

Tower Defence Game

CS510
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What I learned?

In this project I learned the basics of creating games on browser.

What problems do I encountered?

At beginning of this project, I have **no idea** in my mind to complete this task, fortunately there is google where I can find everything I need to know. By searching, I have the idea of game logic loop and render loop in mind, which makes whole game thing make sense (updating the states and render it to user again and again.). This is maybe the biggest problem for me. After I figured this out, it's much easier to solve the problem part by part.

Second problem I encountered is a Math/Physics problem: **how to calculate the bullets changing coordinates based on the moving enemies**. I'm pretty sure I can figure this out when I'm in highschool but now I need help from google, and I get the result:

```
var dist = Math.sqrt(xDist*xDist+yDist*yDist);  
  
this.x = this.x+this.speed*xDist/dist;  
  
this.y = this.y+this.speed*yDist/dist;
```

It works!

How do I fix it?

Basicly when I encounter a problem, I google and learn from lots of posts. By doing this I learned a lot. But it also kills the ability of thinking by myself. I need to find a balance about it.

What to do next?

1. There must be a lot of optimization I can do.

2. Pixi.js
3. Game design(make the game more playable)