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| https://screenshotscdn.firefoxusercontent.com/images/eaf3f7f3-2952-4801-af5c-4f20e8ae8b88.png | | |
| **MOCKUP'S HEAURISTIC EVALUATION** | | |
| **OF**  **Real-Estate JAM (REJ).** | | |
|  | | |
| GROUP WORK  6531BX028 PI18E | | |
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|  | 2019-05 |  |
| 2019 | | |

# ANOTATION

**Purpose of work**

Purpose of work is to evaluate given system by heuristic evaluation method, evaluate positive and negative aspects of the system and present a report.

**Team members contribution**

Edita Komarova – 25%

Saulė Stankevičiūtė – 25%

Mantas Podolskis - 25%

Džiugas Pečiulevičius – 25%

**Tools used for work**

Microsoft Word and Azure RP 8.

**Mock up link**

<https://jr81ul.axshare.com/>

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# INTRODUCTION

**Program system name**

Real-Estate JAM (REJ).

**Subject area**

Website for finding real estate to rent, let, buy or sell.

Users

Users must have a basic knowledge of how to use a web browser and the internet.

Administrators must have expert level understanding of the system and computer skills.

**Problematic area**

Reducing time of finding appropriate place to rent, let, buy or sell.

**Basis of work and documents used**

We used [Human Computer Interaction](about:blank) Design as basis for our work.

**HEURISTIC EVALUATION REPORT**

1. **Summary**

This heuristic evaluation started by examining system by each of four team members, that took approximately two hours. Experts were introduced to Real-Estate JAM (REJ) by reading “The needs of the users for designed system program: Real-Estate JAM (REJ)”. Each one of the experts tried out different features and tried out all of the main tasks. Which were presented in their hierarchical task analysis.

After that each expert written down all found deficiencies and compared them with other ones that other experts have found. Then they filled in tables with all negative and all positive functions. All four experts agree that that general problems are mostly visibility and feedback. There were also mapping mistakes, however there were not a lot of mapping mistakes. Most of the problems was about visibility system status. Where you wouldn’t know if the action you took was successful or not. 4 cosmetic deficiency, 12 small deficiencies, 8 serious deficiencies and 0 critical flaws. The biggest problem in experts opinion was simply buttons not working, or reacting to any action. Otherwise system has a few positive aspects such as minimalistic design or recognition.

1. **Assessment environment**

Table 1 shows information about experts who evaluated the mock-up.

Table 1-Assessment environment

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Evaluator | Džiugas Pečiulevičius | Mantas Podolskis | Saulė Stankevičiūtė | Edita Komarova |
| Code | DP | MP | SS | EK |
| Age | 21 | 23 | 19 | 19 |
| Sex | Male | Male | Female | Female |
| Evaluation time and date | 2019-04-17 11:45 | 2019-04-18 14:15 | 2019-04-17 13:00 | 2019-04-18 16:35 |
| Operating system | Windows 10 | Windows 10 | Windows 10 | Windows 10 |
| Browser | Google Chrome | Google Chrome | Google Chrome | Firefox |
| Display size  (in inches) | 15.6” | 15.6” | 15.6” | 15.6” |
| Resolution | 1920x1080 | 1920x1080 | 1920x1080 | 1920x1080 |

## **Evaluation tasks**

1. Create user account.
   1. Enter Username in required field.
   2. Enter email address in field “Email”.
   3. Enter password in field “Password”.
   4. Re-enter password in field “Confirm password”.
2. Login to the account.
   1. Enter username in field “Username”.
   2. Enter password in field “Password”.
   3. Get password reminder.
      1. Enter username.
      2. Enter E-mail address.
3. Access Real-estate listings.
   1. Search for listings
      1. Enter keyword in “Search by State, City or Suburb” field.
      2. Enter postcode in “Search by Postcode” field.
      3. Apply filters to search results.
   2. Browse listings without searching.
   3. View recommended property listings.
   4. View favorite listings.
   5. View listing details.
      1. Print listing details.
      2. Add personal notes to said listing.
      3. Add listing to favorites.
4. Control your user account.
   1. Click “Profile management” button.
      1. Delete your user account.
      2. Edit your user account information.
         1. Change password.
         2. Add contact information.
      3. View search history.
      4. View favorited property listings.
         1. Delete listing from favorites.
      5. Control your property listings.
         1. Create new property listing.
            1. Enter Property information.
         2. Select your existing property listing.
            1. Edit property listing.
            2. Delete property listing.
            3. Check user engagement on their property listings.
5. Administrative privileges and tasks.
   1. Administrator must be able to find a specific user.
      1. Delete or ban user account.
      2. Unban or restore user account.
      3. Send private message / notice to user.
      4. Access users created listings.
         1. Delete or modify a listing.
         2. Restore listing deleted by the user.
         3. Hide listing from appearing in search.
         4. Add listing to recommended section.
   2. Administrator must be able to find specific listing.
      1. Delete or modify a listing.
      2. Hide listing from appearing in search.
      3. Add listing to recommended section.
6. Logout from the account.
   1. Press “Sign out”.

## **Description of positive aspects**

In second table we present positive aspects of the system.

Table 2- Description of positive aspects

|  |  |
| --- | --- |
| **Description** | **Visual fragment** |
| (Visibility)  All the necessary functions are visible on the first glance at the page. | Picture 1 - Functions visible on the first glance |
| (Aesthetic and minimalistic design)  Search filters do not clog the page, you can see the options in drop boxes. | Picture 2 - Good aesthetics |
| (Recognition)  It is clear that you can click on the options, as they are underlined and there is a down-facing triangle besides the drop-box title. | Picture 3 - Recognition |
| (Error prevention)  Password is requested whenever you try to delete your listing, making it hard to do it by accident. | Picture 4 - Error prevention |
| (Error recovery)  In case you make a mistake in your listing information during its creation, you can easily edit. |  |
| (Consistency)  The edit table has the same settings as creation table. |  |
| (Mapping)  Universal buttons for “Favorite” and “Exit” | Picture 5 - Mapping |
| (Flexibility)  Secondary window opens, allowing user to stay in the page he was after pressing on a ‘delete’ function.  Multiple tasks. |  |

## **5. Analysis of main problem**

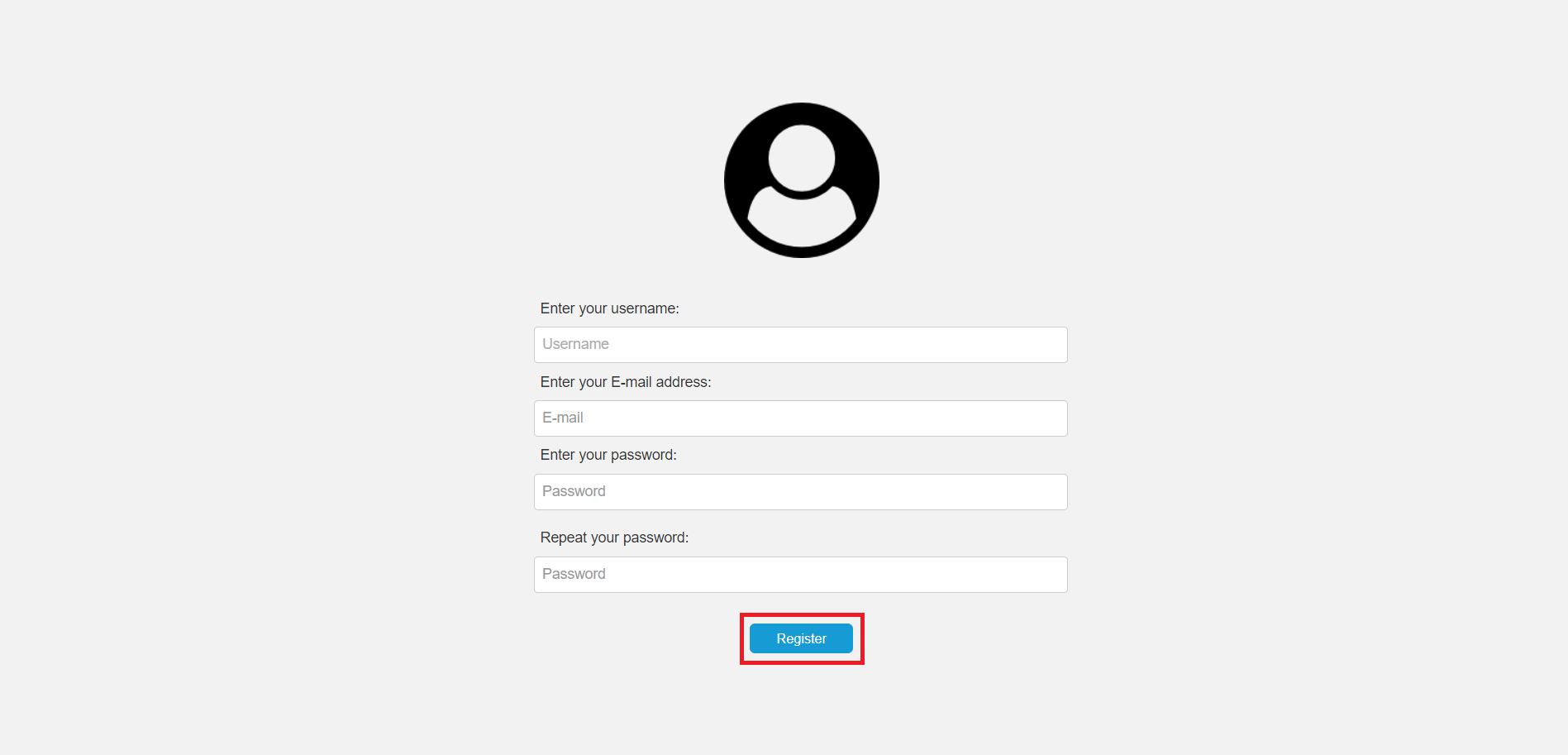
1) **Task:** 1. Register to the system

**Found by:** DP, SS, EK, MP.

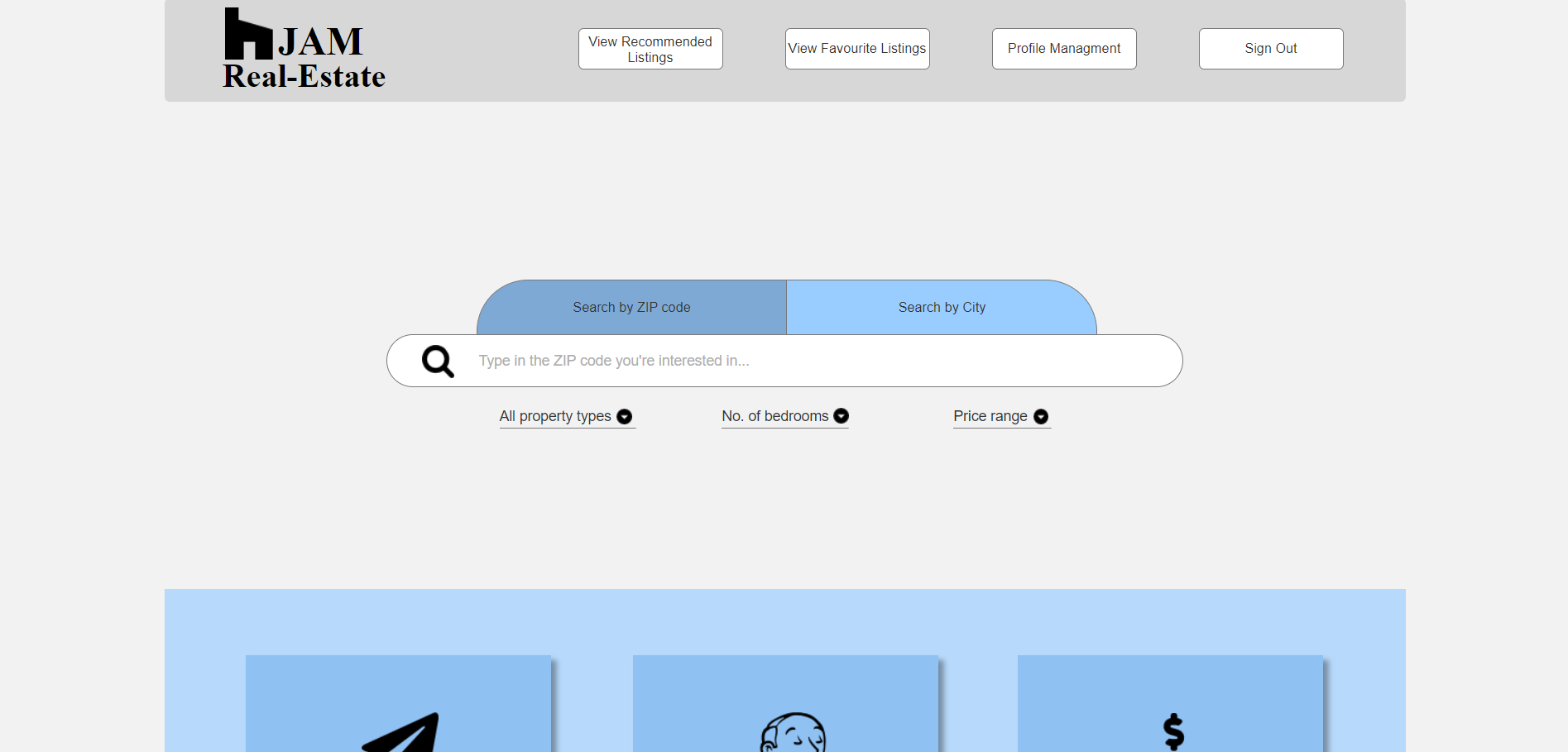
**Violated principle:** *Feedback*

There’s no prompt message for the user showing (un)successful registration.

**Picture:**

****

Picture 6 - Register to the system

****

Picture 7 - Main page

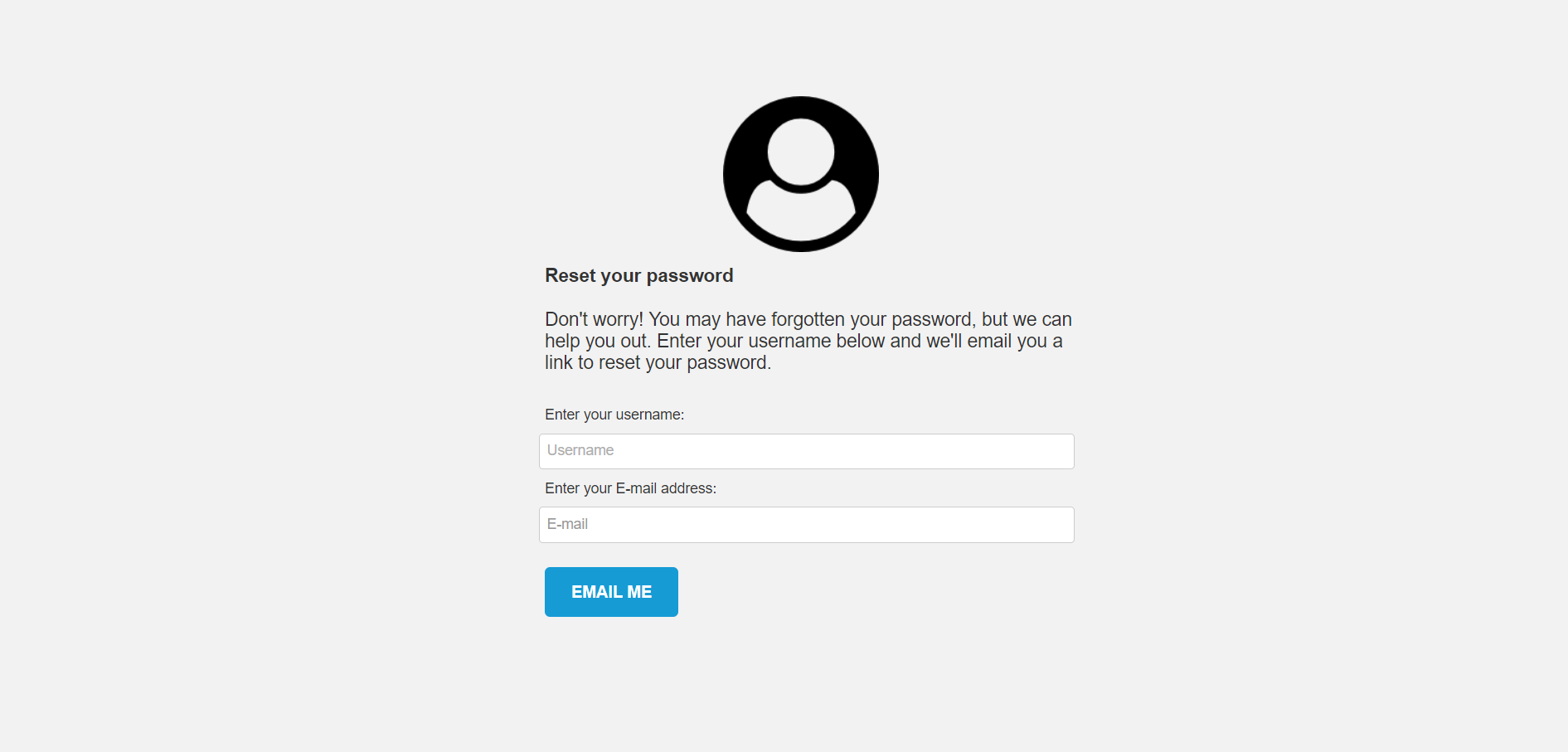
2) **Task:** 2.3. Get password reminder

**Found by:** DP, SS, EK, MP.

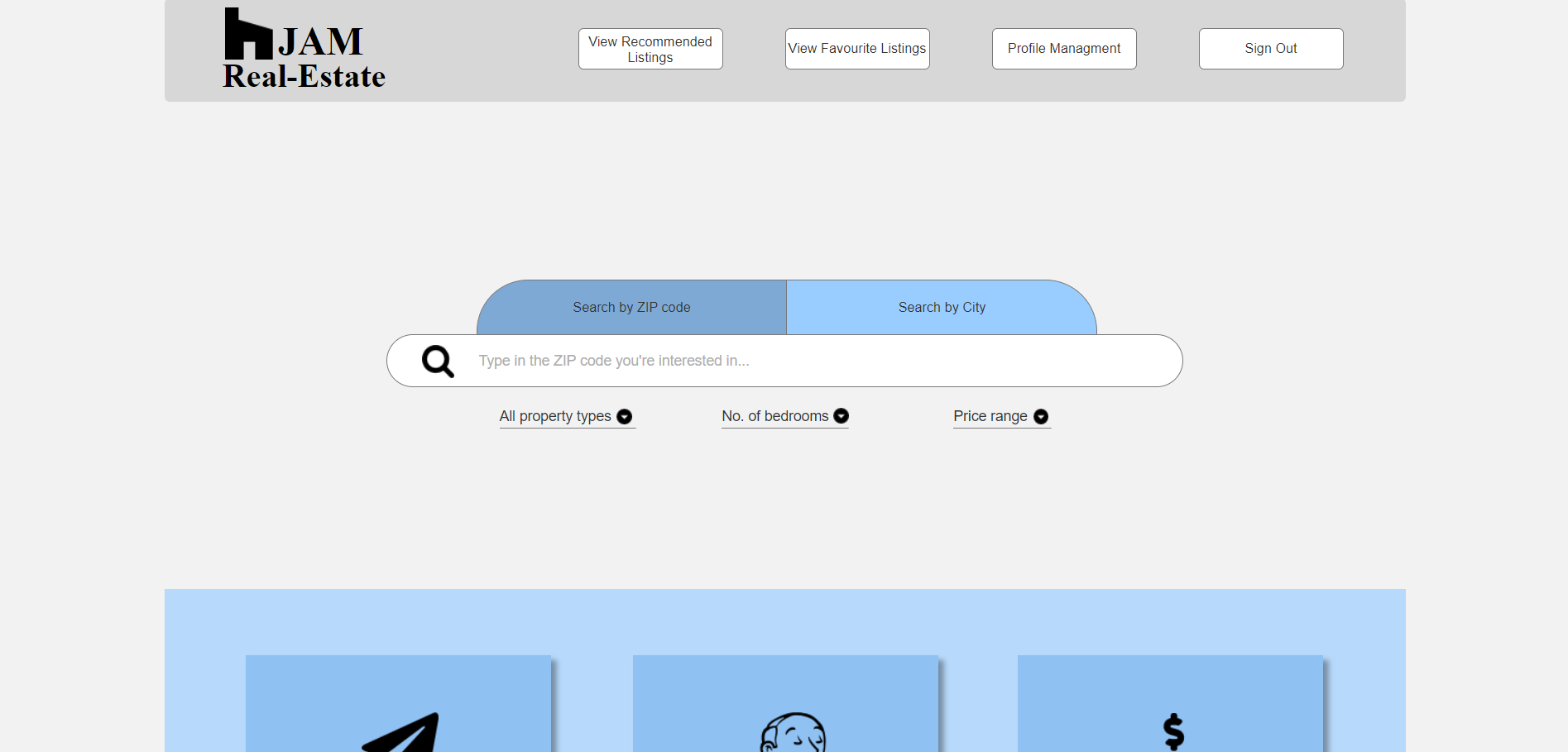
**Violated principle:** *Feedback*

There’s no prompt message for the user showing that the password has been sent to an email address.

**Picture:**

****

Picture 8 - Reset password

****

Picture 9 - Main page

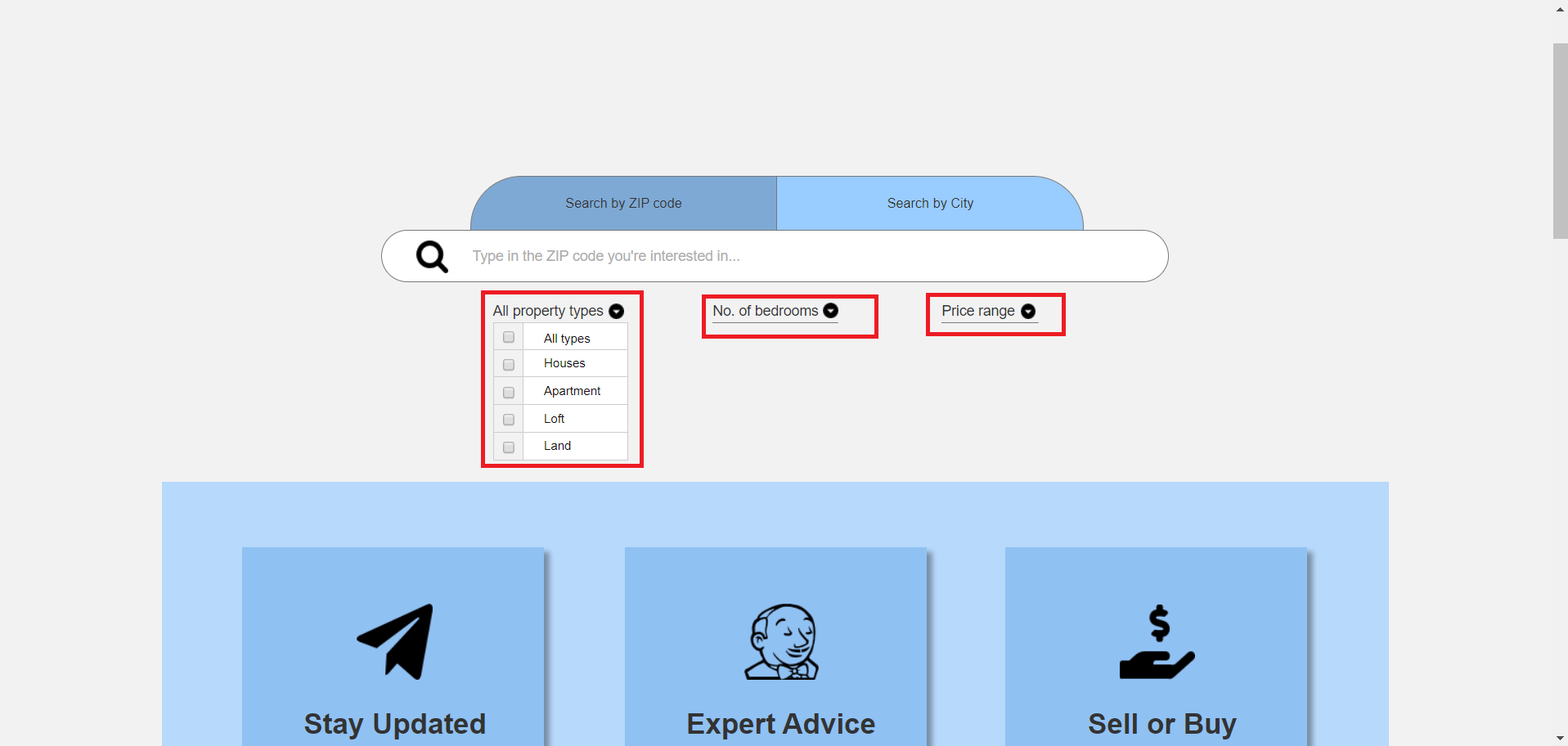
3) **Task:** 3.1.3. Apply filters to search results.

**Found by:** DP, SS, EK, MP.

**Violated principle:** *Freedom of user control*

You have to click on the dropdown menus, but they actually don’t stay up, they disappear when I move my cursor of.

**Picture:**



Picture 11 - Drop-down lists

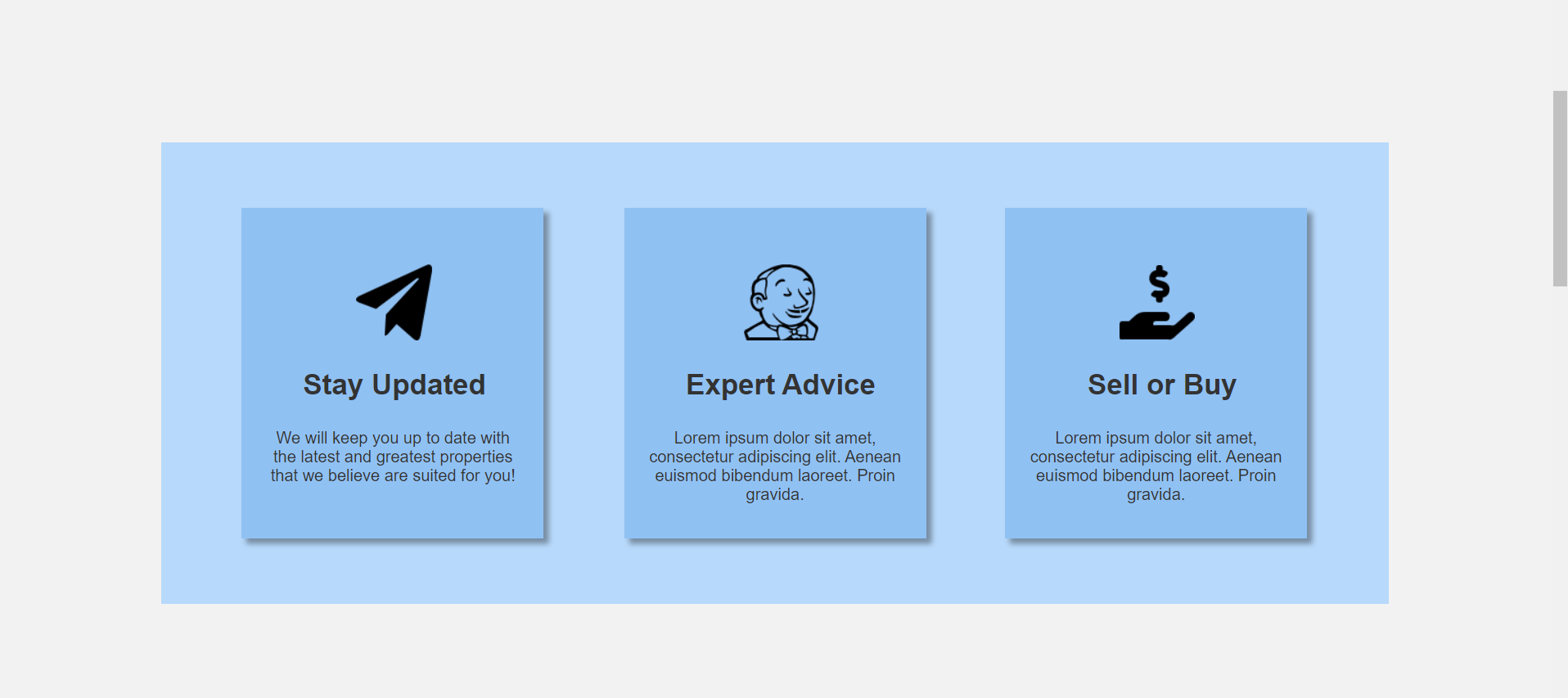
4) **Task:** 3.2. Browse listings without searching.

**Found by:** DP, SS, EK, MP.

**Violated principle:** *Mapping*

Below drop-down menus, and above 'recommended' there are sections like "stay updated", "Expert advice", and "Sell or buy". They look like buttons, but they are actually not, would change the appearance or maybe just add a button to click and bring the user to the exact page which is named in the box.

**Picture:**



Picture 12 - Unpressable buttons

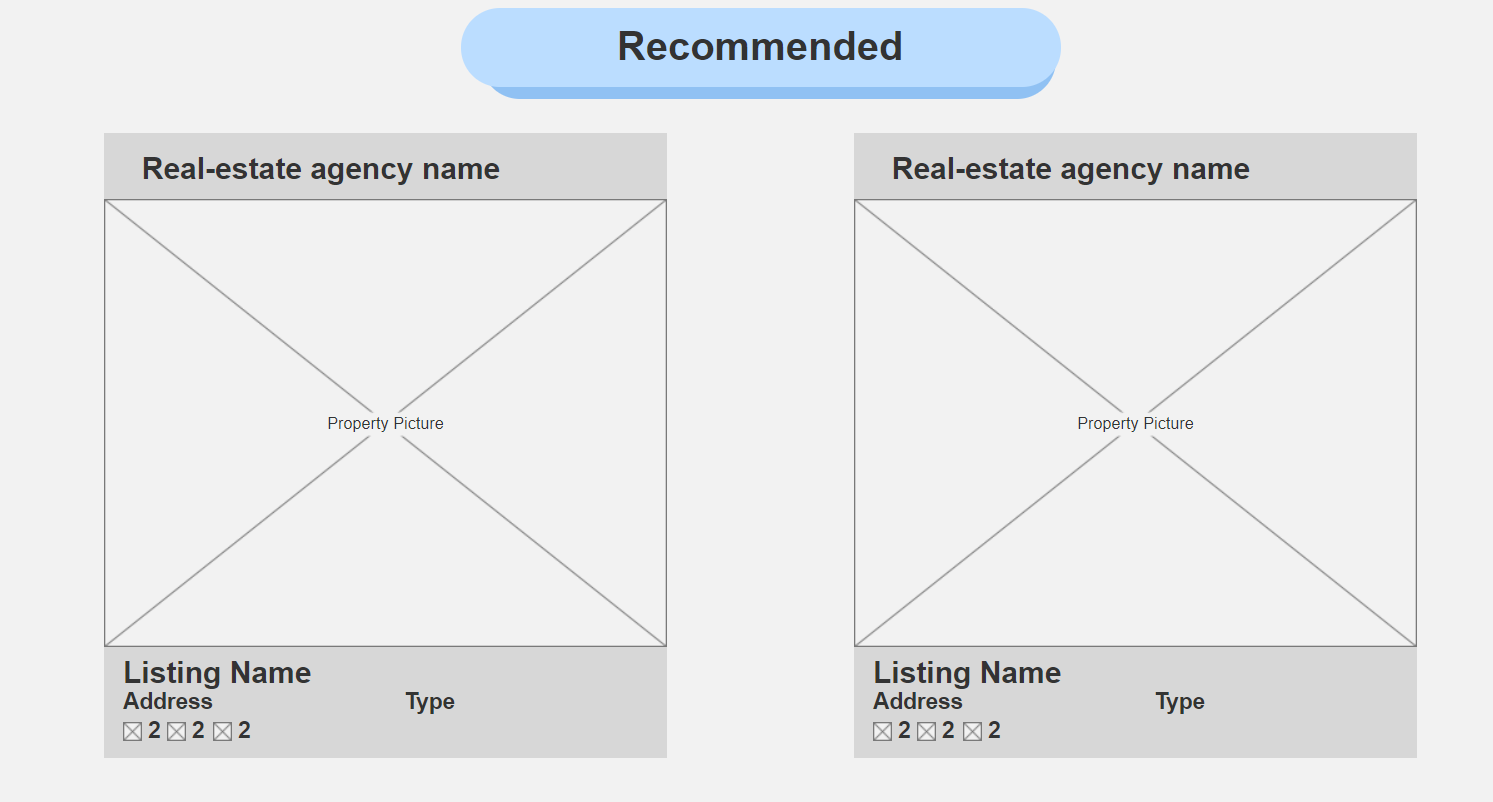
5) **Task:** 3.3. View recommended property listings.

**Found by:** DP, SS, EK, MP.

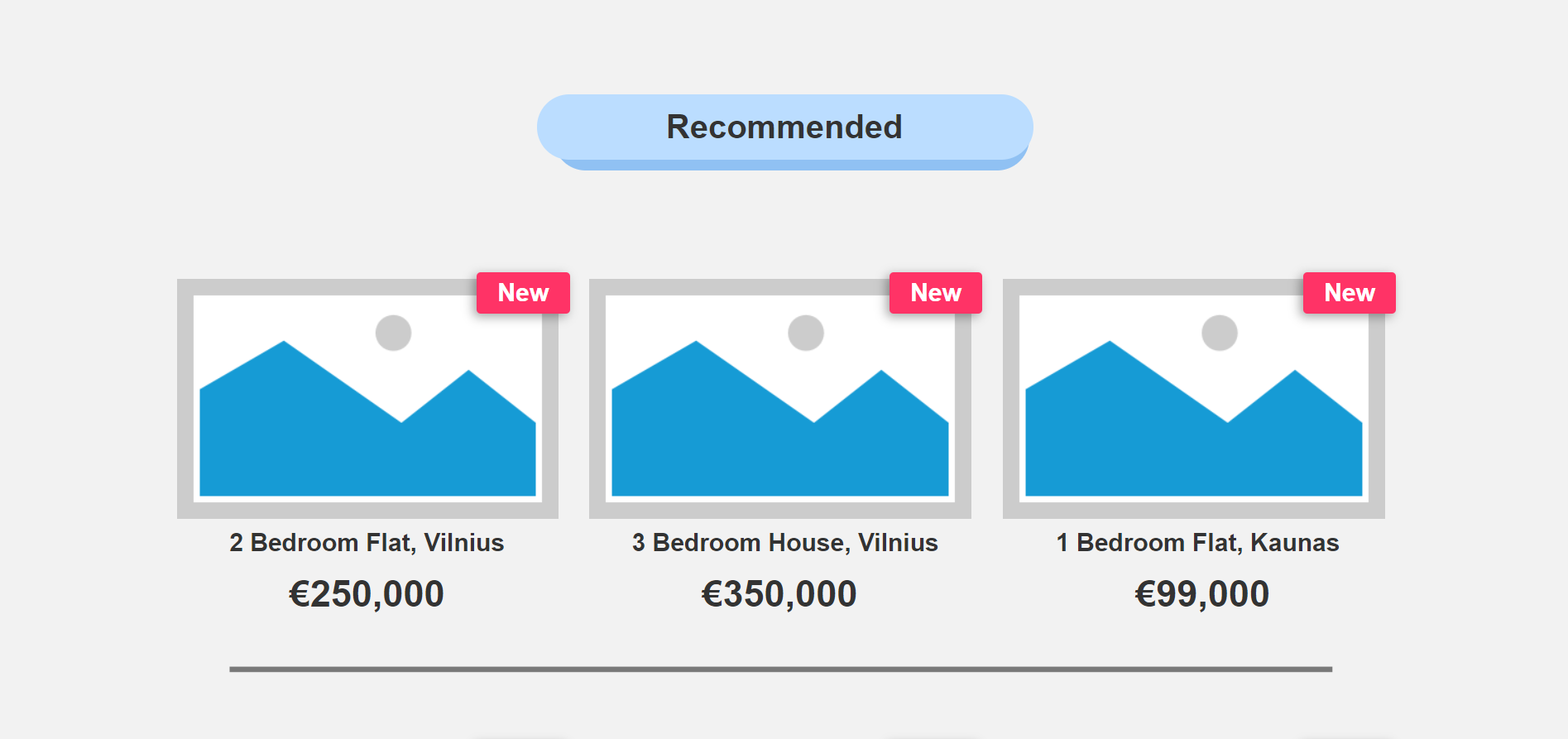
**Violated principle:** Consistency.

For the section where all the houses are, below each photo of a flat, it would be nice to make text and price clickable just as the photo. Also these recommended lists are not the same. Also the information shown is different in both of these recommended lists.

**Picture:**



Picture 13 - Recommended page

****

Picture 14 - Recommended main page

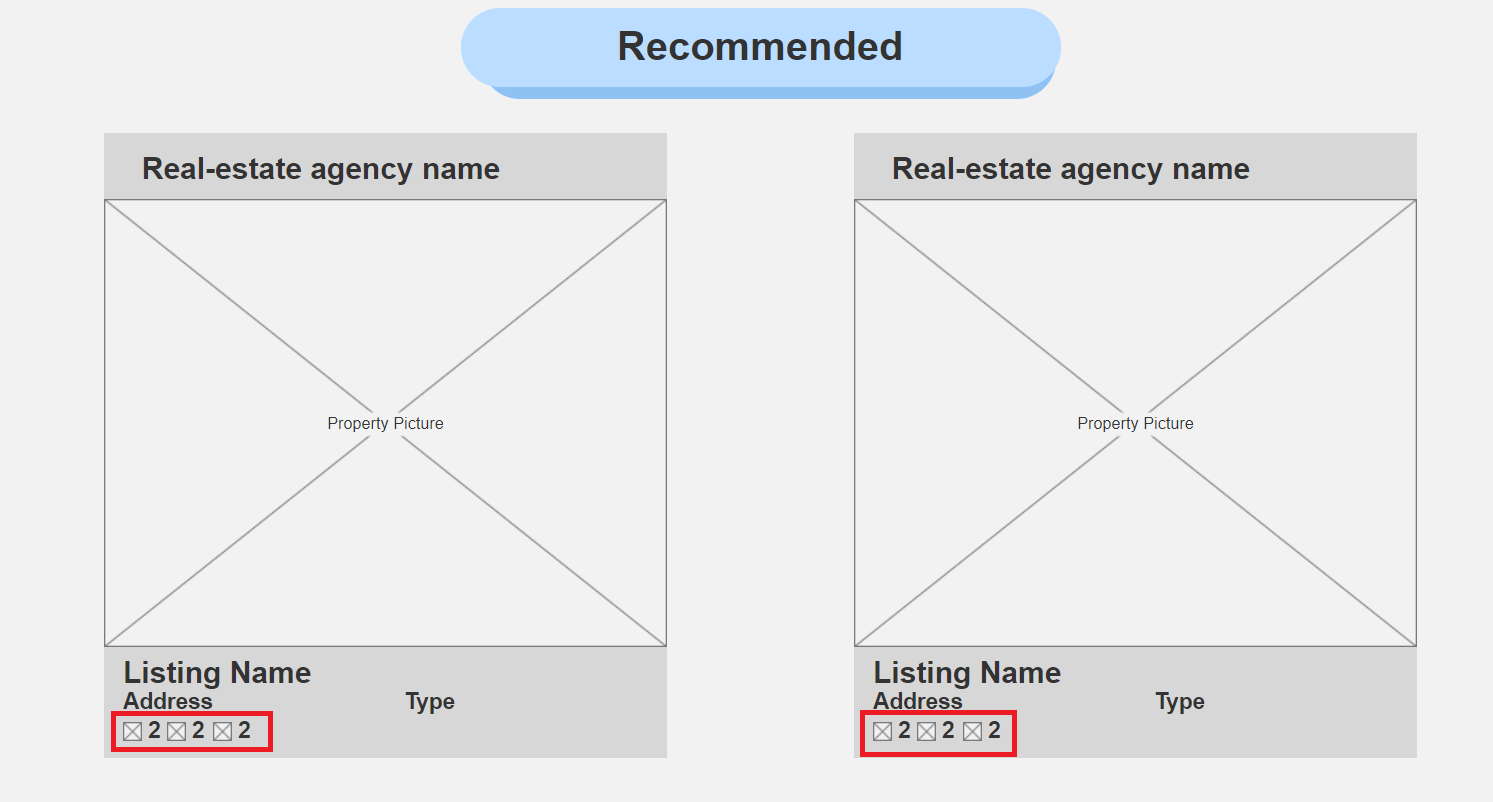
6) **Task:** 3.4. View favorite listings.

**Found by:** DP, SS, EK, MP.

**Violated principle:** *Mapping*

This does not show what is supposed to be instead of these small icons.

**Picture:**



Picture 15 - Recommended page 2

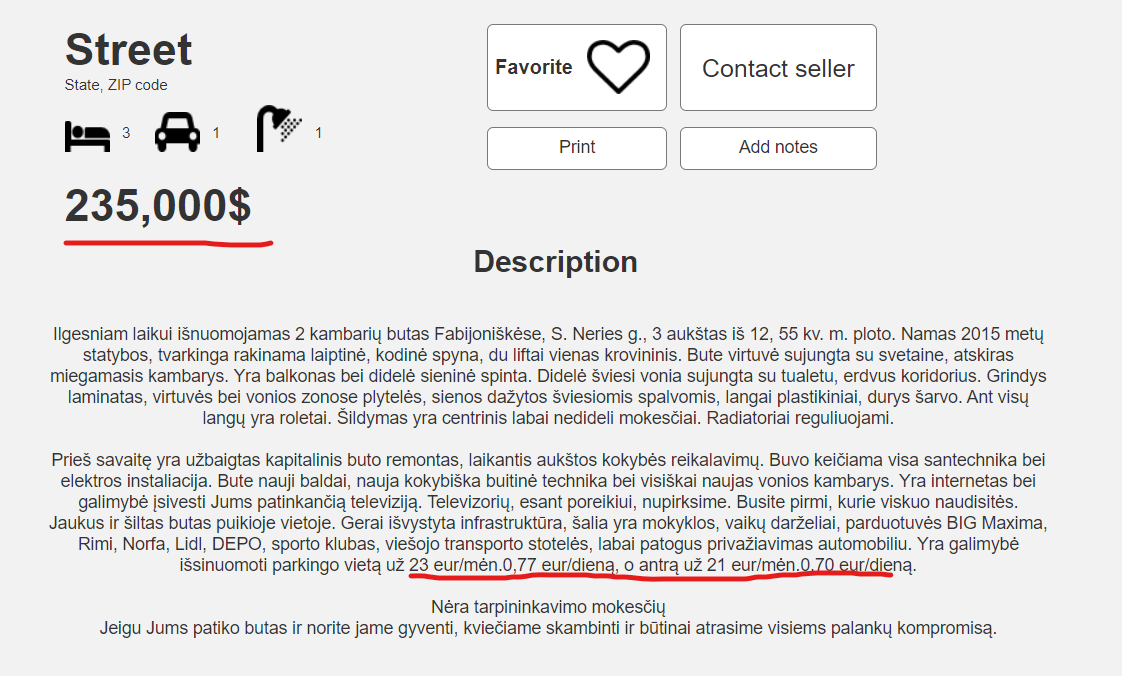
7) **Task:** 3.5. View listing details.

**Found by:** DP, SS, EK, MP.

**Violated principle:** *Consistency*

Prices are in dollars and euros.

**Picture:**



Picture 16 - Description

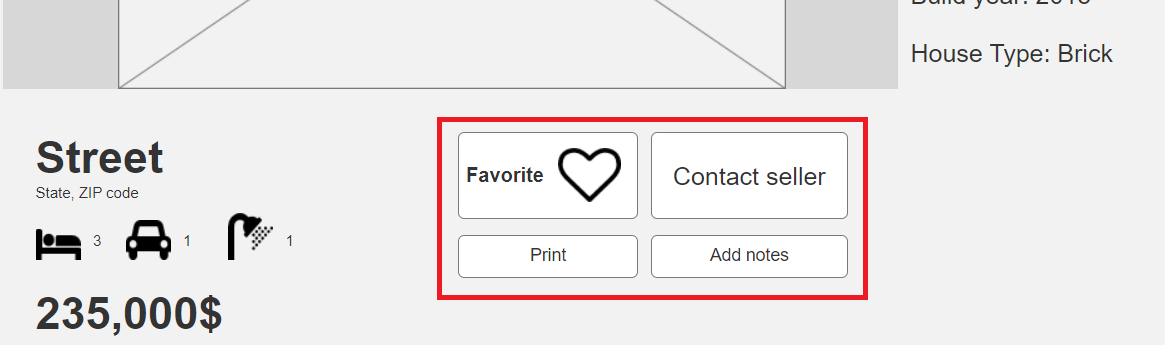
8) **Task:** 3.5. View listing details.

**Found by:** DP, SS.

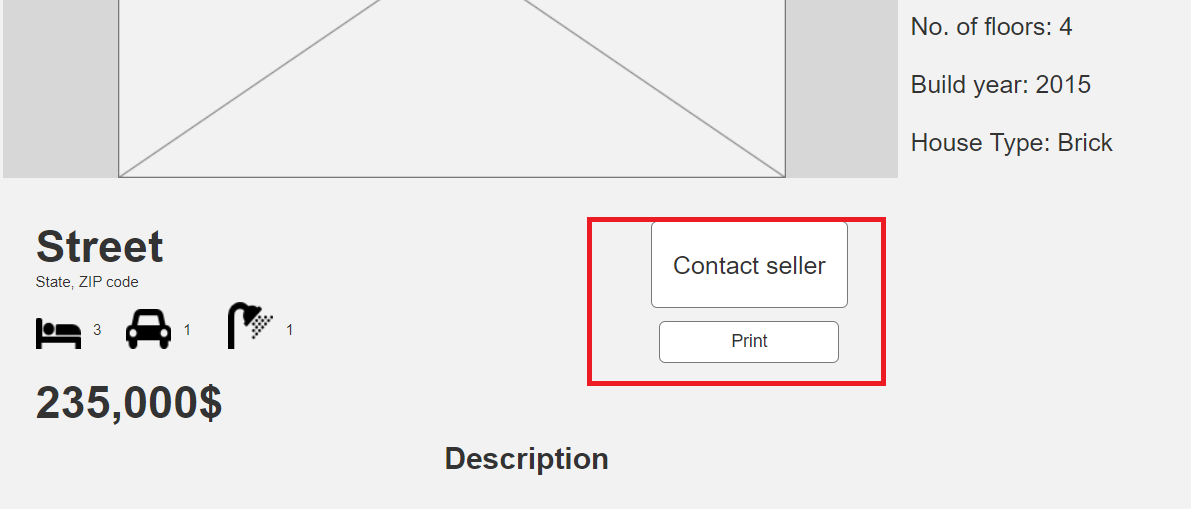
**Violated principle:** *Consistency*

Buttons are laid out differently on the page where user is logged from the page where user is logged off.

**Picture:**



Picture 17 - Buttons



Picture 18 - Buttons 2

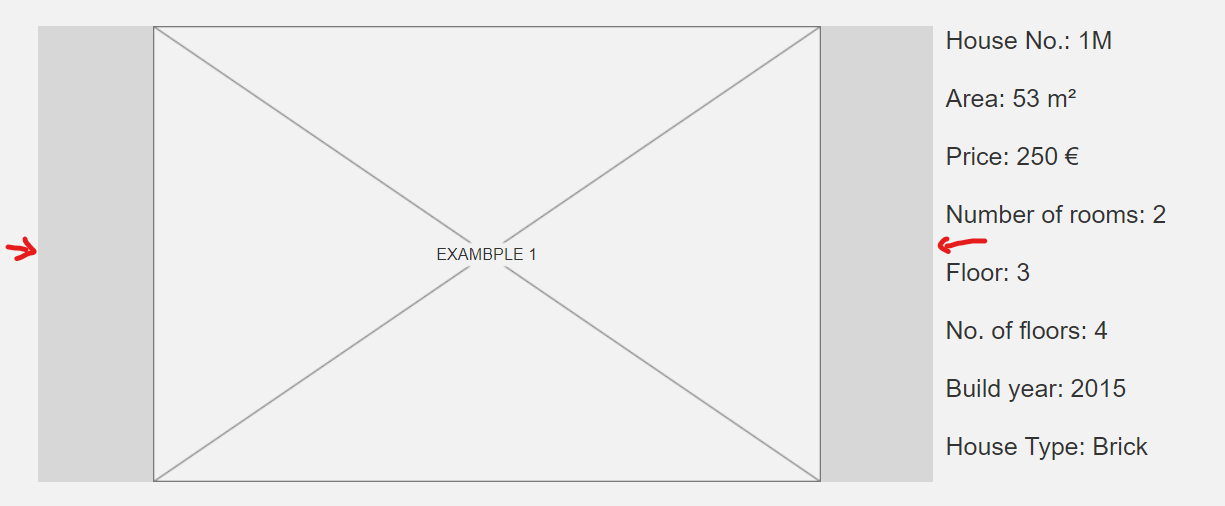
9) **Task:** 3.5. View listing details.

**Found by:** DP, SS, MP.

**Violated principle:** *Visibility*

There are no arrows to scroll through the photos.

**Picture:**



Picture 19 – Arrows

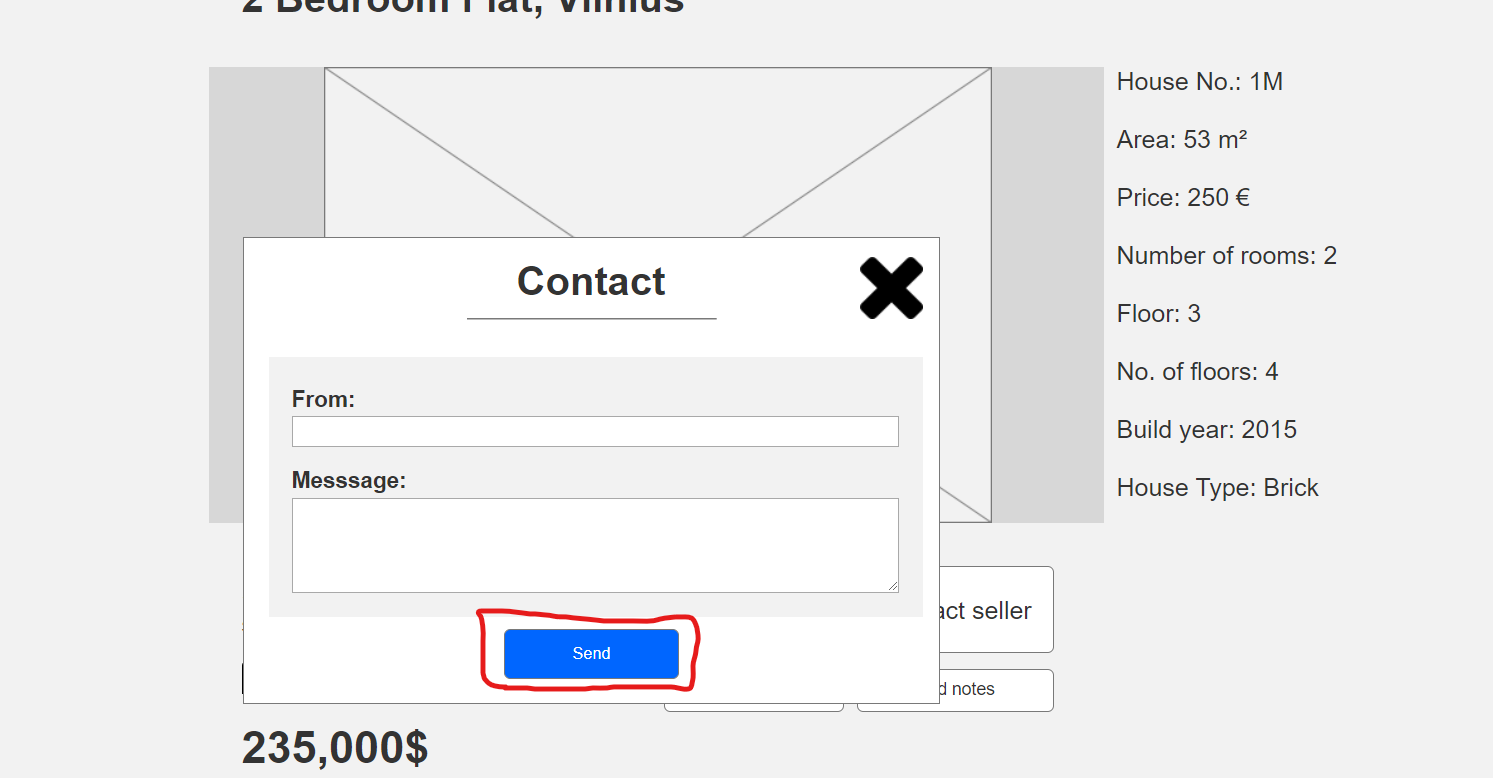
10) **Task:** 3.5. View listing details.

**Found by:** DP, SS, EK, MP.

**Violated principle:** *Visibility of system status*

There's no prompt that the message has been sent after clicking on 'Contact seller' -> 'Send'

**Picture:**



Picture 21 - Send button

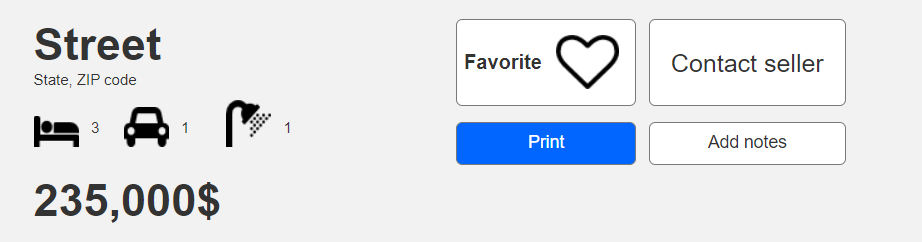
11) **Task:** 3.5.1. Print listing details.

**Found by:** DP, SS, EK, MP.

**Violated principle:** *Feedback*

Print button is not clickable and there's no prompt showing the user that anything is happening.

**Picture:**



Picture 22 - Print button

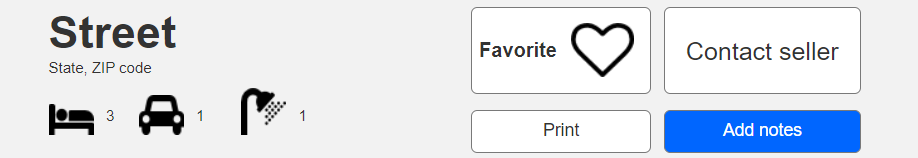
12) **Task:** 3.5.2. Add personal notes to said listing.

**Found by:** DP, SS, EK, MP.

**Violated principle:** *Feedback*

“Add notes” doesn’t work and does not provide user with any output information.

**Picture:**



Picture 23 - Add notes button

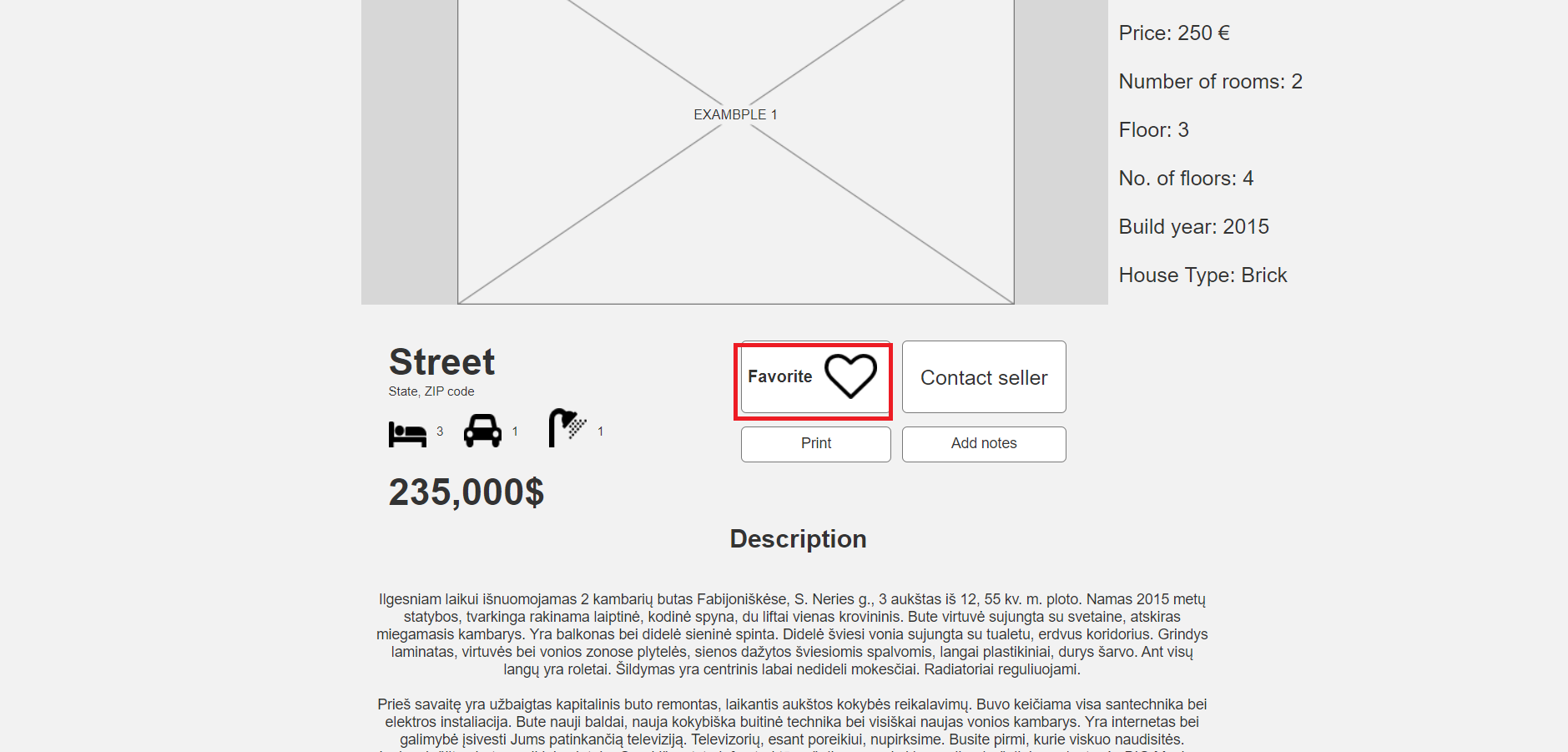
13) **Task:** 3.5.3. Add listing to favorites.

**Found by:** DP.

**Violated principle:** *Mapping*

I cannot click on the button properly, only on the heart.

**Picture:**



Picture 24 - Favorite button

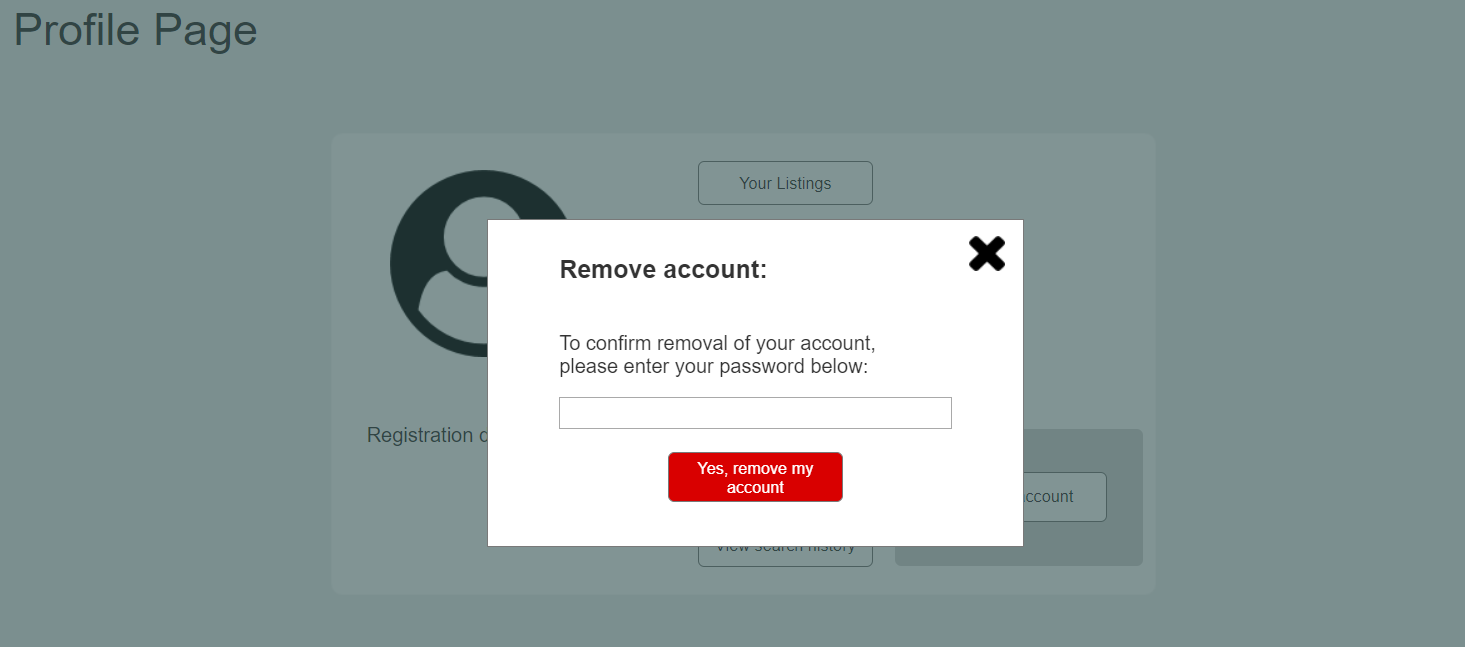
14) **Task:** 4.1.1. Delete your user account.

**Found by:** EK.

**Violated principle:** *Freedom of user control*

Nothing happens after clicking “Yes, remove my account”

**Picture:**



Picture 25 - Remove account button

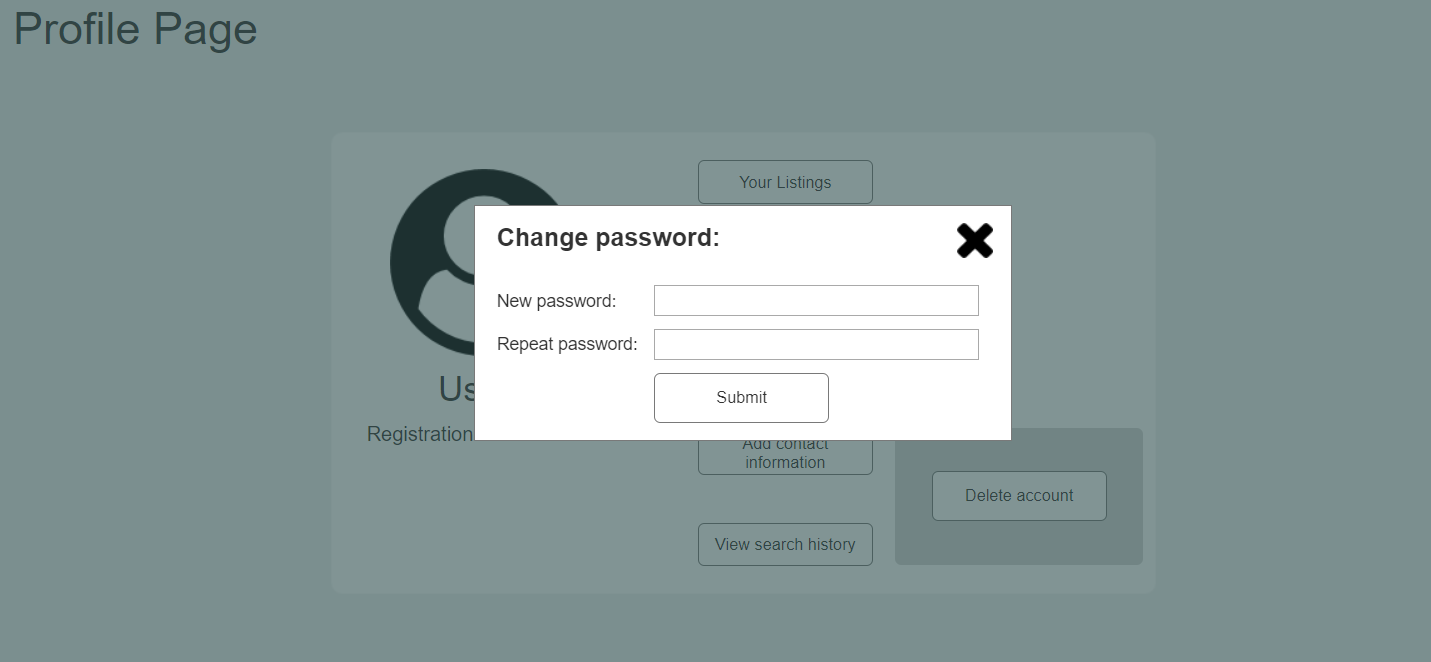
15) **Task:** 4.1.2.1. Change password.

**Found by:** DP, SS, EK, MP.

**Violated principle:** *Visibility of system status*

It doesn’t give any prompt that the password has been changed or that an email has been sent to a personal email.

**Picture:**



Picture 26 - Change page window

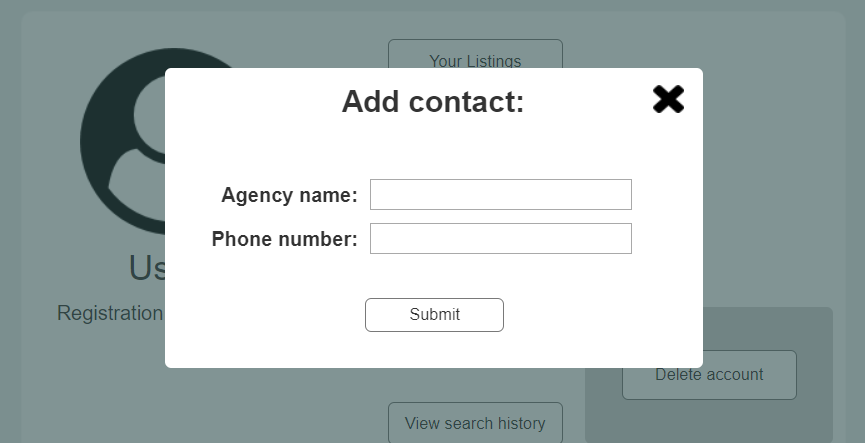
16) **Task:** 4.1.2.2. Add contact information.

**Found by:** DP, SS, EK, MP.

**Violated principle:** *Visibility of system status*

It doesn't give user any prompt that the information has been added.

**Picture:**



Picture 27 - Add contact window

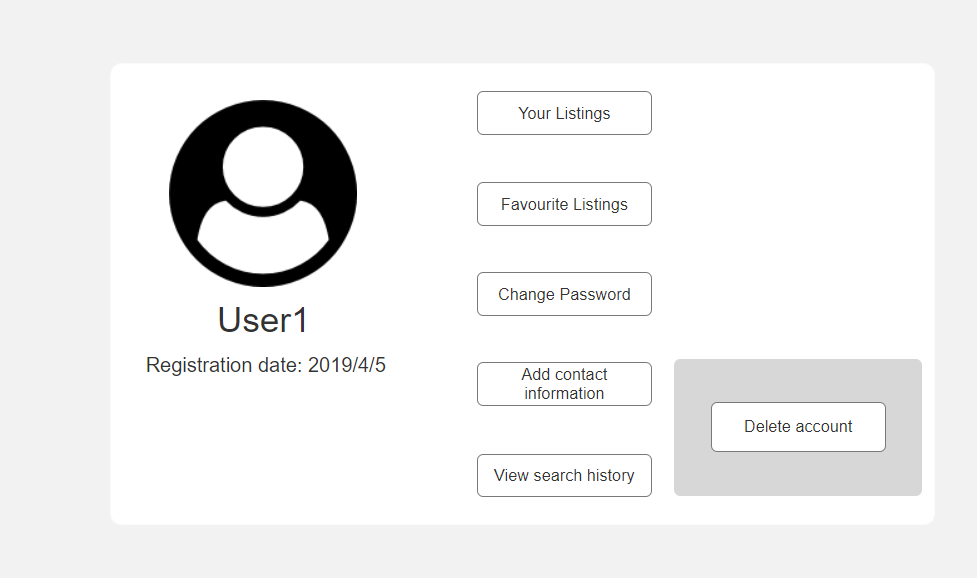
17) **Task:** 4.1.2.2. Add contact information.

**Found by:** DP, SS, EK, MP.

**Violated principle:** *Freedom of user control*

There’s no way to edit or delete personal information. Better way would be to add a different page for personal information where it can be easily accessed and edited if needed.

**Picture:**



Picture 28- User account

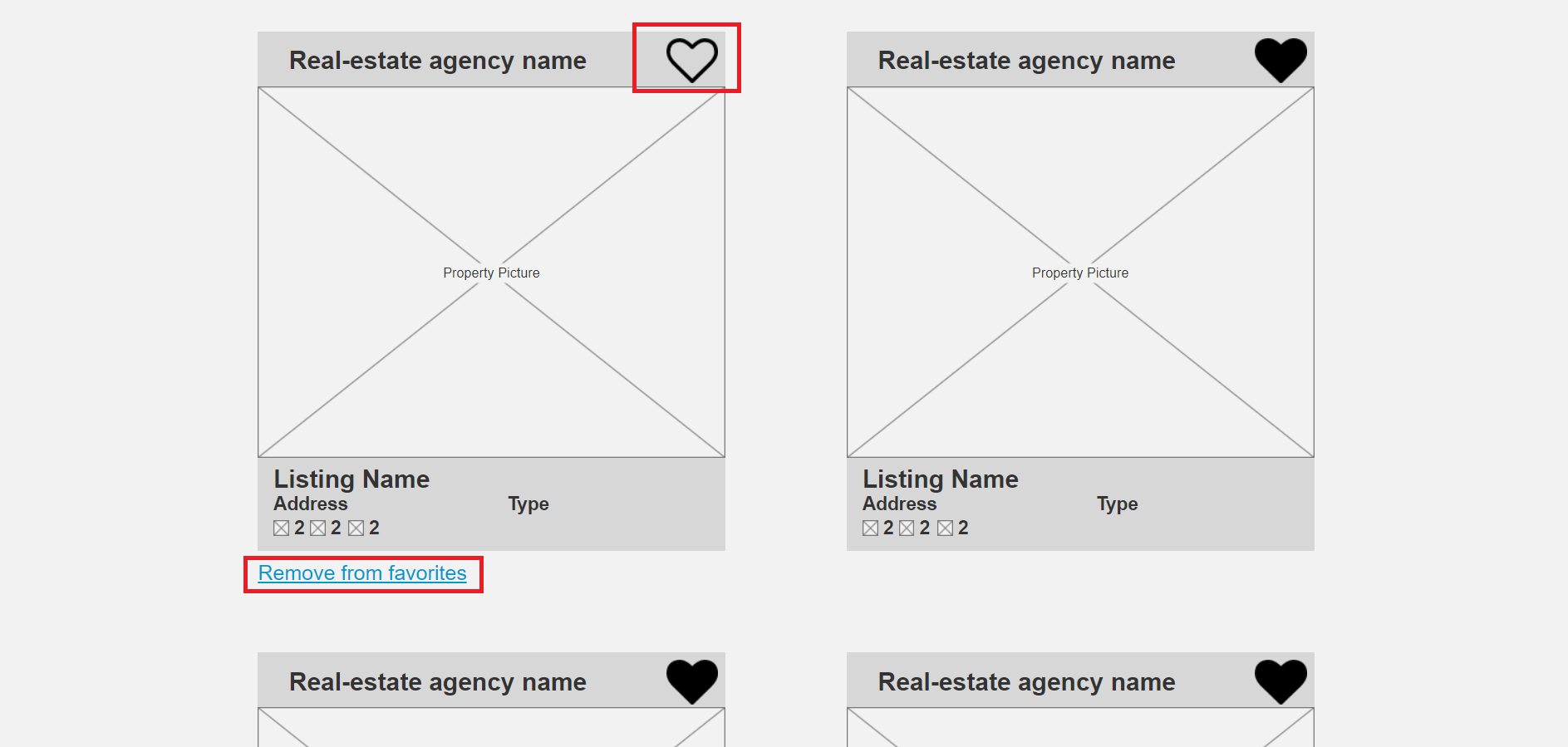
18) **Task:** 4.1.4.1. Delete listing from favorites.

**Found by:** DP, SS, EK, MP.

**Violated principle:** *Recognition*

After clicking on the heart it should either give a prompt that it asks a user to confirm an action. Did not see that the confirmation appeared just below an actual listing.

**Picture:**



Picture 29 - Favorite lists buttons

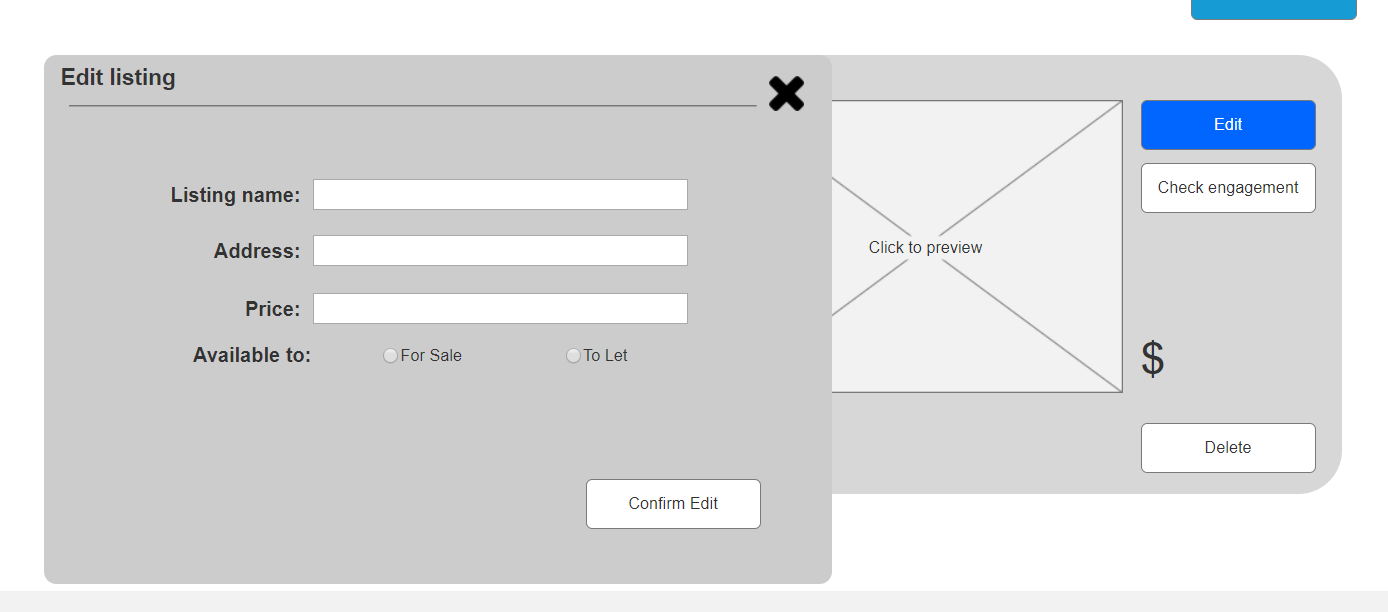
19) **Task:** 4.1.5.2.1. Edit property listing.

**Found by:** SS.

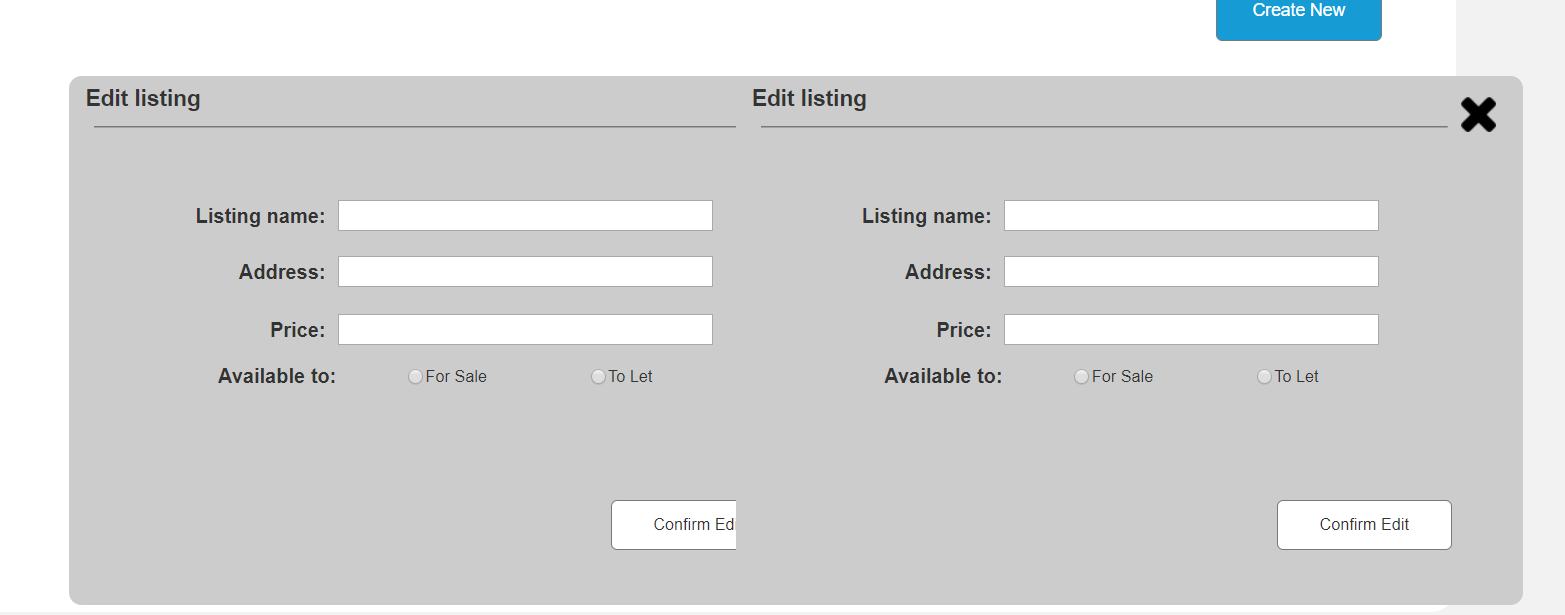
**Violated principle:** *Consistency*

You can open 2 edit windows at once.

**Picture:**



Picture 32 - Edit listing



Picture 33 - Edit two listings

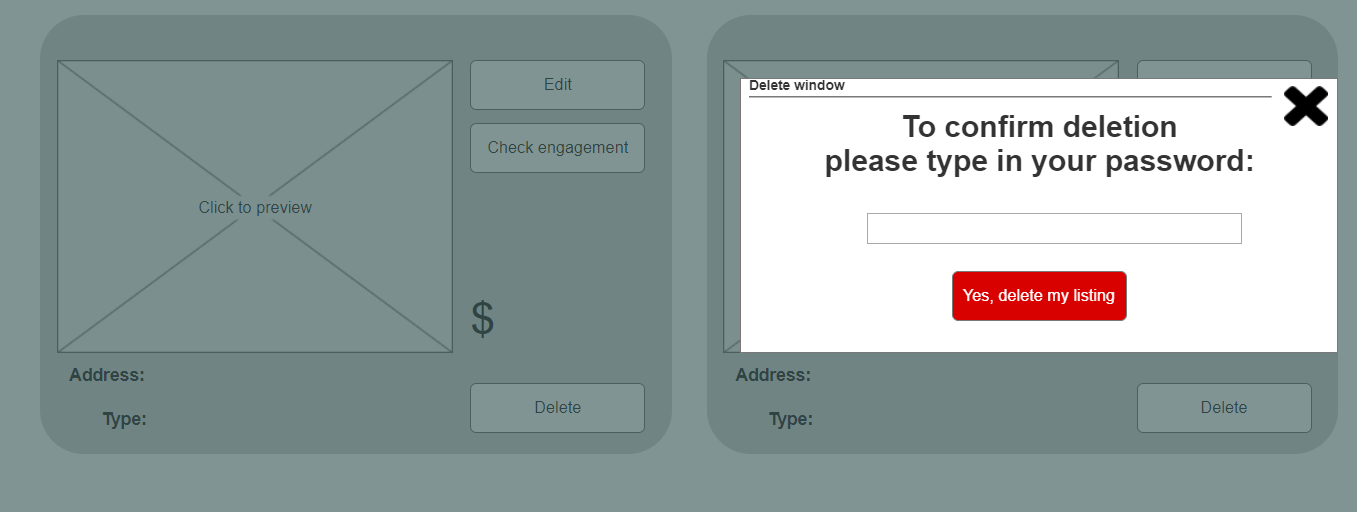
20) **Task:** 4.1.5.2.2. Delete property listing.

**Found by:** DP, SS, EK, MP.

**Violated principle:** *Feedback*

After clicking on “Yes, delete my listing”, nothing happens.

**Picture:**



Picture 34 - Delete listings

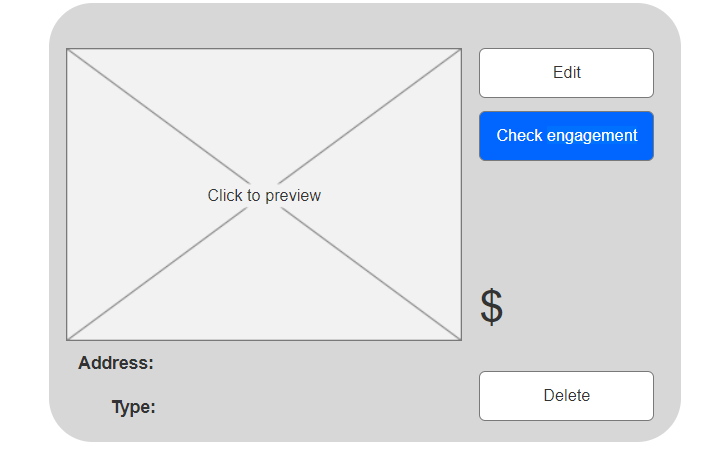
21) **Task:** 4.1.5.2.3. Check user engagement on their property listings..

**Found by:** DP, SS, EK, MP.

**Violated principle:** *Feedback*

Check engagement buttons are not working and no actions are performed.

**Picture:**



Picture 35 - Check engagement

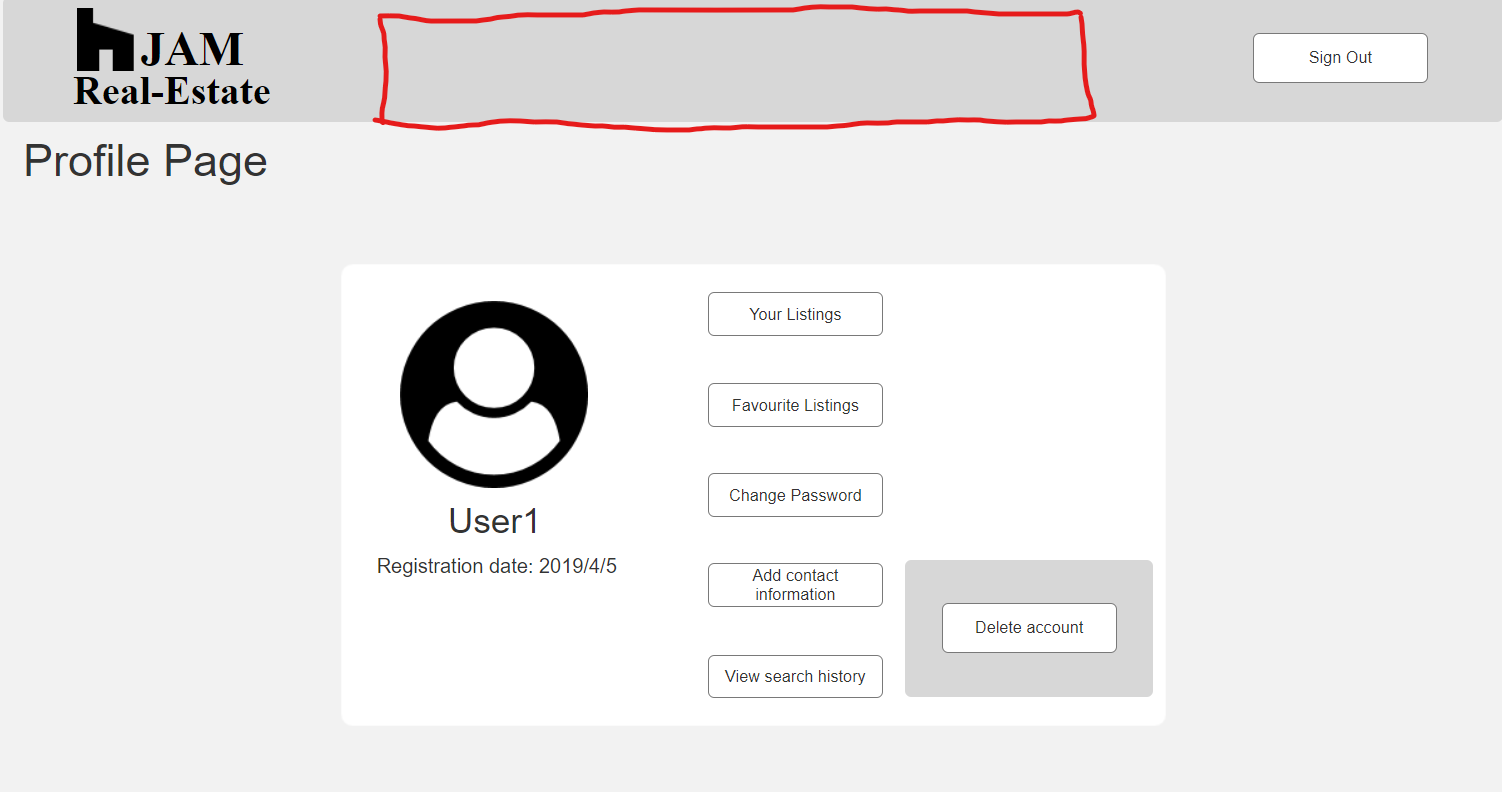
22)

**Found by:** DP, SS, EK, MP.

**Violated principle:** *Visibility*

There’s no way to access recommended listings from the profile page.

**Picture:**



Picture 36 - No header buttons

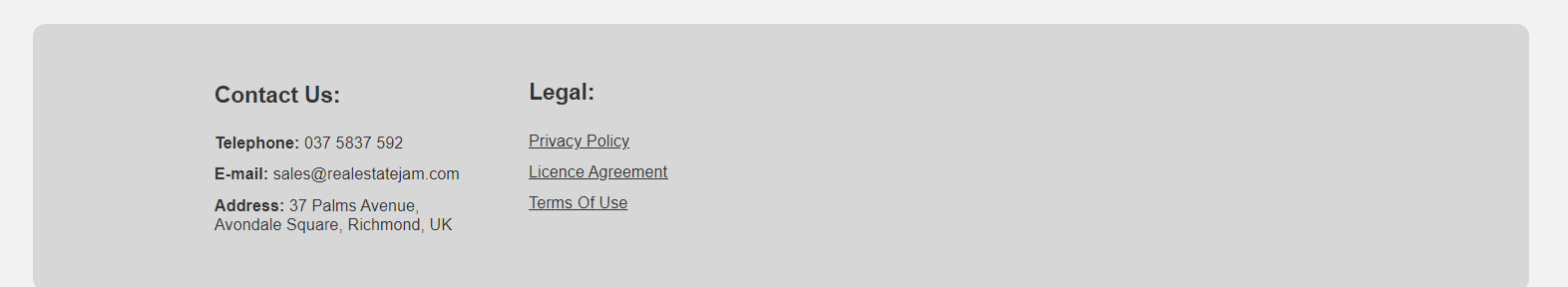
23)

**Found by:** DP, MP.

**Violated principle:** *Visibility*

No information is provided when clicked on any of the legal buttons

**Picture:**



Picture 37 - Footer buttons not working

24)

**Found by:** SS, EK.

**Violated principle:** *Freedom navigation*

It’s hard for user to understand where user is right now. There’s no navigation bar.

**Picture:**

Annotation 2019-04-23 104223

Picture 38 - There's no navigation bar

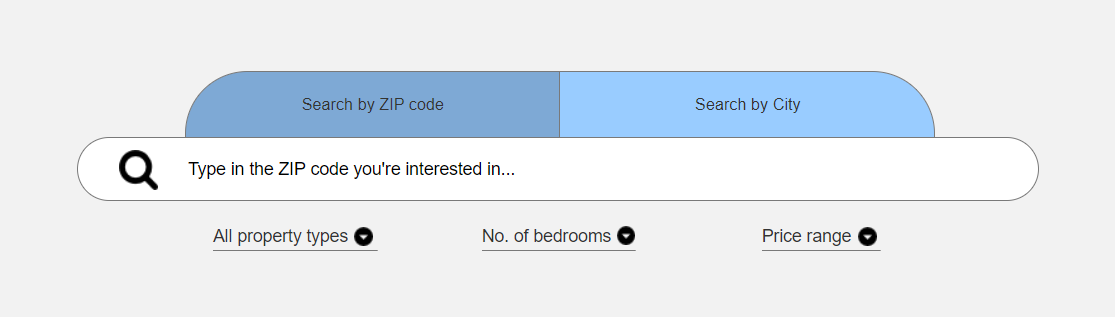
25)

**Found by:** DP, MP, SS, EK.

**Violated principle:** *Help*

There are no hints for the new user how to use the system, so it could get pretty complicated for a user to use the system.

**Picture:**

****

## **6. List of deficiencies found**

Table 3 shows rating of deficiencies found.

Table 3- Evaluation's difficulties meanings

|  |  |
| --- | --- |
| **Difficulty** | **Meaning** |
| 4 | Critical flaw |
| 3 | Serious deficiency |
| 2 | Small deficiency |
| 1 | Cosmetic deficiency |
| 0 | No problem |
| Average | Average estimates |

Fourth table contains list and ranking of deficiencies found.

*Table 4- List and ranking deficiencies*

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **No.** | **Description** | **Found by** | | | | **Difficulty** | | | | **Average** | **Location** |
| DP | MP | SS | EK | DP | MP | SS | EK |
|  | There’s no prompt message for the user showing (un)successful registration.  (1st task) | + | + | + | + | 2 | 1 | 3 | 3 | 2.25 | Sign-up page |
|  | There’s no prompt message for the user showing that the password has been sent to an email address.  (1st task) | + | + | + | + | 2 | 2 | 3 | 2 | 2.25 | Password reset page |
| 1. s | You have to click on the dropdown menus, but they actually don’t stay up, they disappear when I move my cursor of.  (3.1.3 task) | + | + | + | + | 3 | 2 | 2 | 2 | 2.25 | Main page, search page |
|  | Below drop-down menus, and above 'recommended' there are sections like "stay updated", "Expert advice", and "Sell or buy". They look like buttons, but they are actually not, would change the appearance or maybe just add a button to click and bring the user to the exact page which is named in the box.  (3rd task) | + | + | + | + | 3 | 3 | 1 | 2 | 2.25 | Main page |
|  | For the section where all the houses are, below each photo of a flat, it would be nice to make text and price clickable just as the photo. Also these recommended lists are not the same. Also the information shown is different in both of these recommended lists.  (3rd task) | + | + | + | + | 1 | 1 | 1 | 1 | 1 | Recommended page |
|  | This does not show what is supposed to be instead of these small icons.  (3rd task) | + | + | + | + | 2 | 1 | 2 | 1 | 1.5 | Recommended page |
|  | Prices are in dollars and euros.  (3rd task) | + | + | + | + | 1 | 0 | 1 | 0 | 0.5 | Product page |
|  | Buttons are laid out differently on the page where user is logged from the page where user is logged off.  (3rd task) | + |  | + |  | 2 | 1 | 2 | 2 | 1.75 |  |
|  | There are no arrows to scroll through the photos.  (3rd task) | + | + | + |  | 2 | 2 | 1 | 1 | 1.5 | Product page |
|  | There's no prompt that the message has been sent after clicking on 'Contact seller' -> 'Send'  (3rd task) | + | + | + | + | 2 | 3 | 3 | 2 | 2.5 | Product page |
|  | Print button is not clickable and there's no prompt showing the user that anything is happening.  (3rd task) | + | + | + | + | 3 | 3 | 3 | 3 | 3 | Product page |
|  | “Add notes” doesn’t work and does not provide user with any output information.  (3rd task) | + | + | + | + | 3 | 3 | 3 | 3 | 3 | Product page |
|  | I cannot click on the button properly, only on the heart. | + |  |  |  | 2 | 2 | 2 | 2 | 2 | Product page |
|  | Nothing happens after clicking “Yes, remove my account”  (3rd task) |  |  |  | + | 3 | 3 | 3 | 3 | 3 | Profile page |
|  | It doesn’t give any prompt that the password has been changed or that an email has been sent to a personal email.  (3rd task) | + | + | + | + | 3 | 3 | 3 | 3 | 3 | Profile page |
|  | It doesn't give user any prompt that the information has been added.  (3rd task) | + | + | + | + | 3 | 3 | 3 | 3 | 3 | Profile page |
|  | There’s no way to edit or delete personal information. Better way would be to add a different page for personal information where it can be easily accessed and edited if needed.  (3rd task) | + | + | + | + | 3 | 2 | 3 | 2 | 2.5 | Profile page |
|  | After clicking on the heart it should either give a prompt that it asks a user to confirm an action. Did not see that the confirmation appeared just below an actual listing.  (3rd task) | + | + | + | + | 2 | 1 | 2 | 2 | 1.75 | Favorites page |
|  | You can open 2 edit windows at once.  (3rd task) |  |  | + |  | 2 | 3 | 2 | 2 | 2.25 | User's listings page |
|  | After clicking on “Yes, delete my listing”, nothing happens.  (3rd task) | + | + | + | + | 2 | 3 | 3 | 3 | 2.75 | User's listings page |
|  | Check engagement buttons are not working and no actions are performed.  (3rd task) | + | + | + | + | 3 | 1 | 2 | 2 | 2 | User's listings page |
|  | There’s no way to access recommended listings from the profile page.  (3rd task) | + | + | + | + | 0 | 0 | 1 | 1 | 0.5 | Profile page |
|  | No information is provided when clicked on any of the legal buttons.  (3rd task) | + | + |  |  | 0 | 0 | 0 | 0 | 0 | Main page |
|  | It’s hard for user to understand where user is right now. There’s no navigation bar.  (3rd task) |  |  | + | + | 2 | 1 | 1 | 1 | 1.25 | Main page |
|  | There are no hints for the new user how to use the system, so it could get pretty complicated for a user to use the system. (3rd task) | + |  | + | + | 2 | 2 | 2 | 2 | 2 | Main page |

## **7. Conclusion**

Main issues with the interface were visibility, consistency, mapping and user control and freedom. As well as there were some critical flaws that found to be braking the system.

The majority of the problems were small deficiency category with 48%. Other 32% each were critical and serious deficiencies, and rest 16% were categorized as cosmetic deficiencies.

The most impactful deficiency was the non working buttons, which breaks the user control and freedom principle.