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Physio Planner Web App

Project Proposal

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Author's declaration of originality

I hereby certify that I am the sole author of this thesis. All the used materials, references to the literature and the work of others have been referred to. This thesis has not been presented for examination anywhere else.

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1 Introduction

The proposed application is aimed at physiotherapists, who mostly do home appointments, that helps them plan treatments and sessions, keep session notes and compose exercise plans. Physiotherapists also have an overview of all their patients.

A lot of physiotherapists who do home appointments in general still use pen and paper notebooks and planners. There are a lot of reasons why a digital solution would most probably be more convenient for most specialists. Firstly, digital records can be accessed anywhere with an internet connection, whereas a notebook can be forgotten at home. Secondly, notebooks can over time become disorganized. Thirdly, a digital platform enables users to share necessary medical information, when working in a team, and maybe a few different physiotherapists work with the same patient. And these are only the tangible reasons. A digital solution would also create the possibility of integrating with more commonly used electronic health records with some extra development. And finally, a digital platform can back up data, whereas if a notebook is lost or destroyed, unless one keeps another physical copy, the data is lost.

All in all, this project would be the solution to improve those aspects of home physiotherapy. In addition, the project would provide easy access to patients to their exercise plans, where often exercise plans are shared via email.

2 Overview

The goal of the project is to create a physiotherapist planning application that helps therapists to manage their patients, their own time and everything in between. Patients can get access to exercise plans created for them and see their appointments.

The application will be built on a distributed systems architecture, where a backend provides REST APIs that the front-end consumes. The front-end will be accessible from any widely used web browser.

Application features include:

- Treatment planning – therapists can set goals for each patient, along with custom exercise plans.

- Scheduling – therapists can set their schedule and have an overview of their day. Patients can also see when they have appointments.

- Custom exercise plans – therapists can make their exercise plans and save them. The patients then have easy access to their exercise plans.

- Progress tracking – therapists can make notes on each patient and session, enabling them to track their progress against their set goal.

2.1 Physiotherapist

2.1.1 Appointments

The physiotherapist upon logging in sees their upcoming appointments so planning would be as easy as possible.

Figure 1. Physiotherapist main view (appointments)

Access to Patients, Exercise Plans and Exercises are easily provided by upper tabs. Any extra functionality will be in the hamburger menu in the upper left corner. New appointments can easily be added via the button in the lower right corner. Appointments view contain name of patient, any additional notes and time of happening, all of which are set when adding a new appointment.
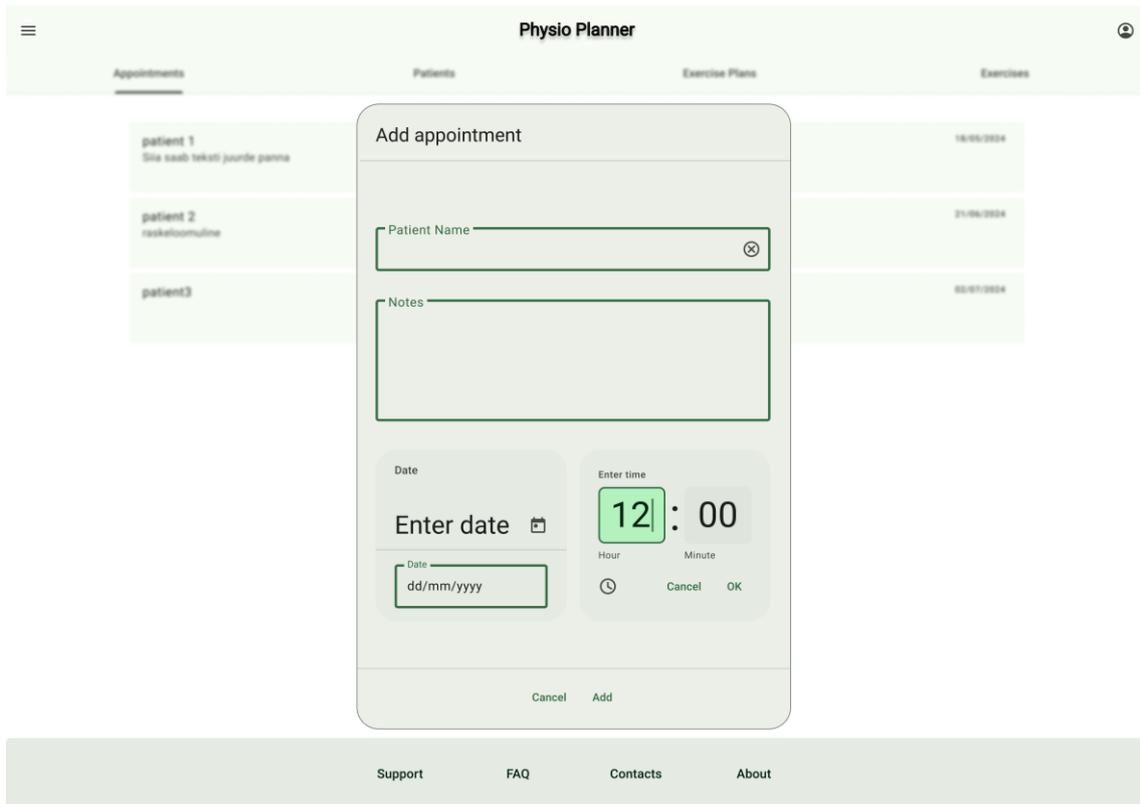
Figure 2. Add new appointment.

2.1.2 Patients

Patients tab gives a quick overview of current patients that therapist is working with. List view will only show name, date of birth (DOB) and main ailment. Clicking on a profile will show a lot more detailed view, with previous sessions, general physical record and current assigned exercise plan.
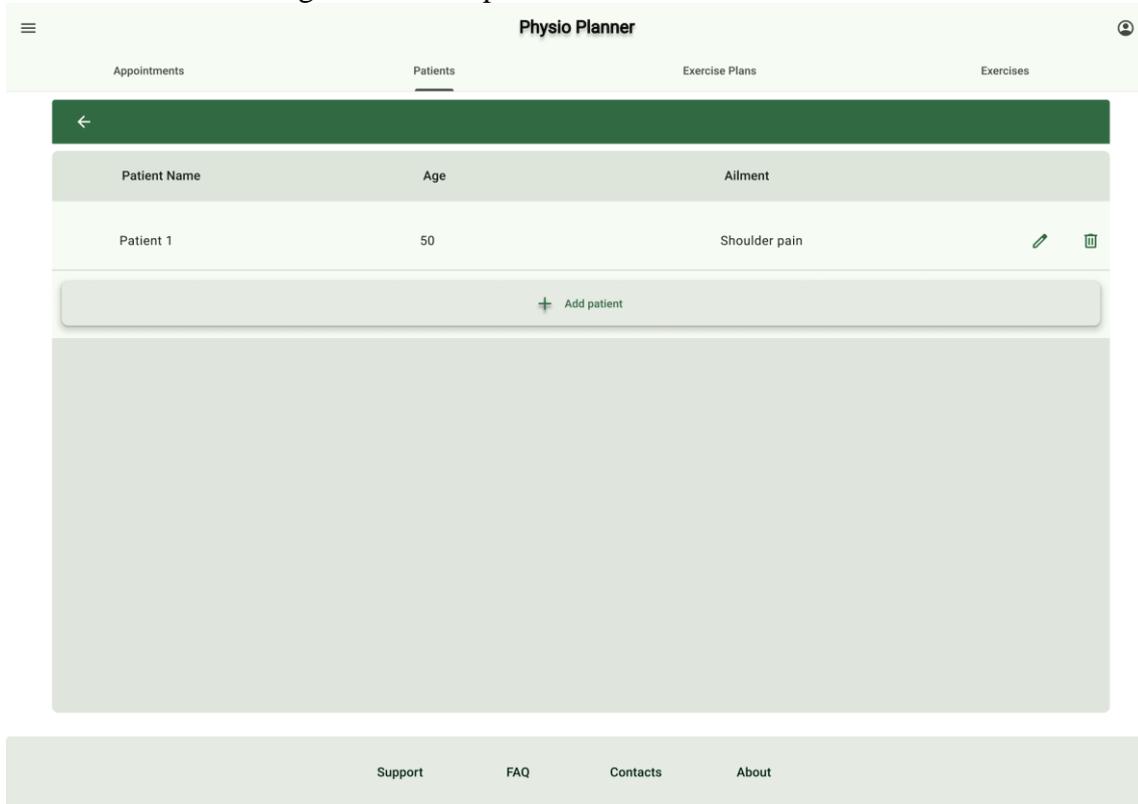
Figure 3. Patients view.
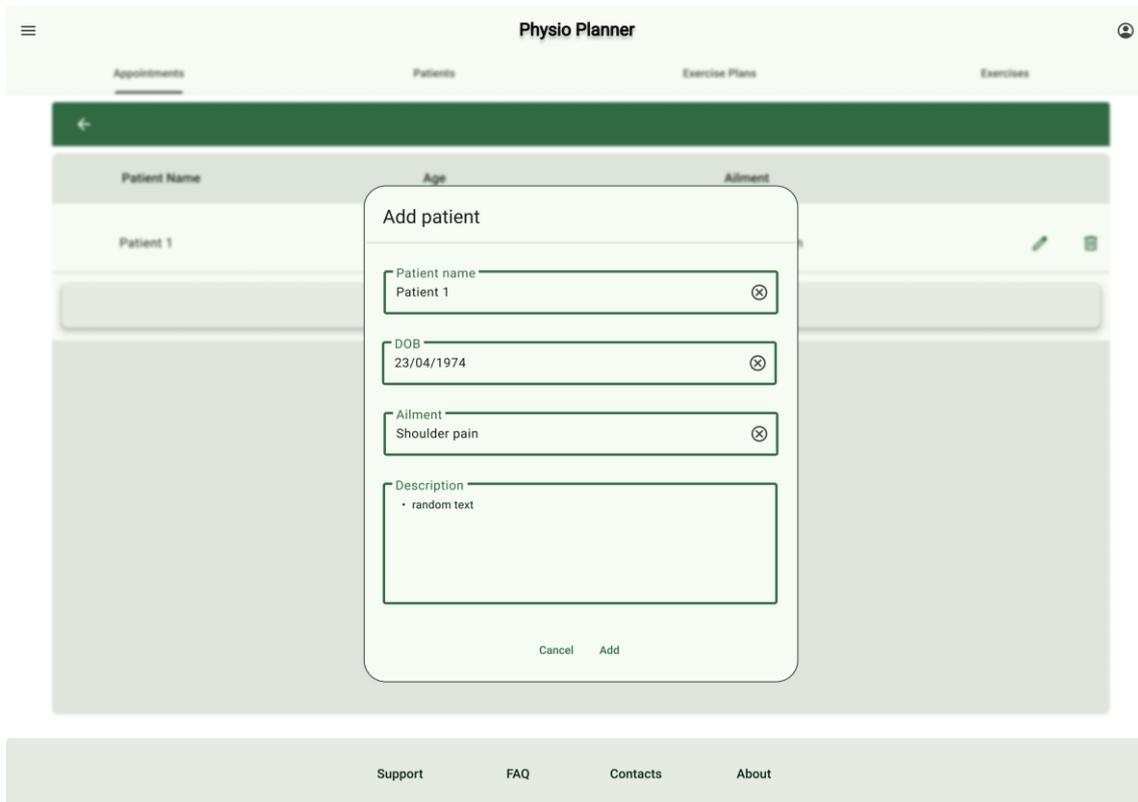
Figure 4. Add new patient.

2.1.3 Exercise Plans

The idea is for exercise plans to be as reusable as possible. For that reason, exercise plans can also be individually viewed and saved. A search will be implemented to make searching easier. Each element in the list view consists of a name for the exercise plan and an estimated time. Exercises can be added both manually and by searching from a list of existing exercises.

Figure 5. Exercise plans.
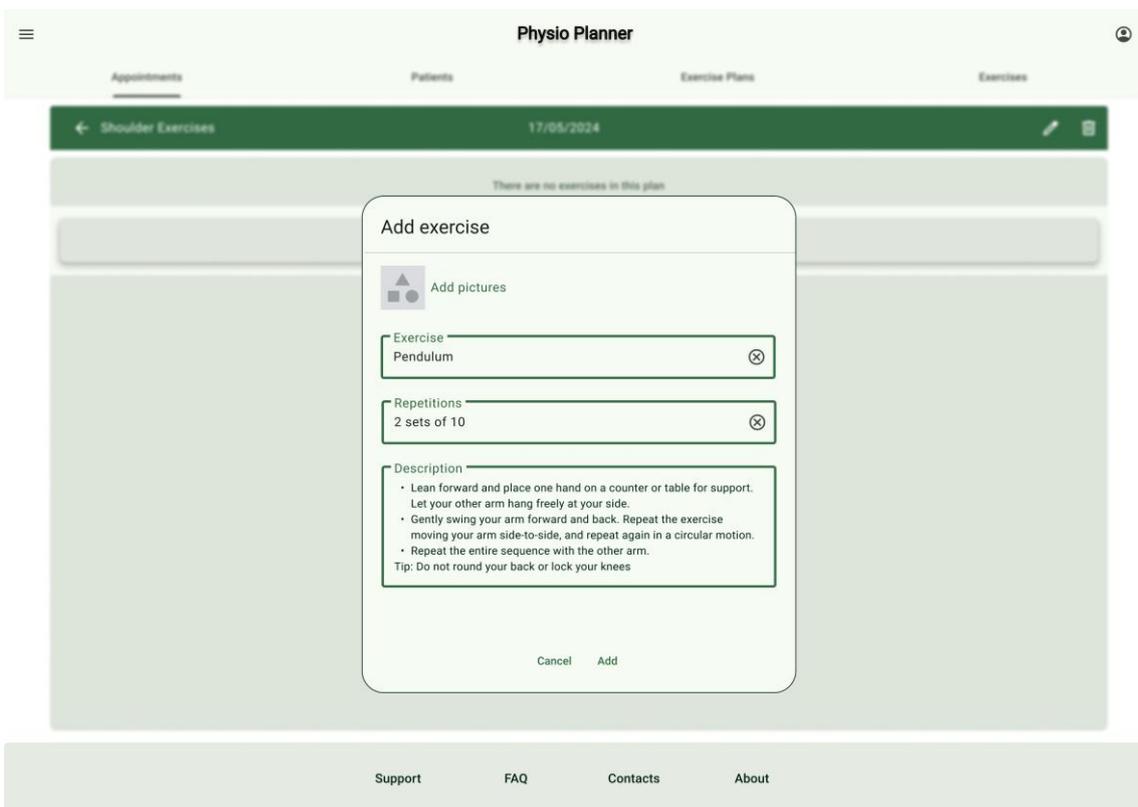
Figure 6. Manually adding new exercise.
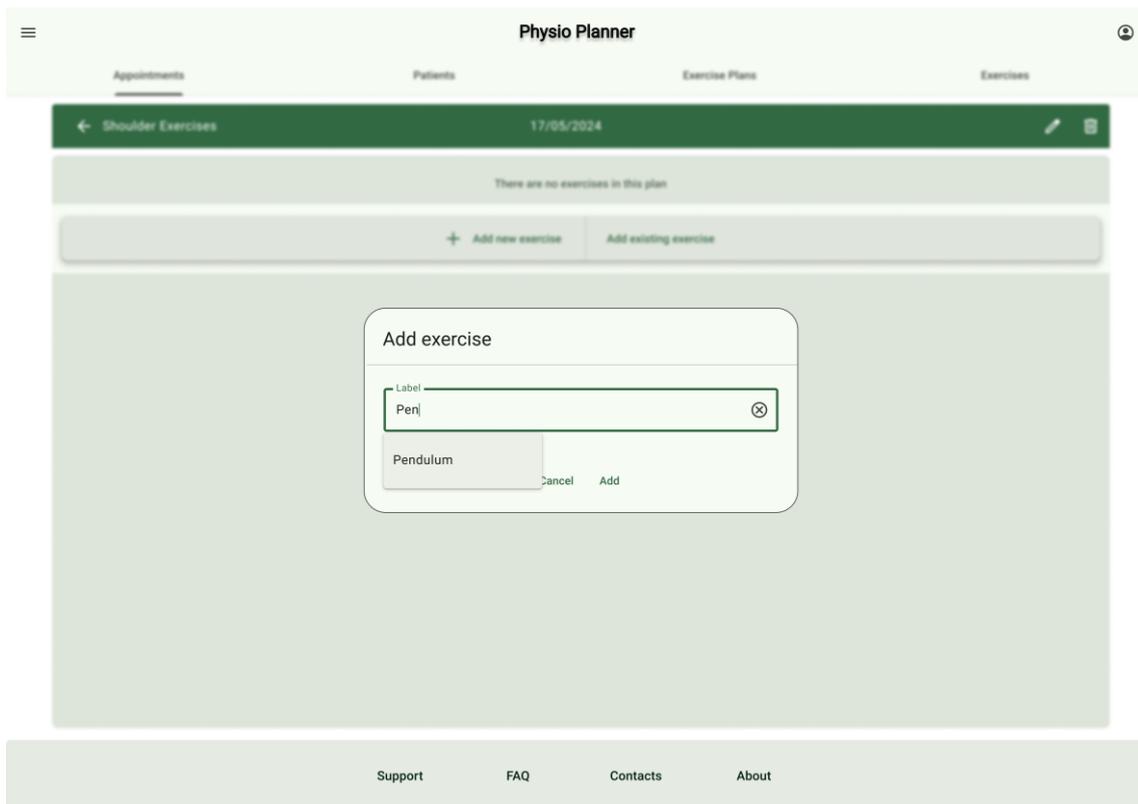
Figure 7. Adding new exercise from existing list.

2.2 Patient

2.2.1 Appointments

Appointments view for the patient is similar to the physiotherapist's view, with the difference between them being less tabs in the upper bar, also the list views who the therapy is taking place with. Patients also cannot add new appointments on their own.

Figure 8. Patient appointments view.

2.2.2 Exercise Plans

Similar to the appointments view, a patient can only see their own exercise plans and not add new ones.

Appointments

Exercise Plans

Shoulder Exercises
Estimated time: 30 min

Support   FAQ   Contacts   About

Figure 9. Patient exercise plan list.

3 ERD
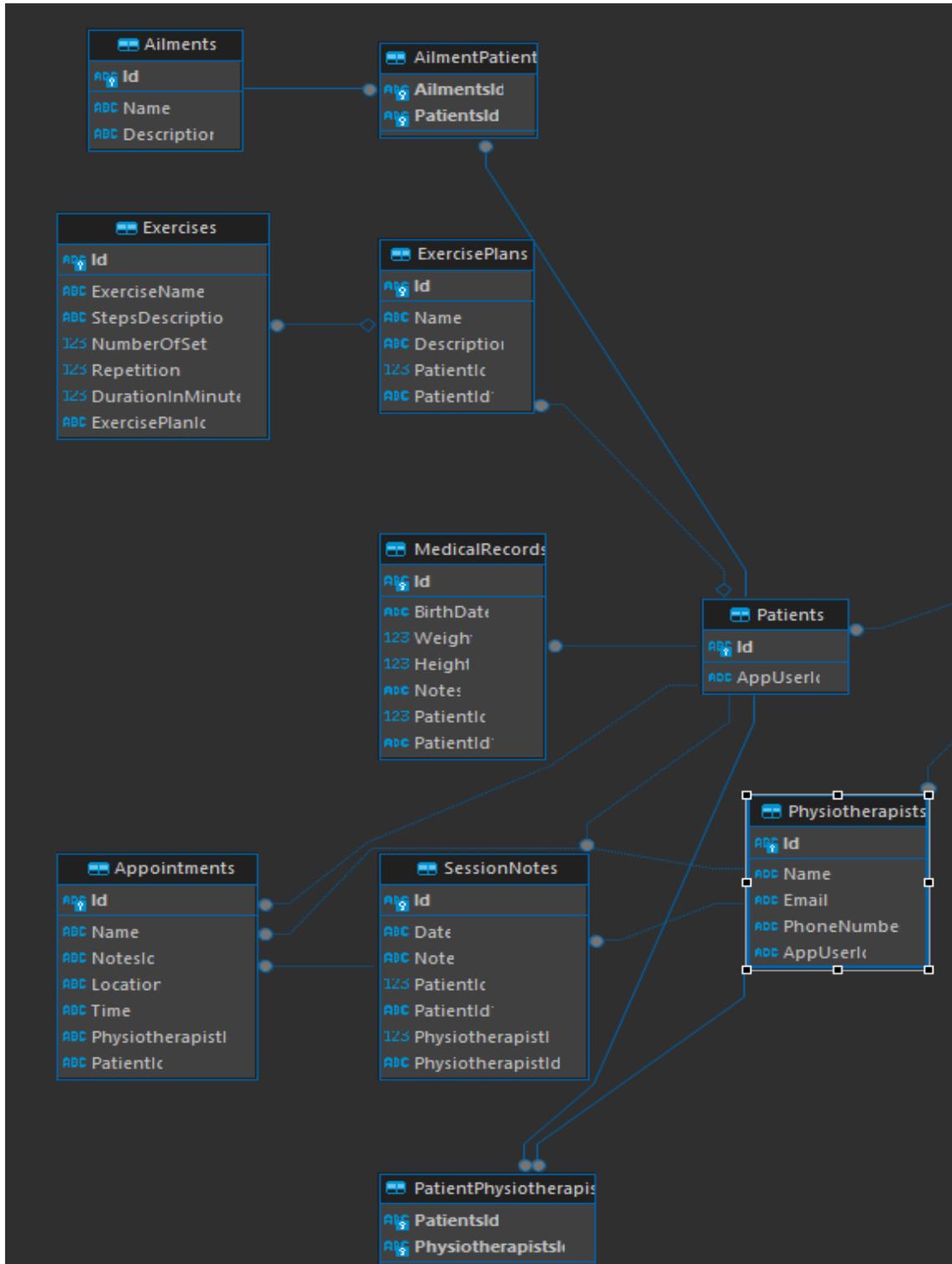
Figure 10. ERD.

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References

There are no sources in the current document.