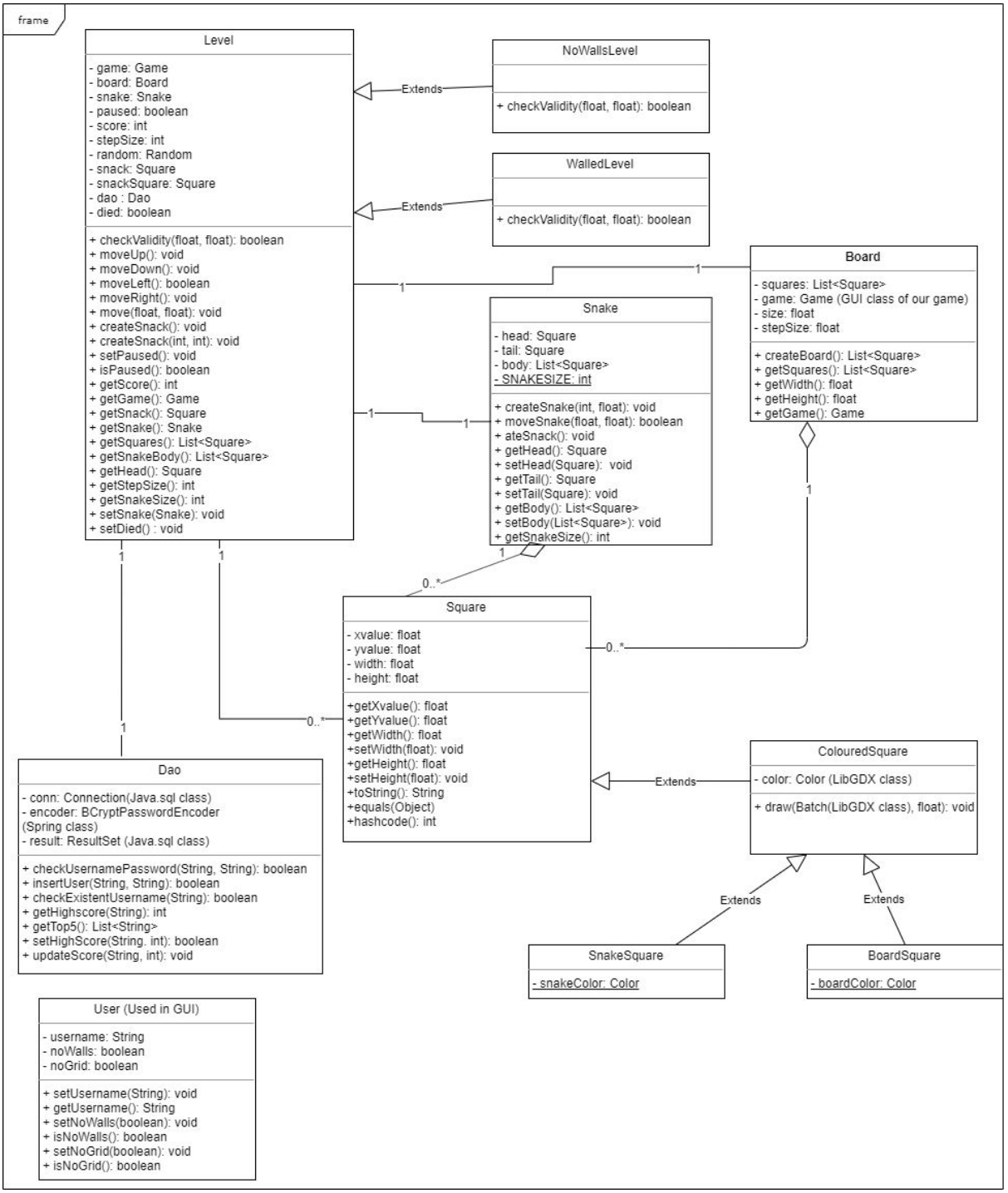
ASSIGNMENT 2

GROUP 8

05.12.2019

EXERCISE 1: MODELLING CLASS DIAGRAMS



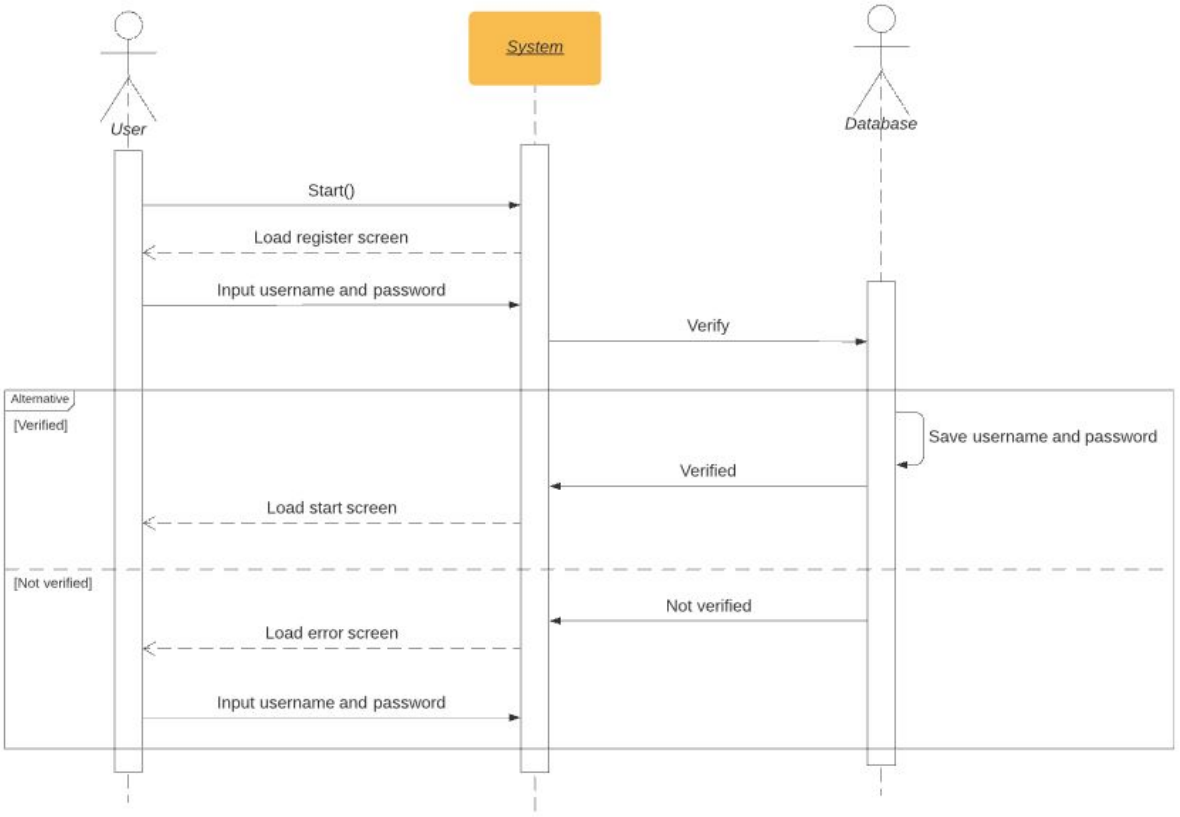
(Zoom in a bit for the best experience)

The classes shown in the class diagrams are chosen due to their importance related to the core game logic. The primary actor in the game itself is the snake which has multiple functions declaring its behaviour can be associated with multiple Squares on a given Board, visualised by different coloured squares which is handled by the ColouredSquare class and its subclasses. Ultimately, those three classes are also associated with a specific Level class which handles most of the game logic together with the Snake class, such as moving the snake, eating and defining snacks and the end of the game. As we wanted to demonstrate our use of design patterns in this class, we also included the two subclasses of the Level class, NoWallsLevel and WallLevel which can be selected in the settings before starting the game.

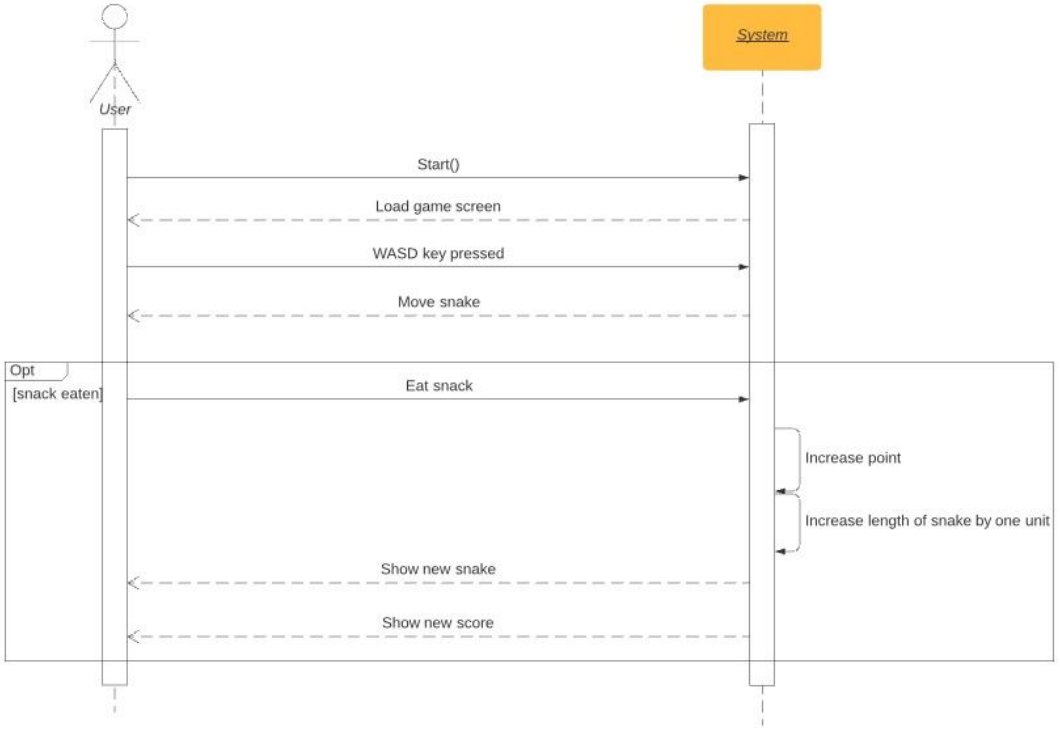
Furthermore, we wanted to include some additional information on the user and authentication, as the users settings determine the properties of the game and the high scores are passed from the Level class through to the Data Access Object class.

EXERCISE 2: MODELLING SEQUENCE DIAGRAMS

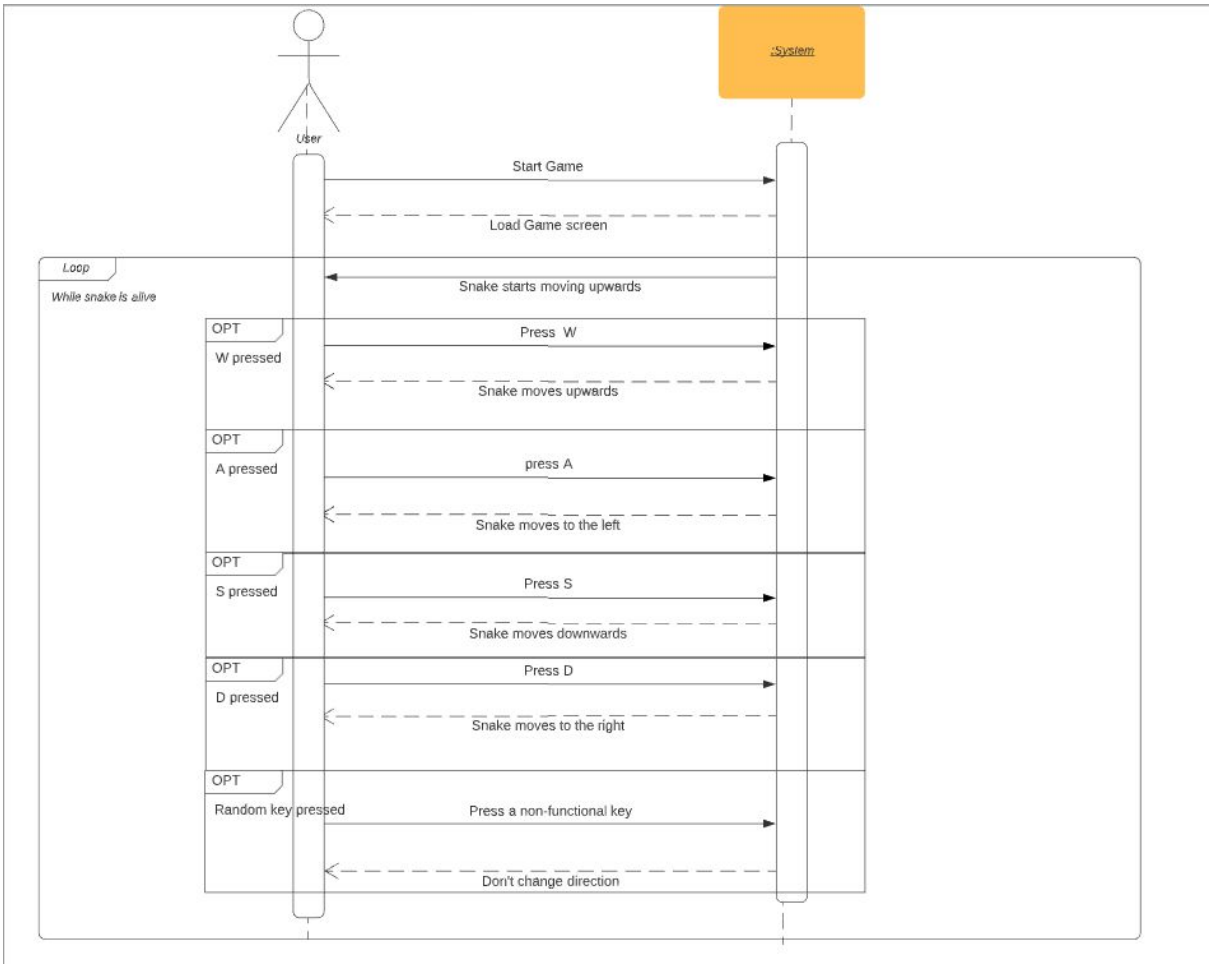
Registration



Eat snack



Move Snake


:System
User
Start Game
Load Game screen
Loop
While snake is alive
Snake starts moving upwards
OPT
W pressed
Press W
Snake moves upwards
OPT
A pressed
press A
Snake moves to the left
OPT
S pressed
Press S
Snake moves downwards
OPT
D pressed
Press D
Snake moves to the right
OPT
Random key pressed
Press a non-functional key
Don't change direction