

Software Engineering

G24 :Renting System

Use case documentation

Use case 1:

Use Case Name: Add on Rent

Actors:

- User
- Renting System

Preconditions:

- User is authenticated and logged into the Renting System.
- Users have products that they want to list for rent.

Postconditions:

- The product is successfully added to the Renting System's database and is available for rent.

Main Flow:

- The user logs into the Renting System.
- User selects the "Add products for Rent" option from the system's dashboard.
- The system generates a form for the user to input product details.
- User fills out the form with the required information and submit the form.
- The system validates the information provided by the user, ensuring that all required fields are filled, and the data is correctly formatted. If any errors are found, the system presents error messages to the user.
- If the information is valid and the admin validates the product then the product is added to the list.

Alternative Flow:

Validation Errors:

- If there are validation errors in the user's input (e.g., missing required fields, invalid format) the system displays error messages next to the respective fields and prompts the user to correct them.
- If the admin does not validate the product then the product will not be listed and the user will be notified.

Exceptional Flow:

User Cancels the Operation:

- At any point before submitting the form, the user may choose to cancel the operation. In this case, the system returns them to the dashboard or the previous page.

Use case 2:

Use Case Name: Take on Rent

Actors:

- User
- Renting System

Description:

- This use case describes how a customer can rent a product from the Renting System.

Preconditions:

- The customer must be registered and authenticated within the Renting System.

Postconditions:

- The customer successfully rents a car, and the rental information is recorded.

Main Flow:

- The customer logs into the Renting System.
- The customer searches for available products using various criteria.
- The system displays a list of available products matching the search criteria.
- The customer selects a product that suits their requirements.
- Customer Initiates Rental:
- The customer chose the dates for renting a product and then sent a request to rent it to its owner.
- When the owner accepts a request, the customer gets products from its owner and the product is removed from the list.

Alternative Flows:

- If the owner rejects a request, the customer will notify about that and will not be able to rent that product.

Exception Flows:

System Error:

- In case of a system error, such as database unavailability or server issues, the system will display an error message and advise the customer to retry later.

Use case 3:

Use Case Name: Admin Managing Customer and Items in the Renting System

Actors:

- Admin
- Renting System

Description: This use case illustrates how an admin efficiently manages customer accounts and rental items within the Renting System.

Preconditions:

- The admin must be authenticated and logged into the Renting System.

Postconditions:

- Customer profiles and rental item details are updated as per the admin's actions.

Main Flow:

- The admin logs into the Renting System.
- The admin selects the option to manage customer profiles.
- Admin Views Customer Profiles:
 - The system displays a list of customer profiles.
 - The admin can employ search, filtering, and individual profile views.
- The admin can edit customer profiles, updating information as necessary.
- The admin selects the option to manage rental items.
- Admin Views Rental Items:
 - The system displays a list of rental items.
 - The admin can efficiently search, filter, and access individual rental item profiles.
- Admin Edits Rental Items, ensuring accuracy and relevancy.

Alternative Flows:

- Admin Adds New Customer or Rental Item (Step 3 or 6):

- The admin can initiate the addition of new customer or rental item profiles.
- The system prompts the admin to fill in the required details through a user-friendly form.

Exception Flows:**System Error (Throughout):**

- In case of a system error, such as database unavailability or server issues, the system will display an error message and advise the admin to retry later.