**Online Car Rental Management System: Use Case Description**

|  |  |  |
| --- | --- | --- |
| **Use Case Number: 1** | | |
| **Name:** Customer profile CRUD | | |
| **Brief Description:** Create, read, delete and update customer | | |
| **Actors:** Customer | | |
|  | | |
| **Precondition:** To read, delete and update customer details, customer must login | | |
| **Flow of Events:** | | |
| **1. Basic Flows** | | |
| **1.1.0 Create Customer Profile** | | |
| Step | User Actions | System Actions |
| 1 | The customer loads the sign-up page | The system displays the sign-up page |
| 2 | Customer fills the form and submit for the system to save | The system verifies that there’s no other profile in the database with the same email address and saves the customer and returns the success message on success or a fail message in case of failure. In case another profile exists with the email address, the system returns the message indicating a duplicate entry exists. |
| Postconditions | | |
| The customer profile is saved in the system | | |
|  | | |
| **Business Rules** | | |
| No duplicate customer profiles. A unique profile is identified by email address. | | |
|  | | |
| **1.1.1 Read/View Customer profile** | | |
| **Step** | **User Actions** | **System Actions** |
| 1 | The customer logins in and view his/her profile | The system returns the customer profile |
|  |  |  |

|  |  |  |
| --- | --- | --- |
| **1.1.2 Update Customer profile** | | |
| **Step** | **User Actions** | **System Actions** |
| 1 | The customer logins in and update his/her profile | The system verifies that there’s no other profile in the database with the same email address and saves the customer and returns the success message on success and saves the update. |
|  |  |  |

|  |
| --- |
| **Postconditions** |
| Customer profile is updated |
| **Business Rules** |
| Customer profile ID should be read only. |

|  |  |  |
| --- | --- | --- |
| **1.1.2 Delete Customer profile** | | |
| **Step** | **User Actions** | **System Actions** |
| 1 | The customer logins in and delete his/her profile | The system flags the customer profile as deleted |
|  |  |  |
|  |  |  |

|  |
| --- |
| **Postconditions** |
| Customer is notified that his profile is deleted and redirected to the homepage |
| **Business Rules** |
| Customer should not be allowed to delete his profile if he still has a checked-out car. |
| Customer should not be allowed to delete his profile if he has a pending reservation. |

|  |  |  |
| --- | --- | --- |
| **Use Case Number: 2** | | |
| **Name:** User Access Control | | |
| **Brief Description:** Login, Logout, Change Password and Reset password | | |
| **Actors:** Customer, Clerk and Admin | | |
|  | | |
| **Precondition:** They must be the system users. | | |
| **Flow of Events:** | | |
| **2. Basic Flows** | | |
| 2.1.0 Login | | |
| Step | User Actions | System Actions |
| 1 | User loads the login page | The system displays the login page |
| 2 | Customer fills in the username and password | The system validates the user credentials, if they are valid it grants access to the default page. |
| Postconditions | | |
| The user is redirected to the privileged page. | | |
|  | | |
| **Business Rules** | | |
| Only users with valid credentials are granted access to the default page. | | |

|  |  |  |
| --- | --- | --- |
| 2.1.1 Change Password | | |
| Step | User Actions | System Actions |
| 1 | User loads the change password page | The system displays change password page |
| 2 | Customer fills in the old password and the new password | The system verifies the old password and save the new password. |
| Postconditions | | |
| The user is notified that the password is changed. | | |
|  | | |
| **Business Rules** | | |
| Only users logged in with valid account can change password | | |

|  |  |  |
| --- | --- | --- |
| **Use Case Number: 3** | | |
| **Name:** Clerk profile CRUD | | |
| **Brief Description:** Create, read, delete and update customer | | |
| **Actors: Admin** | | |
|  | | |
| **Precondition:** To read, delete and update Clerk details, Admin must be login as Admin | | |
| **Flow of Events:** | | |
| **1. Basic Flows** | | |
| **3.1.0 Create Clerk Profile** | | |
| Step | User Actions | System Actions |
| 1 | The Admin loads the add Clerk Form | The system displays the add Clerk Form |
| 2 | Admin fills the form and submit for the system to save | The system verifies that there’s no other Clerk profile in the database with the same email address and saves it and returns the success message on success. |
| Postconditions | | |
| The Clerk profile is saved in the system | | |
|  | | |
| **Business Rules** | | |
| No duplicate Clerk profiles. A unique profile is identified by email address. | | |
|  | | |

|  |  |  |
| --- | --- | --- |
| **Use Case Number: 4** | | |
| **Name:** Car reservation CRUD | | |
| **Brief Description:** Create, read, delete and update reservation | | |
| **Actors:** Customer | | |
|  | | |
| **Precondition:** To read, delete and update car reservation, customer must login | | |
| **Flow of Events:** | | |
| **4. Basic Flows** | | |
| **1.1.0 Create Customer Profile** | | |
| Step | User Actions | System Actions |
| 1 | The customer loads the available cars | The system displays the available cars |
| 2 | The customer selects the car from the list | The system displays the details of the selected car and load the reservation form. |
| 3 | Customer fills the form and submit for the system to save | The system saves the reservations. |
| Postconditions | | |
| The reservation is saved in the system | | |
| The Clerk is notified about the new reservation. | | |
| **Business Rules** | | |
| The same car cannot be reserved more than once on the same date and time. | | |

|  |  |  |
| --- | --- | --- |
| **Use Case Number: 5** | | |
| **Name:** Car checkout | | |
| **Brief Description:** Checking out the reserved car | | |
| **Actors: Clerk** | | |
|  | | |
| **Precondition:** The car must be reserved, and customer must present the valid reservation ID, Clerk must be logged in | | |
| **Flow of Events:** | | |
| **1. Basic Flows** | | |
| **3.1.0 Checkout car** | | |
| Step | User Actions | System Actions |
| 1 | The Clerk loads the Reservation Search Form | The system displays the reservation search form. |
| 2 | Clerk enters the reservation ID and submit search form. | The system verifies that the reservation ID is valid and load reservation details. |
|  | Clerk clicks the button of checking out the car | The system flags the car as checked out. |
| Postconditions | | |
| The car is flagged as checked out. | | |
|  | | |
| **Business Rules** | | |
| Car cannot be checked more than once at time. | | |
|  | | |

|  |  |  |
| --- | --- | --- |
| **Use Case Number: 5** | | |
| **Name:** Car check-in | | |
| **Brief Description:** Checking-in the checked-out car | | |
| **Actors: Clerk** | | |
|  | | |
| **Precondition:** The car must be checked out and Clerk must be logged in, the returned car should not be in overdue date. | | |
| **Flow of Events:** | | |
| **1. Basic Flows** | | |
| **3.1.0 Check in car** | | |
| Step | User Actions | System Actions |
| 1 | The Clerk loads the Check-in Form | The system displays the Check-in form. |
| 2 | Clerk enters the car license plate number and submit search form. | The system verifies that the car license plate number is for a checked-out car and load car details. |
|  | Clerk clicks the button of checking -In the car | The system flags the car as checked In. |
| Postconditions | | |
| The car is flagged as checked in. | | |
|  | | |
| **Business Rules** | | |
|  | | |
|  | | |

**USE Case Diagram**

