Testplan for Puzzle Game

Contents

[Test Case 1 1](#_Toc68031572)

[Test Case 2 1](#_Toc68031573)

[Test Case 3 1](#_Toc68031574)

[Test Case 4 2](#_Toc68031575)

[Test Case 5 2](#_Toc68031576)

[Test Case 6 3](#_Toc68031577)

[Test Case 7 3](#_Toc68031578)

# Test Case 1

Title: Select Board size

Description: A user must be able to select board size (3x3 or 4X4) to start the game

Precondition: The game executes and runs successfully

Assumption: The operating system/hardware supports the game

Test Steps:

1. Start the game
2. Select Board size option
3. Press play

Expected result: The game starts with the correctly sized board

# Test Case 2

Title: The game displays the rules at the introduction screen

Description: When the user launches the game there should be a set of instructions on the introduction screen prior to board size selection

Precondition: none

Assumption: The operating system/hardware supports the game. The game is not frozen.

Test Steps:

1. Start the game

Expected result: The game shows the instructions on the introduction screen

# Test Case 3

Title: The game updates the board when the user makes the move, while not allowing illegal moves

Description: When user selects a move the play square moves according to the user input if the board allows it.

Precondition: The game runs, doesn’t freeze

Assumption: none

Test Steps:

1. Start game
2. Select board size
3. Make a move

Expected result: The move executed successfully without moving outside of the game area. If the move was illegal a text notification shows up telling the user to make a different move.

# Test Case 4

Title: The game ending

Description: When the user arranges the puzzle pieces in the correct order the game displays a winning message and prompts user to restart or exit the game.

Precondition: The puzzle pieces are in the correct order

Assumption: The operating system/hardware supports the game. The game is not frozen.

Test Steps:

1. Start the game
2. Select board size
3. Make necessary amount of moves
4. Restart/Exit

Expected result: The game shows the winning message and prompts user to restart or exit the game

# Test Case 5

Title: The restart button

Description: At any point during the game the user should be able to press the restart button, so the game board gets shuffled.

Precondition: The board size is selected. The game has started already

Assumption: The operating system/hardware supports the game. The game is not frozen.

Test Steps:

1. Start the game
2. Select board size
3. Press Restart button

Expected result: The game shows the board which is the same size but the numbers are arranged differently.

# Test Case 6

Title: The game exit

Description: When the user presses the exit button the game stops and the application shuts down

Precondition: none

Assumption: none

Test Steps:

1. Start the game
2. Press Exit button

Expected result: The game stops and the application shuts down.

# Test Case 7

Title: The timer works correctly

Description: When the user selects the board size the timer starts counting down time and stops when the game is finished

Precondition: The game has been started

Assumption: The operating system/hardware supports the game. The game is not frozen.

Test Steps:

1. Start the game
2. Select board size
3. Make necessary amount of moves to win

Expected result: The game shows the correct amount of time since the timer started. The timer stops when the game is finished