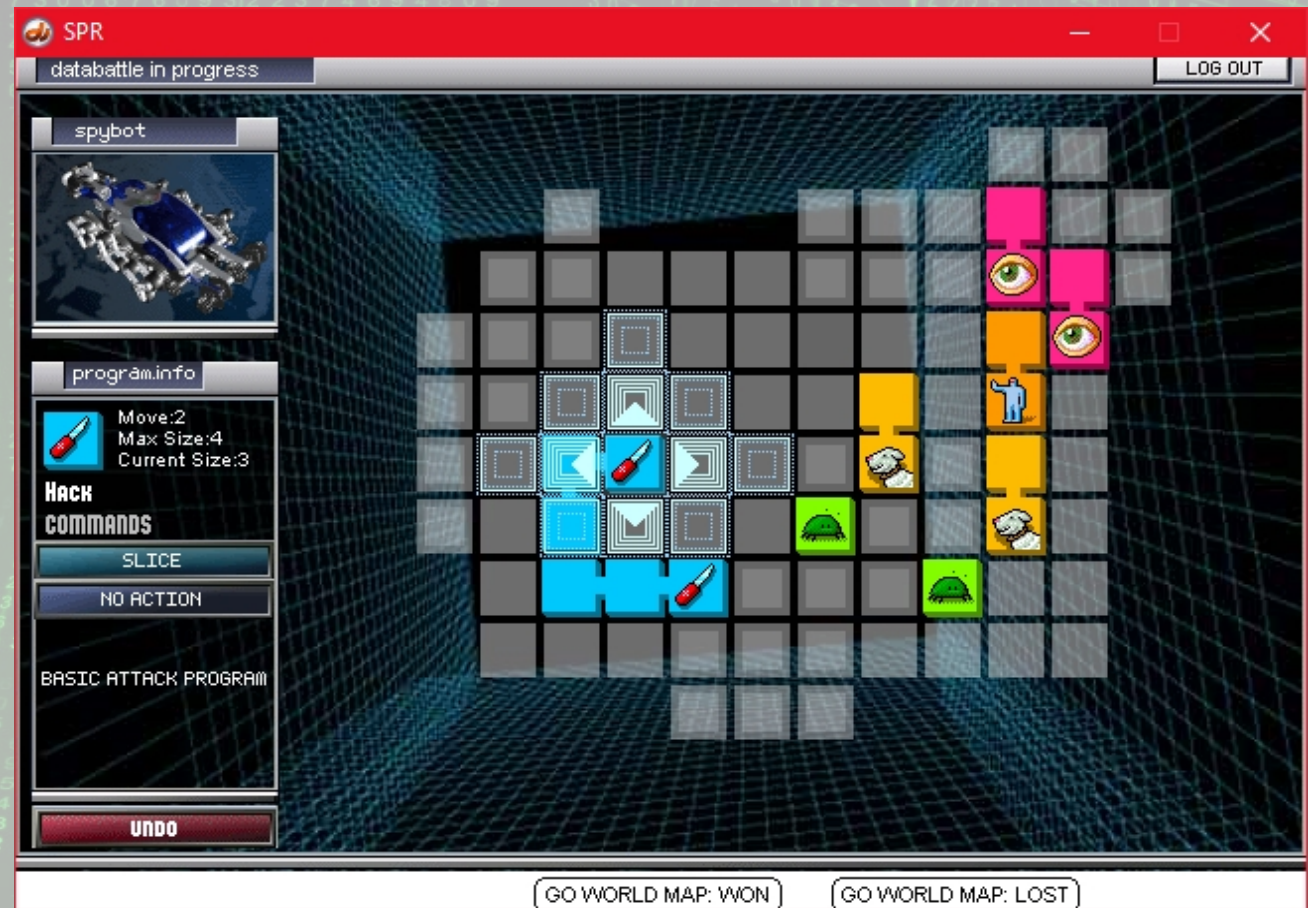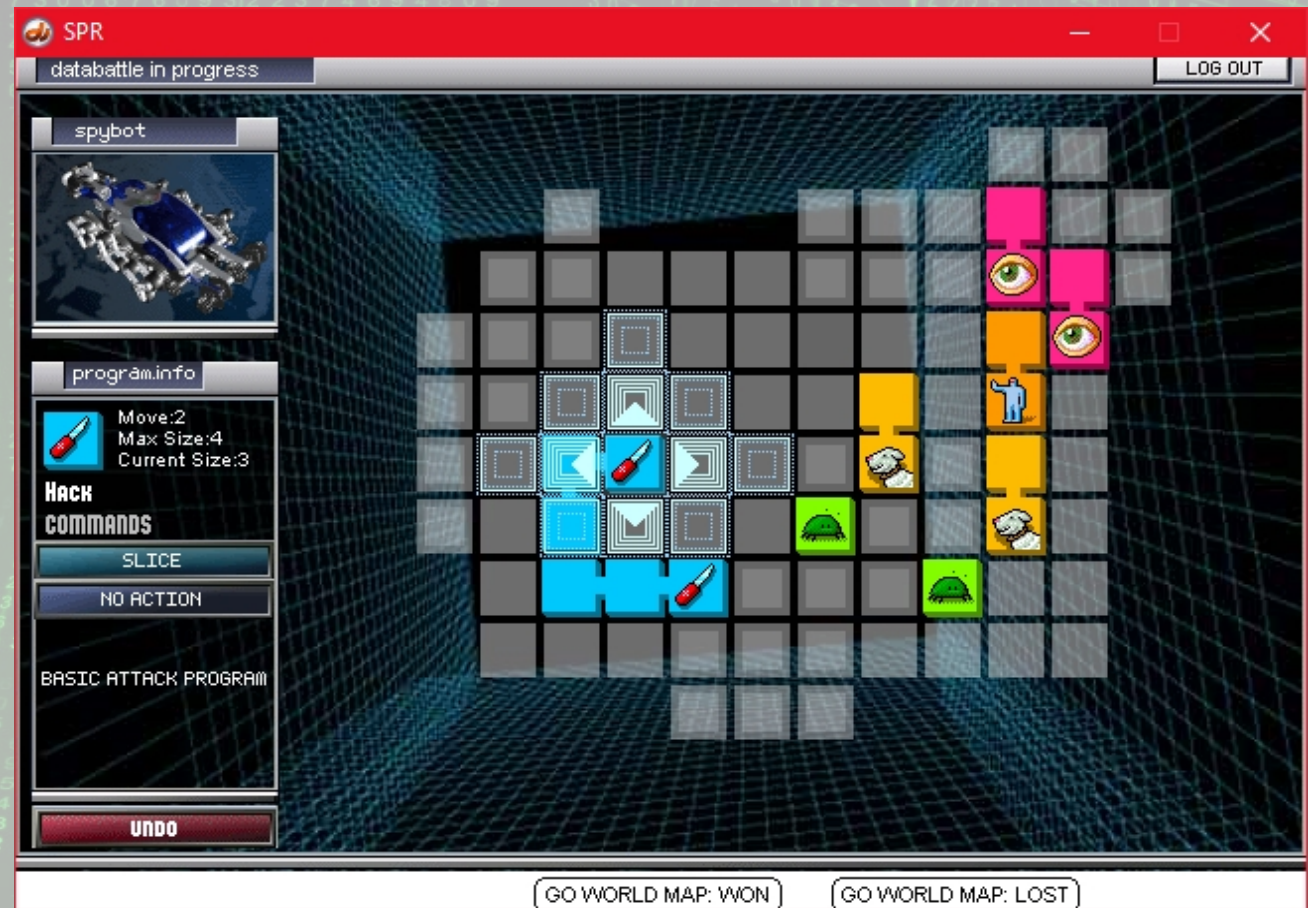# Spybot - Reloaded

Spybot: The Vision

- Remake of Spybot - The nightfall incident

- Turn based strategy game

- Own version with own theme and levels

- multiplayer mode

screenshot of historic version of the game

Spybot: The Game

- 2d grid

- each player has a set of pawns

- pawns can move horizontally and vertically

- pawns leave snake like tail while moving

- tail determines its health

- head of pawn can attack after moving

- goal is to kill all enemys or get an item

screenshot of historic version of the game

Used Technologies/Tools

Projekt Managment Tool:

    YouTrack

Version Control System:

    Git(Hub)

Programming Language:

    Java

Integrated Development Environment:
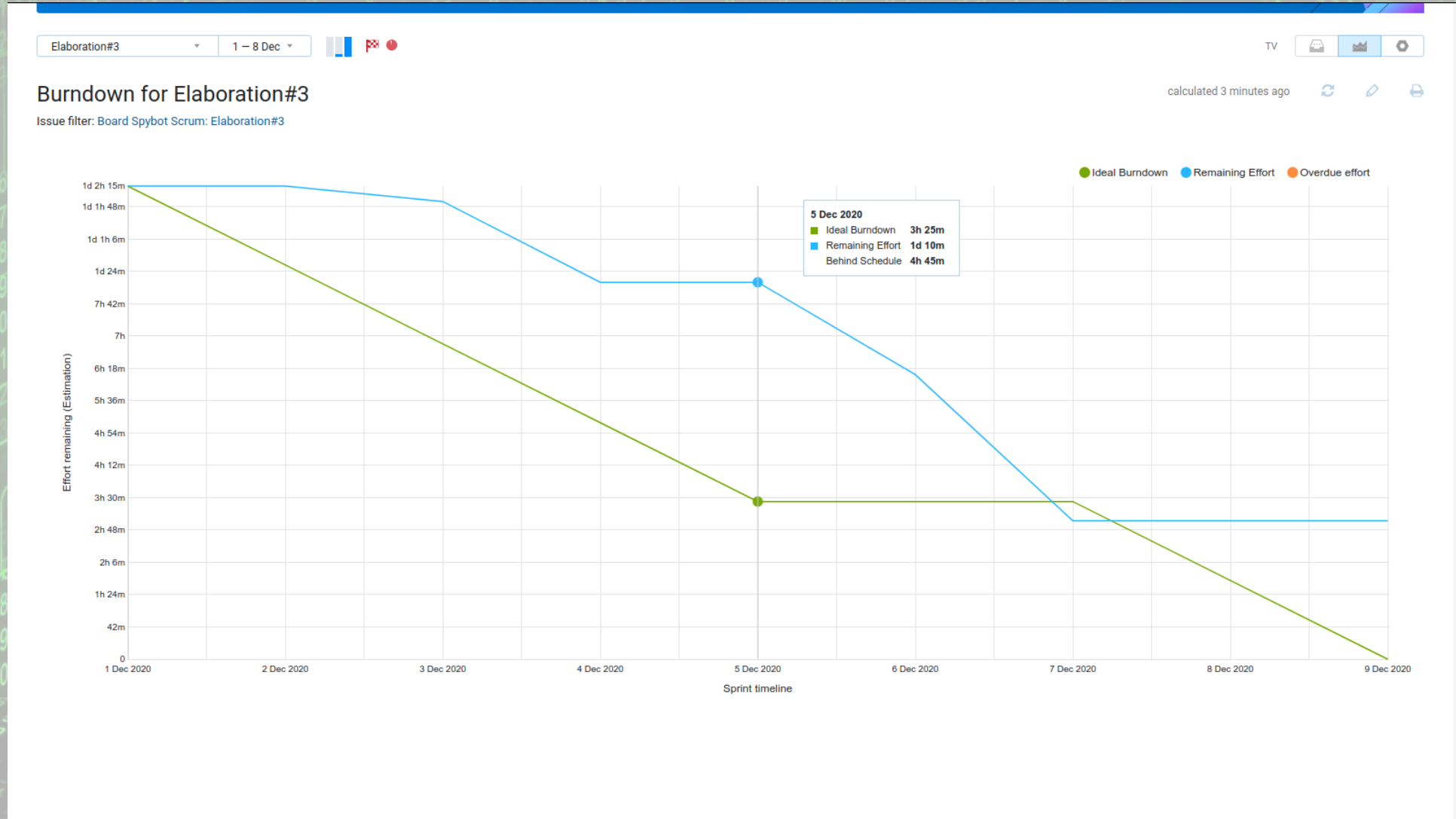
    IntelliJ IDEA

Diagramm Drawing Tool:

    Draw.io (Nextcloud)

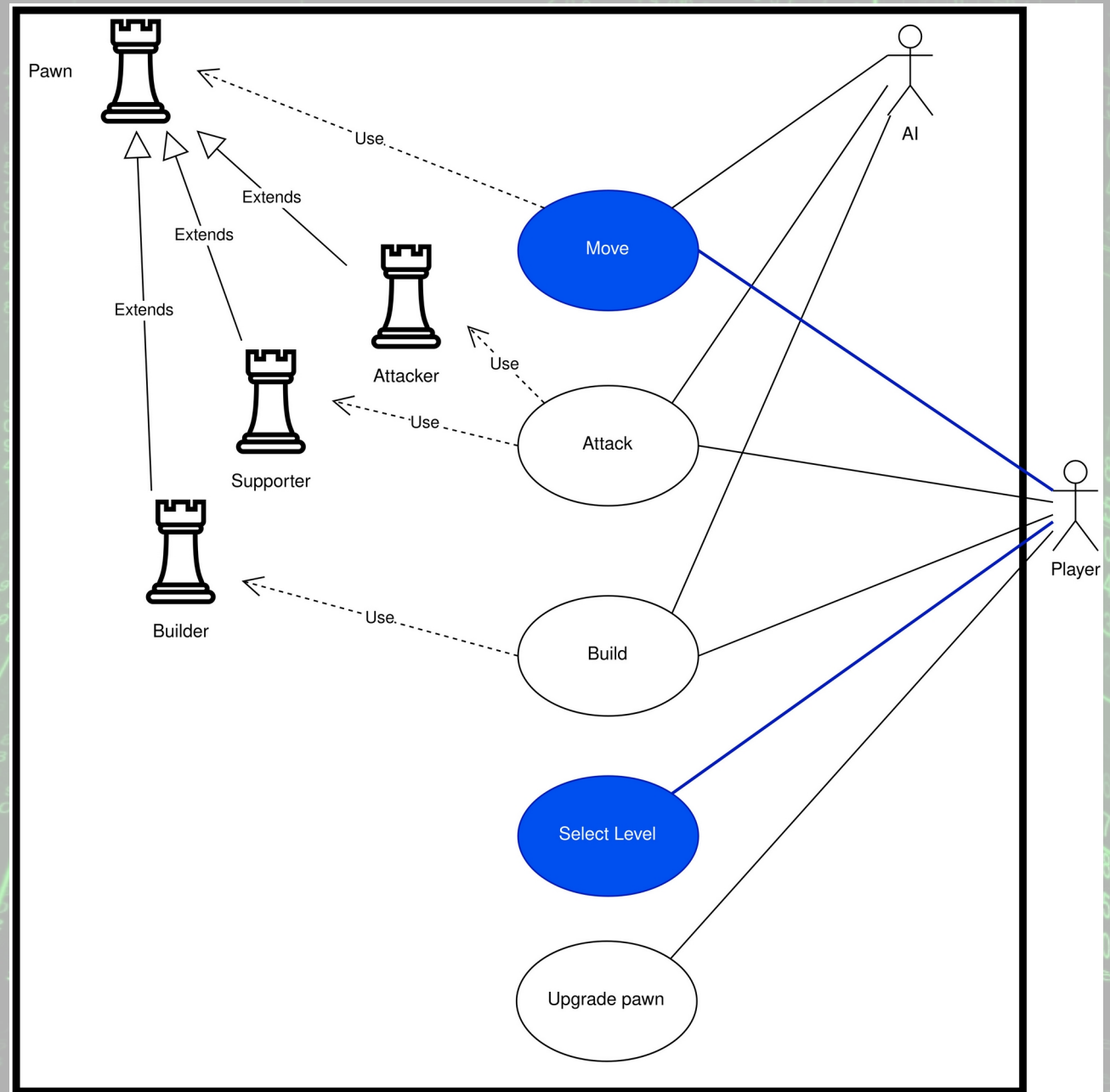# Scrum Board

GitHub

Version control system

Easier working together on the
same project

Different steps in development can
be put together

Working Level import.	steiditi	**05.12.20, 16:10**
Board and Level overhaul #3.	steiditi	**05.12.20, 15:44**
Board and Level overhaul #2.	steiditi	**05.12.20, 15:42**
Merge remote-tracking branch 'origin/master'	steiditi	05.12.20, 15:37
Board and Level overhaul.	steiditi	**05.12.20, 15:35**
Merge pull request #2 from janick3110/Intellij_Cucumber	steiditi*	05.12.20, 13:07
Cleaned everything and added step definitions for the UC	janick3110	05.12.20, 12:51
Visualization of backend data	janick3110	05.12.20, 12:49
Merge branch 'master' of https://github.co🏷 Intellij_Cucumber	steiditi	04.12.20, 11:11
Test Cucumber Gherkin	ANSR	29.11.20, 16:44
Changed Map Design to byte array.	steiditi	**29.11.20, 12:43**
Utility class implemented to calculate fields in range	ANSR	19.11.20, 17:37
Bugfix: Graph inits width now with sizeX not sizeY	ANSR	19.11.20, 16:29
Visualization of backend data	janick3110	19.11.20, 16:09
Merge remote-tracking branch 'origin/master' into master	janick3110	19.11.20, 14:49
Class Diagramm files added	ANSR	19.11.20, 14:43
Merge remote-tracking branch 'origin/master' into master	janick3110	18.11.20, 11:05
first structure of object oriented game model	steiditi	**15.11.20, 07:38**
Merge remote-tracking branch 'origin/master' into master	janick3110	11.11.20, 10:30
AdjacencyList Attribute added to Board Graph will be created in cons	ANSR	08.11.20, 15:10
Default Changelist	janick3110	04.11.20, 11:58
AdjacencyList Model added	ANSR	01.11.20, 16:36
Feature Files updated	ANSR	31.10.20, 14:55
MainActivity simplified	ANSR	28.10.20, 15:56
Alternative version MainActivity (Maybe differnet branch)	ANSR	28.10.20, 14:11
Update Attack.feature	a-schmider*	01.11.20, 13:29

Use Cases

1. Move pawn

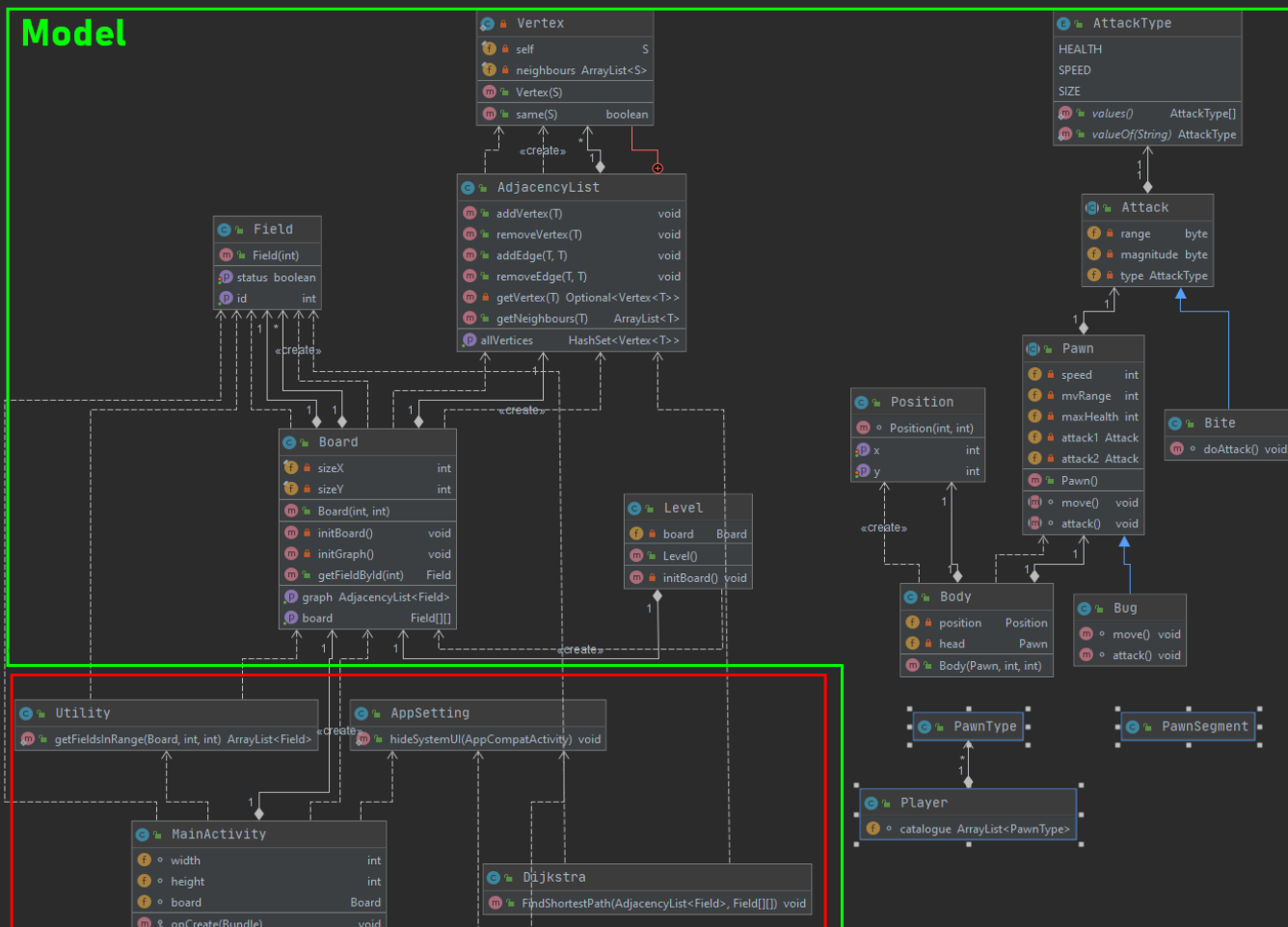2. Pawn attacks

3. Build fields
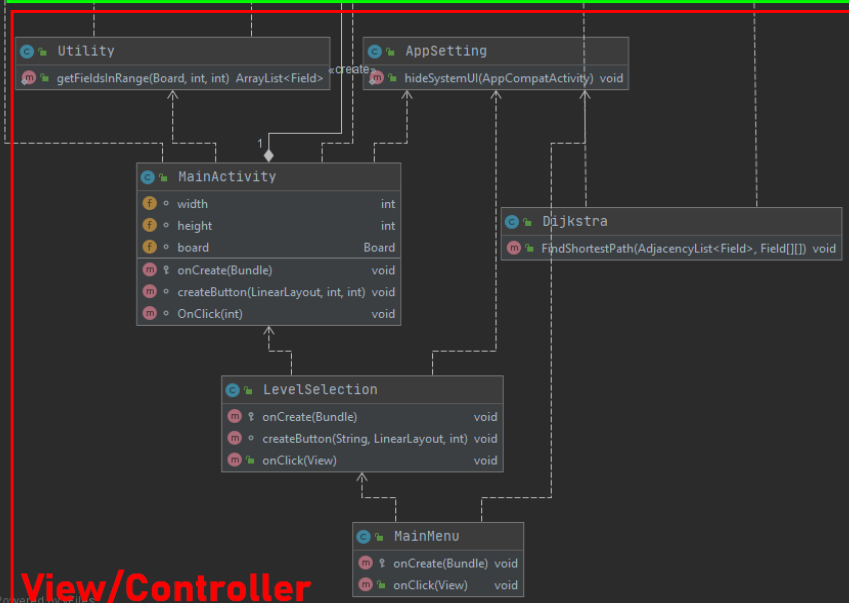
4. Select level

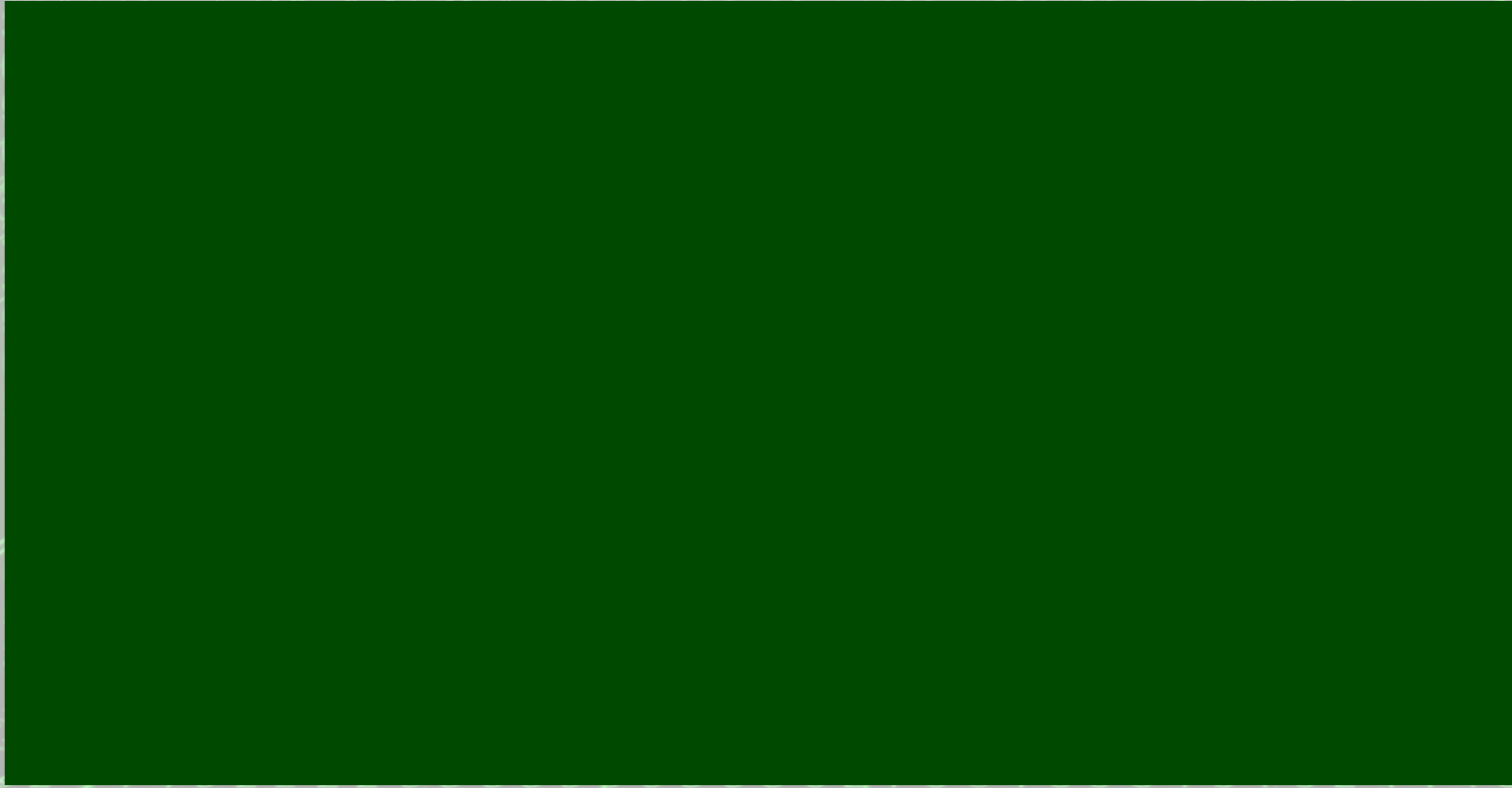5. Upgrade Pawn

Spybot

Demonstration

Class Diagram

Model

Vertex
- self : S
- neighbours : ArrayList<S>
- Vertex(S)
- same(S) : boolean

AttackType
- HEALTH
- SPEED
- SIZE
- values() : AttackType[]
- valueOf(String) : AttackType

«create»

AdjacencyList
- addVertex(T) : void
- removeVertex(T) : void
- addEdge(T, T) : void
- removeEdge(T, T) : void
- getVertex(T) : Optional<Vertex<T>>
- getNeighbours(T) : ArrayList<T>
- allVertices : HashSet<Vertex<T>>

Field
- Field(int)
- status : boolean
- id : int

«create»

Attack
- range : byte
- magnitude : byte
- type : AttackType

Pawn
- speed : int
- mvRange : int
- maxHealth : int
- attack1 : Attack
- attack2 : Attack
- Pawn()
- move() : void
- attack() : void

Board
- sizeX : int
- sizeY : int
- Board(int, int)
- initBoard() : void
- initGraph() : void
- getFieldById(int) : Field
- graph : AdjacencyList<Field>
- board : Field[][]

Level
- board : Board
- Level()
- initBoard() : void

Position
- Position(int, int)
- x : int
- y : int

«create»

Bite
- doAttack() : void

«create»

Body
- position : Position
- head : Pawn
- Body(Pawn, int, int)

Bug
- move() : void
- attack() : void

View/Controller

Utility
- getFieldsInRange(Board, int, int) : ArrayList<Field>

AppSetting
- hideSystemUI(AppCompatActivity) : void

«create»

PawnType

PawnSegment

Player
- catalogue : ArrayList<PawnType>

MainActivity
- width : int
- height : int
- board : Board
- onCreate(Bundle) : void
- createButton(LinearLayout, int, int) : void
- OnClick(int) : void

Dijkstra
- FindShortestPath(AdjacencyList<Field>, Field[][]) : void

LevelSelection
- onCreate(Bundle) : void
- createButton(String, LinearLayout, int) : void
- onClick(View) : void

MainMenu
- onCreate(Bundle) : void
- onClick(View) : void

Behavior Driven Development Testing (Cucumber)

Links

Wordpress: https://spybotreloaded.wordpress.com/

GitHub Code: https://github.com/janick3110/Spybot

GitHub Doc: https://github.com/steiditi/Spybot-Reloaded-Doc

YouTrack: https://dhbw-karlsruhe.myjetbrains.com/youtrack/agiles/108-106/current