Test Cases

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Contents

1 System

1.1 Start application

Description	The user starts the application.
Precondition	The application is installed.
Test steps	1. Locate the installed application 2. Launch application 3. Verify that the application has launched
Related requirement	Req 1.1 - The user starts the application

1.2 Exit application

Description	The user exits the application.
Precondition	The application is running. The user is in the main menu.
Test steps	1. Press the backwards button 2. Verify that the application is terminated
Related requirement	Req 1.2 - The user exits the application

1.3 Show main menu on startup

Description	Show main menu on startup.
Precondition	The application is started.
Test steps	1. Wait for the application to load 2. Verify that the main menu is shown
Related requirement	Req 1.3 - Show main menu on startup

2 Initiation

2.1 Add a ball

Description	Adding a ball.
Precondition	A new game is started.
Test steps	1. Verify that a ball is shown
Related requirement	Req 2.1 - Add a ball

2.2 Add virtual arrows

Description	Add virtual arrows.
Precondition	A new game is started. Debug mode is active.
Test steps	1. Verify that the virtual arrows are shown
Related requirement	Req 2.2 - Add virtual arrows

2.3 Add a playing board

Description	Add a playing board.
Precondition	A new game is started.
Test steps	1. Verify that the playing board is shown
Related requirement	Req 2.3 - Add a playing board

2.4 Add one wall

Description	Add one wall.
Precondition	A new game is started.
Test steps	1. Verify that a wall is shown
Related requirement	Req 2.4 - Add one wall

2.5   Add walls shaped like a maze

Description	Add walls shaped like a maze.
Precondition	A playing board is added.
Test steps	1. Verify that there are several walls present, shaped like a maze
Related requirement	Req 2.5 - Add walls shaped like a maze

2.6   Add sink holes

Description	Add sink holes.
Precondition	A playing board is added.
Test steps	1. Verify that there are sink holes on the board
Related requirement	Req 2.6 - Add sink holes

2.7   Add a final hole

Description	Add a final hole.
Precondition	A playing board is added.
Test steps	1. Verify that there are a final hole on the board
Related requirement	Req 2.7 - Add a final hole

3 Steering

3.1 Steer the ball using virtual arrows

Description	Steer the ball using virtual arrows.
Precondition	The virtual arrows are added.
Test steps	1. Press any of the virtual arrows 2. Verify that the ball is moved in that direction
Related requirement	Req 3.2 - Steer the ball using virtual arrows

3.2 Steer the ball using the accelerometer

Description	Steer the ball using the accelerometer
Precondition	A ball is added
Test steps	1. Tilt the device 2. Verify that the ball is moving in the direction of the tilt
Related requirement	Req 3.3 - Steer the ball using accelerometer

4 Interaction

4.1 Interaction between tilt of device and ball

Description	Have ball interact with tilt of device.
Precondition	The ball can be steered using the accelerometer
Test steps	1. Tilt the device 2. Verify that the ball is moving faster with more tilt of the device
Related requirement	Req 4.1 - Have ball interact with tilt of device

4.2 Interaction between the ball and a wall

Description	Have ball interact with wall.
Precondition	The ball is added. A wall is added.
Test steps	1. Move the ball to the position of a wall 2. Verify that the ball does not pass through the wall
Related requirement	Req 4.2 - Have ball interact with wall

4.3 Interaction between the ball and a sink hole

Description	Have ball interact with a sink hole.
Precondition	A ball is added. A sink hole is added.
Test steps	1. Move the ball to the position of a sink hole 2. Verify that the ball is swallowed by the sink hole
Related requirement	Req 4.3 - Have ball interact with a sink hole

4.4 Interaction between the ball and the final hole

Description	Have ball interact with the final hole.
Precondition	A ball is added. A final hole is added.
Test steps	1. Move the ball to the position of the final hole 2. Verify that the ball is swallowed by the final hole
Related requirement	Req 4.4 - Have ball interact with the final hole

4.5 No sleep mode while active game

Description	The device will not enter sleep mode while in an active game.
Precondition	-
Test steps	1. Start a new game 2. Remain idle while the new game is running for as long a time as the device needs to enter sleep mode 3. Verify that the device does not enter sleep mode
Related requirement	Req 4.5 - No sleep mode while active game

4.6 Landscape view while in active game

Description	The application will only make use of landscape view while in playing mode.
Precondition	-
Test steps	1. Start a new game 2. Tilt the device to vertical position 3. Verify that the application is running in landscape mode
Related requirement	Req 4.6 - Landscape view while in active game

5   Activities

5.1   Show main menu

Description	Show main menu.
Precondition	The application is running.
Test steps	1. Go to the main menu 2. Verify that the main menu is shown
Related requirement	Req 5.1 - Main menu

5.2   Start new game from main menu

Description	Start new game from main menu.
Precondition	The main menu is shown.
Test steps	1. Press the "New Game" button 2. Verify that a new game is started
Related requirement	Req 5.1.1 - New game

5.3   Go to highscores from main menu

Description	Go to highscores from main menu.
Precondition	The main menu is shown.
Test steps	1. Press the "Highscore" button 2. Verify that the highscores are shown
Related requirement	Req 5.1.2 - Highscore

5.4   Go to settings menu from main menu

Description	Go to settings menu from main menu.
Precondition	The main menu is shown.
Test steps	1. Press the "Settings" button 2. Verify that the settings menu are shown
Related requirement	Req 5.1.3 - Settings

5.5 Exit the application from main menu

Description   Exit the application from the main menu.

Precondition   The main menu is shown.

Test steps   1. Press the "Exit" button
                                 2. Verify that the application is terminated

Related requirement   Req 5.1.4 - Exit

5.6 Exit the application from main menu

Description   Exit the application from the main menu.

Precondition   The main menu is shown.

Test steps   1. Press the "Exit" button
                                 2. Verify that the application is terminated

Related requirement   Req 5.1.4 - Exit