MyRecovery

An app for post-op patients to manage their journey to recovery

User's Manual

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Content

1. System Overview

MyRecovery is an application which helps post-op patients recover under the supervision of their doctor, even after being discharged from the hospital. The patients can report their mood, pain level, heart rate, movement and the medicines they are taking, while being in the comfort of their home. It also allows the doctors to monitor the recovery of their patients, and to respond to any unusual occurrences in the data received. The patient's stats are visualized in the form of aesthetically pleasing charts, which will be visible on both, patient and doctor side.

2. System Summary

2.1. System Configuration

MyRecovery operates on mobile devices with Android operating system. It is compatible with Android API 23 (Android 6.0 Marshmallow) and higher versions. The application requires connection to Internet in order to upload and download data from the database, as well as the permission to access camera so that the user can measure their heart rate. After installation on the device, MyRecovery can be used immediately without any further configuration.

2.2. User Access Levels

The access level of the doctors and patients is different. The patients can report their information, and can view the stats. However, they cannot view the data of other patients. Doctors can view the data of all their patients, but not of other doctor's patients.

2.3. Contingencies

In the case of power outage (battery dies), the data that has been saved or submitted will be safe as it is stored on the cloud. Changes made before the submission will be lost. In case of no internet connection, the app will not be able to download the patient information and in some cases, would not let the user log in.

3. Getting Started

3.1. Downloading the App

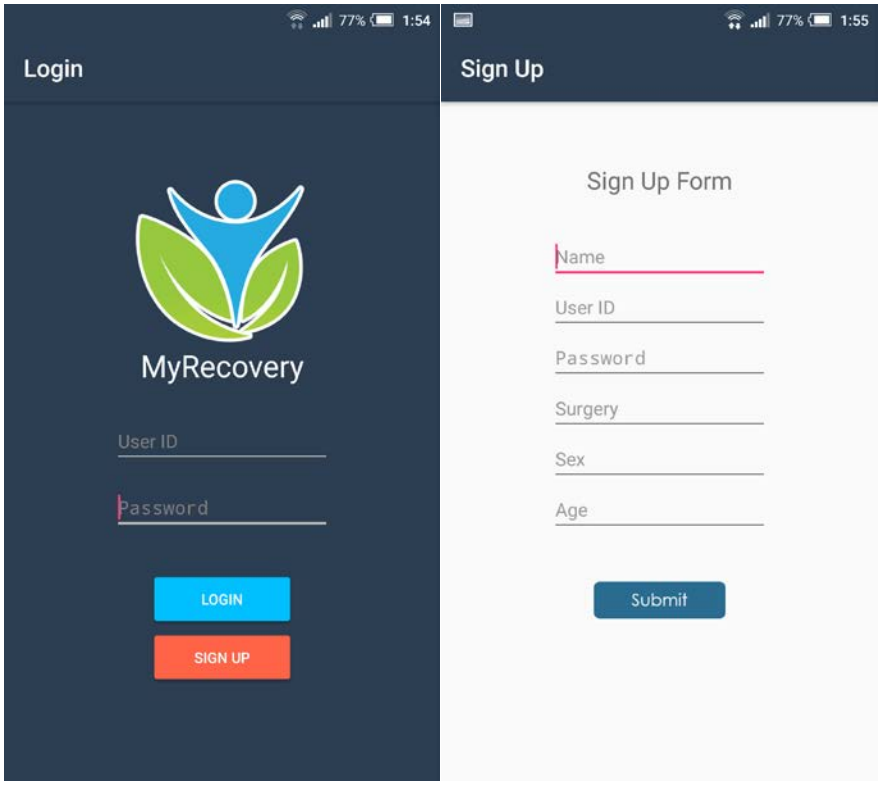
MyRecovery can be downloaded from the GitHub link given below. It is a zip file which will have to be extracted. Link:
https://github.com/zzeqii/MyRecovery-Mobile-Application.git

3.2. Compiling and Installing

To compile the app, the user will need Android Studio. Once they have opened Android Studio, they can click on Import Project, and then direct the browser to the newly downloaded MyRecovery folder. Android Studio will automatically integrate everything together, and the app will be ready to be compiled and installed. Once the MyRecovery Project is opened in Android Studio, the user can simply connect their phone with the computer, and press the green run button at the top, to compile and install the app in their phone. They need to make sure USB debugging mode is enabled on their device.

4. Using the App

4.1. Sign-Up and Login

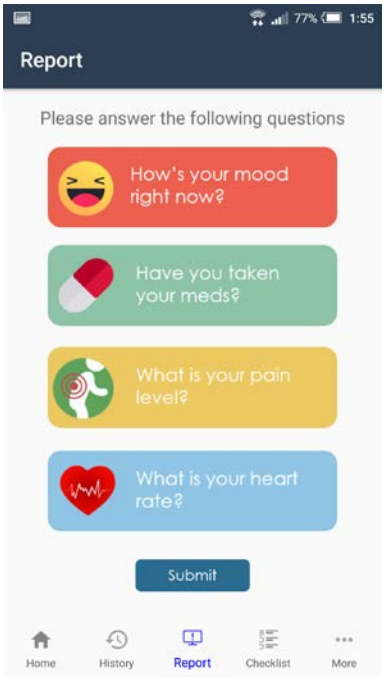


The login screen is the first thing that appears, when the application is launched from the device. Existing users can simply fill in their user ID and password and press login. New users can press sign up, and they will be taken to the sign-up screen. The can fill out their details and then press submit. The user ID has to be 4-digit long. The password has to be atleast 5 characters. Once the user submits the form, the app will directly go to the homepage.

4.2. Home Page

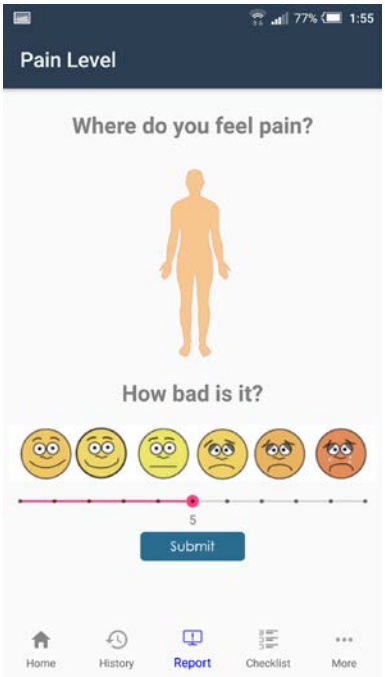
The Home Page welcomes the user with their name and greeting. Here the user can view some facts about their daily progress. They can also view the steps they have taken so far in the day. Pressing the button at the bottom right corner, saying “Ready to go to work?” will mean that the patient has recovered, and feels healthy again. This will mark the end of their journey to recovery. The whole app has a bottom navigation menu, from where we can access different parts of the app. History tab shows us to the stats till the present date. Report lets the user do the reporting, while Checklist allows them to see what they should be doing in order for better recovery. More button will take the user to their profile information and allow them to make any changes.

4.3. Reporting



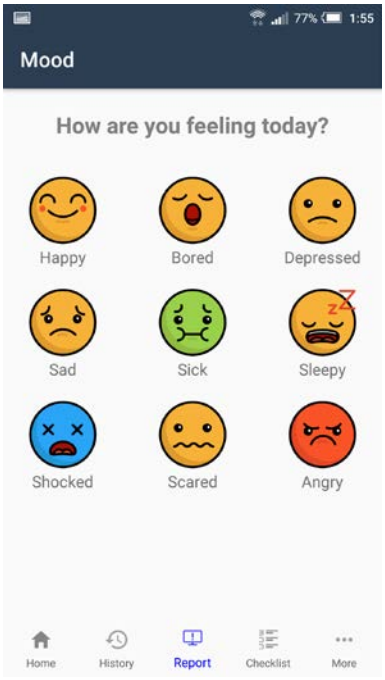
Once the user is on the Report view, they can answer the four questions, and once they have done that, they can press submit to save their response.

4.3.1. Pain Level



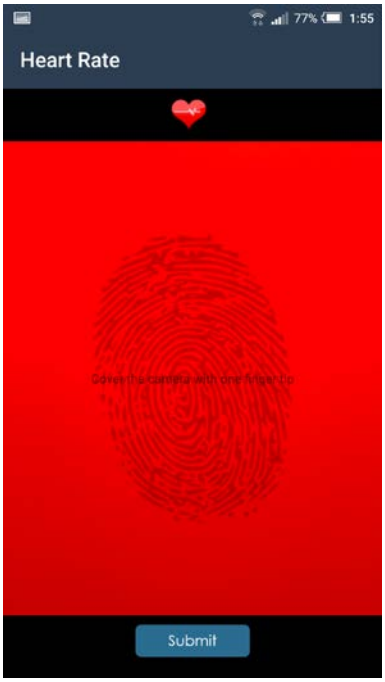
In this view, the user can simply pick the level of pain they are experiencing, on a 1-10 scale (10 being the highest). They can choose the pain level using the slider, and then press submit.

4.3.2. Mood



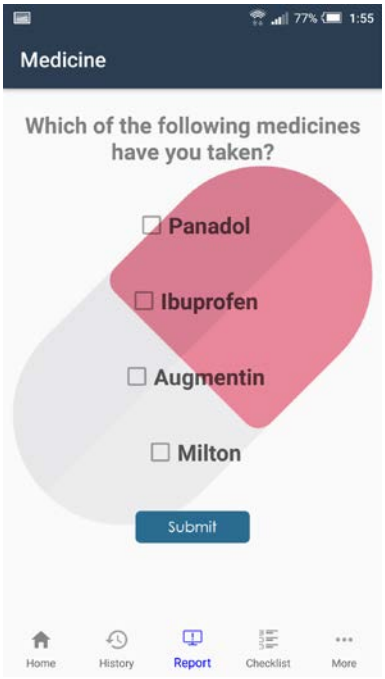
This view is similar to Pain Level view, and the user can simply choose the emoji which accurately describes their mood at the given time. Once they press the emoji, the app will automatically save the response and go back to the Report screen.

4.3.3. Heart Rate



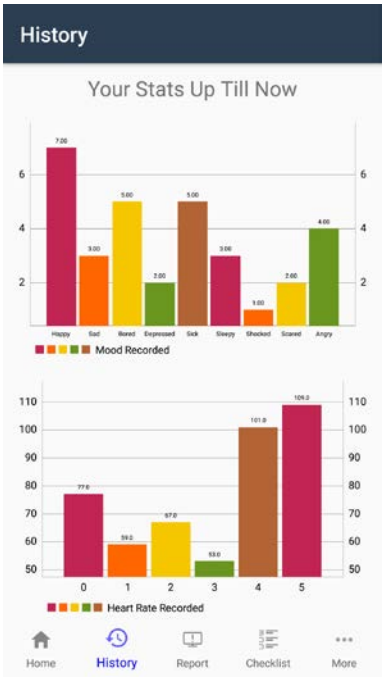
This view lets the user record their Heart Rate. All they have to do is put their finger on the main camera (at the back), and wait for a minute. The app will take an average of their heart rate, and will display it in the top right corner. Once its displayed, the user can simply press submit to save it.

4.3.4. Medication



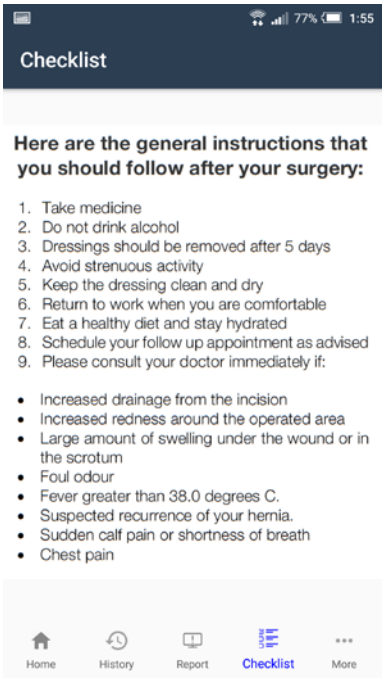
This view will display all the current medication prescribed to the patient. At each time of the reporting, the patient can simply checkmark the ones they have taken. After that they can press submit to save the response and go back to the Report view.

4.4. Data History



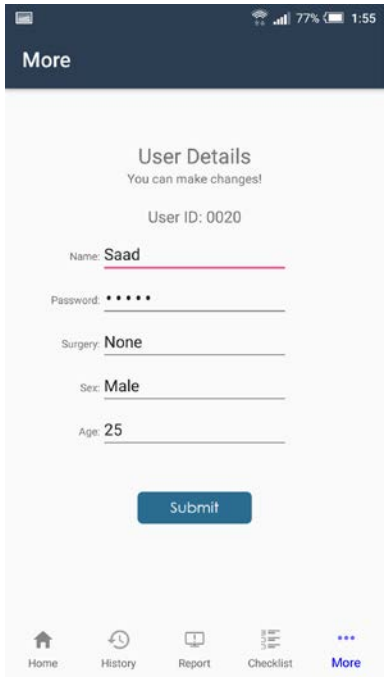
Upon pressing History from the bottom navigation, the user will see this view. This shows all the stats like, heart rate, pain level, mood and steps taken. They can see the history of their reporting and see the overall trend of their recovery.

4.5. Checklist



Checklist provides an easy way to remind the patient of what they need to be doing in order to have a healthy and speedy recovery.

4.6. Changes to Profile



To make any changes to the profile, the user can press More in the navigation menu. This will take them to the view shown above, and allow them to make any changes they want. After making the changes, they can press submit to save them.

4.7. Doctor's Side

The doctor's side of the app is much simpler than the patient's. The doctor will login using a special user ID and password provided by the app administrator. On the Home Page, the doctor can see any news from their patients, e.g. Efan has completed her recovery, Saad has reported high levels of pain. Using the bottom navigation, they can press Patients, and go to the list of patients. The list shows all the patients (of the particular doctor) who are using the app. Once the doctor clicks on a patient, he can view their profile information, as well as the history of their reporting. Finally, by clicking on More, they can make changes to their profile, much like the patient's side of the app.

5. Reporting Technical Problems

Since MyRecovery is still in testing phase, there would be some issues with the app. To help us make MyRecovery better for you, we request you to write to us, and let us know about any technical difficulties or glitches you face while using the app. You can reach us at: siqb3441@uni.sydney.edu.au. Hope this manual proves to be useful, and your journey to recovery becomes a breeze with MyRecovery.