SYSC 3110 Term Project - Final Reflection

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1 Ryan Boucher - Reflection

1.1 Process of the Project: Likes

In our codebase, I am happy, first and foremost, with the fact that we currently have a playable game. During every milestone, our group had clear goals set out with regards to when we wanted our work to be finished, the responsibilities of each of the individual group members, and what would constitute a completed goal.

I believe that it is worth noting that in order to solve a problem, first, the conditions on which the problem is solved must be understood. While this seems like a simple concept, I have found in that in practice, missing this concept when programming can lead to large amounts of time being wasted, and goals being completely missed. This can be a frustrating experience, and is critical to any form of professional development.

In regards to group communication, we used both the techniques of meeting in person, ans using a Discord server for general discussion when needed. I feel that both techniques worked well, when used appropriately.

1.2 Process of the Project: Dislikes

Overall, my experience in this project has been overwhelmingly positive. However, there are some slight group dynamics that could be improved.

The main issue, is that I believe that having more meetings in person, rather than using a chat system online, could have improved communication in the group. I believe that the best way to achieve this would have been to set consistent meet-up dates throughout the week, and to make a strong commitment to them. Specifically, it is my opinion that having more time in the project devoted to face-to-face meet-ups would have allowed for better communication of the more abstract issues that we faced in the project. For example, while everyone in our group can understand the underlying logic behind our code, ensuring that everyone was clear on WHERE the

code should belong in the codebase to adhere to the MVC model would have saved us a lot of time in development.

1.3 Design of the Project: Likes

The design of our project, in my opinion, is designed in such a way that it is easy to understand, and logically minded. Code makes sense, and is located where it should be. Our **model** sub-directory contains all information that "models" the state of the board, including the design of our board and pieces. It is correctly updated by our controller, and is displayed by our view.

All of the code is commented where needed, and is appropriately named, allowing for a good understanding of what is going on.

Overall, I believe that our codebase demonstrates a good understanding of loose-coupling, and high cohesion.

1.4 Design of the Project: Dislikes

Due to the nature of MVC design patterns, our **controller** class has grown to a large size. *As a side note, I am aware that the following somewhat contradicts my statement of loose-coupling stated above, but this is necessary in our current design.* This can make navigating the class somewhat confusing, and the current organization of our methods in the class are dispersed throughout the code. Additionally, keeping track of which of these methods needs to update which portions of the view to allow for the game to function in real time can be somewhat confusing, but necessary. To solve this, a re-work of how we update the view of the project might prove to be useful, although further research into this problem is required in order to make a concrete decision.

Looking at our **model**, it is worth noting that increasing the difficulty of our game is currently done by increasing the total amount of zombies that appear, before the zombie limit is reached, and the level is won. The way that our codebase has been designed allows for this functionality to be easily achieved, but as a future goal, it would make more sense for the rate of the harder zombies, such as bucket-zombies, to appear more often, rather than simply increasing the count of the total number of zombies. In the current state of code, this will require some significant re-work. A solution may involve a re-work of the gameLevel class, but like before, further research into this problem is required in order to make a concrete decision.

1.5 Closing Remarks

I am happy with the current state of our project in regards to both the codebase, and our group dynamics. Everyone has worked to the best of their abilities to contribute to the project, and as a result, we have reached our goals in our Milestones, without fail. No group or codebase functions perfectly, but I would happily work with this group again, on another project.

2   Youssef Saghbini - Reflection

2.1   Process of the Project: Likes

Over the period of this course, I would have not asked for a better team. Each member of this team has brought their extraordinary knowledge and hard-working skills onto this project.

For each milestone, we are given tasks to complete, the amount of tasks were dependent on the difficulty. If a task is more difficult than another, then the member will have less tasks to complete, but if you were to compare work load between the members it would be the equivalent. We also agreed, to finish all tasks before the actual deadline given, so we were able to review all documents and have time to find any debug our code.

Overall, the project was completed at a timely fashion and with confidence.

2.2   Process of the Project: Dislikes

As tasks were being completed, the team had some moments of communication issues. I would to try assign some meetings, but due to some events, we were not able to. When the meetings do occur, we would establish our next strategy to complete the milestone, but after it would become too short due some circumstances. Which would cause some members to be lost on how to complete their task for the milestone, at the time. We did use an online messenger tool called, Discord. Discord would solve some communication issues, but can only be solved when the member is online.

Other than communication issues, I can not complain about anything else.

2.3   Design of the Project: Likes

Overall, we have organized our code for each method to do one specific job for the game. We have refactored our code to multiple times to ensure no duplicate code and to be readable for every user.

Liked every bit of the code, so can not complain.

2.4   Design of the Project: Dislikes

During the course, we were taught of MVC. A concept where it had three components; model, controller and view. Where the model manages the data, logic and rules of the game. The view presents the model of its current data on a layout. While the controller responds to the action events occurring from the user, it sends the input to the model to validate, so the model updates our view. In our game, the key difference is that the controller updates the view rather than the model. Which is not MVC framework.

Other than that, I have no codebase complaint.

2.5   Closing Remarks

In the end, I am glad to be involved in this team. Hope the best for all members for their future.

3 Muneeb Nasir - Reflection

3.1 Process of the Project: Likes

I am very satisfied with the progression of the project. The main code and the game design overall was established accordingly with regular testing and refactoring. The continuous cycle of development, testing and refactoring has resulted in a synchronous game production cycle. The game design and development was a continuous process with regular meeting to ensure that consistency in the development.

3.2 Process of the Project: Dislikes

The overall production and development has been consistent and regular.The project progression in regards to the task completion has been satisfactory. The group communication could have been improved for a much efficient progression.

3.3 Design of the Project: Likes

The Game Design is well documented and executed. The design pattern was developed in such a way to provide low coupling and high cohesion behaviour. Through rigorous requirement analysis and testing, efficiency of the game design has improved to provide a better gaming environment.

3.4 Design of the Project: Dislikes

The Game Design was aimed to follow the correct implementation of the MVC Design Pattern, the design pattern could be made more efficient by providing a smoother transition between each turn and the game time elapsed between consecutive turns. The smoother transition could have been achieved by a in depth study of real time functionality. Despite all of this, I believe that the main objective throughout the development process has been to improve the code base and increase efficiency as much as possible, which is delivered. The mobile application version for the game was one of the desired objectives which was not accomplished due to time constraints. If given extended time, the game levels could have been refined for a enhanced and much better user experience.

3.5 Closing Remarks

The game design and development was fun and exciting. The project provided a great learning environment and a chance to implement a real-time application.

4 Ryan Gaudreault - Reflection

4.1 Process of the Project: Likes

The team preformed satisfactory on completing their respective parts on time and in a responsible manner. Each member kept to their goals and contributed to each others work to ensure the success of the project. We followed the proper cycle of development, continuously evolving our code, testing it and re-factoring when necessary. We communicated often through the use of a group channel and met in person occasionally for collaboration on design decisions.

Finally, our dedication to this project brought us to complete our main objective, we learned more about the practicalities of the development process and about working with others. This was a great learning experience for all of us.

4.2 Process of the Project: Dislikes

As stated above, our team preformed satisfactory work in accordance with the guidelines of the project. However we encountered issues among ourselves, as all teams do, mainly regarding manner rather than work. As each member on our team preformed exemplary with their responsibilities,we encountered issues regarding team interaction. A certain member insisted on being in control, others were not as vocal as they should have been. Some code was implemented without others approval. In instances some team members forgot that we were a team and thought we needed to follow someone. Interestingly, these are my fondest memories of this project. It provided a medium to learn how to cope with others, to compromise, to negotiate and to settle our differences in a vocal manner. Our team issues improved ourselves as people, and for that I thank my team.

4.3 Design of the Project: Likes

As mentioned previously, the result of our project is satisfactory to me. My goal has always been to complete my responsibilities before the allotted deadline set by the course. It provides a sense of accomplishment to develop simply an idea and see it as a full fledged entity. Our design followed what was taught in the course. We followed an Model-View-Controller format to our project, we commented our code thoroughly, we followed high cohesion and loose-coupling principles, we used our knowledge on testing, action-listeners, and XML to complete our milestones. We were creative and passionate about our design. All of us our proud of what we accomplished.

4.4 Design of the Project: Dislikes

It would have been beneficial for the team to have learned some concepts of android development from the class so that we could have implemented an android version of our program. Additionally

I would have liked to have a more difficult game, by implementing harder zombies as the game progressed. I would have liked to have added more entities to the game to make it more interesting, and to have had a fluid transition when the zombies walked from tile to tile. However due to time constraints and a large knowledge gap, we couldn't implement all the design ideas we had in mind.

4.5   Closing Remarks

In closing, it was an honour to work among such talented individuals, I learned a lot from all of them and through our difficulties we became better developers and better people. Thank you.