



SIMON FRASER UNIVERSITY

ENGAGING THE WORLD

CMPT 276: Phase 4

Dec.2, 2022

### The Game:

The overall theme of the game is based on a very “Hungry Hungry Cow” trying to collect grass, and milk all the while trying to dodge flies, and farmers in order to escape. This is a 2D game with a top-down view of the user playing as the character “cow”.

Considering the original plan we set out, we did follow the original plan and design mostly but we did change and added some more to our design choices such as the changes in our UML for instance, we did not have an abstract creational pattern for our game entities. Although we were using Lombok builder to create builder methods for each class, there were some class objects that were children of another. To abstract the complexity of our animate and inanimate entity creation, we created factories for their respective categories. This way we were also able to define defaults that were specific to our game theme. Other than the changes in the UML the structure and hierarchy of our system remained relatively the same with only small refactoring done to it. The final product remained similar to our initial mock-up, other than the option of allowing the user to select the level of difficulty and the high score board being scrapped, it remained pretty much the same.

Some of the most important lessons we learned during this project were test driven development helps clarify requirements before implementing them, collaborating with other team members in a project is very important, Git is a very useful tool, and decoupling classes, and keeping classes closed for modification and open to extension is critical to any good and clean code.

### Tutorial:

For the tutorial, we chose to do a video and the link is given below.

<https://www.youtube.com/watch?v=JP0GFzpVWKA>