

# **Treet**

## User manual

Matthew Soulaka, Fredrik Thorsson, Isak Johansson,  
Lawrence Thanakumar Rajappa

Company 4

December 2020

# Contents

<b>Version History</b>	<b>2</b>
<b>1 Introduction</b>	<b>3</b>
1.1 Purpose	3
1.2 Scope	3
1.3 Software Overview	3
1.4 Definitions, acronyms and abbreviations	4
<b>2 Quick-start guide for patients</b>	<b>5</b>
2.1 Start up	5
2.1.1 Login Page	6
2.1.2 Sign Up Page	6
2.1.3 Choose gamification level	7
2.2 Navbar and Footer	7
2.2.1 Navbar	7
2.2.2 Footer	7
2.3 Home Page	7
2.3.1 Streak Component	8
2.3.2 Virtual Tree Component	8
2.3.3 Upcoming Measurement	9
2.3.4 New Measurement	9
2.3.5 Upcoming Activity	10
2.3.6 New Activity	10
2.3.7 Edit Measurement	11
2.4 History page	11
2.4.1 All Measurements	12
2.4.2 Activity	12
2.4.3 Blood Sugar Graph component	13
2.5 Goals	13
2.5.1 Forest	14
2.5.2 Achievements	14
2.5.3 Goals By Disease	15
2.6 Profile Page	15
2.6.1 Gamification Level	17

# Version History

Version	Date	Name(s)	Change
2.0	202-12-08	Matthew Soulaka, Fredrik Thorsson, Isak Johansson	Fixed final comments after document review. Updated all internal references and updated figures to pictures from the actual application.
1.3	202-12-07	Fredrik Thorsson	Rewrote the sections Goals and Profile page, including the subsections.
1.2	2020-12-06	Matthew Soulaka, Fredrik Thorsson	Changed the order of components in the document having the login pages first then the navigation. Changed the content of login components, navigation components, home page components including all subjects regarding measurements. Changed the content of the History page section.
1.1	2020-12-05	Matthew Soulaka, Fredrik Thorsson	<b>Front Page:</b> added authors names. <b>Version History:</b> Created a table for Version History. Removed the meta text from the introduction. <b>Purpose section:</b> Re-wrote the purpose and clarified the intended audience of the document. <b>Scope section:</b> Added 1.2 Scope which describes the focus of the User Manual. <b>Software Overview:</b> Completely re-wrote the software overview with inspiration from the project description stated in the project plan. <b>Definitions:</b> Changed the definition of streaks, tree and forest. Added definitions for gamification, gamification levels, achievements and goals. Added figure description.
1.0	2020-11-30	Lawrence Thanakumar Rajappa	Created the first version for the User Manual.

# Chapter 1

## Introduction

This chapter covers the purpose of the User manual for the application Treet and describes its intended audience. This chapter also specifies the scope of the User manual and provides definitions of terms that is of relevance to this document.

### 1.1 Purpose

The purpose of this document is to provide the customer, Region Östergötland, with information of how their patients should use Treet efficiently. This is done by describing the numerous functions available within the application. This allows Region Östergötland to deeply understand how their patients interact with Treet.

### 1.2 Scope

This User manual specifically focuses on the interaction between the application and the patient. The application's functionalities and different pages are described from the patient's point of view. Therefore, this User Manual does not cover topics such as implementation, databases or other technical aspects of Treet.

The User manual only covers the developed product and does not include features and functions that shall be implemented in the future. Moreover, this document, unless otherwise stated, only covers the maximum level of gamification.

### 1.3 Software Overview

Region Östergötland has experienced a challenge with increased compliance among their patients on their self-monitoring application, which in this context means the patient to keep sending in their medical data over a long period of time. The application Treet aims to solve this by provide a web application for phones and tablets that use gamification features to incentivize the patient to compliance.

The gamification will provide value to the customer by changing the patient's behaviour from *have to* monitor to *want to* monitor. This will have the effect of more efficient use of the customers resources and provide more consistent patient data over time. It will also have the effect of less emergency care for patients that are complying since changes in the patients monitored data can be used to more easily foresee deterioration of health and take actions earlier to mitigate or reverse that development in health.

The main gamification elements that will drive the motivation of the patient user are the concept of streaks, the achievements, and the the forest elements. The idea behind The Forest is that the patient user will grow a virtual tree by increasing their streak. Once a virtual tree is fully grown they gain new ones to progress. Trees that have been fully grown are stored in the Forest. Treet also introduces achievements that the patients receive when achieving different goals in the application.

Patients have the option of altering between different degrees of gamification features depending on their preferences. Treet allows patients to choose from a three-leveled scale, where level 1 only consists of the streaks element, level 2 also includes achievements and level 3 also includes the virtual tree and the forest elements.

## 1.4 Definitions, acronyms and abbreviations

Terminology	Definition
Streak	A counter to keep track of how many consecutive days a patient has completed all their tasks.
Tree	The patient's currently growing tree that grows when a patient increases their streak.
Forest	The patient's collection of all virtual trees that have been fully grown.
Goal	A health-related objective of a patient's ambition or effort that is to be achieved.
Achievements	Received upon goal completion.
Gamification	Incentive way of encouraging users do their assigned tasks by applying the characteristics of game elements.
Gamification Level	Depending on preference the user can chose between three levels of gamification.
Level 1	The minimum level of gamification. Contains of the streak element.
Level 2	The moderate level of gamification. Contains of the streak element and achievements.
Level 3	The maximum level of gamification. Contains of the streak element, achievements and the forest.

**Table 1.1:** Definitions of important elements for the application

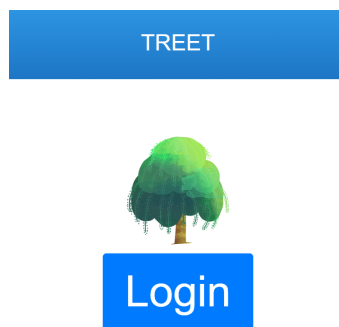
## Chapter 2

# Quick-start guide for patients

The following chapter aims to introduce how the end-user is to interact with **Treet**. The application's different pages are presented with their corresponding functionalities and sub-pages. This chapter will also include pictures from the finished application.

### 2.1 Start up

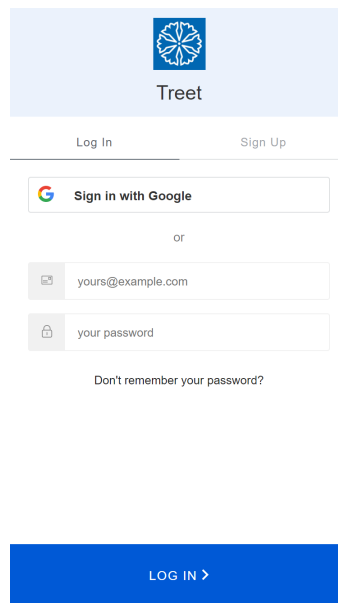
When the user first enters the application, the page seen in figure 2.1. The following section describes the view for **Log In** and **Sign Up**.



**Figure 2.1:** Start up page

### 2.1.1 Login Page

The **Login Page** is the entry point for the application, see Figure 2.2. As a user, you can choose between using your email address and password or using your google account to login.

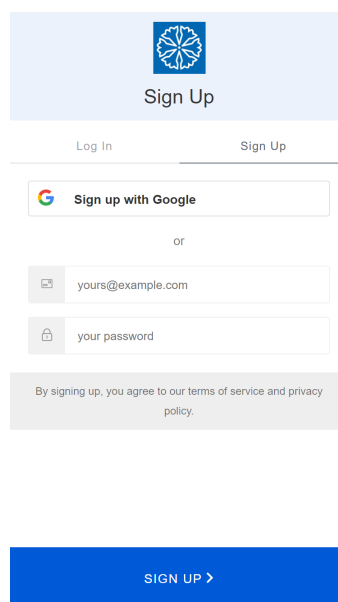


The login page features a light blue header with a circular logo and the text 'Treet'. Below the header, there are two tabs: 'Log In' (active) and 'Sign Up'. The main content area contains a 'Sign in with Google' button, followed by the text 'or'. Below this are two input fields: one for email (containing 'yours@example.com') and one for password (containing 'your password'). A link 'Don't remember your password?' is positioned below the password field. At the bottom, there is a large blue button labeled 'LOG IN >'.

**Figure 2.2:** Login page

### 2.1.2 Sign Up Page

The **Sign Up Page**, see Figure 2.3, is used when a new user wants to register and use the application for the first time. A new user can choose between registering with Google or by creating a new account with an email address and a password.

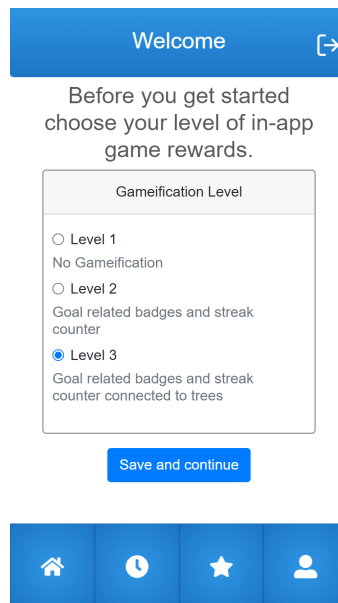


The sign up page features a light blue header with a circular logo and the text 'Sign Up'. Below the header, there are two tabs: 'Log In' and 'Sign Up' (active). The main content area contains a 'Sign up with Google' button, followed by the text 'or'. Below this are two input fields: one for email (containing 'yours@example.com') and one for password (containing 'your password'). A grey box at the bottom contains the text 'By signing up, you agree to our terms of service and privacy policy.' At the bottom, there is a large blue button labeled 'SIGN UP >'.

**Figure 2.3:** Sign up page

### 2.1.3 Choose gamification level

When a new user signs up for the first time, the user has to choose the desired level of gamification, see figure 2.4. This is done by pressing desired level, then **Save and continue**.



The screenshot shows a mobile app interface. At the top is a blue header bar with the text 'Welcome' and a right-pointing arrow icon. Below the header, the text reads: 'Before you get started choose your level of in-app game rewards.' In the center is a white box with a light gray border titled 'Gameification Level'. Inside this box, there are three radio button options: 'Level 1' with the description 'No Gameification', 'Level 2' with the description 'Goal related badges and streak counter', and 'Level 3' which is selected (indicated by a blue dot) with the description 'Goal related badges and streak counter connected to trees'. Below the selection box is a blue button labeled 'Save and continue'. At the bottom of the screen is a blue navigation bar with four white icons: a house (Home), a clock (History), a star (Goals), and a person (Profile).

Figure 2.4: Gamification level

## 2.2 Navbar and Footer

On each page there will be a navbar and a footer which will be described below.

### 2.2.1 Navbar

Every page contains a topmost bar, see Figure 2.5, which holds the title of the page and a button on the right hand side to log out from the application.



Figure 2.5: Navbar

### 2.2.2 Footer

Every page contains a bottom bar which holds four buttons **Home**, **History**, **Goals** and **Profile**. The order of the buttons are as presented in the sentence before, see Figure 2.6



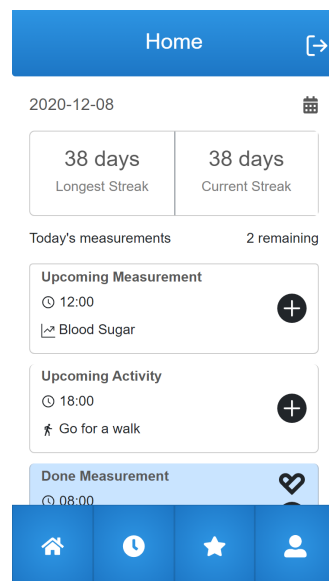
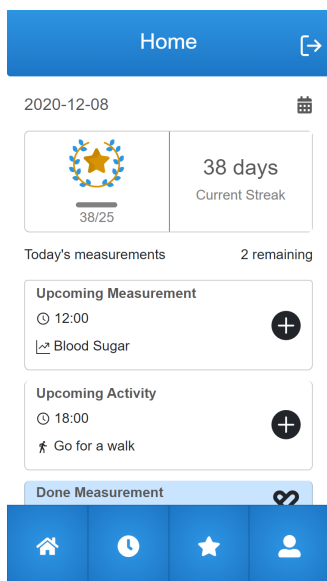
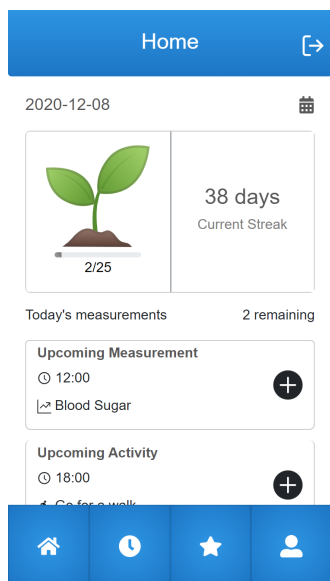
Figure 2.6: Footer

## 2.3 Home Page

**The Home Page**, see Figure 2.7, is the first page that the user encounters after login. This page contains of the **streak component**, **upcoming measurements and activities** and **completed measurements**, which all will be described below. Previously named components are always shown regardless set gamification level. If the gamification is set to **Level 3** the home page will also display your currently growing tree along with your current



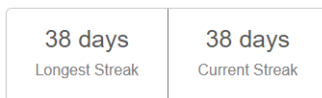
streak, see figure 2.7. However, if the degree of gamification is set to **Level 2** a box stating the highest streak will be shown along with the amount of completed achievements instead of the tree, see figure 2.8. If the gamification is set to **Level 1** the user will only be displayed the longest streak and the current streak, see figure 2.9.



**Figure 2.7:** Gamification level 3 **Figure 2.8:** Gamification level 2 **Figure 2.9:** Gamification level 1

### 2.3.1 Streak Component

A **Streak**, see Figure 2.10, is defined as a counter to keep track of how many consecutive days a patient has completed all their tasks.



**Figure 2.10:** Streak counter

### 2.3.2 Virtual Tree Component

A **Virtual Tree** is a progress meter which shows how the user is progressing towards set goals. The tree grows by one unit everyday after the user completes all assigned tasks. Upon clicking on the **Virtual Tree** component on the **Home Page**, users are redirected to the **Virtual Tree Page**, see figure 2.11. From the figure, it is seen that this particular user has completed all their assigned tasks for three days without any break. Once the plant is fully grown into a tree (which in this case is achieved by reaching 25/25), the tree will be added to the **Forest** (which will be described in section 2.5.1).

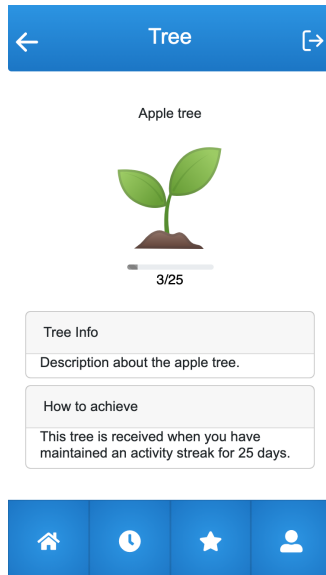


Figure 2.11: Virtual Tree

### 2.3.3 Upcoming Measurement

**Upcoming measurements**, see Figure 2.12, are a set of everyday measurements regulated by a medical professional. They represent the measurements that a patient is expected to register. The specified time is only a suggestion to help the patient create a routine. A patient can enter their measurement data by clicking on the button representing a plus sign (+).

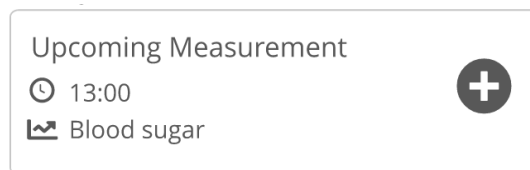
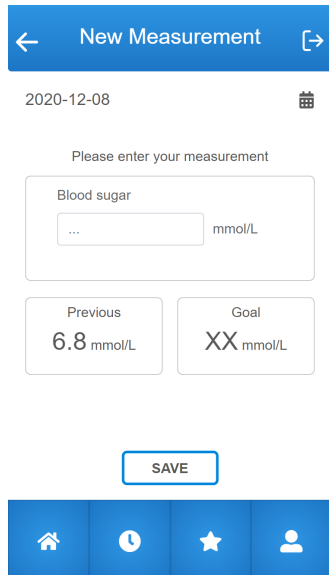


Figure 2.12: Upcoming Measurement

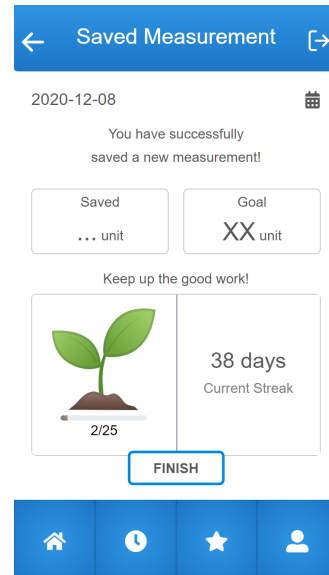
### 2.3.4 New Measurement

A patient can enter a new measurement in the following way:

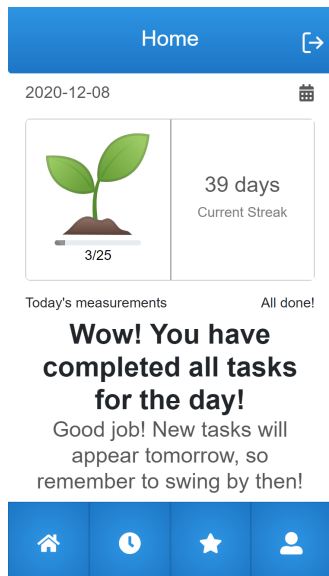
1. Once the user presses the plus sign (+) button on an upcoming measurement, see Figure 2.12, they are redirected to the **New measurement Page**, see Figure 2.13. This page contains your **New Measurement** value field, previous measurement and a goal.
2. Once the user presses the **Save** button after entering the measurement value, they are redirected to the **Saved Measurement Page**, see Figure 2.14. This sub-page displays the saved measurement value and the goal value. Also, the patients current streak, longest streak, and a weekly measurement graph are displayed in this sub-page. A **Finish** button is displayed at the bottom of the page.
3. Once the user presses the **Finish** button, the user is taken back to the **Home page**, if all measurements have been completed they get a confirmation text, see Figure 2.15. A completed task or measurement is highlighted with the color blue, see figure 2.16.



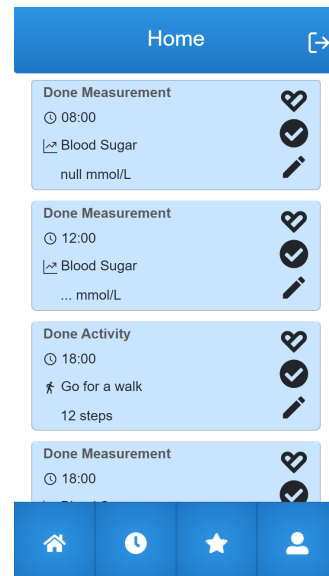
**Figure 2.13:** New Measurement



**Figure 2.14:** Saved Measurement



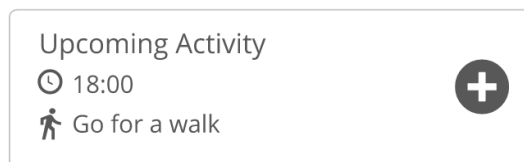
**Figure 2.15:** All tasks completed



**Figure 2.16:** A completed task is marked with the color blue

### 2.3.5 Upcoming Activity

**Upcoming activities**, see Figure 2.17, are a set of everyday activities such as walking, running and biking. These are regulated by a medical professional. The specified time is only a suggestion to help the patient create a routine.



**Figure 2.17:** Upcoming Activity

### 2.3.6 New Activity

To enter a new activity value, see figure 2.18, the process is the same as for entering a new measurement, see 2.3.4 New Measurement.

**Figure 2.18:** New Activity

### 2.3.7 Edit Measurement

**Edit Measurement** is an option to change your saved measurements.

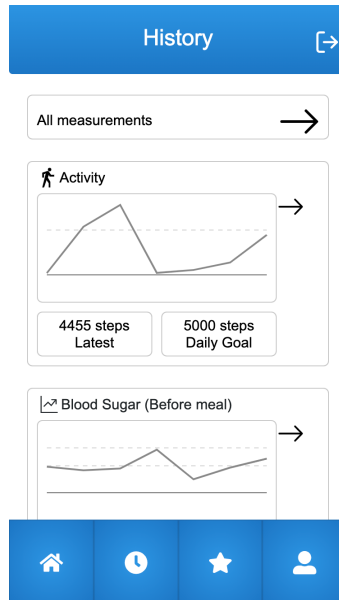
1. Once the user presses the **Pen** button on a already registered measurement, it takes the user to the **Edit Measurement Page**, see Figure 2.19. This view contains an editable measurement value along with previously saved measurement and goal.
2. Once the user presses the **Save** button after entering the new measurement value the user is displayed a confirmation message, see Figure 2.20. After clicking **Finish** the user is taken back to the Home page.

**Figure 2.19:** Edit Measurement

**Figure 2.20:** Confirmation

## 2.4 History page

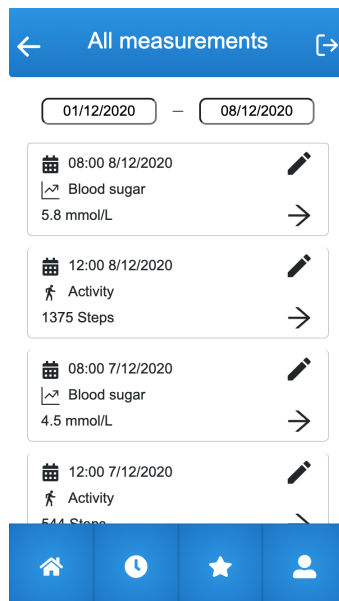
**The History page**, see Figure 2.21, is accessed when the user clicks on the second button of the footer. In this page, the user can view their health-related progress i.e. their previously taken measurements and completed activities. **The History page** involves the following components **All measurements**, **Activity** and **Blood sugar**.



**Figure 2.21:** The history page

### 2.4.1 All Measurements

The user is redirected to this sub-page of **History** by clicking on All Measurements on the **History Page**. This page lists all of the measurements and activities that the user has previously registered, see figure 2.22. The user may edit a measurement by pressing the **Pen Icon**. The process for editing the measurement is the same as described in section 2.3.7.



**Figure 2.22:** All Measurements

### 2.4.2 Activity

The user is redirected to this sub-page of **History** by clicking on the **Activity Component** in the **History page**. This page, see Figure 2.23, summarizes the activities completed by the user through graphical visualization. Below the graph component, the user can find all of their previously entered activity entries. Users also have the option of clicking on a specific point of the graph to view their a specific entry based on date the date, see Figure 2.24. Moreover, users have the possibility of changing the date interval which the graph displays. Users can set different intervals of date by clicking on the date buttons and choosing a specific date, see Figure 2.25.



Figure 2.23: Activity

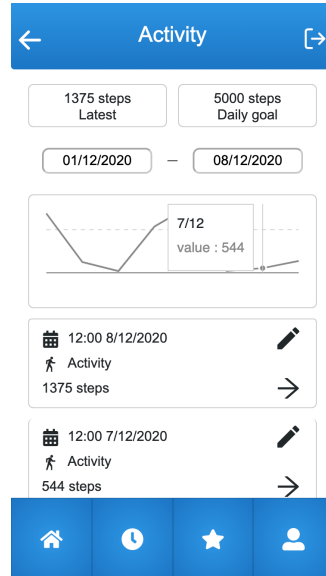


Figure 2.24: Viewing a specific point of graph

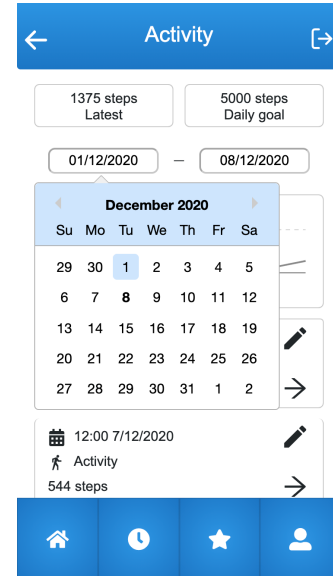


Figure 2.25: Selection of date interval for graph

### 2.4.3 Blood Sugar Graph component

This component, see Figure 2.26, summarizes all of the user's **Blood Sugar**-related entries that have been made through graphical visualization. Below the graph component, the user can find two components **Latest** and **Goal**. **Latest** holds the most recent measurement entry and **Goal** holds the **Blood Sugar Level** which the user shall be aiming for. This component also covers the **Activity**-related measurements in the **History Page**.

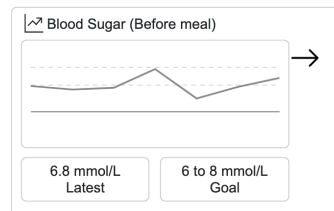


Figure 2.26: Measurement Graph Component

## 2.5 Goals

The **Goals Page**, see Figure 2.27, is accessed when the user clicks the third button of the footer. From the **Goals Page** you can access the **Forest**, **Achievements** and **Specific Goals related to a Disease**.

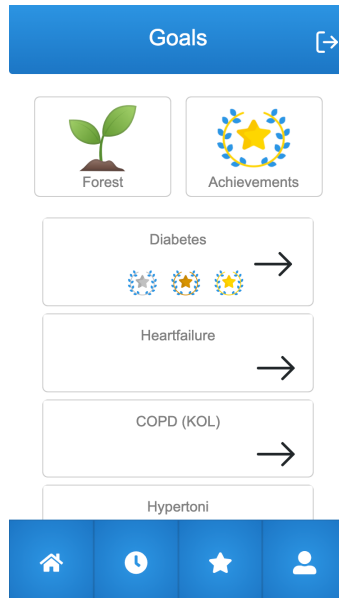


Figure 2.27: Goals page

### 2.5.1 Forest

**The Forest Page**, see Figure 2.28 and 2.29, contains a collection of **Virtual Trees** which the user have earned by completing tasks without a breaking the streak. **The Forest** contains fully grown trees, the currently growing tree and upcoming trees. Under the growing tree is a progress bar containing information about remaining days until the tree is fully grown.

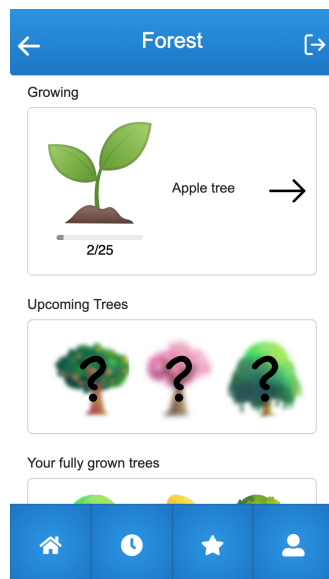


Figure 2.28: Forest page

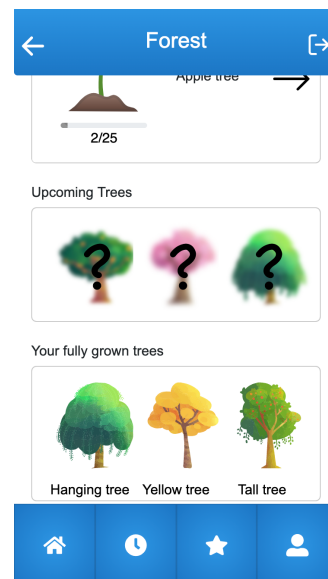
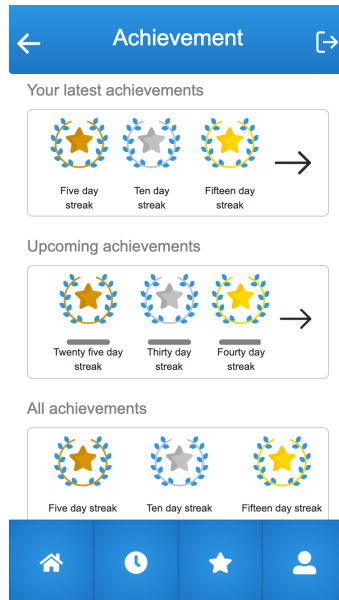


Figure 2.29: Forest page

### 2.5.2 Achievements

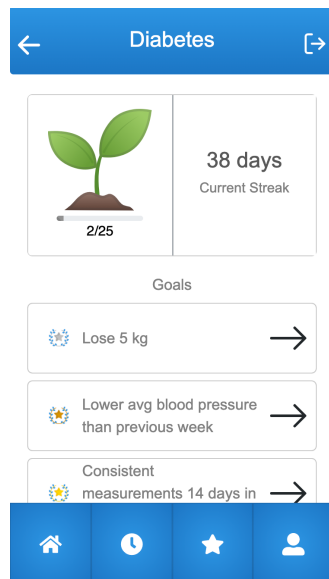
**The Achievement Page**, see Figure 2.30, contains a collection of achievements the user has earned from completing tasks and set goals. The page is displaying the **latest achievements**, **upcoming achievements** and a **collection of all completed achievements** so far.



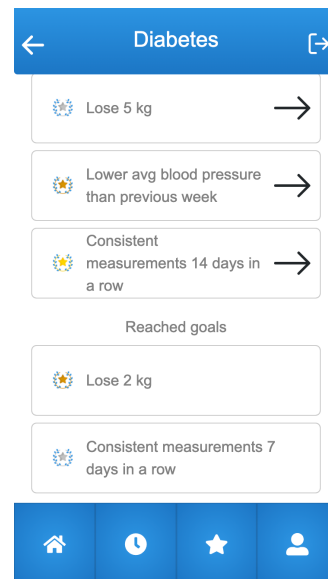
**Figure 2.30:** Achievements page

### 2.5.3 Goals By Disease

This page contains goals related to a specific disease which is accessed from the **Goals Page**, see Figure 2.27. The goals are regulated by a medical professional. When the user clicks on a particular disease, the user is taken to diseases goal page, see Figure 2.31 and 2.32, with list all goals regulated.



**Figure 2.31:** Goals by disease

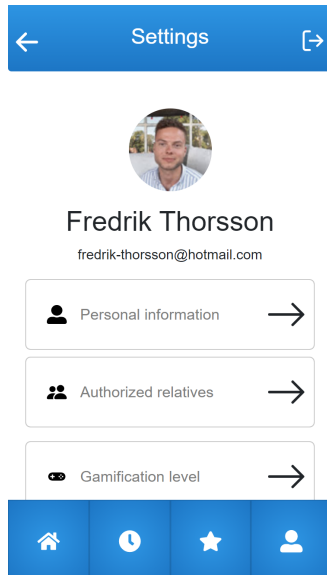


**Figure 2.32:** Goals by disease

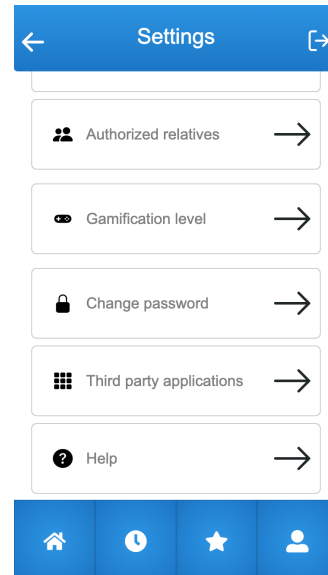
## 2.6 Profile Page

The **Profile Page**, see Figure 2.33, is navigated to through the fourth button in the footer. Here the user can view their **personal information**, **change gamification level**, **change password**, **integrate Treet with third party application**, **authorize relatives** to view their progress of their medical details and a **help section**.





**Figure 2.33:** Profile Page

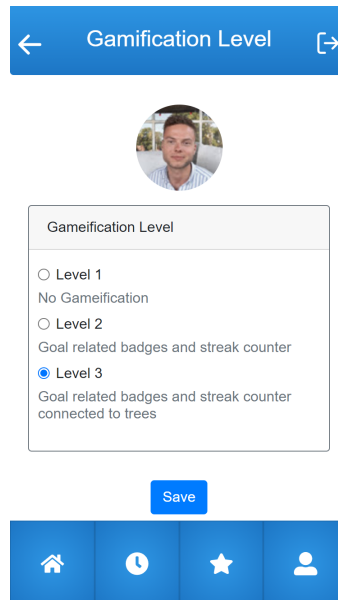


**Figure 2.34:** Profile page

### 2.6.1 Gamification Level

On the **Gamification Level Page**, see Figure 2.35, the user can set the amount of gamification the user experience shall contain. There are three levels of gamification.

- Level 1 - The minimum level of gamification. Contains of the streak element.
- Level 2 - The moderate level of gamification. Contains of the streak element and achievements.
- Level 3 - The maximum level of gamification. Contains of the streak element, achievements and the forest.



**Figure 2.35:** Gamification Level