

ATHENS - TUD15

Assignment 1

Group **Z4QQQ**

1. Write a natural language description of why and how the pattern is implemented in your code.

We implemented the Singleton pattern for several classes.

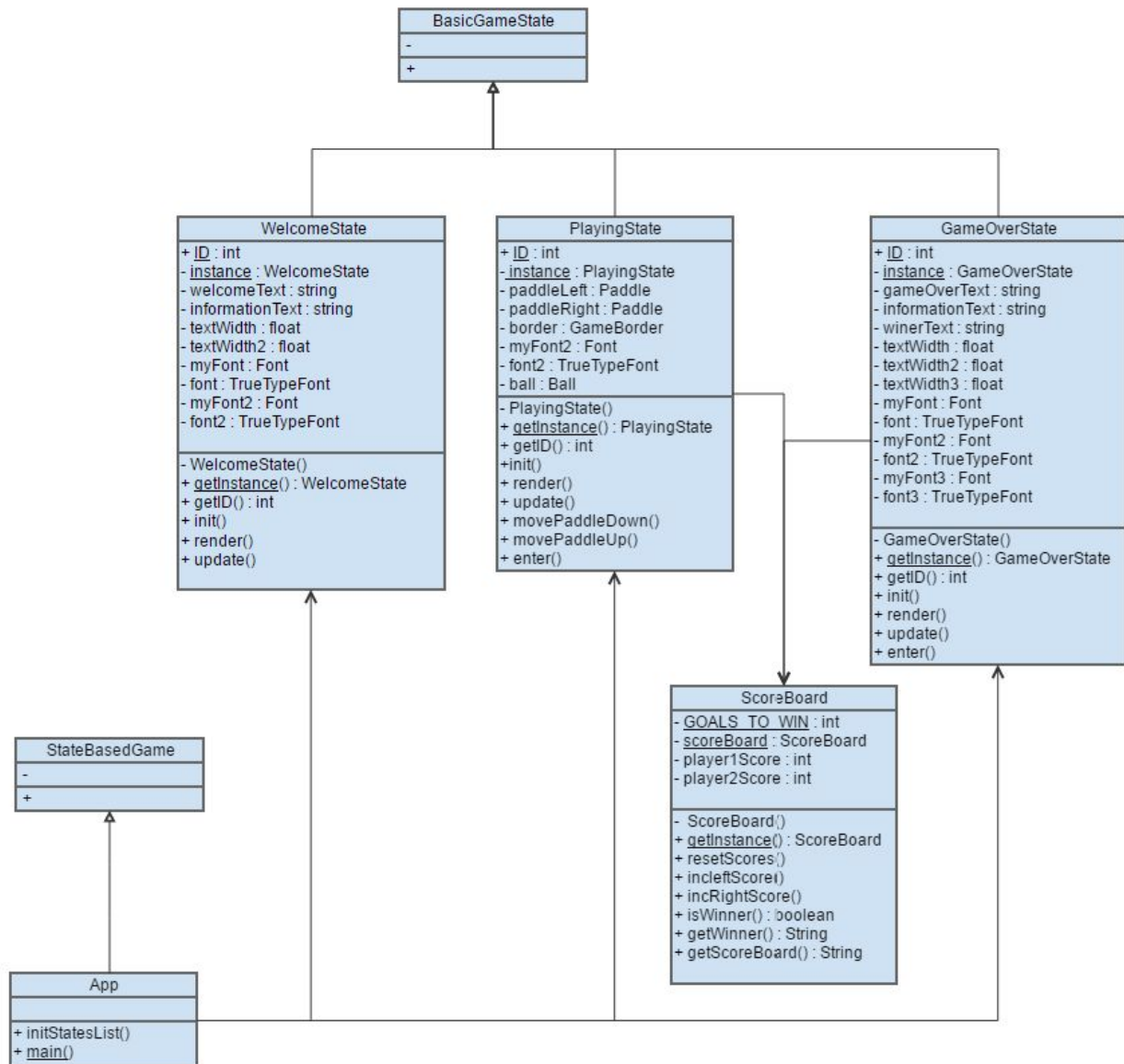
All gamestates are singleton now. This has the advantage that we can ensure that there exists only one instance of each state during execution.

Furthermore, we implemented the Scoreboard as a singleton, so we can access the score globally. This allows to get the winner in all gamestates. In our first implementation the scoreboard was bound to the PlayingState and thus, it was quite complex to get the winner in the GameOverState. Moreover, as with the gamestates, we make sure that there is only one instance of it during the game.

We used the eager init style for the singletons.

2. Make a class diagram of how the pattern is structured statically in your code.

Since we are using a framework (Slick2D) some parts of the application are hidden to us. For example, the gamestates are singletons but only passed to the Framework.



3. Make a sequence diagram of how the pattern works dynamically in your code.

