

# Title of Project: MediCall

## I. Design

### Identifying the Problem

#### Step 1: Pick a Problem Area

"My chosen problem area is Health Care".

#### Step 2: Investigate

With the BXT model (Business viability, eXperience desirability, Technical feasibility) in mind for a successful product, I will begin the investigation focussing on the user eXperience desirability.

#### *Contextual Inquiry & User Interview*

Within this target area I choose the following target user type:

**A person who is using prescribed medication on a regular basis.  
Medication can be insuline, ointment and/or pills.**

This target user is later used as a so called Persona.

I choose this specific problem area and target user because of the following:

- ◆ The intake of medication is still increasing.
- ◆ Because there is a growing shortage of some medication, there is an increment of side effects of medication.
- ◆ From personal experience I know what it's like having to use medication on a regular basis.
- ◆ I myself recently discovered that it would be handy to have an app that would highlight the medication that could most likely cause my "symptoms"; say like nausea, headache...

#### *Meeting the requirements*

To meet the requirements I had to A) speak to at least 1 person who would represent a person who might be a potential customer and/or a person who has worked or studied the area I am exploring.

Keeping this in mind, I choose to interview the following persons:

- ◆ Mariëlle Gaster.  
She is familiar with regular intake of medication and she has a medical profession.

◆ Marco Gaster.

He is a person who has to take medication on a regular basis and has a medical history; he could be a potential user.

To meet the requirements I had to B) collect secondary information during the interview:

*1. Description of the person.*

Mariëlle is an outgoing person. She often speaks before she thinks. When proposed with a question, and after she already said something, she does think a lot about multiple aspects covering the proposed question or topic.

Marco is a very confident guy. He is very opinionated and very curious. He is always asking questions about the why of an opinion, a proposed topic, a statement....Next, most of the time he sees trouble and will ask: "what about..", ".. and what about..".

*2. A background on the experiences with the problem area I choose*

Mariëlle is a medical student. She already had some internships. Furthermore, at the moment she has a babygirl who is in need of 24hr medical attention.

Marco has to take medication. He is aware of the side effects medication can cause.

*3. Noted the tools they currently use, if they use any*

Mariëlle uses the site [www.farmacotherapeutischkompas.nl](http://www.farmacotherapeutischkompas.nl).

Marco does not use any. If he does want to check side effect, he will look it up in the leaflet.

*4. The things they love about the toolse they currently use*

Mariëlle likes it because it is always up-to-date.

Marco has no comment.

*5. The things they don't like about the tools they currently use*

Mariëlle has no comment.

Marco finds it annoying that he has to search for the leaflet.

When it comes to the kind of questions I asked, I asked questions like when did he/she uses their medication if they ever noticed side- effect and what he/she would do when they experienced what they believed to be side effects. I also asked if they think my app would be a good idea and why or why not.

What I found out was that Mariëlle loved the idea, but was really concerned that peolpe would 'listen' to the app too much and ignore going to the doctor. She would emphasize that the app is a tool.

Marco would not use the app in case of 1 medication, but would give it a go in case he had to take more medication. But his preference laid with going to a doctor.

### **Describing the interview environment.**

*Mariëlle:*

I was at her own home, cause I believe people speak more freely in a familiar environment.

We were drinking coffee and tea with biscuits, sitting a some comfortabel armchairs.

*Marco:*

I choose to interview Marco in the safe surroundings of my home, in the living-room. We sat at an angle of one and other. This way it would not feel like an interrogation. We drank some cold lemonade. The weather was still not too hot; the sunlight brightend the room.

I do believe that the choosen interview environment played into the results of the inquiry.

The reason why is because I believe that familiar surroundings make people at ease and give them a sense of being in a safe environment. This way I believe people feel secure enough to answer any questions honestly about this topic.

## **Design Document (mod 2: Intro to design thinking)**

See the document called "Design Document".

## **UI Prototype**

*Building a User Interface Prototype*

*Meeting the requirements*

For this fase I will use the proposed Balsamique application (webapp) to build a wireframe.

In the next couple op images, you will see this visual representation of the project will show how it will look and feel.

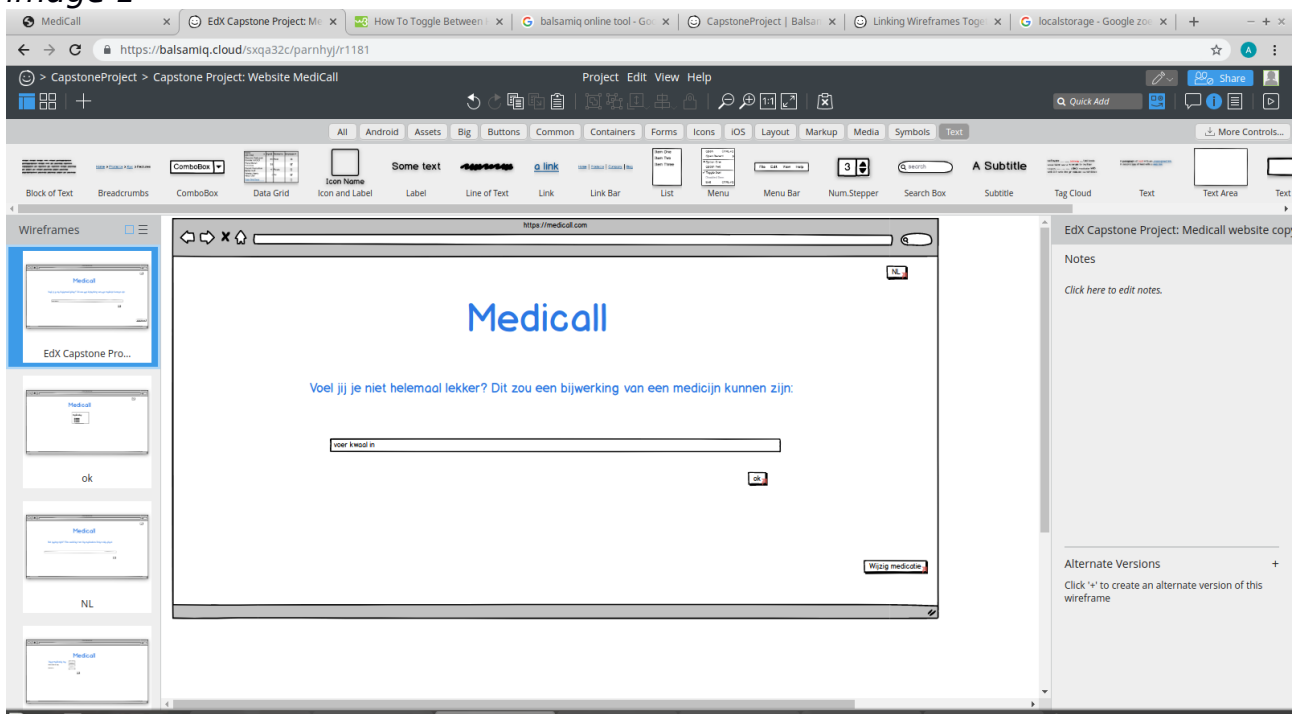
The first image (image 1) shows the homepage of the application. The user can enter their side effect in the input bar and click on the ok button. If the button is clicked and nothing is entered, an alertbox will popup.

In the top right corner, the user can click on a button that will change the language of the page. The page will be in default Dutch, but when pressed on the page, the page will change to English. On the right bottom side there is a button to change the medication. This will lead to another page on wich you can add new medication.

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image 1



The second image shows the result of the input of the user:

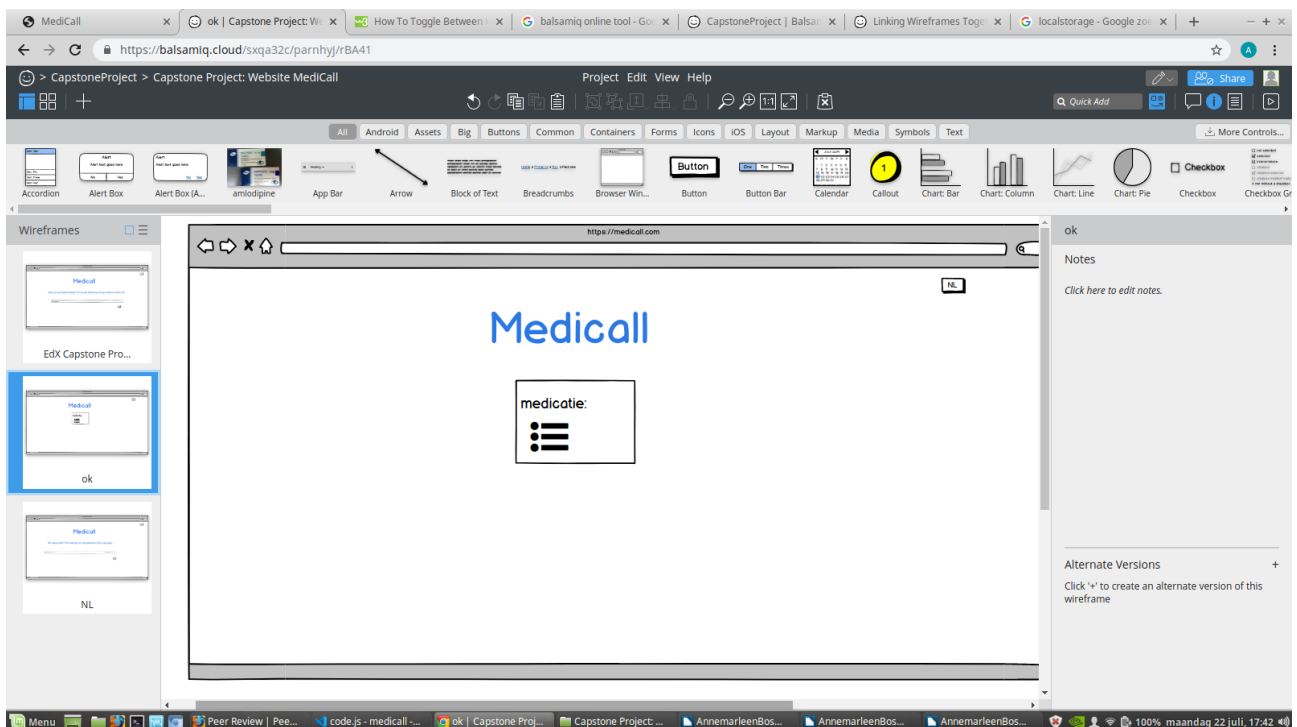


image 2: result of input

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The image below shows the results of the input of the user and an alert, alarming the user that the application does not a substitution for a doctor.

The third and last image shows the page on which the user can enter the medication he wants to add (string), how many pills he has to take (integer) and when he has to start taking these pills (date).

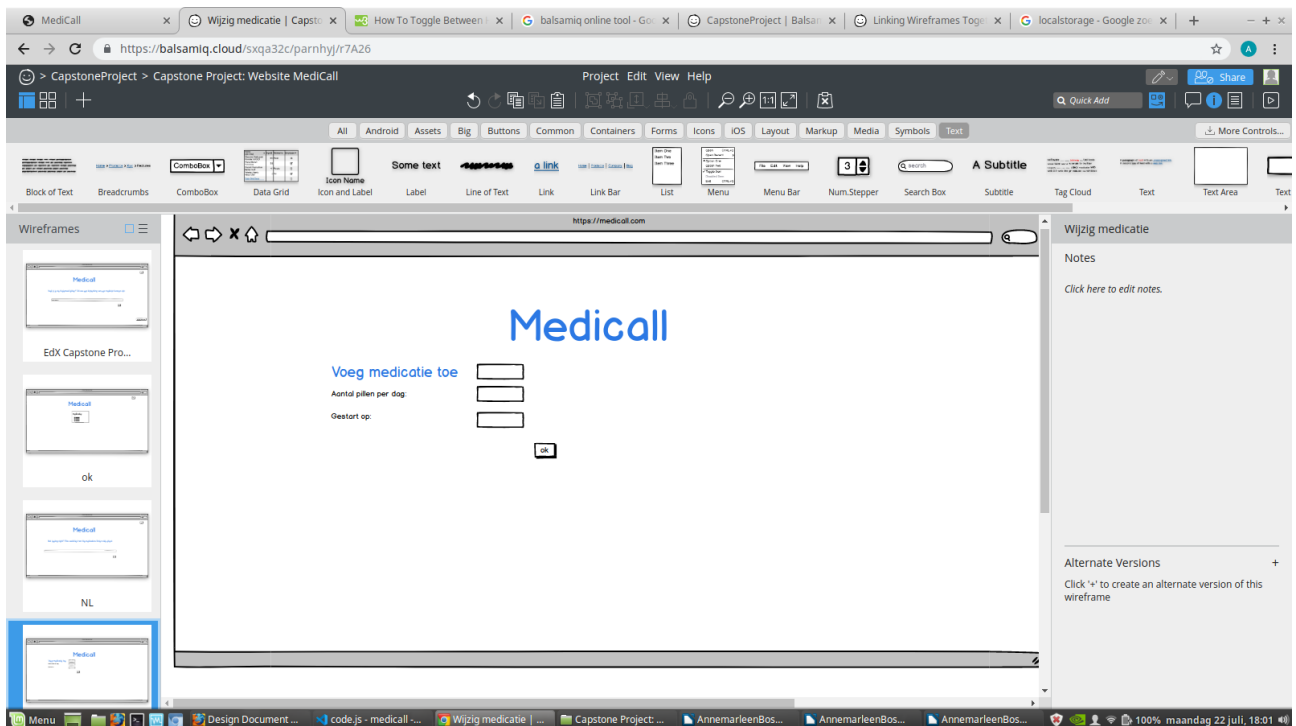


image 3

Url of the project in balsamiq: <https://balsamiq.cloud/sxqa32c/parnhyy/r1181>

## II. Implementation!!!!!!!

### Implementation Requirements

#### Building version 1

Prioritizing the features that allow my users to complete the scenarios.

#### Complexity Requirements

The prototype has to include all of the following complexity requirements in order to get full marks:

→ At least 2 different UI pages

Based on the scenarios and technology, I would like to design and implement the following features:

1. Main/ index page: This is the page the user gets on when he goes to the MediCall app.
2. The result page: This page will show the result of the input of the user.
3. The change-medication-page: this page will show input boxes in which the user has to input different input elements.

→ *At least 3 different user input elements*

On the index page, the user has to input text, **strings**. In this case the user has to enter something, if he/she does not, a alert box will appear.

On the 'change medication' page, the user can input strings, **numbers** and a **date**.

→ *At least 1 UI element is affected by the user's input*

When the user inputs the side effect, the response is the request for confirmation.

When the user does not fill in a input in the main page, there will be an alert box.

→ *After the user submits their input a decision is made based on that input that can cause at least 2 different results.*

- ◆ When the user enters a side effect on the main index page and clicks the ok button, the rest of the page will appear that asks to confirm or the given input.
- ◆ If the user does not enter something as input, an alertbox will appear.

## Website

<https://www.lareb.nl/nl/> ; 01-07-2019

## Sources

SFK Data en feiten 2018: <https://www.sfk.nl/publicaties/data-en-feiten/data-en-feiten-2018>

Stijging ziekenhuisopnames door medicijnen:

<https://www.medischcontact.nl/nieuws/laatste-nieuws/artikel/stijging-ziekenhuisopnames-door-medicijnen.htm>, Simone Pauw, 02-02- 2017; viewed on 01-07-2019

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Inactive Ingredients in Medication and their Side Effects:  
<https://www.youtube.com/watch?v=Wtjl4vgQdZo> published on 13-03-2019;  
viewed on 01-07-2019

Oplopend medicijnentekort zorgt voor meer bijwerkingen:  
<https://www.ad.nl/gezond/oplopend-medicijnentekort-zorgt-voor-meer-bijwerkingen~af87d459/?referrer=https://www.google.com/>, Sanne Schelfaut  
13-09-2018; viewed on 01-07-2019

## Appendix

Design Document