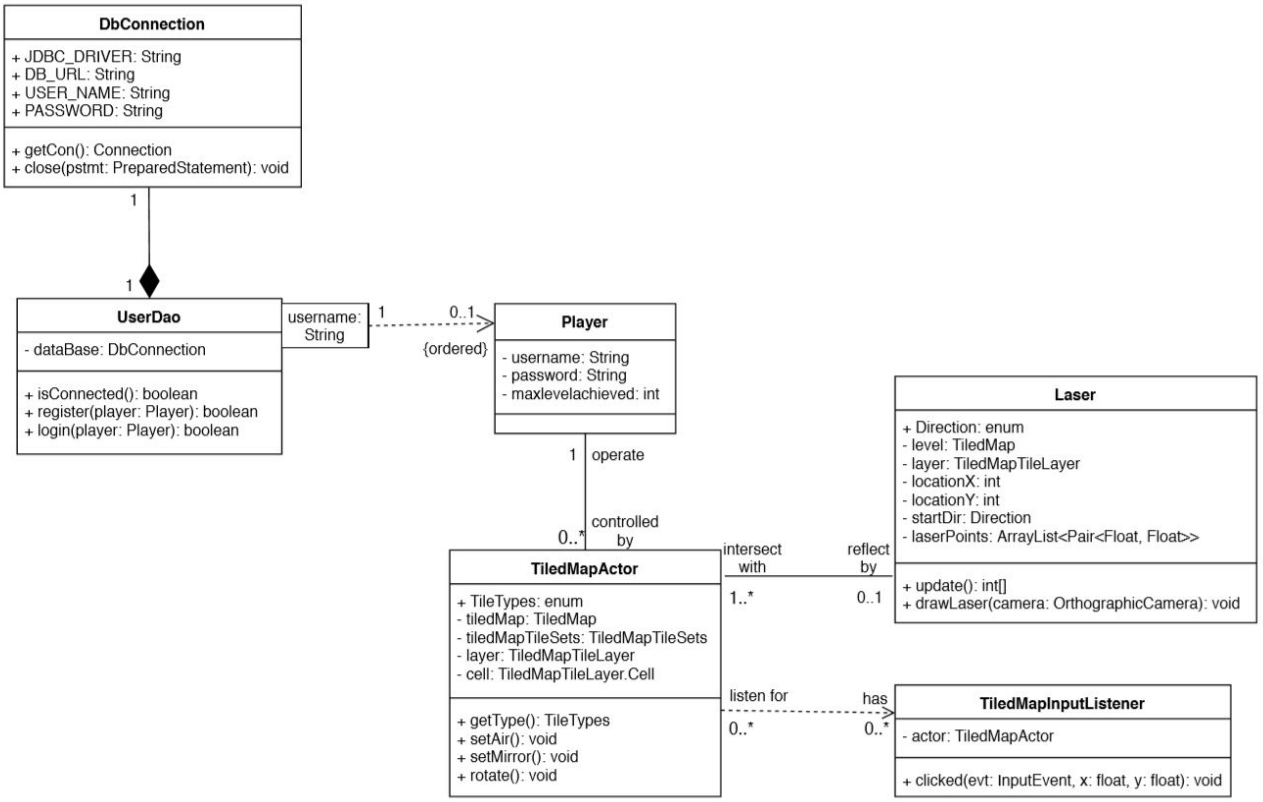
Assignment 2

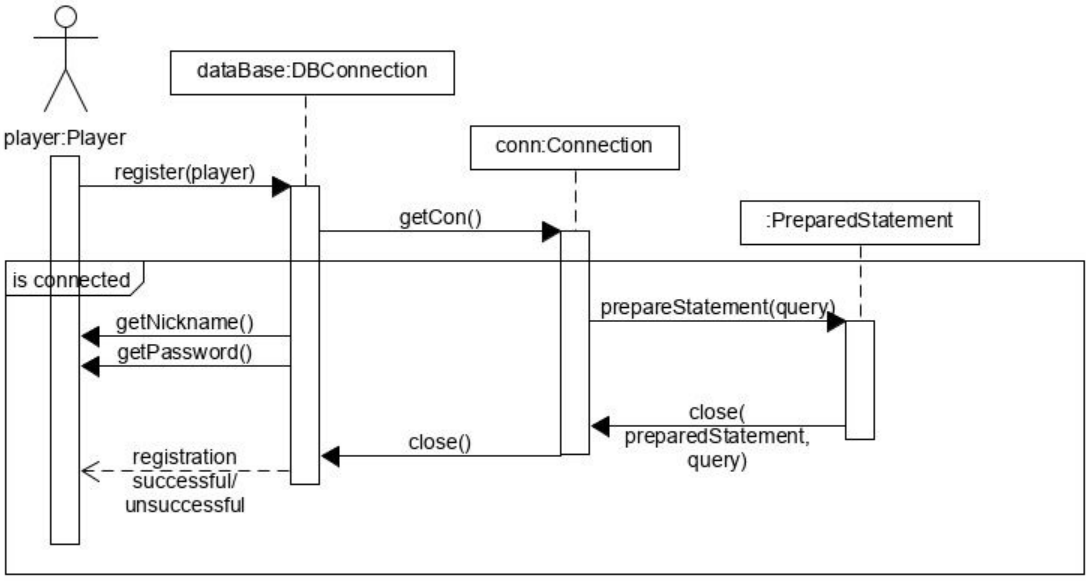
Exercise 1: Modelling class diagram



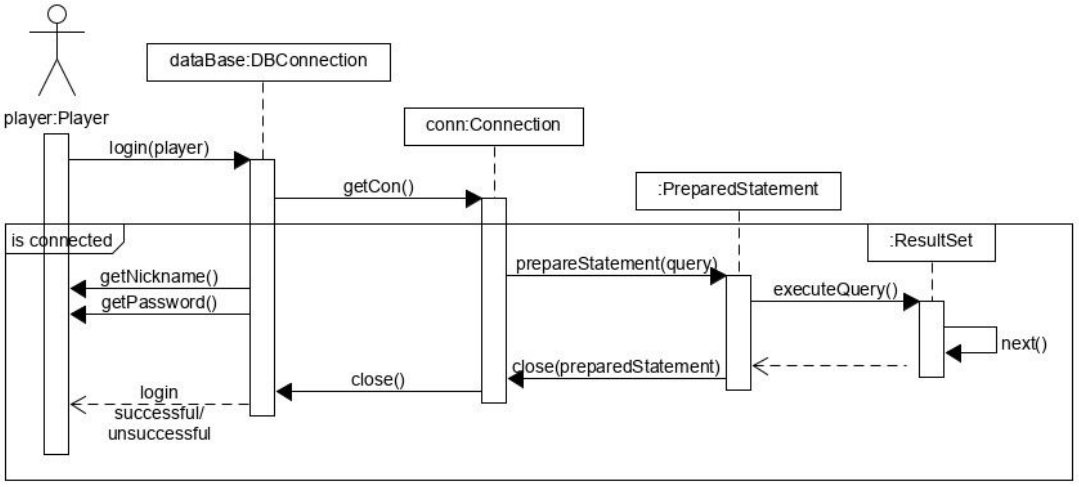
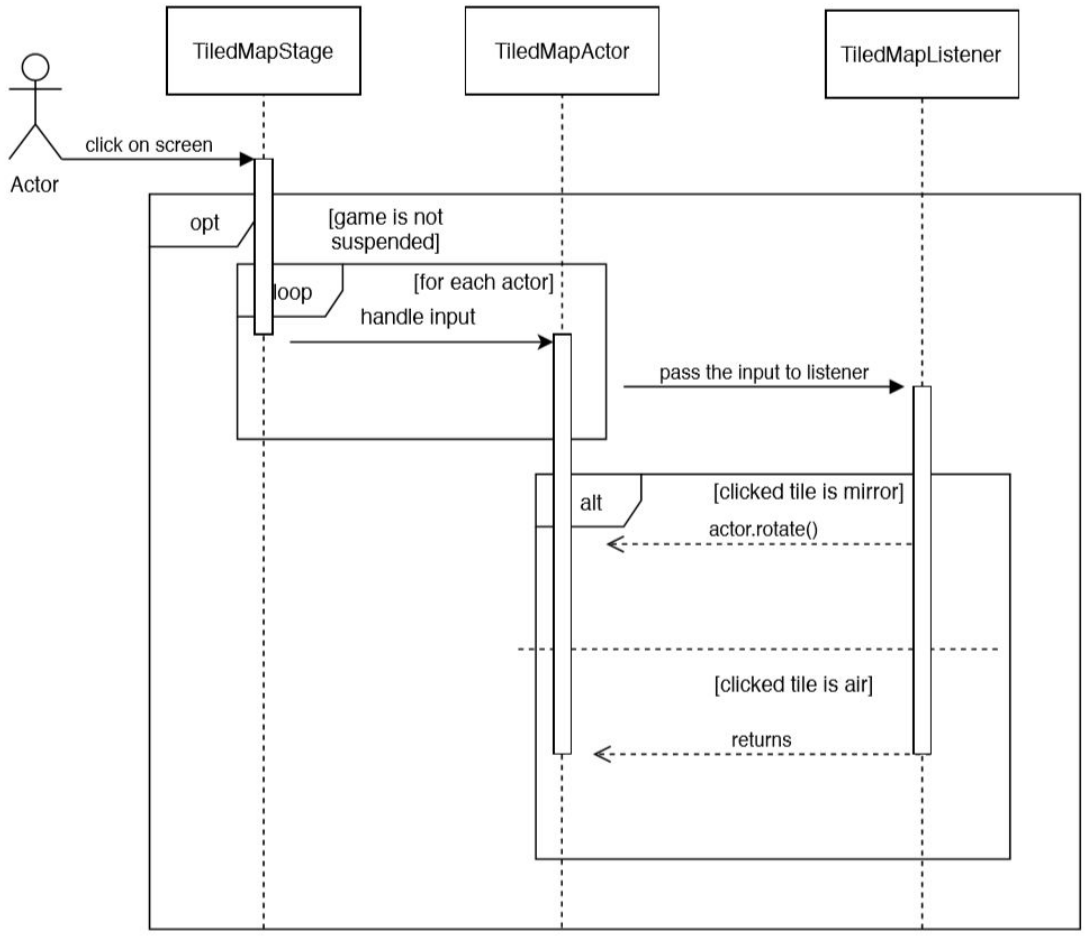
Regarding the authentication, the database connection with the program is needed. And UserDao class is used to manipulate the database connection and it is also easy to test. That is why we have class 'DbConnection' and 'UserDao'.
Besides that, since it's a laser reflection game, the laser and mirrors are the main elements. Instead of implementing a 'Mirror' class, we put the mirror logic in the class called 'TiledMapActor' which represents a single cell in the grid. The cell can be set as brick(i.e: wall which blocks the laser), mirror or air(i.e: nothing).
Last but not least, after having 'TiledMapActor', there has to be something checking which cell has been clicked. And that is why class 'TiledMapInputListener' comes into place.
At last, there is no way to control the game without a certain role so we definitely need the 'Player'.
In conclusion, we think the core logic of the game consists of 6 classes mentioned above.

Exercise 2: Modelling sequence diagrams

Use case1: player authentication: registration



Use case2: player authentication: Login



Use case3: mirror rotation