return process is completed).

2.4.4 Return Status (Keep users informed about the status of their returned cars)

2.4.5 Return Verification (Confirm receipt of the returned car and update the rental status accordingly).

2.4.6 Return charges (The fee depends on the type of car rented and how many extra days you keep it).

2.4.6.1 How Much It Costs: customer check how much the late fee is before rented the car

2.4.7 Reminder of car (reminder will be given to customer when it's time to return the car so customer can avoid extra fees.)

2.4.8 Feedback and Ratings: Encourage users to provide feedback on their rental experience.

2.4.9 Rating System: Allow users to rate their overall experience with the rental and return process.

2.4.10 Feedback Form: Provide a form where users can leave comments or suggestions for improvement.

2.4.11 Account Updates: Ensure that user accounts are updated with the return information.

2.4.12 Rental History: Update the user's rental history with details of the returned car.

2.4.13 Billing: Adjust billing or payment records based on the return information, including any applicable charges.

2.5 Super Admin

2.5.7 Login

2.5.8 Forget password

2.5.9 View dashboard

2.5.9.1 View system-wide statistics

2.5.9.2 View user activity logs

2.5.10 Manage users

2.5.10.1 View, add, edit, delete users

2.5.11 Manage car rental companies

2.5.11.1 View, add, edit, delete companies

2.5.12 Manage system settings

2.5.12.1.1 Configure email templates

2.5.12.1.2 Manage system notifications

2.5.13 Account settings

2.5.13.1 Notification settings

2.5.13.2 Change password

2.4.8 Data Analytics Dashboard (Access to detailed analytics for performance evaluation and decision-making)

2.4.9 Fraud Detection (Implement tools for fraud detection and prevention)

2.4.10 API Integration (Allow integration with third-party services or platforms for extended functionalities)

2.4.11 Logout

2.6 Advanced Features and Integrations:

- 2.6.7 Integrate Google/Twitter/Facebook for User Authentication
- 2.6.8 Integrate 3rd Party Software for Payment e.g. Easypaisa, PayPal, Bank Transfer
- 2.6.9 Integration with GPS for tracking rented vehicles
- 2.6.10 Integration with CRM for managing customer relationships
- 2.6.11 Integration with Accounting Software for financial management
- 2.6.12 Integration with SMS Gateway for sending notifications to customers
- 2.6.13 Vehicle Damage Reporting: Allow users to report damages via app with photos and descriptions.
- 2.6.14 Dynamic Routing: Integrate with navigation systems for optimized route planning.
- 2.6.15 Keyless Entry: Implement keyless entry systems for convenience and security.