Vrije Universiteit Brussel

Faculteit Wetenschappen en Bio-ingenieurswetenschappen

Web Engineering
Assignment 3

Group 3
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Contents

0.1 Introduction

This report is the result of assignment three of the course Web Engineering. It consists of four major deliverables. The mission statement specification, audience modeling (audience classification and audience characterization), conceptual design (task modeling, information modeling, functional modeling and navigational modeling) and implementation design (site structure Design and presentation design).

The online version of HomelessAngel can be found on the url: `www.homelessAngel.be`. To use the website as a homeless person the username and password are both **homeless**. To experience the website as an Angel the username and password are both **angel**.

Chapter 1

Mission statement

1.1 Purpose of the website

The general purpose of this assignment is to create a website where Belgian homeless people and angels, people who want to help, can find each other. The website is a central place that makes it possible for both parties to get to know each other and help one an other.

The website also wants to help homeless people without the need of angels. It provides general information, information about other organisations, tips, etc. This could benefit homeless people who possibly are not aware of the existence of many useful information.

An other purpose is to bring more attention to the homeless people in Belgium. By creating this website more and more people could become aware of the hassle of being homeless and they could later help the homeless if they want to do that.

1.2 Target audience(s) of the website

There are two target audiences of the HomelessAngel website. The first and most important audience is the homeless people living in Belgium. The second audience is the angels, in other words the people who are willing to help the homeless.

1.3 Subject of the website

There are three subjects of the website, namely providing information, goods, services and donations.

The first is giving information to the homeless that could help them with living on the streets, finding a job, improving their life, etc.

The second one is providing an interface where goods and services are listed that could help a homeless person. These goods and services are given by the angels. An angels can place goods and services online and a homeless person can browse through the offers and request them.

The third subject is to make it possible to donate money to the website, without even needing to register to the website.
The website will on their turn use the donated money to help the homeless. The money will make it possible to organise an event where all the homeless people registered on the website may come collect a lunch package. The website will let its users know where and when the event takes place.

Chapter 2

Audience Modeling

2.1 Audience Classification

We identified four different audience classes. There is a visitor, angel, homeless person and administrator. These have a hierarchy as described by figure 2.1.

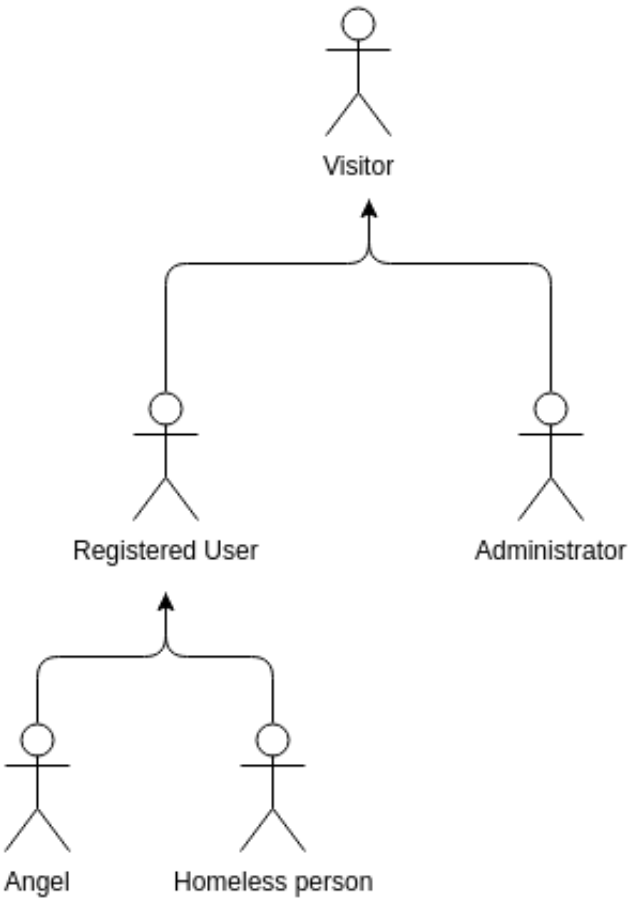

Figure 2.1: Audience class hierarchy diagram

2.2 Audience Characterization

Below the functional, information and navigational requirements of the audience classes are listed (if applicable). Note that a registered user can not actually exist in the application. It is an abstract user class, as in practice a registered user will either be a homeless person or an angel.

2.2.1 Visitor

- Functional requirements
  - Makes a donation
- Information requirements
  - Views all angels and homeless people
  - Views offered goods and services
- Navigational requirements
- Characteristics
  - Web experience may vary
  - Language is English

2.2.2 Registered User

- Functional requirements
  - Registers onto the site
  - Cancels his or her account

2.2.3 Homeless person

- Functional requirements
  - Searches for goods or services
  - Requests goods or services
  - Contacts angels which provide goods or services
  - Rates angels
  - Finds general information about shelters, rights and tips
- Navigational requirements
  - Easy navigation between an angel and his or her offerings
- Characteristics
  - Haves no address
  - No home internet connection
  - Computer skills may vary

2.2.4 Angel

- Functional requirements
  - Provides goods or services
  - Modifies offers
  - Is able to communicate with homeless people requesting their offerings
- Information requirements
  - Browses his or her ratings
- Navigational requirements
- Characteristics
  - Angels can be anyone, no specific characteristics can be defined for this group.

2.2.5 Administrator

- Functional requirements
  - Disables a registered user
  - Removes offerings
- Information requirements
  - Browses ratings
- Navigational requirements
- Characteristics
  - Is accustomed to the system

Chapter 3

Conceptual Design

3.1 Task Modeling

ConcurTaskTrees are found in the following alinea's. They are used to describe the tasks that the web system needs to support. Every CTT consists of a small textual explanation combined with the graphical representation of the CTT itself.

3.1.1 Provide good or service

In figure 3.1 is shown that an angel can enter a good or service. The system will add the offer to the listing.

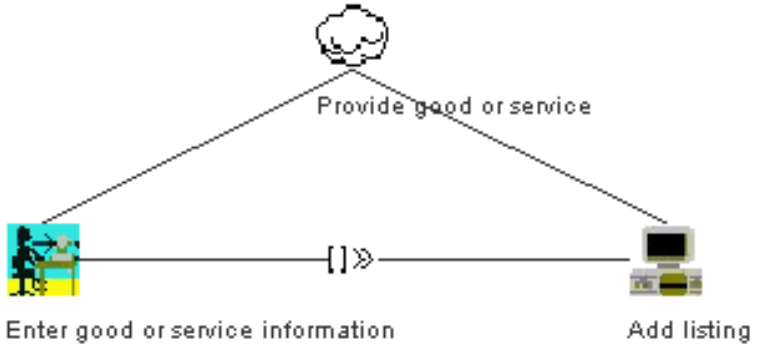

Figure 3.1: Offer a good or service.

3.1.2 Cancel account

Figure 3.2 depicts how any user, angel or homeless person, can cancel his/her account.

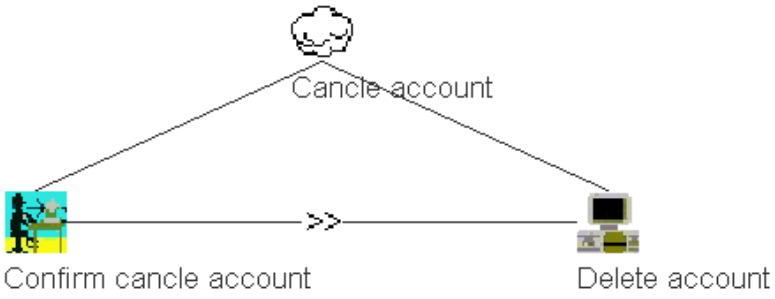

Figure 3.2: Account cancellation.

3.1.3 Contact angel

Figure 3.3 explains how an angel views his/her notification, later pursues it and can have a conversation with the homeless person that sent the message.

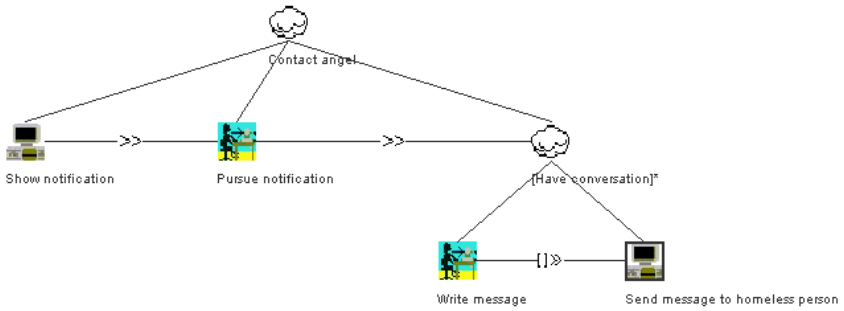

Figure 3.3: Angel is contacted and has a conversation.

3.1.4 Contact homeless person

In figure 3.4 is the same method used as in figure 3.3. In this case the homeless person has a leading role.

3.1.5 Remove offering

In figure 3.5 is shown how an angel can delete an offer. An angel can of course only delete offers made by him/her.

3.1.6 Disable user

Figure 3.6 illustrates how an administrator can select a user that will be disabled by the system.

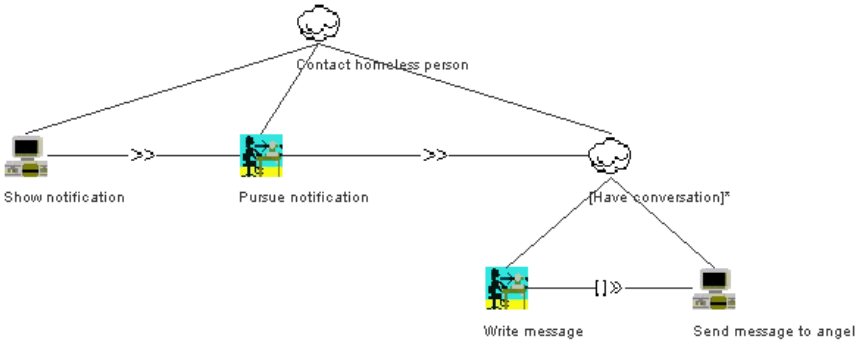

Figure 3.4: Homeless person is contacted and has a conversation.

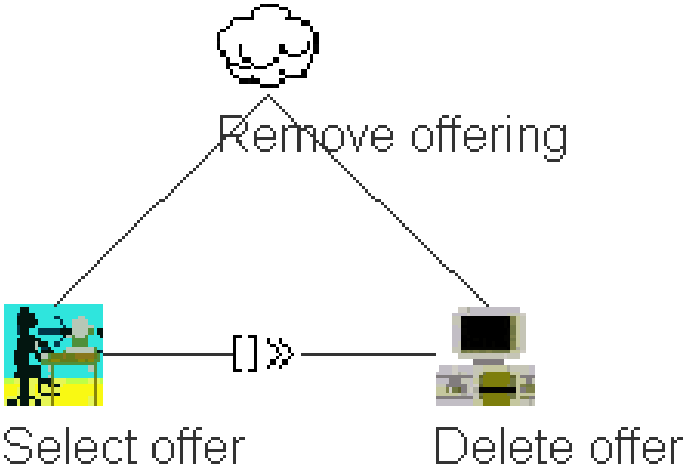

Figure 3.5: Angel can delete an offer.

3.1.7 Make a donation

Figure 3.7 depicts how a visitor of the website can make a donation. The user first needs to specify an amount, then make the payment and after that will the system process the transaction. Important to notify here is that every visitor of the website is able to make a donation. So the visitor, seen in figure 2.1, is able to help the homeless.

3.1.8 View offered goods and services

How a user can view all the offered goods and services of a selected angel is shown in figure 3.8.

3.1.9 Modify or delete offer

Figure 3.9 shows how an angel can modify his/her offers.

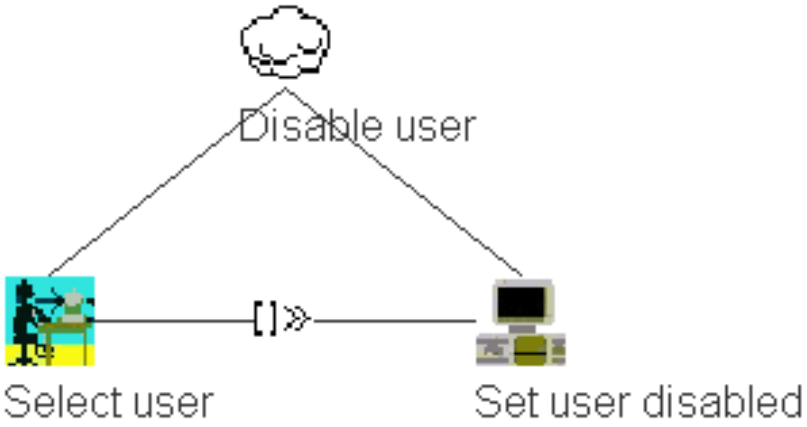

Figure 3.6: Admin disables a user.

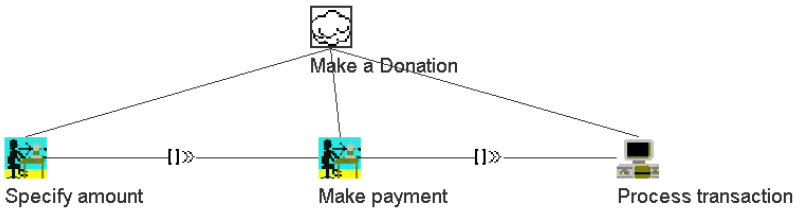

Figure 3.7: Make a donation to help the homeless.

3.1.10 Rate Angel

In figure 3.10 is shown how a homeless person can give a rating to an angel. After completing a transaction the homeless person can fill in a rating.

3.1.11 Register account

Figure 3.11 illustrates how a user can register an account. The user has to fill in personal information to create an account. De personal information depends on the fact dat the new user is an angel or homeless person.

3.1.12 Request goods or services

Figure 3.12 depicts how a homeless person can select a good of services of interest and then the system creates a new request.

3.1.13 Search goods or services

Figure 3.13 explains that a homeless person can search on certain keywords to look through the list of offers.

Figure 3.8: View the offers of an angel.

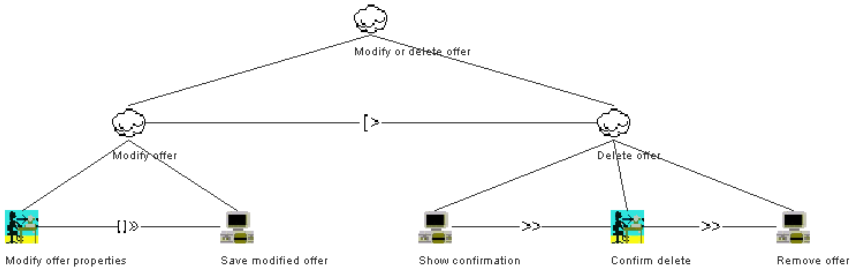

Figure 3.9: Angel can modify or deletes his/her offers.

3.1.14 View all angels and homeless people

In figure **??** is illustrated how a user can view all the registered angels and homeless people. The user is also able to search in the list of all registered users.

3.2 Information Modeling

UML

3.3 Functional Modeling

IFML

3.4 Navigational Modeling

IFML

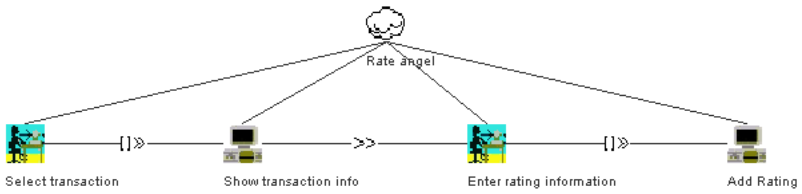

Figure 3.10: Rate an angel after a transaction.

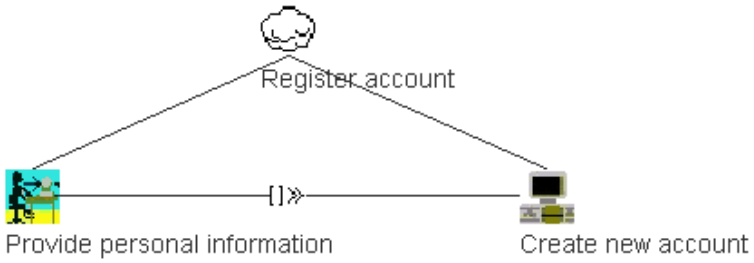

Figure 3.11: Register an account.

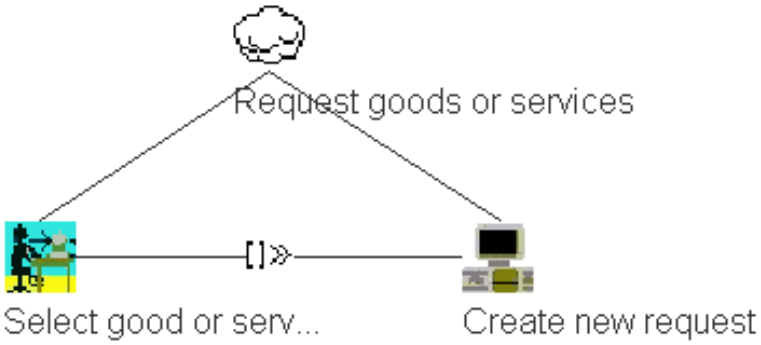

Figure 3.12: Request a good or service of an angel.

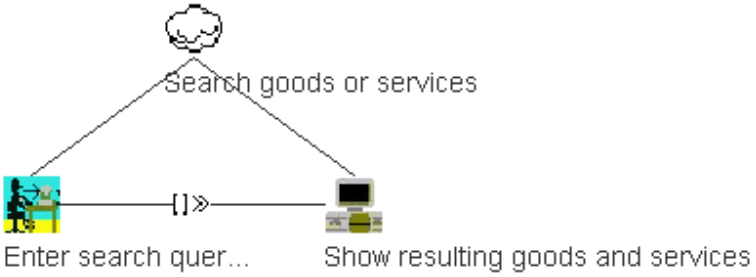

Figure 3.13: Search for certain goods or services.

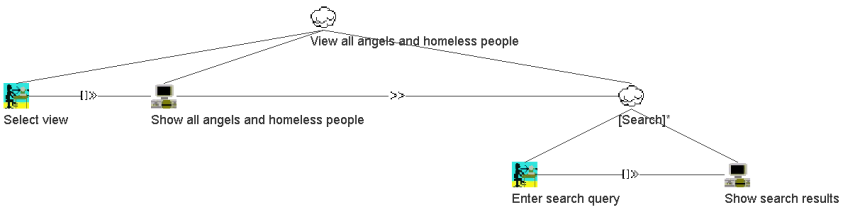

Figure 3.14: View all the users and search certain users.

Chapter 4

Implementation Design

4.1 Site Structure Design

4.2 Presentation Design

Since the domain model and IFML diagrams are all developed in WebRatio, this tool was used to visualise the website. This means that the presentation design is mostly done by WebRatio itself. Additionally, we choose to use a style project found in the WebRatio Store named Bootstrap Style. This style creates a clean and minimalistic design corresponding to the look and feel that Bootstrap[1] uses.

4.2.1 Site Identification

A visitor of the website is able to identify the site on each page that is browsed to. We opted to show a navigation bar at the top of the screen with the logo at the left. The logo is a simple textual presentation: "HomelessAngel".

The used style, Bootstrap Style, came up short with our view on site identification. The webpage that is shown when a user visits a webpage that is protected[2], does not display a navigation bar together with the logo on the top of the webpage (see figure 4.1). The page mentioned in previous paragraph is redesigned to make sure that site identification is present on that page. There were also small tweaks made to the login part itself. The result is shown in figure 4.2.

[1] http://getbootstrap.com

[2] This means that the website is only accessible to certain users (Angel, Homeless or Admin).

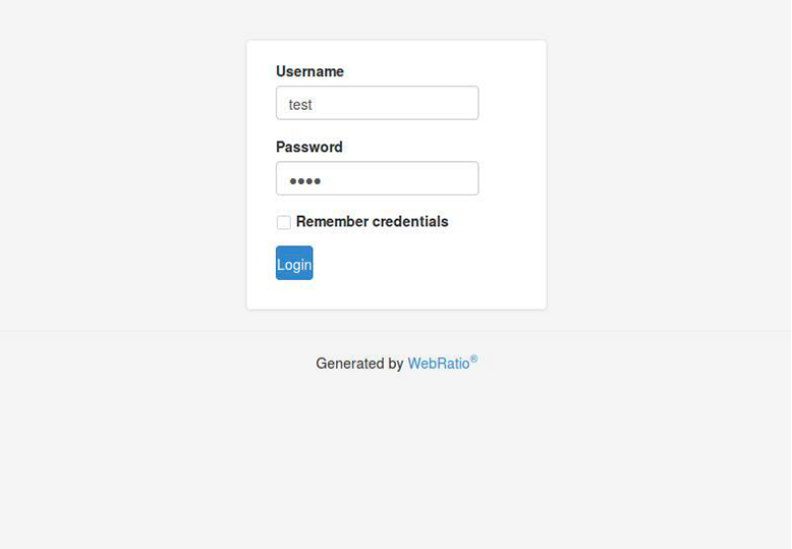

Figure 4.1: Prohibited webpage design of the Bootstrap Style.

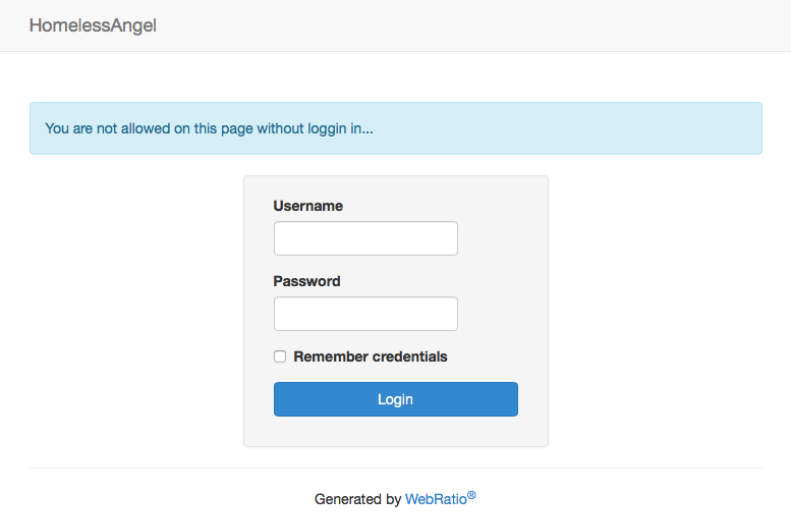

Figure 4.2: Redesign of the prohibited webpage style.

4.2.2 Style Design

As mentioned before is the Bootstrap Style used in this project. The used style design is of course the same style design of the Bootstrap Style. Although that style has a pleasing look, we had to make some minor changes to make it more in harmony with our website.

First of all was the title changed to the name of the website: "HomelessAngel". Together with this was the favicon changed to a custom favicon created for this project (see figure 4.3).

Figure 4.3: The favicon of the website.

Next, the width of all the input fields and buttons was reset to the standard width of input fields and button (see figure 4.5). The Bootstrap Style uses a width that fills the complete width of the main container of the website (see figure 4.4). This change was necessary since the webpages can get very wide which results in wide input fields and buttons. Those wide input fields and buttons are not that appealing and were therefore changed.

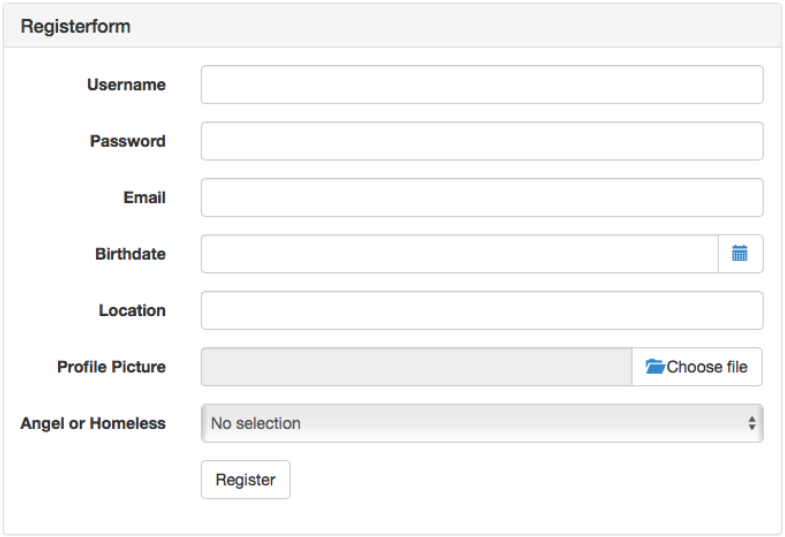

Figure 4.4: Input and button design of the Bootstrap Style.

Later did we add a custom styling to represent tags, which are linked to an offer. Naturally, the Bootstrap Style did not contain any styling for a tag. A custom style was added that shows tags in a similar way as Linkedin[3] does it. The custom tag styling is illustrated in figure 4.6.

As explained in previous subsection, the styling of a protected page was adjusted. The initial design is shown in figure 4.1 and the redesign in figure 4.2.

At last were the breadcrumbs removed from every webpage. We are aware of the fact that breadcrumbs could be very useful. A user can keep track of where he/she is located at the moment and a user can easily navigate back to the previous webpage. To our regret, we were not able to use

[3]https://www.linkedin.com

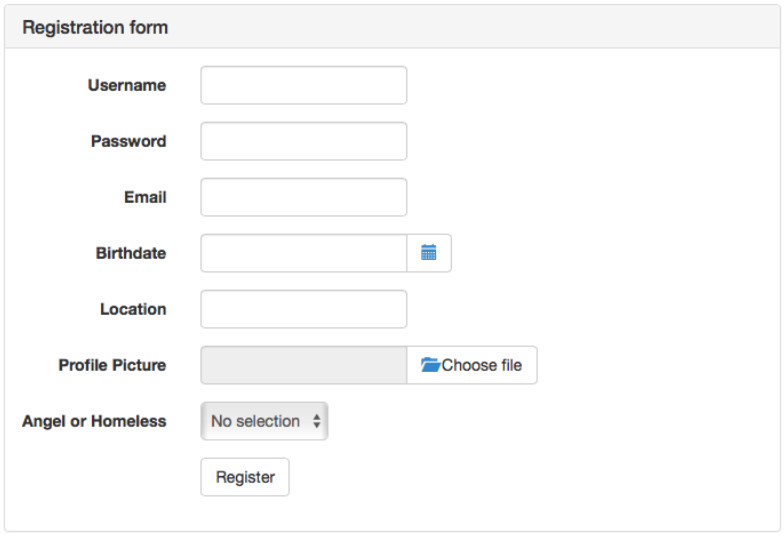

Figure 4.5: Redesign of the input and button style.

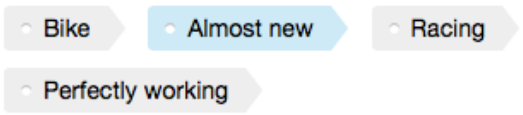

Figure 4.6: Custom style of a tag (blue means hovered).

WebRatio to show the breadcrumbs in a correct manner. We opted to make it possible for a user to return to the previous page by adding a back button where necessary.

4.2.3 Template Design

The template design for screens with a normal size is shown in figure 4.7.

The template design will automatically change when the screen of the user is small. The template for small screens is illustrated in figure 4.8.

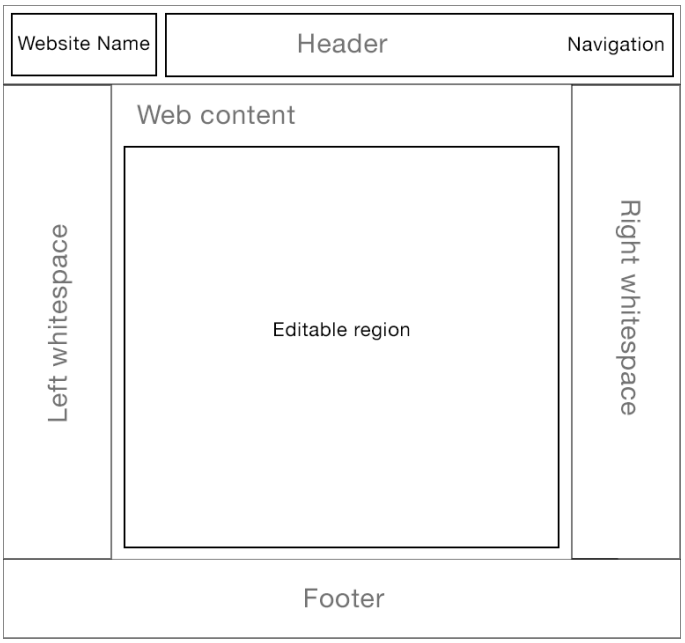

Figure 4.7: Template design of normal screens.

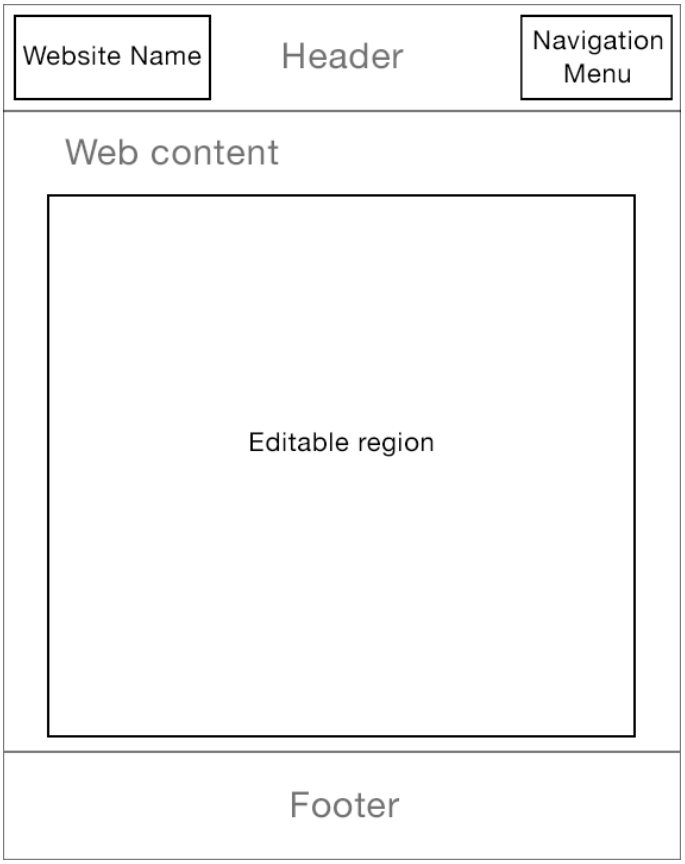

Figure 4.8: Template design of small screens.