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Usecase: Play the game

Actors: snake

Description:

The snake starts the game.

The snake plays as the snake.

The snake chooses each turn to move the snake in one of 4 directions, the snake tries to catch and "hug" the rabbit.

The rabbit and the snake, alternate between turns, the snake has the first turn.

The rabbit tries to flee from the snake, by moving in one of 4 (maybe 8) directions.

If the rabbit is next to the edge or in a corner of the gameboard it will only move in the remaining directions.

If the snake is next to the edge or in a corner of the gameboard the snake can only move in the remaining directions.

If the snake tries to move out of the gameboard, the game displays an error, and asks the snake to try again.

If the snake is located next to the rabbit, the rabbit begs for mercy.

If the snake is located on the same coordinate as the rabbit, the snake eats the rabbit, and the game ends.

The game asks if the snake want to play again.

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Use Case: Launch the game Actors: Board, Snake, Rabbit

- 1. The snake and the rabbit starts at a random locations on the board, the board makes sure that they are not on the same location.
- 2. The board proclaims the actors' locations.
- 3. The snake is the first snake to move

Use Case: player moves the snake

Actors: snake, Board

# Description:

- 1. The snake tells the board to move him in one of 4 different directions: right, left, up or down.
- 2. The snake tries again, if move not allowed.
- 3. The game ends when the snake catches and eats the nice rabbit.

Use Case: Rabbit escapes from the snake Actors: Rabbit (in-game object), board.

## Description:

- 1. The nice rabbit gets the location of the snake from the board.
- 2. If the snake is on an adjacent field to the rabbit, the rabbit begs for mercy.
- 3. The nice rabbit tells the board to move it away from the snake, in one of 4 (maybe 8) different directions.
- 4. If move not allowed, the board tells the rabbit to move in a different direction.

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Use Case: playing one turn

Actors: The board, the snake, the rabbit

## Description:

- 1. The board waits for move direction from snake/rabbit.
- 2. The board checks for validity of the move.
- If valid moves the snake/rabbit.
  If Not valid tell the snake to
- 4. The board checks for proximity.
- 5. The board checks for collision.

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Usecase I: Player Launches the game Actors: Player, Snake, Game, Rabbit

- 1. Player starts the game
- 2. The game announces the snakes and the rabbits location.
- 3. The player moves the snake

# Usecase 2: Player moves

Actors: Player, Game, Rabbit

- 1. The player moves the snake in one of four directions.
- 2. The game checks if the move is valid, if so, the game moves the snake. If not, the game asks the player to pick another direction.
- 3. The rabbit moves away from the player, if allowed by the game.

# Usecase 3: Player fights the rabbit.

Actors: Player, Game, Rabbit

- 1. When the game finds that the snake is next to the rabbit, the fight initiates.
- 2. The rabbit begs for mercy.
- 3. The game chooses a number (1 4) and secretly saves the result
- 4. The player guesses a number.
  - If correct, the player wins and he eats the rabbit.
  - if wrong, the rabbit can move.

#### Nouns:

Game, player, rabbit, directions, move, fights, number, result

Verbs: Launches, starts, located, prompted, move, chooses, try, fights, begs for mercy, chooses, saves, eats, wins, guesses