



System Requirement Specification Car Rental System

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Approval Page

Decision

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1. INTRODUCTION

1.1 Purpose

The Software Requirement Specifications will:

- ❖ Define the scope of business objectives, business functions, and organizational units covered,
- ❖ Identify the business processes that the solution must facilitate,
- ❖ Facilitate a common understanding of what the functional requirements are for all parties involved,
- ❖ Establish a basis for defining the acceptance tests for the solution to confirm that what is delivered meets requirements.

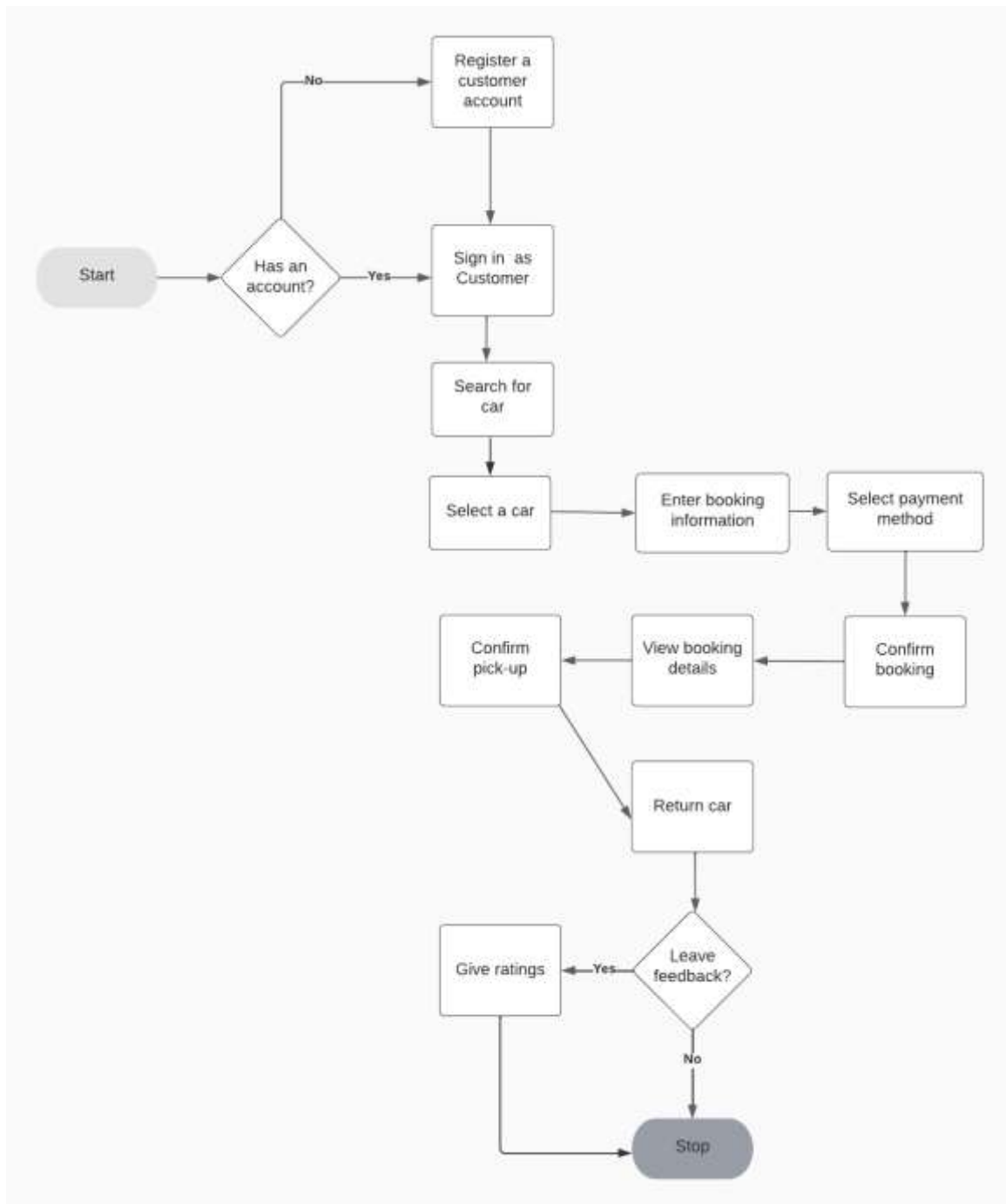
The purpose of the document is to collect and analyze all assorted ideas that have come up to define the system, its requirements with respect to consumers. Also, we shall predict and sort out how we hope this product will be used in order to gain a better understanding of the project, outline concepts that may be developed later, and document ideas that are being considered, but may be discarded as the product develops.

2. HIGH LEVEL REQUIREMENTS

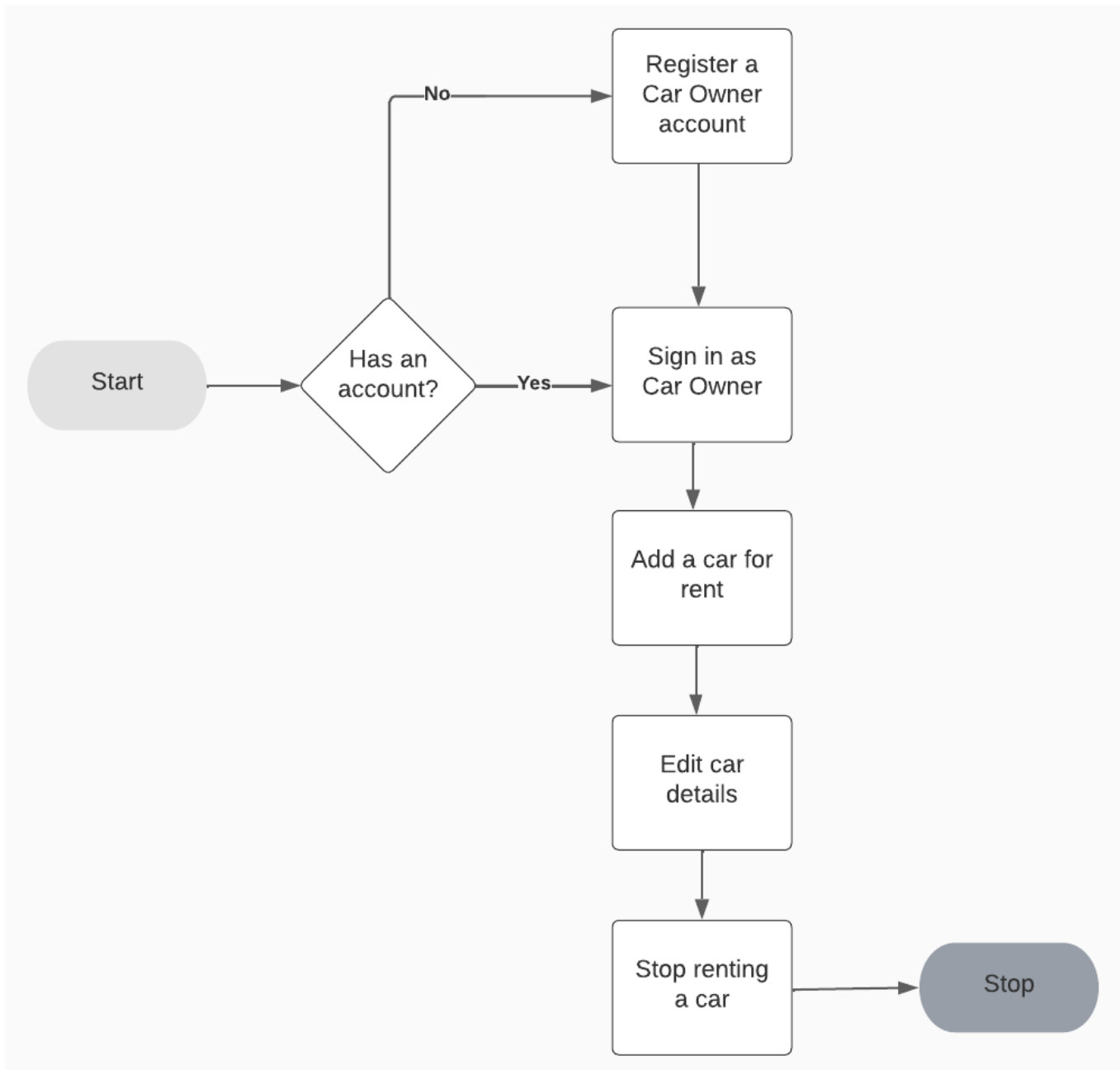
This section describes the general overview of the system functions or business processes which are depicted in different diagrams. It shows the types of users, their granted permissions to perform specific system functions and the sequence required to complete a business workflow (if any). As the section name implies, it is high-level which means not detailed enough. For detailed requirement specification, please see Use Case Specifications section below.

2.1 High Level Business Process

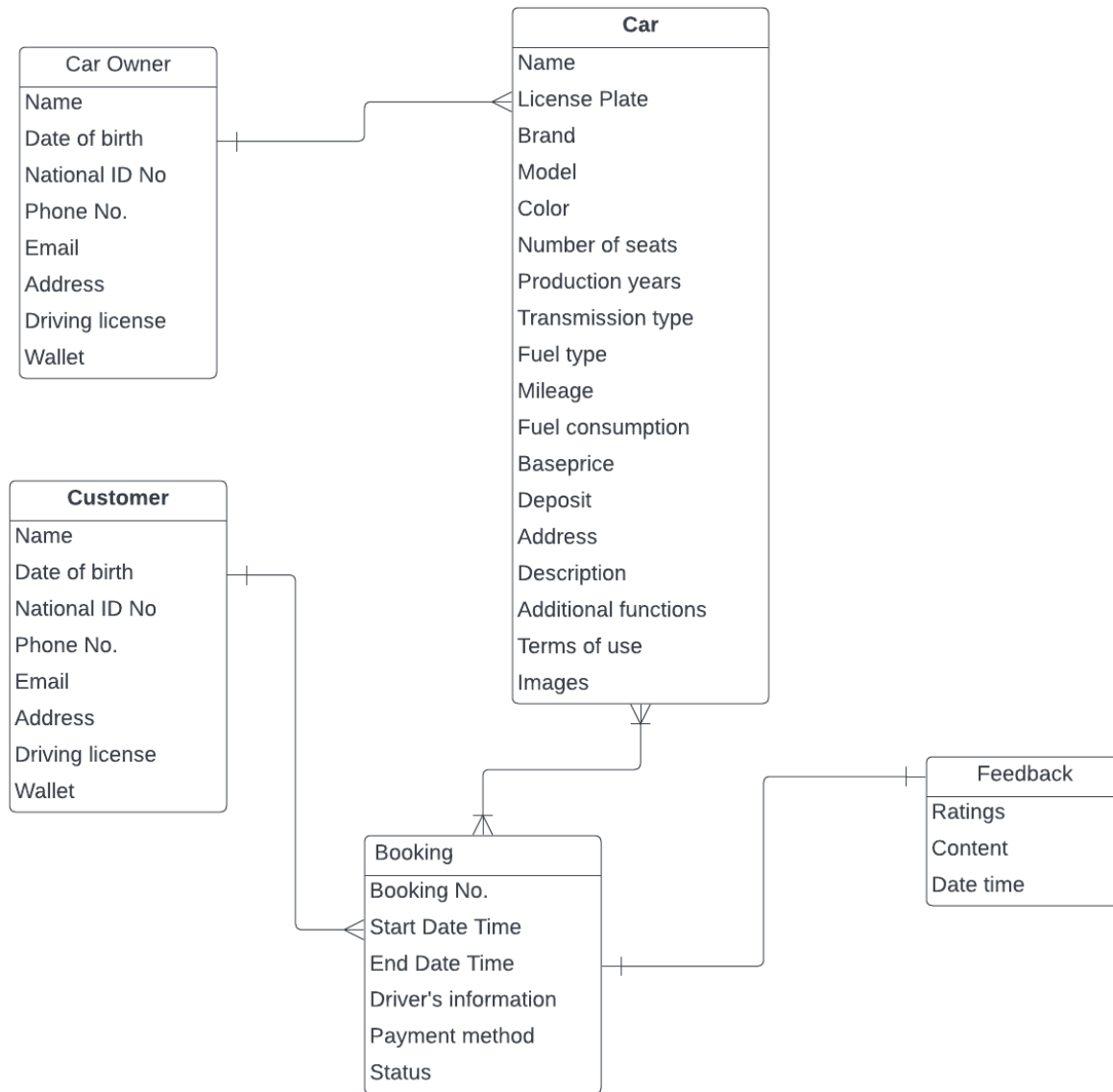
2.1.1 Flowchart for Customer



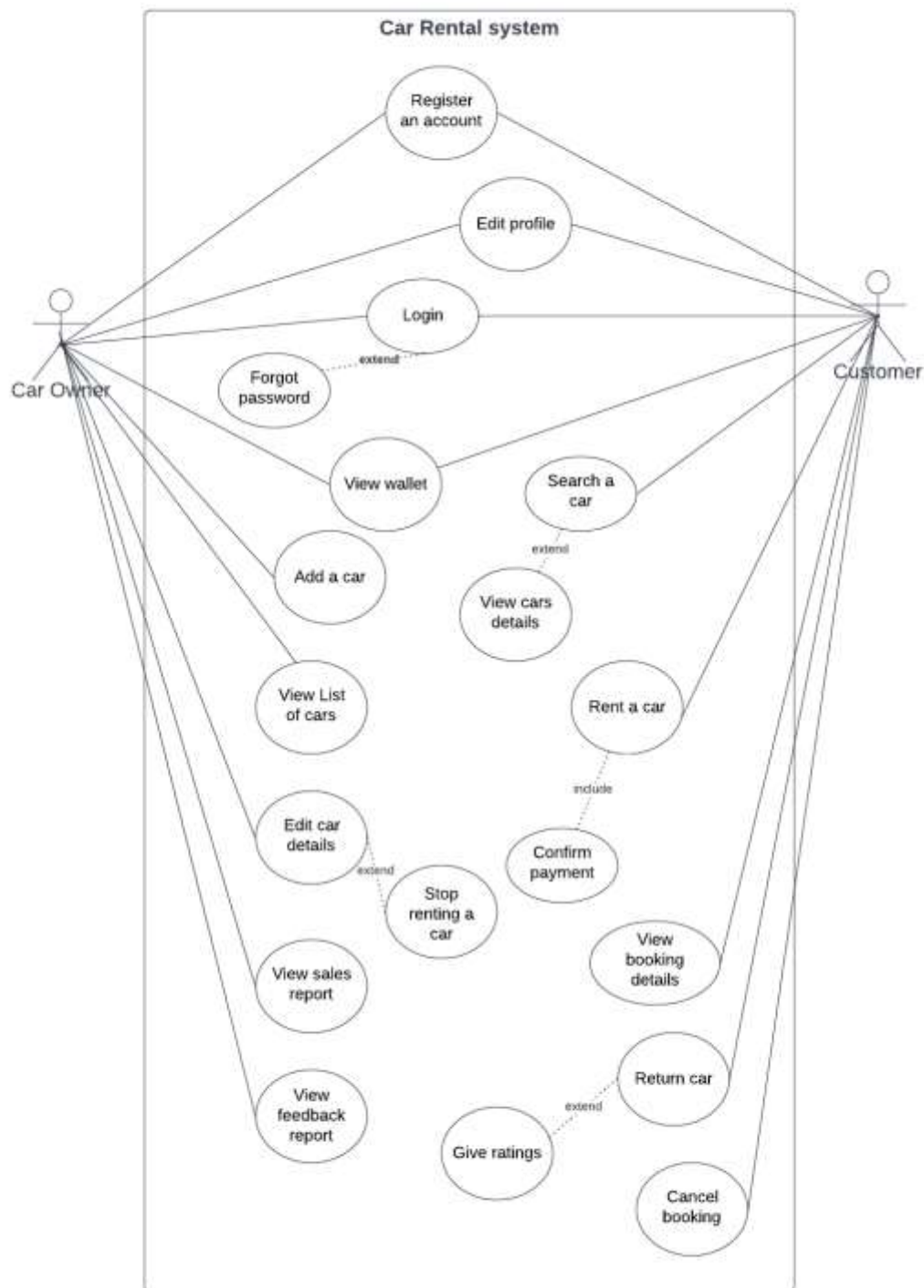
2.1.2 Flowchart for Car Owner



2.2 Entity Relationship Diagram



2.3 Use Case Diagram



2.4 Actor

Actors	Description
Car Owner	Users who have the need to rent out their cars
Customer	Users who have the need to rent a car
Guest	User who visits the web page with no account

2.5 Use Case Catalogue

UC ID	UC Name	Description
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General		
UC01	Login	This use case allows customers, car owners to log in.
UC02	Forgot password	This use case allows customers and car owners to reset password after user has forgotten the password
UC03	Register an account	This use case allows customers, car owners to register an account
UC04	Edit profile	This use case allows users to edit the profile information
UC05	View Homepage as guest	This use case allows non-login users to view homepage and menu
UC06	Log out	This use case allows users to log out of the system
Car Owner		
UC07	View Homepage as Car owner	This use case allows users who has logged in as Car owner to view the homepage and menu
UC08	Add a car	This use case allows car owners to add a car for rent
UC09	View List of cars	This use case allows car owners to view their list of cars
UC10	Edit car information	This use case allows car owners to edit car information
UC11	Stop renting a car	This use case allows car owners to stop renting a car
UC12	Confirm deposit	This use case allows car owners to confirm the deposit and update the booking status
UC13	Confirm payment	This use case allows car owners to confirm the payment after customer returns a car
Customer		
UC14	View Homepage as customer	This use case allows users who has logged in as Customer to view the homepage and menu
UC15	Search a car	This use case allows customers to search for a car in the system
UC16	View Car details	This use case allows customers to view the details page of a car
UC17	Rent a car	This use case allows customers to select a car and rent the car
UC18	Confirm Pick-up	This use case allows customers to confirm picking up a car and change the booking status
UC19	View Booking List	This user case allows customers to view their booking list
UC20	View Booking details	This use case allows customers to view and edit booking details
UC21	Cancel booking	This use case allows customers to cancel a booking
UC22	Return a car	This use case allows customers to return a car after renting
UC23	Give ratings	This use case allows customers to give ratings after returning a car
Reports		
UC24	View wallet	This use case allows users to view the wallet balance
UC25	View feedback report	This use case allows car owner to view feedback report from customer's rating

3. USE CASE SPECIFICATIONS

This section covers the system's functional requirements which details what the system must do in terms of input, behavior and the expected output. It elicits the interaction between the actor(s) and the system, the system's behavior and the results of their interactions.

3.1 UC01: Log in

3.1.1 Overview.

ID and Name	Log in
Description	This use case allows users to log in.
Actor	Customer, car owners
Trigger	Users click on the Log in button
Pre-condition	Users have valid accounts in the system
Post-condition	Users can log into the system

3.1.2 Flow of Events

3.1.2.1 Basic Flow

Step	Description
1	Users access the system and click on Login button on header
2	The system displays the Log in screen
3	Users fill in the provided account information and click the Log in button
4	The system validates the account credentials successfully and allows the user to access the system
5	Users log in successfully, system display the correct Homepage content to users <ul style="list-style-type: none">- If user has logged in as Customer, display the content for customer, trigger UC05- If user has logged in as Car Owner, display the content for car owner, trigger UC17
6	The flow ends

3.1.2.2 Exception flow 1 - User fill incorrect password and/or email address

Step	Description
1	At step 3, users enters in correct email and/or password
2	The system fails to validate the credentials and return error message <ul style="list-style-type: none">- If Email address or password don't match OR email address doesn't exist in the system, display error message – ME001: "Either email address or password is incorrect. Please try again"- If Email address is wrong format, display error message – ME002: "Please enter a valid email address"- If any of the required field is blank, display error message – ME003: "This field is required."

3.1.2.3 Exception flow 2 – Users cancel the sign-up flow

Step	Description
1.	Users click on X button in the dialog
2.	The system closes the dialog and user is not logged in
3.	The flow ends

3.1.2.4 Alternative flow 1 - Users forgot password

Step	Description
1	At step 3, user chooses Forgot password
2	The System triggers UC03

3.1.3 Mock-up Screen

The mock-up shows a web browser window with the URL "https://Rent-a-car.com". The page has a dark header with a car icon, the text "Rent a car today!", and navigation links: "ABOUT US", "MY BOOKINGS", "SIGN UP", and "LOG IN". The main content area is divided into two sections: "LOG IN USING YOUR ACCOUNT" and "NOT A MEMBER YET?". The login section includes fields for "Your email address" and "Password", a "Forgot your password?" link, and a "LOG IN" button. The sign up section includes fields for "Your name", "Your email address", "Your phone number", "Pick a password", and "Confirm password", with a hint "Use at least one letter, one number, and seven characters". It also has radio buttons for "I want to rent a car" and "I am a car owner", a checkbox for "I have read and agree with the Terms and Conditions", and a "SIGN UP" button.

Screen 1. Login – Sign Up

3.1.4 Screen Description

3.1.4.1 Login screen / Login section

REF	Field Name	Control Type	Data Type	Description
1.	Section's title	Label	Text	Display "Log in using your account"
2.	Email address	Text field	All characters	Mandatory. Default to blank. Allow to enter email address. Hint text: "Your email address". Must be email address format
3.	Password	Text field	Text	Mandatory. Default to blank. Allow to enter password. Password will be masked when user types
4.	Forgot password	Text link	N/A	Click to trigger UC03
5.	Login	Button	N/A	Click to login

3.2 UC02: Log out

3.2.1 Overview.

ID and Name	Log out
Description	This use case allows users to log out
Actor	Customer, car owners
Trigger	Users click on the Log out
Pre-condition	Users have already logged in
Post-condition	Users can log out of the system

3.2.2 Flow of Events

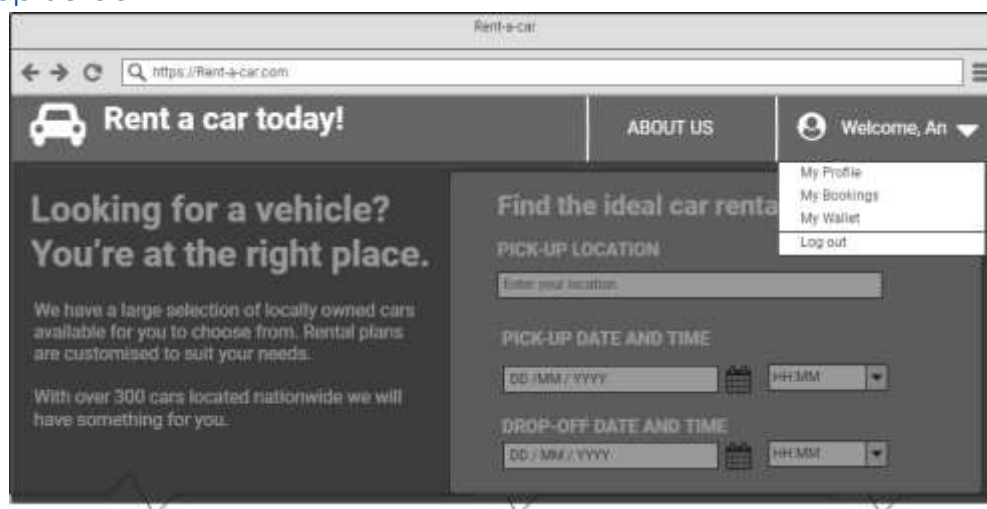
3.2.2.1 Basic Flow

Step	Description
1	Logged-in users click on Logout link on header
2	The system displays the confirmation dialog: "Are you sure you want to log out?"
3	Users click OK to confirm
4	User is logged out of the system
5	System display Homepage for Guest user.
6	The flow ends

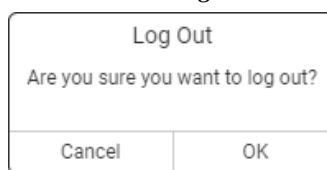
3.2.2.2 Exception flow 1 - User cancel when log out

Step	Description
1	At step 3, users click Cancel to discard the flow
2	System closes the dialog and no changes are made

3.2.3 Mock-up Screen



Screen 2.1. Log out link



Screen 2.2. Log out dialog

3.2.4 Screen Description

3.2.4.1 Header / Log out link

REF	Field Name	Control Type	Data Type	Description
1.	Log out link	Text link	Text	Click to log out of the system

3.3 UC03 Forgot password

3.3.1 Overview.

ID and Name	Forgot password
Description	This use case allows users to reset password after forgetting it

Actor	Customer, car owners
Trigger	Users click on the Forgot password text link
Pre-condition	Users had valid accounts in the system
Post-condition	Users can reset password successfully

3.3.2 Flow of Events

3.3.2.1 Basic Flow

Step	Description
1.	From Log in screen, users click Forgot password
2.	The system displays the Forgot password screen
3.	Users enter email address and click Send
4.	The system validate that email address exists in the system and send an email with a reset password links to user (Email template EM01)
5.	Users click in the link in the email
6.	The system displays a screen for user to reset password
7.	Users enter new password and confirm password
8.	The system update the new password for users
9.	User can use the new password to login
10.	The flow ends

3.3.2.2 Exceptional Flow 1 – Users cancel the Forgot password flow

Step	Description
1.	At step 3, user doesn't enter email address and click Cancel
2.	The system direct back to Login screen
3.	The flow ends

3.3.2.3 Exceptional Flow 2 – The reset password link has expired or has been used

Step	Description
1.	At step 5, the link in the email address has expired or has been used
2.	The system displays an error message ME006 "This link has expired. Please go back to Homepage and try again." to inform user
3.	The flow ends

3.3.2.4 Exceptional Flow 3 – The email address user enters doesn't exist in the system

Step	Description
1.	At step 3, the system validates that email address doesn't exist in the system
2.	
3.	The flow ends

3.3.2.5 Exceptional Flow 4 – New password and confirm password doesn't match

Step	Description
1.	At step 7, new password and confirm password don't match
2.	The system displays an error message ME005: "Password and Confirm password don't match. Please try again." to inform user

3.3.2.6 Exceptional Flow 5 – New password or confirm password doesn't meet the password requirement

Step	Description
1.	At step 7, new password or confirm password doesn't meet password requirement.
2.	The system displays an error message ME014: "Password must contain at least one number, one numeral, and seven characters." to inform user
3.	The flow ends

3.3.3 Mock-up Screen

The mock-up shows a web browser window with the URL 'https://Rent-a-car.com'. The page has a dark header with a car icon and the text 'Rent a car today!'. Below the header, the main content area is white and titled 'Reset Password'. It contains the instruction: 'Enter the email address associated with your account, and we'll email you with the link to reset your password.' There is a text input field labeled 'Your email address' and a blue 'SUBMIT' button with a lock icon.

Screen 3.1. Forgot password – Step 1: Submit email

This mock-up is identical to the previous one, but with a semi-transparent grey overlay and a white dialog box in the center. The dialog box contains the text: 'If this email address exists, we'll send an email with the link to reset your password.' and an 'OK' button. The background text and the 'SUBMIT' button are visible through the overlay.

Screen 3.2. Forgot password – Step 1: Dialog

Screen 3.3. Forgot password – Step 2: Reset password

3.3.4 Screen Description

3.3.4.1 Reset Password screen / Step: Enter password

REF	Field Name	Control Type	Data Type	Description
1.	Section's title	Label	N/A	Display "Reset password"
2.	Instruction	Text field	Text	Display "Enter the email address associated with your account and we'll email you with the link to reset your password."
3.	Email address	Text field	All characters	Mandatory. Default to blank. Allow to enter user's email address Hint text: "Your email address". Must be email address format
4.	Submit	Button	N/A	Click to submit the email address
5.	Pop-up dialog	Pop-up	N/A	Display dialog: "If this email address exists, we'll send an email with the link to reset your password."
6.	Ok	N/A	N/A	Click to close dialog

3.3.4.2 Reset Password screen / Step: Enter password

REF	Field Name	Control Type	Data Type	Description
1.	Confirm password	Text field	All characters	Mandatory. Default to blank. Allow to enter password. Password will be masked when user types
2.	Reset	Button	N/A	Click to reset the password

3.3.5 Business Rules

Business Rule ID	Business Rule Description
BRL-03-01	The reset password link can only be used 1 time. Afterwards it will be invalid
BRL-03-02	The reset password link is only valid for 24 hours. Afterwards it will expire
BRL-03-03	System only send reset password email to valid email address that already tied to an existing and active account in the system.

3.4 UC04: Register an account

3.4.1 Overview.

ID and Name	Register an account
Description	This use case allows users to register an account
Actor	Customer, car owners

Trigger	Users click on the Sign Up button
Pre-condition	Customers and car owners can access the system
Post-condition	Customer, car owners can create accounts in the system

3.4.2 Flow of Events

3.4.2.1 Basic Flow

Step	Description
1.	Users access the system and click on Sign Up button on header
2.	The system displays the Sign Up screen
3.	Users fill in the required account information: Name, unique email address, phone number, password
4.	Users check to agree with Terms and Conditions
5.	Users click Sign-Up button
6.	The system validates information and creates a new account for user
7.	The flow ends

3.4.2.2 Exception flow 1 – Email address is not unique

Step	Description
1.	At step 3, the email address user enters has already existed and tied to an account in the system
2.	The system returns an error message ME004: "Email already existed. Please try another email."

3.4.2.3 Exception flow 2 – User doesn't provide required information

Step	Description
1.	At step 3, user misses any of the required information or enter wrong format for Name, email address, password, confirm password, Terms and conditions checkbox
2.	The system returns an error message - ME003: "This field is required."

3.4.2.4 Exception flow 3 – Password and confirm password don't match

Step	Description
1.	At step 3, new password and confirm password don't match
2.	The system displays an error message to inform user: ME005: "Password and Confirm password don't match. Please try again."

3.4.2.5 Exceptional Flow 4 – Password or confirm password doesn't meet the password requirement

Step	Description
3.	At step 3, Password or confirm password doesn't meet password requirement.
4.	The system displays an error message ME014: "Password must contain at least one number, one numeral, and seven characters." to inform user
5.	The flow ends

3.4.2.6 Exception flow 5 – Users cancel the sign-up flow

Step	Description
4.	User clicks on X button in the dialog
5.	The system closes the dialog and no account is created
6.	The flow ends

3.4.3 Mock-up Screen

The mock-up shows a web browser window with the URL "https://Rent-a-car.com". The page has a dark header with a car icon, the text "Rent a car today!", and navigation links: "ABOUT US", "MY BOOKINGS", "SIGN UP", and "LOG IN". The main content area is divided into two sections: "LOG IN USING YOUR ACCOUNT" and "NOT A MEMBER YET?". The login section includes fields for "Your email address" and "Password", a "Forgot your password?" link, and a blue "LOG IN" button. The sign up section includes fields for "Your name", "Your email address", "Your phone number", "Pick a password", and "Confirm password", with a hint "Use at least one letter, one number, and seven characters." Below these are radio buttons for "I want to rent a car" and "I am a car owner", a checkbox for "I have read and agree with the Terms and Conditions", and a blue "SIGN UP" button.

Screen 1. Login – Sign Up

3.4.4 Screen Description

3.4.4.1 Login screen/ Registration section

REF	Field Name	Control Type	Data Type	Description
2.	Section's title	Label	Text	Display "Not a member yet?"
3.	Name	Text field	All characters	Mandatory. Default to blank. Allow to enter user's full name Hint text: "Your name"
4.	Email address	Text field	All characters	Mandatory. Default to blank. Allow to enter user's email address. Hint text: "Your email address". Must be email address format
5.	Phone number	Text field	Numeric and (+)	Mandatory. Default to blank. Allow to enter user's phone number. Hint text: "Your phone number"
6.	Password	Text field	All characters	Mandatory. Default to blank. Allow to enter password. Password will be masked when user types Instruction: "Use at least one number, one numeral, and seven characters."
7.	Confirm password	Text field	All characters	Mandatory. Default to blank. Allow to enter password. Password will be masked when user types
8.	Account type	Radio button	N/A	Mandatory. Default to blank 2 options: <ul style="list-style-type: none">I want to rent a carI am a car owner
9.	Terms and Conditions	Checkbox	N/A	Mandatory. Default to uncheck. Allow to check/uncheck.

				Display: "I have read and agree with the Terms and Conditions" <u>Terms and conditions</u> is a text link, click to open in a new tab
10.	Sign Up	Button	N/A	Click to submit the information and sign –up

3.4.5 Business Rules

Business Rule ID	Business Rule Description
BRL-04-01	Email address will be used as a unique identifier for user.
BRL-04-02	User will use email address to login
BRL-04-03	Password needs to be encrypted. Password needs to have at least one letter, one number and seven characters.
BRL-04-04	Password and Confirm password need to match.
BRL-04-05	If user selects option "I want to rent a car" -> create a Customer account for user
BRL-04-06	If user selects option "I am a car owner" -> create a Car Owner account for user
BRL-04-07	Account type is required

3.5 UC05: Edit Profile

3.5.1 Overview.

ID and Name	Edit profile
Description	This use case allows customers and car owners to edit their account information
Actor	Customer, car owners
Trigger	Customers and car owners click on My Profile on headers
Pre-condition	Users has logged in
Post-condition	Users can edit profile information

3.5.2 Flow of Events

3.5.2.1 Basic Flow

Step	Description
1.	Users click on My profile link on header
2.	The system displays My profile page
3.	User update information and click save
4.	The system validates the information and save the changes for user
5.	The flow ends

3.5.2.2 Exception flow 1 – Users cancels the changes

Step	Description
1	At step 3, user click Cancel
2	System discard the changes
3	The flow ends

3.5.2.3 Exception flow 2 – User doesn't provide required information

Step	Description
1	At step 3, user misses any of the required information or wrong information format
2	The system returns error message ME003- "This field is required"

3.5.3 Mock-up Screen

The mock-up shows a web browser window with the URL 'https://Rent-a-car.com'. The header features a car icon, the text 'Rent a car today!', and navigation links 'ABOUT US' and 'Welcome, An'. The main content area is titled 'My Profile' and has two tabs: 'Personal Information' (active) and 'Security'. The 'Personal Information' tab contains several form fields: 'Full Name', 'Date of birth' (with a calendar icon), 'Phone number', 'Email address', 'National ID No.', 'Driving license' (with an 'Upload' button), and 'Address' (with dropdowns for City/Province, District, Ward, and a text field for House Number, Q/Village). At the bottom of the form are 'Discard' and 'Save' buttons. A footer section contains three columns of links: 'RENT CARS' (Search Cars and Rates), 'CUSTOMER ACCESS' (Manage My Booking, My Wallet, My Car, Log In), and 'JOIN US' (New User Sign Up).

Screen 5.1. Edit Profile – Personal information

The mock-up shows the same web browser window as Screen 5.1, but the 'Security' tab is active. The 'Change password' section contains two form fields: 'New Password' and 'Confirm password'. At the bottom of the form are 'Discard' and 'Save' buttons. The footer section is identical to the one in Screen 5.1.

Screen 5.2. Edit Profile – Change password

3.5.4 Screen Description

3.5.4.1 My Profile / Personal information

REF	Field Name	Control Type	Data Type	Description
-----	------------	--------------	-----------	-------------

1.	Page title	Text	N/A	Display “My Profile”
2.	Full Name	Text field	Text	Display user's full name, allow to edit
3.	Date of birth	Text field and date picker	Date	Allow to enter date of birth
4.	Phone number	Text field	Numeric and (+)	Display user's phone number, allow to edit
5.	Email address	Text field	All characters	Display user's email address. Do not allow to edit.
6.	National ID No.	Text field	Number	Allow to enter National ID No.
7.	Driving license	File Upload	Media file (image as png, jpg,...)	Allow to upload driving license
8.	Address	Search box	Text	Allow to click and search for an address. Same rule as in the flow to rent car (UC10)
9.	City/Province	Dropdown	N/A	Allow to select a City/Province Same rule as in the flow to rent car (UC10)
10.	District	Dropdown	N/A	Allow to select a District Same rule as in the flow to rent car (UC10)
11.	Ward	Dropdown	N/A	Allow to select a Ward Same rule as in the flow to rent car (UC10)
12.	House number, Street	Text field	N/A	Allow to enter Street name and number Same rule as in the flow to rent car (UC10)
13.	Cancel	Button	N/A	Allow to click and discard all changes
14.	Save	Button	N/A	Allow to click, validate and save information

3.5.4.2 My Profile / Change password

REF	Field Name	Control Type	Data Type	Description
1.	New password	Text field	Password	Allow to enter New password. Value will be masked as user types
2.	Confirm password	Text field	Password	Allow to enter Confirm password. Value will be masked as user types
3.	Cancel	Button	N/A	Allow to click and discard all changes
4.	Save	Button	N/A	Allow to click, validate and save information

3.5.5 Business Rules

Business Rule ID	Business Rule Description
BRL-05-01	All password fields will be masked as user types
BRL-05-02	Current password needs to match, if not, display error message: “Current password is incorrect.”
BRL-05-03	New password and Confirm need to match, if not, display error message: “New password and Confirm password don't match”

3.6 UC06: View Homepage as guest

3.6.1 Overview.

ID and Name	View Homepage
Description	This use case allows users to view the Homepage

Actor	Guest users
Trigger	Users access the system
Pre-condition	User is not logged in (Guest users)
Post-condition	Users can view the Homepage as guest

3.6.2 Flow of Events

3.6.2.1 Basic Flow

Step	Description
1.	Guest users access the system
2.	The system displays Homepage
3.	Users view the homepage as guest
4.	The flow ends

3.6.3 Mock-up Screen



Screen 6.1. Homepage for Guest

3.6.4 Screen Description

3.6.4.1 Homepage screen for Guest

REF	Field Name	Control type	Data Type	Description
1.	Header	Icon and text link	N/A	Refer to Common Component

2.	Banner for customer	Text and button	N/A	<ul style="list-style-type: none"> For customer: Display text: "Looking for a vehicle? You're at the right place. Choose between 100's of private cars for rent at really low prices!" Button "Find a Rental Car Near You", trigger UC07 – View Homepage as Customer
3.	Banner for Car owner	Text and button	N/A	<ul style="list-style-type: none"> For car owner: Display text: "Are you a car owner? List your car and make money from your asset today!" Button "List Your Car Today", trigger UC17 – View Homepage as Car Owner
4.	Why Us?	Section title	N/A	<ul style="list-style-type: none"> Display title: "Why Us?"
5.	"Why Us" Section content	Icon and text	N/A	<ul style="list-style-type: none"> Display 4 sections of information as in the mockup Refer to BRL-06-01
6.	What people say?	Section title	N/A	<ul style="list-style-type: none"> Display title: "What people say?"
7.	"What people say" section content	Icon and text	N/A	<ul style="list-style-type: none"> Display user's avatar and text Display up to 4 Feedback from user <ul style="list-style-type: none"> Refer to BRL-06-03
	Where to find us?	Section title	N/A	<ul style="list-style-type: none"> Display title "Where to find us?"
8.	"Where to find us" Section content	Image and text	N/A	<ul style="list-style-type: none"> Display 6 images Refer to BRL-06-02
9.	Footer	Text link	N/A	Refer to Common Component

3.6.5 Business Rules

Business Rule ID	Business Rule Description
BRL-06-01	<p>The Why us section will have the following contents</p> <ol style="list-style-type: none"> 1. Save money: We have no setup or registration fees. You are only charged when you rent a car. So get started for FREE! 2. Convenient: We have a large selection of privately owned cars to suit your needs throughout the country 3. Legal and insurance: We fully cover all rentals and even provide roadside assistance. Our rating system and extended member profile checks provide safety. 4. 24/7 support: Our team is ready to support you all along the way with our 24/7 hotline and services
BRL-06-02	<p>Rule to display Image and text in the Where to find us section:</p> <ul style="list-style-type: none"> Each image is a province/city with the highest number of cars For each images, display X+ car X is the round down number of the car's ratings Round down to the nearest 10. For e.g: 61 to 69 will be round up to 60+.
BRL-06-03	<p>Feedback will be from user's feedback</p> <ul style="list-style-type: none"> Get the top 4 recent feedback with 5 stars and has feedback content (comment) For each feedback, display <ul style="list-style-type: none"> User icon User name Feedback content

	<ul style="list-style-type: none"> ○ Ratings ○ Date and time • Refer to UC16 and UC25
--	------------------------------------------------------------------------------------------------------------------------

3.7 UC07: View Homepage as Customers

3.7.1 Overview.

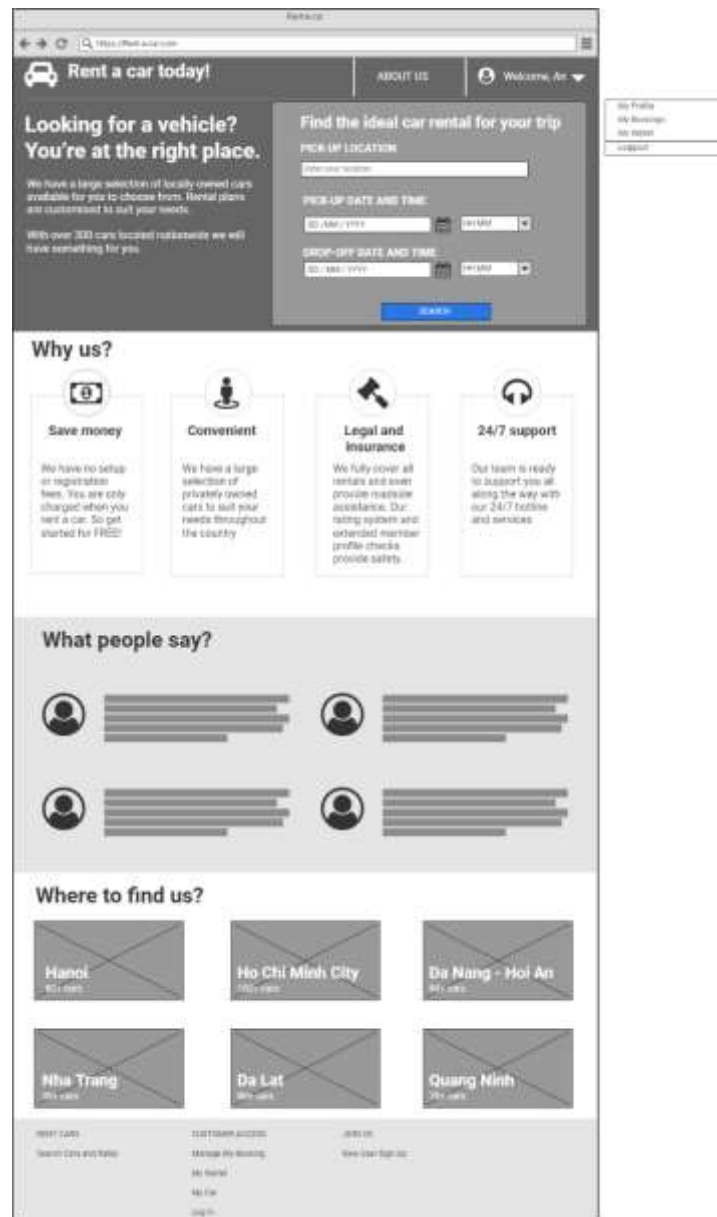
ID and Name	View Homepage as Customer
Description	This use case allows customers to view the Homepage
Actor	Customers
Trigger	Users access the system
Pre-condition	User has logged in as a customer
Post-condition	Users can view the Homepage with the content for Customer

3.7.2 Flow of Events

3.7.2.1 Basic Flow

Step	Description
1.	Customer users access the system
2.	The system displays Homepage content for Customer
3.	Users view the homepage
4.	The flow ends

3.7.3 Mock-up Screen



Screen 7.1. Homepage as Customers

3.7.4 Screen Description

3.7.4.1 Homepage screen for Customer

REF	Field Name	Control Type	Data Type	Description
1.	Header	Icon and text link	N/A	Refer to Common Component
2.	Marketing title	Title	Text	Display “Looking for a vehicle? You’re at the right place.”
3.	Marketing content	Text content	Text	Display “We have a large selection of locally owned cars available for you to choose from. Rental plans are customized to suit your needs. With over 300 cars located nationwide we will have something for you.”
4.	Search area	Text and button	N/A	Refer to UC08
5.	Why Us	Content section	N/A	Section title and content are the Same as in Homepage as Guest – refer to UC06

6.	What people say	Content section	N/A	Section title and content are the Same as in Homepage as Guest – refer to UC06
7.	Where to find us	Content section		Section title and content are the Same as in Homepage as Guest – refer to UC06
8.	Footer	Text link	N/A	Refer to Common Component

3.8 UC08: Search a car

3.8.1 Overview.

ID and Name	Search a car
Description	This use case allows customers to search for a car to rent
Actor	Customer
Trigger	Users click on the Search button on Homepage
Pre-condition	User has logged in as Customer
Post-condition	Users can view the list of cars that match with the search criteria

3.8.2 Flow of Events

3.8.2.1 Basic Flow

Step	Description
1.	Customer logs into the system
2.	The system displays Homepage with the Search section
3.	Users enter search criteria including Location, Pickup and Return Date time
4.	The system returns the list of available cars that match with the search criteria
5.	Users view the list of search results
6.	The flow ends


3.8.2.2 Exception flow 1 - Search returns to results

Step	Description
1.	At step 4, system doesn't find any cars that match with the search result
2.	System returns the no result message (ME011: "No cars match your credentials, please try again.")
3.	The flow ends


3.8.2.3 Alternative flow – Switch views in search results

Step	Description
1.	At step 5, user can switch between List view and Thumbnail view to view the search results.

3.8.3 Mock-up Screen

**Rent a car today!**

ABOUT US

 Welcome, An ▼

Looking for a vehicle? You're at the right place.


We have a large selection of locally owned cars available for you to choose from. Rental plans are customised to suit your needs.

With over 300 cars located nationwide we will have something for you.

Find the ideal car rental for your trip


PICK-UP LOCATION

PICK-UP DATE AND TIME



▼


DROP-OFF DATE AND TIME




▼

[SEARCH](#)

Screen 8.1. Search section on Homepage

**Rent a car today!**


ABOUT US

 Welcome, An ▼

[Home](#) > Search Results


PICK-UP LOCATION

PICK-UP DATE AND TIME



▼

DROP-OFF DATE AND TIME





▼

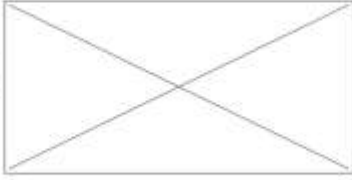
[SEARCH](#)

Search Results



There're 10 cars that are available for you!



Forward to Latest ▼



Nissan Navara E1 2017




Ratings: ☆☆☆☆☆
(No ratings yet)

No. of rides: 0



Price: 900k/day

Locations: Cau Giay, Hanoi

Status: **Available**



Nissan Navara E1 2017



Ratings: ☆☆☆☆☆
(No ratings yet)

No. of rides: 0

Price: 900k/day

Locations: Cau Giay, Hanoi

Status: **Available**

1 2 3 4 ... 10

3 per page

RENT CARS
Search Cars and Roles

CUSTOMER ACCESS
Manage My Booking
My Rental
My Car
Login

JOIN US
New User Sign Up

Screen 8.2 Search Results – Thumbnail View

Rent-a-car

https://Rent-a-car.com

Rent a car today! ABOUT US Welcome, An

Home > Search Results

PICK-UP LOCATION
Enter your location

PICK-UP DATE AND TIME
DD / MM / YYYY

DROP-OFF DATE AND TIME
DD / MM / YYYY

SEARCH

Search Results

There're 10 cars that are available for you!

Grid view List view Newest to Latest

No.	Name	Image	Ratings	No. of Rides	Price	Location	Status	Action
1	Nissan Navara E1 2017		No ratings	0	900K/day	Cau Giay-Hanoi	Available	Rent now View details
2	Nissan Navara E1 2017		No ratings	0	900K/day	Cau Giay-Hanoi	Available	Rent now View details
3	Nissan Navara E1 2017		No ratings	0	900K/day	Cau Giay-Hanoi	Available	Rent now View details
4	Nissan Navara E1 2017		No ratings	0	900K/day	Cau Giay-Hanoi	Available	Rent now View details
5	Nissan Navara E1 2017		No ratings	0	900K/day	Cau Giay-Hanoi	Available	Rent now View details

<< 1, 2, 3, 4 >> 30 per page

RENT CARS: Search Cars and Rates

CUSTOMER ACCESS: Manage My Booking, My Wallet, My Car, Log In

JOIN US: New User Sign Up

Screen 8.3 Search Results –List View

3.8.4 Screen Description

3.8.4.1 Search section on Homepage

REF	Field Name	Control Type	Data Type	Description
1.	Section title	Title	Text	Display: "Find the ideal car rental for your trip"
2.	Pick up Location	Text field	Text	Mandatory. Default to blank. Hint text: "Enter your location" Allow to enter a location to search If blank, display error message ME007: "Please enter location"
3.	Pick-up Date and Time	Calendar input and Time picker	Date and Time	Mandatory. Default to blank Allow to enter Pick-up date and time to search Required field. If blank, display error message: ME008: "Please enter pick up date and time"

4.	Drop-off Date and Time	Calendar input and Time picker	Date and Time	Mandatory. Default to blank Allow to enter Drop-off date and time to search Required field. If blank, display error message: ME009: "Please enter drop-off date and time" Drop-off date and time must be later than Pick-up date and time. Refer to BRL-08-01
5.	Search	Button	Text	When clicked <ul style="list-style-type: none"> Go to Search result page Default in Thumbnail view Return the list of matching cars that is available from pick-up to drop-off time.

3.8.4.2 Search result page / Thumbnail view

REF	Field Name	Control Type	Data Type	Description
1.	Search fields	Text box	Text	Mandatory. Pre-filled the criteria as entered from Homepage. Allow to edit
2.	Section title	Label	Text	Section title: "Search result"
3.	Instruction	Label	N/A	Display text: "There're X cars that are available for you"
4.	Each result	Image and Text	N/A	For each search result, display: <ul style="list-style-type: none"> Car image, allow to go back or forward to see more image Car Name: including Brand name and model Ratings Number of Rides: Number of completed bookings of the car Location: Display the District and province Status: Refer to BRL-18-01
5.	Rent now	Button	N/A	Click to trigger the Rent car flow, UC10
6.	View details	Button	N/A	Click to go to the Car Details page, trigger UC09
7.	Switch view	Button	N/A	Refer to Common Component
8.	Sorting	Dropdown	N/A	Refer to Common Component
9.	Pagination	Buttons	N/A	Refer to Common Component

3.8.4.3 Search result page / List view

REF	Field Name	Control Type	Data Type	Description
1.	List of cars in table	Table	N/A	Display the list of cars in a data grid Columns: <ul style="list-style-type: none"> Name of cars Image Ratings Number of Rides Location: Display the District and province Status All information is the same as thumbnail view
2.	Switch view	Button	N/A	Refer to Common Component
3.	Sorting	Dropdown	N/A	Refer to Common Component
4.	Pagination	Buttons	N/A	Refer to Common Component

3.8.5 Business Rules

Business Rule ID	Business Rule Description
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BRL-08-01	Drop-off date and time must be later than Pick-up date and time. If not, display error message ME010: "Drop-off date time must be later and Pick-up date time, please try again."
BRL-08-02	The entered location will be used to search for the car's address. Allow partial matches.
BRL-08-03	The search results need to return the list of cars that is available for the entire period from pick-up to drop-off. If a car is only available for a part of the duration, it will not be included in the search results
BRL-08-04	If there's no search results, display message ME011: "No cars match your credentials, please try again."
BRL-08-05	Rule to display car ratings: Average of all the ratings for a car To be round up to the next 0.5. E.g: <ul style="list-style-type: none"> - 3.1 will be rounded up to 3.5 - 3.6 will be round up to 4.0
BRL-08-06	The search results only include the available cars. Other cars of different status will not show up in the search results.

3.9 UC09: View Car details

3.9.1 Overview.

ID and Name	View Car details
Description	This use case allows customers to view car details page
Actor	Customer
Trigger	Users click on View details button in Search result list
Pre-condition	Users can access the system and retrieve search results
Post-condition	Users can view car details page

3.9.2 Flow of Events

3.9.2.1 Basic Flow

Step	Description
1.	Users click on View details button in Search result list
2.	System displays Car details page
3.	Users view car details page
4.	The flow ends

3.9.3 Mock-up Screen

Rent-a-car

https://Rent-a-car.com

Rent a car today!

ABOUT US

Welcome, An

Home > Search Results > Car details

Car Details

Nissan Navara EI 2017

Rent now

Ratings:

(No ratings yet)

No. of rides:

0

Price:

900k/day

Locations:

Cau Giay, Hanoi

Status:

Available

Basic Information

Details

Terms of use

License plate:

Color:

Brand name:

Model:

Production year:

No. of seats:

Transmission:

Fuel:

Documents:

No	Name	Note
1	Registration paper	Verified
2	Certificate of Inspection	Verified
3	Insurance	Not available

Note: Documents will be available for viewing after you've paid the deposit to rent.

RENT CARS

CUSTOMER ACCESS

JOIN US

Search Cars and Rates

Manage My Booking

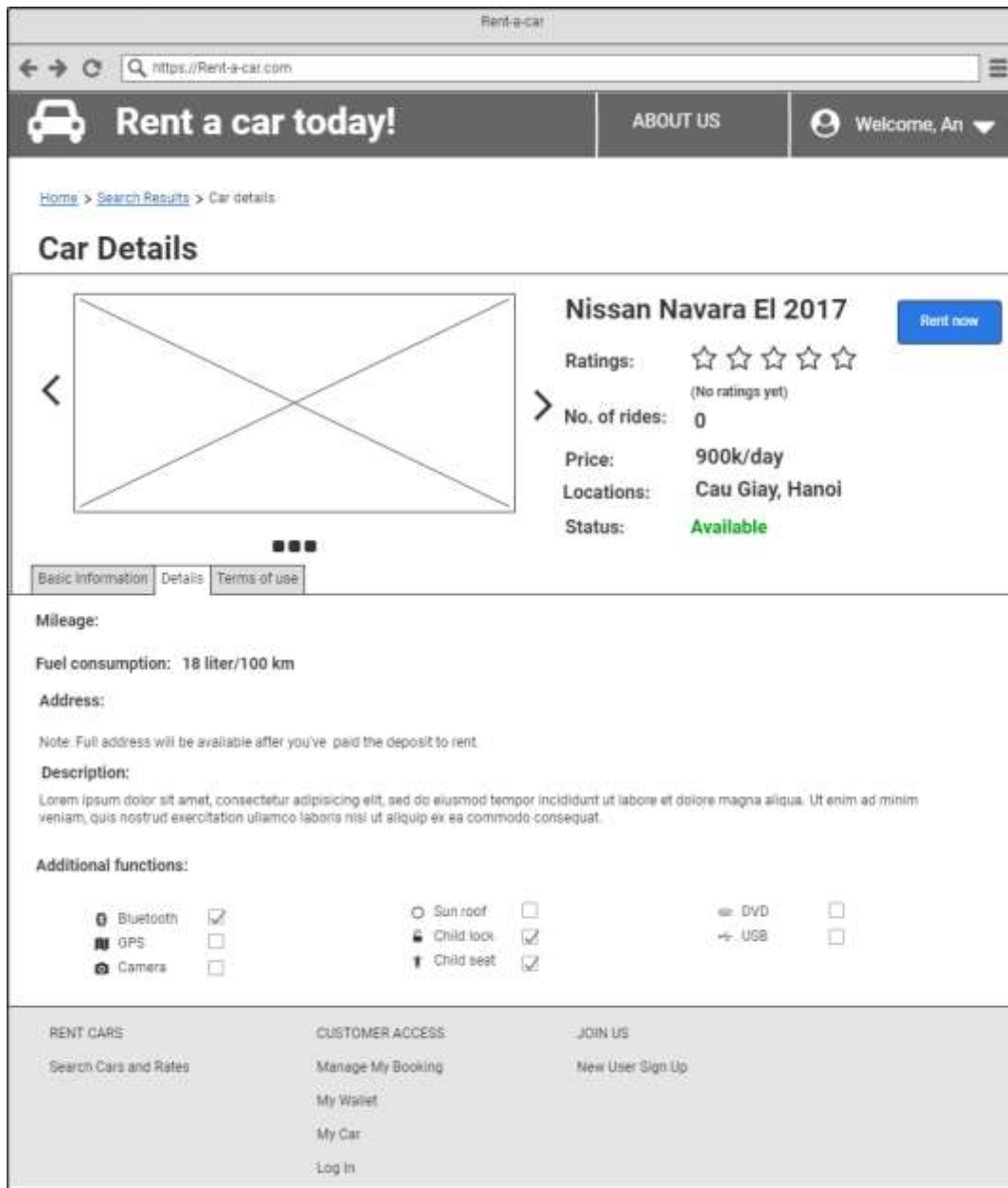
New User Sign Up

My Wallet

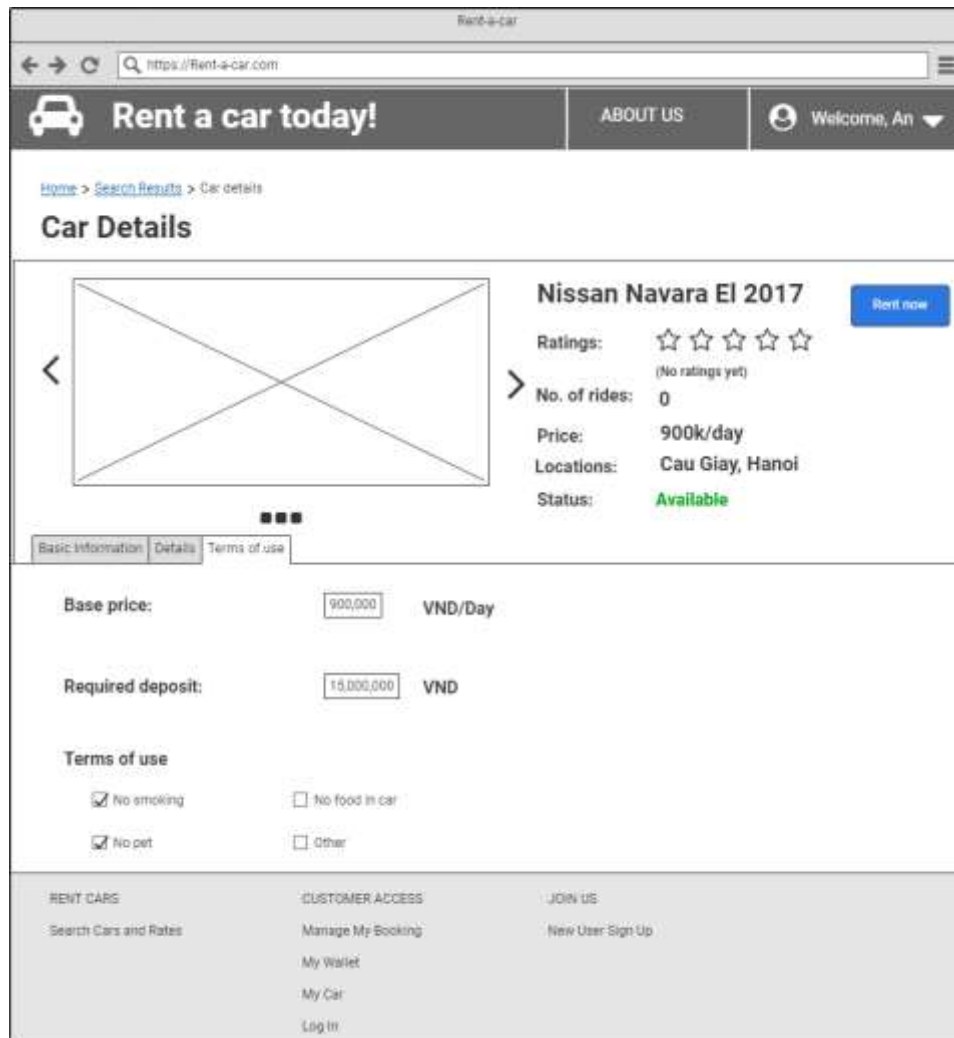
My Car

Log In

Screen 9.1 Car Details – Basic information



Screen 4.2 Car Details – Detailed information



Screen 4.3 Car Details – Terms of use

3.9.4 Screen Description

3.9.4.1 Car details screen / Overview

REF	Field Name	Control Type	Data Type	Description
1.	Page title	Title	Text	Display: "Car Details"
2.	Car images	Image sliders	Image	Display the images of cars. Same rule as in search result
3.	Car Name	Label	Text	Display Car Name: Same rule as in the search result page
4.	Ratings	Label and icons	Text	Display Car Ratings. Same rule as in the search result
5.	Number of Rides	Label	Text	Display Number of Rides. Same rule as in the search result
6.	Location	Label	Text	Display Car's Location. Same rule as in the search result
7.	Status	Label	Text	Display Car's Status. Same rule as in the search result
8.	Rent now	Button	N/A	Click to trigger the Rent car flow, UC10

3.9.4.2 Car details screen / Basic information tab

REF	Field Name	Control Type	Data Type	Description
1.	Group of text fields for car's	Label	Text	Do not allow to edit. Include the following information: <ul style="list-style-type: none"> License plate Color

	basic information			<ul style="list-style-type: none"> • Brand name • Model • Production year • No. of seats • Transmission • Fuel Information entered by car owner. Refer UC18
2.	Documents	Datagrid	N/A	Display 3 columns: <ul style="list-style-type: none"> • No. • Name: Name of the type of documents • Note There's 3 types of documents: Registration paper, Certificate of Inspection, Insurance Information entered by car owner. Refer UC18

3.9.4.3 Car details screen / Details tab

REF	Field Name	Control Type	Data Type	Description
11.	Group of text fields for car's details	Text	N/A	Do not allow to edit. Include the following information: <ul style="list-style-type: none"> • Mileage • Fuel commission • Address • Description Information entered by car owner. Refer UC18 Rule to display address: Refer to BRL-09-02
12.	Group of checkboxes for additional functions	Check boxes	N/A	Do not allow to edit. Include the following checkboxes <ul style="list-style-type: none"> • Bluetooth • GPS • Camera • Sun roof • Child lock • Child seat • DVD • USB Information entered by car owner. Refer UC18

3.9.4.4 Car details screen / Terms of use tab

REF	Field Name	Control Type	Data Type	Description
1.	Group of text fields for car's price information	Text	N/A	Do not allow to edit. Include the following information: <ul style="list-style-type: none"> • Base price per day • Required deposit Information entered by car owner. Refer UC18

2.	Group of checkboxes for Terms of use	Checkboxes	N/A	Do not allow to edit. Include the following checkboxes <ul style="list-style-type: none"> No smoking No pet No food in cars Other Information entered by car owner. Refer UC18
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3.9.5 Business Rules

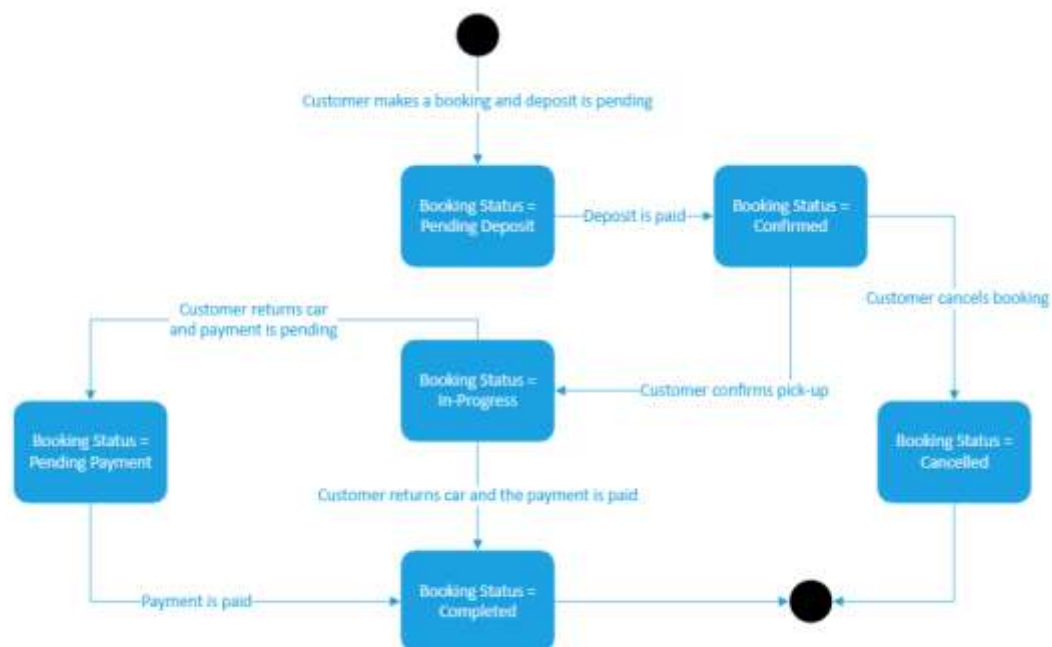
Business Rule ID	Business Rule Description
BRL-09-01	Car's documents are only available for customer to view and download if they've booked the car For Customer that hasn't booked the car, the document is only displayed as "Verified" Display a note: "Note: Documents will be available for viewing after you've paid the deposit to rent."
BRL-09-02	Detailed address information will only be displayed to customer once they've booked the car. For Customer that hasn't booked the car, display a note: "Note: Full address will be available after you've paid the deposit to rent."

3.10 UC10: Rent a car

3.10.1 Overview.

ID and Name	Rent a car
Description	This use case allows customers to make a booking to rent a car
Actor	Customers
Trigger	Users click on Rent now button in Car details page
Pre-condition	User has access to the system and enter booking details to search for a car User has logged in to the system
Post-condition	User can make a booking to rent a car

3.10.2 State Diagram for Bookings



3.10.3 Flow of Events

3.10.3.1 Basic Flow

Step	Description
1.	Users click on Rent Now button in Car details page
2.	System displays the Booking flow, Step 1: Booking Information
3.	Users enter booking information and click Next
4.	System displays the Booking flow, Step 2: Payment
5.	Users select payment option and click Next
6.	System displays the Booking flow, Step 3: Finish
7.	User review booking details
8.	System sends a notification email to car owner (Email template EM02)
9.	The flow ends

3.10.3.2 Exception flow – Users cancel booking flow

Step	Description
1.	From step 3 or 5, users click on Cancel text link
2.	System display dialog: “Are you sure you want to cancel the booking flow?”
3.	User select Yes option
4.	System cancels the booking flow
5.	User is directed back to Homepage
6.	The flows end

3.10.3.3 Alternative flow 1 – Users start booking flow the Search result list

Step	Description
1.	In the basic flow, step 1, user click on the Rent Now button in the Search result list
2.	System continues Step 2

3.10.3.4 Alternative flow 2 – User start booking flow from the Car details list without booking information

Step	Description
1.	In the basic flow, step 1, user click on the Rent Now button in Car details page
2.	System cannot retrieve booking information (Pick up Location, Pick up date time, return date time) for some reasons
3.	System displays dialog for users to enter Pick-up Location, Pick-up date time and Return date time
4.	Users enter the required booking information
5.	System display the booking flow, continues from Step 2 in the Basic flow

3.10.3.5 Alternative flow 3 – Users edit booking information

Step	Description
1.	In the basic flow, in the Booking flow screens, user clicks on “Change details” button
2.	System display dialog for patient to edit booking details (Pickup Location, Pickup date time, return date time)
3.	User enter the new booking details and click submit
4.	System check if the current car is available for the new booking details <ul style="list-style-type: none">- If yes, continue step 5 below- If no, continue step 6 below
5.	If yes, system continue the current booking flow for user

6.	<p>If no, system display a dialog informing user that the current car is NOT available for the new booking period, there's two option,</p> <ul style="list-style-type: none"> - User can confirm to discard the change -> Continue step 7 - Go back to Homepage to conduct another search -> Continue step 8
7.	If user confirm to discard the change, system continues the current booking flow for user
8.	If user go back to homepage -> System discard the current booking flow, direct user back to homepage to conduct another search.

3.10.3.6 Alternative flow 4 – Users has not logged in before clicking Rent now

Step	Description
1.	In the basic flow, in step 1, user has not logged in and click on “Rent Now” button
2.	System display Login dialog for users to logged in
3.	User enter account credentials to log in
4.	System validate account credentials and allow users to log in
5.	Continue Step 2 in the basic flow

3.10.4 Mock-up Screen

Red-e-car

https://Red-e-car.com

 **Rent a car today!**

ABOUT US

Welcome, An ▾

Home > Book car

Booking Details

Change details

- Pick-up location: Trung Kinh, Cau Giay, Hanoi
- Pick up date and time: 13/02/2022 - 12:00 PM
- Return date and time: 23/02/2022 - 14:00 PM

Step 1: Booking Information

Step 2: Payment

Step 3: Finish



Nissan Navara E1 2017

Ratings:  (No ratings yet)

No. of rides: 0

Price: 900k/day

Locations: Cau Giay, Hanoi

Status: Available

Booking Summary

Number of days: 15

Price per day: 900,000 VND

Total: 13,500,000 VND

Deposit: 15,000,000 VND

Renter's information

Full Name: *

Date of birth: *

Phone number: *

Email address: *

National ID No.: *

Driving license: 

Address:

City/Province

District

Ward

House number, Street

Driver's information

☒ Different than Renter's information

Full Name: *

Date of birth: *

Phone number: *

Email address: *

National ID No.: *

Driving license: 

Address:

City/Province

District

Ward

House number, Street

Cancel

Next

RENT CARS

CUSTOMER ACCESS

JOIN US

Search Cars and Rates

Manage My Booking

New User Sign Up

My Wallet

My Car

Log In

Screen 10.1 Book a car – Step 1 – Booking Information

Rent a car

[Home](#) > [Book car](#)

Rent a car today!

[ABOUT US](#)

Welcome, An

[Home](#) > [Book car](#)

Booking Details
[Change details](#)

- Pick-up location: Trung Kinh, Cau Giay, Hanoi
- Pick up date and time: 13/02/2022 - 12:00 PM
- Return date and time: 23/02/2022 - 14:00 PM

Step 1: Booking Information

Step 2: Payment

Step 3: Finish

Nissan Navara E1 2017
Ratings: ☆☆☆☆☆
(No ratings yet)
No. of rides: 0
Price: 900k/day
Locations: Cau Giay, Hanoi
Status: **Available**

Booking Summary

Number of days: 15
Price per day: 900,000 VND

Total: 13,500,000 VND
Deposit: 15,000,000 VND

Please select your payment method

☐ My wallet
Current balance: 20,000,000 VND

☐ Cash
Our operator will contact you for further instruction

☐ Bank transfer
Our operator will contact you for further instruction

[Cancel](#)
[Confirm payment](#)
The deposit amount will be deducted from your wallet.

RENT CARS
[Search Cars and Rates](#)

CUSTOMER ACCESS
[Manage My Booking](#)
[My Wallet](#)
[My Car](#)
[Log in](#)

JOIN US
[New User Sign Up](#)

Screen 10.2. Book a car – Step 2 – Payment

Please select your payment method

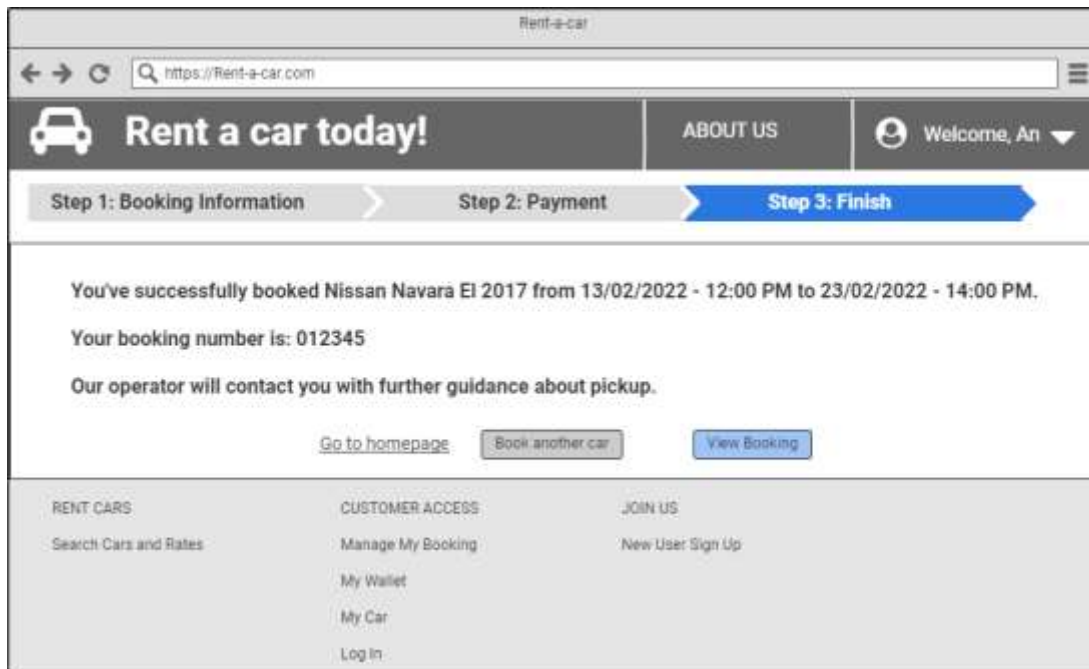
☐ My wallet
Current balance: 10,000,000 VND **(Insufficient)**
Please go to My wallet to top-up and try again

☐ Cash
Our operator will contact you for further instruction

☐ Bank transfer
Our operator will contact you for further instruction

[Cancel](#)
[Confirm payment](#)
The deposit amount will be deducted from your wallet.

Screen 10.2.1. Book a car – Step 2 – Payment – Insufficient balance



Screen 10.3. Book a car – Step 3 – Finish

3.10.5 Screen Description

3.10.5.1 Book a car/ Booking details

REF	Field Name	Control Type	Data Type	Description
1.	Booking details	Text	Text	Display the search criteria that user has entered for the car: <ul style="list-style-type: none"> - Pickup location - Pickup date and time - Return date and time
2.	Change details	Button	Text	Allow to click and change the booking details, display the fields as in the Search section on Homepage for user to edit.

3.10.5.2 Book a car/ Step 1 – Car information

REF	Field Name	Control Type	Data Type	Description
1.	Car image	Image	Image	Display car image (Front image)
2.	Car Name	Label	Text	Display Car Name: Same rule as search result
3.	Ratings	Icons	Text	Display Car Ratings. Same rule as search result
4.	Number of Rides	Label	Text	Display Number of Rides Same rule as search result
5.	Location	Label	Text	Display Car Location. Same rule as search result
6.	Status	Label	Text	Display Car Status. Same rule as search result

3.10.5.3 Book a car/ Step 1 – Booking summary

REF	Field Name	Control Type	Data Type	Description
1.	Booking summary	Title	Text	Display "Booking title"
2.	Number of days	Title	Text	Display the number of days to rent.
3.	Price per day	Title	Text	Display the price per days

4.	Total	Title	Text	Display the total amount
5.	Deposit	Title	Text	Display the deposit amount

3.10.5.4 Book a car/ Step 1 – Booking information/ Renter's information

REF	Field Name	Control Type	Data Type	Description
1.	Renter's information	Section title	Text	Display "Renter's information"
2.	Full Name	Text field	Text	Display user's full name, allow to edit
3.	Date of birth	Text field and date picker	Date	Allow to enter date of birth
4.	Phone number	Text field	Numeric and (+)	Display user's phone number, allow to edit
5.	Email address	Text field	All characters	Display user's email address, allow to edit Must be email address format
6.	National ID No.	Text field	Text	Display from user's profile if any. Allow to enter National ID No.
7.	Driving license	Text field	Text	Display from user's profile if any. Allow to upload driving license
8.	Address	Search box	Text	Display from user's profile if any. Allow to click and search for an address Integrate with address/ location service to get address Display auto-suggestion when user types After user selects an address, fill in the following fields
9.	City/Province	Dropdown	N/A	Display from user's profile if any. Allow to select a City/Province List of values: Pre-defined. Refer to LI01
10.	District	Dropdown	N/A	Display from user's profile if any. Allow to select a District List of values: Pre-defined. Refer to LI01
11.	Ward	Dropdown	N/A	Display from user's profile if any. Allow to select a Ward List of values: Pre-defined. Refer to LI01
12.	House number, Street	Text field	Text	Display from user's profile if any. Allow to enter Street name and number

3.10.5.5 Book a car/ Step 1 – Booking information/ Driver's information

REF	Field Name	Control Type	Data Type	Description
1.	Driver's information	Section title	Text	Display "Driver's information"
2.	Full Name	Text field	Text	Same rule as Renter's information
3.	Date of birth	Text field	Date	Same rule as Renter's information
4.	Phone number	Text field	Numeric and (+)	Same rule as Renter's information
5.	Email address	Text field	All characters	Same rule as Renter's information
6.	National ID No.	Text field	Number	Same rule as Renter's information
7.	Driving license	Text field	Number	Same rule as Renter's information

8.	Address	Search box	Text	Same rule as Renter's information
9.	City/Province	Dropdown	N/A	Same rule as Renter's information
10.	District	Dropdown	N/A	Same rule as Renter's information
11.	Ward	Dropdown	N/A	Same rule as Renter's information
12.	House number, Street	Text field	Text	Same rule as Renter's information
13.	Cancel	Button	N/A	Discard the flow and go back to previous page
14.	Next	Button	N/A	Click to validate information and go to next step

3.10.5.6 Book a car/ Step 2 – Payment

REF	Field Name	Control Type	Data Type	Description
1.	Payment method	Text	N/A	Display text: "Please select your payment method"
2.	My wallet	Radio button	Text	Default to selected. Allow to select/unselect Display current balance of the wallet
3.	Cash	Radio button	Text	Allow to select/unselect Display instruction text: "Our operator will contact you for further instruction"
4.	Bank Transfer	Radio button	Text	Allow to select/unselect Display instruction text: "Our operator will contact you for further instruction"
5.	Cancel	Button	N/A	Discard the flow and go back to previous page
6.	Confirm payment	Button	N/A	If the selected method is my wallet, display instruction: "The deposit amount will be deducted from your wallet." Click to confirm payment and go to next step

3.10.5.7 Book a car/ Step 3 – Finish

REF	Field Name	Control Type	Data Type	Description
1.	Confirmation text	Text	N/A	"You've successfully booked <Car Name> from <Pickup date time> to <Return date time>. Your booking number is: <Booking No.> Our operator will contact you with further guidance about pickup."
2.	Go to Homepage	Text link	N/A	Allow to click and go back to Homepage
3.	Book another car	Button	N/A	Allow to click and trigger another booking flow.
4.	View booking	Button	N/A	Allow to click and go to booking details page. Trigger UC12

3.10.6 Business Rules

Business Rule ID	Business Rule Description
BRL-10-01	Booking Number is auto-generated by the system. Rule to generate: YYYYMMdd-<sequence number> In which YYYYMMdd is the date the booking is made. Sequence number is auto-incremented by the system
BRL-10-02	Rule to calculate Total Amount of a booking - Total Amount = Number of days X Price per day
BRL-10-03	There're 3 types of payment method: - My wallet: users will pay via the wallet's balance, which has to be equal to or more than the Deposit amount of the car. - Cash: The system's operators will contact users off-line to retrieve payment

	- Bank Transfer: The system operators will contact users off-line to retrieve payment.
BRL-10-04	At the time of booking, user will pay the deposit first, then when user returns the car, system will calculate the exceeds or deficits amount to finish payment <ul style="list-style-type: none"> - If the deposit amount exceeds the total (more than), then system will return the money to user's wallet (regardless of the initial payment method) - If the deposit amount is less than the total, then system will continue to charge users via user's wallet, cash or bank transfer. User can select an option to finish payment.
BRL-10-05	For cash and bank transfer, after the booking is made, its status will be "Pending deposit" Once the operator receives payment (off-line) they will update the status to "Confirmed"
BRL-10-06	For My wallet, rule to display current amount: <ul style="list-style-type: none"> - If the amount equal to or more than the deposit, display in green color <ul style="list-style-type: none"> ▪ When user confirms payment, the deposit will be deducted from My wallet - If the amount equal to or more than the deposit, display in red color <ul style="list-style-type: none"> ▪ When user confirms payment, display an error to inform users to top-up and try again When the deposit is deducted successfully from my wallet, the booking is made and the status set to "Confirmed"
BRL-10-07	Rule to calculate Number of days: Return date – Pickup date + 1, (including both ends)
BRL-10-08	Rule for driving license: <ul style="list-style-type: none"> - If driver is different from renter: Then the driving license is required for driver, optional for renter If driver is same as renter: Driving license is required
BRL-10-09	User's information will be retrieved from their profile and can be edited in Renter's information but it will not be updated to user's profile. User's initial email address in Profile will be kept as user's login credentials.
BRL-10-10	Notification email content: Refer to Appendices

3.11 UC11: View Booking List

3.11.1 Overview.

ID and Name	View Booking List
Description	This use case allows customers to view their list of bookings
Actor	Customers
Trigger	Users click on My Bookings menu on header
Pre-condition	Users has logged into the system
Post-condition	Users can view the list of bookings

3.11.2 Flow of Events

3.11.2.1 Basic Flow

Step	Description
1.	Users click on arrow button on header
2.	System display list of dropdown menu
3.	Users click on My Bookings
4.	System displays list of bookings
5.	The flow ends

3.11.3 Mock-up Screen



3.11.4 Screen Description

3.11.4.1 My Bookings page

REF	Field Name	Control Type	Data Type	Description
1.	Page title	Image	Image	Display "My Bookings"
2.	Booking information	Image and Text	Text	For each booking, display: <ul style="list-style-type: none"> • Car image, allow to go back or forward to see more images • Car Name, including Brand name and model • From: Pickup date and time • To: Return date and time • Number of days • Base price • Total • Deposit • Booking number • Booking Status: Refer to BRL-11-01
3.	View details	Button	N/A	Click to go to car details page
4.	Confirm pick-up	Button	N/A	Refer to UC14
5.	Return car	Button	N/A	Trigger UC15
6.	Cancel	Button	N/A	Trigger UC13
7.	Sorting	Dropdown	N/A	Refer to Common Component
8.	Pagination	Buttons	N/A	Refer to Common Component

3.11.5 Business Rules

Business Rule ID	Business Rule Description																					
BRL-11-01	<p>Booking Status includes:</p> <ul style="list-style-type: none">- Pending deposit: when the booking is made and the deposit is pending- Confirmed: when car owner confirms that he/she has received the deposit- In-progress: when customer has confirmed pick-up of the car- Pending Payment: when customer returns car but the payment is pending- Completed: When car owner confirms that he/she has received the payment- Cancelled: When the booking is cancelled.																					
BRL-11-02	<p>Rule to display buttons based on booking status:</p> <table><tr><th>No.</th><th>Booking status</th><th>Buttons</th></tr><tr><td>1</td><td>Confirmed</td><td>1. View details 2. Confirm pick-up 3. Cancel</td></tr><tr><td>2</td><td>Pending deposit</td><td>1. View details 2. Cancel</td></tr><tr><td>3</td><td>In-progress</td><td>1. View details 2. Return car</td></tr><tr><td>4</td><td>Pending payment</td><td>1. View details</td></tr><tr><td>5</td><td>Completed</td><td>1. View details</td></tr><tr><td>6</td><td>Cancelled</td><td>1. View details</td></tr></table>	No.	Booking status	Buttons	1	Confirmed	1. View details 2. Confirm pick-up 3. Cancel	2	Pending deposit	1. View details 2. Cancel	3	In-progress	1. View details 2. Return car	4	Pending payment	1. View details	5	Completed	1. View details	6	Cancelled	1. View details
No.	Booking status	Buttons																				
1	Confirmed	1. View details 2. Confirm pick-up 3. Cancel																				
2	Pending deposit	1. View details 2. Cancel																				
3	In-progress	1. View details 2. Return car																				
4	Pending payment	1. View details																				
5	Completed	1. View details																				
6	Cancelled	1. View details																				

3.12 UC12: Edit Booking Details

3.12.1 Overview.

ID and Name	Edit Booking details
Description	This use case allows customers to view the booking details after renting a car
Actor	Customers
Trigger	Users select a booking from Booking list
Pre-condition	User has logged in and has made a booking
Post-condition	User can view booking details

3.12.2 Flow of Events

3.12.2.1 Basic Flow

Step	Description
1.	Customers select a booking from the Booking list
2.	The system displays the booking details page
3.	User can view and edit some information
4.	The flow ends

3.12.2.2 Exception flow 1 – Cannot edit information when the booking is in-progress, pending payment, completed or cancelled

Step	Description
1.	At step 3, if the booking status is In-Progress, Pending Payment, Completed or Cancelled
2.	The system disabled all fields, do not allow customer to edit


3.12.2.3 Alternative flow 1 – User click on View booking at Step 3 of the booking flow

Step	Description
2.	In step 3 of booking flow from UC07, user clicks on View booking button
3.	System display the booking, continue from step 2 in the basic flow


3.12.3 Mock-up Screen

Rent a car

← → ↻

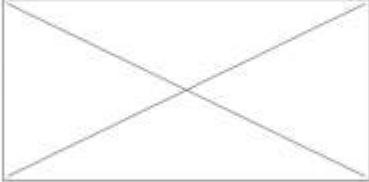
 **Rent a car today!**

ABOUT US

 Welcome, An ▾

[Home](#) > [My Bookings](#) > Booking details

Booking Details



Nissan Navara EI 2017

View details

Confirm Pick-up

Cancel booking

From: 13/02/2022 - 12:00 PM

To: 23/02/2022 - 14:00 PM

Number of days: 10 days

Base price

Total:

Deposit

Booking No. 012345

Booking status: **Confirmed**


Booking information

Car information

Payment information

Renter's information

Full Name: *

Date of birth: *
 

Phone number: *

Email address: *

National ID No.: *

Driving license:

Upload

Address:

City/Province ▾

District ▾


Ward ▾

House number, Street

Driver's Information

☒ Different than Renter's information

Full Name: *

Date of birth: *
 

Phone number: *

Email address: *

National ID No.: *

Driving license:

Upload

Address:

City/Province ▾

District ▾

Ward ▾

House number, Street

Discard

Save

RENT CARS
Search Cars and Rates

CUSTOMER ACCESS
Manage My Booking
My Wallet
My Car
Log In

JOIN US
New User Sign Up

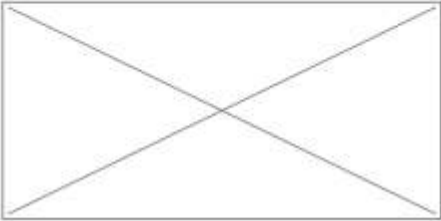
Screen 12.1. Booking details – Booking information

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Rent-a-car

[Home](#) > [My Bookings](#) > Booking details

Booking Details



Nissan Navara EI 2017

- From: 13/02/2022 - 12:00 PM
- To: 23/02/2022 - 14:00 PM

Number of days: 10 days

Base price

Total:

Deposit

Booking No. 012345

Booking status: **Confirmed**

[View details](#)
[Confirm Pick-up](#)
[Cancel booking](#)

Booking Information

Car Information

Payment Information

License plate:
Brand name:
Production year:
Transmission:
Documents:

Color:
Model:
No. of seats:
Fuel:

No	Name	Note	Link
1	Registration paper	Verified	File1.PDF
2	Certificate of inspection	Verified	File2.PDF
3	Insurance	Not available	Not available

Mileage:
Fuel consumption: 18 liter/100 km
Address: 128 Trung Kinh, Yen Hoa, Cau Giay, Hanoi
Description:

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat.

Additional functions:

Bluetooth
GPS
Camera

☒
☐
☐

Sun roof
Child lock
Child seat

☐
☒
☒

DVD
USB

☐
☐

Terms of use

☐ No smoking
☐ No food in car
☐ No pet
☐ Other

RENT CARS
Search Cars and Rates

CUSTOMER ACCESS
Manage My Booking
My Wallet
My Car
Log In

JOIN US
New User Sign Up

Screen 12.2. Booking details – Car information

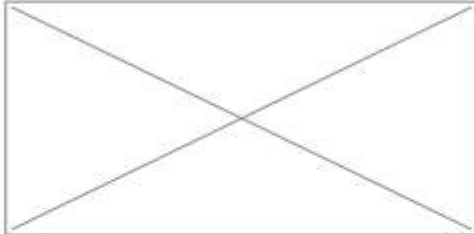
Rent-a-car

https://Rent-a-car.com

Rent a car today! ABOUT US Welcome, An

Home > My Bookings > Booking details

Booking Details



Nissan Navara EI 2017 [View details](#)

- From: 13/02/2022 - 12:00 PM
- To: 23/02/2022 - 14:00 PM

Number of days: 10 days

Base price

Total:

Deposit

Booking No. **012345**

Booking status: **Confirmed**

[Confirm Pick-up](#)

[Cancel booking](#)

Booking Information Car Information Payment Information

☒ My wallet

Current balance: 20,000,000 VND

Please make sure to have sufficient balance when you return the car.

Go to [My wallet](#)

RENT CARS

[Search Cars and Rates](#)

CUSTOMER ACCESS

[Manage My Booking](#)

[My Wallet](#)

[My Car](#)

[Log In](#)

JOIN US

[New User Sign Up](#)

Screen 12.3. Booking details – Payment information

3.12.4 Screen Description

3.12.4.1 Booking details page/ Overview

REF	Field Name	Control Type	Data Type	Description
1.	Car image	Image	Image	Display car images. Same rule as in the search result page
2.	Car Name	Label	Text	Display Car Name: Same rule as in the search result page
3.	From	Label	Text	Display pick up date and time
4.	To	Label	Text	Display return up date and time
5.	Number of days	Title	Text	Display the number of days to rent.
6.	Price per day	Title	Text	Display the price per days
7.	Total	Title	Text	Display the total amount
8.	Deposit	Title	Text	Display the deposit amount
9.	Booking No.	Title	Text	Display Booking number
10.	Booking status	Title	Text	Display Booking status. Refer to business rule

11.	View car details	Button	N/A	Click to go to Car details page
12.	Confirm pick-up	Button	N/A	Refer to UC14
13.	Return car	Button	N/A	Refer to UC15
14.	Cancel booking	Button	N/A	Refer to UC16

3.12.4.2 Booking details page/ Booking information/ Renter's information

REF	Field Name	Control Type	Data Type	Description
1.	Renter's information	Section title	Text	Display "Renter's information"
2.	Full Name	Text field	Text	Display the entered value, allow to edit
3.	Date of birth	Text field and date picker	Date	Display the entered value, allow to edit
4.	Phone number	Text field	Numeric and (+)	Display the entered value, allow to edit
5.	Email address	Text field	All characters	Display the entered value, allow to edit. Must be email address format
6.	National ID No.	Text field	Number	Display the entered value, allow to edit
7.	Driving license	Text field	Number	Display the entered value, allow to edit
8.	Address	Search box	Text	Display the entered value, allow to edit
9.	City/Province	Dropdown	N/A	Display the entered value, allow to edit
10.	District	Dropdown	N/A	Display the entered value, allow to edit
11.	Ward	Dropdown	N/A	Display the entered value, allow to edit
12.	House number, Street	Text field	Text	Display the entered value, allow to edit

3.12.4.3 Booking details page/ Booking information/ Driver's information

REF	Field Name	Control Type	Data Type	Description
1.	Driver's information	Section title	Text	Display "Driver's information"
2.	Full Name	Text field	Text	Display the entered value, allow to edit
3.	Date of birth	Text field and date picker	Date	Display the entered value, allow to edit
4.	Phone number	Text field	Numeric and (+)	Display the entered value, allow to edit
5.	Email address	Text field	All characters	Display the entered value, allow to edit
6.	National ID No.	Text field	Number	Display the entered value, allow to edit.
7.	Driving license	Text field	Number	Display the entered value, allow to edit
8.	Address	Search box	Text	Display the entered value, allow to edit
9.	City/Province	Dropdown	N/A	Display the entered value, allow to edit
10.	District	Dropdown	N/A	Display the entered value, allow to edit
11.	Ward	Dropdown	N/A	Display the entered value, allow to edit
12.	House number, Street	Text field	Text	Display the entered value, allow to edit
13.	Discard	Button	N/A	Discard the flow and go back to previous page
14.	Save	Button	N/A	Click to validate information and save changes

3.12.4.4 Booking details page/ Car information

REF	Field Name	Control Type	Data Type	Description
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1.	Group of text fields for car's basic information	Text	N/A	Do not allow to edit. Include the following information: <ul style="list-style-type: none"> • License plate • Color • Brand name • Model • Production year • No. of seats • Transmission • Fuel Information entered by car owner. Refer UC18
2.	Documents	Datagrid	N/A	Display the file name for the documents, allow to click and download. Information entered by car owner. Refer UC18
3.	Group of text fields for car's details	Text	N/A	Do not allow to edit. Include the following information: <ul style="list-style-type: none"> • Mileage • Fuel commission • Address • Description Information entered by car owner. Refer UC18
4.	Address	Text	N/A	Display car's address Information entered by car owner. Refer UC18
5.	Group of checkboxes for additional functions	Checkboxes	N/A	Do not allow to edit. Include the following checkboxes <ul style="list-style-type: none"> • Bluetooth • GPS • Camera • Sun roof • Child lock • Child seat • DVD • USB Information entered by car owner. Refer UC18
6.	Group of checkboxes for Terms of use	Checkboxes	N/A	Do not Allow to edit. Include the following checkboxes <ul style="list-style-type: none"> • No smoking • No pet • No food in cars • Other Information entered by car owner. Refer UC18

3.12.4.5 Booking details page/ Payment

REF	Field Name	Control Type	Data Type	Description
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1.	Display payment information	Text	N/A	Do not allow to edit. Refer to business rules
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3.12.5 Business Rules

Business Rule ID	Business Rule Description
BRL-12-01	<p>Only allow edit booking if the booking status is:</p> <ul style="list-style-type: none"> Confirmed Pending deposit <p>Do not allow to edit booking if the booking status is:</p> <ul style="list-style-type: none"> In-Progress Cancelled Pending payment Completed
BRL-12-02	<p>Rule to display payment:</p> <ul style="list-style-type: none"> If payment is my wallet -> Display current wallet balance and instruction: "Please make sure to have sufficient balance when you return the car." Display link to go to my wallet If payment is Cash or bank transfer <ul style="list-style-type: none"> If the status is pending deposit or pending payment, display instruction: "Our operator will contact you to for further instruction" If the status is other status, display the option and text: "Payment fulfilled"
BRL-12-03	Rule to display buttons based on booking status: Same as in list view

3.13 UC13: Cancel booking

3.13.1 Overview.

ID and Name	Cancel a booking
Description	This use case allows users to cancel a booking
Actor	Customer
Trigger	Customer click on Cancel button in Booking details page
Pre-condition	Users logged in to the system as Customer
Post-condition	The booking status is updated to Cancelled

3.13.2 Flow of Events

3.13.2.1 Basic Flow

Step	Description
1.	Customer click Cancel button in Booking details page
2.	System display confirmation message "Are you sure you want to cancel this booking?"
3.	User can select Yes to confirm
4.	The system updates the booking status to Cancelled
5.	System returns the deposit to customer's wallet
6.	System sends a notification email to car owner (Email template EM03)
7.	The flow ends

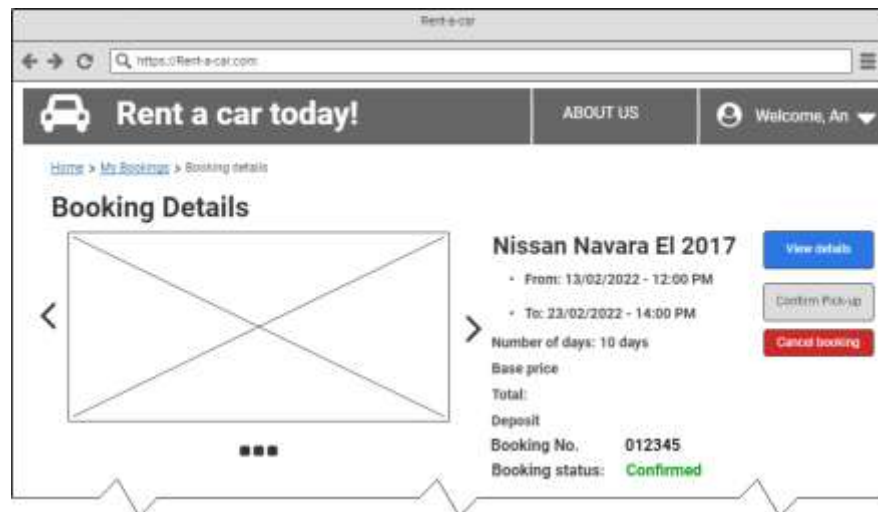
3.13.2.2 Alternative flow 1 – Cancel booking from Booking list

Step	Description
1	In booking list page, user click Cancel button
2	Continue step 2 in the basic flow

3.13.2.3 Exception flow 1 – User cancels the flow

Step	Description
1	At step 3, user selects No
2	System discards the flow and no changes are made

3.13.3 Mock-up Screen



Screen 13. Cancel Booking - Button

3.13.4 Screen Description

3.13.4.1 Cancel button

REF	Field Name	Control Type	Data Type	Description
1	Cancel	Button	N/A	Allow to click and cancel the booking. Change booking status to Cancelled. Rule to display: Refer to BRL-13-01

3.13.5 Business Rules

Business Rule ID	Business Rule Description
BRL-13-01	Only allows customer to cancel booking if booking status is: <ul style="list-style-type: none"> - Confirmed - Pending deposit - Stopped If the booking is either In-progress, Completed or Pending payment -> Do not allow to cancel. The button will be hidden entirely
BRL-13-02	After customer has cancelled a booking, the deposit will be returned to customer's wallet
BRL-13-03	Notification email content: Refer to Appendices

3.14 UC14: Confirm Pick-up

3.14.1 Overview.

ID and Name	Confirm Pick-up
Description	This use case allow customers to confirm picking up a car and change booking status
Actor	Customer
Trigger	Customer click on Confirm Pick-up button in Booking details page
Pre-condition	Users logged in to the system as Customer
Post-condition	The booking status is updated to In-Progress

3.14.2 Flow of Events

3.14.2.1 Basic Flow

Step	Description
1.	Customer click Confirm Pick-up button in Booking details page
2.	System display confirmation message "Are you sure you want to confirm pick-up?"
3.	User can select Yes to confirm
4.	The system updates the booking status to In-Progress
5.	The flow ends

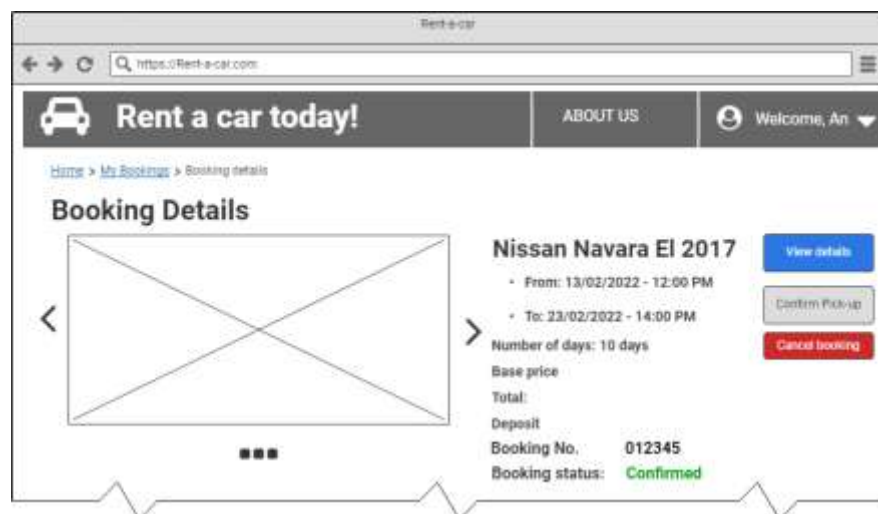
3.14.2.2 Alternative flow – Confirm Pick-up from the booking list

Step	Description
1	In booking list page, user click Confirm Pick-up button
2	Continue step 2 in the basic flow

3.14.2.3 Exception flow 2 – User cancels the flow

Step	Description
1	At step 3, user selects No
2	System discards the flow and no changes are made

3.14.3 Mock-up Screen



Screen 14. Confirm Pick-up - Button

3.14.4 Screen Description

3.14.4.1 Booking details page/ Confirm Pick-up button

REF	Field Name	Control Type	Data Type	Description
1	Confirm Pick-up	Button	N/A	Click to confirm that customer has pick-up the car, change booking status to In-Progress. Only available for certain booking statuses. Refer to BRL-14-01

3.14.5 Business Rules

Business Rule ID	Business Rule Description
BRL-14-01	Only allows customer to confirm pick-up if booking status is Confirmed. For other status, hide the button completely.

3.15 UC15: Return a car

3.15.1 Overview.

ID and Name	Return a car
Description	This use case allows customers to return the car after using
Actor	Customer
Trigger	Customers click on Return car button in the booking details page
Pre-condition	Customers has logged in Customers has a booking that is In-progress
Post-condition	Customer can return the car

3.15.2 Flow of Events

3.15.2.1 Basic Flow

Step	Description
1.	Customer click Return button in Booking details page
2.	If the total amount is more than the deposit amount, System display confirmation dialog "Return car Please confirm to return the car. The remaining amount of XXXX VND will be deducted from your wallet."
3.	If the total amount is less than the deposit amount, System display confirmation dialog "Please confirm to return the car. The exceeding amount of XXXXX VND will be returned to your wallet."
4.	User can select Yes to confirm
5.	System updates user's wallet's balance
6.	System updates the booking status to Completed
7.	System sends a notification email to car owner (Email template EM04)
8.	The flow ends

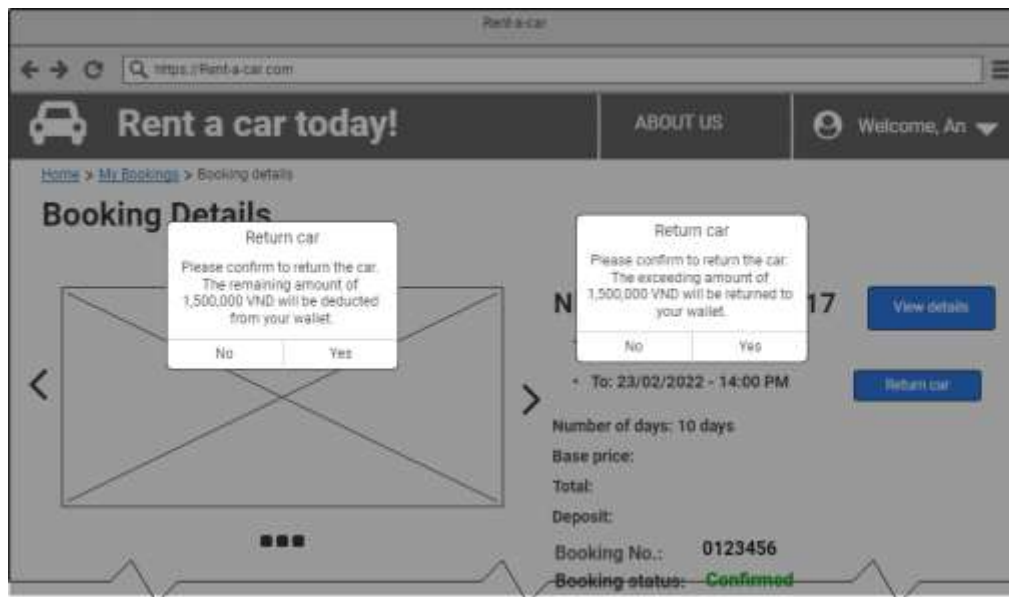
3.15.2.2 Exception flow 1 – User's wallet doesn't have sufficient funds

Step	Description
1.	In case the total amount is more than the deposit amount, At step 5, system validates that user doesn't have enough funds in their wallet The system fails to validate the credentials and return an error message.
2.	System return error message ME012 "Your wallet doesn't have enough balance. Please top-up your wallet and try again"
3.	System update the booking to Pending payment
4.	The flow ends

3.15.2.3 Alternative flow 1 – User click on the Return car button from list view

Step	Description
1.	In the booking list, user click on Return Car button
2.	Continue from step 2 in the basic flow

3.15.3 Mock-up Screen



Screen 15.1. Return a car

3.15.4 Screen Description

REF	Field Name	Control Type	Data Type	Description
1	Return car	Button	N/A	Allow to click and return the car

3.15.5 Business Rules

Business Rule ID	Business Rule Description
BRL-15-01	There're 2 scenarios <ul style="list-style-type: none"> - The total amount is more than the deposit amount, then the remaining amount will be deducted from user's wallet - The total amount is less than the deposit amount, then the exceeding amount will be returned to user's wallet
BRL-15-02	My wallet is the only payment option available when returning a car . If user doesn't have sufficient funds, there will be an instruction to guide user to top-up their wallet
BRL-15-03	Notification email content: Refer to Email template EM04

3.16 UC16: Give Ratings

3.16.1 Overview.

ID and Name	Give Ratings
Description	This use case allows customers to give ratings after returning a car
Actor	Customer
Trigger	Users select button to give ratings
Pre-condition	Users has returned a car
Post-condition	User can give ratings for a car

3.16.2 Flow of Events

3.16.2.1 Basic Flow

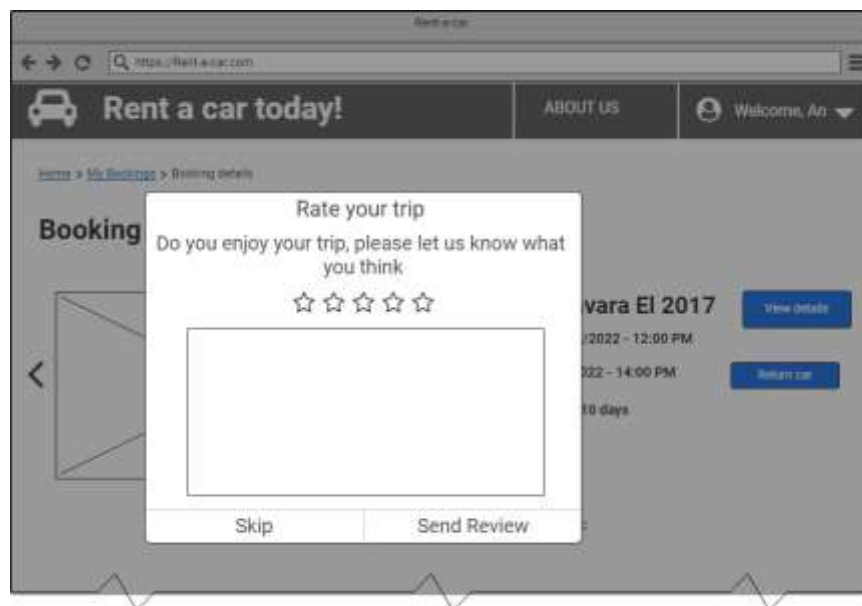
Step	Description
1.	Customer returned a car successfully
2.	Systems display dialog for user to give ratings

3.	User can rate the car from 1-5
4.	System store the rating update rating scores for the car
5.	The flow ends

3.16.2.2 Exception flow – Skip ratings

Step	Description
1.	In step 3, user choose to skip ratings
2.	System closes the dialog and go back to Homepage

3.16.3 Mock-up Screen



Screen 16. Give Ratings Dialog

3.16.4 Screen Description

3.16.4.1 Give Ratings dialog

REF	Field Name	Control Type	Data Type	Description
1.	Title	Text	N/A	Display "Rate your trip"
2.	Instruction	Text	N/A	Display "Do you enjoy your trip? Please let us know what you think"
3.	Ratings button	Buttons	N/A	Allow to select the star icon to rate.
4.	Review content	Text area	All characters	Allow to enter content
5.	Skip	Button	N/A	Click to skip the step
6.	Send Review	Button	N/A	Click to submit the review

3.17 UC17: View Homepage as Car owners

3.17.1 Overview.

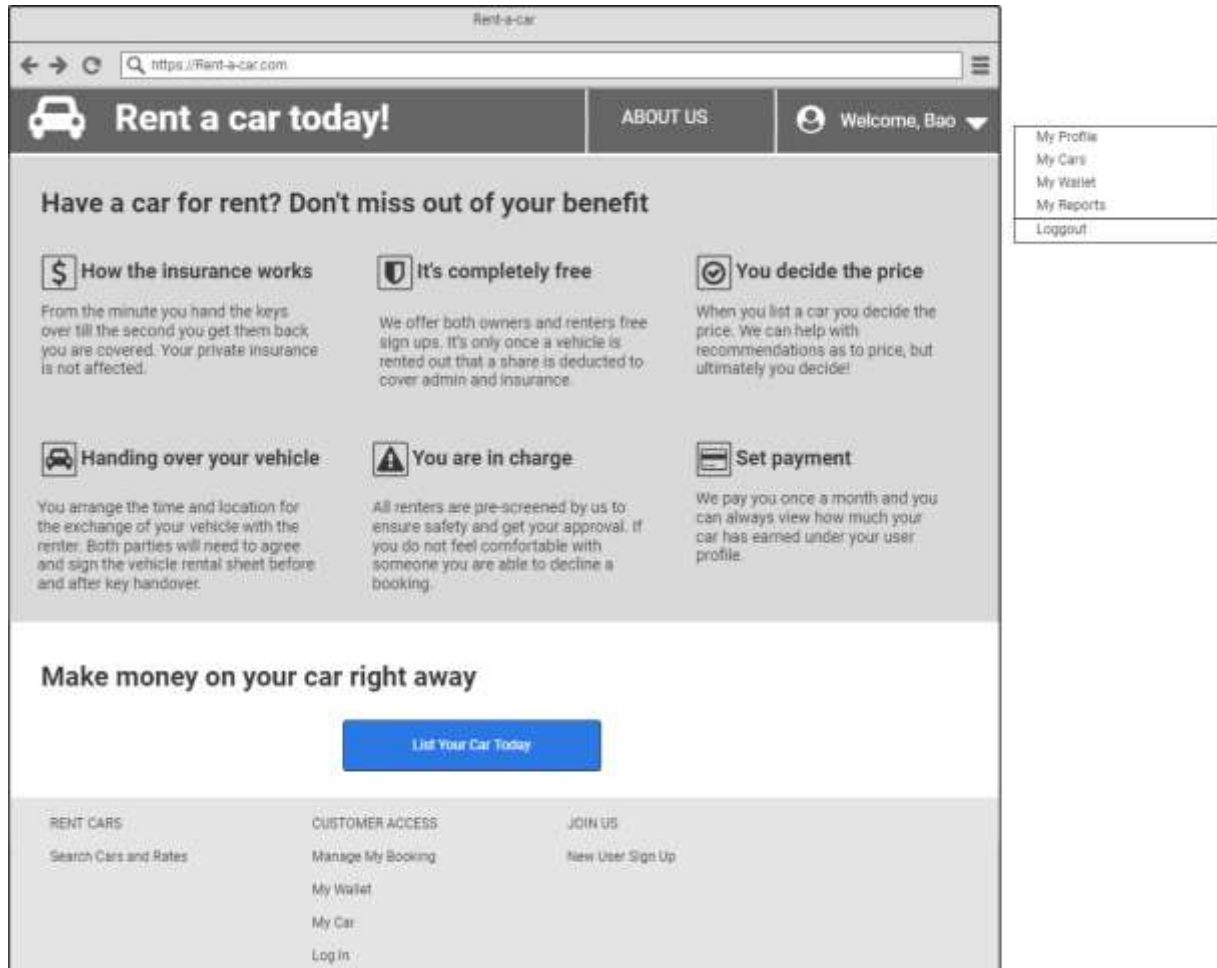
ID and Name	View Homepage as Car Owner
Description	This use case allows Car Owners to view the Homepage
Actor	Car Owner
Trigger	Users access the system
Pre-condition	User has logged in as a Car Owner
Post-condition	Users can view the Homepage with the content for Car Owner

3.17.2 Flow of Events

3.17.2.1 Basic Flow

Step	Description
1.	Car Owner users access the system
2.	The system displays Homepage content for Car Owner
3.	Users view the homepage
4.	The flow ends

3.17.3 Mock-up Screen



Screen 17. Homepage

3.17.4 Screen Description

3.17.4.1 Homepage screen for Car owners

REF	Field Name	Control Type	Data Type	Description
1.	Header	Icon and text link	N/A	Refer to Common Component
2.	Your benefit	Section title	N/A	Display: "Have a car for rent? Don't miss out of your benefit"
3.	Your benefit Section content	Icon and Text	N/A	Display 6 sections of information as in the mockup Refer to BRL-17-01
4.	Call to action	Title	N/A	Display: "Make money on your car right away"
5.	List your car today	Button	N/A	Click to go to the Add a car flow, trigger UC18
6.	Footer	Text link	N/A	Refer to Common Component

3.17.5 Business Rules

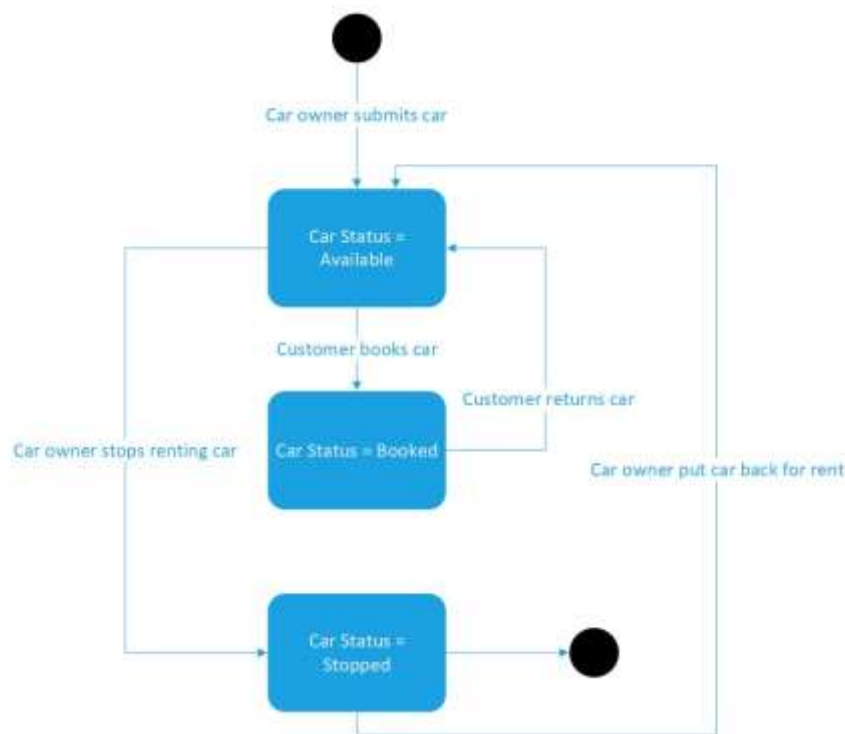
Business Rule ID	Business Rule Description
BRL-17-01	<p>The Benefit section will have the following contents</p> <ol style="list-style-type: none">1. How the insurance works: From the minute you hand the keys over till the second you get them back you are covered. Your private insurance is not affected.2. It's completely free: We offer both owners and renters free sign ups. It's only once a vehicle is rented out that a share is deducted to cover admin and insurance.3. You decide the price: When you list a car you decide the price. We can help with recommendations as to price, but ultimately you decide!4. Handing over your vehicle: You arrange the time and location for the exchange of your vehicle with the renter. Both parties will need to agree and sign the vehicle rental sheet before and after key handover.5. You are in charge: All renters are pre-screened by us to ensure safety and get your approval. If you do not feel comfortable with someone you are able to decline a booking.6. Set payment: We pay you once a month and you can always view how much your car has earned under your user profile.

3.18 UC18: Add a Car

3.18.1 Overview.

ID and Name	Add a car
Description	This use case allows car owners to add a car for rent
Actor	Car owners
Trigger	Car owners click on Rent Your Car button on Homepage
Pre-condition	Car owners has logged in to the system
Post-condition	Car owners can add a car for rent

3.18.2 State Diagram for Cars



3.18.3 Flow of Events

3.18.3.1 Basic Flow

Step	Description
1.	Users click on Rent Your Car button on Home page
2.	The system displays the Add a car flow – Step 1 – Basic Information
3.	Users enter information and click Next button
4.	The system displays the Add a car flow – Step 2 – Details
5.	Users enter information and click Next button
6.	The system displays the Add a car flow – Step 3 – Pricing
7.	Users enter information and click Next button
8.	The system displays the Add a car flow – Step 4 – Finish
9.	Users enter information and click Submit button
10.	System directs users to Car details page
11.	The flow ends

3.18.3.2 Exception flow 1 – Users cancel the flow to add a car

Step	Description
1.	In step 2, 4, 6, 8 in the basic flow, users click Cancel text link to cancel the flow
2.	System discard the information and direct user to Homepage
3.	The flow ends

3.18.3.3 Alternative flow 1 – Users add a car from the List of car

Step	Description
1.	In the list of car, user clicks on Add car button
2.	Continue step 2 in the basic flow

3.18.3.4 Alternative flow 2 – Users has not logged in before adding a car

Step	Description
1.	In the basic flow, in step 1, user has not logged in and click on “Rent Your Car” button
2.	System display Login dialog for users to logged in
3.	User enter account credentials to log in
4.	System validate account credentials and allow users to log in
5.	Continue Step 2 in the basic flow

3.18.4 Mock-up Screen

rent-a-car

https://rent-a-car.com

Rent a car today! ABOUT US Welcome, An

[Home](#) > Add a car

Add a car

Step 1: Basic Step 2: Details Step 3: Pricing Step 4: Finish

Note: Please check your information carefully, you'll not be able to change the basic details of your car, which is based on the registration information.

License plate: *

Color: *

Brand name: *

Model: *

Production year: *

No. of seats: *

Transmission: *
☐ Automatic ☐ Manual

Fuel: *
☐ Gasoline ☐ Diesel

Documents

Registration paper: *

Drag and drop
OR
[Select file](#)

Certificate of inspection: *

Drag and drop
OR
[Select file](#)

Insurance: *

Drag and drop
OR
[Select file](#)

File type: doc, docx, ppt, jpg, png, mp3

[Cancel](#) [Next](#)

RENT CARS
[Search Cars and Rates](#)

CUSTOMER ACCESS
[Manage My Booking](#)
[My Wallet](#)
[My Car](#)
[Log In](#)

JOIN US
[New user Sign Up](#)

Screen 18.1. Add a car- Step 1 – Basic Information

Rent-a-car

[←](#)
[→](#)

Rent a car today!

[ABOUT US](#)

Welcome, An ▾

[Home](#) > [Add a car](#)

Add a car

Step 1: Basic

Step 2: Details

Step 3: Pricing

Step 4: Finish

Mileage:^{*}

Fuel consumption:
 liter/100 km

Address:^{*}

▾

▾

▾

Description:

Additional functions:

☒ Bluetooth
☐ GPS
☐ Camera

☐ Sun roof
☒ Child lock
☒ Child seat

☐ DVD
☐ USB

Images:^{*}

Front

Drag and drop
OR
[Select file](#)

Back

Drag and drop
OR
[Select file](#)

Left

Drag and drop
OR
[Select file](#)

Right

Drag and drop
OR
[Select file](#)

Please include full 4 images of your vehicle
File type: .jpg , .jpeg , .png, .gif

[Cancel](#)

RENT CARS
[Search Cars and Rates](#)

CUSTOMER ACCESS
[Manage My Booking](#)
[My Wallet](#)
[My Car](#)
[Log In](#)

JOIN US
[New User Sign Up](#)

Screen 18.2. Add a car- Step 2 - Details

Rent-a-car

https://Rent-a-car.com

Rent a car today!

ABOUT US

Welcome, An

Home > Add a car

Add a car

Step 1: Basic

Step 2: Details

Step 3: Pricing

Step 4: Finish

Set base price for your car:

VND/Day

Required deposit:

VND

Terms of use

☐ No smoking

☐ No food in car

☐ No pet

☐ Other

Please specify:

Cancel

Next

RENT CARS

Search Cars and Rates

CUSTOMER ACCESS

Manage My Booking

My Wallet

My Car

Log In

JOIN US

New User Sign Up

Screen 18.3. Add a car- Step 3 – Pricing

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The screenshot shows a web browser at <https://Rent-a-car.com>. The page title is "Rent a car today!". The navigation bar includes "ABOUT US" and a user greeting "Welcome, An". The main content area is titled "Add a car" and shows a progress bar with four steps: Step 1: Basic, Step 2: Details, Step 3: Pricing, and Step 4: Finish (highlighted). Below the progress bar is a "Preview" section. On the left is a placeholder image for the car. On the right, the car details are listed: "Nissan Navara El 2017", "Ratings: ☆☆☆☆☆ (No ratings yet)", "No. of rides: 0", "Price: 900k/day", "Locations: Cau Giay, Hanoi", and "Status: Available". At the bottom of the preview are "Cancel" and "Submit" buttons. The footer contains three columns of links: "RENT CARS" (Search Cars and Rates), "CUSTOMER ACCESS" (Manage My Booking, My Wallet, My Car), and "JOIN US" (New User Sign Up).

Screen 18.4. Add a car- Step 4 – Finish

3.18.5 Screen Description

3.18.5.1 Add car page/ Step 1 – Basic information

REF	Field Name	Control Type	Data Type	Description
1.	Page title	Title	Text	Display: "Add a car"
2.	Instruction	Text	Text	Display: "Note: Please check your information carefully, you'll not be able to change the basic details of your car, which is based on the registration information."
3.	License plate	Text field	Text	Allow to enter license page
4.	Color	Dropdown	N/A	Allow to select a color. List of color: Pre-defined. Refer to LI03
5.	Brand name	Dropdown	N/A	Allow to select a brand. List of brand: Pre-defined. Refer to LI02
6.	Model	Dropdown	N/A	Allow to select a model. List of models is based on the selected brand List of model: Pre-defined. Refer to LI02
7.	Production year	Dropdown	N/A	Allow to select production year. List of values: Pre-defined in system. From 2030 to 1990
8.	No. of seats	Text field	Number	Allow to enter No. of seats
9.	Transmission	Buttons	N/A	Allow to select between: Automatic and Manual

8.	Fuel	Buttons	N/A	Allow to select between: Gasoline and Diesel
9.	Documents	Section title	N/A	Display title “Documents”
10.	Registration paper	Button and text	N/A	Allow to browse user’s device or drop and drag to upload a file. Allow to upload one file. File types: Refer to business rule
11.	Certificate of Inspection	Button and text	N/A	Allow to browse user’s device or drop and drag to upload a file. Allow to upload one file. File types: Refer to business rule
12.	Insurance	Button and text	N/A	Allow to browse user’s device or drop and drag to upload a file. Allow to upload one file. File types: Refer to business rule
13.	Instruction	Text	N/A	Display “File type: doc, .docx, .pdf, .jpg , .jpeg , .png”
14.	Cancel	Button	N/A	Discard the flow and go back to previous page
15.	Next	Button	N/A	Click to validate information and go to next step

3.18.5.2 Add car page/ Step 2- Details

REF	Field Name	Control Type	Data Type	Description
1.	Mileage	Text field	Number	Allow to enter mileage
2.	Fuel consumption	Text field	Number	Allow to enter fuel consumption Display unit: “liter/100km”
				fil
3.	City/Province	Dropdown	N/A	Allow to select a City/Province List of values: Pre-defined. Refer to LI01
4.	District	Dropdown	N/A	Allow to select a District List of values: Pre-defined. Refer to LI01
5.	Ward	Dropdown	N/A	Allow to select a Ward List of values: Pre-defined. Refer to LI01
6.	House number, Street	Text field	Text	Allow to enter Street name and number
7.	Description	Text field	Text	Allow to enter car’s description
8.	Additional functions	Section title	Text	Display: “Additional functions”
9.	Bluetooth	Checkbox	Text	Allow to check/uncheck
10.	GPS	Checkbox	Text	Allow to check/uncheck
11.	Camera	Checkbox	Text	Allow to check/uncheck
12.	Sun roof	Checkbox	Text	Allow to check/uncheck
13.	Child lock	Checkbox	Text	Allow to check/uncheck
14.	Child seat	Checkbox	Text	Allow to check/uncheck
15.	DVD	Checkbox	Text	Allow to check/uncheck
16.	USB	Checkbox	Text	Allow to check/uncheck
17.	Images	Section title	Text	Display: “Images”
18.	Front image	Button	N/A	Allow to browse device or drop and drag to upload an image Allow to upload one file. File types: Refer to business rule
19.	Back image	Button	N/A	Same rule as Front image
20.	Left image	Button	N/A	Same rule as Front image

21.	Right image	Button	N/A	Same rule as Front image
22.	Instruction	Text	N/A	Display "Please include full 4 images of your vehicle File type: .jpg , .jpeg , .png, .gif "
23.	Cancel	Button	N/A	Discard the flow and go back to previous page
24.	Next	Button	N/A	Click to validate information and go to next step

3.18.5.3 Add car page/ Step 3- Pricing

REF	Field Name	Control Type	Data Type	Description
1.	Set base price for your car	Text field	Number	Allow to set price for the car Display unit: "VND/Day"
2.	Terms of use	Section title	Text	Display: "Terms of use"
3.	No smoking	Checkbox	Text	Allow to check/uncheck
4.	No pet	Checkbox	Text	Allow to check/uncheck
5.	No food in car	Checkbox	Text	Allow to check/uncheck
6.	Other	Checkbox	Text	Allow to check/uncheck. If checked, display text field to specify
7.	Cancel	Button	N/A	Discard the flow and go back to previous page
8.	Next	Button	N/A	Click to validate information and go to next step

3.18.6 Business Rules

Business Rule ID	Business Rule Description
BRL-18-01	Car Status includes: <ul style="list-style-type: none"> - Available: when car owner adds a car and submit successfully - Booked: when customer books the car successfully (regardless of whether car owner confirms the deposit or not.) - Stopped: when car owner stops renting a car
BRL-18-02	Allowed file types for documents: doc, .docx, .pdf, .jpg , .jpeg , .png
BRL-18-03	Allowed file types for images: File type: .jpg , .jpeg , .png, .gif
BRL-18-04	Users need to upload full 4 images of the car

3.19 UC19: View My cars

3.19.1 Overview.

ID and Name	View My cars
Description	This use case allows users to view the list of cars that they have added
Actor	Car owners
Trigger	Users click to My Cars link in the Menu
Pre-condition	Users logged in to the system as Car owners User has successfully submitted the car.
Post-condition	Users can view the list of cars that they have added

3.19.2 Flow of Events

3.19.2.1 Basic Flow

Step	Description
1.	Car owners click on My Car link in the Menu
2.	System display list of cars of the users in Thumbnail view
3.	The flow ends

3.19.3 Mock-up Screen

3.19.4 Screen Description

3.19.4.1 My cars page

REF	Field Name	Control Type	Data Type	Description
1.	Page title	Title	Text	<ul style="list-style-type: none"> Display: "List of Cars"
2.	Add Car	Button	N/A	Click to go to the flow to Add a car. Trigger UC18
3.	Car tile	Image and Text	Text	For each car, display: <ul style="list-style-type: none"> Car image, allow to go back or forward to see more image Car Name, including Brand name and model Ratings Number of Rides: Number of completed bookings for the car Location: Display the District and province Status: Refer to BRL-18-01
4.	Edit	Button	N/A	Click to edit car information, trigger UC20
5.	Sorting	Dropdown	N/A	<ul style="list-style-type: none"> Refer to Common Component
6.	Pagination	Buttons	N/A	<ul style="list-style-type: none"> Refer to Common Component

3.20 UC20: Edit Car Information

3.20.1 Overview.

ID and Name	Edit Car Information
Description	This use case allows users to edit the information of a car
Actor	Car owners
Trigger	Users click edit button to edit car information
Pre-condition	Users logged in to the system as Cars Owner
Post-condition	Users can save the changes for the car

3.20.2 Flow of Events

3.20.2.1 Basic Flow

Step	Description
1.	Car owners click on edit button in List of cars
2.	System display car details in edit mode for Car owner to edit
3.	Users change car information and click Save
4.	The system validates changes and store the new information
5.	The flow ends


3.20.3 Mock-up Screen

Rent-a-car


← → ↺

https://Rent-a-car.com

☰

 **Rent a car today!**

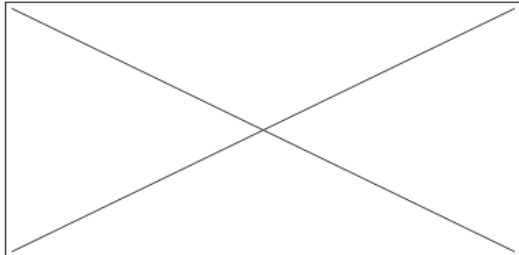
ABOUT US

 Welcome, An ▾

[Home](#) > [My car](#) > Edit details

Edit car details

<



>

■ ■ ■

Basic InformationDetailsPricing

Nissan Navara EI 2017 [Confirm deposit](#)

Ratings:☆☆☆☆☆
(No ratings yet)

No. of rides:0

Price:900k/day

Locations:Cau Giay, Hanoi

Status:[Available](#) ▾

License plate:■■■

Color:■■■

Brand name:■■■

Model:

Production year:

No. of seats:

Transmission:

Fuel:

Documents:

Deposit:

Booking No.:0123456

No	Name	Note	Link
1	Registration paper	Verified	File1.PDF
2	Certificate of Inspection	Verified	File2.PDF
3	Insurance	Not available	Not available

Note: Please contact us if you'd need to update your car's basic information

RENT CARS

Search Cars and Rates

CUSTOMER ACCESS

Manage My Booking

My Wallet

My Car

Log In

JOIN US

New User Sign Up

Screen 20.1. Edit car page – Basic information tab

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Rent a car

[Home](#) > [My car](#) > Edit details

<

>

Basic information

Details

Pricing

Nissan Navara E1 2017

Ratings:

(No ratings yet)

No. of rides:

0

Price:

900k/day

Locations:

Cau Giay, Hanoi

Status:

Available

Mileage:^{*}

Fuel consumption:

liter/100 km

Address:^{*}

City/Province

District

Ward

House number, Street

Description:

Additional functions:

☒ Bluetooth

☐ GPS

☐ Camera

☐ Sun roof

☒ Child lock

☒ Child seat

☐ DVD

☐ USB

Images:^{*}

Front

Left

Drag and drop
OR
[Select file](#)

Back

Right

Please include full 4 images of your vehicle
File type: jpg , jpeg , png , gif

Discard

Save

The screenshot shows a web browser window with the URL <https://Rent-a-car.com>. The page title is "Rent a car today!". The user is logged in as "Welcome, An". The page is titled "Edit car details". The car being edited is a "Nissan Navara El 2017". The car has 5 stars in ratings (No ratings yet), 0 rides, a price of 900k/day, and is located in Cau Giay, Hanoi. The status is "Available". The pricing tab is selected, showing a base price of 900,000 VND/Day and a required deposit of 15,000,000 VND. The terms of use section has checkboxes for "No smoking", "No food in car", "No pet", and "Other". The "Save" button is highlighted.

Screen 20.1. Edit car page – Pricing tab

3.20.4 Screen Description

3.20.4.1 Edit car page / Overview

REF	Field Name	Control Type	Data Type	Description
1.	Page title	Title	Text	<ul style="list-style-type: none"> Display: "Edit car details"
2.	Car images	Image sliders	Image	Display the images of the cars. Same rule as in the search result page
3.	Car Name	Label	Text	Display Car Name: Same rule as search result
4.	Ratings	Icons	Text	Display Car Ratings. Same rule as search result
5.	Number of Rides	Label	Text	Display Number of Rides Same rule as search result
6.	Location	Label	Text	Display Car Location. Same rule as search result
7.	Status	Dropdown	N/A	Display Car's Status. Allow to edit 2 options: <ul style="list-style-type: none"> Available: select to put a car back for rent

				<ul style="list-style-type: none"> Stopped: Select to stop renting the car. Refer to UC18
--	--	--	--	----------------------------------------------------------------------------------------------------------

3.20.4.2 Edit car page / Basic information tab

REF	Field Name	Control Type	Data Type	Description
1.	Group of fields for car's basic information	Text	N/A	<p>Do not allow to edit.</p> <p>Include the following information:</p> <ul style="list-style-type: none"> License plate Color Brand name Model Production year No. of seats Transmission Fuel <p>Information entered by car owner. Refer UC18</p> <p>Display note: "Note: Please contact us if you'd need to update your car's basic information"</p>
2.	Documents	Datagrid	N/A	<p>Display the file name for the documents, allow to click and download.</p> <p>Information entered by car owner. Refer UC18</p>

3.20.4.3 Edit car page / Details tab

REF	Field Name	Control Type	Data Type	Description
1.	Group of text fields for car's details	Text	N/A	<p>Allow to edit.</p> <p>Include the following information:</p> <ul style="list-style-type: none"> Mileage Fuel commission Address Description <p>Information entered by car owner. Refer UC18</p>
2.	Group of checkboxes for additional functions	Checkboxes	N/A	<p>Allow to edit.</p> <p>Include the following checkboxes</p> <ul style="list-style-type: none"> Bluetooth GPS Camera Sun roof Child lock Child seat DVD USB <p>Information entered by car owner. Refer UC18</p>
3.	Car Images	Image	N/A	Display the images upload by user. Allow to edit.

3.20.4.4 Edit car page / Terms of use tab

REF	Field Name	Control Type	Data Type	Description
1.	Group of text fields for car's price information	Text	N/A	<p>Allow to edit.</p> <p>Include the following information:</p> <ul style="list-style-type: none"> Base price per day

				<ul style="list-style-type: none"> Required deposit Information entered by car owner. Refer UC18
2.	Group of checkboxes for Terms of use	Checkboxes	N/A	Allow to edit. Include the following checkboxes <ul style="list-style-type: none"> No smoking No pet No food in cars Other Information entered by car owner. Refer UC18

3.20.5 Business Rules

Business Rule ID	Business Rule Description
BRL-20-01	Car owner is not allowed to edit car's basic information after they have submitted their car.
BRL-20-02	Car owner is not allowed to edit car's documents after they have submitted their car. They can, however, view and download the documents

3.21 UC21: Stop Renting a Car

3.21.1 Overview.

ID and Name	Stop renting a car
Description	This use case allows users to stop renting a car
Actor	Car owners
Trigger	Users update the car's status to Stopped
Pre-condition	Users logged in to the system as Cars Owner
Post-condition	Users can change the car's status to Stopped

3.21.2 Flow of Events

3.21.2.1 Basic Flow

Step	Description
1.	Car owner change car's status from Available to Stopped
2.	System display confirmation message "Are you sure you want to stop renting this car?"
3.	User can select Yes to confirm
4.	The system updates the car's status to Stopped
5.	The flow ends

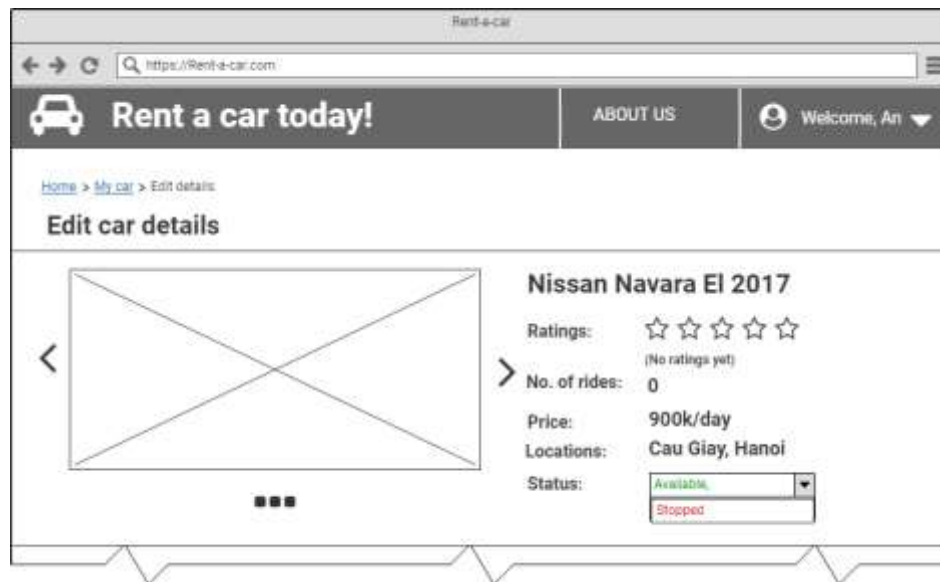
3.21.2.2 Exception flow 1 – Cannot stop renting a car that has been booked

Step	Description
1	At step 1, system will check if the car has been booked
2	If the car has been booked, display error message ME013: "Your car has been booked. Please contact our administrator if your car is no longer available for rent."

3.21.2.3 Exception flow 2 – User cancels the flow

Step	Description
1	At step 3, user selects No
2	System discards the flow and no changes are made

3.21.3 Mock-up Screen



Screen 21. Stop Renting car

3.21.4 Screen Description

3.21.4.1 Edit car page / Status dropdown

REF	Field Name	Control Type	Data Type	Description
1	Status	Dropdown	N/A	For available car, display the “Stopped” option. Allow to edit

3.21.5 Business Rules

Business Rule ID	Business Rule Description
BRL-21-01	Only allow user to mark a car as Stopped if the car’s status is Available If the car’s status is booked -> Do not allow to stop renting the car.

3.22 UC22: Confirm deposit

3.22.1 Overview.

ID and Name	Confirm deposit
Description	This use case allow car owner to confirm the deposit and update the booking status
Actor	Car owner
Trigger	Car owner clicks on Confirm Deposit button in Car details page
Pre-condition	Users logged in to the system as Customer
Post-condition	The booking status is updated to Confirmed

3.22.2 Flow of Events

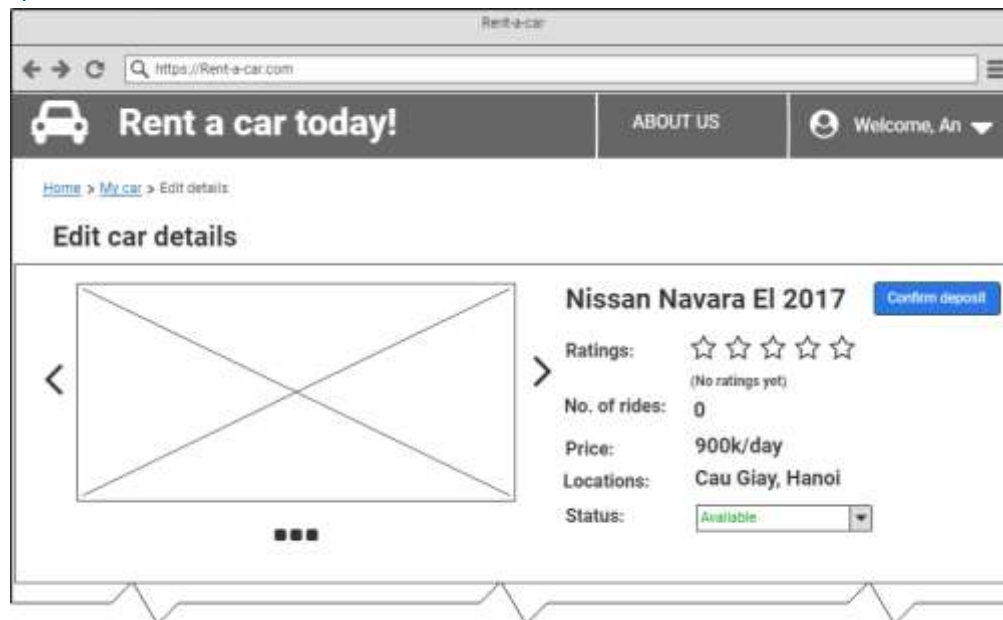
3.22.2.1 Basic Flow

Step	Description
1.	Car owner clicks on Confirm Deposit button in Car details page
2.	System display confirmation message “Please confirm that you have receive the deposit this booking. This will allow the customer to pick-up the car at the agreed date and time.”
3.	User can select Yes to confirm
4.	The system updates the booking status to Confirmed
5.	The flow ends

3.22.2.2 Exception flow 1 – User cancels the flow

Step	Description
1	At step 3, user selects No
2	System discards the flow and no changes are made

3.22.3 Mock-up Screen



Screen 22.1. Confirm Deposit – Button

Confirm deposit

Please confirm that you have receive the deposit this booking. This will allow the customer to pick-up the car at the agreed date and time

No
Yes

Screen 22.2. Confirm Deposit - Dialog

3.22.4 Screen Description

3.22.4.1 Confirm Deposit button

REF	Field Name	Control Type	Data Type	Description
1	Confirm Deposit	Button	N/A	Click to confirm that car owner has received the deposit for the car. Change the booking status to Confirmed. Only available for certain booking statuses. Refer to BRL-22-01

3.22.5 Business Rules

Business Rule ID	Business Rule Description
BRL-22-01	

3.23 UC23: Confirm payment

3.23.1 Overview.

ID and Name	Confirm Payment
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Description	This use case allows car owners to confirm the payment after customer returns a car
Actor	Car Owner
Trigger	Car Owner click on Confirm Payment button in the Car details page
Pre-condition	Users logged in to the system as Car Owner
Post-condition	The booking status is updated to Completed

3.23.2 Flow of Events

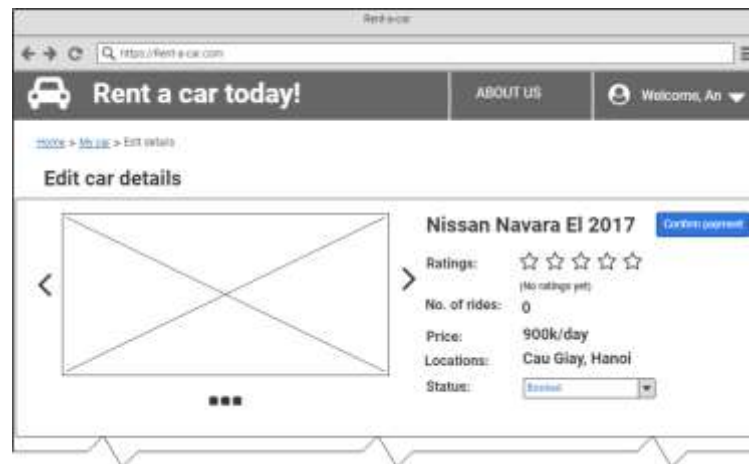
3.23.2.1 Basic Flow

Step	Description
1.	Car owner clicks on Confirm Payment button in Car details page
2.	System display confirmation message "Please confirm that you have receive the payment for this booking."
3.	User can select Yes to confirm
4.	The system updates the booking status to Completed The system updates the car's status to Available
5.	The flow ends

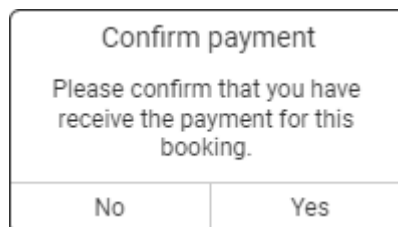
3.23.2.2 Exception flow 2 – User cancels the flow

Step	Description
1	At step 3, user selects No
2	System discards the flow and no changes are made

3.23.3 Mock-up Screen



Screen 23.1. Confirm Payment – Button



Screen 23.1. Confirm Payment – Button

3.23.4 Screen Description

3.23.4.1 Confirm Payment button

REF	Field Name	Control Type	Data Type	Description
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1	Confirm Payment	Button	N/A	Click to confirm that car owner has received the payment for the car. Change the booking status to Completed. Only available for certain booking statuses. Refer to BRL-23-01
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3.23.5 Business Rules

Business Rule ID	Business Rule Description
BRL-23-01	Only allows customer to confirm payment the current booking of the car is of status Pending Payment. For other status, hide the button completely.

3.24 UC24: View Wallet

3.24.1 Overview.

ID and Name	View wallet
Description	This use case allows customers and car owners to view their wallet's balance
Actor	Customer, car owners
Trigger	Customers and car owners click on the My wallet menu link on header
Pre-condition	Customers and car owners has logged in to the system
Post-condition	Customer, car owners can view their wallet page

3.24.2 Flow of Events

3.24.2.1 Basic Flow

Step	Description
1.	Customer, car owners logs into the system and click on the arrow button on header
2.	The system display the menu
3.	Users select My wallet
4.	The system display My wallet page
5.	The flow ends

3.24.2.2 Alternative flow 1 – Withdraw money

Step	Description
1.	At step 4, user clicks on Withdraw button
2.	System display pop-up for user to specify the money to be withdrawn.
3.	User enter the amount and click Withdraw
4.	System deduct the amount from their wallet and transfer other system

3.24.2.3 Alternative flow 2 – Top-up money

Step	Description
1.	At step 4, user clicks on Top-up
2.	System display pop-up for user to select the money to top-up
3.	User selects the amount and click Top-up
4.	System add the amount to user's wallet from other system

3.24.2.4 Alternative flow 3 – Query transaction

Step	Description
1.	At step 4, user enters From date and To date and clicks Search
2.	System queries the data in the selected date range and returns data in the table

3.24.2.5 Exception flow 1 – No transactions to display

Step	Description
1.	At step 4, when there's no transactions to display or no transactions in the date range

2.	System display: “No transactions available”
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3.24.2.6 Exception flow 2 – User enters select To date earlier than From date

Step	Description
1.	At step 4, users enters To date earlier than From date and click Search
2.	System display error message ME015: “The end date must be later than the start date in order to search for transactions. Please try again.”

3.24.3 Mock-up Screen

The mock-up screen displays a web application for 'Rent-a-car'. The header includes a navigation bar with 'Rent a car today!', 'ABOUT US', and a user welcome message 'Welcome, An'. Below the header, the 'My Wallet' section shows the current balance as 20,000,000 VND, with 'Withdraw' and 'Top-up' buttons. A 'Transactions' section includes date range filters ('From' and 'To') and a 'Search' button. A table lists transactions with columns for No, Amount, Type, Date-time, Booking No, Car Name, and Note. The footer contains three columns of links: RENT CAR, CUSTOMER ACCESS, and BOOKING CENTER.

No	Amount	Type	Date-time	Booking No	Car Name	Note
1	+10.000.000 VND	Top-up	12/02/2022 18:00	N/A	N/A	
2	-2.000.000	Withdrawal	12/02/2022 18:00	N/A	N/A	
3	-18.000.000	Pay Deposit	12/02/2022 18:00	12345678	Nissan Navara E1 2017	
4	+1.000.000	Offset final payment	12/02/2022 18:00	12345678	Nissan Navara E1 2017	
5	-500.000	Offset final payment	12/02/2022 18:00	12345678	Nissan Navara E1 2017	
6	+18.000.000	Receive deposit	12/02/2022 18:00	12345678	Nissan Navara E1 2017	

Navigation links:

- RENT CAR: Search Cars and Rates, Car Rental Locations, Rental Requirements
- CUSTOMER ACCESS: Manage My Booking, My Wallet, My Car
- BOOKING CENTER: Frequently Asked Questions, Contact Us

Screen 21. My wallet

Withdraw

Your current balance is 1,500,000. Please select the amount to withdraw from your wallet

2,000,000 ▼
 5,000,000
 10,000,000
 All balance

Cancel
OK

Screen 21.1. My wallet - Top-up dialog

Withdraw

Your current balance is 1,500,000. Please select the amount to withdraw from your wallet

2,000,000 ▼
 5,000,000
 10,000,000
 All balance

Cancel
OK

Screen 21.2. My wallet – Withdraw dialog

3.24.4 Screen Description

3.24.4.1 My Wallet / Your current balance

REF	Field Name	Control Type	Data Type	Description
1.	Page title	Label	Text	Display “My Wallet”
2.	Section title	Label	Text	Display “Your current balance”
3.	Balance	Label	Text	Display the current balance
4.	Withdraw	Button	N/A	Allow to click – Display an instruction dialog: “Please contact your operator to withdraw money from your wallet.”
5.	Top-up	Button	N/A	Allow to click – Display an instruction dialog: “Please contact your operator to top-up money to your wallet.”

3.24.4.2 My Wallet / Transaction

REF	Field Name	Control Type	Data Type	Description
1.	Section title	Label	Text	Display “Transaction”
2.	From	Text field and date picker	Date	Allow to enter Start date to query the data
3.	To	Text field and date picker	Date	Allow to enter End date to query the data

4.	Search	Button	N/A	Allow to query the transaction from the selected date range
5.	Transaction table	Datagrid	Text	Include 5 columns: - No. - Amount: Display the transaction amount. - Type: Refer to BRL-24-03 - Date time: Display time of creation - Booking No.: Display the booking number if available. - Car name: Display the name of car if available.
6.	Pagination	Buttons	N/A	Refer to Common Component

3.24.4.3 My Wallet / Top-up dialog

REF	Field Name	Control Type	Data Type	Description
7.	Dialog title	Label	Text	Display "Top-up"
8.	Instruction	Label	Text	"Please select the amount to top-up to your wallet"
9.	Amount	Dropdown	Date	Allow to select top-up amount. List of values: Refer to BRL-24-01
10.	OK	Button	N/A	Click to confirm top-up
11.	Cancel	Button	N/A	- Click to cancel the flow and close the pop-up

3.24.4.4 My Wallet / Withdraw dialog

REF	Field Name	Control Type	Data Type	Description
12.	Dialog title	Label	Text	Display "Top-up"
13.	Instruction	Label	Text	"Your current balance is <Current balance>. Please select the amount to withdraw from your wallet"
14.	Amount	Dropdown	Date	Allow to select top-up amount. List of values: Refer to BRL-24-01
15.	OK	Button	N/A	Click to confirm top-up
16.	Cancel	Button	N/A	- Click to cancel the flow and close the pop-up

3.24.5 Business Rules

Business Rule ID	Business Rule Description
BRL-24-01	<p>Users can top-up money by selecting an amount.</p> <p>List of values:</p> <ul style="list-style-type: none"> - 2,000,000 VND - 5,000,000 VND - 10,000,000 VND <p>The Car rentals system will add the selected amount to user's wallet</p> <p>The integration with other system to get the money will be out of scope for this project</p>
BRL-24-02	<p>Users can specify the money to be withdrawn from their wallet off-line</p> <p>List of values:</p> <ul style="list-style-type: none"> - 2,000,000 - 5,000,000 - 10,000,000 - All balance <p>The Car rentals system will deduct the specified amount from user's wallet</p> <p>The integration with other system to get the money will be out of scope for this project</p>

BRL-24-03	<p>Their 6 types of transaction:</p> <ul style="list-style-type: none"> - Withdraw is when the user withdraw money from wallet. For both customers and car owners - Top-up is when the user top-up money to wallet. For both customers and car owners - Pay deposit is when users book a car and pay the deposit via My wallet. System deducts money from user's wallet. For customers - Receive deposit is when users receive the deposit payment when customers book their car. For car owners - Refund deposit is when customer cancels a booking and the deposit is refunded to your wallet - Offset final payment is when user's return the car and the system will check. <ul style="list-style-type: none"> o If the deposit amount is more than the total amount, system will return money to user's wallet o If the deposit amount is less than the total amount, system will deduct money from user's wallet o This is for Customers
BRL-24-04	When query the transaction, the To date must be later than the From date.
BRL-24-05	<p>The date range to query transactions will be defaulted to be the most recent 1 month</p> <ul style="list-style-type: none"> - To date is defaulted to current date - From date is 1 month ago from current date
BRL-24-06	<p>Rule to display transaction amount:</p> <ul style="list-style-type: none"> - If it's an inbound transaction, display as positive (+). - If it's an outbound transaction, display as negative (-)
BRL-24-07	<p>Every time there's a change to the user's wallet, system will send a notification email to user.</p> <p>Notification email content: Email template EM05</p>

3.25 UC25: View Feedback Report

3.25.1 Overview.

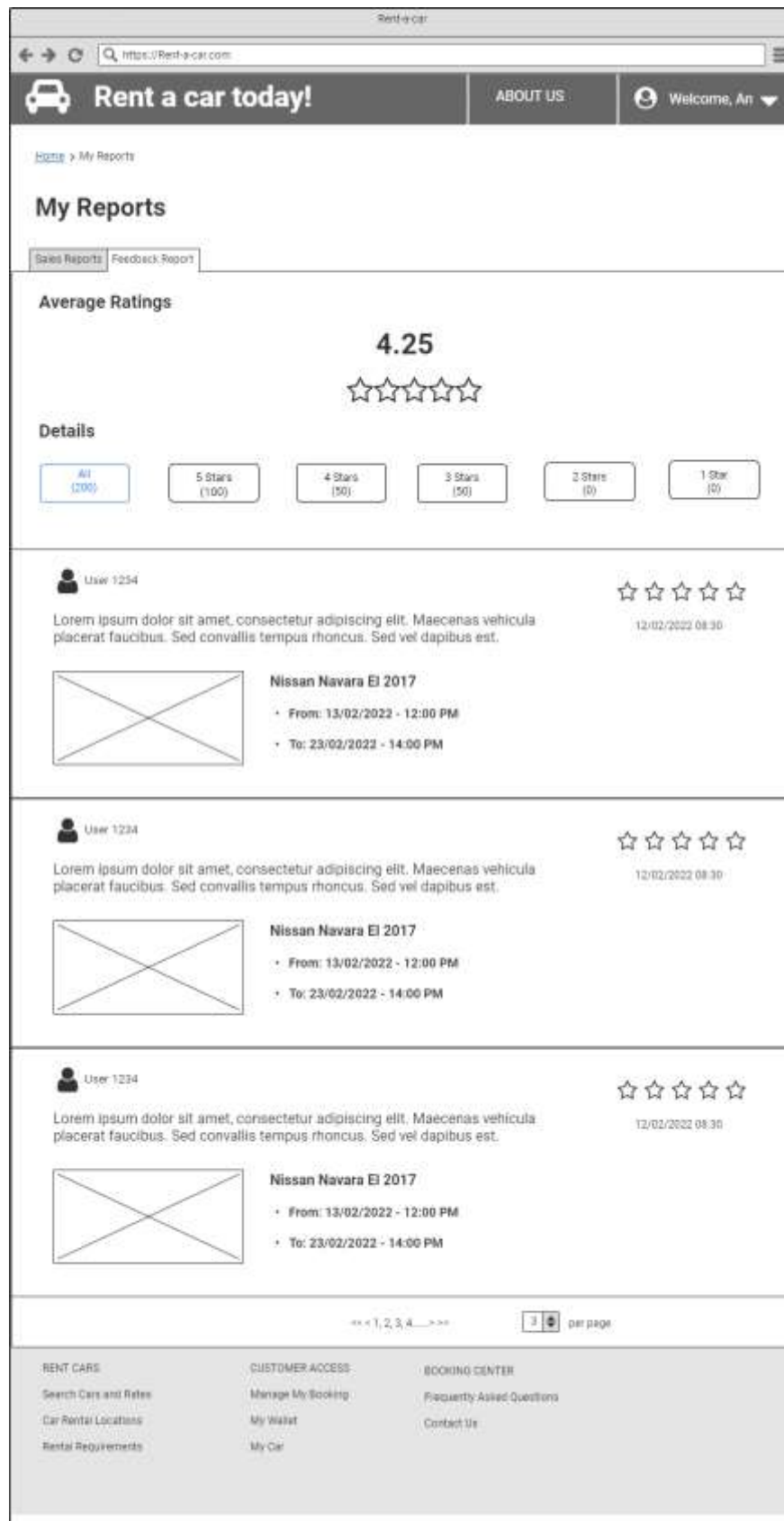
ID and Name	View Feedback report
Description	This use case allows car owners to view their Feedback reports
Actor	Car owners
Trigger	Customers and car owners click on My reports link on menu
Pre-condition	User has logged in
Post-condition	Customer, car owners can view Feedback report

3.25.2 Flow of Events

3.25.2.1 Basic Flow

Step	Description
1.	Car owners click on My Reports link on menu
2.	The system displays My Reports team, default to Feedback Report
3.	User view Feedback report
4.	The flow ends

3.25.3 Mock-up Screen



Screen 23. Feedback Report

3.25.4 Screen Description

3.25.4.1 My Feedback page

REF	Field Name	Control Type	Data Type	Description
1.	Page title	Text	N/A	Display “My Reports”
2.	Section title	Text	N/A	Display section title “Average Ratings”
3.	Average Ratings	Star Icon	Image	Display the average ratings. Rule to calculate: Refer to BR.
4.	Section title	Text	N/A	Display section title “Details”
5.	Feedback Filters	Button	Text	Display the total income in the selected range.
6.	List of feedback	Label	Text	For each feedback, display: <ul style="list-style-type: none">• User icon• User name• Feedback content• Ratings• Date and time• Booking information, including car image (front image, car name, booking date range – From- To)
7.	Pagination	Buttons	N/A	Refer to Common Component

3.25.5 Business Rules

Business Rule ID	Business Rule Description
BRL-25-01	Rule to calculate feedback average Total ratings/ Number of ratings. Round up to 2 digits after decimal point.
BRL-25-02	Rule to filter list of feedback: <ol style="list-style-type: none">1. Display 5 buttons: All, 5 stars, 4 stars, 3 stars, 2 stars, 1 star2. Display the number of feedback with the corresponding ratings underneath3. Allow to select 1 button at a time to filter, default to All4. When click, filter the list to display the feedback of the selected ratings.5. The list will be sorted from newest to oldest

4. NON-FUNCTIONAL REQUIREMENTS

4.1 Performance

No.	Type of Transaction	Response Time
1	Login, Logout - From submission of request to the completion of the response.	Will not exceed 2 seconds for 95% of the time.
2	Query transaction to get data	Will not exceed 2 seconds for 95% of the time.
3	Update transaction to update data	Will not exceed 2 seconds for 95% of the time.
4	Report generation	Will not exceed 2 seconds for 95% of the time.

4.2 System Availability

The system service available hours are as follows

1. Production: 24 hours (including Sundays and public holidays);
2. Development, SIT, User Acceptance Testing (UAT) and training: Monday - Friday (0800-1800 hours, after 1800 hours upon request);

Vendor will work out a process to inform immediately of any downtime and take the necessary action to resume the services immediately. Vendor will send weekly and monthly report on the system's availability and performance

4.3 Audit Logging and monitoring

Any events that hold a security risk will be recorded in system logs and audit trails. Following events will be recorded:

1. All successful and unsuccessful login attempts;
2. All successful and failed access to personally identifiable data;
3. All successful and failed access to sensitive/restricted data;
4. Changes to all records;
5. Changes to all system configurations;
6. Security events generated by operating systems and security devices (such as firewalls, anti-malware, etc.).

4.4 Security

1. Vendor will be responsible to protect all data and make sure that it is not used for other purposes
2. All members from the Vendor that involve in the system will need to sign a confidentiality agreement to prevent any unauthorized disclosures of restricted information
3. Vendor will need to ensure that during data migration, no data is copied to any media, including hard drives, flash drives, or other electronic device, unless expressly approved in advance.
4. Vendor will make sure that restricted data sent over the network is in an encrypted format. When restricted data are backed up to backup media, it will also be in an encrypted format to protect their confidentiality

5. APPENDICES

5.1 Message List

UC	Message ID
General	Message- M003: "Required field"
UC01: Log in	ME001: "Either email address or password is incorrect. Please try again"
UC01: Log in	ME002: "Please enter a valid email address"
UC03 Forgot password	ME006 "This link has expired. Please go back to Homepage and try again."
UC03 Forgot password	ME005: "Password and Confirm password don't match. Please try again."
UC04: Register an account	ME004: "Email already existed. Please try another email."
UC08: Search a car	ME007: "Please enter location"
UC08: Search a car	ME008: "Please enter pick up date and time"
UC08: Search a car	ME009: "Please enter drop-off date and time"
UC08: Search a car	ME010: "Drop-off date time must be later and Pick-up date time, please try again."
UC08: Search a car	ME011: "No cars match your credentials, please try again."
UC15: Return a car	ME012 "Your wallet doesn't have enough balance. Please top-up and try again"
UC21: Stop Renting a Car	ME013: "Your car has been booked. Please contact our administrator if your car is no longer available for rent."
UC03 Forgot password UC04: Register an account	ME014: "Password must contain at least one number, one numeral, and seven characters"

5.2 Email List

UC	Email code	Email Content
UC03 Forgot password	EM01	Subject: Rent-a-car Password Reset Body: We have just received a password reset request for <user's email address>. Please click here to reset your password. For your security, the link will expire in 24 hours or immediately after you reset your password.
UC10 Rent a car	EM02	Subject: Your car has been booked Body: Congratulations! Your car <Name of car> has been booked at DD/MM/YYYY HH: MM. Please go to your wallet to check if the deposit has been paid and go to your car's details page to confirm the deposit. Thank you!
UC13 Cancel booking	EM03	Subject: A booking with your car has been cancelled Body: Please be informed that a booking with your car <Name of car> has been cancelled at DD/MM/YYYY HH: MM. The deposit will be returned to the customer's wallet.
UC15 Return a car	EM04	Subject: Your car has been returned Body: Please be informed that your car <Name of car> has been returned at DD/MM/YYYY HH: MM. Please go to your wallet to check if the remaining payment has been paid and go to your car's details page to confirm the payment. Thank you!
UC24 View wallet	EM05	Subject: There's an update to your wallet.

		Body: Please be informed that your wallet's balance has been updated at at DD/MM/YYYY HH: MM. Please go to your <u>wallet</u> and view the transactions for more details. Thank you!
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5.3 Common Component

5.3.1 Header

Header will display for all pages, based on the user; header item for each user will be as below;

No.	Header for Guest	Header for Customer	Header for Car Owner
1.	Logo and slogan <ul style="list-style-type: none"> Logo is clickable, direct to Homepage 	Same as header for Guest	Same as header for Guest
2.	About Us link <ul style="list-style-type: none"> Click to automatically scroll down to section "Why Us?" 	Same as header for Guest	Your benefit link <ul style="list-style-type: none"> Click to automatically scroll down to: "Have a car for rent? Don't miss out of your benefit?"
3.	Sign Up/ Login link <ul style="list-style-type: none"> Click to open Login/Sign Up screen (UC01 and UC04) 	Display: "Welcome, <Name of user>"	Same as header for Customer
4.	N/A	Display an arrow button, click to open menu links <ul style="list-style-type: none"> My profile: Click to link to My profile page (UC05) My bookings: Click to link to My Bookings page, (UC11) My wallet: Click to link to My Bookings page(UC24) Logout: Click to log user out of the system (UC02) 	Display an arrow button, click to open menu links <ul style="list-style-type: none"> My profile: Same as for Customer My Cars: Click to link to My Cars page (UC19) My wallet: Same as for Customer Logout: Same as for Customer

5.3.2 Footer

Footer for all pages will have 3 columns; each column has the following links:

- RENT CARS:
 - Search Cars and Rates
 - Only display for Guest and Customer
 - If user has logged in as customer, link to Homepage, trigger UC07
 - If user has not logged in, link to Login page, trigger UC01
- CUSTOMER ACCESS
 - Manage My Booking
 - Only display for Guest and Customer
 - If user has logged in as customer, link to My booking list, trigger UC11
 - If user has not logged in, link to Login page, trigger UC01
 - My Wallet
 - If user has logged in, link to My Wallet, trigger UC24
 - If user has not logged in, link to Login page, trigger UC01
 - My Car
 - Only display for Guest and Car owner
 - If user has logged in, link to My Cars, trigger UC19
 - If user has not logged in, link to Login page, trigger UC01
 - Log In

- Only display if user has not logged in, trigger UC01
- JOIN US
 - New User Sign Up
 - Only display if user has not logged in, trigger UC04

5.3.3 Pagination

Common rule for pagination includes

- Page number to switch between pages
- Option to select the number of items per page
- Default to 10 items
- Other options: 15, 20, 25, 30.

5.3.4 Sorting

The common behavior for sorting function is;




- Default to the newest to latest order
- Other options:
 - Latest to newest
 - Price highest to lowest
 - Price lowest to highest

5.3.5 Switch view button

Common behavior for Switch view button:

- Default to Thumbnail view
- Click to switch between Thumbnail and List view

5.4 List of values

No.	Name	Code	File
1.	List of values for addresses	LI01	 Address value list.xls
2.	List of Car brand and model	LI02	 Car Rentals_Value list_Brand and mode
3.	List of Car color	LI03	 Car Rentals_Value list_Color.xlsx