

# Meeting Agenda

Group: Super duper Omega gruppen

Date: 2020-09-11 15:00

Chair: Samuel

Participants: Samuel, Oskar, Erik, Behroz, Sebastian, Pelle

## Objectives (5 min)

### Question 0

Is our DomainModel good? Have we missed something about how to create it?

### Question 1

What is RAD and what should be in it?

### Question 2

How should enemies take damage? Currently towers only get ImmutableEnemies, just like the View.

Solutions:

1. **DamagableAndEffectableEnemy interface which they can access, what should it then be called?**
2. enemyService.damageEnemy(ImmutableEnemy) method, how should we then implement it? Cast or ~~loop~~ through?

### Question 3

How do we draw towers with unique data? Currently view only gets ImmutableTowers, what if a cannonTower has .getBarrelAngle() and view has to access that? Currently we use Map<Class<? extends ImmutableTower>, TowerDrawer> to get drawing implementations for specific towers.

Solutions:

1. **MultiMap (no longer immutable)**
2. Cast from ImmutableTower to CannonTower if we have to in the TowerDrawer (it's a safe cast). (no longer immutable, need reference to every tower)
3. **Visitor pattern with .accept() method in ImmutableTower which can draw the specific tower. (no longer immutable)**

Also should all concrete towers have an immutable version which they implement? This would avoid the "no longer immutable" problem but requires a lot of extra work.

Also now View depends on all concrete tower implementations. Should we add an Enum called TowerType which they can depend on instead? - **No, use Tower implementation instead**

#### Question 4

Should each tower store their projectiles or should they **all be stored in Game / ProjectileHandler?**

#### Question 5

Vector class currently has code duplication for float and int implementation. Can we do that generic? Cannot add Numbers

#### Question 6

How should we write reports from the previous meeting?

1. **What each person has done?**
2. Generally what people have had for types of problems?

#### Question 7

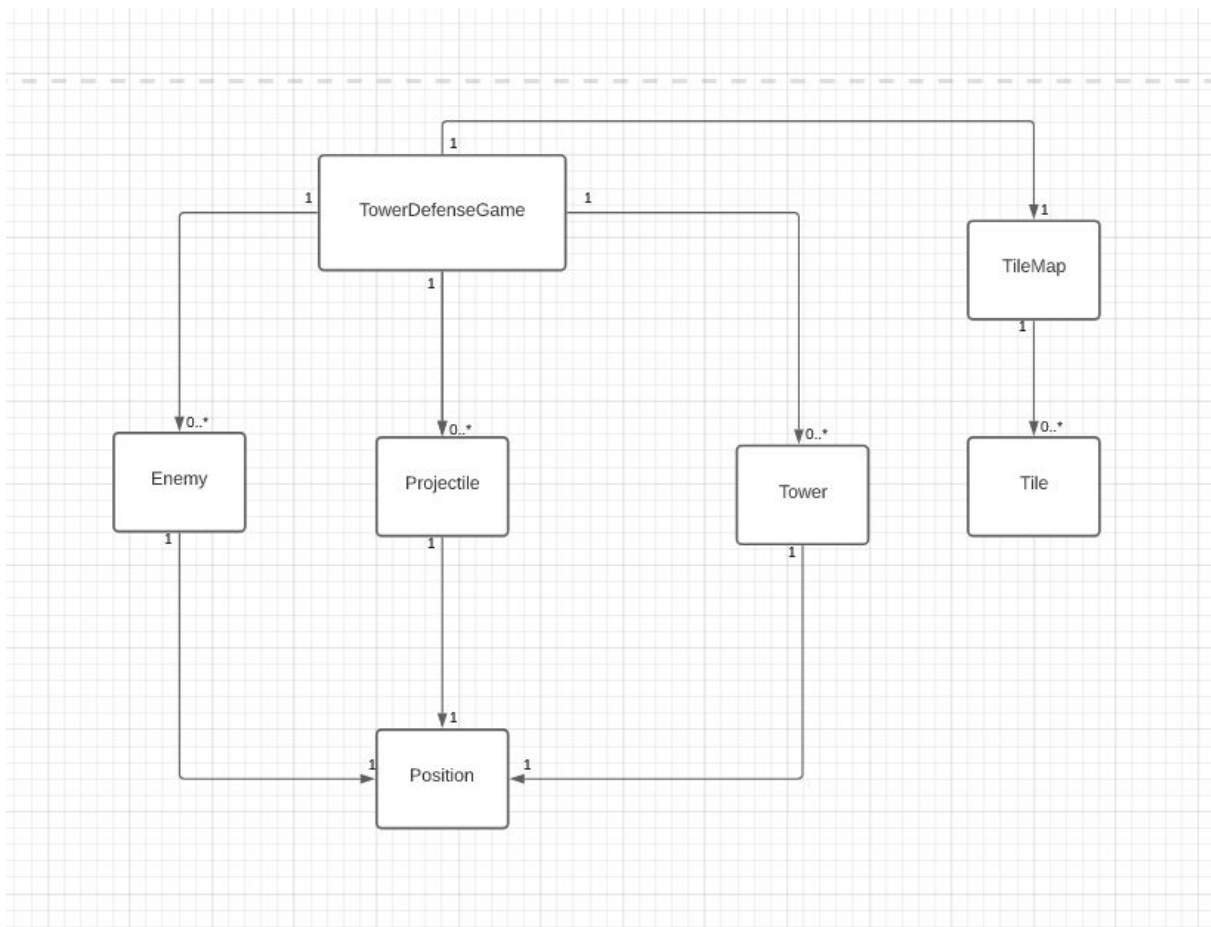
**If statements, braces?**  
**Ja;**  
**}**

### Discussion items (135 min)

## Questions

#### Question 0

Pelle thought we should draw the domain model more like the class UML diagram that we had already started on. The previous looked like this:



We decided to create a new one later this meeting.

### Question 1

According to Pelle RAD should contain all our user stories along with their DoD's. We should also divide our stories into high priority and low priority. We should then keep the highest priority stories in Trello.

### Question 2

Solved because of question 3.

### Question 3

Pelle thought that we should remove `ImmutableTower` because that seems to lead to a lot of problems in our code. Although this would lead to breaking ISP and Defensive programming it seems to be the best option right now.

Pelle thought that `MultiMap` and `Visitor` pattern were both good solutions to the problem. Which one we will ultimately use is decided later. He thought that `Visitor` sounded good because it didn't require a cast anywhere, however he mentioned that `Visitor` patterns tend to be a lot of work.

## Question 4

Pelle thought the projectiles should be stored in Game since they are no longer connected to the Tower that shot them.

## Question 5

Pelle thought that we should do what works. An alternative was to use one vector with double and then round it to the closest when we need whole number versions (see Point2D). That would require a lot of rewriting so we will decide what to do later.

## Question 6

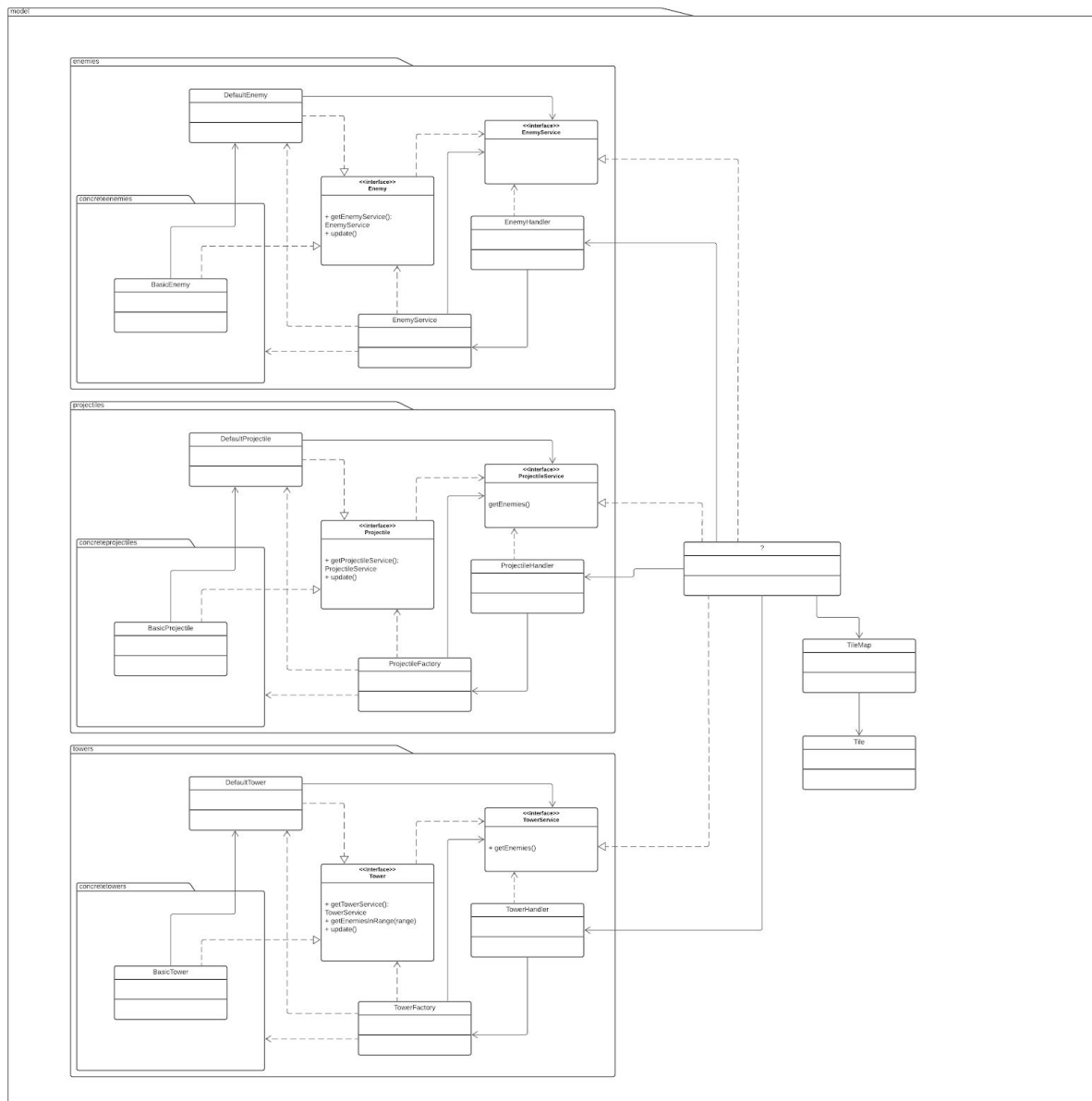
Pelle didn't have strong opinions about how we wrote that report. He mentioned that the course was more about the code and less about how we documented our work. Although we still think that writing down what everyone has done is a good thing so we will do that in the future.

## Question 7

```
if (should always have braces) {  
    printGrumlsRight();  
}
```

## Work

We also created a new Domain Model which looked more like the UML we created and handed it in to the seminar.



## Outcomes and assignments

For outcomes, see Discussion. No new assignments since the last meeting as this meeting's purpose was to ask the supervisor questions.

## Wrap up

The program doesn't work on Beroz's computer. We have to troubleshoot that.

Next meeting: 2020-09-12 14:00