Moodlejump

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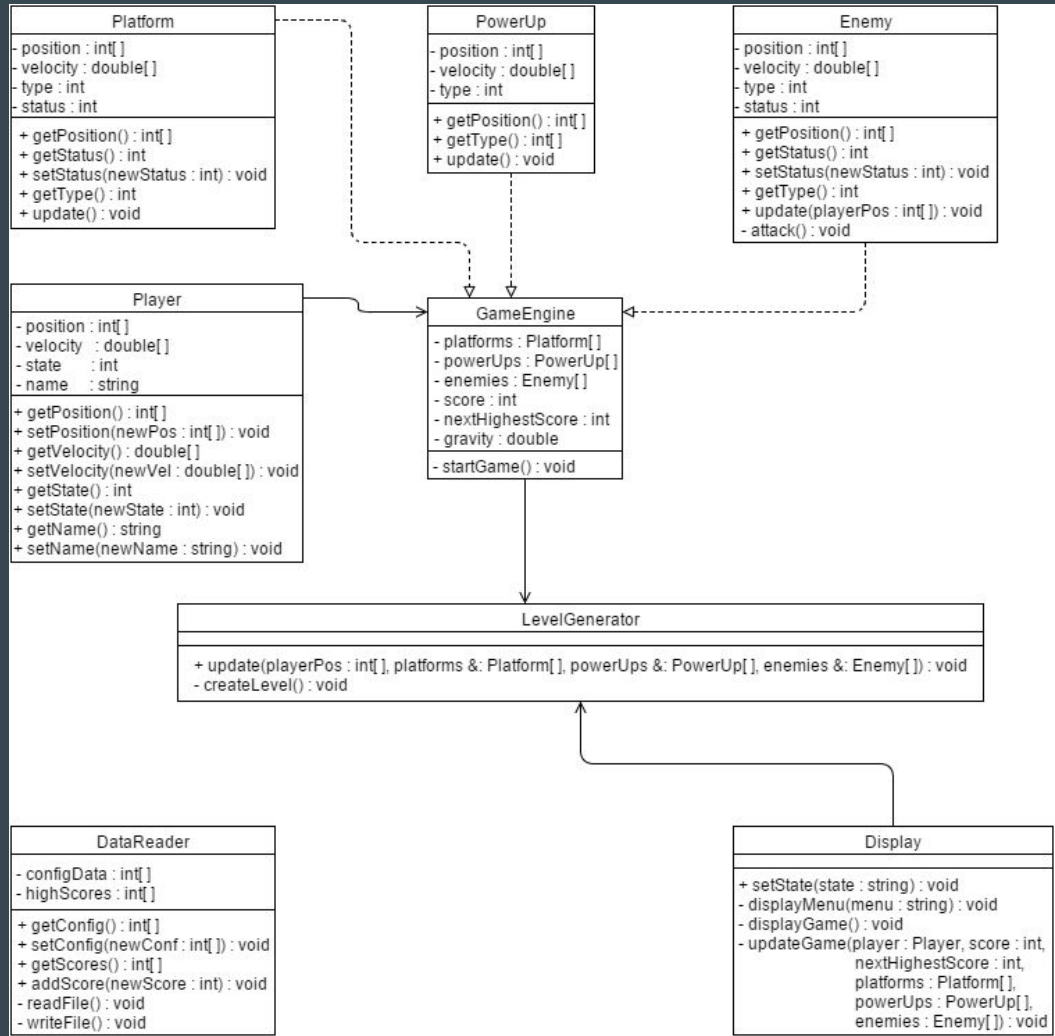
DEMO

Hopefully

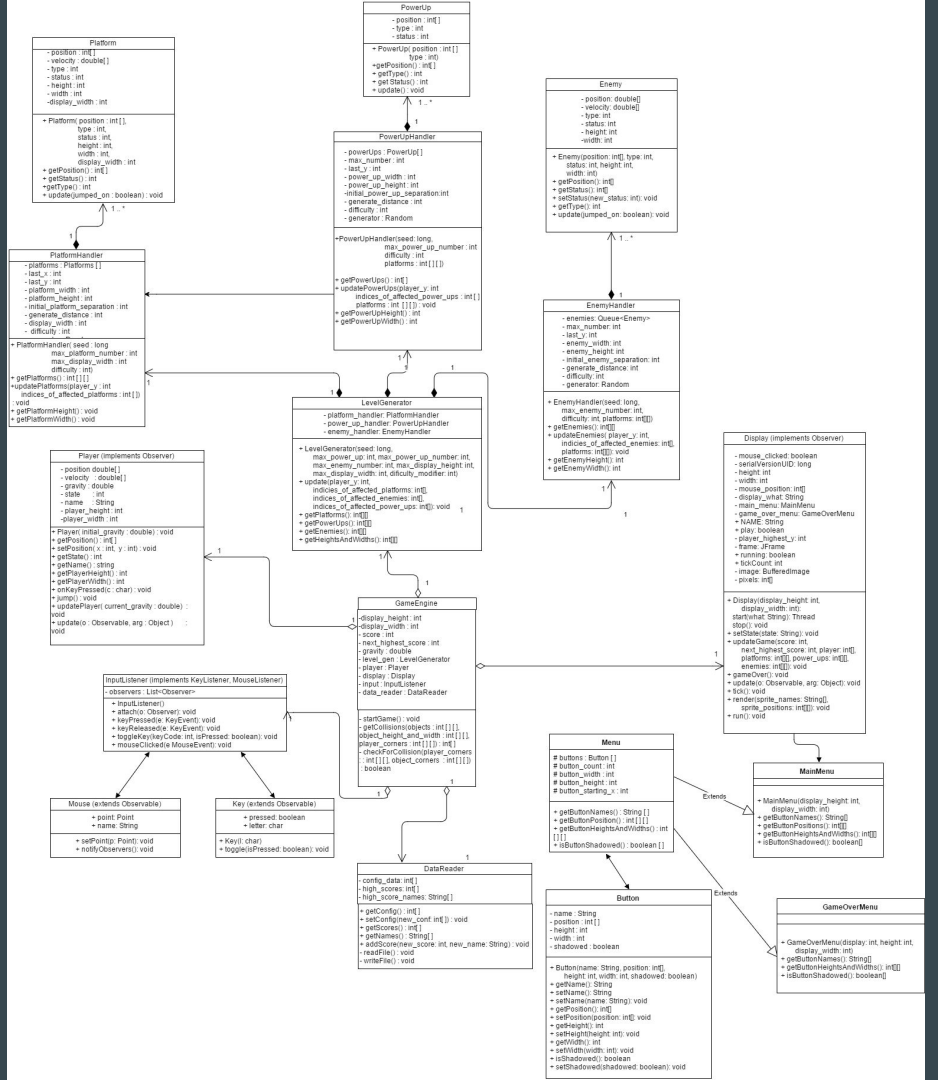
Class Diagram Before

Small and simple



Class Diagram After

- HUGE difference
- 18 classes vs 8
- Many new attributes/ associations
- Underestimated scope of project



Main Design Pattern

- Observer was the main design pattern we used
  - Observable “subjects” notify observer objects of change
- Our Observables: Keys, and Mouse
  - created classes that handled key and mouse input
- Our Observers: Display class and Player class
- InputListener class takes in input, directs it to proper key or mouse class, and the appropriate changes of input are handed to Display and Player

Code screenshot: Observerable in action

```
public class InputListener implements KeyListener, MouseListener{
    private Key left, right;
    private Mouse mouse;

    public class Key extends Observable {
        public boolean pressed = false;
        public char letter;
        public Key(char l) {
            this.letter = l;
        }
        public void toggle(boolean isPressed){
            String response[] = new String[3];
            pressed = isPressed;

            response[0] = "k";
            if (pressed) {
                response[1] = "t";
            } else {
                response[1] = "f";
            }
            response[2] = Character.toString(letter);

            setChanged();
            notifyObservers(response);
        }
    }

    public class Mouse extends Observable{
        public Point point;
        public String name = "mouse";

        public void setPoint(Point p) {
            String response[] = new String[3];
            point = p;

            response[0] = "m";
            response[1] = Integer.toString(point.x);
            response[2] = Integer.toString(point.y);

            setChanged();
            notifyObservers(response);
        }
```

Why We Did It and What We Learned

- None of us had ever made a game before
- We all like games
- Wanted to see what went into making a simple game

- We learned making a game requires a lot of moving parts
- Not necessarily as simple as we initially thought
  - Animations are tricky

Questions?

Code available at: https://github.com/Brefew/csci4448_Project