

# Object Oriented Programming

## Programming report

### assignment 3

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## 1 Problem description

The goal of our project was to create a Terraria-like 2D-platformer. We wanted it to have the following features:

item Kaas

- Make a 2d platformer game - Score health - Doors

## 2 Problem analysis

- divide and conquer - loading map from an image file - collisions - physics - drawing

## 3 Program design

- all objects in map extend placable - objects with physics extend movable - gamewindow has a gamepanel - gamepanel knows and observes game - collisionmanager has a set of all objects - all objects in the map know collisionmanager - whenever an object changes size or location, the collision data is updated - all placable objects observe the stepmanager, but only some also interact with it

## 4 Evaluation of the program

- program works free of errors - actually wanted to make terraria-like RPG at first?

## 5 Conclusions

- lack of time - other ways to implement collisions, but this probably easiest

## 6 Appendix: program text

### 6.1 graphedit

```
1
2
3 class halflife3 {
4
5     /*
6         * To do:
7         *
8         * add comments in code
9         * show a game description
10        * make it possible to pause the game
11        * draw the inventory
12        * show the highscores
13        * make it possible to save the highscores
14        *
15        * Optional:
16        * make objects that increase the health of the
17        * player
18        */
19
20    public static void main(String[] args){
21        //MapLoader loader;
22        Game game = new Game();
23        if (args.length>0){
24            game.load(args[0]);
25        } else {
26            game.load("map.png");
27        }
28
29        //loader.print();
30        new GameFrame(game);
31    }
32 }
```