**Group Project 11 – User Interface Use Case Document**

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## 1 - Introduction

### Purpose of this document

### Scope

## 2 – Use Case document

### 2.1 – Typical users

* Players
  + Example: 4 users named Bob, John, Jack, and Brian start the game and enter their names. Each player is given a boat and the game then randomly allocates five crew cards and a home island to each player. The players are now free to play the game by moving their ship, attacking other players, collecting treasure, building a bigger crew, and eventually ending the game by accumulating 20 points worth of treasure at their home port.
  + Target audience: Gamers, board game enthusiasts and families

### 2.2 – UML diagram for use cases

### 2.3 – Use cases for players

1. Start the game and enter a username
2. Look at rules
3. Move ship
   1. Attack ship
   2. Treasure Island
   3. Flat Island
   4. Trading port
   5. Anchor Bay
4. Turn ship (Not a legal move at trading ports)
5. View crew cards
6. View treasure
7. View Chance cards

Use Case 1.1:

The players are presented with a starting screen where each player can enter a username and choose a colour. The players must then click on the ready up button to ensure that all players are ready to proceed to the game. When all the players are ready the continue button can be pressed to load the board game screen.

Each player is then assigned a home port of the same colour they chose and 5 randomly picked crew cards are added to their deck. The board is then created, and excess treasure and crew cards are assigned to their respective locations, e.g., trading ports and islands

Use case UML diagram


Use Case 1.2:

If the players wish to familiarise themselves with the rule of the game, they can do so by clicking the rules button located on the board game screen. Once pressed the rules button loads a pop-up screen listing all the rules of the board game.

Use Case 1.3:

Once the game has started one of the choices a player may make is to move their ship. A player can move their ship in the direction it is facing for a number of squares up to the total of their crew cards. A ship is moved by selecting a valid square on the board and pressing the “move” button but if a square is not selected initiate turn sequence (*refer to use case 1.4 for details on how the ship is turned*).

If the player’s ship is moved to the square occupied by another player, they must initiate an attack (*refer to use case 1.3.1 for details on attacking).* If the ship is moved to a square adjacent to either Treasure or Flat Island the menu for the Island is displayed (*refer to use cases 1.3.2 and 1.3.3 for the detailed description on Treasure Island and Flat Island respectively*). After any move not involving a player is required to choose the direction they are facing (*refer to use case 1.4*).

If the player returns to their homeport and manages to store 3 identical treasures, those treasures are placed in the player’s “safe zone” and can no longer be traded.

Use Case 1.3.1:

When two players occupy the same square an attack commences, the player with the higher combat value wins.

The loser of the exchange is then required to move their ship in any direction which is followed by a change in direction (*refer to use case 1.4*).

Use Case 1.3.2:

Treasure island initially holds all the chance cards on the board when a player reaches treasure island, they are given the chance card at the top of the deck. The chosen chance card is shown via a pop-up screen which can be manually closed by the player. If the card that is picked needs to be held then that card is added to the player’s chance card store which can be viewed by clicking on the “Chance cards” tab (*refer to use case 1.7*) otherwise the effects of the cards are carried automatically out by the game.

Use Case 1.3.3:

When a player reaches Flat Island, they are awarded any treasure that is present if the player has space on their ship. The awarded treasure is shown via a pop-up screen which can be manually closed by the player. Treasure is added to the player’s ship treasure store (*refer to use case 1.6*).

Use Case 1.3.4:

If a player ship arrives at a port, they are presented with they are shown the trading menu, a pop-up screen consisting of the treasure and cards at the port and the treasure and cards that the player holds. At this point, a player may also use any chance cards they have. If the valid criterion for a trade is met then an exchange occurs, if the port is home to another player, then any crew cards exchanged are automatically added to that player’s deck. The game also updates the values of cards and treasures at the port accordingly.

Use Case 1.3.5:

Use Case 1.4:

A player’s direction is shown through a graphical compass (located on the top right of the screen) with an arrow indicating the direction the player’s ship is facing. To turn their ship the player must click on the “turn ship” button which after being pressed allows the player to interact with the compass, this is highlighted and enlarged. The player can select the directional buttons which decide the direction their ship will face. This choice is confirmed by clicking a “confirm” button.

Use Case 1.5:

To view the crew cards currently held by the player, the “Crew card” tab should be pressed. When pressed a pop-up window listing the crew cards of the current player is shown, this can be manually closed by the player. Crew cards are stackable and multiple of the same crew card is shown using a multiplier e.g., for 2 of the same cards show x2.

Use Case 1.6:

To view the treasure currently on the player’s boat, the “Treasure” tab should be pressed. When pressed a pop-up window listing the treasure cards of the current player is shown, this can be manually closed by the player. Treasure items are stackable and multiple treasure items are shown using a multiplier e.g., for 2 pieces of gold show x2.

Use Case 1.7:

To view the chance cards currently held by the player, the “Chance card” tab should be pressed. When pressed a pop-up window listing the chance cards of the current player is shown, this can be manually closed by the player.

## 3 – Errors

Use Case 1.1:

* Players should be allowed to choose their own usernames; a character limit should be placed to ensure that the name isn’t too long.
* Names entered at this stage should be transferred to the main screen that the game is played on.
* Names should be correctly assigned to the player that entered them e.g., Player 1 should not Player 2’s name.
* 4 players are required to play the game.

Use Case 1.2:

* Players should be allowed to choose their own usernames; a character limit should be placed to ensure that the name isn’t too long.

Document History

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| --- | --- | --- | --- |
| *Version* | *Date* | *Changes made to document* | *Changed by* |
| 1.0 | 14/02/2022 | New document | bhw |