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Individual Reflective Essay

This module hit my expectations regarding the content and the learning experience. I have participated in 3 projects during this module. Working in these projects made me realize what real life working situation will be. I gained experiences, friendships, and skills and faced some challenges.

First project was developing a calculator app in pairs which was my first time collaborating with another partner in a software engineering task. During this project, I developed time management, collaboration and communications skills as well as I learnt a new language to work with as during my first 2 years I was using JAVA to work on my tasks but this time I had to learn a new language which is Python which was challenging at first because I was used to JAVA but leaving my comfort zone for once made me realize that learning new language was beneficial to me. Another challenging aspect was learning how to do the CI workflow for the unit test. We had to conduct extensive research before we could complete it on time and commit to the job that had already been completed.

I really enjoyed working in pairs as my partner was very helpful and organized. Communication played a vital role in this project as we managed to divide the tasks evenly in which I will be doing half the task which was developing half the functions with their unit test cases and CI workflow and to meet face to face every week in which allowed us to finish the project 5 days earlier and gave us time to test it for bugs and modification.

Second project was developing a calculator web app which was my first time working on developing a web app with group of 5 people. It was challenging this time as we had to use Docker to containerize the web app and frontend for the external structure of the app as well as learn flask which is a web application framework written in Python. I always love to challenge myself during these situations as when we were dividing the tasks, we decided to have two team, frontend, and backend. I was given to do the first 3 functionalities of the calculator and part of the frontend of the calculator.

In this project I learnt HTML and CSS which was an addition to my skills in addition I learnt how to build containers and images and establishing networks using dockers (the CD workflow part of this project) and management of containerized web applications using Kubernetes. Overall experiencing working in small group to deliver a task was hard and smooth at the same time as we managed it well and communicated very well and decided to meet virtually every week to update each other on the development of the task which allowed us to understand our strength and weakness points and worked on them to become a better developer yet a better person in general but sometimes because of the busy schedule we would be delaying the meeting due to the task given to one of the members being incomplete.

Third project which is the main project was developing a Data Visualisation Web App using GitHub API. For this project I decided to step up and put myself in the hardest position which was a team leader. I know this role will be coming with challenges but as I previously said if you stay in your comfort zone you will never learn. Members of the group voted for me to be the team leader. It was my first time working in a big group of developers (8 people). Team leader position came with my responsibilities such as organizing meetings for the group that will fit their busy schedules, having weekly meetings with Stephen, which was very beneficial to me, dividing the tasks and keeping up with the progress and issues. It was my first time to solely manage a group of people to deliver a task. Management was hard and challenging at first because it was my first time being a team leader not a developer in a task but after our first meeting all the frustrations turned into positivity. During this project communication was the most important aspect to our success of delivering the tasks. Communication allowed me to manage the team better as I understood every member weakness and strength which made my decision making easier regarding the tasks. I divided this task into 3 teams evenly: Infrastructure team, backend team and frontend team and gave a task every week for every team. This helped us in delivering the task earlier and gave us time to test for bugs and any modifications. Collaboration between the three teams were smooth as I decided to have 2 sessions every week; First session was between the different teams which allowed them to test bugs, develop and fix issues and the other session was between me (team leader) and the rest of the group to inform me about the latest updates and how the work was done.

To conclude, I have mentioned my experience and what I have learnt in this module. During my time working in these projects, I have learnt new programming language to deliver a task, how to use Docker and Kubernetes for Web Apps and most importantly how to manage my schedule to work my on my projects alongside other modules. In addition, I mentioned the challenges I came across while working on these projects such as learning a new programming language in a short amount of time to deliver a task, finding time that suits all members of the group to meet considering the timing of other lectures and learning my head around using GitHub as well as doing the CI workflows for the unit tests. I am very happy with myself as I have gained new experiences, learnt a lot during this module and faced some challenges that will prepare me for the real world.