**2014**

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Software Engineering Project Battleships

Introduction

General behaviour

# Objectives

The purpose of this project is to develop a Battleships game playable in solo against an artificial intelligence or against another player.

Each player will use his/her own computer and will be able to create a game and invite other players to his or any other game.

A list of servers hosting created games will be available to the user of a client.

Three different grid sizes will be available to the players (small, medium and large). The fleet size will depend on the grid size chosen.

Bonuses will be randomly generated on the grid and will be collected by the player shooting in its cell.

During the game, it will be possible to communicate with the other player by instant messaging (chat).

# Use

# Game rules

# Constraints

Structure and workflow

# Activity Diagram

Use cases

# Diagram

# Actors

# Basic Flow

Client/Server Protocol

Domain Model

Data base

# Objectives

# Conceptual model

User Interfaces

# UIHome

This is the first window displayed when the game is launched.

The user can create a new game (which will be hosted on his personal server), display the statistics of his own personal server or display the list of servers hosting games.

The user’s personal server will only be able to host one game at a time. If a game was already created, it will not be possible to create another one, until the current hosted game is over.

If the creation of a new game is not possible then the corresponding button will not appear.



# UIGameMain

# UIServersListing

# UIAskPass

# UIWaitPlayers

# UIManualConnect

# UIUsernameConf

# UIServerCreation

# UIServerStats

Project Management:   
Team roles and responsibilities

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Amacher Julien** | **Noubissi Parfait-plaisir-de-Pâques** | **Le Nguyen-Phuong** | **Gardel Bastian** | **Widmer Yannick** |
| **Software Architect**  **Designer**  **Implementer** | **Implementer** | **Project Manager**  **Designer**  **Implementer** | **Designer**  **Implementer** | **Designer**  **Implementer** |
| **Communication protocol**  design |  | **User Interface** implementation | **Game mechanics processes** implementation | **Artificial intelligence** design and implementation |
| **Communication protocol**  implementation | | **Game grid** design |  | **instant messaging** **(chat)** design and implementation |
| **Servers discovery processes**  design and implementation | | **Ships positioning**  design and implementation | |  |
|  |  | **Illustrations**  (ships, event icons, etc.) |  |
| **Sound effects** |
| **SERVER** conception and implementation : Creation, waiting for clients, priorities, bonus management, shooting management, winning management, last server configuration storage | | | | |
| **CLIENT** conception and implementation : Logic between windows, servers display, manual connection, game progress, username storage | | | | |

Project Management:   
Iterations

Designations:

Julien Amacher : JAR  
Bastian Gardel : BGL  
Nguyen-Phuong Le : NLE  
Parfait-plaisir-de-Pâques Noubissi : PNI  
Yannick Widmer : YWR

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| Iteration | Dates | Objectives | In charge | Hours spent |
| 1 | 29 March – 5 May |  |  |  |
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| 2 | 6 – 12 May |  |  |  |
| 3 | 13 – 19 May |  |  |  |
| 4 | 20 – 26 May |  |  |  |
| 5 | 27 May – 2 June |  |  |  |
| 6 | 3 – 9 June |  |  |  |
| 7 | 10 – 16 June |  |  |  |
| 8 | 17 – 24 June |  |  |  |