BALLS 2 THE WALL

Instruction Manual

Starting the program

For the game to start normally on the title screen, feed the console/terminal with the following input:

```
java -jar Balls2TheWall.jar
```

If you want to start a server, you and your friends can play on, start the program with the following parameters: For the server, please use the following command:

```
java -jar Balls2TheWalljar server <port>
```

The `<port>` can be chosen by the player, preferably a value above 5000. If there is a running server and you want to get directly into the online experience, you can execute the program with the following input:

```
java -jar Balls2TheWall.jar client <ip>:<port> <name>
```

The `<name>` is not mandatory, although if not input the game uses the system assigned user name. *Note: These commands need to be executed from the terminal within the same folder as the .jar file.*

Playing locally

The local game mode is accessable from the title screen. Choosing this mode opens a screen in which you can choosethe map, how many players are playing, to how many points you want to play and the amount of obstacles on the map. The controls are as following:

player 1: Moving up - UP
Moving down - DOWN
Moving left - LEFT
Moving right - RIGHT

player 2: Moving up - W
Moving down - S
Moving left - A
Moving right - D

player 3: Moving up - T
Moving down - G
Moving left - F
Moving right - H

player 4: Moving up - I
Moving down - K
Moving left - J
Moving right - L

Client

Upon establishing the connection to the server, the client starts a window. This window allows you to chat with other players that are in the same lobby. On the right hand side are three panels; on the top are the high scores, on the center are the players currently online in the same lobby and on the bottom are the lobbies and their states. On the top of the window is a menu bar. From there you can exit the program, access the settings and change the lobby. On the bottom of the window is the input field for the chat, and right next to it is a button that allows to start a game. If a message is meant to be sent to all players connected to the server, simply send the message with the provided Broadcast-button. To start the game, just press the Start Game-button on the bottom-right of the screen. `Note: The players log automatically into the main hub. Games can not be started from there. A game is started as soon as all players are ready. Settings are not implemented yet.`

Playing online

When all players in a lobby is ready, the first player to press start game is allowed to choose the map, the amount of winning points and the amount of obstacles on the map. If everything is set, a window displaying the game opens. Your ball is controlled with the arrow-keys.
When a math is finished, the screen shows the winner. As soon as you close this screen, you return back to the chat window.

Maps

There are currently two variants of the map: a plain one, on which the friction does act on the player, and an icy one, on which no friction acts.

Rules

The rules to win are simple! Just push your opponents off the stage and be the last ball rolling. During play time power ups spawn randomly, which is triggered by touching it. The first one to reach the previously set point limit wins. The current score is displayed directly on the balls.

Power ups

There are different power ups, but the players do not know what it does until it is triggered. The different effects are listed below.

Get bigger

If this effect is triggered, the player gets bigger and heavier, so that it's harder for others to push him off the map.

Get smaller

This effect is the opposite of Get bigger. Not only is a player smaller, but also lighter, which makes it much easier for other to push the affected player off the map.

Get faster

This effect changes the terminal velocity such that the player can be faster than the others.

Get slower

This effect lowers the terminal velocity of the player.