**City University of Hong Kong**

Department of Computer Science

CS3343 Software Engineering Practice

2022-23 Semester A

Self-Reflection Report

Project Title: River Crossing Game

(with customizable puzzle and solver)

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# Lam Kin Hei, Jerry

In this project, I have learned about project management skills and responsibility. As a project manager, I am responsible to lead the team and provide direction. I understand it is crucial for me to have a clear plan to improve team collaboration. Since time is limited, it is important to allocate resources effectively to decrease the chance of project failure. Though out the project, we faced some difficulties, some programming tasks were left behind schedule. I quickly reschedule the plan. Fortunately, it doesn’t affect our progress tremendously. I learned that I should better planning considerations to decrease process-related mistakes. Fortunately, with a clear team organization and continued track and measure, our team has delivered a successful project.

# Fung King Shun, Sam

In this project, we imitate the development process of real-world software. Apply what we learned in the course to this project. After this project, I found that the factor that most affects the project is communication. Although everyone has a different role, it is impossible to only care about one's own part. For example: As a programmer, when I finish the implementation, I will immediately report to developers for debugging and testing. If a bug is found, the developers should immediately tell me to discuss the problem together. So, we have a group meeting every week, and everyone will report their progress.

In addition, we should also use different development tools, such as GitHub and Bugzilla. The reason for this is to speed up the development of the project. That's why we can complete and guarantee the quality of the product before the deadline.

To sum up, a good group project is not the result of one person but requires the contribution of everyone.

# Chin Man Chong, Julian

The most significant thing I learnt from the project development was the importance of teamwork. The project started from numerous ideas and then came up with the last one we did. All the team members made a great effort to compromise. Moreover, balancing the project constraints like the time schedule, cost of resources, and project scope was a big lesson for weighing the pros and cons. At the very beginning, I thought the major difficulty was allocating jobs evenly to every member. As far as the team worked out the Process-Oriented work breakdown and the Functional Organization and then fit everybody into their role and job duties according to their personalities and strengths, the jobs allocation became easy. Nevertheless, the fantastic experience of how the team smartly combined the application of the concurrent and spiral methods in the programming work. As well as used and gained familiarity with tools of Ganttproject, Drawio, Junit, GitHub, and Bugzilla.

# Chau Tsun Yu, Brian

In this project, I have learnt how to design testing strategies for different situations. For example, how to apply bottom-up testing methods, unit testing, integration testing and system testing. Besides, I have found that testing is important in software development since it helps to find bugs inside a software so that developers can fix the bugs. Therefore, being a tester is especially important. In addition, I have learnt how to write an official bug report using third-party tools such as bugzilla. For example, a good bug report should include steps to reproduce the bugs, expected results, actual results, and the status of the reported bugs. Finally, I also found that project time management and effective communication between teammates are the basis of success. We can know exactly what we need to do by exploring the gantt chart so that we can know what is going on in our project and improve team cohesion.

# Chau Wai Tong, Peter

In the beginning, we discussed and designed the whole system structure. However, lots of details of the system were still ambiguous. Each developer has interpreted those design details differently. When we integrate our code the first time, we found that our coding style and interfaces have major differences, causing lots of duplicated code and complicated program flow. The system was difficult to test and extend. Since then, I have learnt that communicating, designing, and documenting with common standards, such as class diagrams and design patterns, is one of the most important factors to be successful in a team project. Update detailed documentation in every commit is also essential. Furthermore, I have learnt how to write testable, readability, and extendable code, such as making the code possible to write a test stub and apply design patterns.