

SPELly BIRD

CS-170 JAVA PROGRAMMING PROJECT

PROFESSOR GAO

Group: Brian Dela Cruz, Shuang Pan, Chia-Mao Kao

PROBLEM AND SOLUTION

Teach kids how to spell words, in order to continue to play the game. Since kids are on iPads and getting cellphones at earlier ages, they need to get used to the Computer and learn how to spell and read on the computer. This program teaches kids how to spell and play games!

Using Java GUI, graphics, colors, animations, images, and event handling, we made a interactive clicking game. In the game you must click the mouse to avoid the pencil obstacles. At the end of the game you must spell a word to continue playing. In this case you must spell the word 'bird' to continue playing.

MEETING LOG

1	Meetings					
2						
3	Meeting Time	Who Came to Meeting	Where	What was done		
4		Chi-Mao Kao, Shuang Pan,		Brainstorm ideas, create meeting logs,		
5	Tuesday November 17, 2015	and Brian Dela Cruz		decided on flappy bird remake		
6			Newark Campus	research different methods, and setup next meet		
7		Chi-Mao Kao, Shuang Pan,		Divide and conquer different classes		
8	Sunday November 22, 2015	and Brian Dela Cruz		Chi-Mao Kao to work on graphics		
9			Ohlone Campus	Shuang and Brian to work on Main panel		
10		Chi-Mao Kao, Shuang Pan,		Chi-Mao Kao to finish work on graphics		
11	Saturday December 5, 2015	and Brian Dela Cruz		Shuang to work on walls, Brian to work on bird		
12			Starbucks 6873 Mission St.	Chi-Mao Kao to work on flow diagram		
13		Chi-Mao Kao, Shuang Pan,		Put everything together, include graphics in code		
14	Tuesday December 8, 2015	and Brian Dela Cruz		Finish Collision and score		
15			Newark Campus	Add spelling and high score		
16						
17	Contact Information					
18	Chi-Mao Kao	jumbo32142000@gmail.com	(510)962-2038			
19	Shuang Pan	panshuangis88188@gmail.com	(510)298-9381			
20	Brian Dela Cruz	briandelacruz408@gmail.com	(408)806-8714			
21						

PROGRAM FLOWCHART

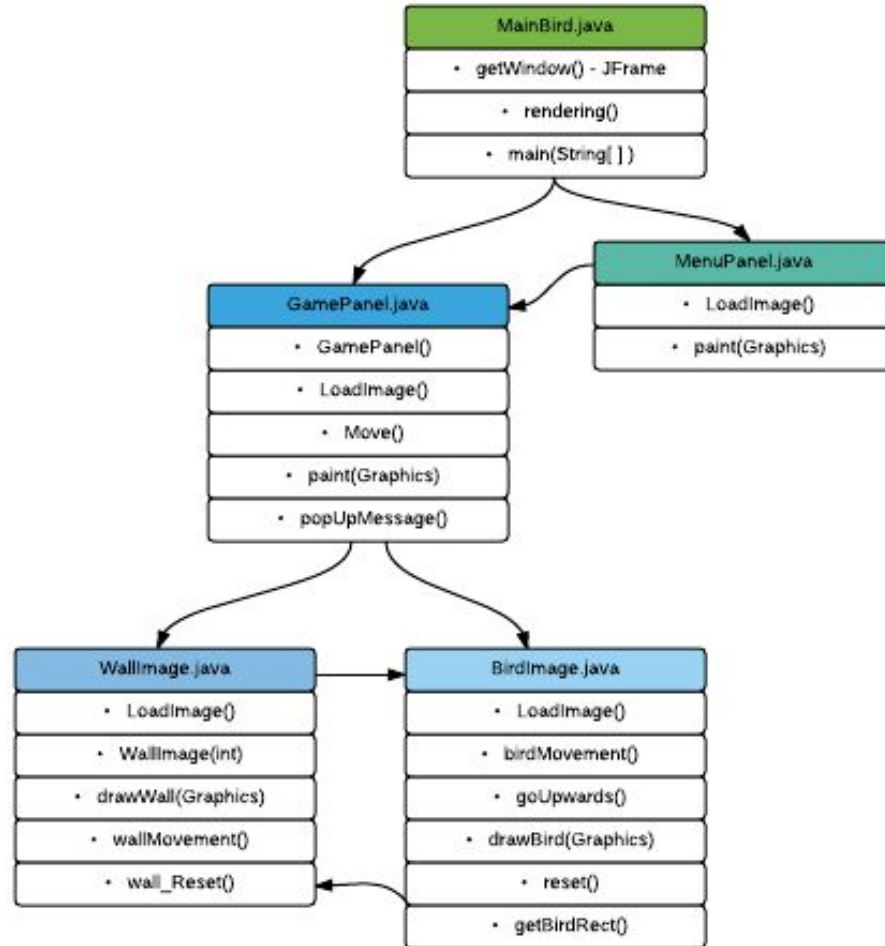
The program runs from:

MainBird

MenuPanel

GamePanel

BirdImage WallImage



CLASS AND METHOD DESCRIPTIONS

MainBird.java

- JFrame to create the main window
- rendering method which is used to redraw the images and has a function for actionPerformed for event handling repaint and Move
- has main driver code to run everything

CLASS AND METHOD DESCRIPTIONS

MenuPanel.java

- LoadImage which loads the graphics for program
- If you are running into an compilation error change the filepath in this method to the folder you extracted the project to.
- paint method which draws the menu screen where you press click to start game

CLASS AND METHOD DESCRIPTIONS

GamePanel.java

- LoadImage same method in MenuPanel, just loads a different image, but listens for mousePressed
- paint method which draws drawBird and drawWall
- Move method with an if statement for GameOver and increases wall speed as score increases
- popUpMessage method for GameOver
 - this method has the spelling incentive to continue playing
 - you must spell the word to continue playing

CLASS AND METHOD DESCRIPTIONS

BirdImage.java

- LoadImage same method in MenuPanel, just loads a different image
- drawBird method pulls image of bird and coordinates of bird for GamePanel
- birdMovement for the speed and acceleration of the bird
- goUpwards method for the speed and gravity of the bird for each click
- getBirdRect is for the collision and intersection between the bird and the walls
- and lastly the reset method is to return the bird to starting position and reset the score back to 0

CLASS AND METHOD DESCRIPTIONS

WallImage.java

- LoadImage same method in MenuPanel, just loads a different image
- drawWall uses x and y coordinates to draw two walls, one upper wall and one bottom wall which are the pencils
- wallMovement which has an if statement for when the score increases the speed increases, also has an if statement for Rectangle objects lowerRect and upperRect for collision
- wall_Reset which then uses GameOver method and another if statement that resets walls and redraws the bird.

SCREEN SHOTS OF IMPORTANT GAMEPLAY

Main MenuPanel

Just click and the Game
starts and countdown timer
begins

Used graphics and animations
and draw methods with swing
to implement game logic

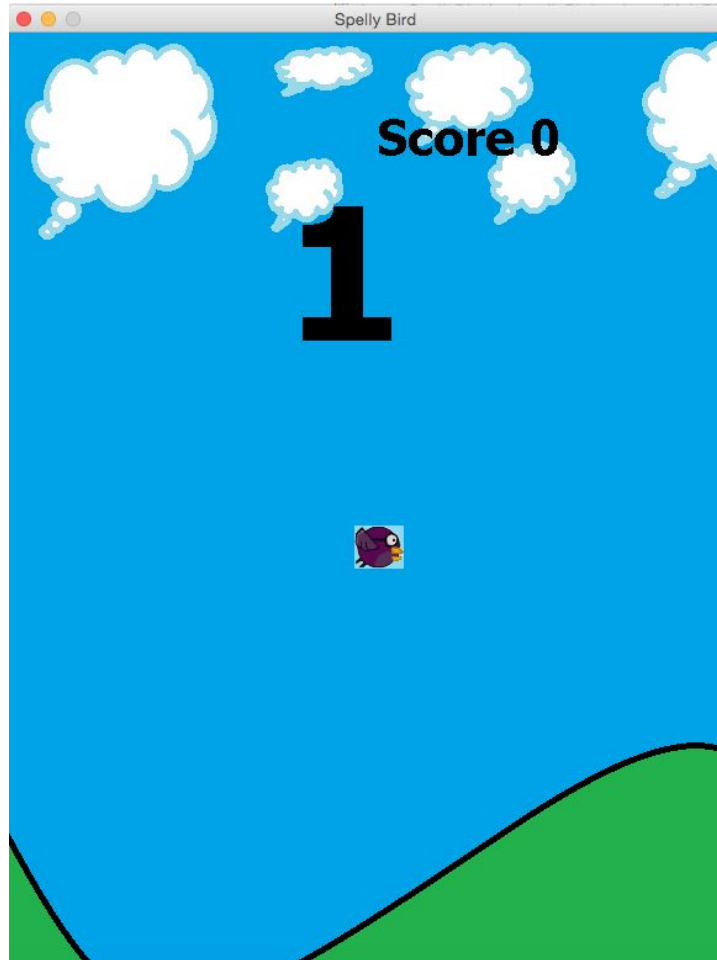


SCREEN SHOTS OF IMPORTANT GAMEPLAY

GamePanel which draws the
bird and the pencil walls

The countdown timer counts
down from 3...2...1 then the
game begins

You must click to help
Spelly Bird Fly!

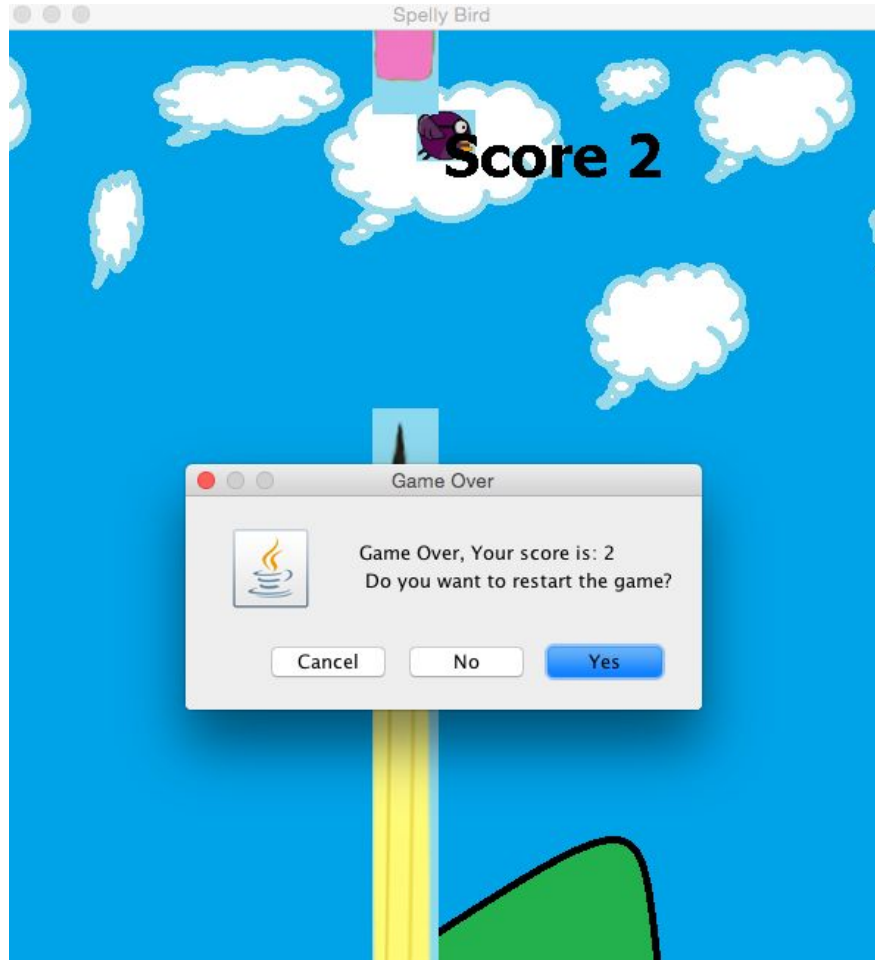


SCREEN SHOTS OF IMPORTANT GAMEPLAY

This is the Game Over popUpMessage that comes up if there is a collision between the bird and the pencils.

Choosing Yes will prompt you to spell a word which shows in the next image.

Choosing No will prompt you to enter your High Score.



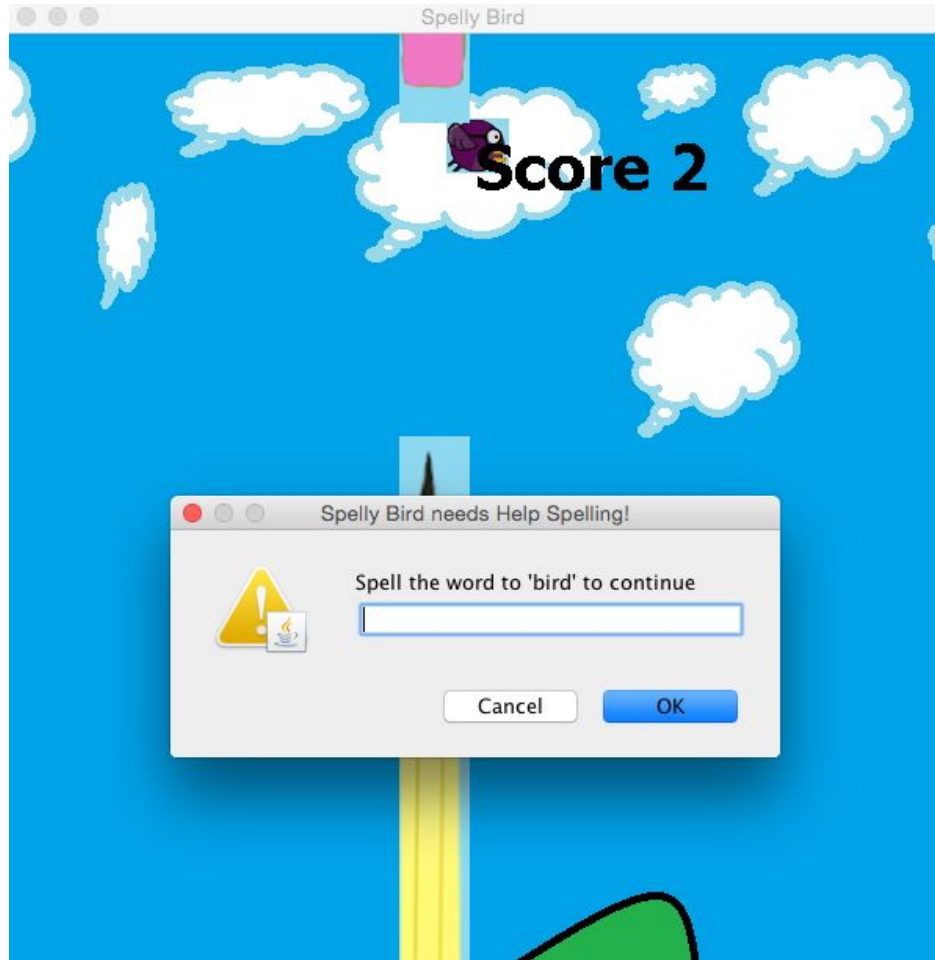
SCREEN SHOTS OF IMPORTANT GAMEPLAY

Here is the educational alphabet portion of the Project.

We implemented a spelling pop up messages that will only continue if you spell the word right.

If you spell the word right the game will reset and start over.

We were not able to finish the random word generator for spelling words.

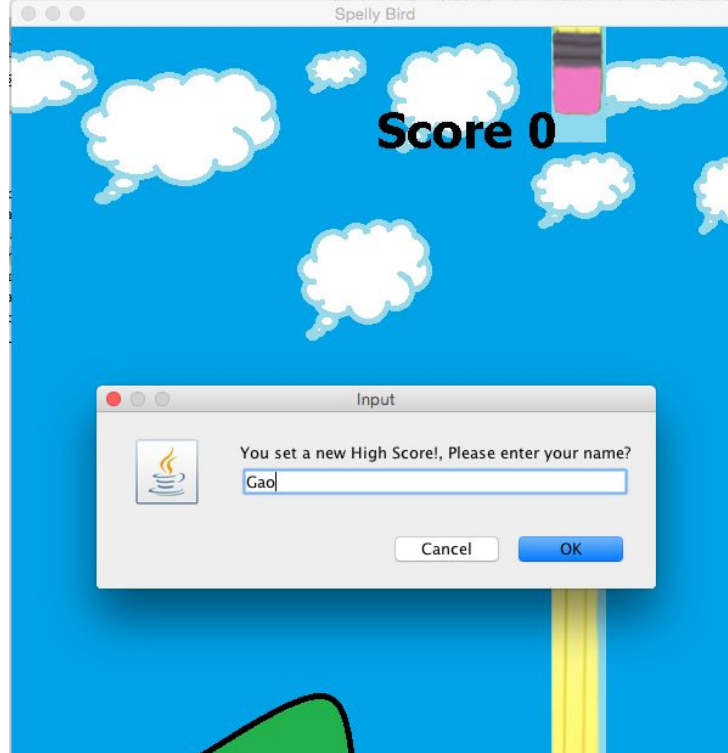


SCREEN SHOTS OF IMPORTANT GAMEPLAY

Pressing cancel or No on the Game Over prompt will prompt you to enter a High Score.

Entering the high score will output your score to console.

We didn't have time to save scores to a file for high score output.



@ Javadoc Declaration Console

```
<terminated> MainBird [Java Application] /Library/Java/JavaVirtualMachines/jdk1.8.0_60.jdk/Contents/Home/bin/java (Dec 9, 2015, 5:24:55 PM)  
Gao your score is: 0
```