

Object Oriented Analysis and Design Project 6: Kitchen Cleanup

Samuel Mast, Benny Sakiewicz, and Liam Semeria

Spring 2022

Work

Liam:

Started on the game engine to simulate and draw entities.

Worked on a collision system with different collider types.

Worked on loading and creating images.

Hosted project on Github pages

Samuel:

Created the player entity and interpreting user input to control the player

Weapon types and the shoot behavior

Bullet instantiation and types

Benny:

Created Enemy types and behavior

Created room types to house enemies

Room loading structure

Change

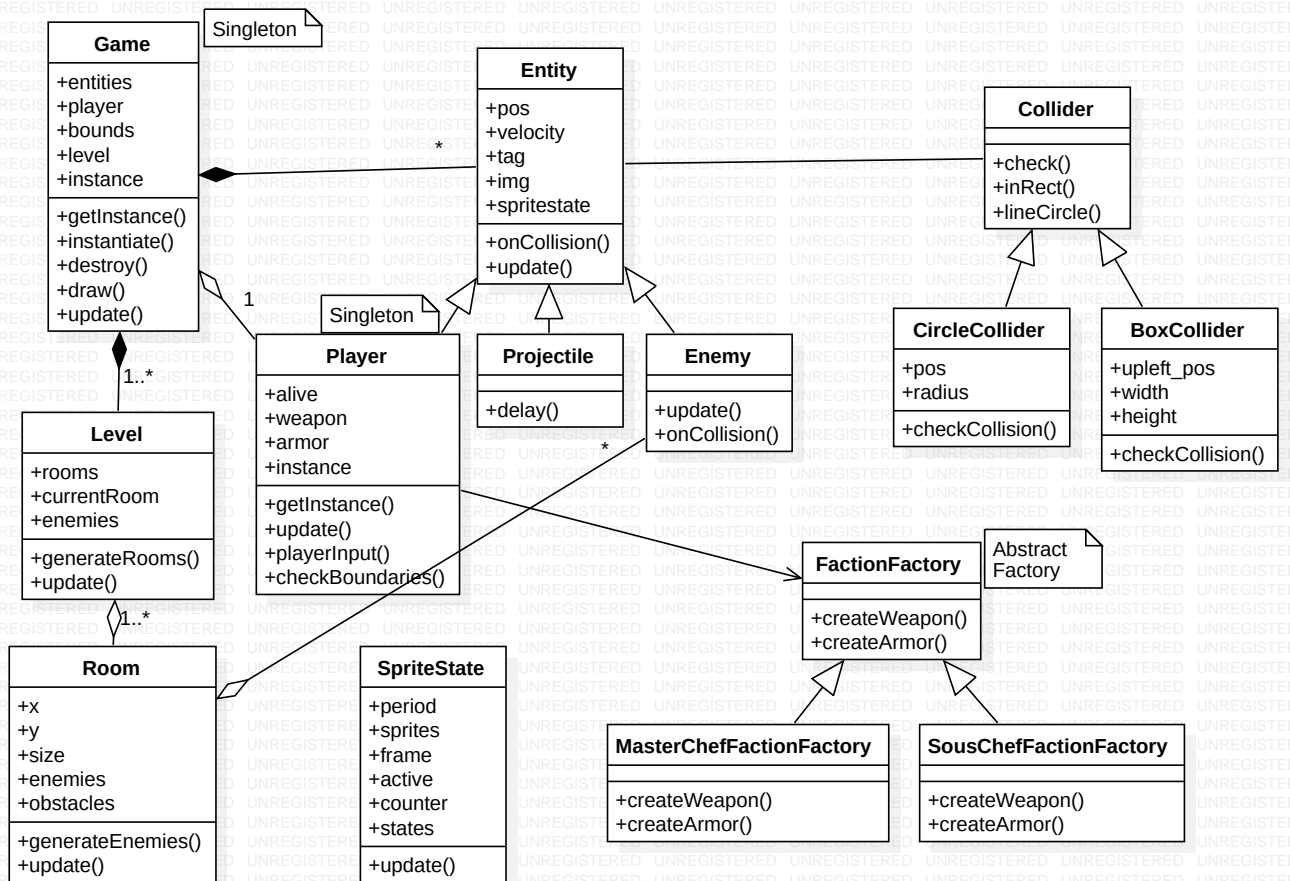
We didnt plan on having an overarching game class to handle the entire engine, but in order for all classes to access certain information in the game, it was important that we had a singleton that was in charge of all entities. We initially ran into an issue of loading images and sound files locally, so we hosted ourproject on GitHub pages and ran local live servers to test our code.

Patterns

The Singleton pattern was used for the Game and Player class, to make sure there was only one of each. It also helped with interacting with the engine from other classes because they could access the Game singleton and use its methods. The Abstract Factory is also being used for the starting items. It will be developed more in the next spring. We will also be using Strategy to for the

behavior of the weapons. This will help simplify our code and keep all of the details from weapon to weapon out of the main code.

Class Diagram



Plan for Next Iteration

We are a little above 50 percent of the way done with our project which means we are right on schedule. Since the bones and structure of our project are now done we will be focusing this next sprint on adding more features to the game. One of the main focuses will be implementing different levels for the game that the player can progress through. Also adding different weapons. Our plan is to have all of that completed for our final iteration. A stretch goal is to also include abilities in the game.