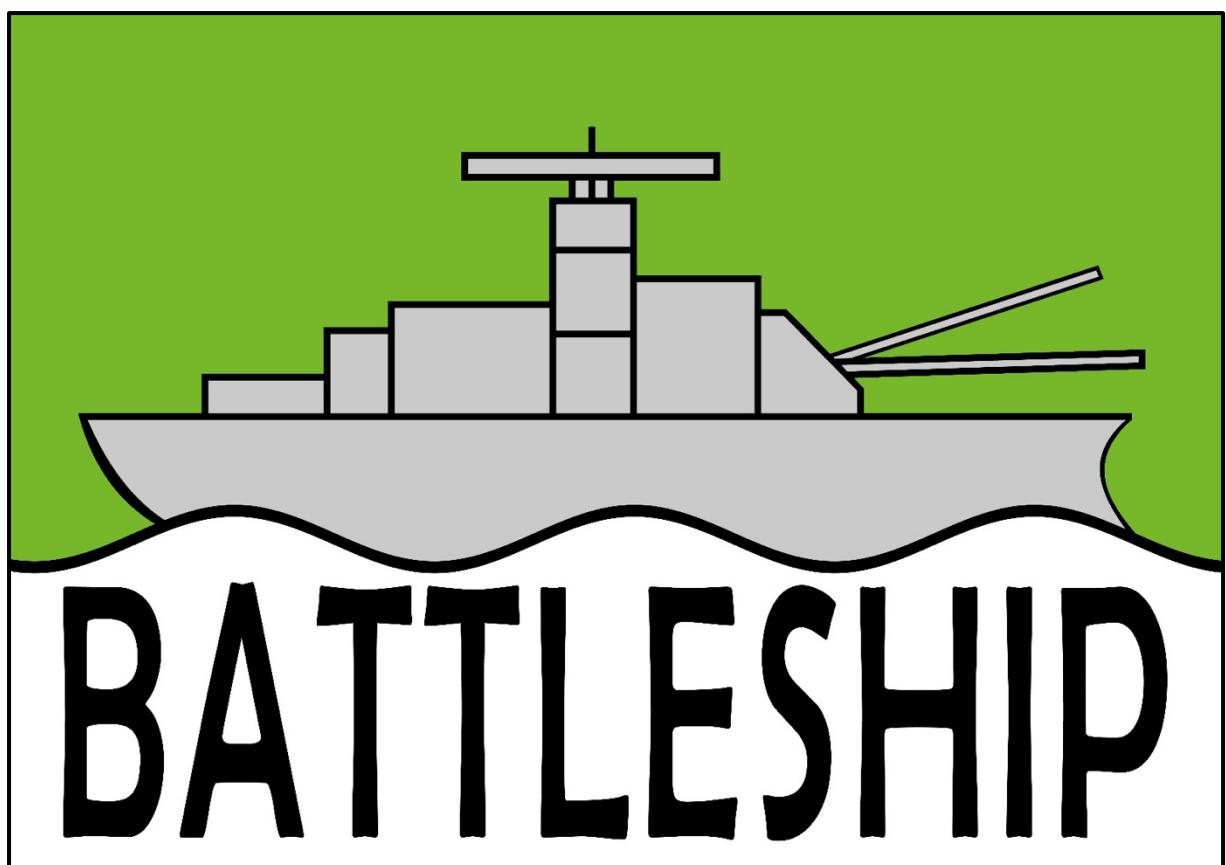


Project-Report “Battleship - The Game”



Michael Derler, Stefan Heider, Gerhard Lambrecht, Verena Leifert

SWENGB | IMA16 | WS2017/18

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1. Project Team

The Team:



Figure 1 Verena Leifert, Stefan Heider, Michael Derler, Gerhard Lambrecht

Team ID: 8301!=8200

Team Name: Lahö!=Gleisi Kabarett

Teammembers: Michael Derler (derlermi16),
Stefan Heider (heiderst16),
Gerhard Lambrecht (lambrech16),
Verena Leifert (leifertv15)

Responsibilities:

Michael: Presentation, Design Implementing

Stefan: Documentation, Testing

Gerhard: Manual, Time and Cost estimation, Work Breakdown Structure

Vee: Team leader, Mock up designing

Everyone participates in every field. The programming tasks are divided between the project members.

2. Time Estimation

CODING (230 Manhours):

Testing: 30 Manhours

Screens (javafx): 65 Manhours

Features: 135 Manhours

ARCHITECTURE (46 Manhours):

Code Planning, Coding Decisions: 15 Manhours

Design (Mockups...): 30 Manhours

License: 1 Manhours

ORGANISATION (11 Manhours):

Planning: 3 Manhours

(WBS, Time + Cost Estimation)

Project Management: 8 Manhours

(Meetings, Progress tracking, Deadlines, Milestones)

DOCUMENTATION (33 Manhours):

Project Report: 15 Manhours

Manual: 7 Manhours

Presentation: 11 Manhours

3. Cost Calculation

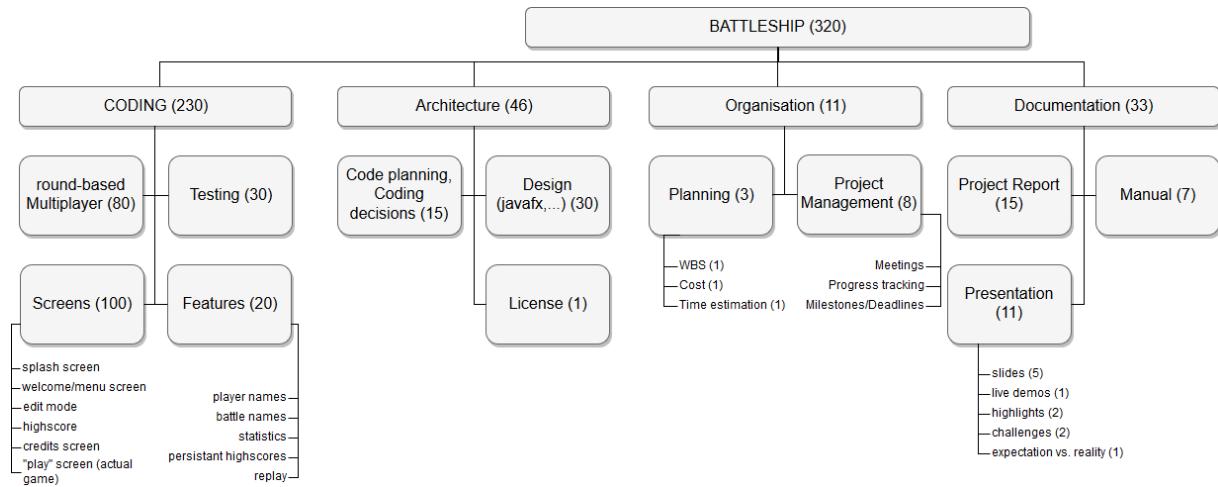
hourly pay Michael, Stefan, Gerhard		€ 80,00
hourly pay Verena		€ 79,00
average hourly		€ 79,75
time estimation	320	
expected total cost		€ 25.520,00
recommended selling price		€ 5,00
expected break-even point	5104	

We calculated our own development costs by measuring the time needed for all projects and multiplying with the hourly pay of the project team members.

Using this and a recommended 5 EUR selling price per game, the expected break-even point will be around 5100 sold games. This calculation only covers development costs, shipping and retail costs are not considered.

4. Work Packages

Structure:



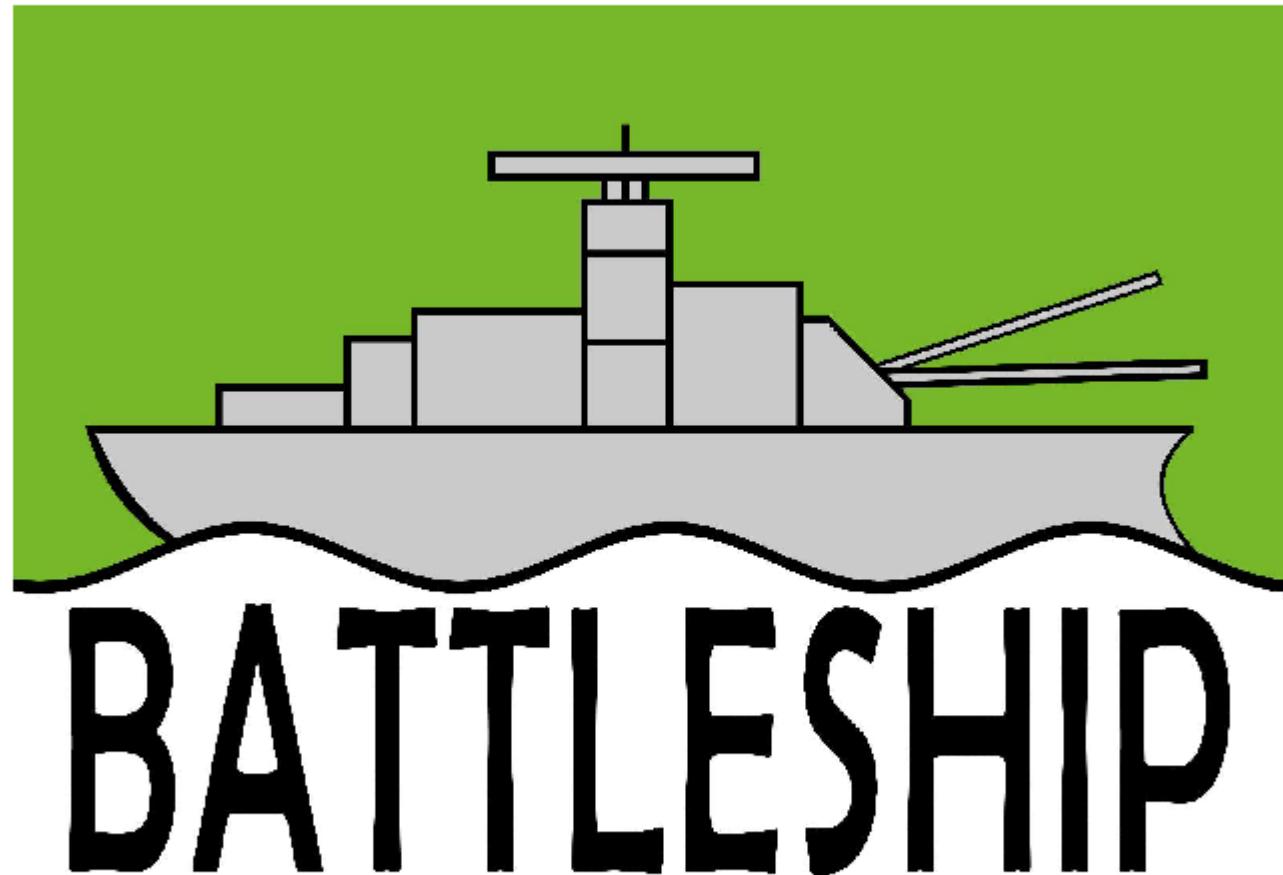
SWENGB Project

Packages:

WORK PACKAGE DESCRIPTION	RESPONSIBLE TEAM MEMBER	ESTIMATED MANHOURS
Splash Screen Javafx	derlermi16	6
Welcome/Menu Screen Javafx	derlermi16	6
Edit Mode Screen P1 Javafx	derlermi16	6
Edit Mode Screen P2 Javafx	heiderst16	6
Highscore Screen Javafx	heiderst16	6
Credits Screen Javafx	heiderst16	6
Play Screen P1 Javafx	leifertv15	6
Play Screen P2 Javafx	leifertv15	6
New Game Screen Javafx	leifertv15	6
Replay Screen Javafx	lambrech16	6
Game Over Screen Javafx	lambrech16	6
Multiplayer Functionality	lambrech16	60
Player Names	heiderst16	10
Battle Name Generator	lambrech16	10
Game Statistics	leifertv15	15
Persistant Highscores	derlermi16	20
Replay Functionality in Highscro	heiderst16	20
designing tests	heiderst16	10
implementing tests	heiderst16	20
Coding Decisions	leifertv15	15
Mockup Drawing	leifertv15	30
License Decision	lambrech16	1
Work Breakdown Structure	lambrech16	1
Cost Estimation	lambrech16	1
Time Estimation	lambrech16	1
Organisation of Meetings	leifertv15	4
Progress Tracking	lambrech16	1
Milestones/Deadlines	lambrech16	3
Project Report Writing	heiderst16	10
Manual Writing	lambrech16	5
Project Report Design	heiderst16	5
Manual Design	lambrech16	2
Presentation Slides	derlermi16	4
Presentation Live Demo Prepar	derlermi16	1
Presentation Highlights Prepara	derlermi16	2
Presentation Challenges Prepar	derlermi16	2
Presentation expectation vs rea	derlermi16	1
Sum		320

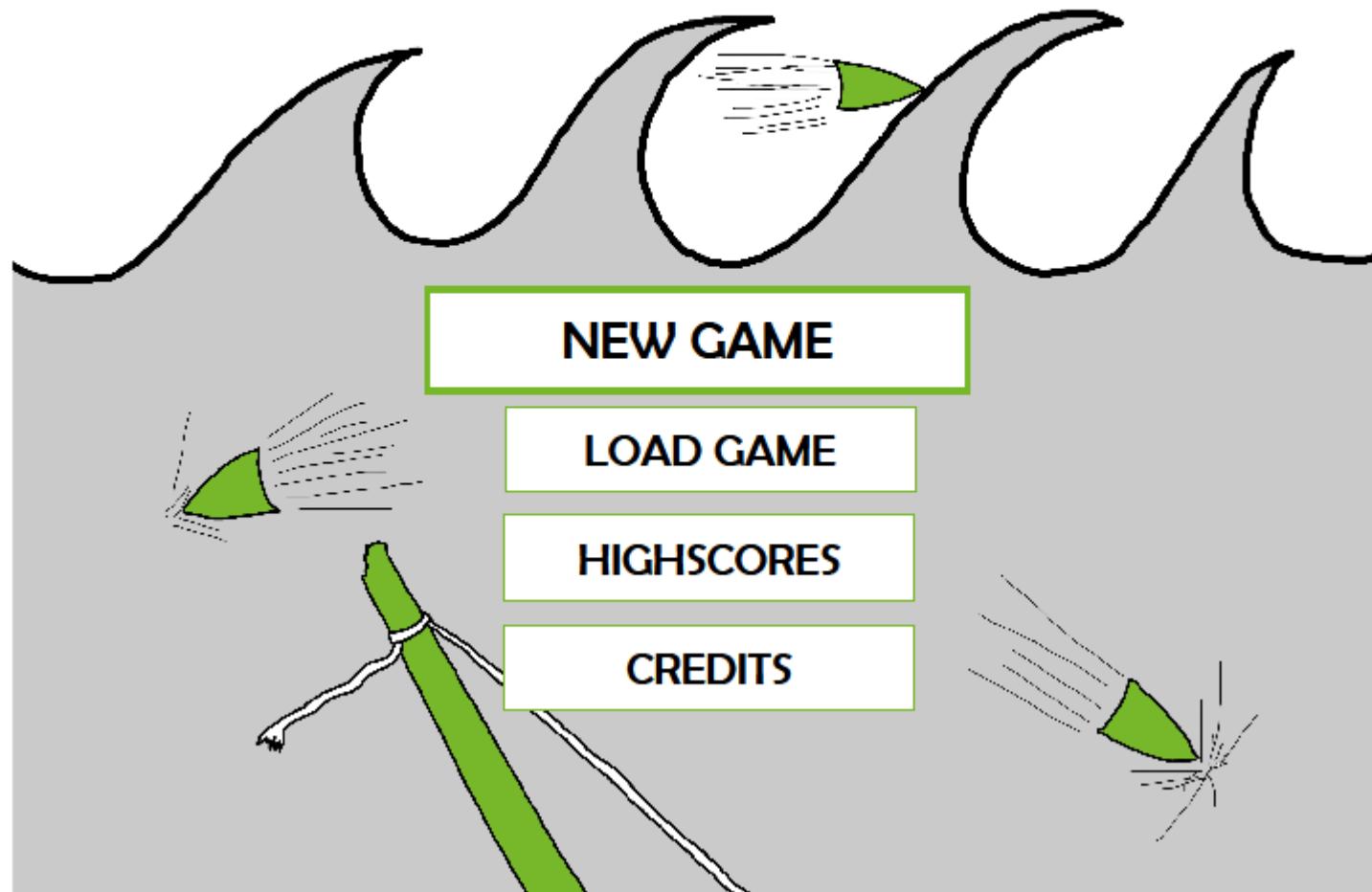
5. Mock Up

1;Splash Screen; clicking on it -> Welcome screen, schriftzug click to continue mit transparenten button über ganzes bild??



2;Welcome Screen; new game-> new game screen, load game-> prompts to load a saved game file, highscores-> highscore screen, credits-> credit screen
!!Size of Buttons increases on mouse-over (like new game here)!!

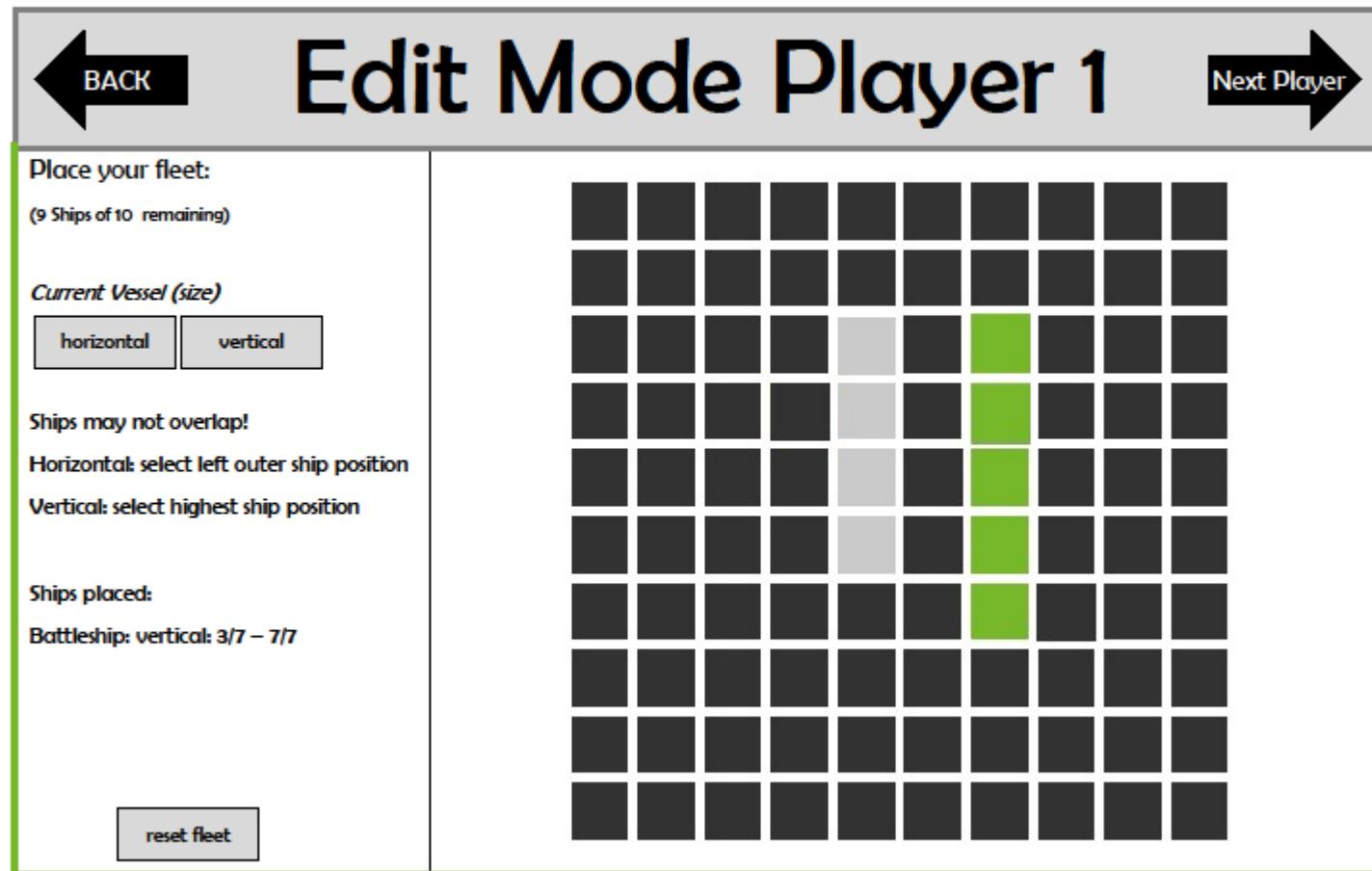
BATTLESHIP



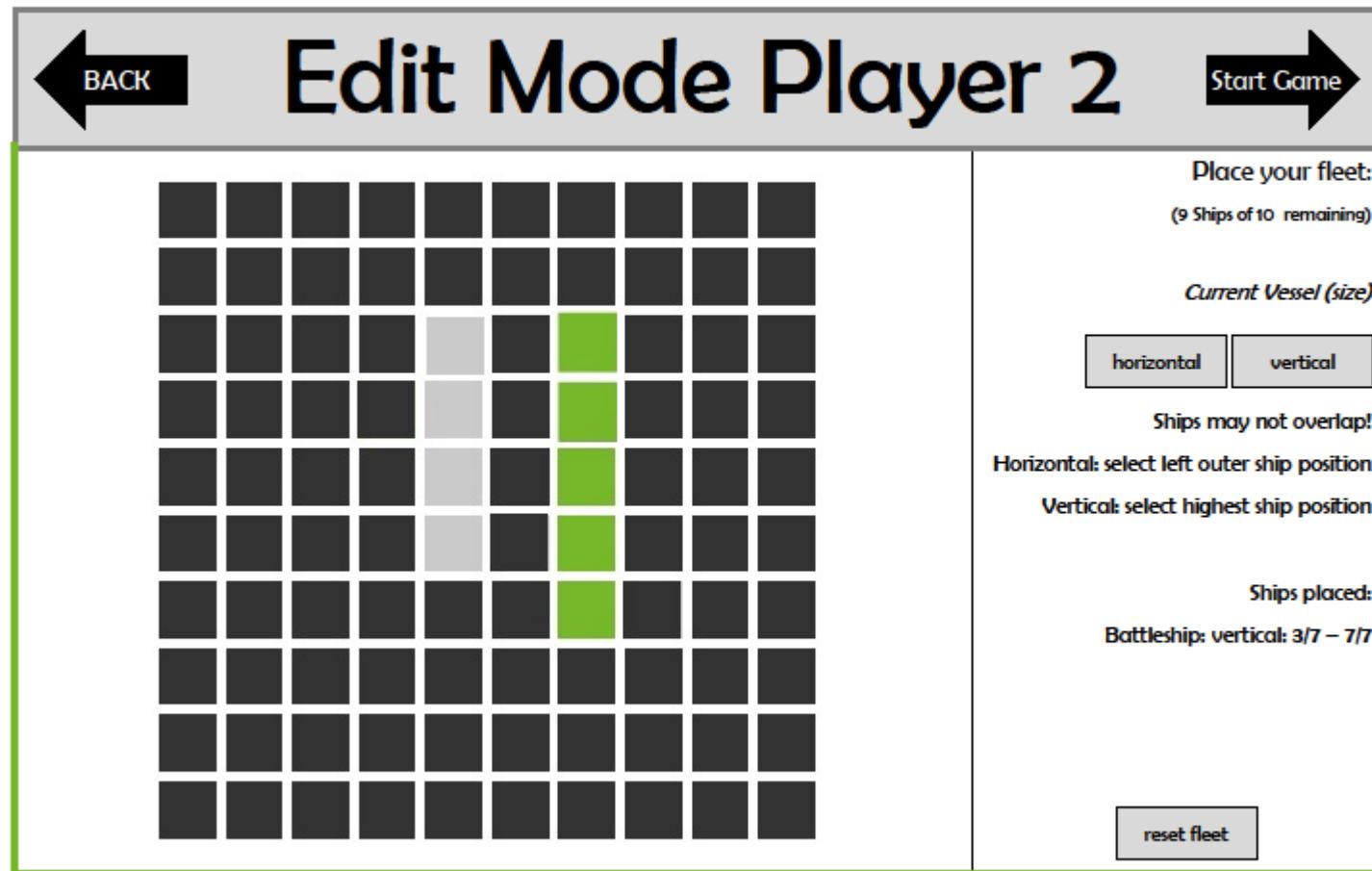
3; New Game Screen; Name of the Game: 4 Random Words; Continue → Edit Mode Player 1



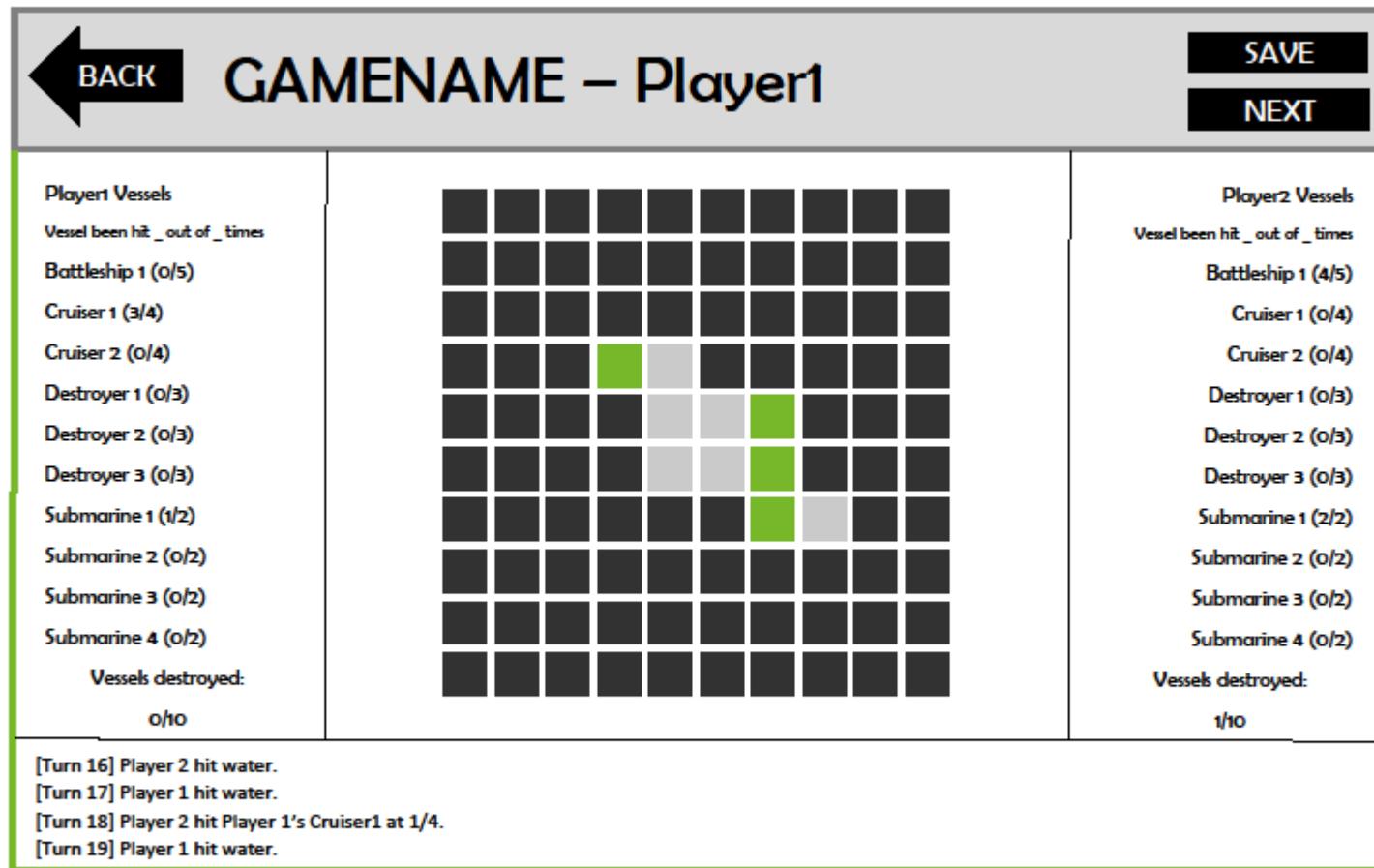
4; Edit Mode player 1-> next player -> edit mode player 2; 1BS,2CR,3Des,3Sub; Current Vessel (size) for example Cruiser1(4), set vessels are green, hover is grey in size of current vessel to place, reset fleet removes all placed ships to make them resettable, hover with vessel out of bound or overlapping vessels color red



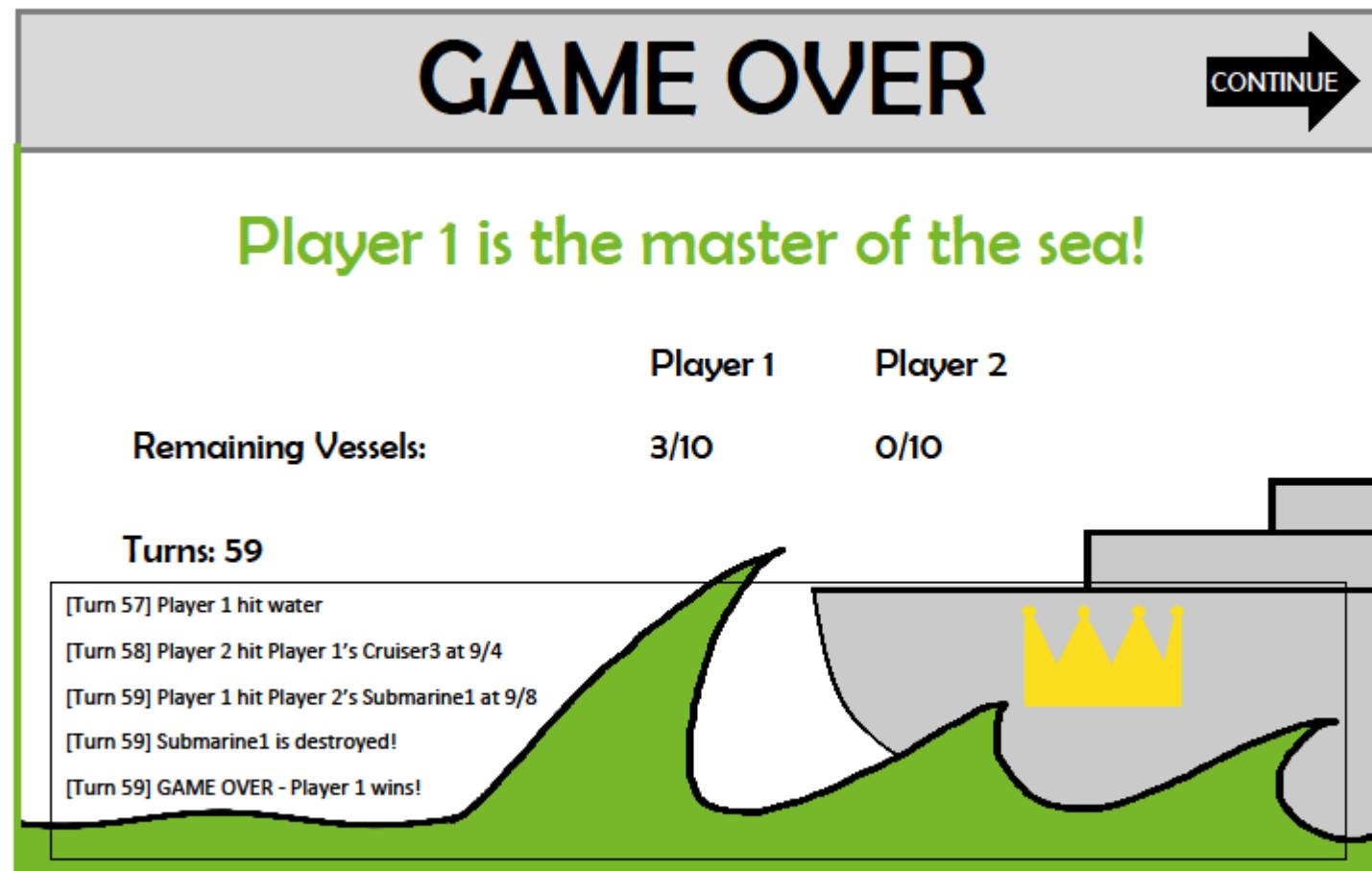
5; Edit Mode player 2-> start game -> game mode



6; In Game Screen; back -> Welcome Screen; Instead of Player1, Player2 and Gamenname, the real names are displayed



7; Game over Screen, continue -> highscores screen



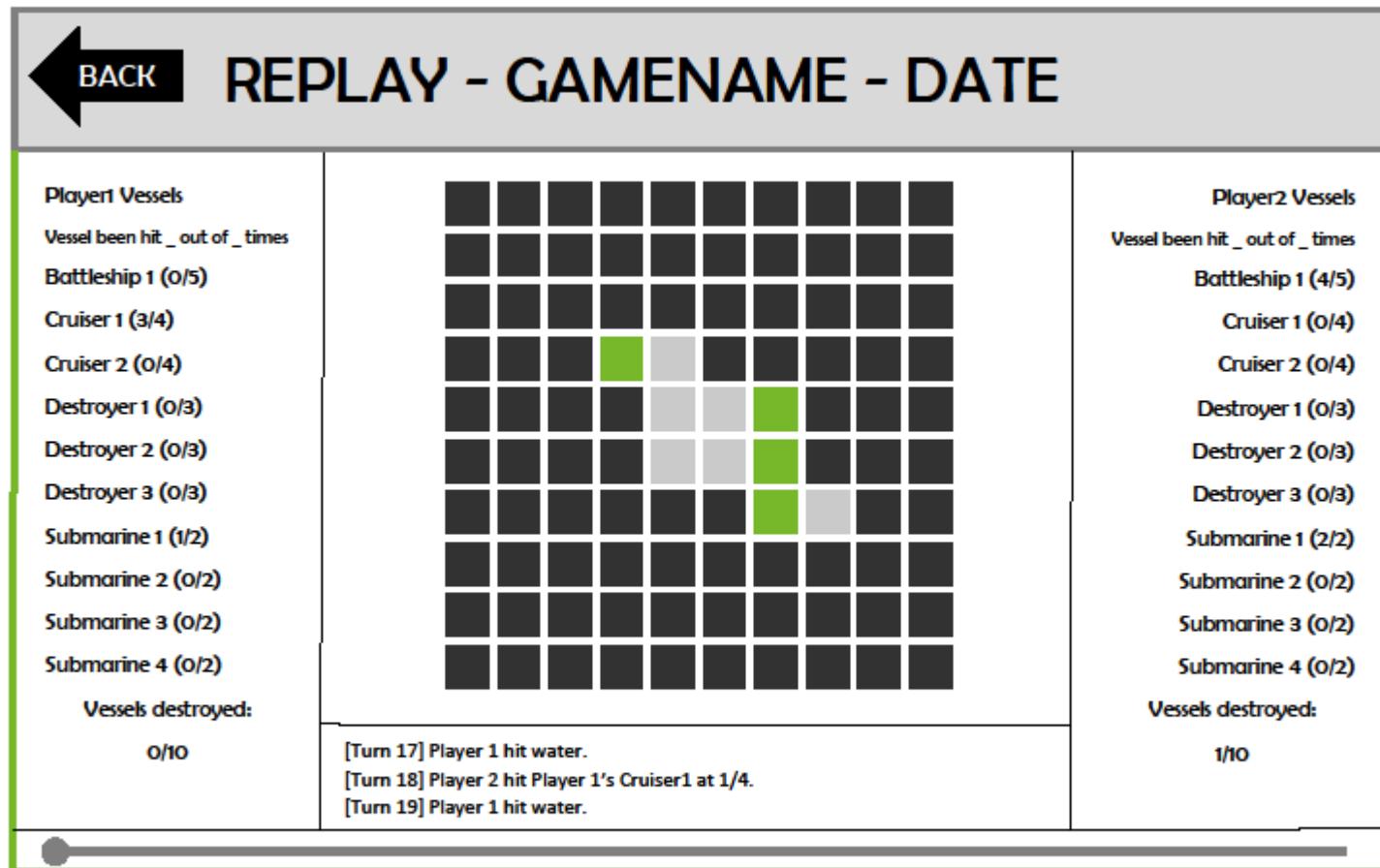
8; Highscores Screen; back to menu-> welcome screen, sorted newest first, click on replay button-> replay screen

HIGHSCORES

DATE	Winner	Game Name	Turns	Replay
2017-12-20	Vee	Random Default Game Name	59	▶◀
2018-01-05	Swaggy	Horrible Battle of Urschaberg	88	▶◀
2018-01-12	HeiSte	Wrong Turn At Laßnitzhöhe	198	▶◀
2018-01-15	Michaelles D. Gonzo	Vegan Struggle in Graz	199	▶◀
...
...
...

Stellen Sie sich hier eine Scrollleiste vor

9; Replay Screen; back -> highscore screen; Instead of Player1, Player2 and Gamenname, the real names are displayed; DATE is actual date of the game played



10; Credits Screen, back to menu-> welcome screen

BACK **CREDITS**

SWENGB Project – BATTLESHIP the game
WS 2017/18 Information Management
FH JOANNEUM

TEAM ID: 8301!=8200
TEAM Name: Lahö!=Gleisi Kabarett
Team leader: Verena Leifert
Student 2: Stefan Heider
Student 3: Michael Derler
Student 4: Gerhard Lambrecht

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Every student participated in every field (Programming, Designing and Implementation, Testing)
All photographs and illustrations were taken / designed by the project team.



6. Manual

Introduction

This game is a student project done during the Information Management course at FH JOANNEUM University of Applied Sciences in Graz, Austria.

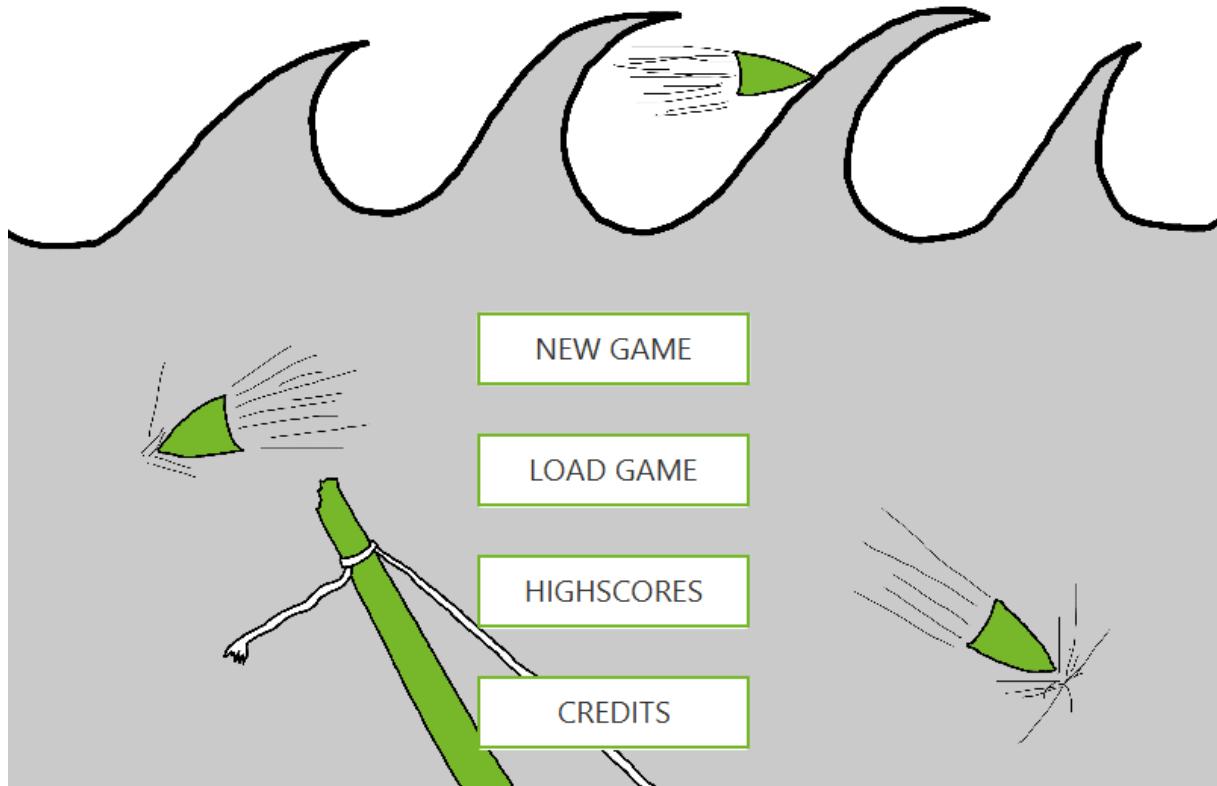
The game is a recreation of the popular board/paper game Battleship with slightly modified rules.

Development started in December 2017 and finished in January 2018.

The Game

Main Menu

BATTLESHIP



This is the menu. It is the first thing you will see after the splash screen.

Menu Options

- New Game: Starts a new game.
- Load Game: Opens a file explorer window where you can load the previous saved games.
- Highscores: Provides a view of previously played and saved games on this PC. Also provides access to game replays. You need to load the Playerfield of Player 1 first, followed by loading the Playerfield of Player 2.
- Credits: Opens the credits screen, containing information about the developers and license information

New Game

After pressing the NEW GAME button, you are asked to enter the names of player 1 and player 2. You can also change the randomly selected battle name if you want to. If you are finished, click continue.



Edit Mode

In Edit Mode, you are asked to place your fleet on the playing field. You begin by placing your biggest ship, the battleship, and then the game automatically selects the next smallest ship until all your ships have been placed.

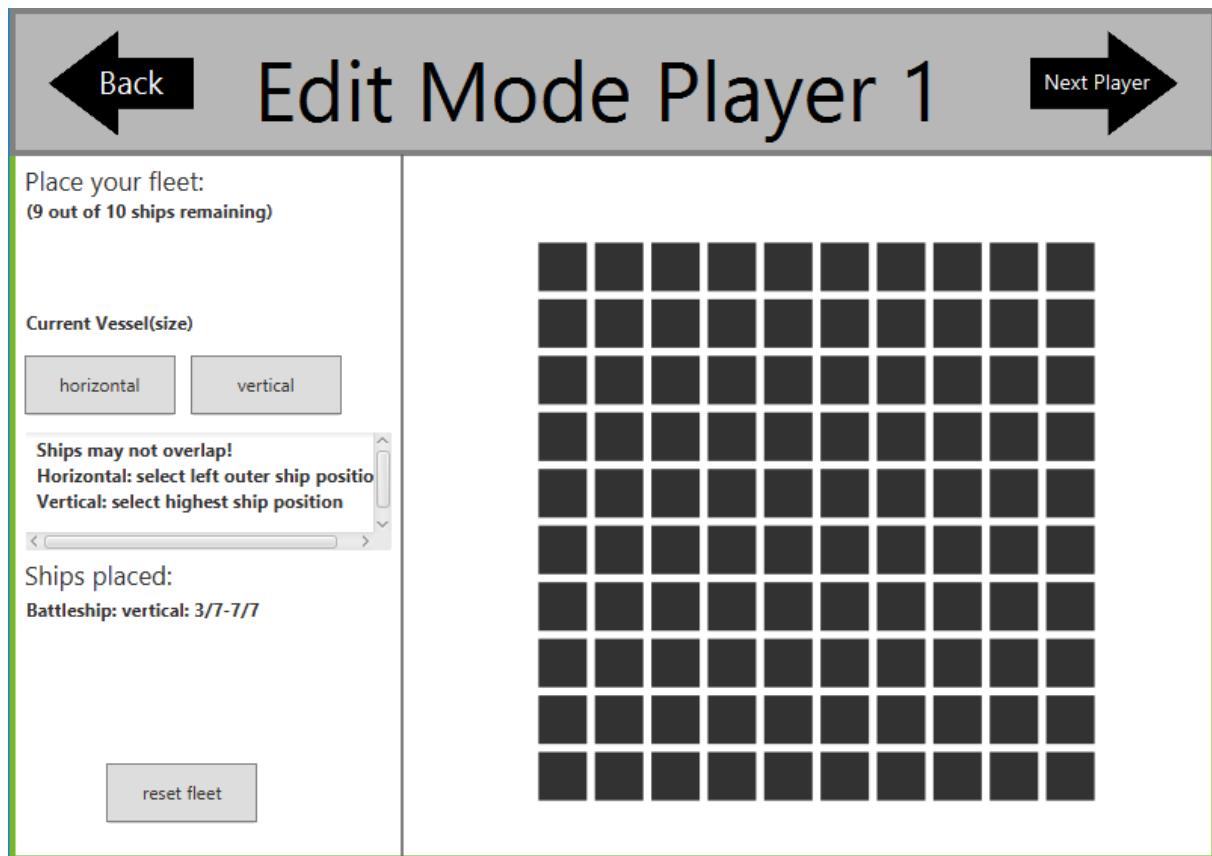
To change the orientation, you can use the HORIZONTAL and VERTICAL buttons. Your ships can't overlap, and it cannot go over the boundary of the playing field.

If you are unhappy with your placement, use the reset fleet button and you can place your ships again.

If you are satisfied with the placement of your fleet, click NEXT PLAYER and let Player 2 place his fleet in the same manner.

Make sure, of course, that neither of you watches the other's fleet placement!

After you click START GAME, the battle starts!

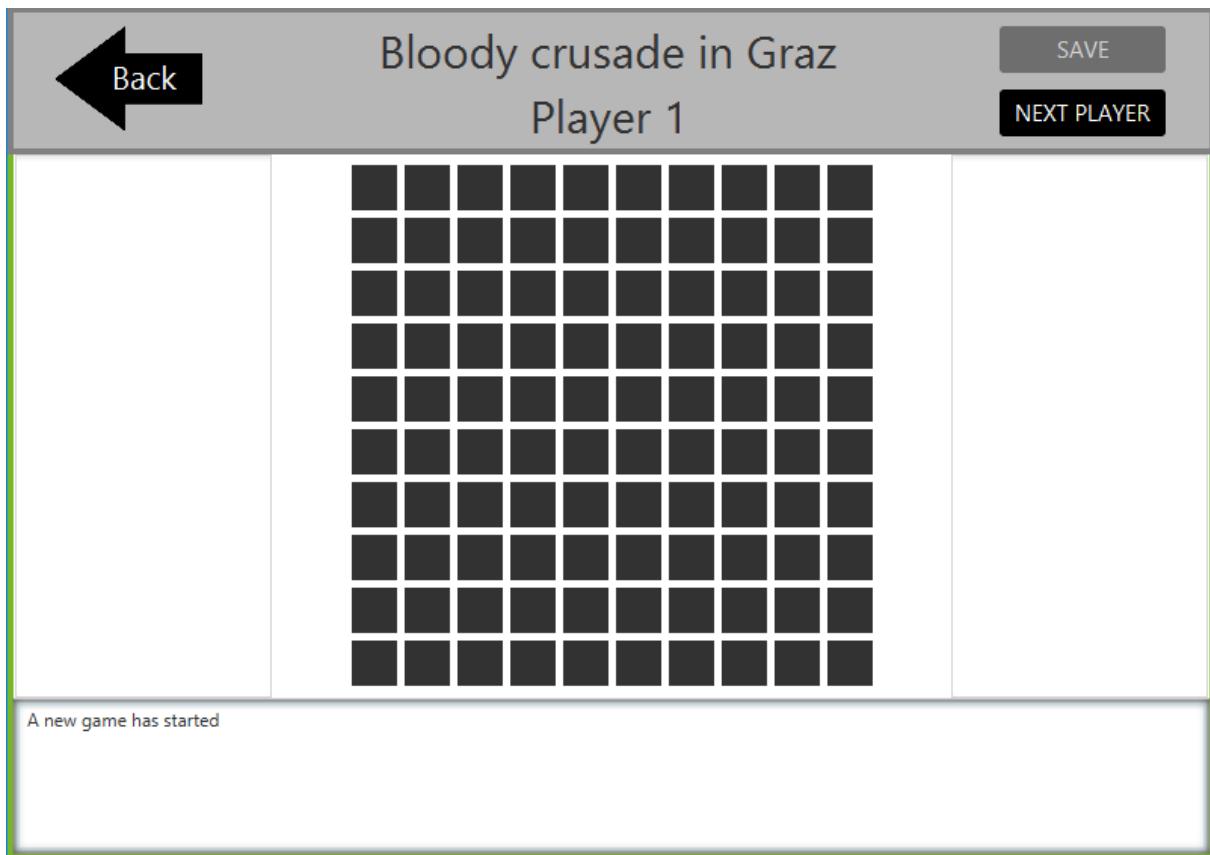


The game

The battle begins! In turns, you try to hit your opponents' vessels. Be careful! You only have one shot every turn. Make it count!

You get visual feedback for your hits – light grey means you hit water, green means you managed to hit a vessel.

The logbook on the bottom also keeps track of who hit what in the course of the skirmish.



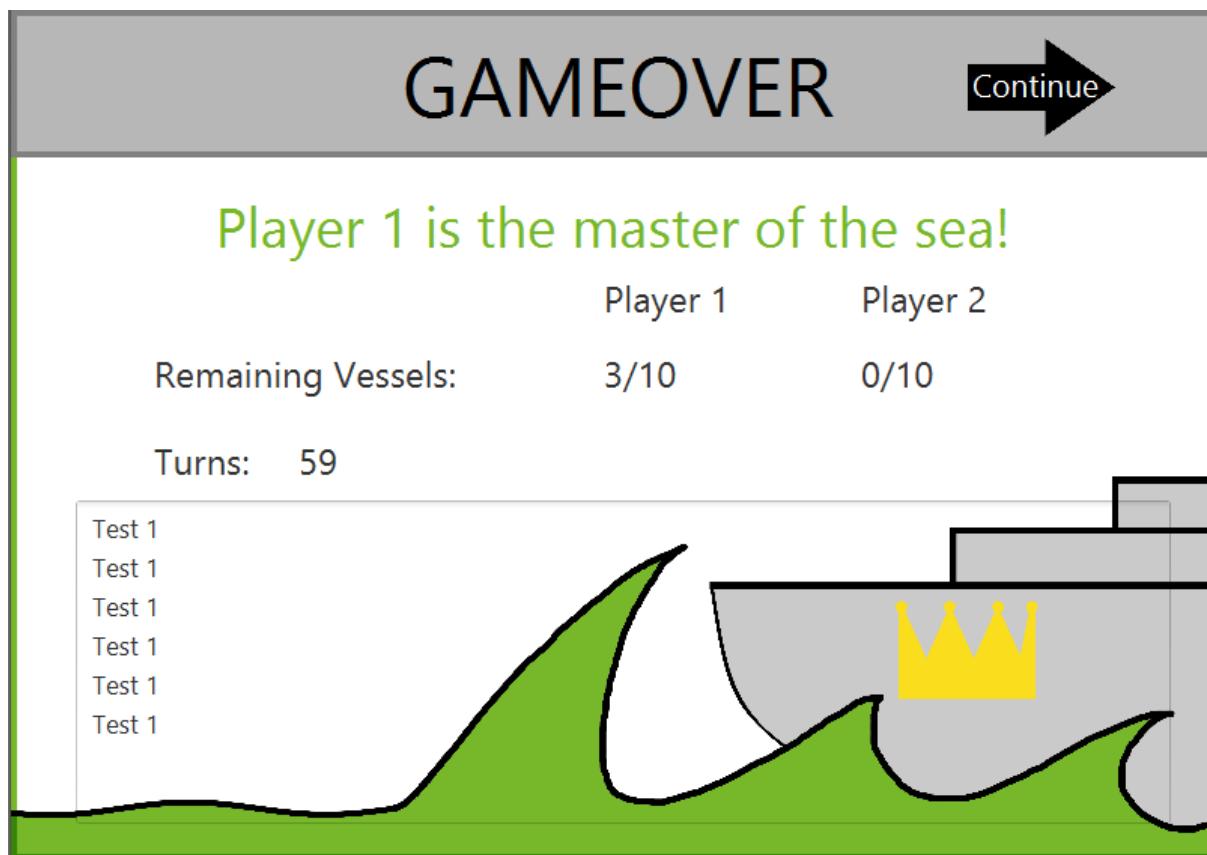
Save a Game

In the top-right corner you can click on save game, which is only possible after the second Player finished his turn. An Explorer will show up and asks you to save the Playerfield of the second Player. After you saved the file for the second Player, another Explorer will show up to save the Playerfield of the first Player.

Game Over

As soon as one players' fleet is completely destroyed, the game ends. You now see how many ships the winner has remaining, and you can review the log one last time if you want to.

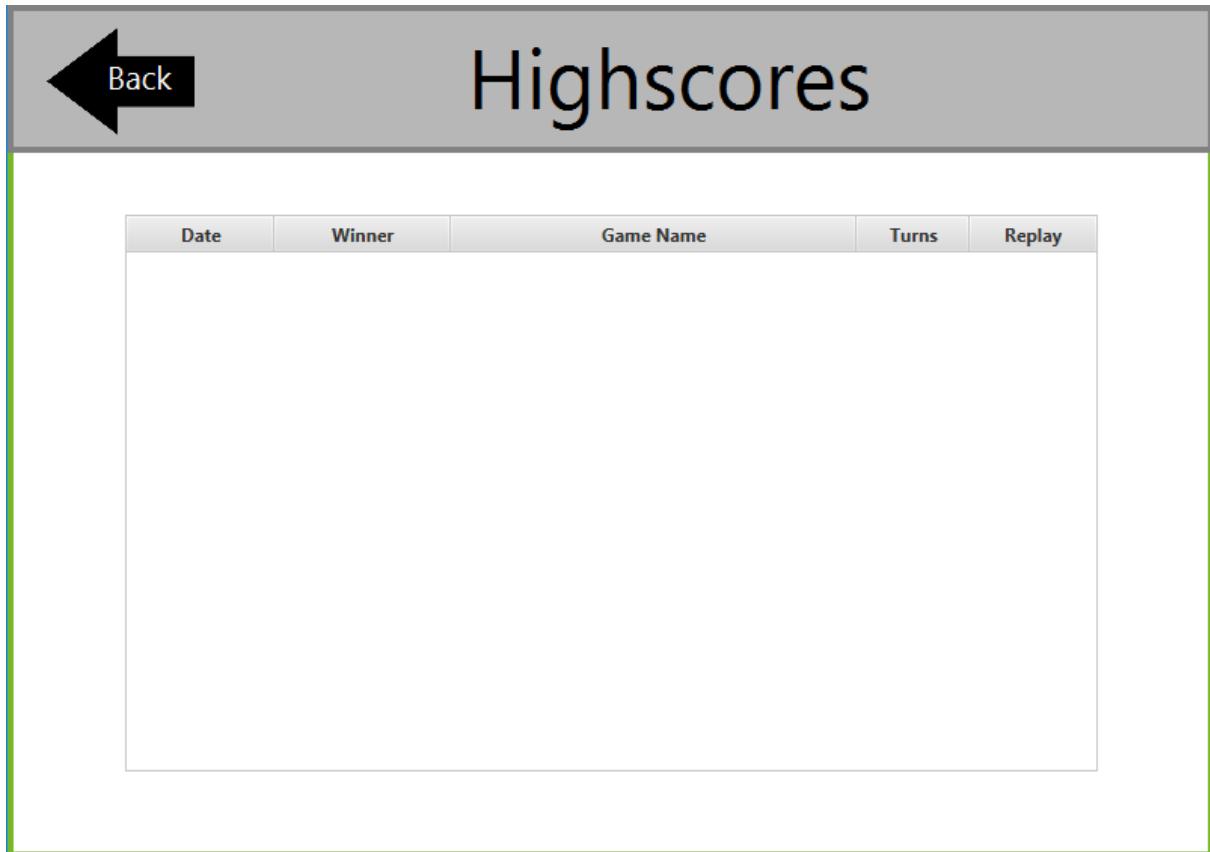
After clicking continue the highscores screen appears.



Highscores

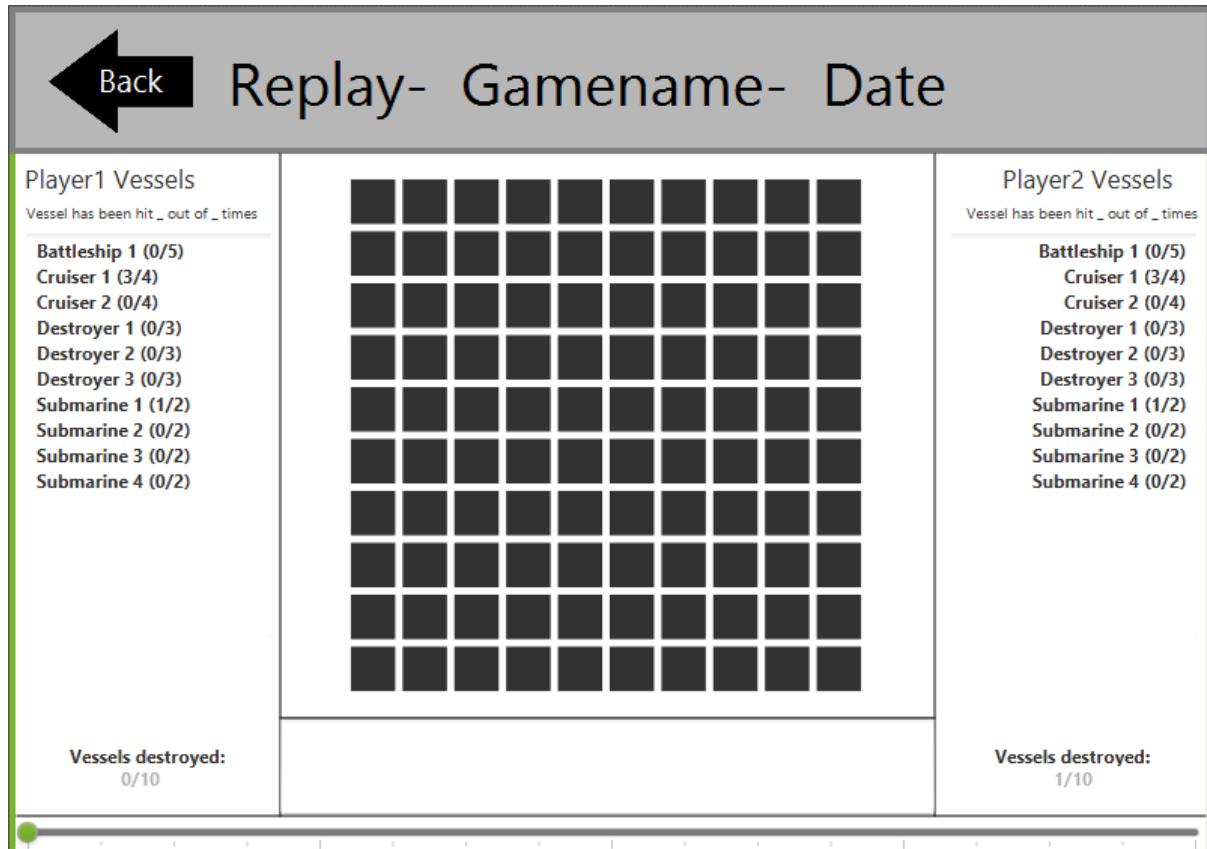
The highscore screen gives an overview of all completed games on your machine. The overview shows the winner, the game name and how many turns it took to win the game. The button on the right side allows you to replay a recording of the game.

To return to the main menu, click BACK in the top left corner.



Replaying a game

The replay screen looks similar to the game screen. On the sides, you can see the status of both the players' ships, and on the bottom, you can use the slider to scroll through the game. Click BACK to return to the high scores.



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Version 2, December 2004

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0. You just DO WHAT THE FUCK YOU WANT TO.

7. Time Documentation

Activity	date	Student	description	manhours
first organisational steps	20. 12. 17	Leifertv15	writing email with team details, creating project-report file and basic layout, creating todo-file, introduction of the project team	4
Kick Off Meeting	27. 12. 17	All	Task allocation, group photo, work breakdown structure, time + cost estimation, mock up creating, next meeting date	20
Splash Screen Creating	28. 12. 17	Leifertv15	Recreated the splash screen from the paper design with Photoshop	4
Creating Welcome Screen	30. 12. 17	Leifertv15, Lambrech16	Recreate welcome screen design from paper with photoshop	6
Mock Up creating	1.1.18	Leifertv15	Recreating mock ups from paper with word	1
WBS	2.1.18	Lambrech16	WBS diagram	1
Mock Up refinement	5.1.18	Leifertv15 Heiderst16 Derlermi16	Refining the Mock Ups in Word	18
Mock Up refinement	5.1.18	Lambrech16	Refining the Mock Ups in Word	4
Licensing	5.1.18	Lambrech16	Research on Software Licenses and Deciding on using WTFPL	1
Distributing Responsibilities	5.1.18	All	Based on preliminary WBS, decided who will be responsible for which areas and refined the WBS a little	5
Project Report	5.1.18	Lambrech16	Put finished documents in project report	1

1 DEADLINE 14.1.2018

2 DEADLINE 23.1.2018

3 DEADLINE 25.1.2018

8. Sources

Team photos by Michael Derler, 27. 12. 2017

Cover photo/ Splash Screen, Welcome Screen and Game Over Screen Pictures by Verena Leifert, 28.12.2017

9. Image Index

Figure 1 Verena Leifert, Stefan Heider, Michael Derler, Gerhard Lambrecht..... 3