

Requirements Analysis Document

Application: **RentingJ&MA**

Date: 14/02/2018

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1. Introduction

1.1 Purpose of the system

The proposed application is “RentingJ&MA”, an application that manages the renting of houses. The “RentingJ&MA” application enables the different type of users to have different uses of the application.

The host users can upload their houses and make different types of offers. The guest users can search offers in different ways and reserve (or directly buy) offers. Also, the guest users can make comments and rate the offers.

1.2 Scope of the system

The system must enable the different type of uses:

- Non-registered: search offers but not let them buy or reserve offers
- Guest user: make advance searches and reserve offers
- Host user: upload their houses and make offers
- Admin: take care of offers

1.3 Objectives and success criteria of the project

The success of the system depends on meeting the following set of objectives:

- Upload houses to the system
- Make offers for the uploaded houses
- Search offers by different ways
- Reserve and buy offers
- Make comments in the offers and rate them
- Be able to have users and login into the system

1.4 Definitions, Acronyms, and abbreviations

Definitions:

- **Guest:** user who wants to buy or rent a house
- **Host:** user who wants to rent his own house

Abbreviations:

- **Administrator:** we will abbreviate as Admin

2. System Description

2.1 Functional Requirements

We have three different types of users.

1. The **non-registered** user doesn't have an account in the system and he can only search offers.
2. The **registered** user has an account in the system with his name, surname and credit card. He can login in the system and make advanced searches. We have two different types of registered users:
 - The **host** can also create houses in the system and make different offers for his houses.
 - The **guest** can also reserve and buy offers and make comments to that offers.
3. The **admin** also has an account in the system. He can login into the system and has to check the offers before they are published in the system. He can accept, deny or ask for changes for those offers.

2.1.1 Non-registered User:

FR1: Search offers by type (holiday or living)

FR2: Search offers by zip code

FR3: Search offer by starting date

2.1.2 Registered User:

FR4: Login into the application.

FR5: Search offers by rate and see if the offers are reserved or bought.

FR6: Search reserved offers

FR7: Search bought offers

Type of registered users:

2.1.2.1 Host:

FR8: Introduce a new house, including its location, zip code and description.

FR9: Introduce a new offer detailing the type, holiday or living, the house, the starting date and the finish date and the price (deposit + price of the offer).

FR10: Cancel offers before the admin approves them.

FR11: Modify offers if the admin tells him to.

FR12: See his offers.

2.1.2.2 Guest:

- FR13: Reserve offers.
- FR14: Buy offers (reserved or directly).
- FR15: Comment offers or comments.
- FR16: Rate offers.

2.1.3 Admin:

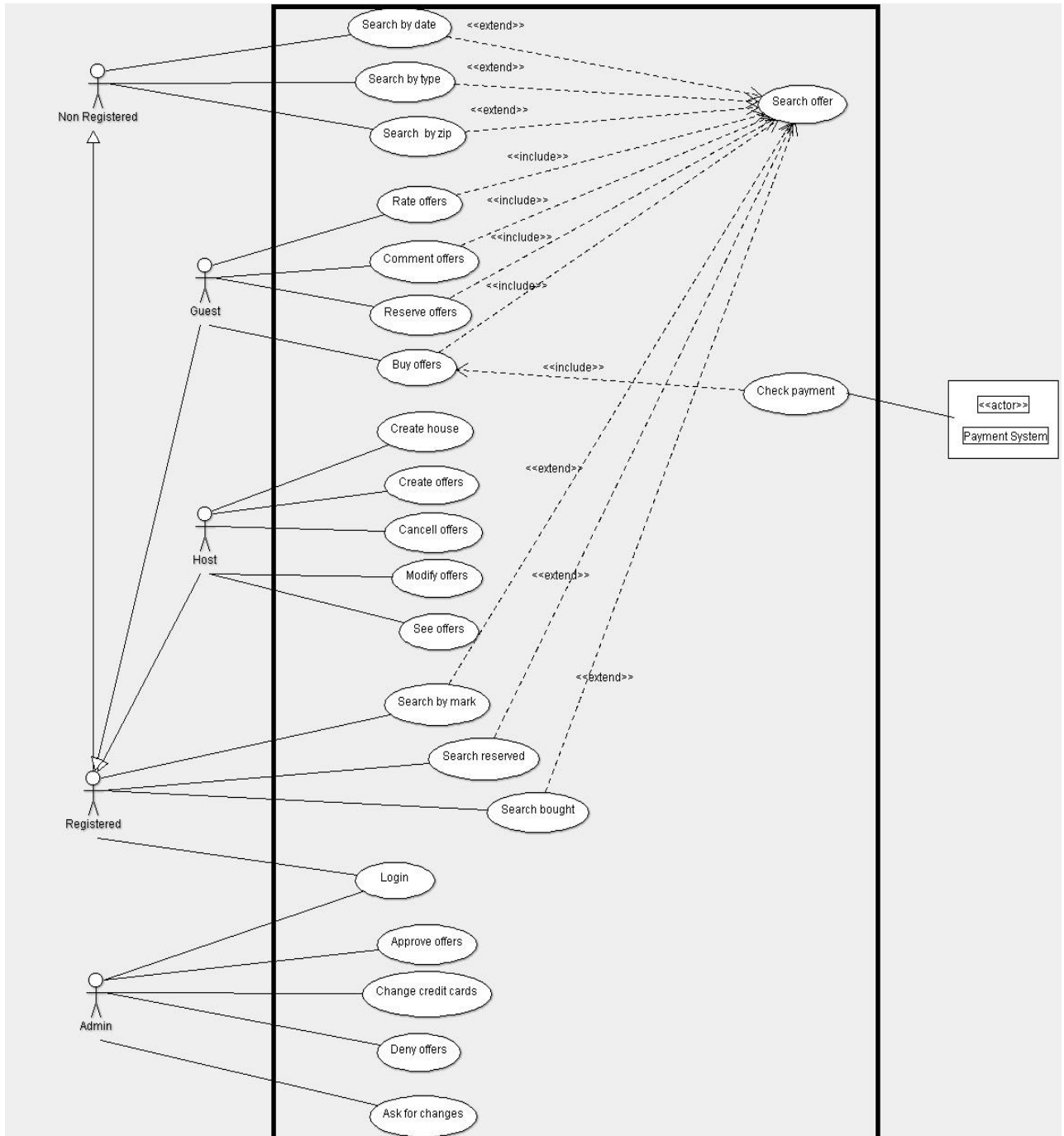
- FR17: Change credit cards from banned users.
- FR18: Approve offers.
- FR19: Deny offers.
- FR20: Ask for changes in the offers.
- FR21: Login into the application.

2.2 Non-functional Requirements

- **Security:** The system must have different levels of security for the different type of users. Also, the system must keep safe the user accounts.
- **Resources:** The system must save in a register all the living offers and the bought vaccational offers.
- **Portability:** The user can run the system in Linux, Windows and Mac. We will use Java to make this.
- **Storage:** The system can have 100000 registered users and 1000000 offers.
- **Usability:** The system will have mouse-driven and keyboard-driven interaction (to move in the system and write to search...)

3. Use Cases

3.1 Use Case diagram



Note: All the register users and the admins must login to make all their others FR.

3.2 Use case descriptions

3.2.1 Use Case: Buy an offer

Primary Actor: Registered user. Guest.

Stakeholders and Goals:

- Guest user: Buy an offer for a house

Preconditions: The user is identified and login as a guest.

Success guarantee (Post-conditions): The guest buys an offer; the payment system has accepted the credit card and the offer is now bought.

Main Success Scenario:

1. The user searches for the offer that he wants to buy
2. The user selects “buy offer”
3. The payment system checks if the credit card is reliable
4. The offer is checked as bought and it’s included in the register

Extensions (Alternative Paths):

- 4a. The payment system detects that the credit card is false.
 - 4a.1 The system blocks the user and he can’t use the account. (In order to block a user, his credit card is changed, he will need to contact an admin to change the card again and be unblocked)

Special Requirements:

- None

Technology and Data Variations List:

- Option to download the offer in PDF

Frequency:

- Very high, in the order of thousands of concurrent users in different offers

Open Issues:

- The guess and the host can’t talk about the offer

3.2.2 Use Case: Introduce a new offer

Primary Actor: Registered user. Host

Stakeholders and Goals:

- Host user: Put an offer to his house

Preconditions: The user is identified and login as a host. The host needs to have a house uploaded.

Success guarantee (Post-conditions): The host puts an offer in the system, the admin approves the offer and it's published in the system.

Main Success Scenario:

1. The user selects "create offer"
2. The user chooses the house
3. The user chooses the type of the offer: vaccational or living
4. The user introduces the price for the offer and submits to the admin

Extension (Alternative Paths):

- 4b. The user doesn't introduce some information:
 - 4b.1 The system asks the user to enter the missing information, going back to the step 1.

Special Requirements:

- None

Technology and Data Variations List:

- If the offer is a living offer, it's added to the system register

Frequency:

- High, in the order of one of concurrent users

Open Issues:

- None

3.2.3 Use Case: Comment offers

Primary Actor: Registered user. Guest.

Stakeholders and Goals:

- Guest user: Make a comment in an offer

Preconditions: The user is identified and login as a guest.

Success guarantee (Post-conditions): The guest makes a comment in an offer. The comment is saved into the system and all registered users can see it when they see this offer.

Main Success Scenario:

1. The user searches for the offer where he wants to put a comment.
2. The user selects "write a comment"
3. The user writes the comment and submits

Extensions (Alternative Paths):

- None

Special Requirements:

- None

Technology and Data Variations List:

- None

Frequency:

- Not too high, in the order of hundreds of concurrent users in different offers

Open Issues:

- The user can write whatever he wants, and no one will check his comment.

4. Mockups

We will divide the mock-ups in types of users:

Non-registered user:

The mockup shows a web interface for 'RentingJ&MA'. On the left, under the heading 'Main page', there are six radio buttons for search criteria: 'Search by zip' (selected), 'Search by mark', 'Search by date', 'Search by reserved', 'Search by type', and 'Search by bought'. Below these is a text input field labeled 'Introduce zip code' and a 'Search' button. On the right, there is a login section with 'Username' and 'Password' input fields, a 'Login' button, and a logo consisting of a blue circle with a missing quadrant, with the text 'RentingJ&MA' underneath.



RentingJ&MA

Main Page

☐ Search by zip ☐ Search by mark
☒ Search by date ☐ Search reserved
☐ Search by type ☐ Search bought


Introduce first date

Day Month Year

Introduce second date

Day Month Year

Username
Password


RentingJ&MA



RentingJ&MA

Main page

☐ Search by zip ☐ Search by mark
☐ Search by date ☐ Search reserved
☒ Search by type ☐ Search bought

Select type

Username
Password


RentingJ&MA

These first three mock-ups are the three kinds of searches that a non-registered user can do. He will need to select the type of search, then introduce the asked information and finally press “Search”.

This is the screen that will appear once he presses “Search”:

The screenshot shows a web application interface for 'RentingJ&MA'. The background is a solid light orange color. In the top left corner, the logo 'RentingJ&MA' is displayed in a black, stylized script font. Below the logo, there are three identical white rectangular boxes stacked vertically. Each box contains the following text: 'House: "Street" and "city"', 'Description: "Description of the house"', 'Date: "Beginning and ending date"', and 'Price: "Price"'. To the right of these boxes is a vertical scrollbar. Further to the right, there is a login section. It consists of two white input fields: the top one is labeled 'Username' and the bottom one is labeled 'Password'. Below these fields is a grey rectangular button with the word 'Login' in black text. At the bottom of the login section is a blue circular logo that is a quarter-circle, followed by the text 'RentingJ&MA'.

This screen shows the offers and the information that a non-registered user can see.

As we can see, at the top right corner we have the possibility to login and become a registered user by pressing “Login”.

Registered user:

RentingJ&MA

Main page

☐ Search by zip

☒ Search by mark

☐ Search by date

☐ Search reserved


☐ Search by type

☐ Search bought

Search

Welcome "User Name"

Login as a guest



RentingJ&MA

RentingJ&MA

Main page

☐ Search by zip

☐ Search by mark

☐ Search by date

☒ Search reserved


☐ Search by type

☐ Search bought

Search

Welcome "User Name"

Login as a guest



RentingJ&MA

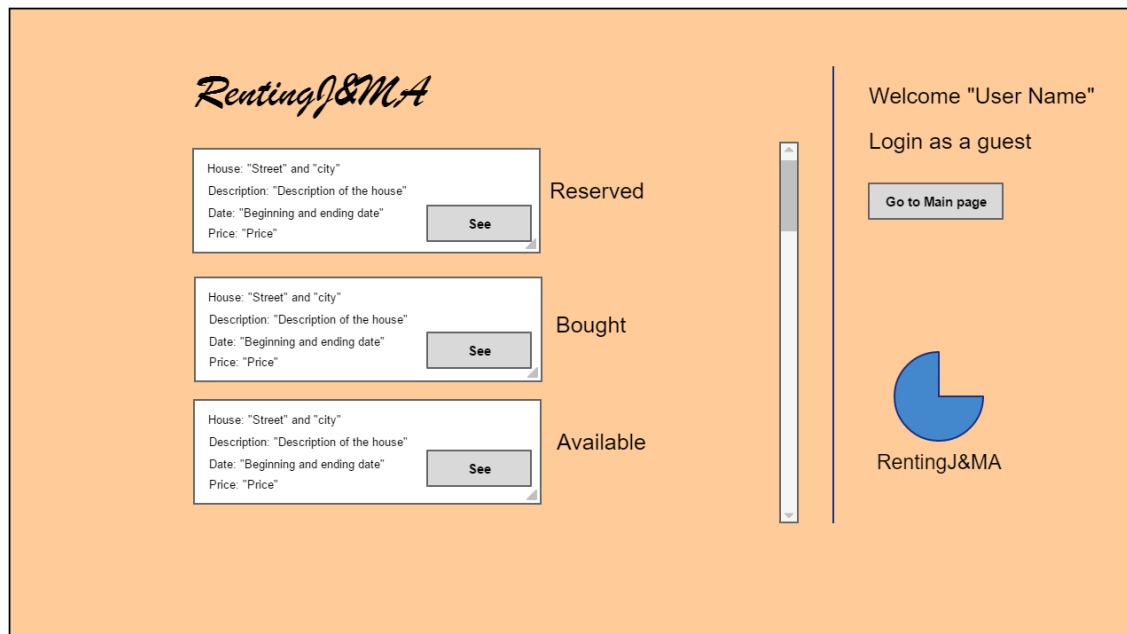


The screenshot shows the main page of the RentingJ&MA application. On the left, the logo "RentingJ&MA" is displayed in a stylized font. Below it, the text "Main page" is followed by five radio button options: "Search by zip", "Search by mark", "Search by date", "Search reserved", "Search by type", and "Search bought". The "Search bought" option is selected. A "Search" button is located below these options. On the right side, there is a vertical line separating the main content from the user area. To the right of this line, the text "Welcome 'User Name'" and "Login as a guest" is displayed. Below this, there is a blue circular logo with a white 'C' shape inside, and the text "RentingJ&MA" below it.

These are the three new type of searches that a registered user can do. We put them in the guest place because at the top right corner we have written “login as a guest”. A host will be able to make these searches too but changing that to “login as a host”. And both users will be able to access to the first three types of searches too.

- **Guest**

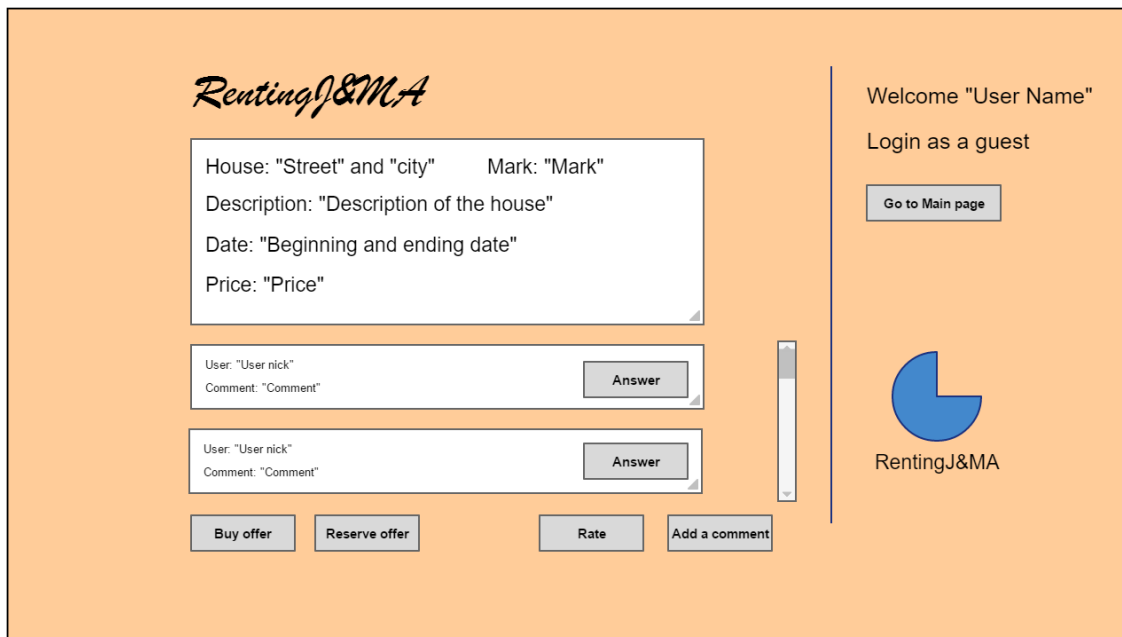
Once the guest presses the search button he will see this screen:



The screenshot shows the search results page of the RentingJ&MA application. On the left, the logo "RentingJ&MA" is displayed. Below it, there are three search results, each in a white box with a "See" button. The results are labeled "Reserved", "Bought", and "Available" on the right. Each result box contains the following text: "House: 'Street' and 'city'", "Description: 'Description of the house'", "Date: 'Beginning and ending date'", and "Price: 'Price'". On the right side, there is a vertical line separating the main content from the user area. To the right of this line, the text "Welcome 'User Name'" and "Login as a guest" is displayed. Below this, there is a "Go to Main page" button. At the bottom, there is a blue circular logo with a white 'C' shape inside, and the text "RentingJ&MA" below it.

As we can see, we have a list of all the offers searched. Since we are a guest, we can see if the offer is reserved, bought or available.

If we press the “See” button we will go to that specific offer and this is what we will see:



The screenshot shows a web interface for 'RentingJ&MA'. The main content area has an orange background. At the top left is the logo 'RentingJ&MA'. Below it is a white box containing the offer details: 'House: "Street" and "city" Mark: "Mark"', 'Description: "Description of the house"', 'Date: "Beginning and ending date"', and 'Price: "Price"'. Below this is a white box for user comments, with 'User: "User nick"' and 'Comment: "Comment"' fields, and an 'Answer' button. Below that is another identical comment box. At the bottom are four buttons: 'Buy offer', 'Reserve offer', 'Rate', and 'Add a comment'. On the right side, there is a vertical white bar. To the right of the bar, it says 'Welcome "User Name"', 'Login as a guest', and a 'Go to Main page' button. Below this is a blue pie chart icon and the text 'RentingJ&MA'.

We can see the information a little bit bigger, and we can see the comments. From this screen we can buy or reserve the offer, but we can also rate the offer or add a comment.

This is also the first time we see the “Go to Main page” button at the top right corner, it will take us to the main page of the user that is logged in, which will be different for every type of user.

- **Host**

The screenshot shows the main page of the RentingJ&MA application for a host. The page has an orange background. At the top left is the logo "RentingJ&MA". Below it, the text "Main page" is displayed. There are four buttons arranged vertically: "Search", "Add a new house", "Add a new offer", and "Check your offers". To the right of each button is a corresponding instruction: "Search for an offer", "Add a new house to your account", "Add an offer", and "Check the offers you created". On the right side of the page, there is a vertical line. To the right of this line, the text "Welcome 'User Name'" and "Login as a host" is displayed. Below this text is a blue circular logo with a white 'C' shape inside, and the text "RentingJ&MA" below it.

This is the main page of the host. If we select the “Search” button we will go to the same page we saw before, with the six types of searches.

If we select the “Add a new house” button this is what we’ll see:

The screenshot shows the "Add a new house" page of the RentingJ&MA application. The page has an orange background. At the top left is the logo "RentingJ&MA". Below it, the text "Introduce zip code" is displayed, followed by a text input field with the placeholder "Introduce five numbers". To the right of this is the text "Introduce street", followed by a text input field with the placeholder "Introduce the street". Below the zip code field is the text "Introduce city", followed by a text input field with the placeholder "Introduce the name of the city". Below the city field is the text "Introduce description", followed by a text input field with the placeholder "Introduce a description of the house". At the bottom left are two buttons: "Create House" and "Cancel". On the right side of the page, there is a vertical line. To the right of this line, the text "Welcome 'User Name'" and "Login as a host" is displayed. Below this text is a button labeled "Go to Main page". At the bottom right is a blue circular logo with a white 'C' shape inside, and the text "RentingJ&MA" below it.

Once we introduce all the information we can press “Create House” and it’s send to the admin.

If we press “Cancel” or “Go to Main page” we will go back to the main page.

This is what we’ll see if we select “Add a new offer” from the main page:

RentingJ&MA

Select house

Select type

Introduce beginning date

Day Month Year


Introduce ending date

Day Month Year

Introduce price

Welcome "User Name"

Login as a host



RentingJ&MA

As with the houses, once we have introduced all the information we can select “Create Offer” and save it into the system or “Cancel” or “Go to Main page” and go back to the main page.

If we select “Check your offers” this is what we’ll see:

The screenshot shows the RentingJ&MA interface for a host. The main area displays a list of offers with the following details for each:

- House: "Street" and "city"
- Description: "Description of the house"
- Date: "Beginning and ending date"
- Price: "Price"

The offers are categorized into three states:

- Reserved**: No action buttons.
- Waiting for acceptance**: Includes a **Cancel** button.
- Asked to be changed**: Includes a **Modify** button.

A vertical scrollbar is visible on the right side of the offer list. The sidebar on the right contains the following elements:

- Welcome "User Name"
- Login as a host
- Go to Main page** button
- RentingJ&MA logo (a blue pie chart icon)

This is a list of the offers that the host has created. He will be able to see their information and cancel the ones that hasn't been accepted yet or modify those who need to be modified.

Admin:

The screenshot shows the RentingJ&MA interface for an admin. The main area displays the following elements:

- Main page**
- Change a credit card** button: Change the credit card of a user
- Check offers** button: Check the offers waiting to be accepted

The sidebar on the right contains the following elements:

- Welcome "User Name"
- Login as an admin
- RentingJ&MA logo (a blue pie chart icon)

This is the main page of the admin, he can change a credit card or check offers that the hosts create.

This is the screen that appears when he selects “Change a credit card”:

The screenshot shows the 'RentingJ&MA' admin interface. On the left, there is a form titled 'Introduce user' with a text input field labeled 'Introduce user'. Below it is a section titled 'Introduce new credit card' with a text input field labeled 'Introduce new credit card'. At the bottom of this section are two buttons: 'Change credit card' and 'Cancel'. On the right side, there is a sidebar with the text 'Welcome "User Name"' and 'Login as an admin', followed by a 'Go to Main page' button. At the bottom of the sidebar is a blue circular logo with a white 'C' shape inside, and the text 'RentingJ&MA' below it.

The admin can introduce the name of the user and his new credit card and submit by pressing “Change credit card” or cancel.

If from the main page the admin selects “Check offers” he will see this screen:

The screenshot shows the 'RentingJ&MA' admin interface for checking offers. On the left, there is a list of three offers, each in a white box with a shadow. Each offer box contains the following text: 'House: "Street" and "city"', 'Description: "Description of the house"', 'Date: "Beginning and ending date"', and 'Price: "Price"'. To the right of each offer box are three buttons: 'Approve', 'Deny', and 'Ask for changes'. On the right side, there is a sidebar with the text 'Welcome "User Name"' and 'Login as an admin', followed by a 'Go to Main page' button. At the bottom of the sidebar is a blue circular logo with a white 'C' shape inside, and the text 'RentingJ&MA' below it.

The admin will see all the offers waiting to be accepted and check them as he pleases: he can approve them, deny them or ask for changes.

He will also be able to go back to the main menu by pressing “Go to Main page” as always.