**Design Document**

# Home visit app for General Practitioners

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| **Version** | **Date** | **Author(s)** | **Changes** |
| 0.1 | 20/09/2020 | Mila Marinova | First draft of the design document |
| 0.2 | 06/10/2020 | Bojidar Balabanov | Grammar fixes, Photos added |
| 1.0 | 15/01/2021 | Mila Marinova | Changing the prototype wireframe |

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# Overview

·         **Problem -** The system currentlydisplays every single piece of information that is recorded for a patient, for example, address, the medical history, and the current medication overview, on the GP’s computer, but it has to be printed on paper beforehand a home visit. Also, if the GP loses the list with the information of the patient he cannot check the data before returning to his/her office. Also, there is a need to store notes/extra information about home visit appointments

·         **Solution** - We are thinking about creating a website, where the GP can log in with his/her username and password, and then he/she is given access to the same information that would usually be available only through the computer in the office. Also, it will allow adding notes to the appointment on spot and save them for later usage.

# Background

**Context on the problem space:**

o   **Defining the problem** – Firstly, GP’s using the system for the administration of the medical files of a patient, make appointments with patients, order medication for the patient and sometimes transfer them to specialists in the hospital. The core of the problem is that GPs visit patients who aren’t able to come to the medical center, while the GP has to print the address, the medical history, and the current medication overview on a piece of paper, which will be real a frustrating for the General Practitioners.

o   **Identifying the solution** – The perfect solution was specified by the client and it was a website that gives the GP the ability to see the information of the current patient that has appointed a home visit and to enter the most up to date information about the patient into the system as a note.

# Current goals and future goals.

  ·        **Current goals:**

* Provide the client with the most needed solution for their problem
* Making an app that provides general practitioners with the information they need
* Improve the interaction between general practitioners and patients.
* Implementing a website that can handle the data of 10 million patients.
* Improving the administration system on the website.
* Implementing a feature which allows general practitioners to take notes about an appointment and store them

·        **Future goals:**

* The future goals will be upgrading the chosen solution with the approval of the client, which means to add some suggested by us features, which we cannot currently work on, because of the time we are given and the fact that the client does not think they should be prioritized.

# Detailed design

* Diagram

  Description automatically generated**Flow Diagram**
* **Architecture diagram**

**Diagram

Description automatically generated**

* Graphical user interface, application

  Description automatically generated[**Prototype**](https://www.fluidui.com/editor/live/preview/cF9odGZmclJ2Y29DTXlmM2t6UmxheW8yYnpCOXFTaTFIQg==) **Wireframe:**

**A picture containing bar chart

Description automatically generated**

* **UML Sequence Diagram**

Diagram

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# Related Work

* **Product back-ups** – Pharma Partners may provide us with the database design that contains information about patients, appointments and general practitioners that are working in the current hospital. In case of corruption in their database we are going to check for the back-up of the database with the old files. Also, if something goes wrong with the back-up, we are going to let the client know that there is corruption or mistake in their database. However, as developers of the application we will always make back-ups of our files in case something goes wrong with some of the files and application stopped working entirely or there are bugs in some pages.
* **No SQL Database -** The database of the company may include feature matrix that has to be connected to our application in order to identify the GPs, when they are using the login function of the application.

# Roll-out plan

* **Testing of APIs-** Firstly, the developer is going to implement the code of the API, then it will be tested in different ways in order to see if that will add stress to the system. Then, the developers are going to group the APIs test cases by test category and create test cases with all possible combinations for complete test coverage.
* **Models change in the app-** Before every change, the developers are going to discuss the pros and cons of the change in both back-end and front-end. If the change is approved by the client, then it will be implemented immediately. Finally, the new improvement will be tested to see if it is successful or the developers have to follow their steps back and fix the mistake they have made when it is found.

# Reference

* (Pupius, n.d.) – reference for the template of the design document