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Software Engineering 2017 Essay

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Throughout this document I will be talking about my experiences and personal reflections of Software Engineering 2017 taught by Adon Moskal, and Elise Allen. I will discuss both the smaller three man project we undertook as well as the main Meals on Wheels project assigned to my group and I, I will touch on what my tasks were, how I felt about them and I will also include some insight after the fact as to things I could improve on and possibly could have done differently.

Coming into software engineering 2017 I knew it was going to be difficult having failed the paper previously, I knew this paper was very different to all the other papers available as this one relies far more on independent work and both time and self-management, two things I want to improve on. This year started out very differently as we started the course by getting into smaller 3 man group projects to begin with and were given a small task to complete, making a decision spinner. I teamed with Aaron and Cade to make a mobile app that would act as a decision maker, where the user can input questions and spin an on screen wheel which would dictate the response to the selected question. I personally really enjoyed this smaller project as I feel smaller groups are easier to manage, easier to stay on top of and I find people get less complacent with smaller groups (myself included). I think this initial group project was a very good introduction to the course and would highly recommend this kind of thing continue as I feel it gives you a taster for group work before being thrown in the deep end, I also really enjoyed having the freedom to choose what platform and language we used as I really wanted to work with mobile devices however the mobile learning content seems to be really minimal as a whole and the degree of freedom we were allowed meant that we could get creative with our ideas and really try and enjoy it. This smaller project was meant to get us ready for the main Software Engineering project and give us a little insight into what we will need to be doing in the main project and I think it was very good at doing so without the pressure. I thought this was a very beneficial exercise as you got to see how things worked out and what issues could be encountered and how you could overcome them or possibly avoid them all together.

After the smaller group assignment we were divided into groups and assigned a main project to undertake for the remainder of the year. After a rocky start for my group and I, having to try communicate with an unresponsive client, we were assigned the Meals on Wheels task which I had some previous experience with. With my group being the only team to be starting on an existent project we had to take a different approach compared to the other teams as we had to familiarise ourselves with the code as even Sunny and I, both with previous experience with this project were not working on the same tasks as we had been previously. This caused some issues within the group as we were divided as to whether or not to start the project over in a language we were more familiar with, ultimately me and Sunny both agreed with Adon that restarting the project just wasn't feasible due to time and man restrictions as there would be no way for us to match what an entire class had managed in the same time frame. We presented this argument to the remaining group members and in the end agreed to continue with the project as is and distribute tasks.

All of my tasks this time round within the Meals on Wheels project were JavaScript based and included the use of the JQuery library to replicate the existing page's functionality, this was done using AngularJS, which I would need to strip out. Looking back I think there is definitely things I could have done better, which ultimately would have made the overall experience a lot smoother and just more efficient as a whole. I think my first mistake was not doing more research on the language, library, and framework I was to be working with; I had very little previous experience with JavaScript which really slowed down my initial progress but I think had I spent a bit more time understanding the basics and the existing code that I was to be altering I could have had an easier time reaching a solution. I also found myself relying a little too much on Adon's JavaScript knowledge when struggling to understand something and this also could have been avoided if I had focused more on the initial language research in the beginning.

Communication is a huge part of working in groups so my group and I decided on which platforms we would use for communication and task delegation early,, however communication definitely wasn't my groups strong suit. We ended up using Slack as our main source of communication with Trello being used to distribute and monitor tasks. I think I could improve on the communication front as there were times where I would get caught up in other work and forget to respond to a group member's message for a couple of hours. There weren't any negative effects in this instance as a result of delayed responses however in other cases this could have had a bigger impact, if someone needed a password or recent files for example and were unable to get a response for multiple hours this could prevent progress from being made on the project. I've been actively trying to be more and more responsive via group and private messaging throughout the year and plan to continue to incorporate regular checks into my daily study just to ensure nothing important is missed and that when needed I am available.

Another Important feature used to facilitate group work is GIT as this allows us to obtain, share and view updates on each other's work. I would probably say my lack of GIT knowledge was one of my biggest downfalls in this group project as I tended to not push progress on tasks until they're finished, this denies my group members from seeing what progress I've made without direct contact, and seeing how it effects the overall project or even how it works with something they're working on themselves. I've been attempting to address this weakness by doing some research on things such as branches and forks and also using GIT more often across all of my classes as I feel like practical learning is the most effective. I have definitely made progress on this front but need to keep learning and progressing to get to the level of comfortability I would like.

My overall opinion on Software Engineering is that it is a great learning experience that can benefit you in many ways, but only if you are willing to learn. I think the hardest part for me was the change from constant scheduled work and regular due dates (weekly labs for example) to going to

unguided work all of a sudden, the first time round I found myself being really complacent because of the time available and lack of urgency but I think that is part of the learning experience, learning to handle that and manage your time well enough to get the work done. This is one thing I've been trying to work on this year and I feel especially towards the latter half of this year I have been able to improve my work ethic greatly and hope to keep improving it.

In conclusion I think that Software Engineering is a very valuable course to the BIT and feel like there is a lot of knowledge and practical experience to be gained from it, but only if you're willing to put the effort in to learn it. This is a gateway between normal classes and project and I think it does a good job of helping you prepare for that step up.