**Agile Assignment**

**Task 5 Report**

The technique that we used for this project is pair programming. While we usually assign up to three members to a user story at a time, two of the three assigned members will work together on each task in the user story, while another member rest or assist other members in doing different tasks.

1. **What was the advantage of this technique based on your experience in this assignment?**

Based on my experience in this assignment, the advantage of this technique is that having two members working together on a single task makes it easier and faster to complete. The two members writing the codes are able to help each other plan the program structure and find any potential errors or bugs. This had helped make planning faster and reduced the bugs that we found in later testing stage. Whenever one member write the code, the other make sure there is as little chance of error as possible, and both members review the code structure together every time they reach a checkpoint to make sure it is readable and bugs-free. As a result, many errors and bugs had been detected and removed during coding phase. We also were able to improve the input validation through pair programming. Both members that are writing codes for a user story can contribute their ideas and make a more effective validation in a shorter time.

1. **What was the disadvantage of this technique based on your experience in this assignment?**

The disadvantage of this technique is that sometimes one of the members paired up to work together may be idling around instead of actually doing anything. This usually cost us some time when the pair had to switch and the first coder need to rest. When a member is not focused on his partner’s work, he would not know the work progress, and when it is time to switch the coder and observer roles, time will be wasted on bringing the idle member up to date. The idle member is also not making any contribution, potentially reducing productivity.

1. **How efficient was the technique given the time it took to use?**

In terms of efficiency, in my opinion this technique was quite efficient given the time it took to use. While sometimes some members were idling around when there is little activity or task to do, when the workload is big or complex enough to need two members, they could efficiently divide the task and work on it together. The reduction in coding time due to one member watching out for errors in another member’s code is significant enough to make it unnecessary for both of them to code separately. The reduction of productivity caused by two members working on a single task is balanced by the shorter coding and testing time. We are also able to do a significant amount of work in a relatively short time due to this.

1. **In which situations would you use this technique in a future project?**

In a future project, I would use this technique in a situation where the tasks are medium in size and complexity, and if my team have a balanced mix of skilled and less-skilled programmers. The skilled member can help the less-skilled member of the pair, and the complexity ensures that both members in the pair is focused and constantly working together. The skilled members is also able to pass knowledge to the less-skilled members through pair programming, as well as improving their own soft skills, particularly communication skills. The complexity would be difficult enough to require both members of a pair to constantly cooperate and help each other, and simple enough to not require large team to work together.

1. **In which situations would you not use this technique in a future project?**

I will not use this technique in situations where my team members have different personalities that does not allow them to work in a pair for extended amount of time. Some people’s personality may make them more suitable to work individually, so in this situation pair programming is not a suitable technique. There are also people whose personalities does not match well together, making teamwork difficult between the conflicting personalities. For members with such personalities, it is often better to not use pair programming.

1. **How did you work together as a group in the project? What worked and not in your interaction(s)?**

We work together by first splitting into smaller subgroups and assigning user stories to each of the subgroup. After a group finish their tasks, they switch member with another group that had also finished. We usually discuss a problem together in the subgroup, but if none of us can solve it then we refer to the rest of our group.