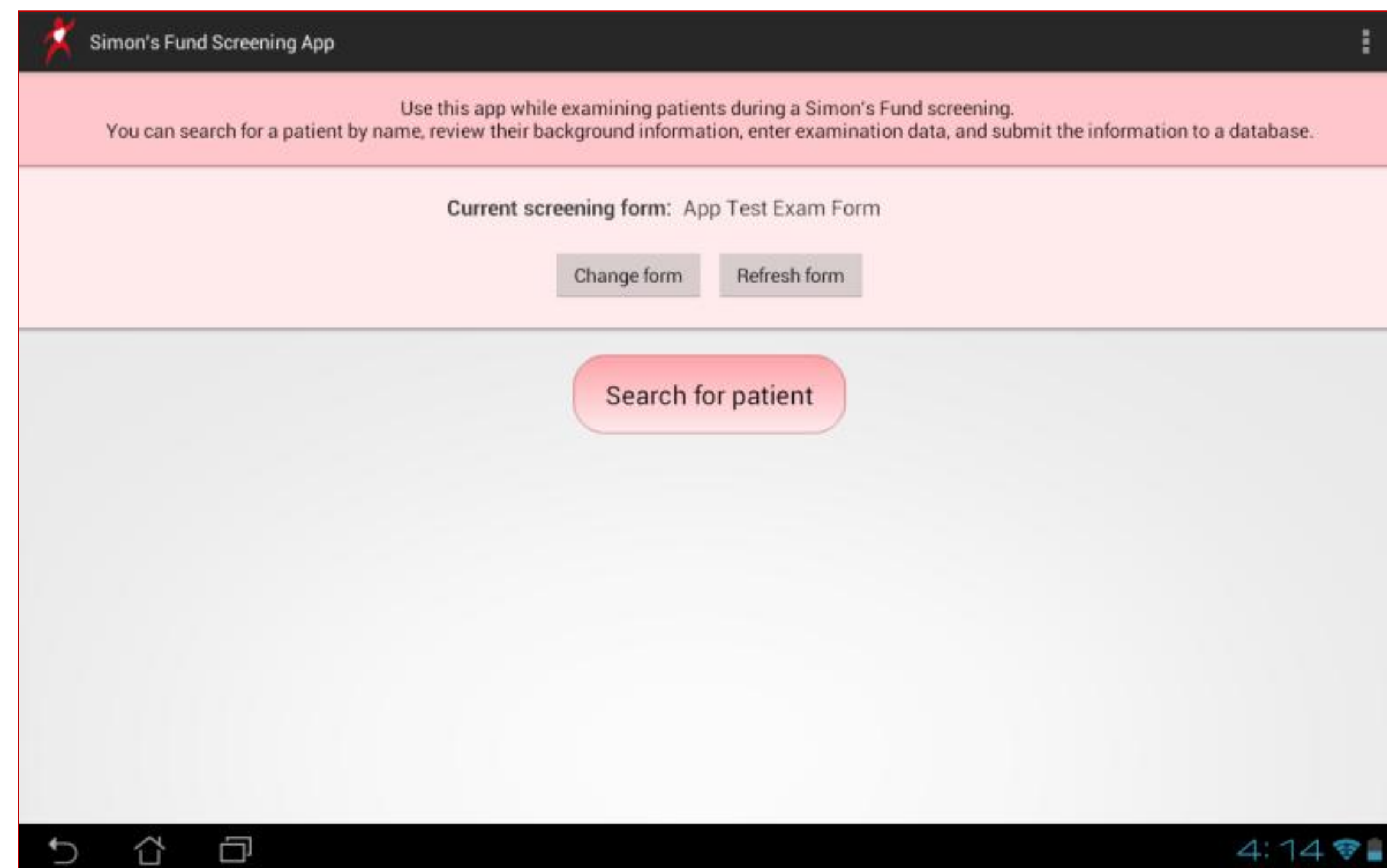


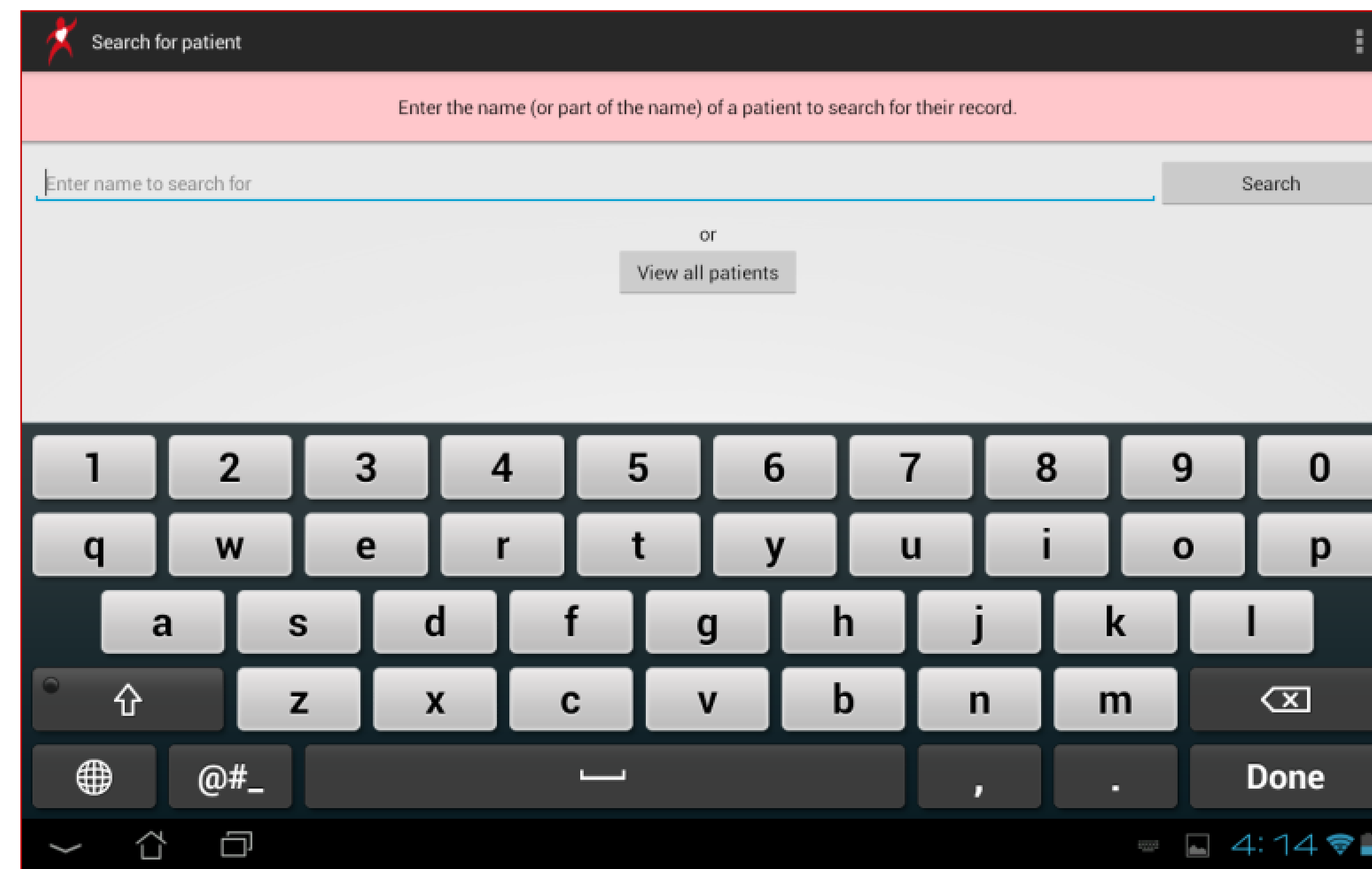


# Simon's Fund Screening App

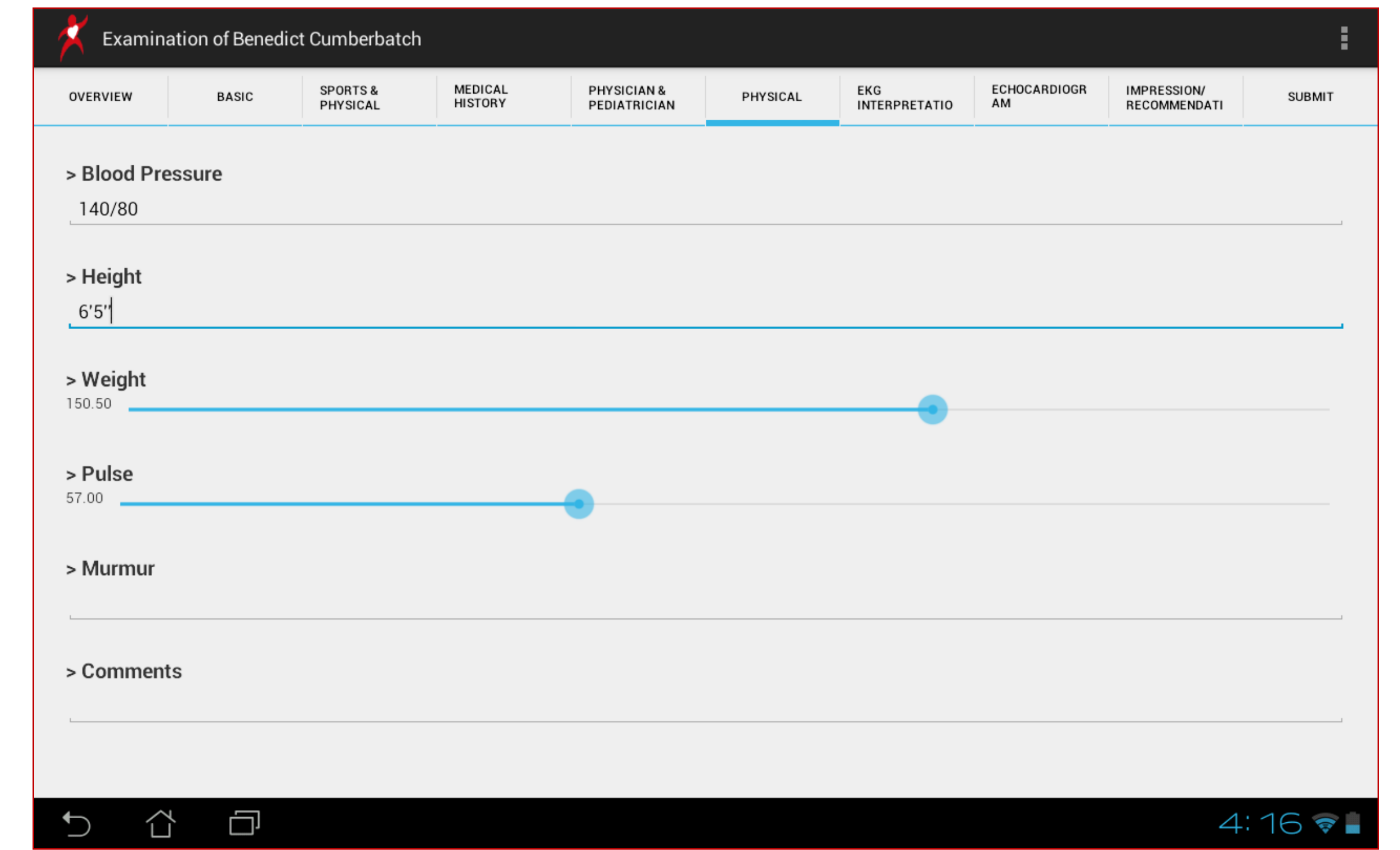
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Start-up page. Users will have to select a form only once per screening event.



Search page for finding patients.



Patient examination form. The content and layout of fields is derived from the selected Formstack form.

## What is Simon's Fund?

Simon's Fund is a organization that provides free heart screenings for children in the Philadelphia area. Their goal is to identify and raise awareness of heart conditions that might lead to sudden cardiac arrest and death. Simon's Fund has already helped over 45 children discover dangerous heart conditions.

At a Simon's Fund screening, children proceed through a series of stations to receive a physical examination, medical history review, and heart imaging.

## Purpose of the app

Currently, patient data from the screening is recorded on paper. This method makes it difficult to preserve data for later analysis. Our goal was to create an electronic form app which doctors could use to record data during the screening.

Doctors should be able to perform the following tasks with the app:

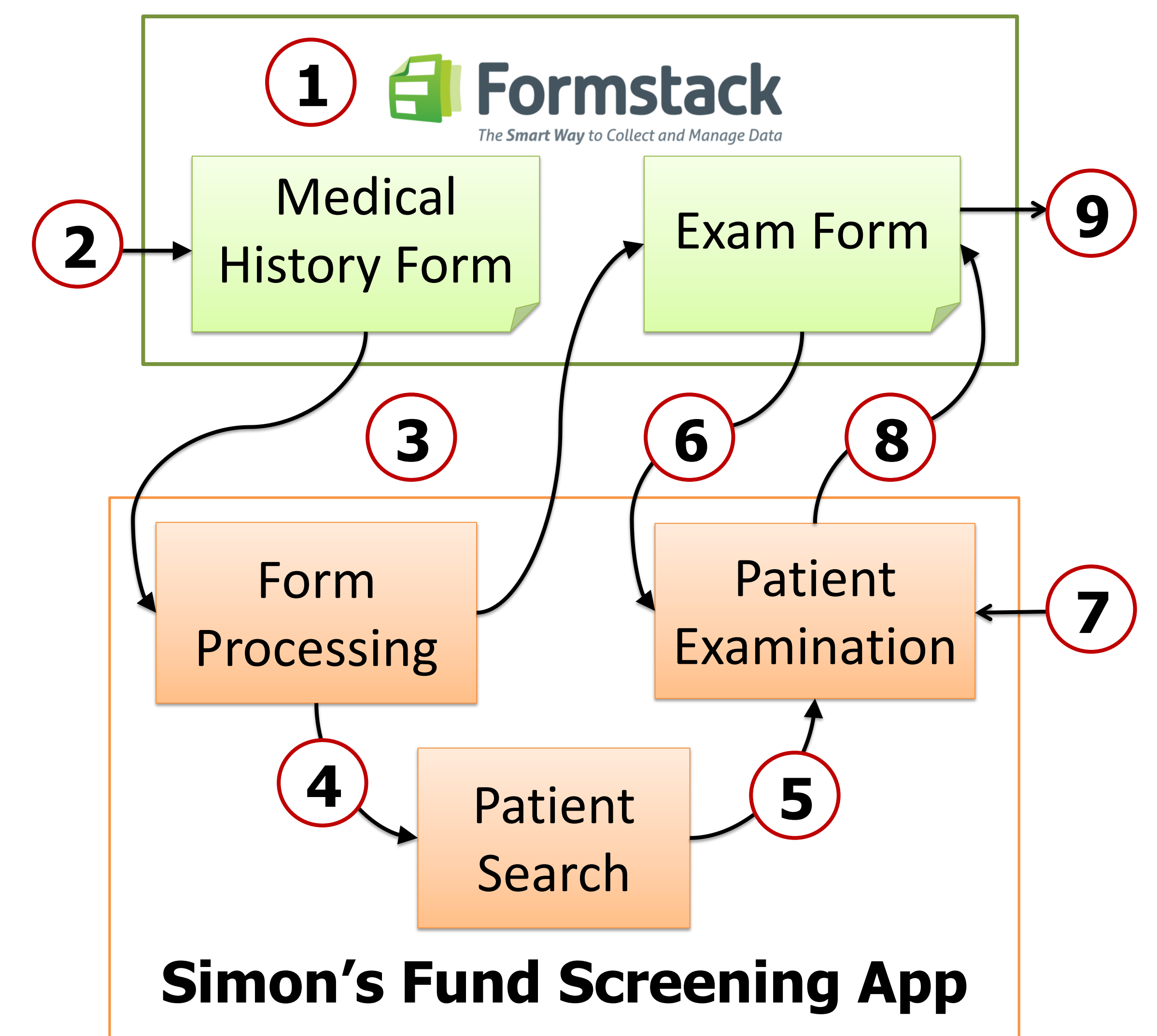
- Search for patients by name
- View patient's medical history
- Access patient data recently submitted at another station during the screening
- Enter examination data quickly and intuitively
- Easily access submitted data later

As an additional requirement, the content and organization of the form should be easily modifiable by non-technical users from Simon's Fund.

## Implementation

Simon's Fund already uses a web service called Formstack that allows users design forms and collect submissions in an online database. We decided to create an app that worked with Formstack in order to take advantage of its existing user interface and database. The following diagram illustrates how the app works with Formstack.

1. Form content and layout is set by Simon's Fund via Formstack's web interfact.
2. Patients register for screening and submit background information.
3. Background information is copied into exam form.
4. The app generates a searchable list of patients based on registrations.
5. Doctor finds a patient by name.
6. The data for the selected patient is loaded.
7. Doctor views and edits patient data.
8. The screening results are submitted.
9. Data can be exported and analyzed.



## User testing

We tested our app with the target audience (doctors) as well as additional student testers. Users found our app easy to understand and use, as indicated by their responses to a UI questionnaire. Based on the testing results, we added brief instructions to clarify certain pages and improved the form interface by adding sliders.

I thought the system was easy to use.	4.13
I think that I would need the support of a technical person to be able to use this system.	1.50
I would imagine that most people would learn to use this system very quickly.	4.88
I found the system very cumbersome to use.	1.13

Average responses to SUS survey, from 1 = "strongly disagree" to 5="strongly agree".