Pocket Doctor

Pocket Doctor is an application available to anyone anywhere that will allow them the ability to keep track of their health and, if they so choose, forward this information to their doctor.

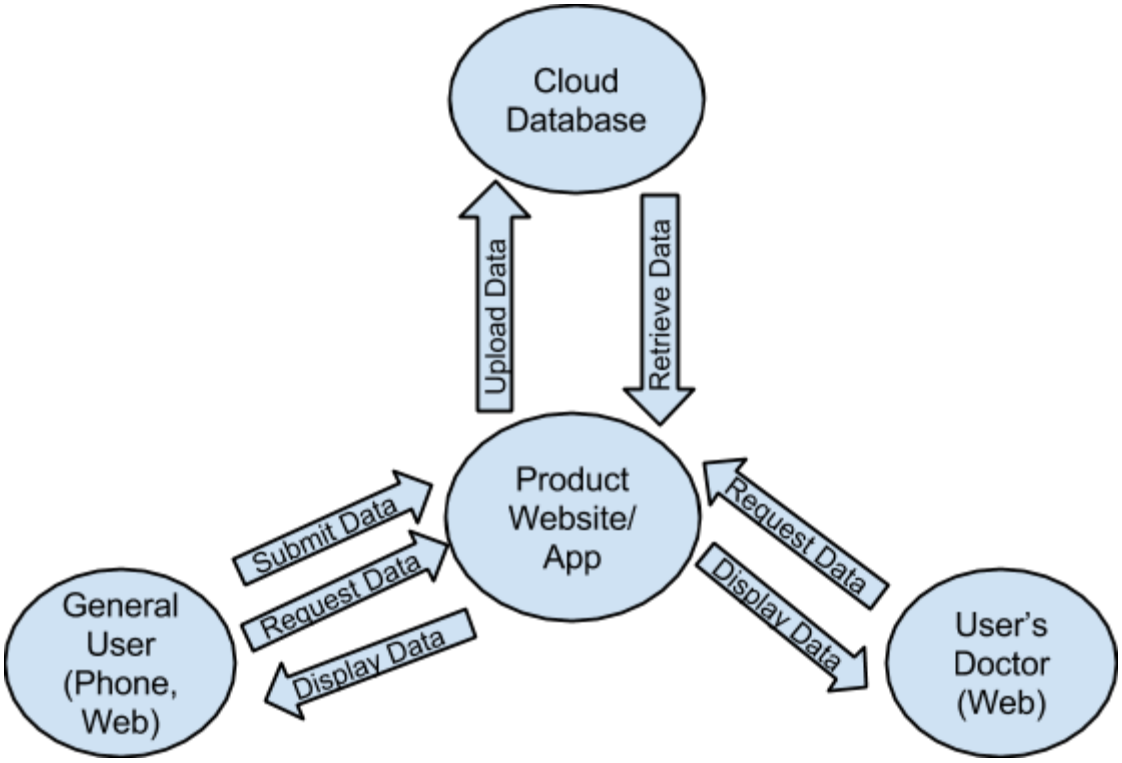
The main users of this application would cover anyone who is concerned about their health enough to spend a couple minutes at most a day filling out any information that they view as important to keep track of. Most of those that would fall into this category are those with potential health risks or issues, including but not limited to those above the age of 50, pregnant women, as well as anyone who has been diagnosed with something that requires consistent monitoring such as diabetes. Most of these people need to keep track of their health and such a product would allow them to easily do so.

The aforementioned users, however, are not the only beneficiaries of such an application. By allowing the transfer of this information to a doctor (specified by the user), their doctor has access to consistent and more accurate data than what the typical person would likely recall at a checkup or physical. Doctors can then view a fuller timeline than what patient records may provide and can monitor their health more closely. While there is no guarantee that the information will be genuine (as the application itself will not perform fact checking against the data the user inputs), having the option available is worthwhile.

There are some different solutions out there for people who want to record data about their health. Products such as Fitbit and Microsoft's HealthVault both aim to help keep track of this data for its users. Google had its own version as well: Google Health. However, Google Health has been discontinued. What these solutions lack is the ability to aggregate all the data collected, a focus on general well-being as well as individualized health care (Fitbit focuses heavily on weight loss), and ultimately the ability to pass along the data and information to your primary health care provider.

This solution allows for saving time of both users and doctors by having this information readily available to either party. By having more information recorded and being able to see the it all in one place, there is the potential for identifying health issues or risks sooner rather than later. Since companies such as Microsoft and Google have attempted solutions to this problem before, we have the ability to see where their products fell short and develop something better.

From a more technical point of view, our ideal information flow will look something like this:



It's important to note that, before displaying data, the product can also perform some preprocessing if that's what the person accessing the information wants. This is most likely going to be in the form of generating graphs and tables of certain types of information. Another important piece to this is that the only way that the user's doctor can request information is by patient authorization.

What makes this product interesting and challenging is the communication between the different platforms (mobile, internet, and cloud database) as well as the process of computing and visualizing data. For cloud access, we believe Amazon's cloud database storage would be a viable option. In terms of language and programming, it would be worth our time to investigate Google Web Toolkit as a resource for generating the web site, as it allows people to program in Java and then turn it into Javascript with relative ease. This allows for easier web development without having to necessarily go and learn a new language. Otherwise, we could potentially depend on people with prior web development skills.

The most serious challenge that this project faces is the time constraint. The multiple components that make up this project - web, mobile app, cloud database - are all things that would have time invested in them. By cutting down on the scope based on the strengths of the developers available, the risks of failing to finish a solid product can be mitigated.