

1. Communication is important to any team because without proper communication, you stop being a team. And no matter how amazing you are as an individual, a good team will always help you improve. I think that communication is hard for various reasons. Sometimes we have to get out of our comfort zones. Sometimes we have to talk to people we don't get along with. And sometimes, we even have to admit that we need help. None of these situations are fun, but without proper communication, these small issues can become serious problems. I know that for me, that last situation, admitting that we need help, is one of my least favorite conversations to have with my team. But throughout this capstone project, I have had many experiences where asking for help from my team has proved to be invaluable. Together, we were able to fix the problems I was having and improve some of the code that I already had written. As well, when my teammates asked me for help, I feel that I was able to really help them get off the ground and produce something of great value. However, I feel that sometimes as a team, we hesitated to communicate our problems. And this hesitation caused weeks to go by with little progress. It was only when we started to truly work together that the project made any serious headway.
2. There are three main metrics to determine if a project was a success. The first metric is did you finish the project on time. The second metric is did you finish under or at the budget. And the last metric is did you complete everything that you said you were going to do. Because we didn't charge our Sponsor anything, we definitely came in under budget. We were also able to turn in our code on time, meaning that we finished the project in the timeframe given to us. However, for the last metric of doing what we said we would do, we didn't quite get there. I would like to think that a lot of this can be blamed on the sponsor for not giving us the database/API requests in the timeframe agreed upon. This set us back quite a bit, and as a result, we weren't able to add all of the features that we planned. Luckily for us, we decided to use the Agile Method of Project Management and we were able to make the necessary adjustments. In the end, we delivered a project that we were pleased with and the sponsor was pleased with. We even added documentation that explains to the sponsor where to go from here. That way he can give it to his developer and pick up right where we left off. I think that we did the best with what we had, and we made adjustments where it was necessary. Overall, I would say that our project was a success.
3. This project taught me a lot about teamwork because I've never had to rely on a team as much as I did for this project. It was way too big for any one person to complete, and that meant that we had to divide it up and trust that everyone was going to do their part. It's not always easy to trust someone else with a project that has your name on it, but for this class it was necessary. And I'm actually very grateful for that because it helped me learn what it truly means to be on a team.

- a. The first factor of teamwork that comes to mind is exactly what the first question in this essay referenced: Communication. That's simply because if a team isn't communicating, then they aren't a team.
  - b. The second factor of teamwork is trust. This is important for two reasons. First off, a team needs to trust in each other that they will do what they are assigned. Delegation, or splitting up the work, is only viable if each team member pulls their weight. Often times, person A's code is dependent on person B's code to work properly, and vice versa. And this is true team wide. This means that if one person's code doesn't work, it often affects all of the other teammates. Everyone has to pull their own weight and everyone has to trust in each other to do just that. The second reason that trust is important, is that I'm not going to come to you for help if I don't trust you. A team only works if there is communication and support. But if there isn't trust, then the team will choose not to work individually and not as a whole.
  - c. The third factor of teamwork that I'd like to talk about is documentation. I remember from class, that you had a quote, "If a goal isn't written down, then it isn't a goal." (Or something along those lines). For this project, we wrote everything down. We had a Trello Board, we had Meeting Documentation, we had a time logging sheet, we had a Slack Channel, we had a Word file with our goals written down, we had a Gantt Chart, and many more things just to make sure that we were always on the same page. I think that this was crucial to the success of our project. I don't always have the best memory but because everything was well documented, I was able to stay current with my team.
4. Lessons Learned:
- a. The most important lesson for me that I learned this year, was how to go about completing a project from start to finish. I loved that we got to meet with a sponsor, go over goal, plan it out, code it out, test it out, and deliver it back to him. The process was so interesting to me. I've had other classes that had aspects of project planning, but never have I gone from start to finish with a real live sponsor. It was a very rewarding and eye-opening experience.
  - b. The second lesson I learned had to do with actual coding. I was on the backend team for this project and I learned so much about the Ionic Framework, API calls, and a whole bunch of other things that specifically have to do with coding in Java. It was really fun for me to dive in and get my hands dirty with an unknown language/framework. I feel much more comfortable and confident in my coding skills having worked through this project.
  - c. The last lesson that I want to talk about is managing expectations. It was really interesting to work with someone who had no coding background. There were many times that we were discussing the scope of the project, and our sponsor would throw out some crazy request. Or many times, where he would fail to meet the deadlines we were giving him. It was interesting for me, and hard for me, to learn how to deal with it in a way that was positive. But, after having gone through the process of creating this project, I feel that I am far more capable of working with someone that is new to coding than I was a year ago.