

Grad Project Notes

Penguin Health is a simply game where the user catches food while avoiding the oil barrels. If the user catches too many oil barrels, the user loses.

My original idea consisted of having the penguin sprite throw a net to catch the food. Since I wanted to incorporate the penguin moving across the screen, I removed the net. I also wanted to have 3 healthy and 3 unhealthy food items. However, adding so many sprites to the screen seemed to cause loading problems. I compromised by adding the fruit, vegetable, and poison.

I originally wanted to score and timer label to be left and right justified to the top corners. However, aligning labels in SpriteKit is difficult, especially for different screen sizes. This is why the score and timer label are in the middle of the screen. This was the only place where they would consistently show up.

The timer label sometimes does not begin at 30 seconds, and once the counter hits zero, it takes one or two seconds to stop the action. I believe that the total time the user plays the game is 30 seconds, but the timer label seems to be inaccurate by 1 or 2 seconds.

You may notice that the score label is a bit wonky. The final score that is displayed on the Game Scene is different than the one on the Game Over scene. You may also notice that at times, the program counts a collision between the penguin and the food/poison when it did not happen (at times, it will also count the collisions twice). I noticed that this problem becomes more noticeable the more sprites there are on the screen, and the longer the user plays (30 seconds vs 15 seconds). When I searched online for answers, some people said it may be a memory issue. I could not find a good solution to this problem.

Finally, in the Game Over scene, the user is able to see the final score and whether or not they were successful, but then the user is not able to exit the game. After 30 seconds, the game will resume (if the user waits). I attempted to add a button to the scene, but creating buttons in SpriteKit is not easy to do. I had a button but it would consistently crash when trying to return to the Home screen, so I decided to remove it for now. The user can kill the application or wait to replay the game again at this point.