

TALLINN UNIVERSITY OF TECHNOLOGY
School of Information Technologies

Heidi Koppel 175889IADB

Rehabilitation Management application

Homework in ICD0009 Building Distributed Systems

Supervisor: Andres Käver

Bachelor of Software
Engineering

Tallinn 2023

TALLINNA TEHNIKAÜLIKOOL
Infotehnoloogia teaduskond

Heidi Koppel 175889IADB

Rehabilitatsiooniteenuste haldamise rakendus

Kodutöö aines ICD0009 Hajussüsteemide ehitamine

Juhendaja: Andres Käver
Bakalaureus IT
süsteemide arendus

Tallinn 2023

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.

Author: Heidi Koppel

25.02.2023

Abstract

[Text]

This thesis is written in English and is 19 pages long, including 1 chapter, 2 figures.

Annotatsioon

[Thesis title in Estonian]

[Tekst]

Lõputöö on kirjutatud inglise keeles ning sisaldab teksti 19 leheküljel, [peatükkide arv] peatükki, [jooniste arv] joonist, [tabelite arv] tabelit.

List of abbreviations and terms

ERD

Entity Relationship Diagram

Table of contents

1 Introduction	9
2[Heading of Chapter]	11
2.1[Subheading].....	11
3 Summary.....	12
References	13
Appendix 1 – Non-exclusive licence for reproduction and publication of a graduation thesis	14
Appendix 2 – ERD scheme	15
Appendix 3 – Client flow prototypes	16

List of figures

No table of figures entries found.

1 Introduction

The goal of this project is to develop a rehabilitation service logging and reporting software for rehabilitation therapy providers and clients. This software will create an environment that will link together the therapy providers, therapy clients and if applicable a Social Services provider.

There are about 100 therapy providers in Estonia that have a contract with the Social Insurance Board. They provide their services, among others, to people with disabilities who have a rehabilitation plan and a respective budget allocated every year. There are about 20 000 people with rehabilitation plans in Estonia. The number of people with disabilities is growing every year both in Estonia and around the world.

Currently the therapy providers do not use a uniform system for logging the sessions. Each provider has developed their own system. The most used tools are a regular piece of paper signed at every session and Excel sheets passed back and forth. For the providers this is a time-consuming task that is prone to errors. Another management system has been developed in recent years, but the price has been too high for a lot of therapy providers.

Another issue that our application will solve is that it is difficult for the client to get an overview of the logged sessions. They need to keep their own private log with the sessions and any extra information (reasons and timing of any cancellations). Then they must request that the provider share their Excel sheet. This in turn takes time because often the sessions are not logged regularly. Usually the client can view the document from the administrators computer at the therapy providers office while other clients have to wait. All of this makes keeping an accurate overview quite a hassle and most clients decide to just trust the providers. From time to time clients do report finding significant differences between the records. Understandably, having to dispute them is usually not a pleasant experience.

This project aims to tackle the above mentioned issues by creating an application that will allow the therapy providers to log data about provided sessions and easily report it to the social services provider. The client or their representative can view this data and any changes made to it in a timely and clear manner. If the patient wishes they can request to confirm the sessions every month before they are reported to the Social Insurance Board. The client can also view their remaining therapy budget for the year which will help to plan their schedule. The client can request to receive notifications when sessions are added or updated, therapy budget is running low or the rehabilitation plan is expiring.

2 [Heading of Chapter]

[Text]

2.1 [Subheading]

[Text]

3 Summary

[Text]

References

There are no sources in the current document.

Appendix 1 – Non-exclusive licence for reproduction and publication of a graduation thesis¹

I Heidi Koppel

1. Grant Tallinn University of Technology free licence (non-exclusive licence) for my thesis "[Thesis title]" , supervised by [Supervisor's name]
 - 1.1. to be reproduced for the purposes of preservation and electronic publication of the graduation thesis, incl. to be entered in the digital collection of the library of Tallinn University of Technology until expiry of the term of copyright;
 - 1.2. to be published via the web of Tallinn University of Technology, incl. to be entered in the digital collection of the library of Tallinn University of Technology until expiry of the term of copyright.
2. I am aware that the author also retains the rights specified in clause 1 of the non-exclusive licence.
3. I confirm that granting the non-exclusive licence does not infringe other persons' intellectual property rights, the rights arising from the Personal Data Protection Act or rights arising from other legislation.

25.02.2023

¹ The non-exclusive licence is not valid during the validity of access restriction indicated in the student's application for restriction on access to the graduation thesis that has been signed by the school's dean, except in case of the university's right to reproduce the thesis for preservation purposes only. If a graduation thesis is based on the joint creative activity of two or more persons and the co-author(s) has/have not granted, by the set deadline, the student defending his/her graduation thesis consent to reproduce and publish the graduation thesis in compliance with clauses 1.1 and 1.2 of the non-exclusive licence, the non-exclusive license shall not be valid for the period.

Appendix 3 – Client flow prototypes

Figure 1 - Landing Page

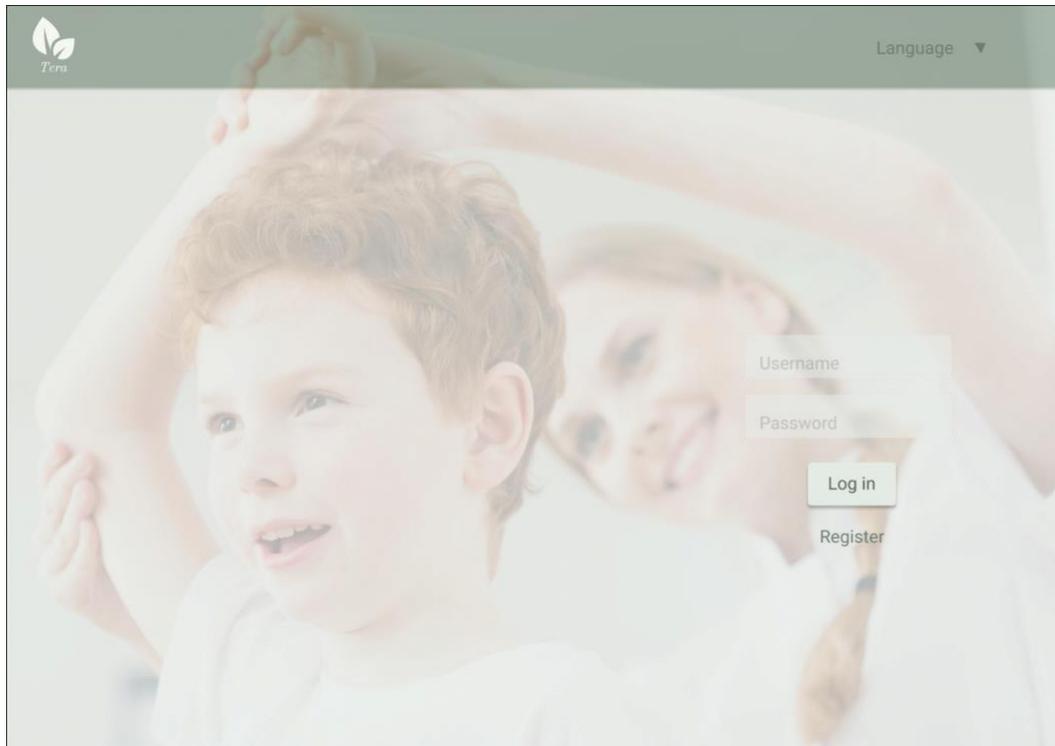


Figure 2 - Register

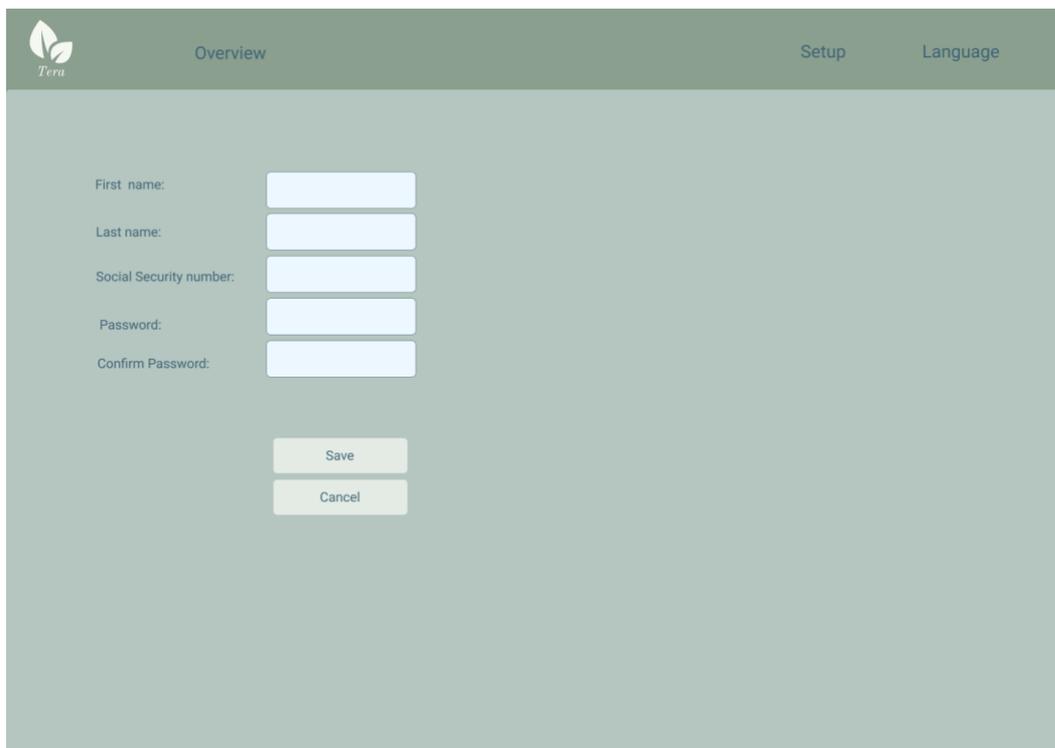


Figure 3 - Main

Tera Overview Notifications Log out Language

Client name: Mari Kask Total amount: 700 / 2000
 Rehabilitation plan nr: 748748-9898 Physiotherapy: 300 / 1000
 Expiration date: 24.02.2024 Occupational Therapy: 150 / 500
 Referral nr: IP-747474 Speech Therapy: 0 / 0
 Expiration date: 24.12.2024 Other: 250 / 500

Date	Time	Type	Therapist	Room	Duration	Price
22.02.23	12:00	Physiotherapy	Jonna	A	45 min	22 EUR
23.02.23	12:00	Physiotherapy	Jonna	A	45 min	22 EUR

Figure 4 - Admin - Main

Tera Setup Clients Language

Client name, Reh.plan nr. Search Add New Client

Client name: Mari Tamm Financer: SKA
 Rehabilitation plan nr: Total amount:
 Expiration date: Physiotherapy:
 Referral nr: Occupational Therapy:
 Expiration date: Speech Therapy:
 Other: Edit

Date Time Type Therapist Duration Comments Add
 Filter Send report

Date	Time	Type	Therapist	Duration	Price	Comment
22.02.21	12:00	Physiotherapy	Jonna	45 min	22 EUR	Lore ipsum dolor X
23.02.21	12:00	Physiotherapy	Jonna	45 min	22 EUR	X

Figure 5 - Setup

Name	Specialty	Active
Joanna Lind	Physiotherapy	X
Peeter Kaks	Physiotherapy	X
Ingrid Kass	Physiotherapy	X

Form fields:

- First name:
- Last name:
- Therapy Type:

Buttons: Save, Cancel

Figure 6 - Add Client

Form fields:

- First name:
- Last name:
- Rehabilitation plan nr.:
- Expiration date:
- Referral nr.:
- Expiration date:
- Note:
- Total amount:
- Add Therapy Type:
- Physiotherapy:
- Users allowed to see this data:
- Kadri Tamm X

Buttons: Save, Cancel

Figure 7 - Choose Client/Centre

The screenshot shows a web application interface with a dark green header. In the top left corner, there is a logo consisting of two leaves and the word "Tera" below it. In the top right corner, there are two links: "Log out" and "Language" with a downward-pointing triangle. The main content area is a light green color and contains two dropdown menus. The first dropdown is labeled "Choose your Center:" and has two options: "Tallinn Center" (selected) and "Tartu Center". The second dropdown is labeled "Choose your client:" and has two options: "Mari Kask" (selected) and "Kadri Kask".