



E-Health Service User Manual

Version 1.0

Project Name	Version: 1.0
E-Health Service	Date: 2013-01-19

Revision History

Date	Version	Description	Author
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2013-01-05	0.2	Web application	Stefania Pezzetti
2013-01-19	0.3	Windows Phone application	Petar Kekez
2013-01-19	0.4	Android application	Vedran Šikić
2013-01-19	1.0	Revised Document	Stefania Pezzetti

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1. Introduction

1.1 Purpose of this document

The purpose of this document is to explain functionalities of the *E-Health Service* web application, android application and Windows Phone application to customers. After reading this document users should be able to understand how to use the system.

1.2 Document organization

The document is organized as follows:

- Section 1: *Introduction* of the system, describes contents of this guide, used documentation during developing process etc.
- Section 2: *General Overview*, describes the general application purpose and reported administrator and first aid credentials
- Section 3: *Web Application*, describes the functionalities and the usages of the users.
- Section 4: *Android Application*, describes the functionalities and the usages of the users.
- Section 5: *Windows Phone Application*, describes the functionalities and the usages of the users.

1.3 Intended Audience

The intended audience for this document is:

- The end users of the system;
- All team members of the project;
- The project customer;
- The project supervisor.

1.4 Scope

This document describes the functionalities implemented in the E-Health Service project which are based on five different types of users interacting with the system depending on the permission level; unregistered users that can use the application for gathering information about E-Health Service doctors; doctors, who can manage patients' vital parameters and medical notes, besides send alarms to first aid defining patient's diagnosis and alarm level; patients, who can update their current location and insert their vital parameters measurements, in addition they can send generic alarms to first aid using mobile applications; first aid which is warned when someone (doctor or patient) sends an alarm; administrator who can change the first aid login password.

1.5 References

For additional information the following documents can be used as reference:

- Project Plan Document:
→ http://www.fer.unizg.hr/_download/repository/Project_Plan%5B5%5D.pdf
- Requirements Definition Document:
→ http://www.fer.unizg.hr/_download/repository/Requirements_Definition%5B6%5D.pdf
- Design Description Document:
→ http://www.fer.unizg.hr/_download/repository/Design_Description%5B1%5D.pdf
- Acceptance Test Plan Document:
→ http://www.fer.unizg.hr/_download/repository/Acceptance_Test_Plan%5B4%5D.pdf

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2. General Overview

The idea behind the whole project is create a system that allows a better communication between doctors and patients and the main goal of E-Health Service project is patient's health monitoring.

In addition, because there can be situations where it is necessary to intervene as soon as possible, also first aid is an important part in our system.

2.1 Purpose and Intended usage scenarios

The purpose of E-Health Service is help doctors to perform their profession in the best way. It is known that doctors have many patients who can use measuring instruments to measure their vital parameters (glycaemia, blood pressure, temperature, oxygen saturation, heart rate, respiratory rate) at home, without going to hospital. The E-Health Service system has the objective to enable patients to send values measured by these measuring instruments to their doctors. So doctors can study patient's vital parameters and decide to intervene when it is needed. Thanks to the system doctors can also manage the patient's medical record, writing notes and eventually uploading files and images.

Patient's functionalities are limited respect with doctor's functionalities. However they are very useful, in fact, besides send their vital parameters, patient can use the alarm button in the mobile applications to send a generic alarm to first aid.

First aid can consult a web page where all alarms from doctors and patients are displayed in real time and there is the possibility to visualize a map with patient's position.

Patients are registered in the system by doctors and doctors are inserted in the system by administrator, who can also change first aid password.

Obviously the system allows an easy personal profile management for each user.

2.2 Profile already registered in the system

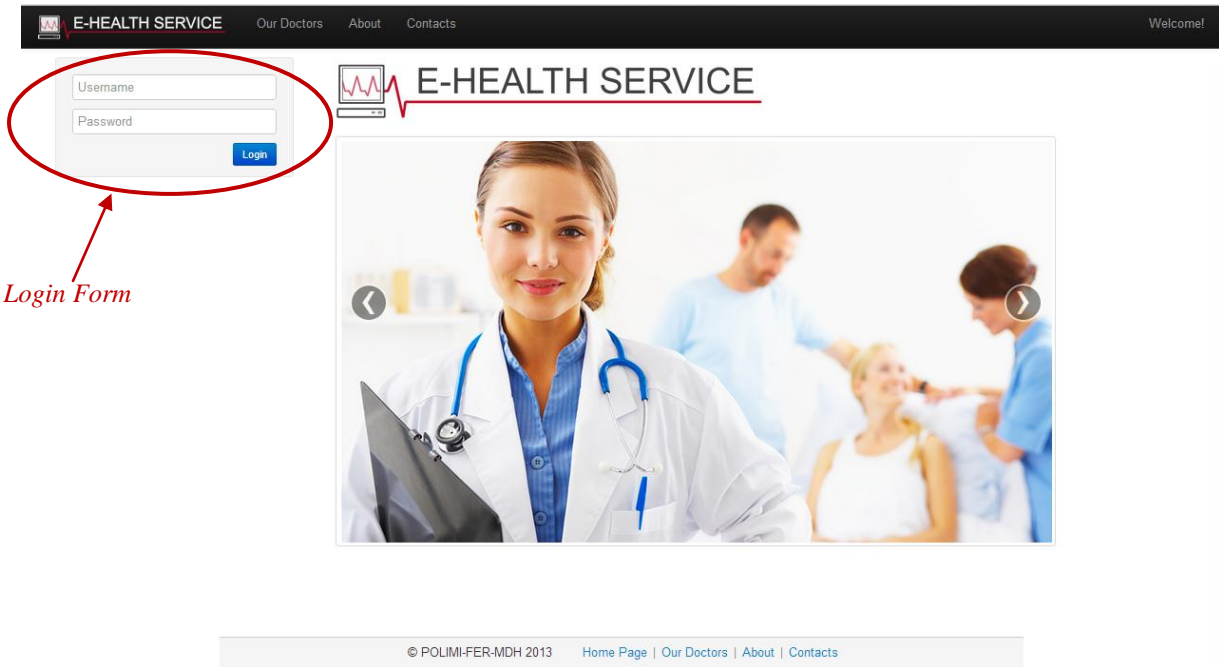
Administrator and first aid are already registered in the system; in addition we put some fake data in order to allow teachers to understand how the system works. In the following table you'll find accounts credentials:

USER	Username	Password
<i>Administrator</i>	administrator	administrator
<i>First aid</i>	firstaid	firstaid
<i>Doctor - Darell Taylor (example)</i>	darell.taylor@ehealth.com	a
<i>Patient - Abel Evans (example)</i>	evans.abel@ymail.com	1234

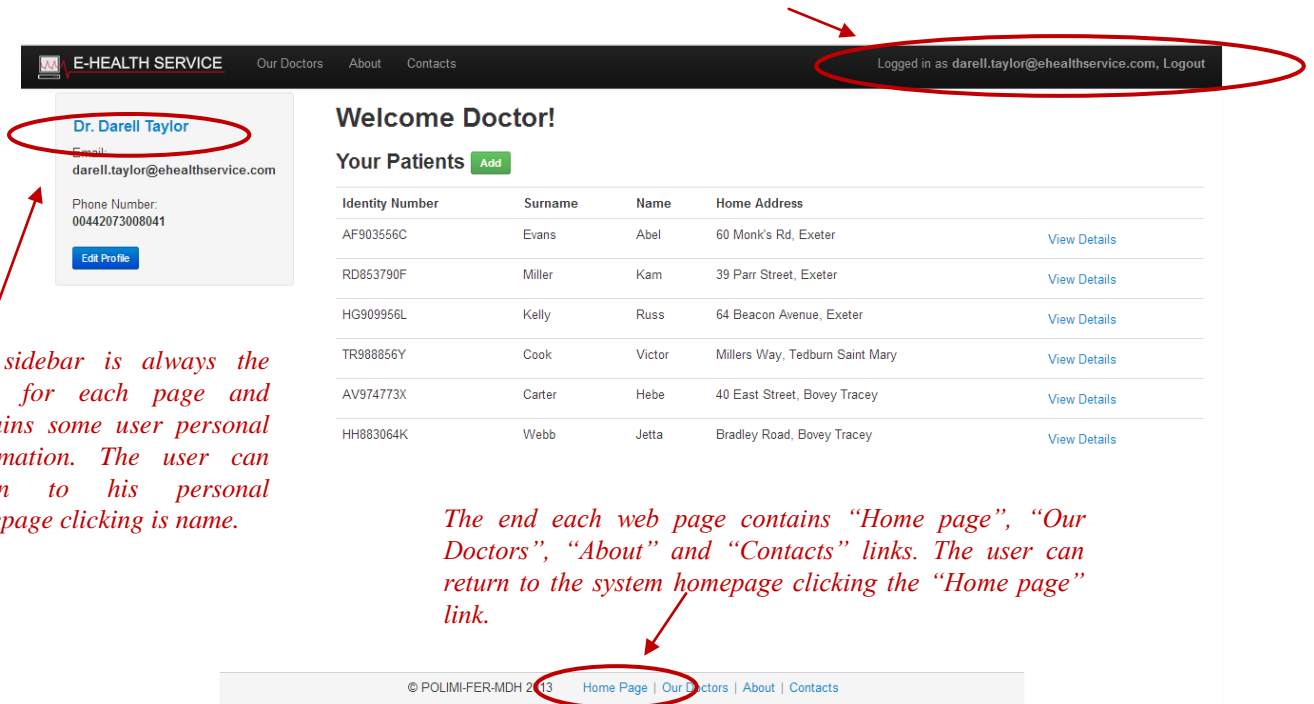
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3. Web Application

The E-Health Service web application can be used by five different users. The functionalities are listed based on the user type. Before starting with user types below there is the system index with the login form and a logout example. Each authenticated user can be logged out of the system in the same way.



The topbar on the right is always the same for each page, so the user can logout from the system from any page by clicking the "Logout" link.



The sidebar is always the same for each page and contains some user personal information. The user can return to his personal homepage clicking his name.

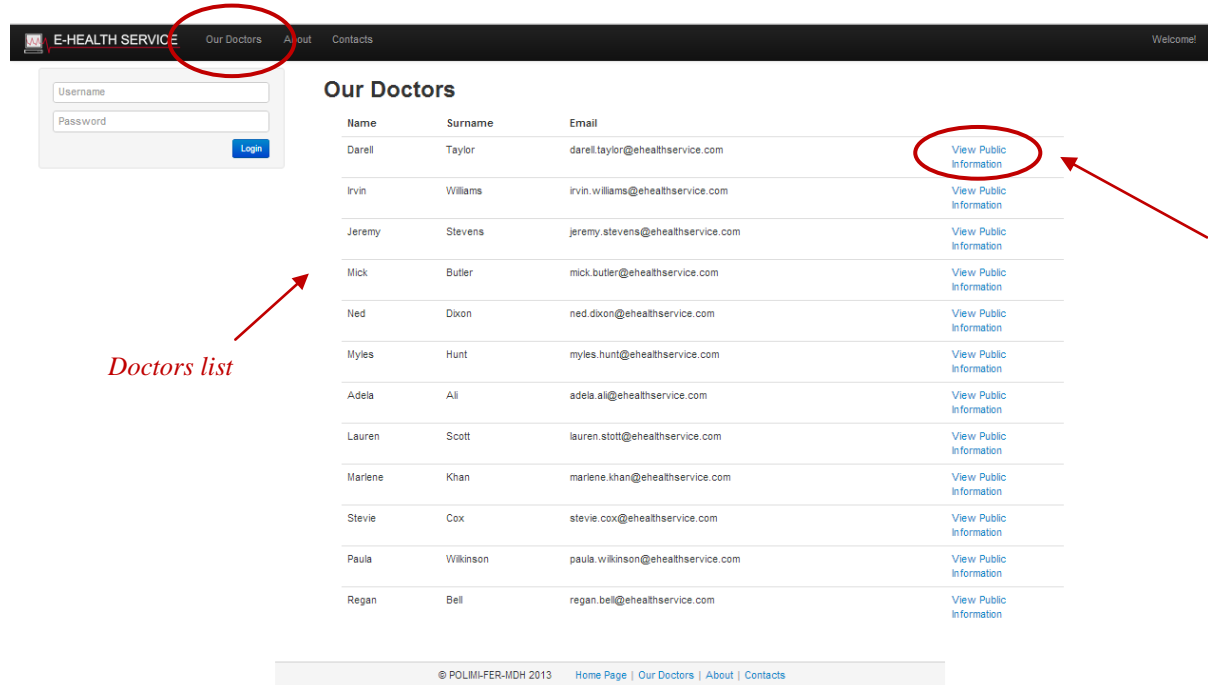
The end of each web page contains "Home page", "Our Doctors", "About" and "Contacts" links. The user can return to the system homepage clicking the "Home page" link.

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3.1 Unregistered User

3.1.1 Gathering information about E-Health doctors

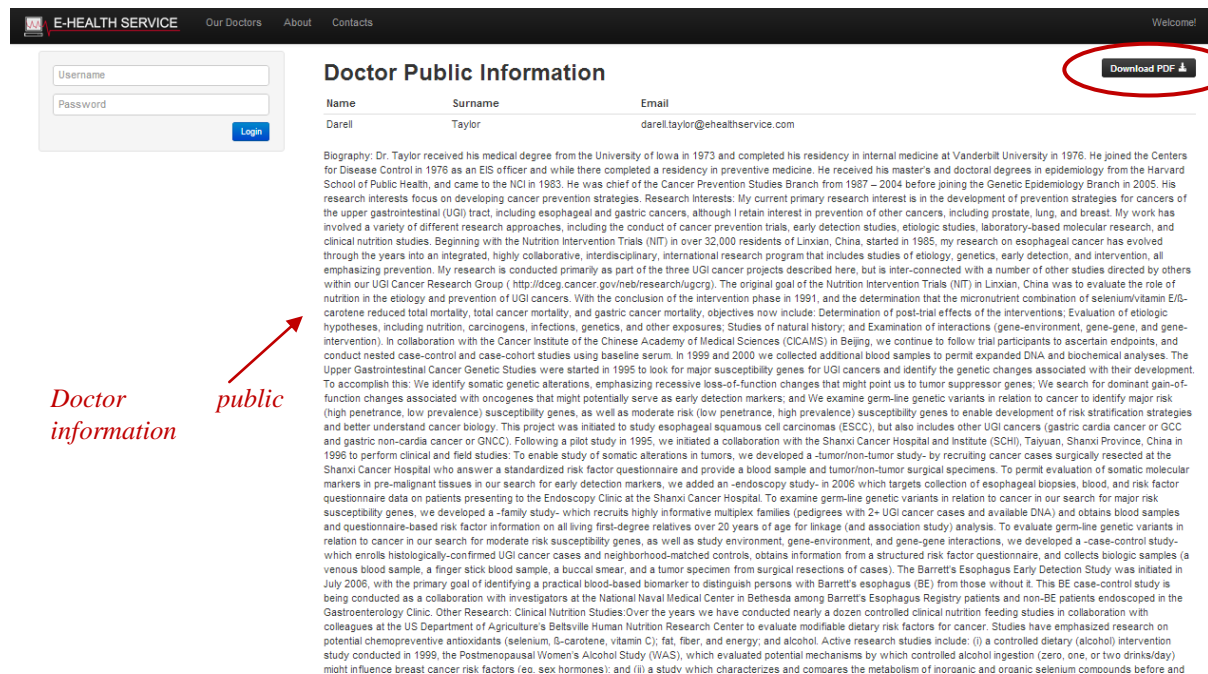
From the system index outside users click on “Our Doctors” and the screen with all doctors is displayed:



Doctors list

This link leads to doctor public information

From this screen outside users can click on “View Public Information” and consult public information of a specific doctor:



Doctor public information

public information

Button that allows public information download

Clicking “Download PDF” button outside users can download doctor public information as PDF:

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File downloaded

3.1.2 Consulting the about page

E-Health video

E-Health description

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3.1.3 Consulting the contact page

The screenshot shows the 'E-HEALTH SERVICE' website with a navigation bar containing 'Our Doctors', 'About', and 'Contacts'. A 'Welcome!' message is visible in the top right. On the left, there is a login form with fields for 'Username' and 'Password', and a 'Login' button. The main content area is titled 'Contacts' and lists the following individuals and their email addresses:

- Gregorio Perego**: gregorio.perego@gmail.com
- Stefania Pezzetti**: pezzettistefania@gmail.com
- Bojan Kosanovic**: bojan.k1234@gmail.com
- Tomislav Tolj**: tommy.t.emmanuel@gmail.com
- Marko Kelava**: lord.targaryen@gmail.com
- Vedran Sikic**: sikic.vedran@gmail.com
- Petar Kekez**: petar.kekez@outlook.com

A red arrow points from the text *System developers' contacts* to the email address of Gregorio Perego.

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3.2 Administrator

In the administrator personal the list with all doctors is displayed. The administrator can add a new doctor, delete a doctor from the system, change the first aid login password and his personal login password:

Welcome Admin!

Registered Doctors [Add](#)

Name	Surname	Email	Phone Number	View Public Information	Delete
Darell	Taylor	darell.taylor@ehealthservice.com	00442073008041	View Public Information	Delete
Irvin	Williams	irvin.williams@ehealthservice.com	00442073235041	View Public Information	Delete
Jeremy	Stevens	jeremy.stevens@ehealthservice.com	00448473008943	View Public Information	Delete
Mick	Butler	mick.butler@ehealthservice.com	0044256322241	View Public Information	Delete
Ned	Dixon	ned.dixon@ehealthservice.com	004499735220	View Public Information	Delete
Myles	Hunt	myles.hunt@ehealthservice.com	004476637843	View Public Information	Delete
Adela	Ali	adela.ali@ehealthservice.com	00442833268011	View Public Information	Delete
Lauren	Scott	lauren.stott@ehealthservice.com	0044993267804	View Public Information	Delete
Marlene	Khan	marlene.khan@ehealthservice.com	0044166228438	View Public Information	Delete
Stevie	Cox	stevie.cox@ehealthservice.com	00440093233231	View Public Information	Delete
Paula	Wilkinson	paula.wilkinson@ehealthservice.com	0044556802368	View Public Information	Delete
Regan	Bell	regan.bell@ehealthservice.com	0044853790256	View Public Information	Delete

Change First Aid Password

Change Password

Doctors list

This link allows administrator to add a new doctor in the system

This link allows administrator to change first aid personal login password

This link allows administrator to change his personal login password

This link allows administrator to delete the specific doctor

3.2.1 Add a doctor

The administrator has to fill the form in order to insert a new doctor in the system and then click the “Confirm” button:

Register a new Doctor

Name:

Surname:

Email:

Password:

Confirm Password:

Phone Number:

Public Information:

Confirm **Cancel**

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3.2.2 Change first aid login password

The administrator has to insert the new password and confirm it. Then click the “Save Changes” button:

The screenshot shows a web interface for an E-Health Service. At the top, there is a navigation bar with 'E-HEALTH SERVICE', 'Our Doctors', 'About', and 'Contacts'. On the right, it says 'Logged in as administrator, Logout'. On the left, there is a user profile for 'Raffaella Mirandola' with a 'Change Password' button. The main content area is titled 'Change First Aid Password' and contains two password input fields: 'New Password' and 'Confirm New Password'. Below these fields are 'Save Changes' and 'Cancel' buttons. At the bottom, there is a footer with '© POLIMI-FER-MDH 2013' and navigation links: 'Home Page | Our Doctors | About | Contacts'.

3.2.3 Change personal login password

The administrator has to insert his current password, then the new password, confirm it and click the “Save Changes” button:

The screenshot shows a web interface for an E-Health Service. At the top, there is a navigation bar with 'E-HEALTH SERVICE', 'Our Doctors', 'About', and 'Contacts'. On the right, it says 'Logged in as administrator, Logout'. On the left, there is a user profile for 'Raffaella Mirandola' with a 'Change Password' button. The main content area is titled 'Change Personal Password' and contains three password input fields: 'Current Password', 'New Password', and 'Confirm New Password'. Below these fields are 'Save Changes' and 'Cancel' buttons. At the bottom, there is a footer with '© POLIMI-FER-MDH 2013' and navigation links: 'Home Page | Our Doctors | About | Contacts'.

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3.3 Doctor

In his personal homepage is displayed a list with all doctor's patients.

The screenshot shows the doctor's homepage for Dr. Darell Taylor. On the left is a profile sidebar with an "Edit Profile" button circled in red. The main content area is titled "Welcome Doctor!" and "Your Patients" with an "Add" button circled in red. Below this is a table of patients with columns for Identity Number, Surname, Name, and Home Address. Each row has a "View Details" link circled in red. Red arrows point from text annotations to these elements.

This link allows doctor to insert a patient in the system

This link allows doctor to edit his personal profile

Patients list

This link allows doctor to view details regarding a specific patient

3.3.1 Register a new patient

Doctor has to fill the form to register a new patient. He has to insert name, surname, email, home address, phone number, identity number, date of birth and eventually some mandatory vital parameters. Then click the "Confirm" button. If the registration successfully finishes the patient details page is displayed. The patient will receive an email from the system as confirmation. In the same mail there is also a random password generated by the system. The patient has to use this password to log in the system.

The screenshot shows the "Register a new Patient" form. It includes input fields for Name (Abel), Surname (Evans), Email (abel.evans@post.net), Home Address (60 Monk's Rd, Exeter), Phone Number (01392661000), Identity Number (AF903556C), and Date Of Birth (1973/03/25). There is a section for "Mandatory Vital Parameters" with checkboxes for Sugar, Heart Rate, Respiratory Rate, Oxygen Saturation, Temperature, and Pressure. At the bottom are "Confirm" and "Cancel" buttons.

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3.3.2 View patient details

The patient details page is displayed when a patient is registered in the system by a doctor or when a doctor from his personal homepage decides to consult details of a certain patient.

E-HEALTH SERVICE Our Doctors About Contacts Logged in as darell.taylor@ehealthservice.com, Logout

Dr. Darell Taylor
 Email: darell.taylor@ehealthservice.com
 Phone Number: 00442073008041
[Edit Profile](#)

Abel Evans [Vital Parameters](#) [Delete Patient](#)

Email	Phone Number	Home Address	Identity Number	Date of Birth
abel.evans@post.net	01392661000	60 Monk's Rd, Exeter	AF903556C	1973/03/25

Medical Notes [Add](#)

Date	Note	Files
05/01/2013 11:01:03	Medical examination for the job: all vital parameters are in normal ranges.	Edit Delete
05/01/2013 11:04:38	Blood tests: cholesterol out of range. All results are in the attachment.	Abel Evans - Blood Tests.pdf Edit Delete
05/01/2013 11:10:09	Ultrasound kidneys and urinary tract. Size and position of kidneys are correct. No particular problem is shown. Ultrasound image in attachment.	Abel Evans - Ultrasound.png Edit Delete

This link allows doctor view patient's vital parameters

This link allows doctor to delete a patient

This link allows doctor to add a new medical note

Patient's medical notes

This link allows doctor to download files regarding a specific medical note

This link allows doctor to edit or delete a medical note

This link allows doctor to edit patient personal information

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3.3.3 Medical Note management

The doctor can add a medical note, edit or delete it. The medical note is composed by a text and eventually a file. Edit a medical note means edit his text or/and change his attachment file.

3.3.3.1 Add a new medical note

The doctor has to insert a text and eventually upload a file:

E-HEALTH SERVICE Our Doctors About Contacts Logged in as darell.taylor@ehealthservice.com, Logout

Dr. Darell Taylor
 Email: darell.taylor@ehealthservice.com
 Phone Number: 00442073008041
[Edit Profile](#)

Add Medical Note
 Patient: **Abel Evans**

X-ray right thumb: small fracture of the last phalanx

Abele Evans ...ht thumb.png

[Confirm](#) [Cancel](#)

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3.3.3.2 Edit medical note

The doctor has to change a text and eventually upload a file or change it:

3.3.3.3 Delete a medical note

The doctor has to click the button “Delete” near the specific medical note in the patient details page:

Delete button

Date	Note	Files	Actions
05/01/2013 11:01:03	Medical examination for the job: all vital parameters are in normal ranges.		Edit Delete
05/01/2013 11:04:38	Blood tests: cholesterol out of range. All results are in the attachment.	Abel Evans - Blood Tests.pdf	Edit Delete
05/01/2013 11:10:09	Ultrasound kidneys and urinary tract. Size and position of kidneys are correct. No particular problem is shown. Ultrasound image in attachment.	Abel Evans - Ultrasound.png	Edit Delete

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3.3.3.4 Download a medical note attachment

The doctor has to click the attachment name near the medical note. The system automatically downloads the file:

File downloaded

Click on file name to download the file

3.3.4 Vital parameters management

From patient details page, the doctor can click the “Vital Parameters” button and a page with vital parameters measurement is displayed. In the same page there is also a table with vital parameters ranges. Mandatory vital parameters are marked with *:

This link allows doctor to add a new vital parameter measurement

This link allows doctor to delete the new vital parameter measurement

This link allows doctor to see patient's medical notes

This link allows doctor to edit vital parameters ranges and mandatory vital parameters

Table with vital parameters ranges

This link allows doctor to send an alarm to first aid

Vital Parameters measurements

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3.3.4.1 Add a new vital parameters measurement

The doctor has to fill all mandatory field marked with *. In addition he can insert also others vital parameters values, then he has to click “Confirm”. When the measurement is added the Vital parameters page is displayed.

E-HEALTH SERVICE Our Doctors About Contacts Logged in as darell.taylor@ehealthservice.com, Logout

Dr. Darell Taylor
 Email: darell.taylor@ehealthservice.com
 Phone Number: 00442073008041
[Edit Profile](#)

Add a new Measurement

Patient: **Abel Evans**

Vital Parameter	Value
* Sugar (mg/dl):	100
Heart Rate (bpm):	
Systolic blood pressure (mmHg):	
Diastolic blood pressure (mmHg):	
Respiratory Rate (breaths/min):	
* Oxygen Saturation (%O2):	98
Temperature (Celsius):	37

[Confirm](#) [Cancel](#)

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3.3.4.2 Delete vital parameters measurement

The doctor has to click the button “Delete” near the specific vital parameters measurement in the patient vital parameters page:

E-HEALTH SERVICE Our Doctors About Contacts Logged in as darell.taylor@ehealthservice.com, Logout

Dr. Darell Taylor
 Email: darell.taylor@ehealthservice.com
 Phone Number: 00442073008041
[Edit Profile](#)

Abel Evans: Vital Parameters

[Medical Notes](#) [Send Alarm](#)

Measurements List [Add](#)

05/01/2013 11:21:17	Delete	
Sugar	90	
OxygenSaturation	95	
05/01/2013 11:22:09	Delete	
Sugar	70	
OxygenSaturation	98	
05/01/2013 11:24:15	Delete	
Sugar	98	
OxygenSaturation	98	
05/01/2013 11:24:28	Delete	
Sugar	110	>
OxygenSaturation	95	
05/01/2013 11:25:39	Delete	
Sugar	100	
OxygenSaturation	88	<
Temperature	36,8	

Delete button

Mandatory Parameters and Intervals [Edit](#)

Vital Parameter	min	max
* Sugar (mg/dl):	70	100
Heart Rate (bpm):	60	100
Respiratory Rate (breaths/min):	10	14
* Oxygen Saturation (%O2):	90	100
Temperature (Celsius):	36	39
Systolic blood pressure (mmHg):	100	140
Diastolic blood pressure (mmHg):	65	90

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3.3.4.3 Edit vital parameters ranges and mandatory vital parameters

The doctor has to insert new values for each vital parameter that he wants update. He can also decide to change mandatory vital parameters using the specific check box. Then he has to click on “Save changes” button:

E-HEALTH SERVICE Our Doctors About Contacts Logged in as darell.taylor@ehealthservice.com, Logout

Dr. Darell Taylor
Email: darell.taylor@ehealthservice.com
Phone Number: 00442073008041
[Edit Profile](#)

Edit Mandatory Vital Parameters and Intervals

Patient: **Abel Evans**

Vital Parameter	Lower Limit	Upper Limit	Mandatory (*)
* Sugar (mg/dl):	<input type="text" value="70"/>	<input type="text" value="100"/>	<input checked="" type="checkbox"/>
Heart Rate (bpm):	<input type="text" value="60"/>	<input type="text" value="100"/>	<input type="checkbox"/>
Respiratory Rate (breaths/min):	<input type="text" value="10"/>	<input type="text" value="14"/>	<input type="checkbox"/>
* Oxygen Saturation (%O2):	<input type="text" value="90"/>	<input type="text" value="100"/>	<input checked="" type="checkbox"/>
Temperature (Celsius):	<input type="text" value="36"/>	<input type="text" value="39"/>	<input type="checkbox"/>
Systolic blood pressure (mmHg):	<input type="text" value="100"/>	<input type="text" value="140"/>	<input type="checkbox"/>
Diastolic blood pressure (mmHg):	<input type="text" value="65"/>	<input type="text" value="90"/>	<input type="checkbox"/>

[Save Changes](#) [Cancel](#)

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These checkboxes can be used to change patient's mandatory vital parameters

These values can be changed by doctor to change vital parameters ranges

3.3.5 Send alarm

If doctor decides to send an alarm to first aid based on vital parameters measurement analysis, he can click the “Send Alarm” button from patient’s vital parameters page. The send alarm page is composed by patient’s personal information. The doctor has to fill the diagnosis text area and choose an alarm level of which he and first aid team know the meaning. Then he has to click the “Confirm” button:

E-HEALTH SERVICE Our Doctors About Contacts Logged in as darell.taylor@ehealthservice.com, Logout

Dr. Darell Taylor
Email: darell.taylor@ehealthservice.com
Phone Number: 00442073008041
[Edit Profile](#)

Send Alarm to First Aid

Patient: **Abel Evans**

Last Known Address	Home Address	Email	Phone Number	Identity Number	Date of Birth
60 Monk's Rd, Exeter	60 Monk's Rd, Exeter	abel.evans@post.net	01392661000	AF903556C	1973/03/25

Diagnosis and Alarm Level

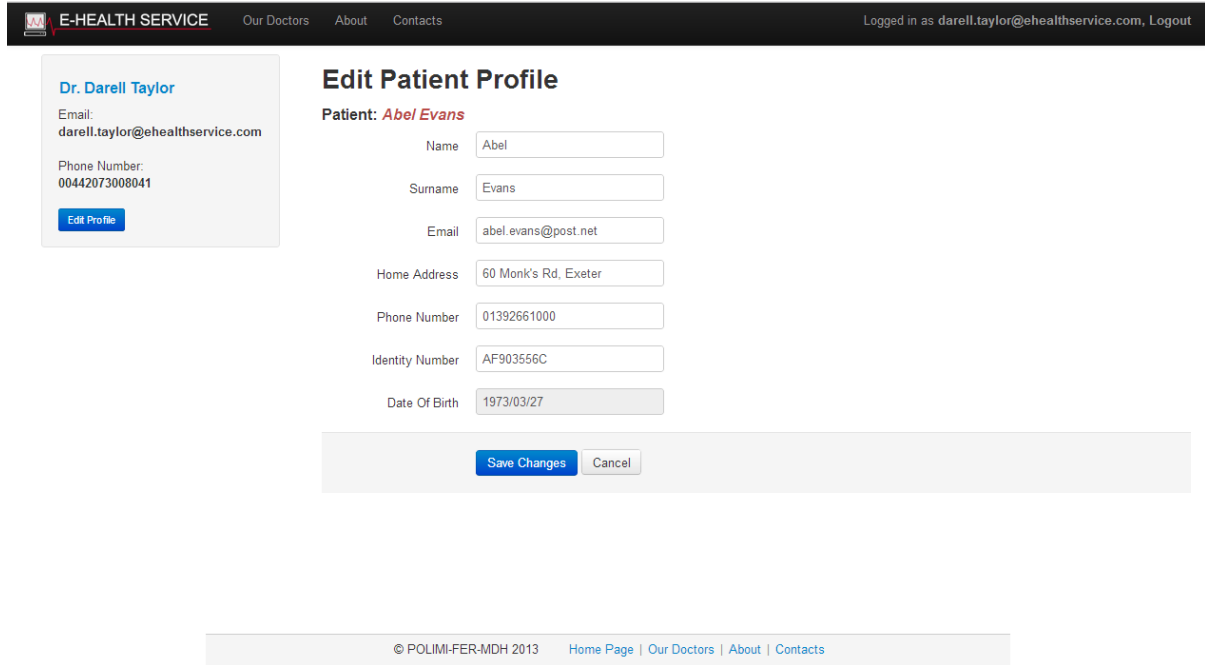
Diagnosis	Alarm Level
Abnormally high blood sugar. Diabetes.	<input checked="" type="radio"/> G1 <input type="radio"/> G2 <input type="radio"/> B1 <input type="radio"/> B2 <input type="radio"/> R1 <input type="radio"/> R2 <input type="radio"/> S1 <input type="radio"/> S2 <input type="radio"/> H1 <input type="radio"/> H2 <input type="radio"/> T1 <input type="radio"/> T2 <input type="radio"/> ALL

[Confirm](#) [Cancel](#)

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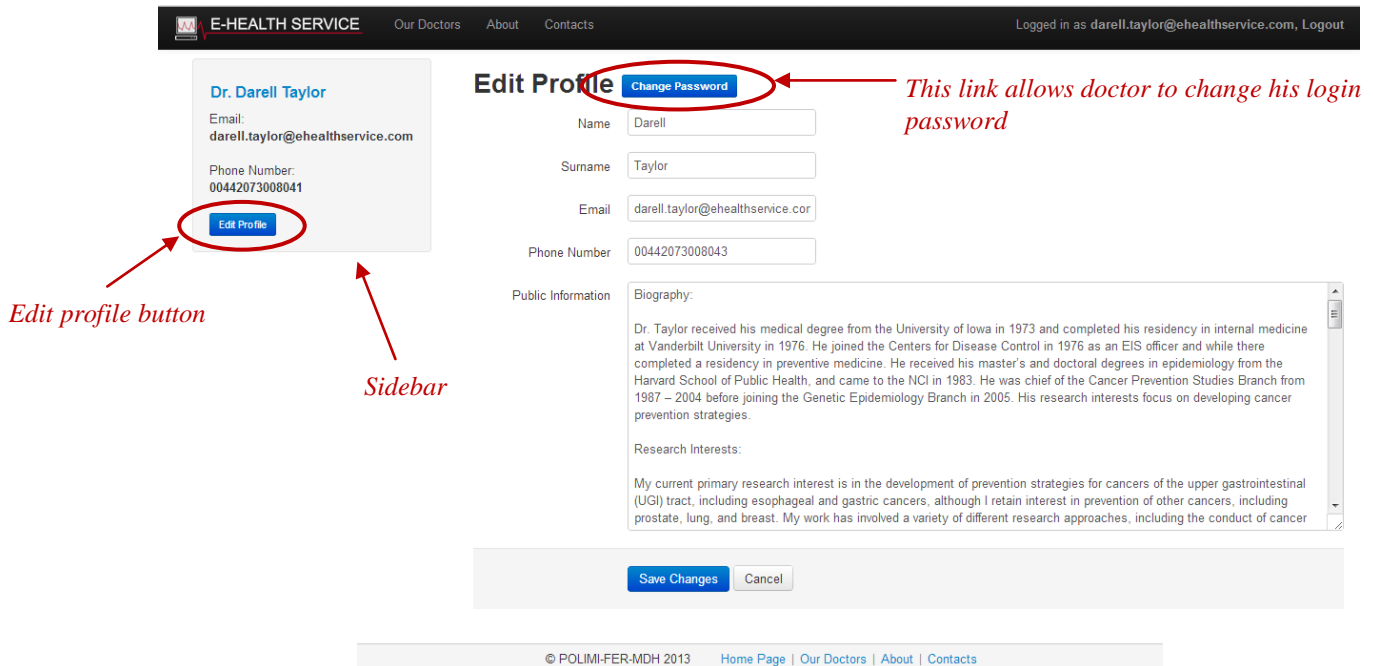
3.3.6 Edit patient personal information

The doctor can edit patient personal information by clicking the button “Edit” from the patient’s details page. Then he can update each field and save changes by clicking the “Save changes” button:



3.3.7 Edit his personal information

The doctor can update his personal information by clicking the “Edit Profile” button that is always present in the sidebar on the right. In the edit profile page he can update his personal information and the save changes clicking on “Save Changes” button:



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The doctor can change his login password inserting his current password, his new password and confirming it. Then he has to click on “Save Changes” button:

The screenshot shows a web interface for 'E-HEALTH SERVICE'. The user is logged in as 'darell.taylor@ehealthservice.com'. On the left, a profile card for 'Dr. Darell Taylor' displays his email and phone number, with an 'Edit Profile' button. The main content area is titled 'Change Personal Password' and contains three password input fields: 'Current Password', 'New Password', and 'Confirm New Password'. At the bottom of this section are 'Save Changes' and 'Cancel' buttons.

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3.4 Patient

The patient has a simply personal home page where he can update his current location and send vital parameters measurement to his doctor. He can also change his personal login password:

E-HEALTH SERVICE Our Doctors About Contacts Logged in as abel.evans@post.net, Logout

Abel Evans
 Personal Doctor: Dr. Darell Taylor
 Last saved Location: 1 Albion Place, Exmouth
 Change Password

Welcome Abel Evans!

Email	Phone Number	Home Address	Identity Number	Date of Birth
abel.evans@post.net	01392661000	60 Monk's Rd, Exeter	AF903556C	1973/03/25

Current Location Update
 Last saved: 1 Albion Place, Exmouth
 Enter your position here
 Save

Vital Parameters Update

Vital Parameter	Value
* Sugar (mg/dl):	<input type="text"/>
Heart Rate (bpm):	<input type="text"/>
Systolic blood pressure (mmHg):	<input type="text"/>
Diastolic blood pressure (mmHg):	<input type="text"/>
Respiratory Rate (breaths/min):	<input type="text"/>
* Oxygen Saturation (%O2):	<input type="text"/>
Temperature (Celsius):	<input type="text"/>

Confirm

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This button allows doctor to change his login password

Here patient can update his current location

Here patient can send a vital parameter measurement to his doctor

3.4.1.1 Update current location:

The patient has to fill the current location update form with his current address and then click “Save”:

E-HEALTH SERVICE Our Doctors About Contacts Logged in as abel.evans@post.net, Logout

Abel Evans
 Personal Doctor: Dr. Darell Taylor
 Last saved Location: 60 Monk's Rd, Exeter
 Change Password

Welcome Abel Evans!

Email	Phone Number	Home Address	Identity Number	Date of Birth
abel.evans@post.net	01392661000	60 Monk's Rd, Exeter	AF903556C	1973/03/25

Current Location Update
 Last saved: 60 Monk's Rd, Exeter
 1 Albion Place, Exmouth
 Save

Vital Parameters Update

Vital Parameter	Value
* Sugar (mg/dl):	<input type="text"/>
Heart Rate (bpm):	<input type="text"/>
Systolic blood pressure (mmHg):	<input type="text"/>
Diastolic blood pressure (mmHg):	<input type="text"/>
Respiratory Rate (breaths/min):	<input type="text"/>
* Oxygen Saturation (%O2):	<input type="text"/>
Temperature (Celsius):	<input type="text"/>

Confirm

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3.4.1.2 Send vital parameters measurement

The patient has to fill the Vital Parameters Update form on his personal homepage and then click “Confirm”. Vital parameters marked with * are mandatory:

The screenshot shows the patient portal interface for Abel Evans. The header includes 'E-HEALTH SERVICE', navigation links, and the user's login status. The main content area is titled 'Welcome Abel Evans!' and displays a table of personal information:

Email	Phone Number	Home Address	Identity Number	Date of Birth
abel.evans@post.net	01392661000	60 Monk's Rd, Exeter	AF903556C	1975/03/25

Below the table is a 'Current Location Update' section with a text input field and a 'Save' button. To the right, the 'Vital Parameters Update' form is circled in red. It contains the following fields:

Vital Parameter	Value
* Sugar (mg/dl):	150
Heart Rate (bpm):	<input type="text"/>
Systolic blood pressure (mmHg):	120
Diastolic blood pressure (mmHg):	80
Respiratory Rate (breaths/min):	<input type="text"/>
* Oxygen Saturation (%O2):	95
Temperature (Celsius):	<input type="text"/>

A 'Confirm' button is located at the bottom right of the vital parameters form. The footer contains copyright information and navigation links.

3.4.1.3 Change personal login password

The patient has to insert his current password, the new password and confirm it. Then he has to click the “Save changes” button:

The screenshot shows the 'Change Password' form in the patient portal. The header and navigation are consistent with the previous screenshot. The main content area is titled 'Change Password' and contains three password input fields:

- Current Password:
- New Password:
- Confirm New Password:

At the bottom of the form are 'Save Changes' and 'Cancel' buttons. The footer contains copyright information and navigation links.

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3.5 First aid

The first aid team has a personal home page where all alarm sent by doctors and patients are displayed. Alarms are displayed in real time with the label “New!”:

First Aid | E-HEALTH SERVICE | Our Doctors | About | Contacts | Logged in as firstaid, Logout

Alarm Notifications

Time	Address	Level	Actions
New! 2013/1/5 18:04:21	39 Parr Street, Exeter	H2	View Details Delete
2013/1/5 12:04:48	40 East Street, Bovey Tracey	H2	View Details Delete
2013/1/5 12:01:48	39 Parr Street, Exeter	T2	View Details Delete
2013/1/5 12:00:32	5 The Strand, Dawlish	ALL	View Details Delete

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The “New!” label which means that details of this alarm are not yet been consulted

Alarms list

This button allows first aid to view alarm details

This button allows first aid to delete the alarm

3.5.1 Alarms management

3.5.1.1 View alarms details

The first aid can consult a page with alarm details which contains patient’s personal information, patient position and if the alarm was sent by a doctor also an alarm level and a diagnosis:

This button allows first aid to delete the alarm

First Aid | E-HEALTH SERVICE | Our Doctors | About | Contacts | Logged in as firstaid, Logout

Doctor Alarm Details **New!**

Patient: **Abel Evans**

Personal Doctor	Phone Number	Home Address	Identity Number	Date of Birth	Email
Darell Taylor	01392661000	60 Monk's Rd, Exeter	AF903556C	1973/03/25	abel.evans@post.net

Diagnosis	Level	Time	Patient Address
Abnormally high blood sugar. Diabetes.	G1	05/01/2013 11:30:21	1 Albion Place, Exmouth

Delete Alarm

Map data ©2013 Google - Termini e condizioni d'uso | segnala un errore nella mappa

Patient’s personal information

Diagnosis and alarm level inserted by doctor

Patient’s position displayed in a map

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3.5.1.2 Delete an alarm

There are two ways to delete an alarm for the first aid team. The first one is delete the alarm from first aid index, clicking the button “Delete” near the specific alarm:

First Aid

Alarm Notifications

	Time	Address	Level		
New!	2013/1/5 18:04:21	39 Parr Street, Exeter	H2	View Details	Delete
	2013/1/5 12:04:48	40 East Street, Bovey Tracey	H2	View Details	Delete
	2013/1/5 12:01:48	39 Parr Street, Exeter	T2	View Details	Delete
	2013/1/5 12:00:32	5 The Strand, Dawlish	ALL	View Details	Delete

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The second one is delete the alarm from the alarm details page clicking the button “Delete Alarm”:

First Aid

Doctor Alarm Details New!

Patient: *Abel Evans*

Personal Doctor	Phone Number	Home Address	Identity Number	Date of Birth	Email
Darell Taylor	01392661000	60 Monk's Rd, Exeter	AF903556C	1973/03/25	abel.evans@post.net

Diagnosis	Level	Time	Patient Address
Abnormally high blood sugar. Diabetes.	G1	05/01/2013 11:30:21	1 Albion Place, Exmouth

Delete Alarm

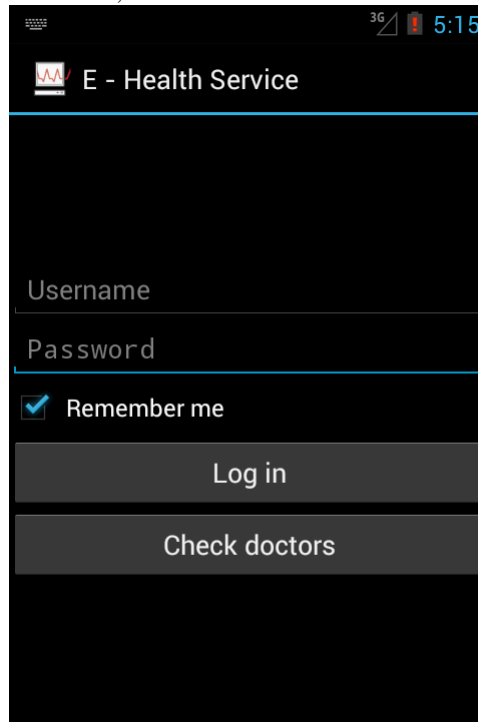
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4. Android Application

4.1 Unregistered User

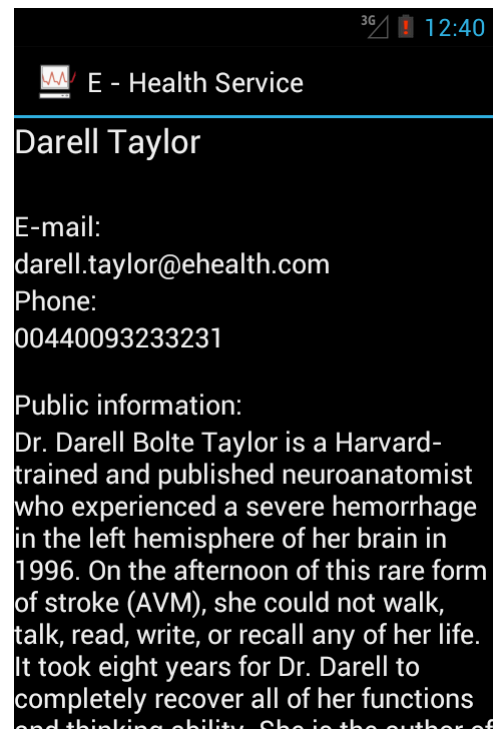
4.1.1 Main Page

When starting the application user starts on the login screen, where he can enter and save username and password to login as either patient or doctor, or he can see information about doctors in the system.



4.1.2 Doctor public information

If the user clicks on "Check doctors" he is brought to the list of all the doctors. If he clicks on specific doctor, that doctor information is shown.

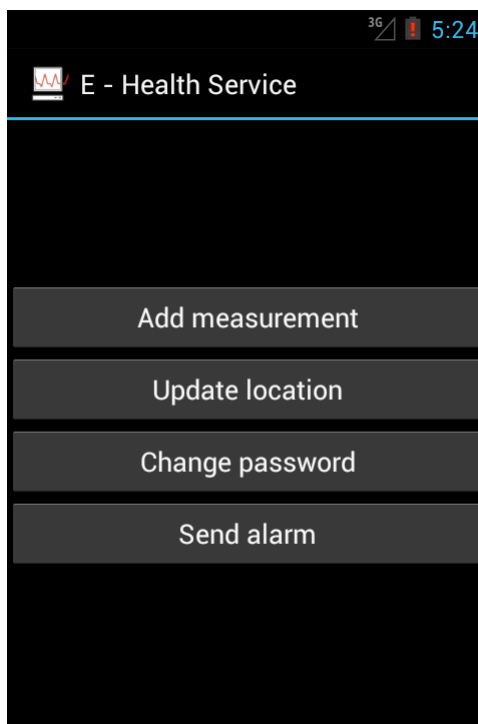


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4.2 Patient

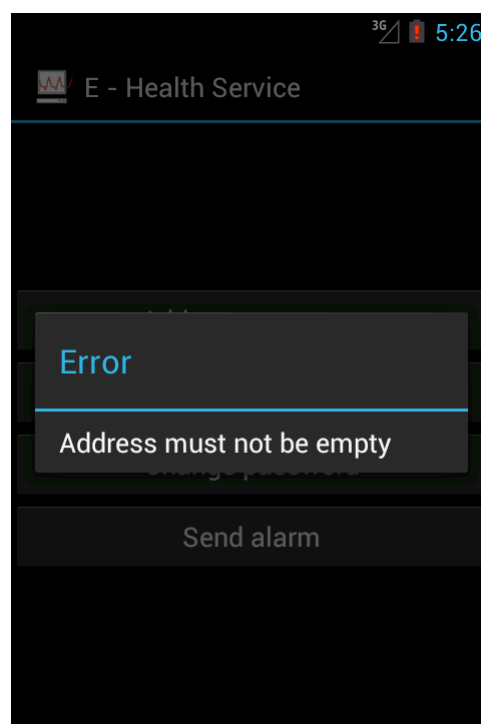
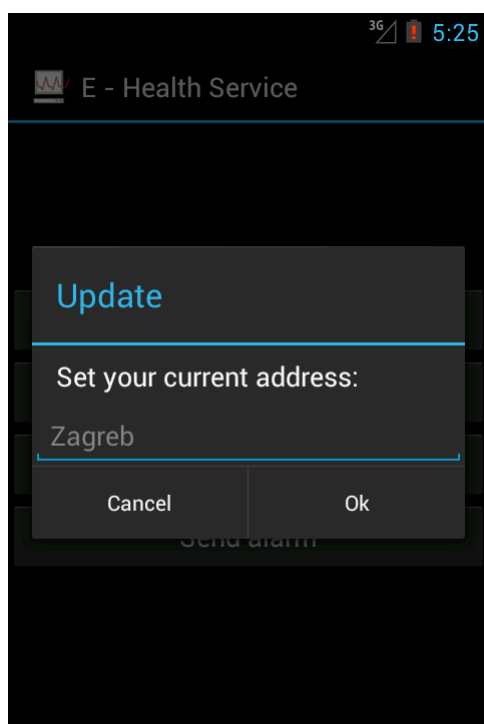
4.2.1 Main patient page

After logging in as a patient, user has several options he can choose: changing password, changing his current location, adding new vital parameter measurement and sending alarm.



4.2.2 Updating location

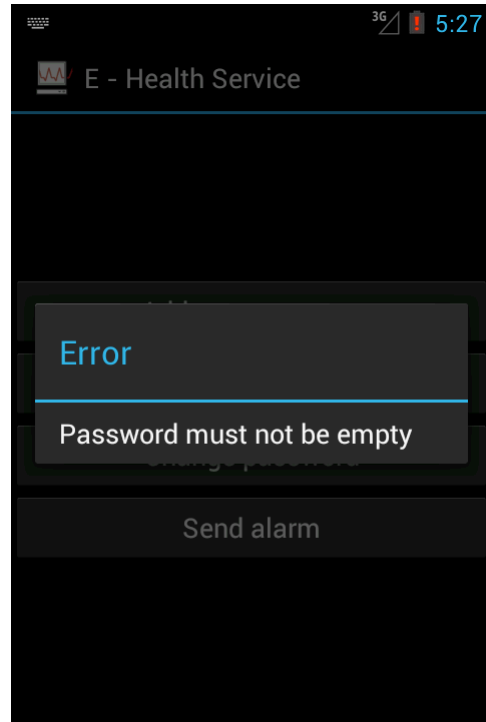
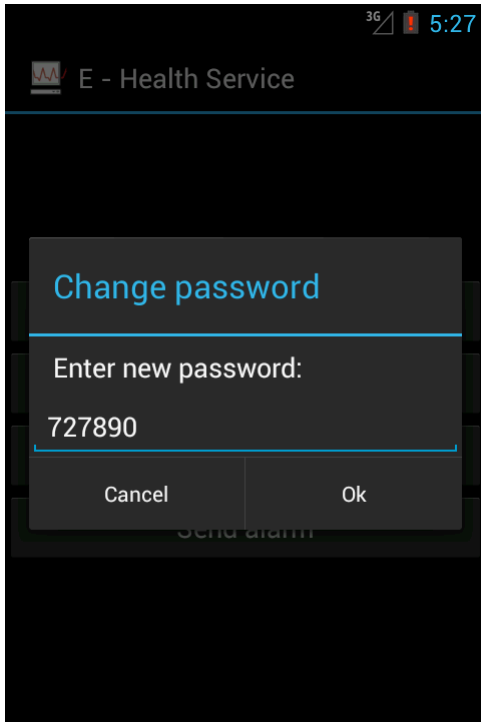
After user clicks "Update location" button new dialog is shown where user needs to enter his new address. The input field is mandatory and error will be shown if user doesn't enter the address.



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4.2.3 Updating password

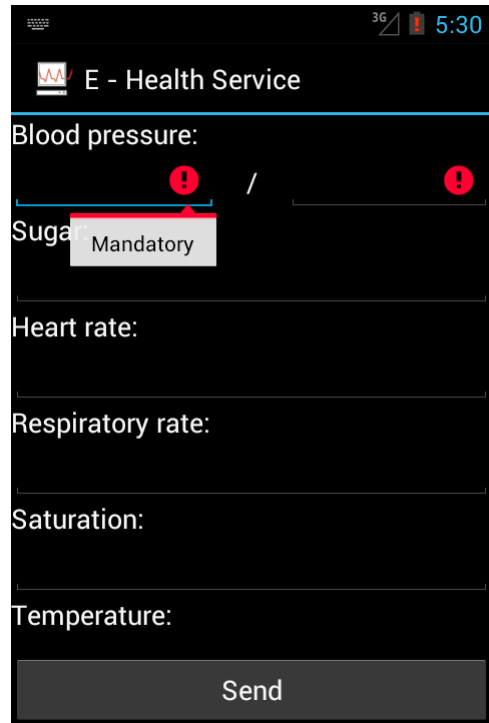
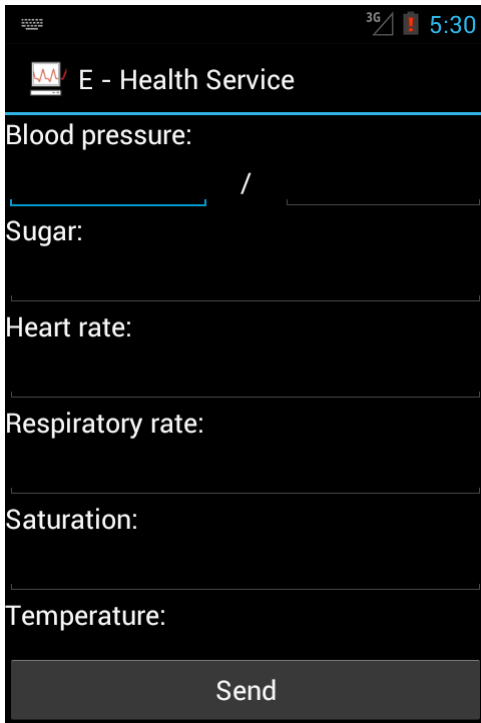
After pressing "Change password" button new dialog is shown where user needs to enter his new password. As with location, the field is mandatory and error message will be shown if the field is left empty.



4.2.4 Adding measurement

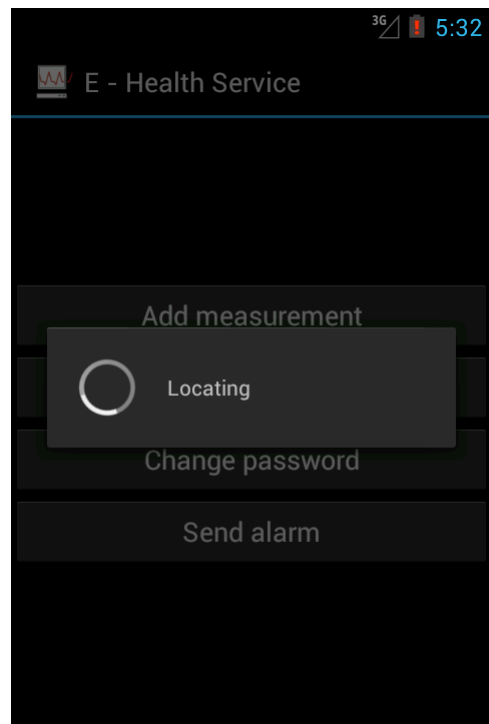
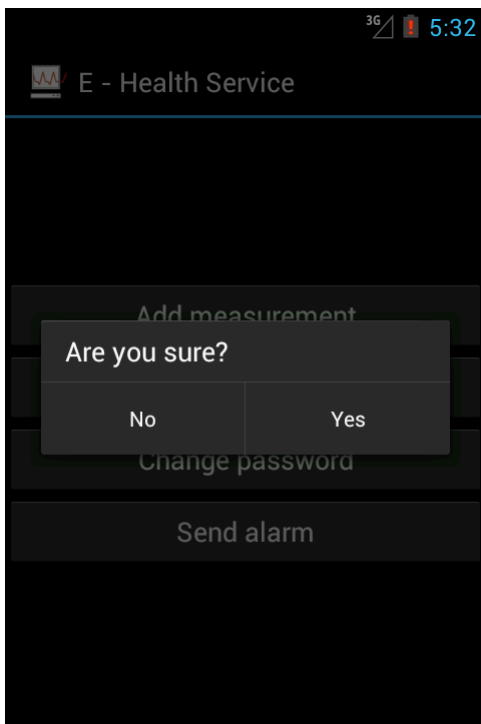
After user clicks "Add measurement" button new dialog is shown where user needs to enter data for new measurement. User doesn't need to fill all the measurements, but if measurement that is mandatory is left empty, red mark will be shown next to mandatory field with error message. Confirmation dialog is shown after the user clicks "Send" button.

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4.2.5 Send Alarm

After pressing "Send alarm" button confirmation dialog is shown for the user. If user confirms the sending, progress dialog is shown notifying the user application is currently trying to get the user's location.

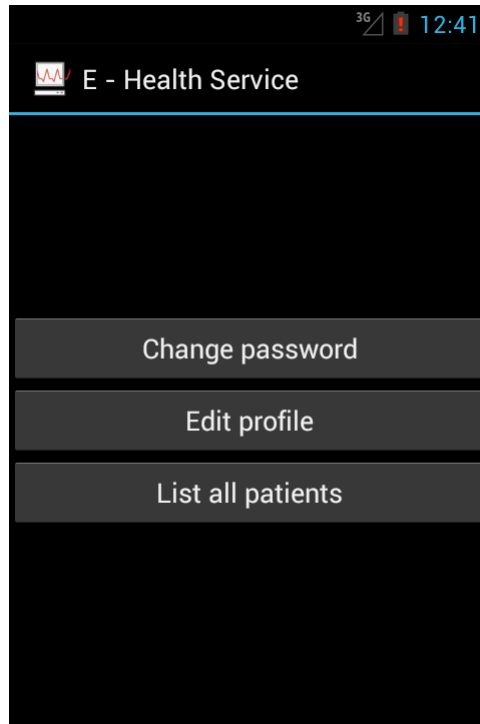


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4.3 Doctor

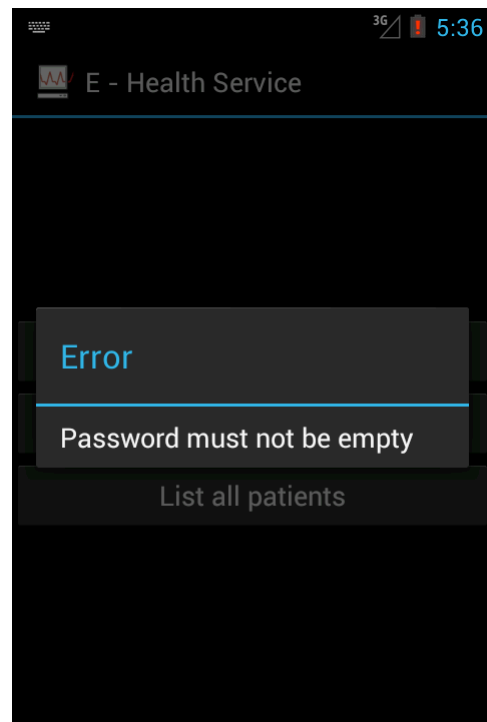
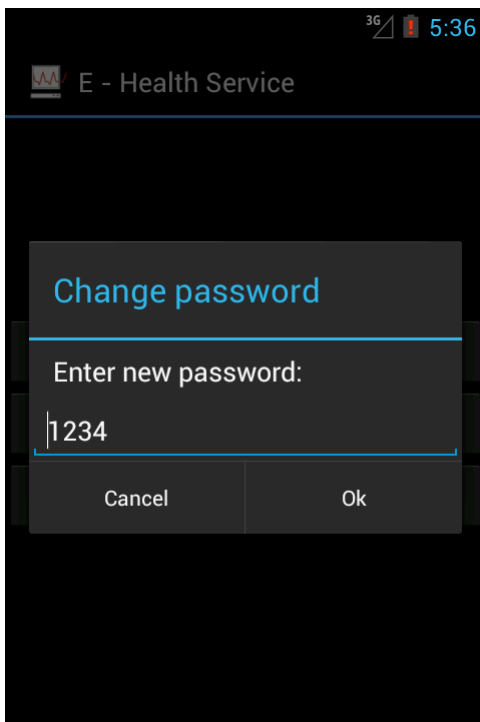
4.3.1 Main screen

User logged in as a doctor has 3 main functionalities he can access from the main page: changing his password which works same as for the patient, editing his profile information and listing all his patients.



4.3.2 Change password

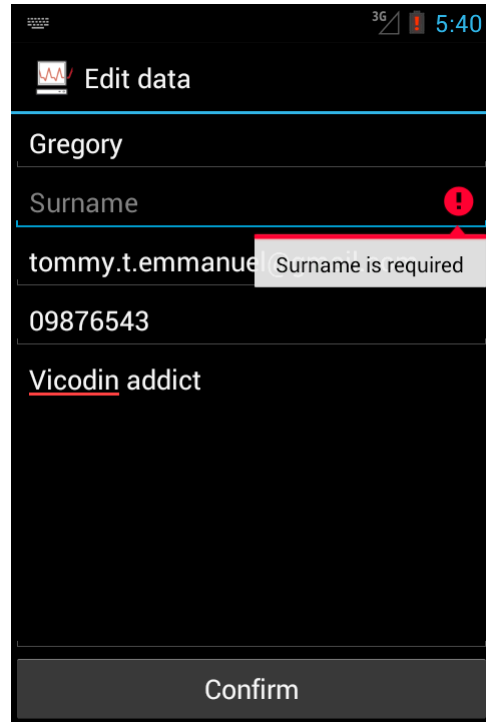
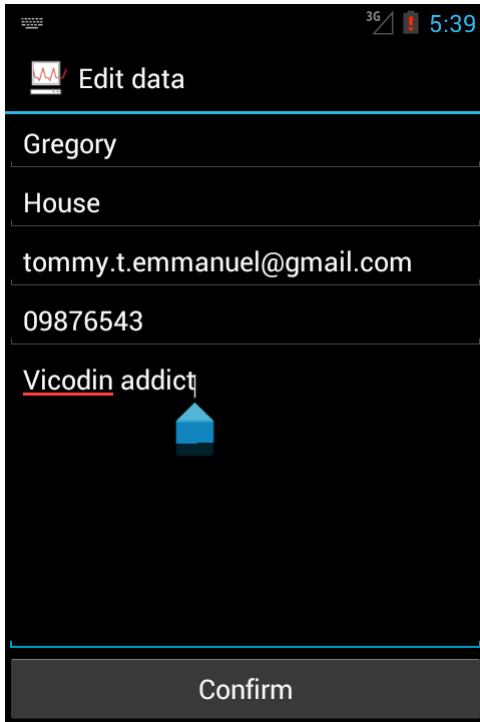
After pressing "Change password" button new dialog is shown where user needs to enter his new password. As with location, the field is mandatory and error message will be shown if the field is left empty.



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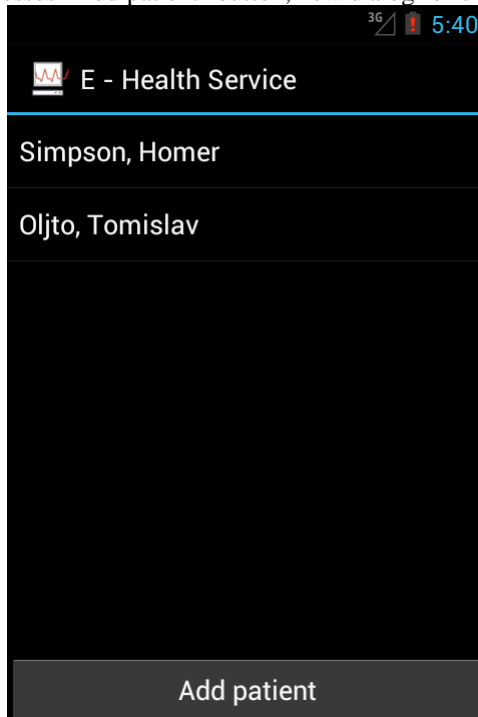
4.3.3 Edit profile

After clicking on "Edit profile" button, user is shown new dialog with all his current public information. User can change and confirm his input by clicking "Confirm" button. If mandatory fields are left empty, red mark with error message is shown on the dialog.



4.3.4 List patients

By pressing "List all patients" button, user is shown list of all his patients. By pressing the specific patient, patient details are shown. If he presses "Add patient" button, new dialog for creating new patient is shown.



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4.3.5 Add patient

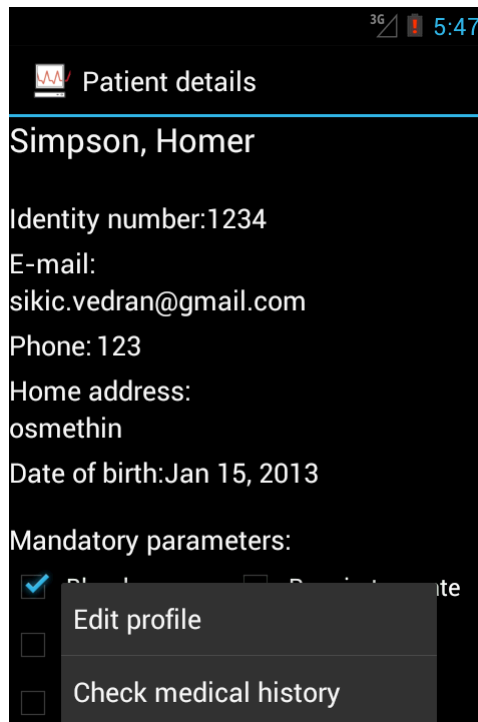
User needs to input information about new patients: name, surname, identity number, address, date of birth, phone number, email address and parameters that are mandatory for that specific patient. E-mail address needs to be unique, not already used address, since it is used as a username in the system. After creating the patient, patient will receive an email with his randomly generated password.

The screenshot shows a mobile application interface for creating a patient. At the top, there is a status bar with signal strength, 3G, and the time 5:45. Below that is a header with a red heart icon and the text 'Create patient'. The form consists of several input fields: 'Identity number' (with a cursor), 'Name', 'Surname', 'Home address', 'Date of birth', and 'email@address.com'. Below these are two checkboxes: 'Blood pressure' and 'Heart rate'. At the bottom of the form is a large grey button labeled 'Confirm'.

4.3.6 Patient details

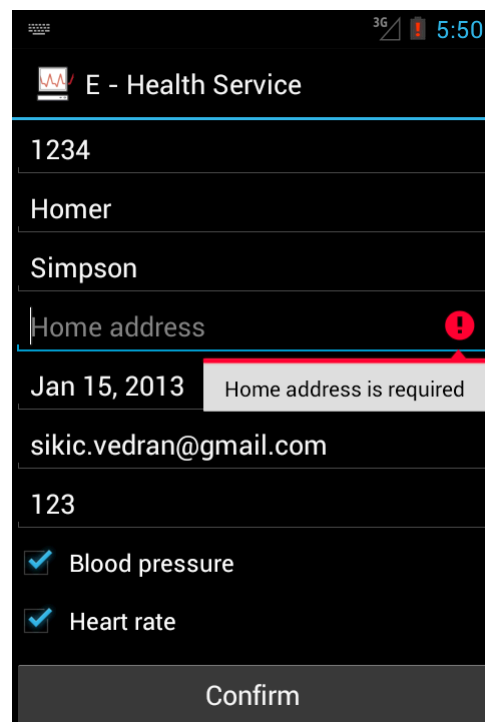
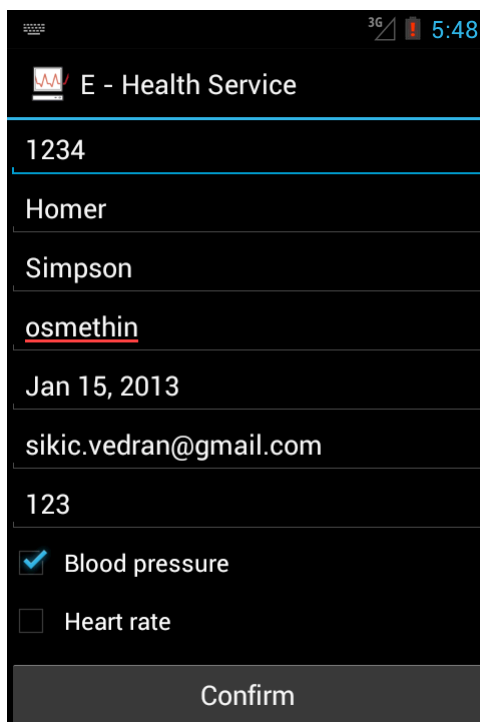
After clicking the specific patient in the patient list, details for that patient are shown. If he presses menu button on the device, he has the option to edit patient profile or to view patient medical record info.

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4.3.7 Edit profile

On edit patient profile screen patient's current information is shown. Doctor can edit all patient's info, but if he leaves a field empty error mark is shown.

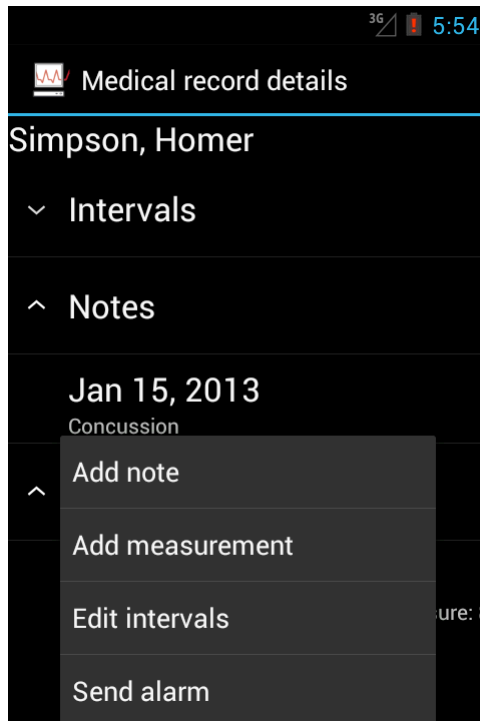
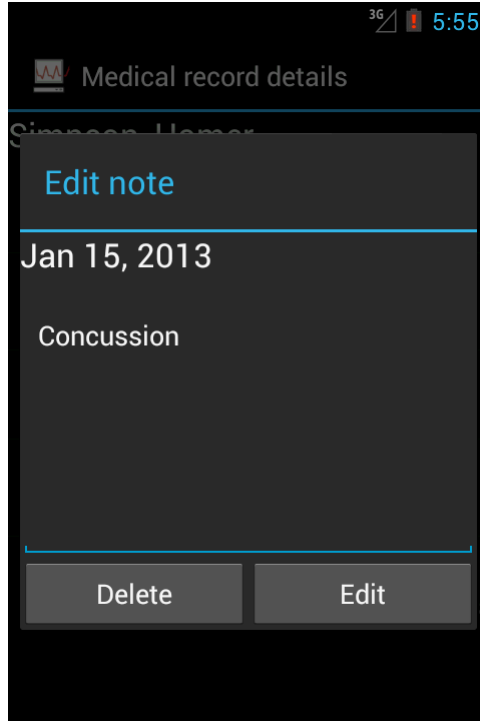
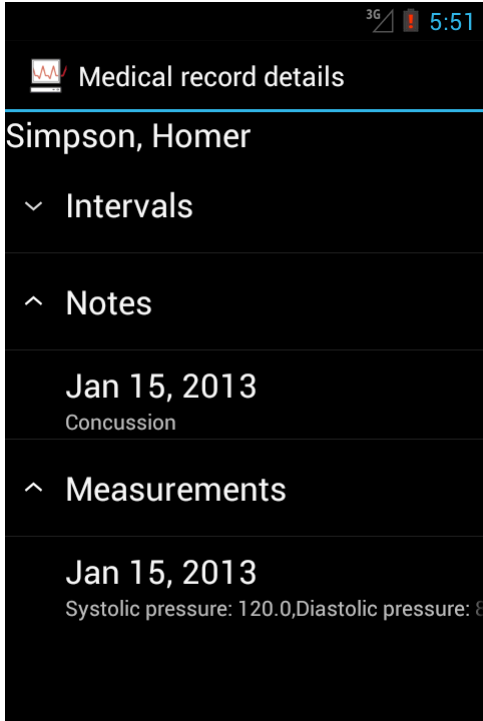


4.3.8 Medical history details

By clicking "Medical history" menu button in patient details view doctor can view all the patient medical history info. Info is divided in 3 expandable lists: Intervals - showing allowed medical intervals for the patients, medical notes showing the patient notes, and measurements, showing patients vital parameter measurements. By clicking each list, list expands and shows the full list info.

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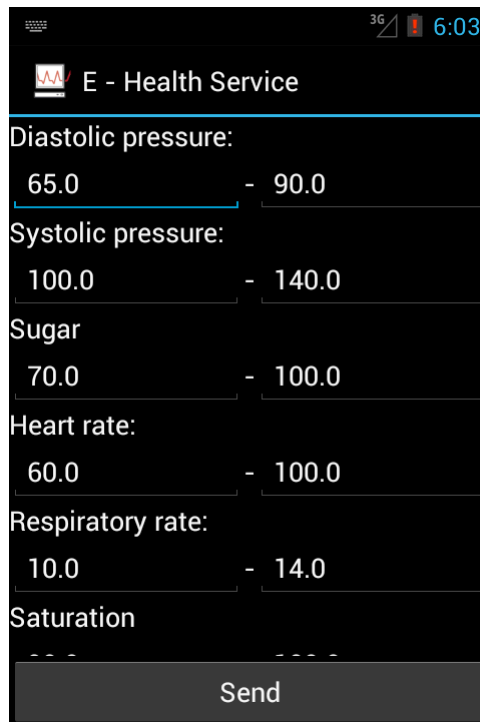
By clicking specific medical note, new dialog with option to edit or delete note is shown.
 By clicking specific measurement, option to delete the measurement is shown.
 By clicking the menu button menu is shown with option to edit patient intervals, add new note or measurement, or send alarm



4.3.9 Edit intervals

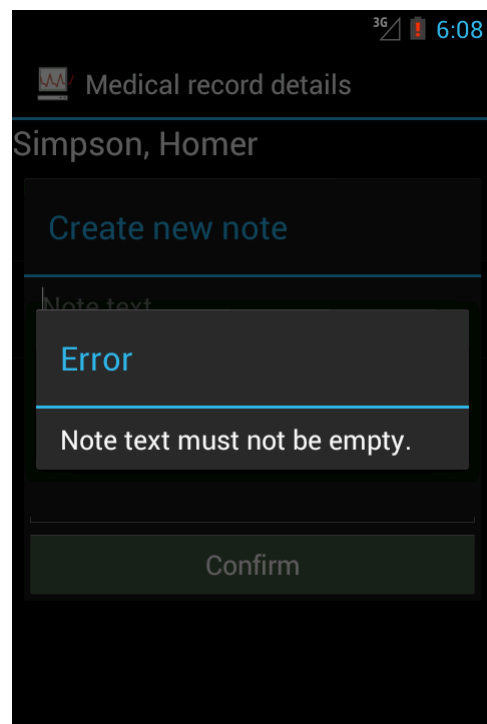
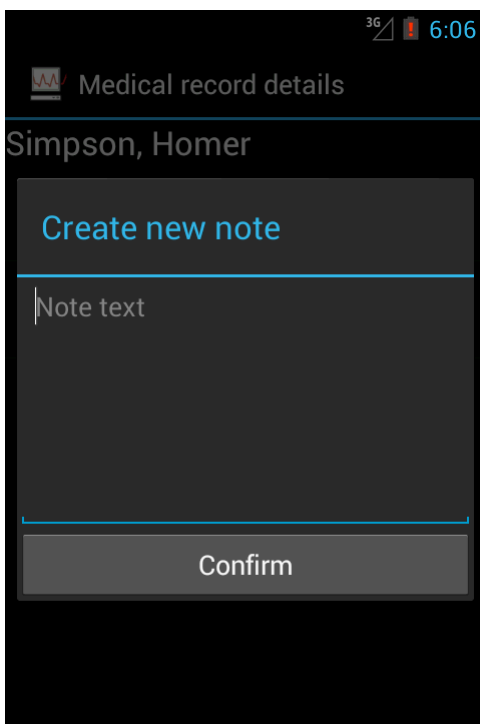
User is shown new dialog showing all current values for the intervals. After user edits the values, he can press "Send" to save the new values. If user leaves the value empty, the default system value will be saved.

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4.3.10 Add note

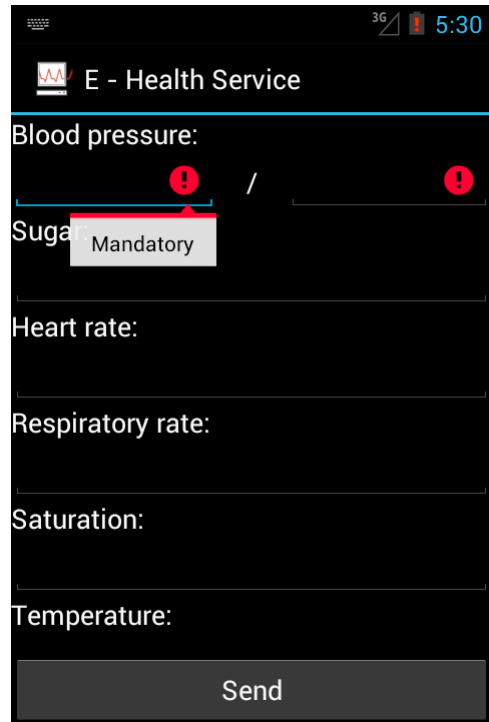
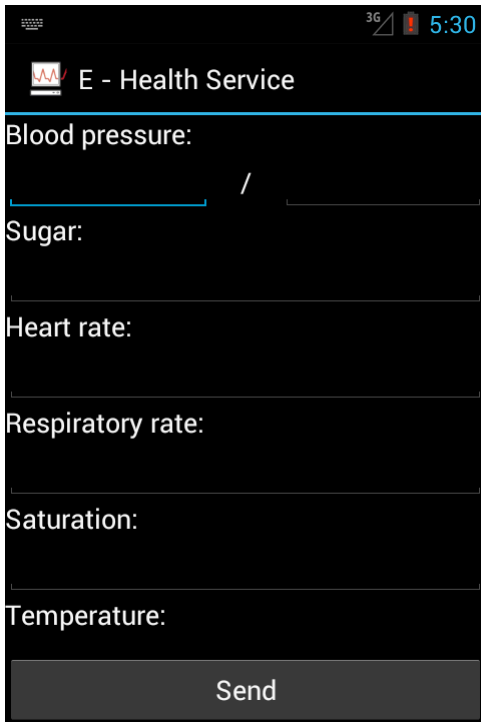
After user presses "Add note" menu button, new dialog to enter the note is shown. If the note text is left empty, error message is shown.



4.3.11 Add measurement

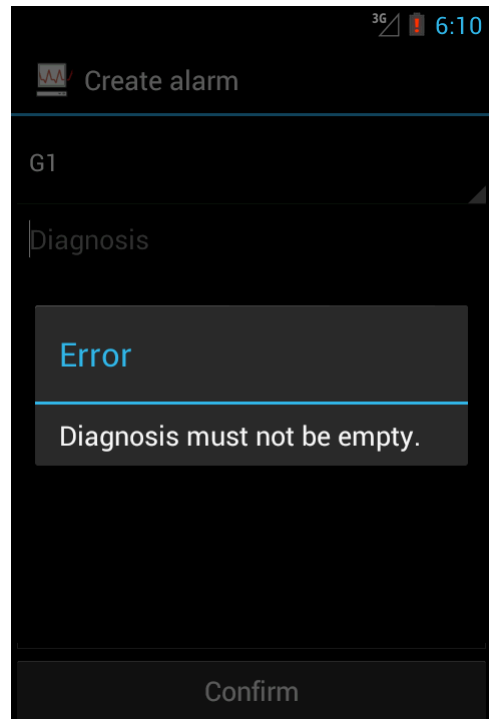
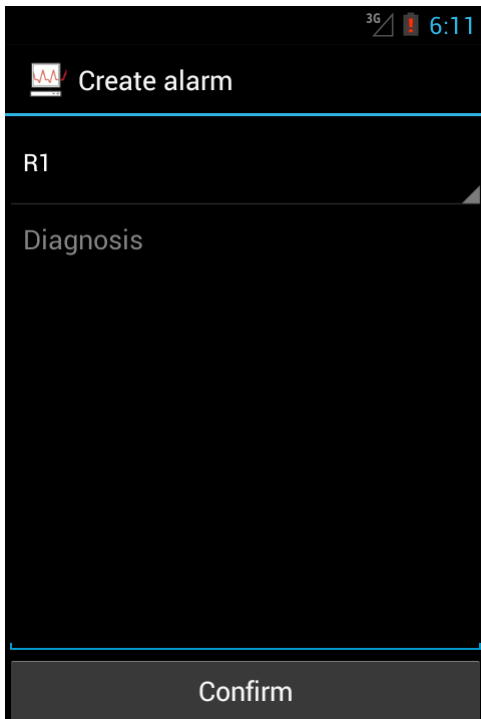
After user clicks "Add measurement" menu button new dialog is shown where user needs to enter data for new measurement. User doesn't need to fill all the measurements, but if measurement that is mandatory is left empty, red mark will be shown next to mandatory field with error message. Confirmation dialog is shown after the user clicks "Send" button.

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4.3.12 Send alarm

After user clicks "Send alarm" button new dialog is shown showing list of alarm levels and input field for the diagnosis for the patient. Diagnosis is mandatory field, so if the user leaves the field empty error message is shown.



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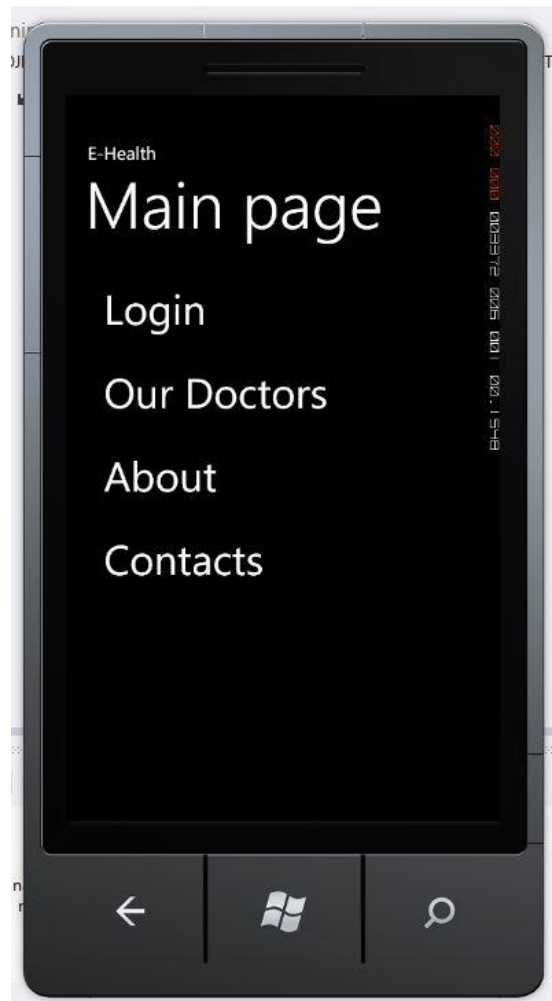
5. Windows Phone Application

The E-Health Service Windows phone application can be used by two different users. The functionalities are listed based on the user type. Before starting with user types below there is the start page of the application.

5.1 Unregistered user

5.1.1 Main page

This is the main page of the application. The unregistered user can chose to log in, to see all the doctors, read about the application and see the contact information.



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5.1.2 Our Doctors

On this view all doctors are displayed. By clicking on a doctor the doctors public information will be displayed.



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5.1.3 Doctor Public Information

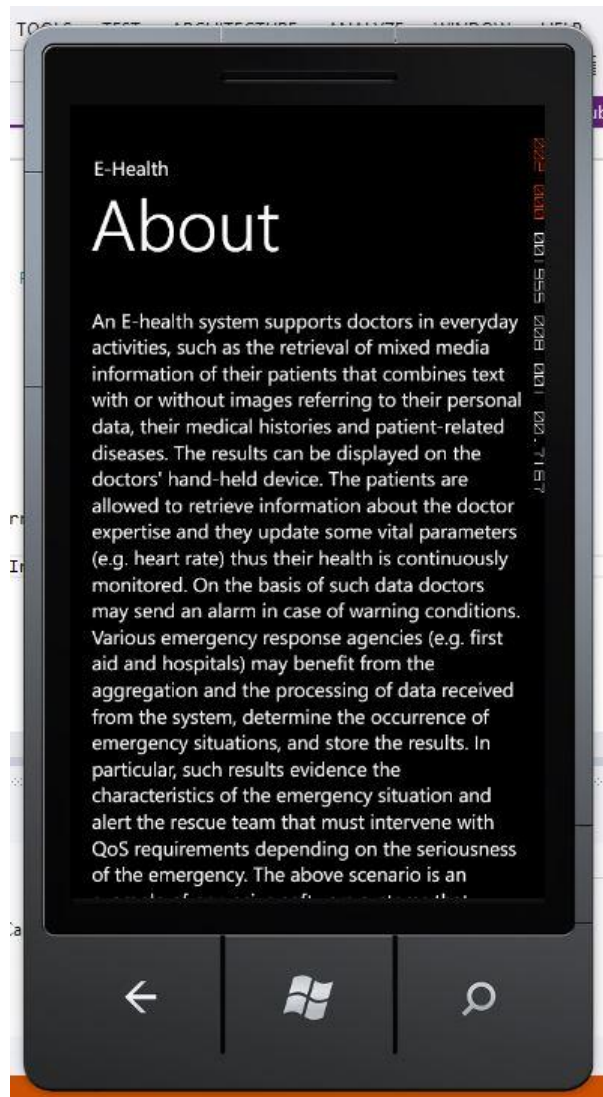
On this page the public information is displayed. The name, surname, email and the doctors description is displayed.



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5.1.4 About

On this page the information about the application is displayed.



Project Name	Version: 1.0
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5.1.5 Contacts

On this page the contacts are displayed. The names and emails of the development team and the mentor.



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5.2 Login

On this page the users log in to the application. The user needs to input his/her user information and click on the button to get logged in the application. If an error happens a message will be displayed of the error.

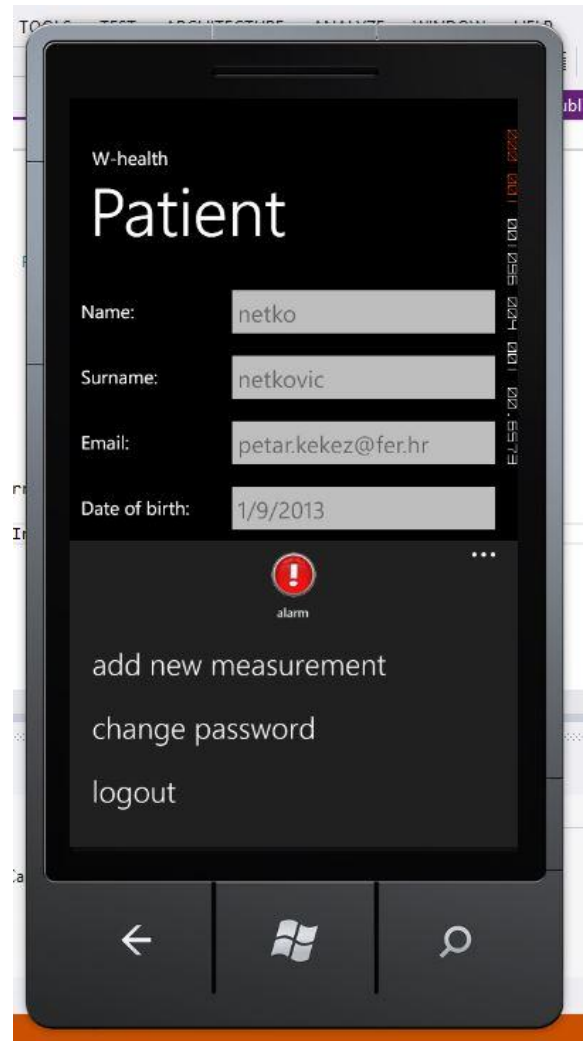


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5.3 Patient

5.3.1 Patient Main Page

After the patient logs in the application he/she will be routed to this view. The patient can see his/her information, send an alarm by pressing the exclamation mark. To open the menu the user needs to click on the “...” button.



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5.3.2 Change Password

To change a patient password. The new and old passwords have to be inputted. In case of an error a message will be displayed. To change the password the user need to press the check button.

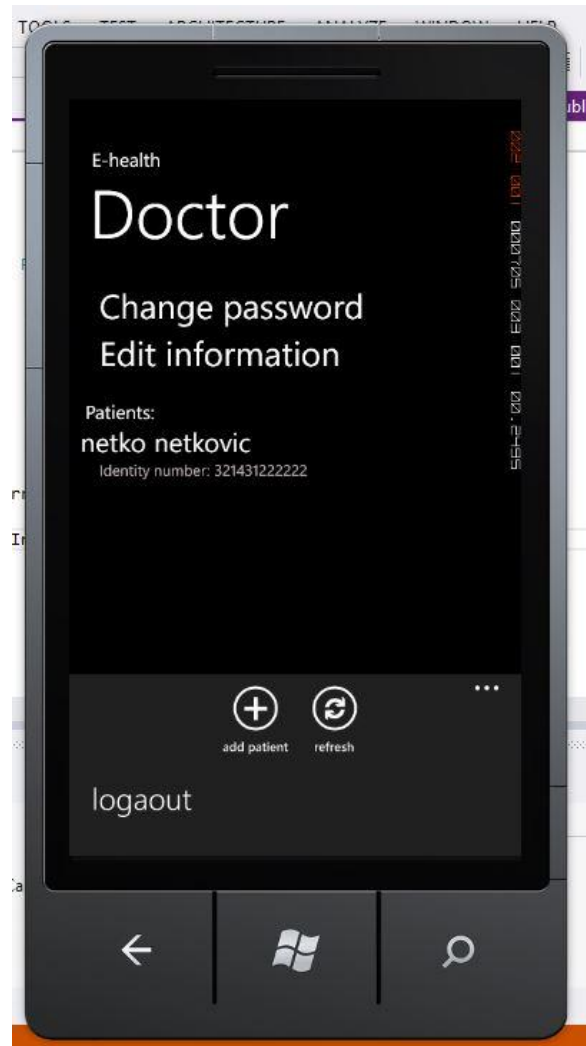


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5.4 Doctor

5.4.1 Doctor Main Page

After the doctor logs in the application he/she will be routed to this view. The doctor can see his/her patients, change the password, edit information, add a patient and see the patient's details. To open the menu the user needs to click on the "...” button. To add a patient the doctor needs to press the "+"” button. To refresh the patient list the doctor needs to press the refresh button.



Project Name	Version: 1.0
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5.4.2 Change password

To change a patient password. The new and old passwords have to be inputted. In case of an error a message will be displayed. To change the password the user need to press the check button.



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5.4.3 Edit information

The doctor can edit his information on this view. All the fields have to be filled before the information can be edited. After editing the doctor saves the data by pressing the check button at the bottom. If an error happens during the save a message will be displayed.



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5.4.4 Register a new patient

On this view the doctor adds a new patient. All the information has to be filled and it has to be filled correctly to add a new patient. After all the data has been inputted the data is submitted by pressing the “+” button. If an error happens during the save a message will be displayed.

The screenshot shows a mobile application interface for adding a new patient. The screen is titled "E-Health" and "Add patient". It contains several input fields for Name, Surname, Email, Home address, Phone number, Identity number, and Birth date. The Birth date field has a placeholder "dd/mm/yyyy". Below the input fields is a section labeled "Mandatory parameters:" with a "+" button and a menu icon (three dots). The device's navigation bar at the bottom shows a back arrow, the Windows logo, and a search icon.

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5.4.5 Doctors patient

On this view the doctor can view the patient's information. The data can be changed and saved by pressing the check button. To open the menu the user needs to click on the "..." button. If an error happens during the save a message will be displayed.

