09-10-2016

# The Risky Fish Game

# Use Case Diagram

# 

# Key Use Cases- Fully Dressed

## Control Fish

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| Use case UC01 | Control Fish |
| Primary Actor | New Player, Existing Player |
| Stakeholders and Interests |  |
| Summary | This Use case describes the process by which the player controls the fish by either moving upwards or downwards and also collects tokens. |
| Preconditions | 1. The player must have chosen a type of fish. 2. The player must have pressed the start button. |
| Post conditions | The Fish is controlled according to the player’s instructions. |
| Main Success Scenario / Flow of events | 1. The fish moves at a constant speed in a linear fashion. 2. The player presses the space bar to move the fish upwards. 3. The player releases the space bar to move the fish downwards according to the gravity concept. 4. The user directs the fish towards the tokens. 5. Once the tokens are touched they are collected. 6. The player’s score is updated according to the number of collected tokens. |
| Failure conditions | 2a. If the player presses the space bar for too long, then the fish touches the top frame and the game is over.  3a. If the player does not press the space bar for a certain period then the fish is attracted towards the bottom of the ocean and the game is over. |

## Change Settings

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| --- | --- |
| Use case UC02 | Change Settings |
| Primary Actor | New Player, Existing Player |
| Stakeholders and Interests |  |
| Summary | This Use case describes the process by which the player changes the settings of the game. The player can either choose a difficulty level or choose a fish type and also set the music on|off. |
| Preconditions | 1. The player must be authenticated. 2. The player must have pressed the settings button. |
| Post conditions | The changes to the settings are saved in the database. |
| Main Success Scenario / Flow of events | 1. The player presses the “level of difficulty” button. 2. The system displays three types of levels: Easy, Medium and Hard. 3. The player chooses the level and presses “continue”. 4. The system displays the types of fish. 5. The player selects the type of fish and presses “continue”. 6. The player presses the “on” or “off” button for the music. |
| Failure conditions | 1a. If the player does not select a level, the game cannot start.  5a. If the player does not choose a fish type then the system will select the default fish type. |

## View score

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| --- | --- |
| Use case UC03 | View score |
| Primary Actor | New Player, Existing Player |
| Stakeholders and Interests |  |
| Summary | This Use case describes the process by which the player views the score when the game is over. |
| Preconditions | 1. The game must be over. |
| Post conditions | Save the score to the database |
| Main Success Scenario / Flow of events | 1. Once the game is over, the system displays the score of the player. 2. The system also displays the high score of the player. 3. The player presses the “view ranking” button. 4. The system displays the rank of the player in comparison with existing players scores. 5. The system saves the player’s score into the database. |
| Failure conditions | 2a. If the score of the player is the highest.  3a. If their exists no existing players with previous scores, then the system displays the players score on top of the ranking list. |

## Create Player

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| --- | --- |
| Use case UC04 | Create Player |
| Primary Actor | New Player |
| Stakeholders and Interests |  |
| Summary | This Use case describes the process by which a new player creates a profile to start the game. |
| Preconditions | 1. The player must have launched the game 2. The player username must be unique |
| Post conditions | Save the username to the database |
| Main Success Scenario / Flow of events | 1. The player launches the game 2. The player presses the “new player” button 3. The system asks for the username 4. The players enters a unique username and presses “continue” 5. The system create a new player with the username and saves it to the database 6. The game is ready to start. |
| Failure conditions | 4a. The system displays an error message in case the username is duplicated. |