SRS – Group 2 – ESE 2014

Software requirements specification document

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1 Introduction

1.1 Stakeholders
The stakeholders of this project are as follows:

- For team two in particular: Andrea Caracciolo
- Ese- 2014 Staff

1.2 Purpose
The purpose of this project is to create a website, where users can search for rooms, which improves the capabilities of existing websites of this type.

1.3 Definitions
The names of the pages in the usecases are working titles and do not reflect the names used in the software.

User: Someone who uses the website for its intended purpose (and not as part of the development process).

Registered User: Extended case of a User; has already registered on the website and is logged in. He is able to do all the things a user can, but has access to services only available to registered users.

Advertiser: A registered user who wants, is in the process or has placed ads on the website.

Searcher: A user who wants , is in the process or has searched for ads on the website.

Ad: The specific site on the website where an advertiser can publish information about a room which is for rent.

1.4 System overview
This software system is bound to be a website, which helps users find a suitable room in a housing commune. The system should be able to assist the users to find their optimal match, by offering them various options to filter their searches. Furthermore the website should offer the registered users a way to communicate and make appointments with each other.

1.5 References
The project should mainly iterate and improve upon existing software systems with similar purpose. Therefore it is necessary to get an overview of existing systems, to be able to fully understand the purpose of this project.

Other housing commune sites:

- www.wgzimmer.ch
- www.students.ch/wohnen/
- www.tutti.ch/ganze-schweiz/immobilien/wg-zimmer
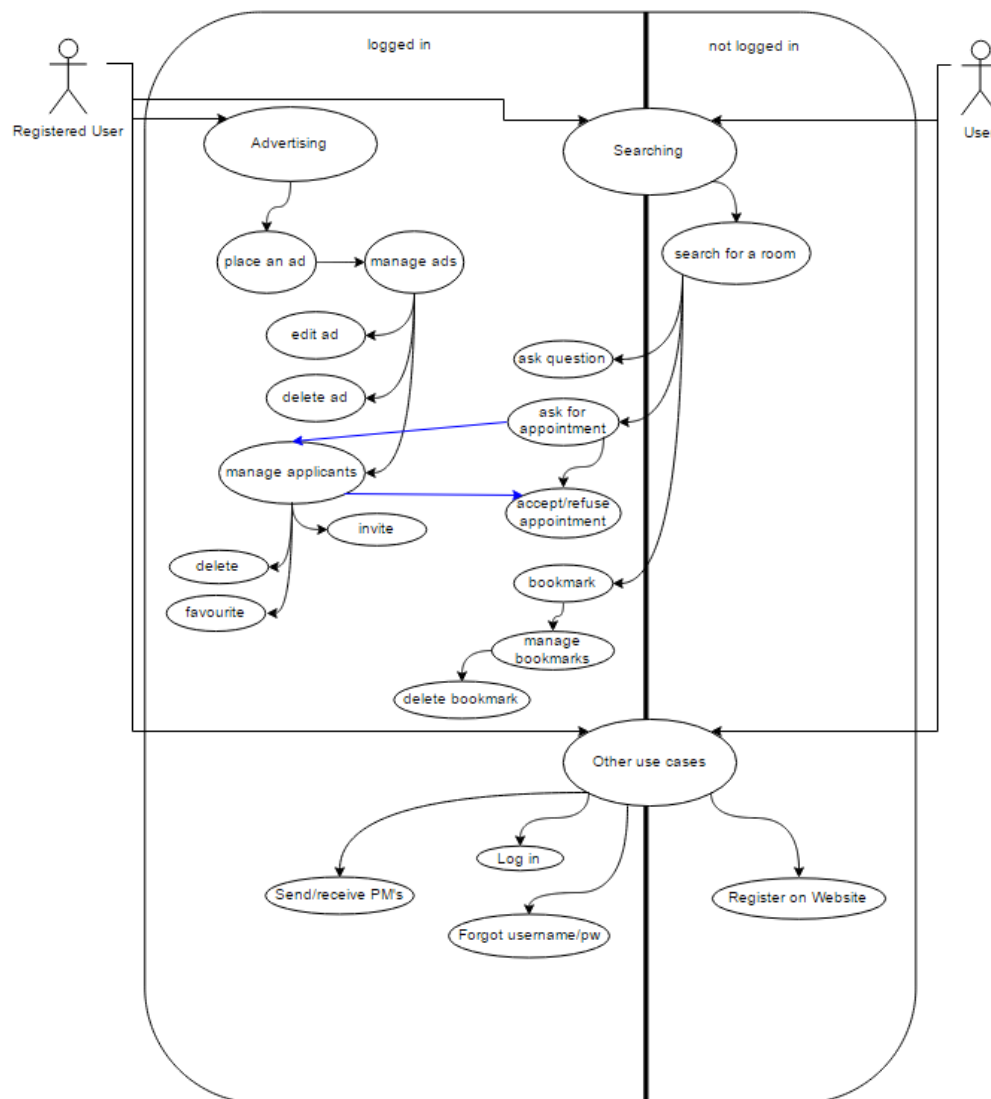
Similar real estate websites:
- www.immoscout24.ch
- www.homegate.ch

Furthermore the project description of the ese-2014 staff:
- https://github.com/ese-unibe-ch/ese2014-wiki/wiki/Task-FirstApp

2 Use Cases

2.1 Overview Diagram

2.2 General Preconditions

- Any user has access to the internet, and the capabilities (hardware, software,mental) to use the website.

2.3 Actor characteristics

Any actor is expected to be able to understand German, be Internet literate, be able to register on a website and is capable of managing his e-mails.

The website administrators are expected to be Internet literate, be able to manage a user database, be capable of reading emails with attachments and use an internet search-engine, like Google.

2.4 Advertiser use cases

2.4.1 Place an ad

Actors
Registered user

Description
User wants to place an ad.

Trigger
User reaches the "place new ad page" (eg. by clicking on a button)

Preconditions
None

Postconditions
- A new add is added to the system and can be searched for.
- The user is able to edit/ delete the ad.

Main Scenario
1. The user fills out the form with valid information about the room.
    - Basic information (Size, Price, Location)
    - Pictures
    - Written information about Room/Flat, Inhabitants
    - Binary information (e.g. checkboxes)
2. The user submits the ad.
3. The system saves the ad.
4. The user receives a confirmation.

Alternative Scenarios
- The user is not providing valid information:
   a. The system informs user about the fact that information is missing.
   b. The user is prompted to correct the form.
   c. [See main scenario 1. ff.]

Special Requirements
None

Notes
None

2.4.2 Manage Ads

Actors
Registered user

Description
User wants to manage his ads.

Trigger
User reaches the "my ads" page.

Preconditions

Postconditions
- User has a overview of his ads.
- User can select Manage-Options(eg. edit/delete/manage applicants) for each ad.

Main Scenario
1. System prompts the user with an overview (list) over all his ads.
2. For each ad the system gives the user Manage-Options for the ad.

Alternative Scenarios
- The user has no ads:
   a. The system informs the user that he has no ads.

Special Requirements
None

Notes
None

2.4.3 Edit ad

Actors
Registered user

Description
User wants to edit one of his ads.

Trigger
Select the "edit ad" option for one of his ads.

Preconditions
- The user has already put up an ad on the website.
- The user has completed the manage ads use-case.

Postconditions
- The edited ad is saved and updated in the system (changes are visible for Searcher).

Main Scenario
1. The system redirects the user to the edit page for the ad.
2. The user adjusts the ad the way he wants and submits it.
3. The system saves the ad.
4. The user receives a confirmation.

Alternative Scenarios
- Cancel the editing of the ad:
    a. The user doesn't want to save the changes he made. So he selects the abort-option

Special Requirements
None

Notes
The "edit ad" page will probably be similar to the "place ad" page

2.4.4 Delete ad

Actors
Registered user

Description
User wants to delete one of his ads.

Trigger
Select the "delete ad" option.

Preconditions
- The user has already put up an ad on the website.
- The user has completed the manage ads use-case.

Postconditions
- The ad is deleted and not shown anymore (can not be searched for anymore).

Main Scenario
1. The system will delete the ad.
2. User receives a confirmation.

Alternative Scenarios
None

Special Requirements
None

Notes
None

2.4.5 Manage applicants

Actors
Registered user

Description
User wants to manage all the applicants for one of his ads.

Trigger
Select the "manage applicants" option.

Preconditions
- The user has already put up an ad on the website.
- The user has completed the manage ads use-case.

Postconditions
- User has an overview of the applicants and was able (if he wants) to ad some of them to his favorites.

Main Scenario
1. The system prompts the user with a list of all his applicants.
2. The user can, read the messages (associated with each applicant), delete applicants, add them to his favorites and send invitations.

Alternative Scenarios
- There are no applicants for this ad:

a. The system informs the user about this fact.
- Send invitation:
    a. Chose to send out an invitation to some of the applicants to visit the flat/room.
- Favourite:
    a. The user can choose to favourite an applicant.

Special Requirements
None

Notes
None

2.4.6 Invite applicants

Actors
Registered user

Description
User wants to invite a number of applicants to visit the flat/room.

Trigger
User is on the "manage applicants" page and wants to send out an invitation.

Preconditions
- The user has completed the manage ads use-case and selected the "manage applicants" option.

Postconditions
- The user has sent out an invitation to a number of applicants, which informs them about the details of the appointment.
- The applicants can accept or refuse the invitation.
- The user can see which applicant accepted or refused.

Main Scenario
1. System shows the user a list of his applicants.
2. User selects the applicants he wants to invite.
3. User specifies the appointment:
    - date, start/end time
    - additional information (ev. in text form)
4. User chooses to send out the invites
5. System sends out the invites to all the selected applicants.

Alternative Scenarios
None.

Special Requirements
None

Notes
None

2.5 Searcher use cases

2.5.1 Search for a room

Actors
User

Description
User wants to be able to search for a room using filters to narrow down the search.

Trigger
User reaches the "search for room" page.

Preconditions
None

Postconditions
● User gets presented with a list of ads.

Main Scenario
1. The user can check, and fill out various filters, for example:
   ○ price range
   ○ location
   ○ room size
2. The user selects the "apply filters" option.
3. The user is presented by a list of ads, which he can select to see the detailed description.

Alternative Scenarios
● No ads that match the users given filter:
   a. The results page will be empty and state, that there were no matching ads.

Special Requirements
None

Notes
The filters are subject to change.

2.5.2 Ask question to an ad

<u>Actors</u>
Registered user

<u>Description</u>
User wants to be able to ask questions concerning an ad.

<u>Trigger</u>
User chooses the "ask question to ad" option.

<u>Preconditions</u>
- The user is on the "ad" page of the ad he wants to ask a question about.

<u>Postconditions</u>
- The users question is sent to the owner of the ad.
- If the question is answered he will be able to see the answer.

<u>Main Scenario</u>
1. The user is prompted to formulate his question.
2. The user choses to send the question.
3. The system notifies the ad owner of the ad that there is a new question.
4. The user will receive the answer from the owner of the ad in his inbox.

<u>Alternative Scenarios</u>
- The ad owner doesn't answer the question:
    a. The use case stops at point three of the main scenario.

<u>Special Requirements</u>
None

<u>Notes</u>
None

2.5.3 Bookmark ads

<u>Actors</u>
Registered user

<u>Description</u>
A User wants to bookmark ads in order to easily find them again.

<u>Trigger</u>
User chooses the "bookmark" option.

Preconditions
- The user is on the ad page of the ad he wants to bookmark.

Postconditions
- System added the ad to his bookmarks.

Main Scenario
1. The System adds the ad to the user bookmarks.
2. The user gets a confirmation.

Alternative Scenarios
- The ad is already bookmarked:
    a. When the user selects the " bookmark" option, the system removes the bookmark instead.

Special Requirements
None

Notes
None

2.5.4 Manage bookmarks

Actors
Registered user

Description
User wants to get an overview over his bookmarks and manage them.

Trigger
User reaches the "my bookmarks" page.

Preconditions
None

Postconditions
- User gets an overview (list) of his bookmarks.
- User was able to choose to delete a bookmark or go to the bookmarked "ad" page.

Main Scenario
1. The system presents the user with a list of all his bookmarks.

Alternative Scenarios
- The user has no bookmarks:

a. The system informs the user about this fact.
- The user wants to delete a bookmark:
  a. User chooses the "delete bookmark" option for a certain bookmark.
  b. The system removes the bookmark.
  c. User gets confirmation.
- User wants to see the "ad" page of a bookmarked ad:
  a. User chooses the "go to ad page" option.
  b. The system redirects the user to the ad page.

Special Requirements
None

Notes
The "delete bookmark" and "go to ad page" options can be presented to the user in several ways. Maybe as an "trash" and "forward" icon next to each bookmark.

2.5.5 Asking for an appointment

Actors
Registered user

Description
User is interested and wants to ask the advertiser for an appointment to come and see the flat/room.

Trigger
User chooses the "I am interested" option.

Preconditions
- The user is on the "ad" page of the ad he wants to ask about an appointment.

Postconditions
- The advertiser receives a message stating, that the user wishes to see the room.

Main Scenario
1. The system prompts the user to write down his motivation for wanting to see the room.
2. User fills out the form.
3. User submits the form.
4. System sends the message.
5. User receives confirmation.

Alternative Scenarios
None

Special Requirements

None

Notes

None

2.5.6 Accept or refuse an appointment

Actors

Registered user

Description

After receiving an invitation the user should be able to accept or refuse the invitation.

Trigger

User receives an invitation from the advertiser.

Preconditions
- User has completed the "ask for an appointment" use case.
- Advertiser has chosen this user in the "Invite applicants" use case and sent out the invitations.

Postconditions
- The advertiser gets informed if the user accepted or refused.

Main Scenario
1. System informs the user, that he has an invoice.
2. User navigates to the invitation and opens it.
3. User selects if he wants to accept or refuse the invitation.
4. User submits the form.
5. System saves his answers.
6. User gets confirmation.

Alternative Scenarios

None

Special Requirements

None

Notes

None

2.6 Other use cases

2.6.1 Register on the website

Actors
User

Description
User wants to register on the website.

Trigger
User reaches the "register" page on the website.

Preconditions
- The user owns a valid e-mail account.

Postconditions
- The user is now registered on the website.
- The user is able to login into the website.
- The user receives a confirmation.

Main Scenario
1. The system prompts the user to put in registration information such as:
    - E-Mail address
    - Password
2. The user submits the form.
3. The system saves the information (registers the user).
4. User gets confirmation.

Alternative Scenarios
- The user is not providing valid information:
    a. System informs the user about the missing/invalid information.
    b. User returns to point one of the mail scenario.

Special Requirements
None

Notes
None

2.6.2 login on the website

Actors
Registered user (not already logged in)

Description
User wants to log into the website in order to get access to the service only available to registered users.

Trigger
User reaches the "login" page.

Preconditions
- The user remembers his login credentials.

Postconditions
- The user is logged in to the website.
- User has access to the service only available to registered users.

Main Scenario
1. System prompts the user to enter his login credentials.
2. User submits the form.
3. System changes the users status to logged in.
4. User receives a confirmation.

Alternative Scenarios
- The user is not entering a valid login credentials:
  a. System informs the user, that the login credentials are not valid.
  b. User is prompted to start again point one of the main scenario.
- The user has forgotten his login credentials:
  a. User should have written it down.

Special Requirements
None

Notes
None

3 Specific requirements

3.1 Functional requirements
The users of the application should be able to:

- Create an account and log into their account.
  - An account is required for all actions except searching the ads.
  - Creating an account is easy and fast
- Create ads for rooms
  - apply attributes to the add (some of which can be used to filter the ads)

- Search the ads using filters
  - bookmark ads
  - manage/view their bookmarks
- Communicate with other users
  - manage their sent and received messages
  - make appointments with other users
  - can ask questions concerning an ad

3.2 Non-functional requirements
- The user interface of the system should be designed in a way to make the systems functions accessible to most users without prior learning or training.
- The user interface should be intuitive and easy to use.
- The application should run stable on major browsers (chrome, mozilla).
- The performance is good enough to make the response time acceptable to the user.
- The users data is kept as securely as necessary. Especially the password is stored securely (salted and hashed).
- The language of the frontend is German.