



USER REQUIREMENT SPECIFICATIONS (URS) DOCUMENT

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Introduction

1. **Objective:** The primary goal of this project is to develop a unified platform for 'Word of Cars' Enterprises that integrates vehicle rental services and automotive news.
2. **Scope:** This project will deliver a web and desktop application with supporting backend services, focusing on user-friendly interfaces and robust data management.

Client Agreement

1. The project focuses on delivering systems to enhance various aspects:
 1. Management of car inventory and operations.
 2. Efficiency of automotive community members.
 3. Tracking and analyzing statistics related to user interactions and platform administration.
2. The objective is to deliver a complete software solution within the designated timeline outlined in the project plan.

General Requirements

- 1) The system should allow users to find information related to cars easily.
- 2) The system should allow users to browse and rent a car easily.

Functional Requirements

- 1) **Members**
 - 1) They should be able to leave comments under car news.
 - 2) Should be able to choose and rent a car.
 - 3) Should be able to create their accounts.
 - 4) Should be able to log into their accounts.
 - 5) Should be able to change their credentials.
- 2) **Administrators**

1. Must oversee all users' details.
2. Should be able to manage the car news.
3. Should be able to manage the replies on the news.
4. Should be able to manage the available cars for rent.
5. Should be able to add a new car to the website.
6. Should be able to manage users' rentals.

Non-Functional Requirements

- 1) The system must be user-friendly and accessible.
- 2) Compliance with relevant legal and ethical standards.
- 3) The system should ensure data security and privacy.
- 4) System Performance Requirements:
 1. Define performance metrics:
 - 1) Acceptable load time and response time.
 - 2) Ensure system scalability and reliability.
 2. Ensure system performance quality for web applications.
 3. Ensure system performance quality for desktop applications.
- 5) Security Requirements:
 1. Detail authentication.
 2. Authorization measures.
 3. Outline data encryption.
 4. Protection strategies.
 5. Administrators are the only ones with capability to access desktop apps.

Use Cases

Use Case 1: User Registration (1.3, 1.4)

Actor: New User

Preconditions:

- The user is on the registration page of the website.

Main Success Scenario:

1. The user navigates to the "Sign Up" section on the registration page.
2. The system loads the "Sign Up" page and displays the registration form.

3. The user enters their details such as username, email, password, and driving license number into the form.
4. As the user enters the details, the system provides real-time feedback for each field (e.g., checks if the username is available, if the email is valid, and if the password meets security requirements).
5. The user submits the registration form.
6. The system validates the provided information for correctness and completeness. If there are any issues (e.g., missing fields, incorrect formats), the system highlights the errors and prompts the user to correct them.
7. Upon successful validation, the system creates a new user account.
8. The system logs the user in automatically and redirects them to their user dashboard.
9. The user receives a confirmation email with account details.
10. The system displays a welcome message on the user dashboard, summarizing the user's registration details and offering a quick tour of the dashboard features.

Extensions:

6a. The information is invalid (e.g., already used email, password does not meet the requirements):

1. The system displays corresponding error messages.
2. Actor should return back to MSS step 3;

Use Case 2: Selecting a car (1.4, 1.2)

Actor: Member

Preconditions:

- The member must be logged into their account.

Main Success Scenario:

1. The member navigates to the Car Market page.
2. The system loads the page with all the information on available cars.
3. The member browses the available car rental options.
4. The member can select Sort options or add any Filters.
5. The system dynamically updates the displayed car options based on the member's filter and search criteria (e.g., car type, price range, number of Views).
6. The member selects a car and proceeds to the Details page.

7. The system displays the selected car information on the Details page.

Extensions:

5a. There are no cars that match the selected filters.

1. The system displays a message to tell the user that there no car that match these filters.

2. The user can select new filters and return to MSS step 3.

Use Case 3: Car rental booking(1.4, 1.2)

Actor: Member

Preconditions:

- The member must be logged into their account.
- The member should have selected a car and proceeded to the Details page.

Main Success Scenario:

1. The member selects a car and proceeds to the Details page.
2. The system displays the selected car information on the Details page.
3. The member can read more about the selected car on the page.
4. The member navigates to the booking form.
5. The system loads the booking form with pre-filled information (e.g., selected car details, and member information).
6. The member inputs rental details (e.g., rental duration).
7. The system provides real-time feedback on the rental details (e.g., available dates, and price calculation).
8. The member submits the booking form.
9. The system validates the provided rental details.
10. Upon successful validation, the booking is confirmed.
11. The system leads the member to the Congratulation page.

Extensions:

8a. The reservation data is invalid (e.g., dates overlap with an existing reservation, required fields are missing, the end date is before the start date, or the start date is before today's date):

1. The system alerts the user with error messages.

2. The user corrects the errors and returns to MSS step 6.

Use Case 4: News Article Commenting (1.4, 1.1, 2.3)

Actor: Member

Preconditions:

- The member must be logged into their account.
- The member is viewing a news article.

Main Success Scenario:

1. The member navigates to the Car News page.
2. The system loads and displays all available articles.
3. The member browses through the articles and selects one.
4. The system brings the member to the selected Article page.
5. The system displays the information of the article on the Article page.
6. The member reads the article and navigates to the comments section at the bottom of the page.
7. The member types their comment in the comment input field.
8. The system provides real-time feedback on the comment (e.g., character count, prohibited words).
9. The member submits their comment.
10. The system validates the comment for any prohibited content or spam indicators.
11. Upon successful validation, the comment is posted under the article, and the member sees their comment live.

Extensions:

8a. The comment includes prohibited content (e.g., offensive language, spam):

1. The system rejects the comment and informs the member of the violation.
2. Actor should return back to MSS step 7.

8b. The system passes the comment to the Administrator page for checking the comment's correctness:

1. If the comment is against the policy, the administrator deletes the member's comment.
2. Actor should return back to MSS step 7.

Use Case 5: Administrator Content Management (2.2, 2.3)

Actor: Administrator

Preconditions:

- The administrator is logged into their account on the administrative dashboard.

Main Success Scenario:

1. The administrator navigates to the car news section.
2. The system loads the content management dashboard, displaying options to review, edit, delete existing articles, or post new articles.
3. The administrator selects an option to review, edit, delete an article, or post a new article.
4. The system loads the corresponding form for the selected action (reviewing, editing, deleting, or posting a new article).
5. The administrator submits changes or new content to the system.
6. The system validates the changes or new content for compliance with publishing standards.
7. Upon successful validation, the changes are made live on the platform.

Extensions:

5a. The new or edited content fails compliance checks (e.g., contains unverified claims):

1. The system notifies the administrator of the specific issues.
2. Actor should return to MSS step 4.

Use Case 6: Administrator Adds New Car (2.4, 2.6)

Actor: Administrator

Preconditions:

- The administrator is logged into their account on the administrative dashboard.

Main Success Scenario:

1. The administrator navigates to the car management section within the dashboard.
2. The system loads the car management section, displaying options to add or modify car details.
3. The administrator selects the option to add a new car.

4. The system loads a form for adding or modifying the car, including fields for brand, model, price, specifications, and images.
5. The administrator enters details for the new car, including brand, model, price, specifications, and images.
6. The administrator submits the new car data to the system.
7. The system validates the car data for completeness and compliance with data standards.
8. Upon successful validation, the car is added to the inventory and made available on the platform.

Extensions:

5a. The car data fails validation checks (e.g., incomplete details or specifications that do not meet standards):

1. The system notifies the administrator of the specific issues.
2. Actor should return to MSS step 4.

Use Case 7: Administrator Updates Personal Information (2.5)

Actor: Administrator

Preconditions:

- The administrator is logged into their account on the administrative dashboard.

Main Success Scenario:

1. The administrator goes to the profile settings section of the dashboard.
2. The system loads the profile settings section, displaying fields for updating personal information such as name, contact details, and password.
3. The administrator updates personal information such as name, contact details, and password.
4. The administrator submits the changes to the system.
5. The system validates the updated information for compliance with security standards.
6. Upon successful validation, the updated information is saved and becomes effective immediately.

Extensions:

4a. The updated information fails security checks (e.g., password too weak):

1. The system notifies the administrator of the specific issues.
2. Actor should return to MSS step 3.