

Post-Mortem

For the Girl Scouts of America Badge Tracking
Application

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Management:

Our team met a lot, twice a week and for 2 or sometimes 3 hours a meeting on work days. We kept on task and really dealt with any troubles each other were having. These meeting allowed us to make sure we were all on task and to have hard deadlines for each other's work. However we did not take very good minutes on these meetings. The meetings tended to stay on task but no record of what we talked about just a general idea of what we did and the time we spent on it for the time log.

Risk mitigation was an issue the team did fairly well on. The team did run into a risk and mitigated it well. We did not get a server by our deadline so the team decided to develop using XAMPP to simulate the server allowing us to port over to a real server if one ever became available and if one did not the client could use XAMPP and have all the functionality we proposed. Our other risk we reduced the likely hood of occurrence was the lack of mobile development. We got started on this risk before the end of the semester although we didn't initially plan on dealing with it until next semester. The team used PhoneGap and decided that we were confident in our ability to produce an app with our current knowledge.

Division of labor was a problem in our management. The work didn't seem to be evenly divided amongst group members because we did not pull enough work from the backlog. The team should have been working on the back end of the web interface for more sprints than we did to give more work to other members of the group.

The team also messed up in its scheduling of tasks. Specifically the team did not do an official design of the interface template until it had already been started. We initially did this to get a feel of what could be done but in reflection that was a poor choice.

The team did not do much testing this semester. The only testing done was that of the database and that was more so just seeing if the data was in the database not rigorously testing the database. This will certainly be changed next semester as next semester is focused on quality, since most of the core components are close to finished.

The team did adapt to change quite well. The team did not initially have any mobile development in the plans for this exit strategy but talking with the Oversight we added mobile development training and exploration to the exit strategy. The team fit that into our goals for

the end of the semester and completed that goal. The team also had to develop without a server, the team did not plan on the client not providing a server so late so the team adjusted and kept plugging along.

The SAGE process was followed by the team with the bi-weekly scrum meetings and the planning of every sprint based off what backlog items were deemed more important by the team members and which were completed last sprint. Status reports were made after each sprint and given to the Oversight with a few typo's but accurate none-the-less. Also the team set our CS425 exit strategy to reduce the likely hood of our two biggest risks.

Communication:

Within the group, our communication was superb. Our meetings were always productive and managed to solve any minor risks we had between each other. Using Google hangouts, we maintained close coordination to improve the quality of our work. We used the hangouts application to schedule when we would meet and what we would meet about. In terms of communication with the client, our communication could have used some work. Almost every week, we would send the client an email describing our progress and anything we needed from her to better understand the project. Unfortunately, our client was hard to get ahold of many times. Understandably, she was very busy with maintaining her troop and personal life. We often met with the oversight and described our progress. Anytime a potential problem would arise, we would use the oversight to help us come to a decision to solve the problem.

Our collaboration as a team was excellent. Everyone on the team were helping each other in picking up the slack if anyone was having problems. We pushed each other to finish our portion of the sprint. We divided work well in that everyone seemed to always have equal amounts of work. Everyone contributed to the project equally week to week.

Unfortunately this semester, we had planned to have a server available to us for hosting our website. We were unable to get one before our decided deadline. While not project ending, we can still move forward into next semester with the hope of getting one. Our client was not

the most communicable towards us about getting it. We consistently asked the client about getting one available to us without a response. By the time, the client presented a path towards a solution our deadline to having the server had passed. Moving into next semester, should we decide to continue to pursue a server, we will need to set it up early on.

Tools:

The tools we used throughout our semester in CS425 were very helpful for the most part, Google Hangouts which we used as an open communication short messaging system where could keep in constant contact. Our team also used primarily dropbox for our version control where we could simply upload files to the online file system. We also used Bitbucket for version control, our inexperience with the repository lead to an underutilized tool which we only used twice. We aim to brush up our knowledge and create a process where our group can upload files and commit regularly and the right way using Bitbucket. During web development Boot-strap helped us create a webpage with HTML, CSS, and jQuery built into customizable elements creating a fluid design. We also used Xampp which allowed us to run our database on a local virtual server without the need of a web server. This allowed us to mitigate our risk of not having a web server by being able to run our database locally and in the future when we acquire a web server Xampp allows us to port over. Our group initially intended to start iOS mobile application development using Xcode, an iOS development environment but the mac computers in the senior project lab were not compatible for the application. From there we adopted PhoneGap which ports our web based code straight to iPhone and android operating systems which turned out very nice.

CS 425 Exit Strategy:

Throughout the semester, we had a hard time figuring out what exactly our exit strategy should have been. Initially, we had no mobile development in the strategy so that we could focus on desktop development. However from the advice of the oversight, we decided to add in that we would build a small prototype an app that could be used for our project. We met with a professor who helped us better understand developing in iOS environments. With his help, we were able to understand developing on mobile devices. Unfortunately, the machines in the lab

are not suited to building on the latest line of smartphones so we decided to come up with another solution. We discovered an application called PhoneGap and used that for our mobile development. With that our exit strategy became much easier because we could port all of our desktop web pages to mobile without much development in between. PhoneGap has significantly helped our project in terms of quality and time.

Our exit strategy was initially focused on the backbone of our application. We wanted to have our main components finished so that in CS499 we could focus on design rather than functionality. With the use of our new tools, we were able to cut a lot of time out of next semester in terms of development for mobile devices. We met our exit strategy by the end of this semester however there was the possibility to get more done. We poorly estimated how much time our tasks would take so unfortunately we wasted a lot of time not doing anything on the project and focusing on other classes.

Progress:

While we were successful in getting a lot of work done including the completion of our 425 exit strategy we still have a way to go in order to fully complete the application. Currently we have implemented a fully functioning database, the general layout of each HTML page using boot-strap and accompanying CSS, PHP functionality to interact with the database, and a mobile app prototype using PhoneGap.

Generally things went well during this semester such as our progress in research and the team's ability to meet deadlines on time. There were several topics that the team was somewhat unfamiliar with, mainly mobile development, but also things such as boot-strap on web pages and database implementation strategies. We managed to find time in our sprints to research these topics while still completing all of the goals we had assigned for each team member. The deadlines that the team set either for what needs to be completed at the end of a sprint or during a sprint were almost always met on time. But there are a few things that we could have done differently that would've made the implementation of this application run smoother. Especially early on in the process, during our first couple of sprints, we had poor time estimations. These estimations improved slightly as we worked into later sprints, but still

need a lot of improvement for next semester. To remedy this issue we plan on spending a little more time at the beginning of each sprint to set out well defined goals. The time needed to complete these goals will be discussed as a group to get the most accurate estimate. Another major issue we had was spending too much time working on the documentation. We didn't divide the documents up, and tended to work on them all together as a group. This caused them to take much longer than they actually needed to. Towards the final sprints we were more successful in splitting them between group members and we plan on using this strategy for all future sprints.

Customer representative report:

Our customer was unable to meet with us to present our application's progress to her. We have kept in contact through email trying to make a meeting happen to no avail, as shown in the emails folder in communication portion of the portfolio. We sent our project to her with read me files for her to analyze our progress and give us feedback. Our group also proposed an idea for alternate forms of contact through skype and google hangouts in the upcoming semester. This will be important for us in the upcoming semester of CS 499 as we will need more feedback refining our application.