

University of Bern

# SRS - Team 4 ESE 2016

Software Requirements Specification Document

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**Version:** 6

**Date:** 07.12.2016

## [Contents](#)

## I.Revision History

Version	Date	Description
01	08.10.2016	Document initialized and structured.
02	18.10.2016	Added new Use Case
03	25.10.2016	Added different sell and propertytypes
04	08.11.2016	Release 2.0 Version
05	22.11.2016	Adapted SRS to newest changes for sell and propertytypes (especially the auction)
06	07.12.2016	

# 1. Introduction

## 1.1. Purpose

The purpose of this project is to create a website for users to search for properties and roommates. This SRS should give a detailed overview of all aspects of the whole project. It is intended to clarify and capture the requirements of the customer and to work as a contract between the customer and the ese-team 4.

## 1.2. Stakeholders

The stakeholders of this projects are the ESE 2016 staff, for team 4 especially „Manuel Leuenberger “.

## 1.3. Definitions

**Ad:** A specific site on the website where the advertiser can publish detailed information about a property which is for rent/sale/auction. The ad can be seen from any user.

**Advertiser:** A registered user that already has placed (or wants to place) one or multiple ad on the website

**Normal User:** Free user with delayed alerts

**Premium User:** Paid user, who's ads are shown first on the search and the front page, and has no delay on the alerts

**Property:** A property is either a room, flat, house or studio.

**Registered User:** A person that is already registered on the website; this person uses the website for its intended purpose.

**Searcher:** Any user who is looking for ads on the website

**Selltypes:** different selltypes of an ad (auction, buy, rent)

**Unregistered User:** A person that uses the website for its intended purpose but is not yet registered.

## 1.4. System Overview

The software system is a website which helps users to find a property or a person to share an apartment with. The system should assist a user to find the optimal ad by matching various criteria of the user's preferences and the ads specifications. Furthermore, the system should provide the users a way to communicate with advertiser to arrange appointments.

## 1.5. References

## 1.6. Overview

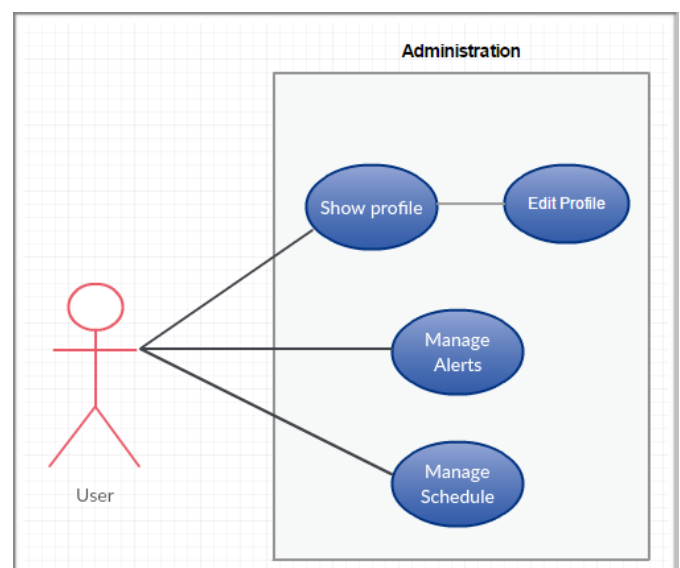
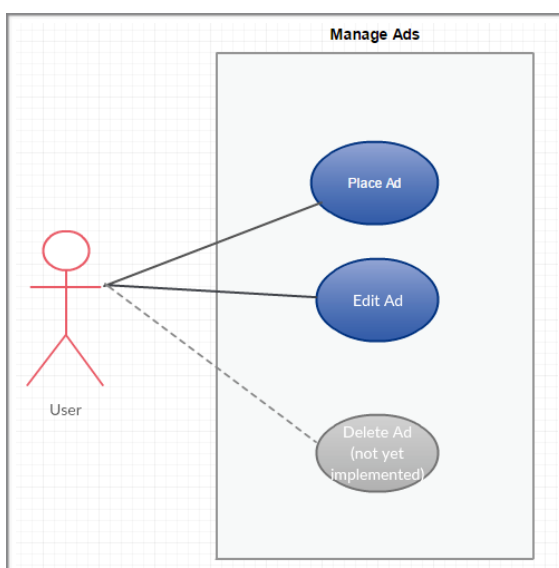
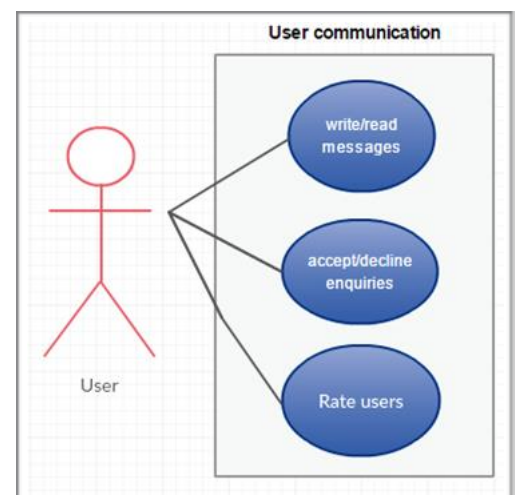
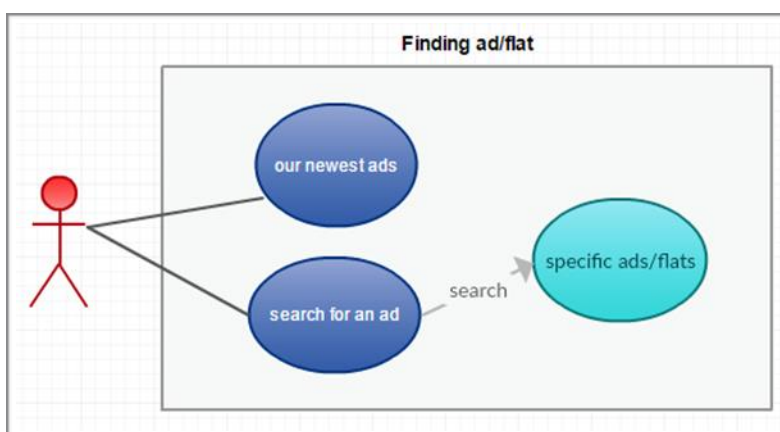
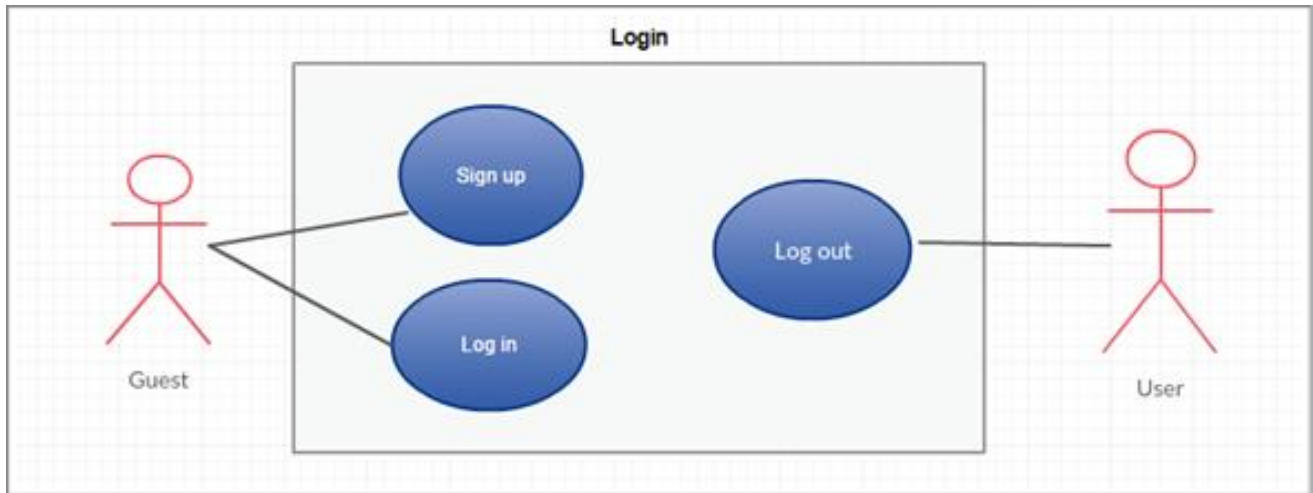
The rest of the SRS contains the overall description in section 2 as well as the specific requirements in section 3.

Section 2 is most important to the customers and potential users since it describes the system from the user perspective. This is mostly done by describing different use cases and typical user scenarios.

Section 3 is most important to the developers since this section describes the functionality of the system. That means, this section covers all aspects that are needed to fulfil the scenarios described in section 2. Furthermore, all additional requirements are specified in this section.

## 2. Overall Description

### 2.1. Overview Diagrams



## 2.2. Advertiser Use Cases

### 1. Place an ad

Actor	Registered User
Description	As a registered user I want to be able to place an ad
Trigger	
Precondition	<ol style="list-style-type: none"><li>1. User has access to the internet</li><li>2. The user owns an account on the website</li><li>3. The user knows his e-mail address and password to be able to log in</li><li>4. The user is logged in</li></ol>
Basic Flow	<ol style="list-style-type: none"><li>1. The user navigates to the „place an ad“ page</li><li>2. The user fills in the form</li><li>3. The user submits the ad</li><li>4. The ad will be placed on the „My advertisements“ list</li></ol>
Alternative Flow	<ol style="list-style-type: none"><li>1. The user provides invalid information<ul style="list-style-type: none"><li>• The user will have to fill in the form again</li></ul></li><li>2. The user loses access to the internet while filling in the form<ul style="list-style-type: none"><li>• The user has to start from beginning</li></ul></li></ol>
Specific Requirements	none
Notes	There are 3 different selltypes and 4 different propertytypes

## 2. Edit ad

Actor	Registered User
Description	As a registered user I want to be able to edit my ads
Trigger	
Precondition	<ol style="list-style-type: none"><li>1. User has access to the internet</li><li>2. The user owns an account on the website</li><li>3. The user knows his e-mail address and password to be able to log in</li><li>4. The user is logged in</li><li>5. The user has already placed an ad</li></ol>
Basic Flow	<ol style="list-style-type: none"><li>1. The user moves to the „My properties“ site</li><li>2. The user gets an abstract of all his ads</li><li>3. The user selects the ad he wants to edit</li><li>4. The user clicks on the „Edit ad“ shortcut</li><li>5. The system redirects the user to the „Edit ad“ site</li><li>6. The user changes the information he wants to change</li><li>7. The user submits the changes</li><li>8. The system saves the adjusted ad</li></ol>
Alternative Flow	<ol style="list-style-type: none"><li>1. The user loses access to the internet as he adjusts the ad<ol style="list-style-type: none"><li>a. The user has to start from beginning</li></ol></li></ol>
Specific Requirements	none
Notes	none



### 3. Delete ad (not yet implemented)

Actor	Registered User
Description	As a registered user I want to be able to delete my ads
Trigger	
Precondition	<ol style="list-style-type: none"><li>1. User has access to the internet</li><li>2. The user owns an account on the website</li><li>3. The user knows his e-mail address and password to be able to log in</li><li>4. The user is logged in</li><li>5. The user has already placed an ad</li></ol>
Basic Flow	
Alternative Flow	
Specific Requirements	
Notes	Being able to delete an ad was not demanded by the customer

## 4. Manage enquiries

Actor	Registered User
Description	As a registered user who placed at least one ad I want to be able to see an overview of all my enquiries, as well as being able to accept or decline them.
Trigger	
Precondition	<ol style="list-style-type: none"><li>1. User has access to the Internet</li><li>2. The user owns an account on the website</li><li>3. The user knows his e-mail address and password to be able to log in</li><li>4. The user is logged in</li><li>5. The user has already placed an ad</li><li>6. To be able to manage them, the user needs to have at least one enquiry</li></ol>
Basic Flow	<ol style="list-style-type: none"><li>1. The user moves to the „Enquiries“ site</li><li>2. The user gets an overview of all his enquiries</li><li>3. The user either accepts or declines the new enquiries</li></ol>
Alternative Flow	<ol style="list-style-type: none"><li>1. The user neither accepts nor declines an enquiry before its scheduled date<ol style="list-style-type: none"><li>a. Nothing happens</li></ol></li></ol>
Specific Requirements	none
Notes	What should happen if the advertiser doesn't accept or decline an enquiry before it's due?

## 5. Manage schedule

Actor	Registered User
Description	As a registered user I want to see a schedule of all my presentations (visitors of my flat) and all the visits I've realized in the past. The schedule must provide an overview that contains the address of the concerning flat, the date and time of the visit and a link to the ad-website. In the schedule of my presentations I want an additional link to see a list of all the visitors of a flat.
Trigger	
Precondition	<ol style="list-style-type: none"><li>1. The user has access to the internet</li><li>2. The user has an account on the website</li><li>3. The user is logged in</li></ol>
Basic Flow	<ol style="list-style-type: none"><li>1. User moves to the schedule page</li><li>2. The user gets an overview of the scheduled presentations as well as of the scheduled visits of the past.</li></ol>
Alternative Flow	
Specific Requirements	none
Notes	Are visits shown only from the past, or from the future as well?

## 6. Compile a list of the most promising candidates

Actor	Registered User
Description	As a registered user I want to create a visitable list of the most promising properties to get a better overview. Therefore, I want the possibility to bookmark the ad I'm visiting to add it to this list.
Trigger	
Precondition	<ol style="list-style-type: none"><li>1. User has access to the Internet</li><li>2. The user owns an account on the website</li><li>3. The user is logged in</li></ol>
Basic Flow	<ol style="list-style-type: none"><li>1. The user searches a promising ad on the Home page or through the Search page by filling in the form</li><li>2. On the ads site the user can bookmark the ad with the bookmark button on the top right if it is not his own.</li></ol>
Alternative Flow	
Specific Requirements	
Notes	The list is found on the My room page and the bookmarks can be reversed with the same button as they were added.

## 7. Edit Profile

Actor	Registered user
Description	After creating a profile, I want to be able to edit it
Trigger	
Precondition	<ol style="list-style-type: none"><li>1. The user has access to the internet</li><li>2. The user has an account on the website</li><li>3. The user is logged in</li></ol>
Basic Flow	<ol style="list-style-type: none"><li>1. The user opens his public profile and clicks on „Edit Profile“</li><li>2. The user gets all the information regarding his profile and is able to edit everything</li></ol>
Alternative Flow	<ol style="list-style-type: none"><li>1. The user deletes crucial information from his profile, such as his Username or First name<ul style="list-style-type: none"><li>• An error occurs and the changes won't be saved</li></ul></li></ol>
Specific Requirements	
Notes	

## 8. Sell properties directly in an ad (new)

Actor	Registered User
Description	As a registered user I want to sell properties directly in an ad.
Trigger	
Precondition	<ol style="list-style-type: none"><li>1. The user has access to the internet</li><li>2. The user has an account on the website</li><li>3. The user is logged in</li></ol>
Basic Flow	<ol style="list-style-type: none"><li>1. The user moves to the "Place an ad" page</li><li>2. The user fills out the presented form and specifies a buy-out price</li><li>3. The user submits the ad</li><li>4. The ad will be placed on the „My advertisements“ list on the My rooms page</li></ol>
Alternative Flow	
Specific Requirements	
Notes	The form gets automatically adapted for direct sales.

## 9. Sell properties through an auction in an ad (new)

Actor	Registered User
Description	As a registered user I want to sell properties as an auction in an ad.
Trigger	
Precondition	<ol style="list-style-type: none"><li>1. The user has access to the internet</li><li>2. The user has an account on the website</li><li>3. The user is logged in</li></ol>
Basic Flow	<ol style="list-style-type: none"><li>1. The user moves to the "Place an ad" page</li><li>2. The user fills out the presented form and specifies an auction duration and a starting price with the option for an additional buyout price.</li><li>3. The user submits the ad</li><li>4. The ad will be placed on the „My advertisements“ list on the My rooms page</li></ol>
Alternative Flow	
Specific Requirements	
Notes	The form gets automatically adapted for auctions.

## 2.3. Searcher Use Cases

### 10. Contact advertiser

Actor	Registered User
Description	A registered user should be able to contact an advertiser to ask for more information about the ad or to enquire a meeting.
Trigger	
Precondition	<ol style="list-style-type: none"><li>1. The user has access to the internet</li><li>2. The user has an account on the website</li><li>3. The user is logged in</li></ol>
Basic Flow	<ol style="list-style-type: none"><li>1. The user searches a promising ad on the Home page or through the Search page by filling in the form</li><li>2. On the ads site the user can contact the advertiser on the bottom of the ad's page in the Advertiser frame</li></ol>
Alternative Flow	
Specific Requirements	
Notes	



## 11. Send an enquiry

Actor	Registered User
Description	As a registered user I want to enquire a meeting with the advertiser of an ad I'm interested in.
Trigger	
Precondition	<ol style="list-style-type: none"><li>1. The user has access to the internet</li><li>2. The user has an account on the website</li><li>3. The user is logged in</li></ol>
Basic Flow	<ol style="list-style-type: none"><li>1. The user searches a promising ad on the Home page or through the Search page by filling in the form</li><li>2. On the ads site the user can send a timely fixed enquiry to the advertiser by clicking on the "Send enquiry to advertiser" button in the Visiting times frame.</li></ol>
Alternative Flow	<ol style="list-style-type: none"><li>1. The user searches a promising ad on the Home page or through the Search page by filling in the form</li><li>2. On the ads site the user can contact the advertiser on the bottom of the ad's page in the Advertiser frame to enquire an meeting.</li></ol>
Specific Requirements	
Notes	

## 12. Bookmark an ad

Actor	Registered User
Description	A registered user can bookmark an ad to find it later
Trigger	
Precondition	<ol style="list-style-type: none"><li>1. User is logged in</li><li>2. The ad was not already bookmarked</li><li>3. The ad doesn't belong to the user</li></ol>
Basic Flow	<ol style="list-style-type: none"><li>1. The logged in user opens an ad</li><li>2. On the top right he clicks on the button "Bookmark Ad"</li><li>3. He can find all his bookmarked ads on My Properties &gt; My Bookmarks</li></ol>
Alternative Flow	<ol style="list-style-type: none"><li>1. The ad was already bookmarked</li><li>2. The user clicks on the button "Bookmarked"</li><li>3. The ad gets removed from "My Bookmarks"</li></ol>
Specific Requirements	
Notes	Included in Compile a list of the most promising candidates?

### 13. Subscribe to alerts

Actor	Registered User
Description	As a registered user I want to subscribe alerts for specific search filter criteria. So I will receive alerts if a new ad fulfills my search criteria.
Trigger	
Precondition	<ol style="list-style-type: none"><li>1. The user has access to the internet</li><li>2. The user has an account on the website</li><li>3. The user is logged in</li></ol>
Basic Flow	<ol style="list-style-type: none"><li>1. The user moves to the "Alerts" page</li><li>2. The users fills in the search form and clicks on the Subscribe button below the search form</li><li>3. If a new ad gets placed that matches his criteria, he gets a message.</li></ol>
Alternative Flow	
Specific Requirements	
Notes	The active alerts are shown on the alerts page. If he's a premium user, the alert gets send immediately. If he's a normal, it gets delayed by an hour.

## 14. Expanded Search Form (new)

Actor	Anyone
Description	Added new search criteria.
Trigger	Click the search button on the search page
Precondition	1. The user has access to the internet
Basic Flow	<ol style="list-style-type: none"><li>1. The user opens the search menu and fills out all the required search criteria</li><li>2. After confirmation the results are displayed, with the option to search again</li></ol>
Alternative Flow	<ol style="list-style-type: none"><li>1. Some information was left blank<ul style="list-style-type: none"><li>• An error occurs with the request to fill out the missing elements</li></ul></li></ol>
Specific Requirements	-
Notes	-

## 15. Fast Search

Actor	Anyone
Description	You can search for an directly from the home page
Trigger	Click the search button on the homepage
Precondition	-
Basic Flow	<ol style="list-style-type: none"><li>1. The user fills out all the required search criteria</li><li>2. After confirmation the results are displayed on the same page as a regular search would refer to</li></ol>
Alternative Flow	<ol style="list-style-type: none"><li>2. Some information was left blank<ul style="list-style-type: none"><li>• An error occurs with the request to fill out the missing elements</li></ul></li></ol>
Specific Requirements	-
Notes	-

## 15. Place a bid (new)

Actor	Registered User
Description	A user should be able to place a bid on an auction
Trigger	1. Click the button „Place Bid“
Precondition	1. The user is logged in 2. The user isn't owner of the auction 3. The user isn't already highest bidder 4. The auction is still running
Basic Flow	1. The user opens a property of the type auction 2. The user puts a price into the place bid field 3. The user clicks the button “place bid” 4. The page is refreshed and he is the highest bidder
Alternative Flow	1. The user doesn't meet one or more preconditions 2. The page refreshes without changing anything
Specific Requirements	
Notes	

## 16. Display Results

Actor	Anyone
Description	The results from either search gets displayed neatly in a result page, with the option to sort the ads and show them on a map
Trigger	Click the search button on the homepage or the search page
Precondition	-
Basic Flow	<ol style="list-style-type: none"><li>1. The user opens the search menu and fills out all the required search criteria</li><li>2. After confirmation the results are displayed</li><li>3. The user can search again, with new criteria</li><li>4. The user can display all the ads in the results</li></ol>
Alternative Flow	-
Specific Requirements	-
Notes	Premium ads get shown first in the results

## 2.4. Other Use Cases

### 16. Register on the website

Actor	Unregisterd User
Description	Anyone should be able to register himself on the page to access the full features.
Trigger	
Precondition	<ol style="list-style-type: none"><li>1. The user has access to the internet</li><li>2. The user has an email account</li></ol>
Basic Flow	<ol style="list-style-type: none"><li>1. The user moves to the "Login" page.</li><li>2. The user clicks on "sign up" to reach the "sign up" page</li><li>3. The user fills in the form to sign up and clicks on the "Sign up" button below the form.</li></ol>
Alternative Flow	
Specific Requirements	
Notes	Currently the email address must not be confirmed. So any address could be used for the login.



## 1. Login on the website

Actor	Registered User
Description	As a registered user I want log in on the website to access all features.
Trigger	
Precondition	<ol style="list-style-type: none"><li>1. The user has access to the internet</li><li>2. The user has an account on the website</li></ol>
Basic Flow	<ol style="list-style-type: none"><li>1. The users moves to the "Login" page</li><li>2. The user fills in his Email and Password and clicks on the "Login" button</li></ol>
Alternative Flow	<ol style="list-style-type: none"><li>1. The users goes to the login page</li><li>2. The users logs in via his google account</li></ol>
Specific Requirements	
Notes	

## 2. Visit profile

Actor	Registered User
Description	As a registered user I want to visit the profile of an advertiser to find out more about him.
Trigger	
Precondition	<ol style="list-style-type: none"><li>1. The user has access to the internet</li><li>2. The user has an account on the website</li><li>3. The user is logged in</li></ol>
Basic Flow	<ol style="list-style-type: none"><li>1. The user searches a promising ad on the Home page or through the Search page by filling in the form</li><li>2. On the ads site the user can visit the advertiser's profile</li></ol>
Alternative Flow	<ol style="list-style-type: none"><li>1. The user moves to "Enquiries" page</li><li>2. The user can click on the usernames listed in the enquiries</li></ol>
Specific Requirements	
Notes	

### 3. Write Message

Actor	Registered User
Description	As a registered user I want to write messages to other registered users especially to advertisers.
Trigger	
Precondition	<ol style="list-style-type: none"><li>1. The user has access to the internet</li><li>2. The user has an account on the website</li><li>3. The user is logged in</li></ol>
Basic Flow	<ol style="list-style-type: none"><li>1. The user visits the profile of the desired user and clicks on the "Message button" and the message window opens</li><li>2. The user adds a subject and a message and clicks on "Send"</li></ol>
Alternative Flow	<ol style="list-style-type: none"><li>1. The user moves to the "Messages" page and clicks on "New" on the left</li><li>2. The user adds a subject and a message and clicks on "Send"</li></ol>
Specific Requirements	
Notes	This Basic Flow chosen because it seems to be the common way to send messages compared to the Alternative Flow

## 4. Read Message

Actor	Registered User
Description	As a registered user I want to read the messages other users sent me.
Trigger	
Precondition	<ol style="list-style-type: none"><li>1. The user has access to the internet</li><li>2. The user has an account on the website</li><li>3. The user is logged in</li></ol>
Basic Flow	<ol style="list-style-type: none"><li>1. The user moves to the "Messages" page and lands directly in the inbox to read and access received messages</li></ol>
Alternative Flow	
Specific Requirements	
Notes	

## 5. Rate User

Actor	Registered User
Description	As a registered user I want to rate users I met as a decision guidance
Trigger	
Precondition	<ol style="list-style-type: none"><li>1. The user has access to the internet</li><li>2. The user has an account on the website</li><li>3. The user is logged in</li><li>4. The user had presentations</li></ol>
Basic Flow	<ol style="list-style-type: none"><li>1. The user moves to the "Schedule" page</li><li>2. The user clicks on the "See List" button in the Visitors column Below "Your Presentations"</li><li>3. The user can rate users in the Rating column</li></ol>
Alternative Flow	
Specific Requirements	
Notes	





## 2.5. Actor characteristics



### 3. Specific requirements

#### 3.1. Functional Requirements

#### 3.2. Non-Functional Requirements

#### 3.3. Performance

#### 3.4. Safety

#### 3.5. Reliability

#### 3.6. Availability

#### 3.7. Security

#### 3.8. Usability

#### 3.9. Logical Structure of the Data