

COMPENG 2SH4 Project – Statement of Contribution

Your Group Name fortnite vbucks

Your Name Vansh Dhodi

Your Team Member's Name Dhruv Anand

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.

I was responsible for implementing the Player and Food classes and completing the objPosArrayList class. I adapted the FSM logic from PPA3 into the Player class, enabling smooth movement, boundary wraparound, and dynamic body growth using objPosArrayList. I also implemented collision detection, ensuring the game ended when the snake collided with itself. I designed the Food class to handle random food generation, ensuring no overlap with the snake, and added special food items (X and Y) with unique scoring effects. For objPosArrayList, I completed and validated its operations, such as insertion and deletion, to support dynamic updates for both the player and food. I also collaborated with my partner to integrate these classes with the GameMechs class, ensuring consistent interactions and smooth gameplay.

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 worked on the GameMechs class and game loop. They implemented game logic, including board dimensions, scoring, input handling, and game state flags. They refactored procedural components from PPA3 into an object-oriented design and managed the game loop, ensuring proper synchronization between input, logic, and rendering. They also validated interactions between GameMechs, Player, and Food during integration.

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.

This project was a very interesting experience, and it was rewarding despite some challenges. My computer ran into some hardware issues where the code would not run however it seemed to work perfectly for my partner. This provided the challenge of us having to work collaboratively in person. It however was a very fun experience to work with my partner in person, share thoughts about each others' ideas and work together on our tasks. Even with this crutch our ability to clearly divide tasks allowed us to work efficiently, though we had different initial timelines in mind for when we would get this project done due to differing schedules outside of classes. We were able to easily come to a consensus through communicating times that align and work for each other. Better communication and integration testing could have improved efficiency. Overall, the project enhanced my skills in object-oriented design and teamwork.