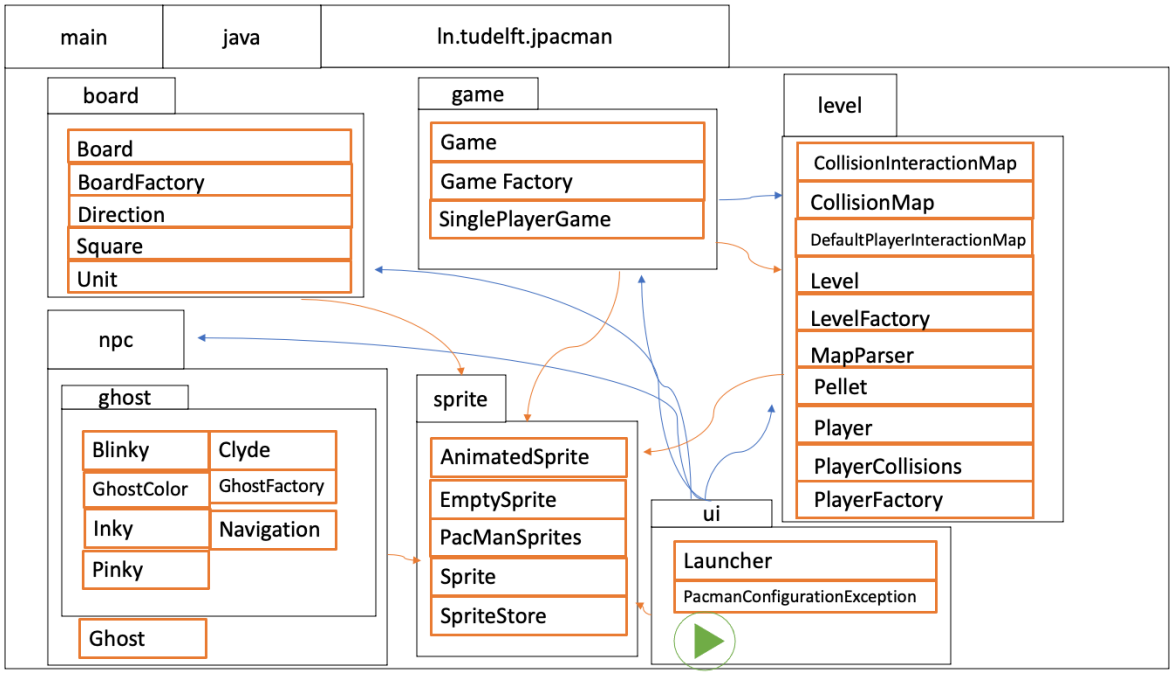
Assignment 1, Group 47

Exercise 1

1.

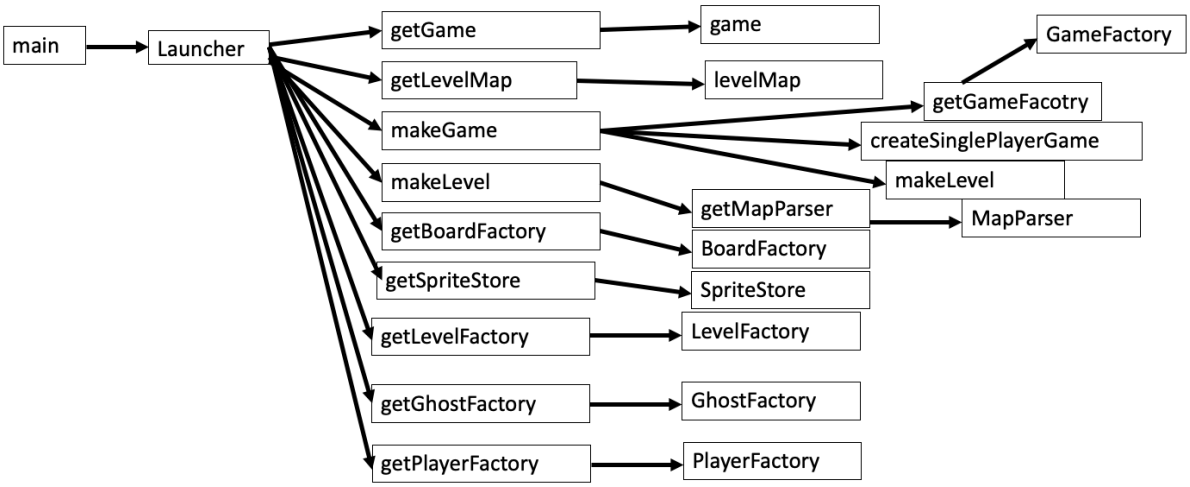


i. Level of abstraction = 5

ii. The level of abstraction corresponds to the depth of the files. The deepest level is main -> java -> nl.tudelft.jpacman -> npc -> ghost, so five.

iii. The Launcher is the part where it starts. The class UI affects all other classes, and the Methods from UI also interact with the methods of the other classes.

2.



i. 5

ii. At this Level the call graph includes classes that are not part of the Launcher class.
iii. The Launcher is the entry point. It creates the board, level and game with their respective Methods.

Exercise 2

1. – 3. First, we searched for nouns and verbs in the text and then chose some amongst those and grouped them to possible classes from the nouns, and responsibilities from the verbs. During the Process we thought about the different Elements in Checkers interact, and derived possible collaborations from that. During that process, we already realized that some of the classes we took into consideration, could be part of different classes. We started with the possible classes: Board, Player, Pieces, Move, Postion, Capture, but then decided to make Postion and Capture an attribute respectively purpose to the classes Board, respectively Move. We also thought about making different subclasses for the pieces for kings or pawns or red or black pieces but decided it would be smarter to make those attributes to the class Pieces. During coding we found out that constantly derived new ideas for how to organize the classes with their responsibilities.

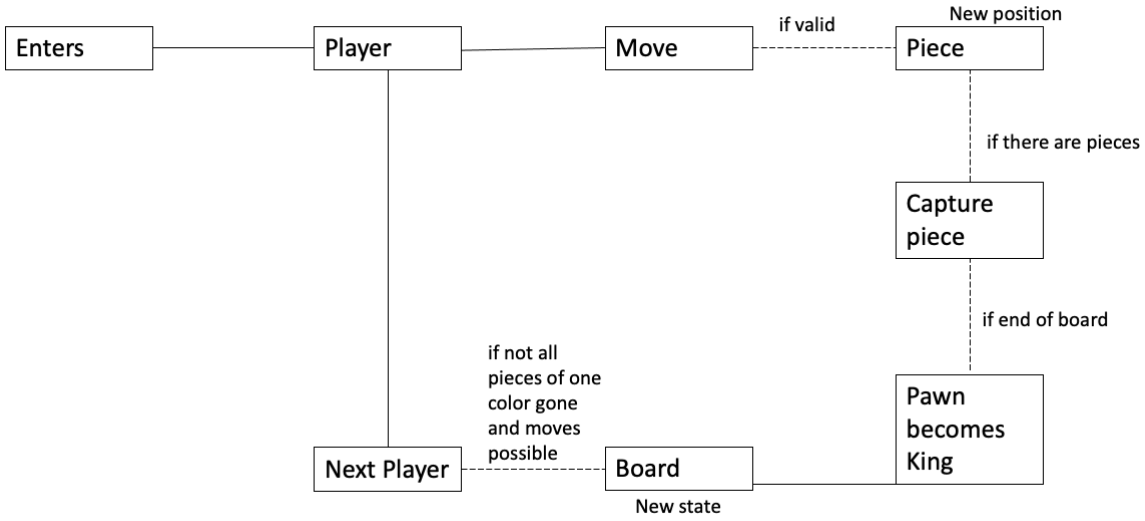
Board	
Purpose	Collaborators
Provided coordinates	Pieces
	Move
Check if the move is valid	Move
	Pieces
Check if game has ended	Pieces
Print the interface	Pieces

Player	
Purpose	Collaborators
Input the position	Move
	Pieces

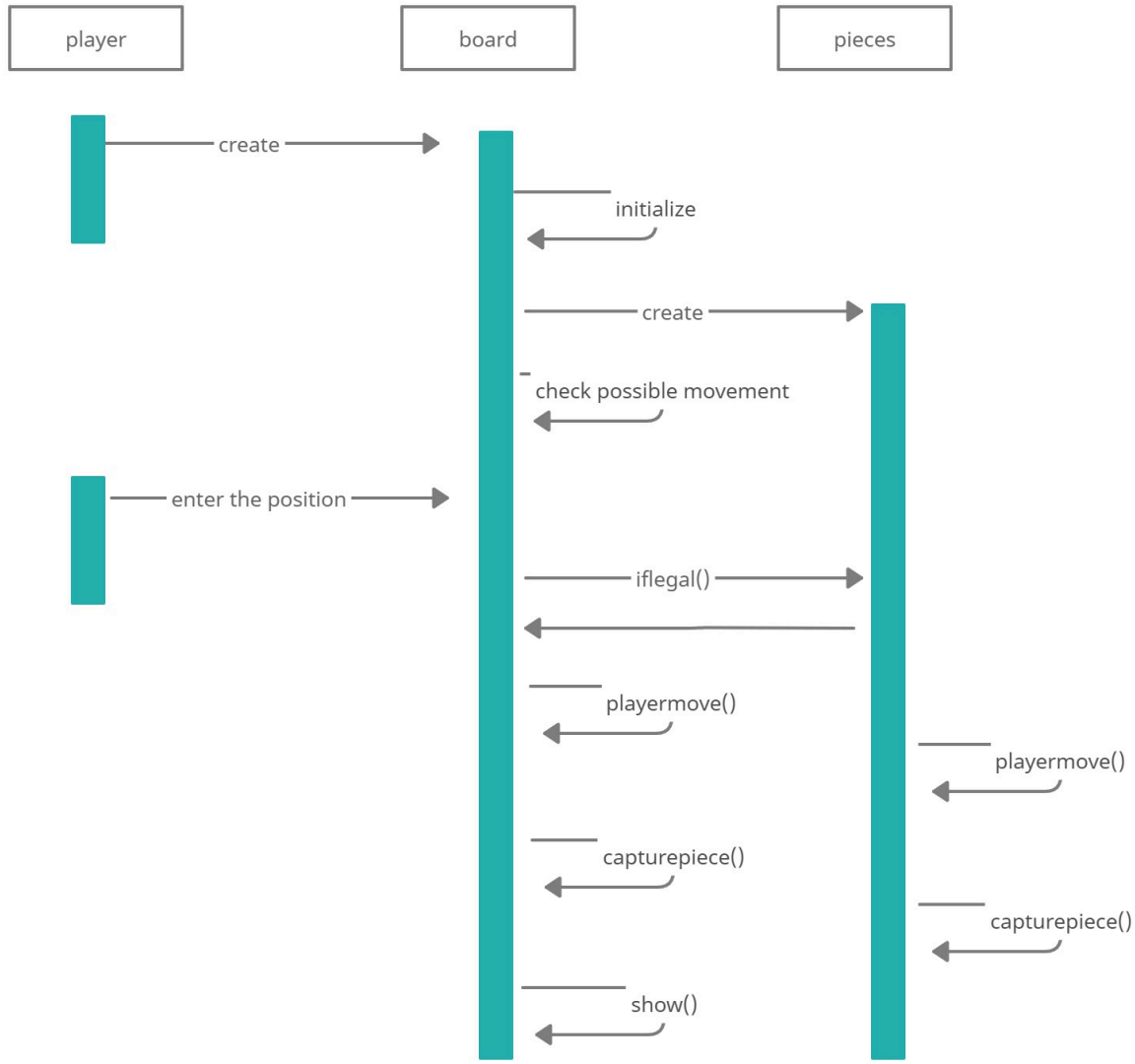
Pieces	
Purpose	Collaborators

Move	
Purpose	Collaborators
Change position	Pieces
	Board
Capture pieces	Pieces

4.



5.


player
board
pieces
create
initialize
create
check possible movement
enter the position
iflegal()
playermove()
playermove()
capturepiece()
capturepiece()
show()