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1. Introduction

A walk through guide on how to use the Health API and mobile application System.

1.1. Project Overview

The system provides a means to

1.2. Purpose of the manual

The purpose of this manual is to provide the user with a comprehensive understanding of the system. I.e. installation, application features and functions.

1.3. System components

- Health worker Application:
- User Application:

The Health worker application consists of the following modules:

Prescmod:

The prescmod module is linked to the notification module that sets off a reminder to the patients whenever the dose is due for taking. Once a patient has been diagnosed and a recommended treatment given to the patient. The health worker then inputs this prescription for the case of tablets.

Data Explorer:

The data explorer module uses data analytics to analyze patient data I.e., the patients tested for different diseases for our case, we focused on malaria. When different patients are given prescription based on the tested disease the data for the disease is used to plot a graph and it used to determine which month has the highest disease prevailing and a solution is designed on how to reduce that and also that data is used to determine an outbreak of a disease in a particular region so as to generate graphs and guide health experts on a recommended course of action.

Medical reports:

Once a patient presents themselves to the health facility, their medical report is searched for so that the doctors can get to know the patient history of the patients they are to work on through the medical reports viewed in this module. The health professionals can also update the patients' medical report based on their findings.

User Application:

The user application consists of the following modules:

Reminders:

This module provides reminders automatically with the health of generative AI to patients in case the health professionals give them prescriptions. These reminders run according to the time of the prescription and are automatically cancelled once the prescription is done.

Doctor Smart:

This module provides a chatbot used for recommendations with the help of natural language processing to patients. Here patients have to enter their symptoms and are given recommendations.

2. Installation

The Health worker and user applications typically run on android devices, therefore the user is required to have an android smart phone running android 8.0 and above.

2.1. Installation steps:

- Step 1: Once the user has the apk on their device. Double click and it will be installed.
- Step2: the application is now ready for use. Start the application by double clicking on it.

3. Getting Started

3.1. Health worker Application:

The following are the steps a health worker follows while using the Health worker Application:

3.1.1. Step 1: log in.

- Login with your unique Health worker ID and password.

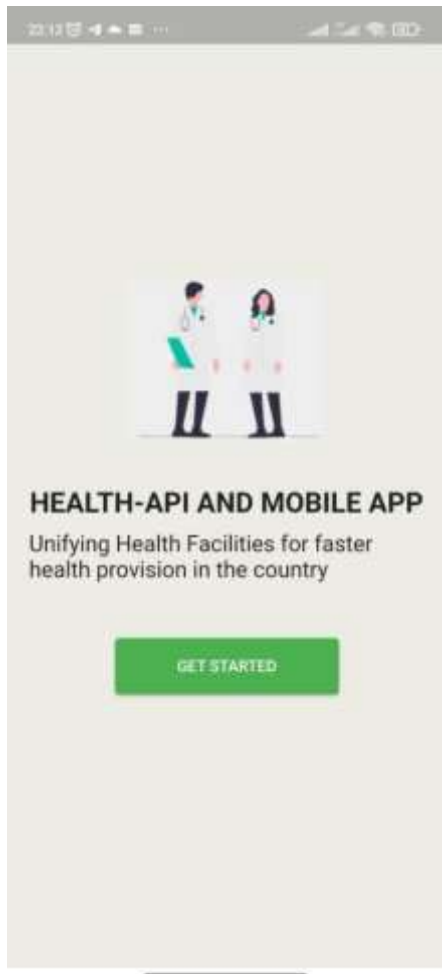


Figure 1 splash screen of the health worker Application in

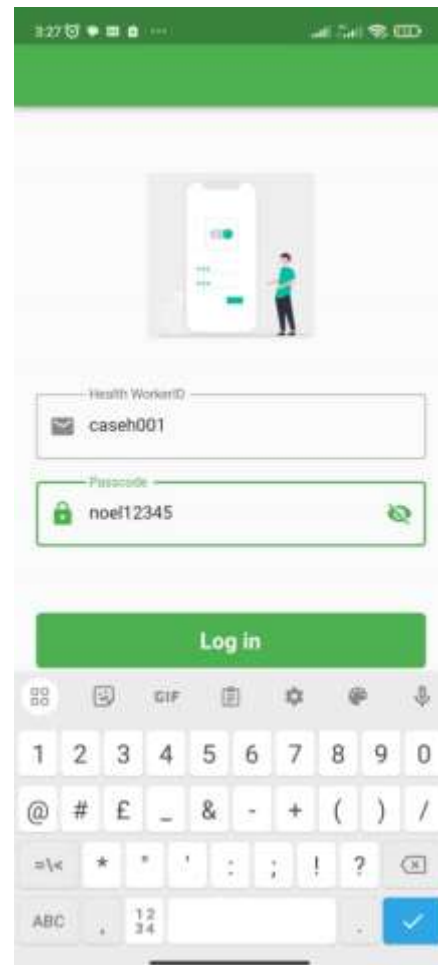


Figure 2 Health worker sign

The screens above show the splash screen that displays once the application opens. The user clicks on get started and is then taken to the login page. The health worker enters the appropriate details after which the welcome screen is displayed.

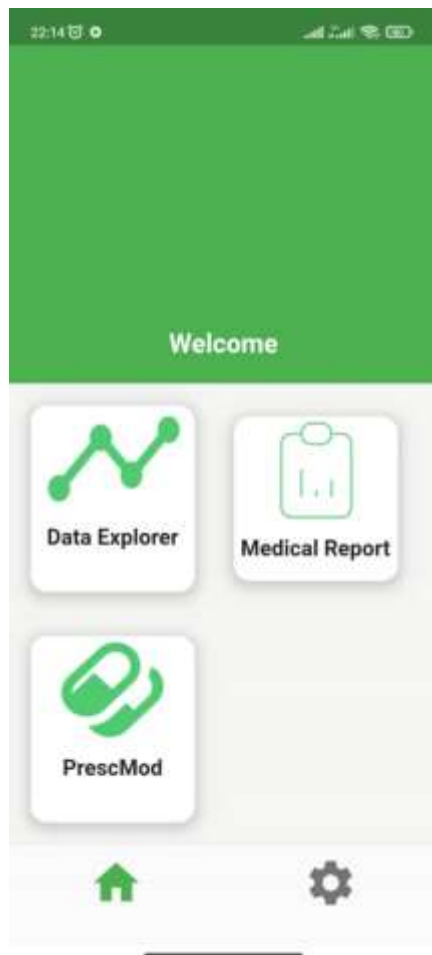


Figure 3 welcome page

The screenshot shows the home page of the account caseh001.

3.1.2. Step2: Navigating through the application.

Once the worker has successfully been signed in, He/she can perform one of the following actions.

Prescmod:

- To Input prescription for a patient that has been put on oral medication i.e. tablets, click on the prescmod button and input the name, medicine, prescription, number of days, disease, month, division.
- Click update and the dosage is recorded by the system.
- The screen shows the prescmod screen of the application



isaac ngabirano

coartem

4x2

6

malaria

july

nakawa

Update

Figure 4 prescription of coartem to a patient named isaac

Medical records:

- To view the patient medical records, click on the medical reports button.
- The medical reports screen then displays. The user can then search for a particular patient report by name and the reports are returned:

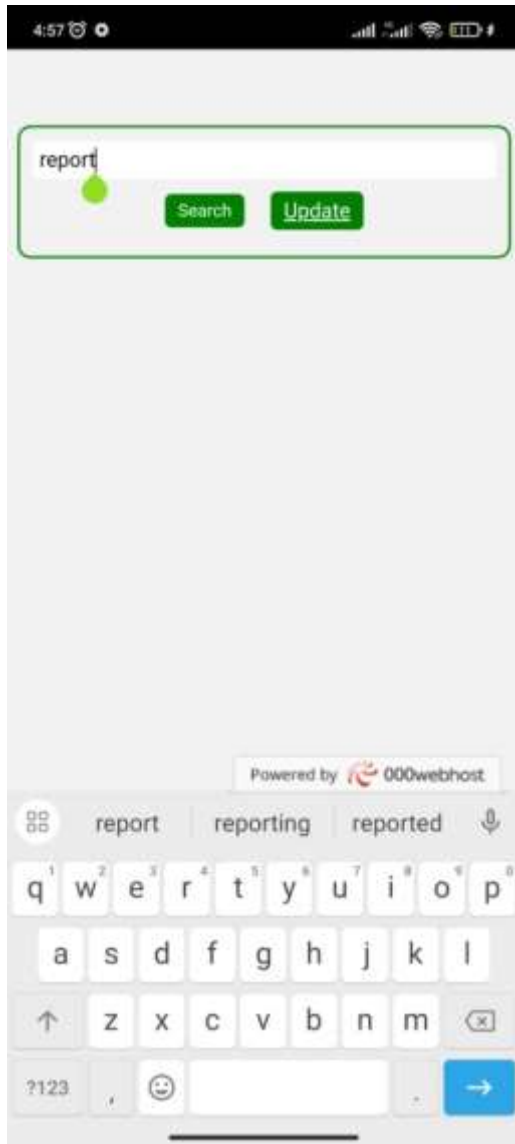


Figure 5 Searching for a medical record

The screenshot shows the medical reports page.

- To search for a patient, input the patient name in the search field and then click search.
- The record is returned after which the health worker can open and edit as shown in figure 6.
- The health worker can the view the file, edit and make updates.

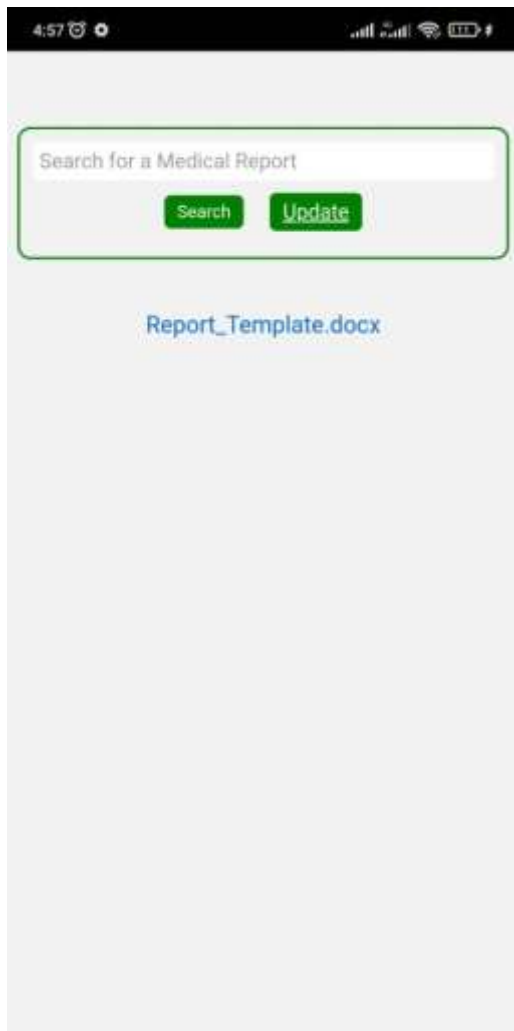


Figure 6 medical record returned

Data Explorer:

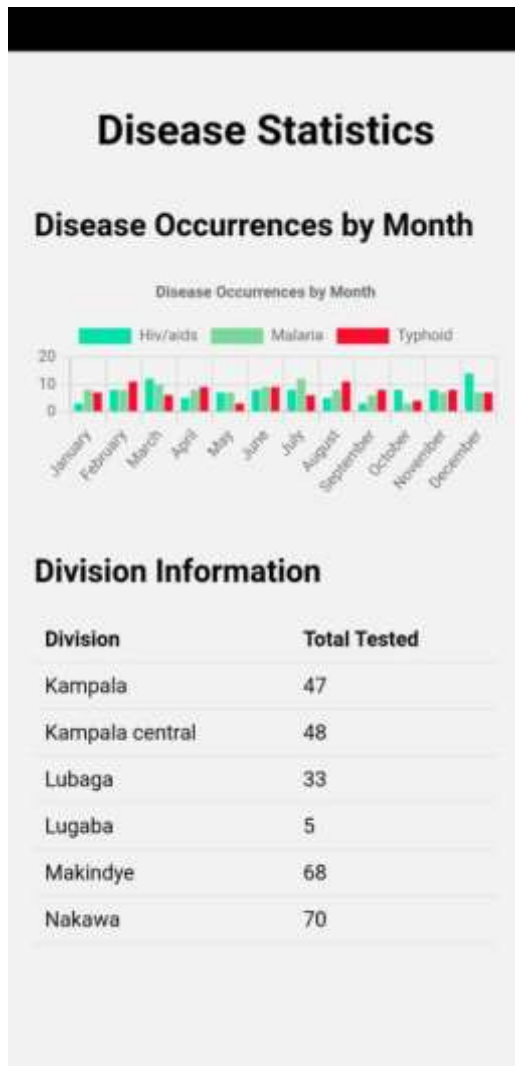


Figure 7 Data Explorer screen

The screenshot shows the a graph and a table that have been generated using the time series data analysis model. They contain information of diseases that were diagnosed by month and a general summary table.

observe the graph for the highest recorded disease and from here derive derive a conclusion and recommend a course of action.

3.2. User Application

3.2.1. Step 1: Account creation and login.

- Open the application on their phone. The splash screen is displayed and a user then clicks the get started button.
- Log in with your respective email and password. If it is a first time user, create an account by clicking the signup button.
- Once the login is complete, the user will then be taken to the home screen as shown in figure 11.

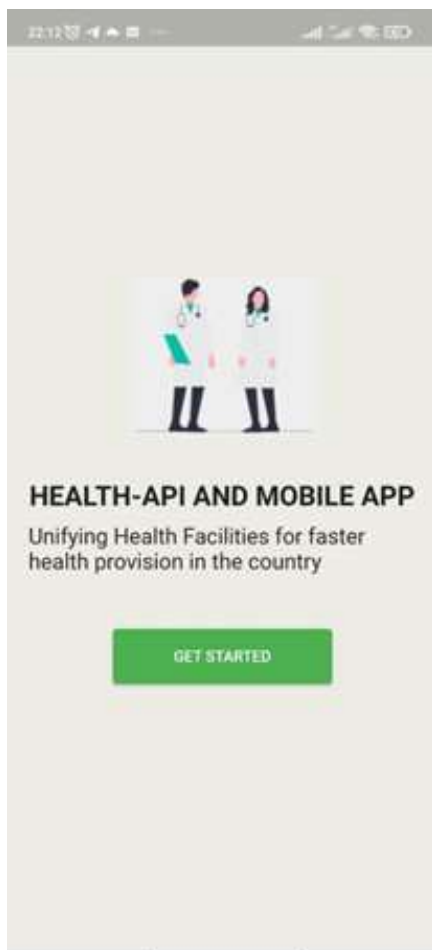


Figure 8 splash screen

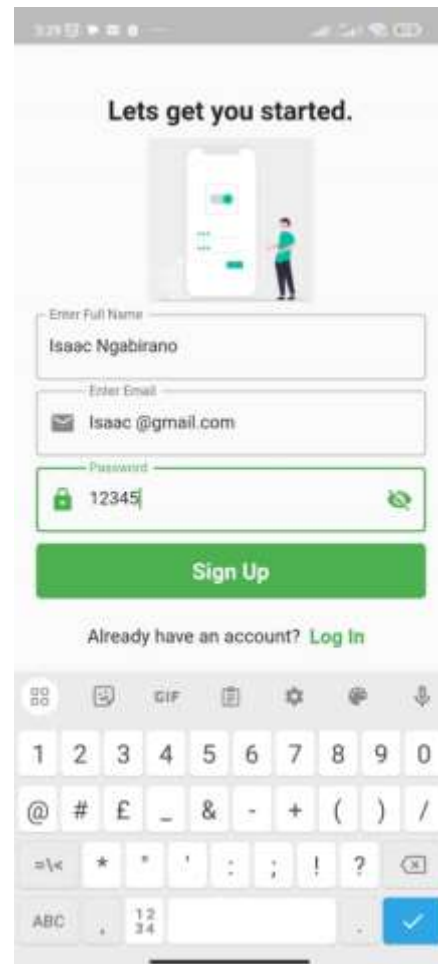


Figure 9 user sign up

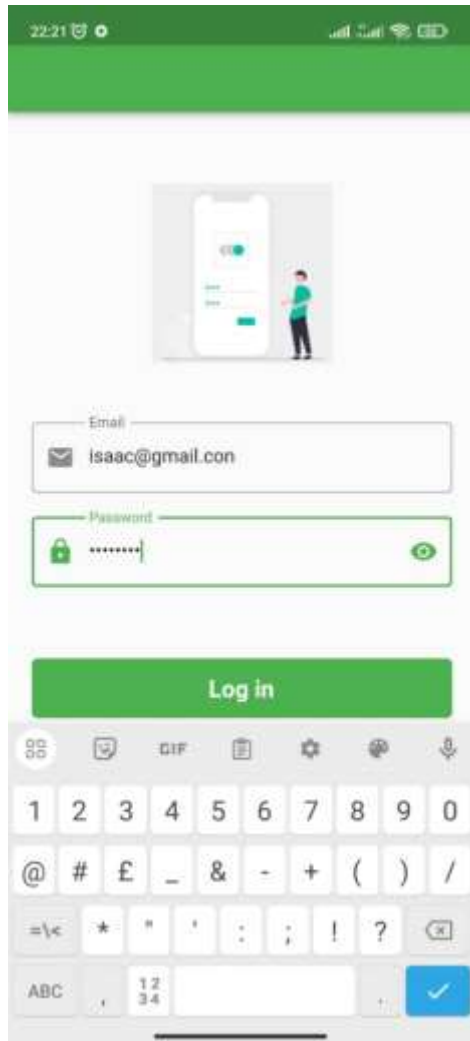


Figure 10 user Log in

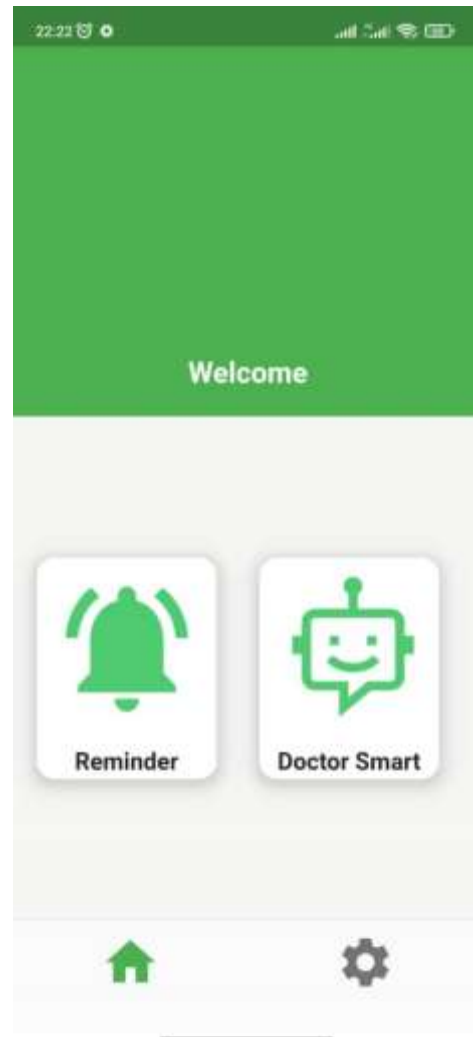


Figure 11 user home page

3.2.2. Step 2: Navigation

Reminders:

- To view your prescription, Click on the Reminder button. The screenshot shows the active prescriptions for a patient named isaac Ngabirano.
- According to your prescription, the system will send timely notifications and keeps reducing the dosage untill the given number of days for your dosage have expired.



Figure 12 AI powered reminders

Doctor Smart

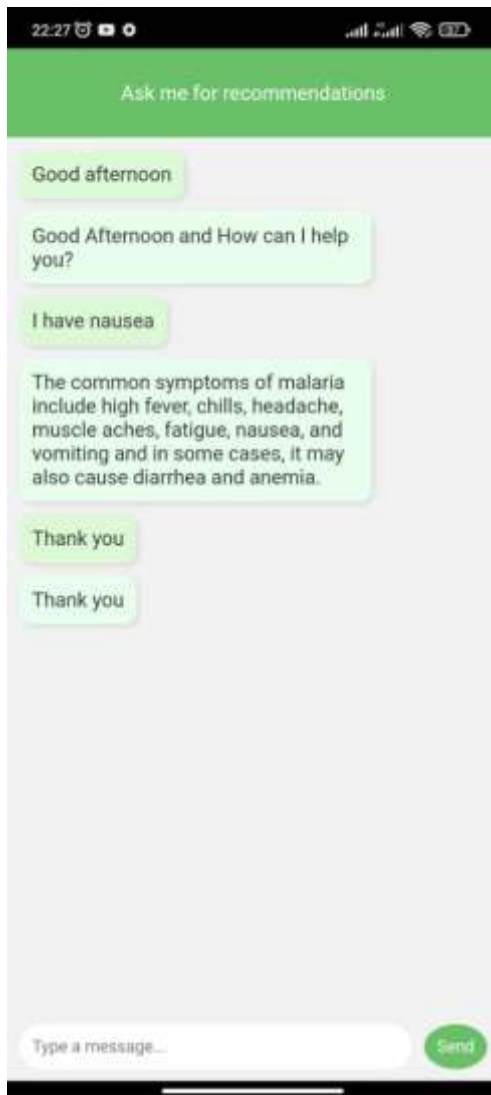


Figure 13 Chat Bot screen

- The screenshot shows the doctor smart screen. Start the conversation by inputting a greeting like "hello", "good morning" or "good afternoon".
- The chatbot then responds with a reply and a question prompting the patient to input whatever symptoms they are experiencing.
- Input any signs and symptoms they are experiencing like headache, flue, nausea, for which a response is given containing possible causes and a recommended course of action.