Section 1. Use Case Diagrams

Section 2. Textual description of use cases

The following is a textual description of the use cases shown in the diagram in the previous section.

**Unique identifier**

⦁ CU1. Play level

**Context of use**

⦁ The level is started.

**Preconditions and activation**

⦁ The user has logged into the game and has already chosen his boat.

**Guarantees of success or post-conditions**

⦁ The level is loaded, and the player can play it without problems. Main scenario

⦁ The player uses the movement keys to move around and avoid obstacles.

⦁ Along the course, obstacles appear, and the player must avoid them.

⦁ The player's aim is to reach the finish line in the shortest possible time, thus arriving before any opponent.

**Alternative scenarios**

⦁ The user tries to access the game and an error occurs.

**Unique identifier**

⦁ CU2. Choose boat

**Context of use**

⦁ The user chooses via the keyboard cursors the boat he wants to play with. This implies having the same boat on all levels.

**Preconditions and activation**

⦁ The game has been started.

**Guarantees of success or post-conditions**

⦁ The player chooses the boat he/she wants to play successfully.

**Main scenario**

⦁ The system loads and displays the different boats on the screen.

⦁ Each one will have different aesthetics and characteristics.

⦁ The player chooses the boat that seems most suitable depending on their skills.

**Alternative scenarios**

⦁ The user exits the game without completing the action of choosing a custom boat.

**Unique identifier**

⦁ CU3. Move boat

**Context of use**

⦁ The user wants to move the boat.

**Preconditions and activation**

⦁ The boat has been chosen (CU2) and the level has been started.

**Guarantees of success or post-conditions**

⦁ The boat moves in the direction indicated by the user.

**Main scenario**

⦁ The user presses an arrow in the direction in which he/she wishes to move.

⦁ The system checks the validity of the movement and performs the movement if yes.

⦁ The system displays the game screen with the player's new position.

⦁ The system continues to display the game screen and waits for new moves until the end of the level.

**Alternative scenarios**

⦁ The move indicated by the player is invalid. The system makes no move, displays the game screen, and waits for a new move.

**Unique identifier**

⦁ CU4. Play mini game

**Context of use**

⦁ Between levels, a mini game appears whose victory offers rewards. Preconditions and activation

⦁ Starts after passing a level.

**Guarantees of success or post-conditions**

⦁ If you pass the mini game, you will be offered rewards in the form of money/points that can be used in the shop.

**Main scenario**

⦁ The player has passed the previous level. He/she plays the mini-game by winning the mini-game and therefore gets rewards.

**Alternative scenarios**

⦁ The player loses the mini-game and does not get rewards or points to redeem in the shop afterwards.

**Unique identifier**

⦁ CU5. Being in shop

**Context of use**

⦁ Once the mini-game is over, the player is presented with a shop where they can redeem the points earned in the mini-game for Powerups for the next race. **Preconditions and activation**

⦁ Play the mini game (CU4).

**Guarantees of success or post-conditions**

⦁ A shop screen opens.

**Main scenario**

⦁ The system detects that the mini game has been completed.

⦁ The system checks the number of points of the player.

⦁ The system displays the shop screen.

⦁ The user closes the shop.

**Alternative scenarios**

⦁ Some kind of error occurs.

**Unique identifier**

⦁ CU6. Buy Powerups

**Context of use**

⦁ Once in the shop, the player can buy Powerups. Preconditions and activation

⦁ Being in the shop (CU5).

**Guarantees of success or post-conditions**

⦁ Player gets a Powerup to use in the next race. Main scenario

⦁ The system detects the selected Powerup.

⦁ If the player has enough points, he/she gets that Powerup. Alternative scenarios

⦁ Error.

⦁ The player does not have enough points.

⦁ Player does not buy any Powerup.

**Unique identifier**

⦁ CU7. Start game

**Context of use**

⦁ When starting the program.

**Preconditions and activation**

⦁ Being on the start screen.

**Guarantees of success or post-conditions**

⦁ Once the boat is chosen, the level screen is loaded.

**Main scenario**

⦁ The player requests to start a new game.

⦁ The system loads the first screen where the user chooses the boat to play with.

Alternative scenarios

⦁ An error occurs, and the player cannot start the game or finally decides not to play and closes the program.