Pong**X**

Team 12 - Sprint 2 Design Inspection, Code Inspection and Unit Testing

Tomasz Parzadka, Michael Quade, Ashwin Prasad, Kyle Bentain, Nathanael Monaghan

Design Inspection Defects

Product	Game Launch Design Inspection		
Date	10/7/2017		
Author	Nathanael Monaghan		
Moderator	Tomasz Parzadka		
Inspectors	Kyle Bentain, Ashwin Prasad, Michael Quade, Nathanael Monaghan		
Recorder	Nathanael Monaghan		
Defect #	Description	Severity	How Corrected
1	Selecting AI difficulty for Single-player	2	TODO: Implement a page that allows the user to select a difficulty for the AI
2	Score is not being stored and printed	2	TODO: Implement a way to store and retrieve all scores after a game finishes and allow them to be viewed under the Score button
3	Create a Score page	3	TODO: Implement a page that stores all scores from the user's game
4	Score button doesn't do anything when clicked	3	Created a new page that would be opened when the user clicks on the Score button

Product	HTML/CSS Design Inspection
Date	10/9/2017
Author	Tomasz Parzadka

Moderator	Kyle Bentain		
Inspectors	Kyle Bentain, Ashwin Prasad, Michael Quade, Nathanael Monaghan		
Recorder	Tomasz Parzadka		
Defect #	**Description**	**Severity**	**How Corrected**
1	Game would not execute on webpage	1	TODO: Make the game an applet that would run on the page
2	Game was not centered correctly	2	TODO: Execute the game in the designated location
3	Website text would overlap with other text	2	TODO: Utilize CSS to give a more modern look

Product	Power-up Design Inspection		
Date	10/5/2017		
Author	Kyle Bentain		
Moderator	Ashwin Prasad		
Inspectors	Kyle Bentain, Ashwin Prasad, Michael Quade, Nathanael Monaghan		
Recorder	Kyle Bentain		
Defect #	**Description**	**Severity**	**How Corrected**
1	Decrease paddle size upgrade made the paddle too small	3	Changed multiplier factor to make size decrease less dramatic
2	Increase ball size powerup messes up algorithm for checking top paddle bounce	3	TODO: Fix top paddle bounce algorithm check for top paddles

Code Inspection Defects

Product	Paddle Code Inspection

Date	10/10/2017
Author	Michael Quade
Moderator	Ashwin Prasad
Inspectors	Kyle Bentain, Ashwin Prasad, Tomasz Parzadka, Nathanael Monaghan
Recorder	Michael Quade

Defect #	Description	Severity	How Corrected
1	Paddles not functioning properly all the time	2	Implemented keybinding using inputMap and actionMap, and also implemented a MoveAction class that had an actionPerformed function. This used the moveBot and moveTop functions
2	Paddles moving slow	1	Realized the keybinding would be too slow and clunky for the game, so we decided to go back to keylisteners
3	Paddles were no longer moving	1	if (keys.contains("LEFT")) { moveBot(-1 * botPaddles.get(j).getSpeed()); } else if (keys.contains("RIGHT")) { moveBot(botPaddles.get(j).getSpeed()); } , previously we were using the moveTop function which is used to move the top paddle in 2 player

Product	Game Code Inspection
Date	10/13/2017
Author	Tomasz Parzadka
Moderator	Ashwin Prasad

Inspectors	Kyle Bentain, Ashwin Prasad, Michael Quade, Nathanael Monaghan
Recorder	Tomasz Parzadka

Defect #	Description	Severity	How Corrected
1	Game never ended	2	Added a new state to Game (GAME.END) for when someone reaches a score of 7

2	Buttons were not able to be pressed	2	Added if (Game.State == Game.STATE.END) {
			  if (mx >= 640 / 2 + 30 && mx <= 640 / 2 + 230) {
			    if (my >= 350 && my <= 400) {
			      Game.State = Game.STATE.MENU;
			    }
			  }
			  if (mx >= 640 / 2 - 200 && mx <= 640 / 2 - 40) {
			    if (my >= 350 && my <= 400) {
			      Game.State = Game.STATE.MENU;
			    }
			  }
			}

3	Game score was not resetting	2	Added topScore = 0; and botScore = 0; once game was over

Product	Power-up Code Inspection
Date	10/13/2017
Author	Ashwin Prasad
Moderator	Kyle Bentain, Tomasz Parzadka, Michael Quade, Nathanael Monaghan
Inspectors	Ashwin Prasad
Recorder	Ashwin Prasad

Defect #	Description	Severity	How Corrected
1	Power ups infinitely stacked up	2	Created a counter (botUPGs) to only allow three powerups at most on a paddle otherwise the powerup won't be applied
2	Power ups don't expire until someone scores	3	TODO: Add timers to power ups so power ups can be removed
3	Paddles were added off the screen for the ADDPADDLE powe-rup	3	checked paddles.get(0).getX to see where the paddle was and put the new paddle on the board properly

Unit Testing Defects

Product	Game Over and Restart Unit Testing		
Date	10/5/2017		
Author	Tomasz Parzadka		
Moderator	Kyle Bentain		
Inspectors	Kyle Bentain, Ashwin Prasad, Michael Quade, Nathanael Monaghan		
Recorder	Tomasz Parzadka		
Defect #	Description	Severity	How Corrected
1	Game would never have an end state	2	Created a new game state that ends the game after score is seven
2	Game would not be able to be restarted	2	Created an option to create a new game after one has reached seven
3	Game would not return to menu	2	Created an option to return to menu after score reached seven
4	Buttons would not work	2	Added functionality to buttons

5	Game would not stop after score reaches seven	1	Created a new frame for the updated menu

Product	Paddle and Ball Movement Unit Testing		
Date	10/10/2017		
Author	Nathanael Monaghan		
Moderator	Ashwin Prasad		
Inspectors	Kyle Bentain, Ashwin Prasad, Michael Quade, Tomasz Parzadka		
Recorder	Nathanael Monaghan		
Defect #	Description	Severity	How Corrected
1	Inputting controls to move top paddle during single player game moved the paddle when it should not	2	Created separate states for single and multi-player game and prevented inputs to move top paddle for single-player game
2	Ball movement was too slow	3	Made the ballSpeedX, ballSpeedY, ballX and ballY doubles from ints to make speed slighty faster

Product	Medium AI Unit Testing		
Date	10/14/2017		
Author	Nathanael Monaghan		
Moderator	Ashwin Prasad		
Inspectors	Kyle Bentain, Ashwin Prasad, Michael Quade, Tomasz Parzadka		
Recorder	Nathanael Monaghan		
Defect #	Description	Severity	How Corrected
1	Failure to recognize	1	Added an algorithm that would

	power ups		detect the closest incoming object and then check if the AI could get the object and hit the ball.
2	Would incorrectly track the next power up	2	If there were more than two incoming power ups, the AI would choose the closer one
3	Would track the enemy's power ups	2	If the power up, had a negative velocity then the AI will track it, otherwise the AI would not
4	The paddle would freeze	1	When a powerup and a ball were coming at a paddle, it will not get the powerup and hit the ball