

COMPENG 2SH4 Project – Statement of Contribution

Your Group Name _____ Miloor _____

Your Name _____ Milana Kalinic - kalinicm - 400503797 _____

Your Team Member's Name _____ Noor Azam - azamn2 - 400503826 _____

You must complete this statement of contribution without discussing it with your project partner, i.e., individually. Your statement should be concise (at most one-and-a-half page). It has three parts:

1. Tell us about your own contribution to the development of your COMPENG 2SH4 project. For example, you can tell us about which project iterations (as mentioned in the project manual) and C++ project classes that you worked on and completed. You can provide a concise answer either in paragraph form or through bullet points.

In the project, I independently worked on iteration 1B, 2B, feature 2 of iteration 3, and the advanced features. In iterations 1B and 2B, I focused on refactoring procedural C code into an Object-Oriented C++ design. I implemented the gameMechs class to manage game parameters like board size, input handling, and score tracking while replacing global variables with encapsulated data for better maintainability. Additionally, I developed the random food generation mechanism, ensuring dynamic food placement without overlap with the snake's body. I also enhanced the gameplay by integrating food consumption and snake body growth, modifying the movePlayer method to handle these interactions and increase the snake length and score by 1 without moving the tail and call the generateFood() method to generate the new food item on the game board. I developed the advanced features by adding a special food with a unique symbol from regular food which when consumed adds 10 points to the player's score and decreases the snake length by 1 (while ensuring that the length does not become less than 1). My contributions prioritized OOD principles, enabling scalable and robust game mechanics.

2. Repeat Part 1 above but this time tell us about your project partner's contribution to the development of your COMPENG 2SH4 project.

My partner was responsible for working on iteration 0, 1A, 2A, and features 1 and 3 of iteration 3. She worked on the objPos class and freed appropriate members such as pos in order to eliminate memory

leaks. She worked mainly on the Player class (iteration 1A) which included refactoring the C implementation of the Scavenger in PPA3 into the C++ OOD implementation. This includes implementing the data members, the direction enumeration, the constructor, and the destructor. She also developed the objPosArrayList class. The main Project class was worked on together (both my partner and I) such that the classes and members interacted how we wanted them to.

3. Tell us about your experience in your first collaborated software development through this project – what was working and what wasn't. If you are a one-person team, tell us what you think may work better if you had a second collaborator working with you.

In my first collaborated software development experience, working as a two-person team had its positives and negatives. What worked well was our ability to divide tasks based on our strengths, which allowed us to develop and test features incrementally. It helped that the project manual split project iterations into parts (A and B) so that it was a lot easier to allocate tasks between us. Regular communication with my partner helped us align on project goals and maintain consistency in our coding approach, so that our objects interact correctly with each other in the code. Some challenges arose in coordinating our schedules and working together asynchronously, and occasionally, differences in implementation styles led to integration hurdles, which resulted in us having to meet up in person or virtually to figure out issues. Overall, I found having a collaborator a definite positive in the project, as it helped having someone share the workload of such a large software development. I also enjoyed being able to consult with another person on ideas and approaches to problems, as it helped having a different perspective on things. I find that this improved the quality of the final product.