Sustainability Plan

Health Coders

Sustainability is an incredibly important element for any project. This is especially true of the Computing for Good projects because the projects are going to be fully handed off to another organization with none of the original developers staying to sustain it. While we’re still going to be working with Emory in the coming semester, we won’t be around to help them forever. However, both in terms of short term sustainability and long term sustainability, we feel that our project is going to have no problems with being maintained and developed further in the future.

For short term sustainability, we’re going to be working with the Emory school of public health to get our project deployed correctly. We’re going to be testing the system and looking for problems (as well as asking them to report any problems) so that we can fix them and update the project. We’re going to be working on this over the upcoming Christmas break, and we’ve already told Juan Leon, our point of contact for this project, that we’re willing to work on this project next semester to help with any issues that arise or to make reasonable improvements to the system.

Long term sustainability is much less about what we’re going to do after the project is done and much more about what we’ve done so far to make the system reliable and easy to maintain. We chose MySQL and phpmyadmin as our database tools because these are very stable technologies that are extremely common. They are what a developer or maintainer is most likely to know. We also chose tomcat as our server technology for the same reason. Also, choosing tomcat means that we are developing using JSPs on the front end and plain Java on the back end. These are both very well known technologies that will have a lot of support behind them. We also chose to use twitter bootstrap because we feel that it is easily maintainable. It’s also easily customized by just swapping out some css files and not having to look at any code at all. It’s also wildly popular and has been for several years, so there’s no shortage of information and customization available for it.

Our project also has a unique requirement as far as sustainability goes because of Juan Leon’s class next semester. He has around 150 students that will be calling hospitals and using our system to enter data into the database. So in order for our project to be useful over the coming months, it will need to handle this situation well. We created a simple form on the page where trusted users can fill out a form and have all of that information added to the database. In addition, our MySQL database will have no problem handling the extra data. While we’re going to have significantly more data coming in, it’s not an extreme amount of data by any measure. Each hospital has about 30 fields, and we’ll be adding (hopefully) a few hundred hospitals. This gives us a few thousand total fields, maybe into tens of thousands if we’re really lucky and we get a lot of extra hospitals coming in. For a database to be big enough for performance to be an issue, it would have to have more millions more records, so we’re really not concerned about the database not being able to handle the extra input.

The other way in which this project needs to be maintained is maintaining the data, which is unfortunately somewhat out of our hands. We won’t be maintaining the data, so all we can do is provide the tools to allow for others to effectively and efficiently maintain the data. We’ve created a form to easily modify a hospital, so instead of somebody having to interface with the database directly, a trusted user can use a simple form to correct a mistake. We also have a form for a regular user to report a problem to an administrator. Whenever a problem is submitted, we email a copy of the problem to a data administrator. We also save a copy of all of the reported bugs onto a table in the database. While we may not be maintaining the data ourselves, we do feel like we’ve taken the steps that we can to ensure that data maintenance will be as easy as possible.

The last part of sustainability in this project is passing off the project to specific individuals and knowing who will be running the system. Unfortunately, we have not been given any specific points of contact in IT at Emory that will be handling the project. We’ve been speaking to Juan Leon, but he will not actually be the one handling the IT aspect of the project. What we can do, however, is leave very good documentation, which we feel we have done. We have also told Juan that once an individual is chosen that will be handling the maintenance of the project to please give him our contact information. This way, while we may not be able to meet and train a specific individual to carry on the project, we will at least leave them good documentation and a way to contact us.