A Whale's Tale

Game Design Presentation

William Newhouse, 11/02/2018, CIS 587

Summary

Abstract of game story

A Whale's Tale is a simple 2D side-scroller, survival game where the player takes control of Violet the whale. The primary goal of the game is to sink pirate ships. This is done by directing Violet to drink droplets of water that fall from the sky as she swims along. Along the way, Violet encounters other characters that may hinder or help her in her progress.

Over the next few slides: I'll provide more details about the characters (both player controlled and non-player controlled), the level design, and will briefly describe the visual and auditory tone I intend to implement. I'll also discuss the game mechanics, level design and how all these things tie in with the educational components of the game.

One Page

A Whale's Tale

Meet Iris!

Concept: **Help Iris sink evil pirate ships and defend Fintopia!**

Game genre: **Casual, 2D-Survival, Educational**

Platform: **Web/Mobile Web**

Target audience: **Women &Young Girls**

Summary: **A Whale's Tale helps women and young girls understand important concepts about bladder health. Players help Iris fill up with an appropriate amount of water and then shoot that water to sink an armada of pirate ships all while aboiding tickling octopi, scavenging seagulls, and dangerous cannonballs!**

Unique Selling Points:

• **Teaches women and young girls crucial lifestyle concepts that can help improve bladder health.**

• **Has some real replay value which many educational games do not have.**

• **Easy to pick up, hard to put down!**

Game Play
Look and Feel

Player Roles and Actions

The player takes control of Violet, a cute little Beluga whale. Violet's primary goal is to store enough water for her to shoot at and sink pirate ships and other nuisances. Violet gathers water from drops she swallows. These drops fall from the sky.

Violet can be moved left or right, can jump in the air and can shoot water out of her blow hole. The player moves Violet around the play field, and must jump at and connect with water drops to drink them. Once Violet has water in her, she can spray that water out of her blow hole at pirate ships.

Violet doesn't really need to "aim" her blow hole cannon when swimming. It will shoot out away from her. Things facing her are easily hit with the water she shoots out (casual mechanic). Even so, the distance the water travels is determined by how full Violet is so some movement might be needed to make sure she hits her target.

Players are given 3 lives to complete all levels. Additional lives can be earned. No scoring is involved. However, each level has an objective that must be accomplished to progress to the next level.

Game Play Look and Feel

Strategies & Motivations

The blow hole spray attack is Violet's main attack and also the only way for her to sink pirate ships. Violet must fill herself with an optimal amount of water so that when she fires water at the pirate ship, she is able to insure the majority of the water will stay aimed at, and land in the ship. If Violet fills with too much water, she swells up too much, which decreases her ability to aim.

The whale jump is Violet's secondary attack. Violet can jump on top of some enemies to sink them. Doing so might also hurt Violet a little.

As can be seen in the table below, Violet's attack methods have some specific behaviors and constraints to be aware of.

ATTACKS		
Powerup	Blow Hole Spray	Whale Jump
effect	Fill up to fire water cannon. Charge indicator: Violet grows with different facial expressions when she's too full and her cannon fires erratically.	Can sink buoys and pirate scout ships. There is no cooldown for this skill but some enemies can hurt violet when she jumps on them.

Game Play Look and Feel

Strategies & Motivations - Continued

Sharks appear early and cannot be scared away. They will hurt Violet if their fin rams into her so be careful! Sharks also speed up their attacks as the level goes on so keep an eye out for them because they can move very quickly.

Pirate Scouts show up early. These little boats are quite small and easily defeated by a whale jump or shooting them with the blow hole cannon. Beware! They can hurt Violet when she rams into them.

Seagulls appear in later levels. They are mostly harmless to Violet but will try to snatch the water droplets she wants to drink, which impacts her ability to fill her blow hole water cannon. Seagulls also let loose droppings as they fly over which can make Violet sick if it hits her, causing her to loose several charges from her blow hole cannon.

Pirate Frigates show up in the last level. Each pirate ship has a certain number of pirates on board who are able to bail water (some regeneration) and fire cannon balls which can hurt Violet if they hit her. Pirate ships can also hurt Violet if she bumps into them.
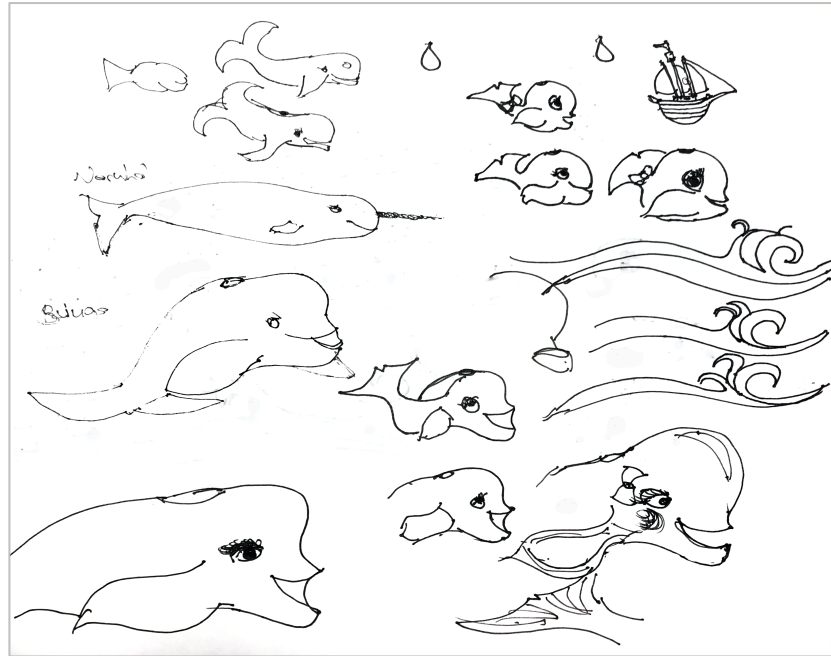
Game Play
Look and Feel

Appearance

Below are some early concept renderings of Violet (on the right) and a pirate ship (on the left). The game UI (shown on the next slide) is designed to be minimal. The renderings here are early and the final version will be fully colorized. The intention is to use colors that are associated with the ocean while also keeping them bright and playful (some sample colors can be seen in the palate above).
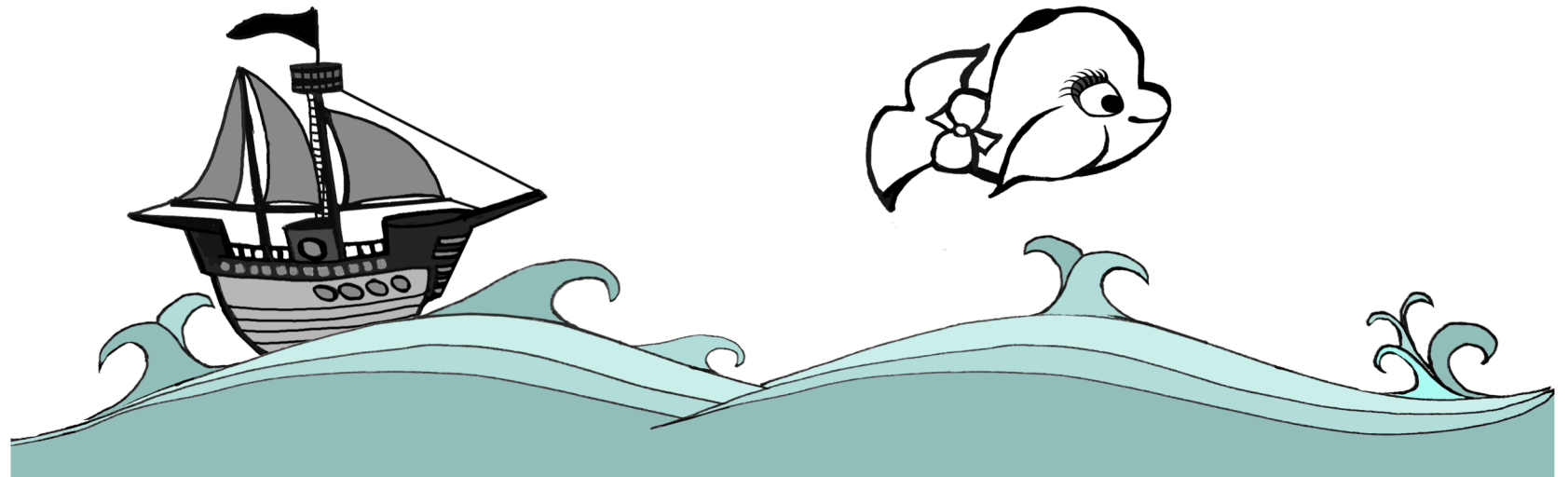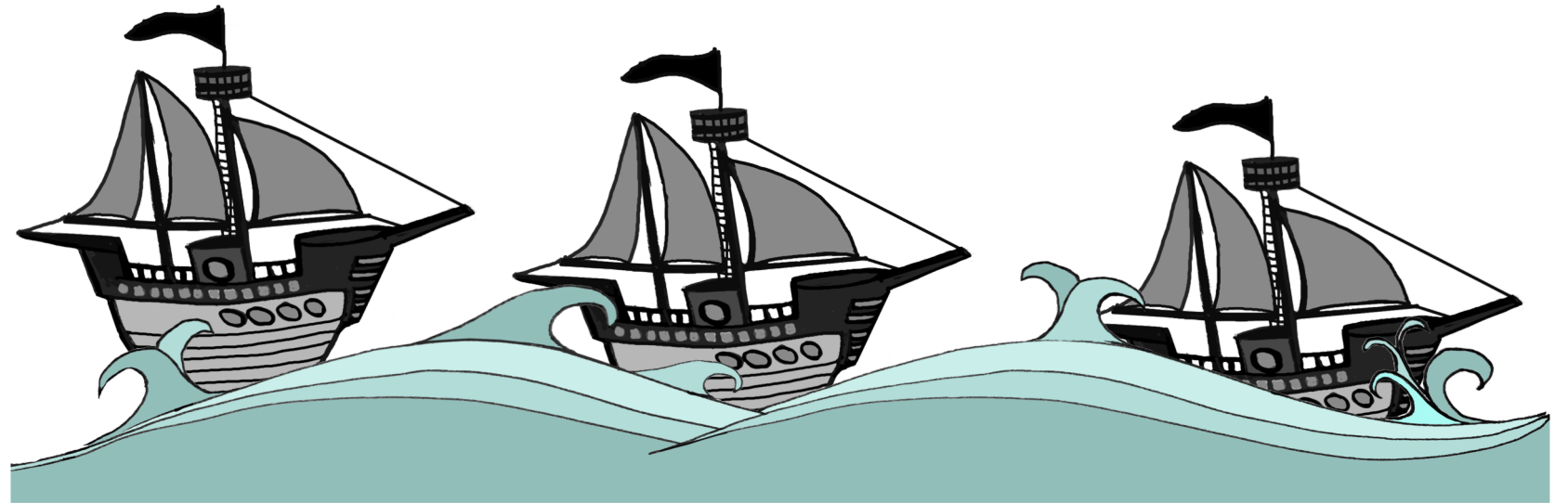
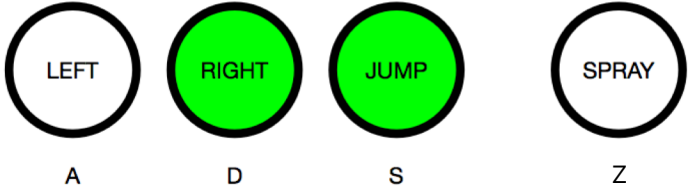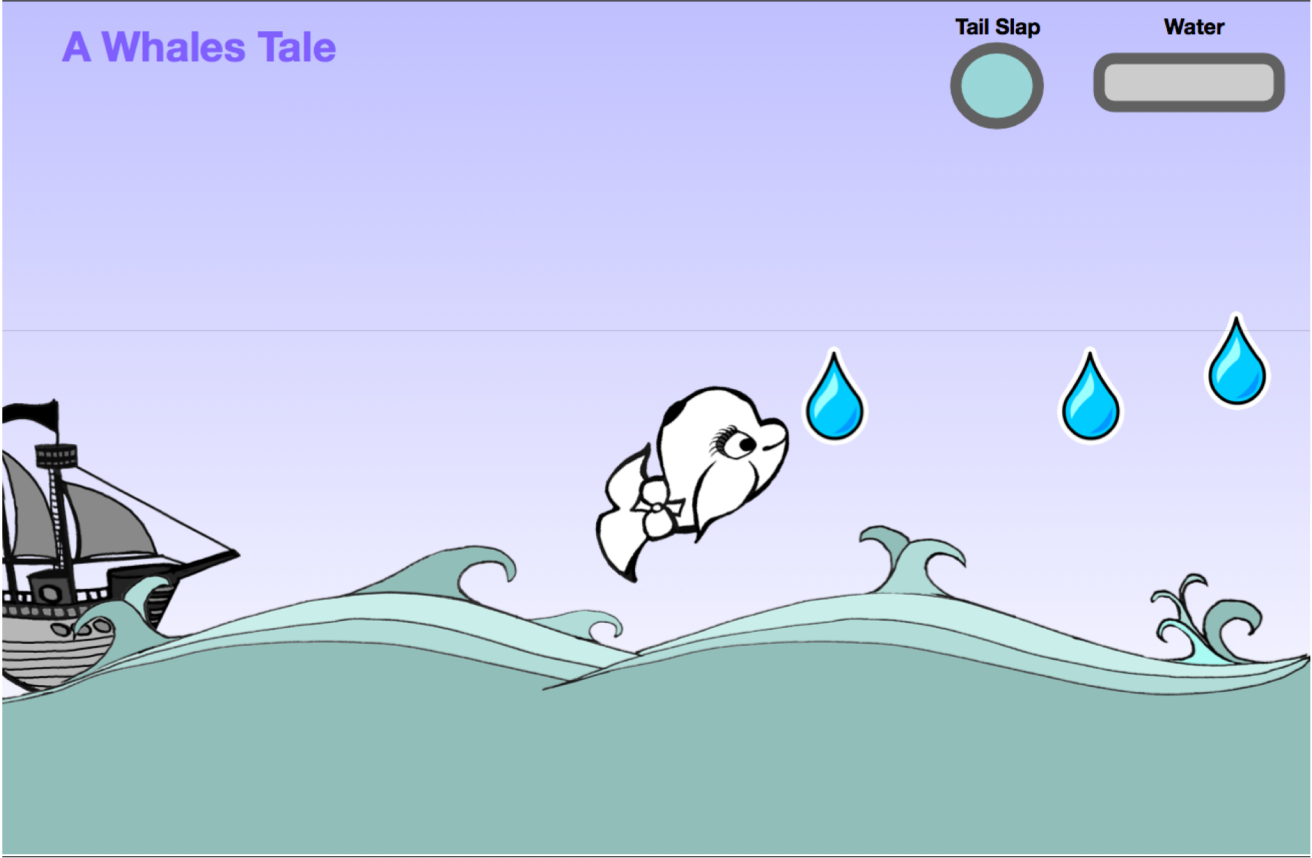## Game Play
Look and Feel

Sketches

Game Play Look and Feel

Appearance - Continued

Characters in game will have several states that will be visually rendered. For instance, pirate ships will ride lower in the water as they are flooded by Violet's blow hole cannon.

Game Play Look and Feel

Game Play
Look and Feel

Game Play
Look and Feel

2

Let's help Violet swim around!

Press the left arrow key to go left,

and the right arrow key to go right...

Game Play
Look and Feel

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Game Play
Look and Feel

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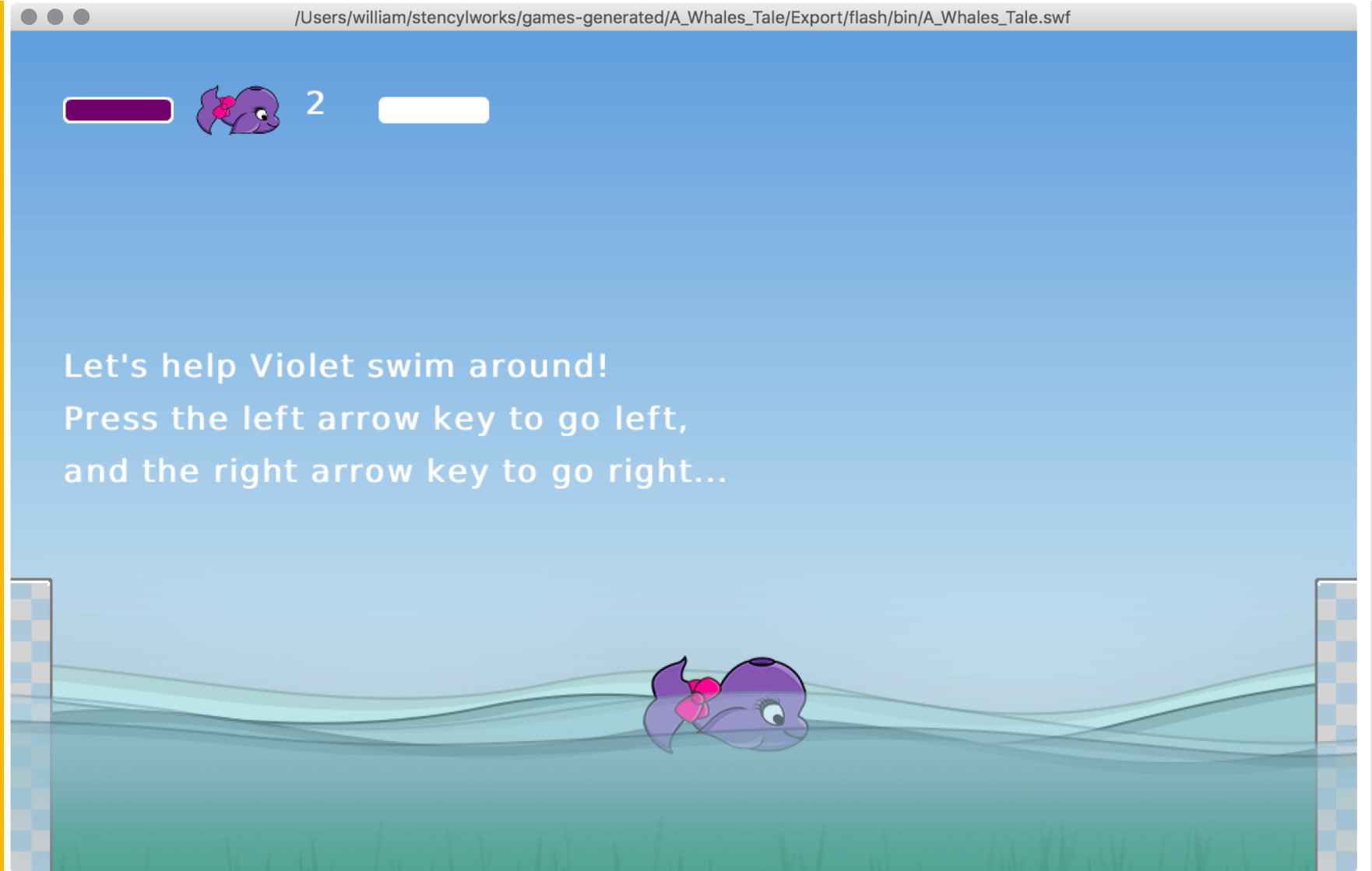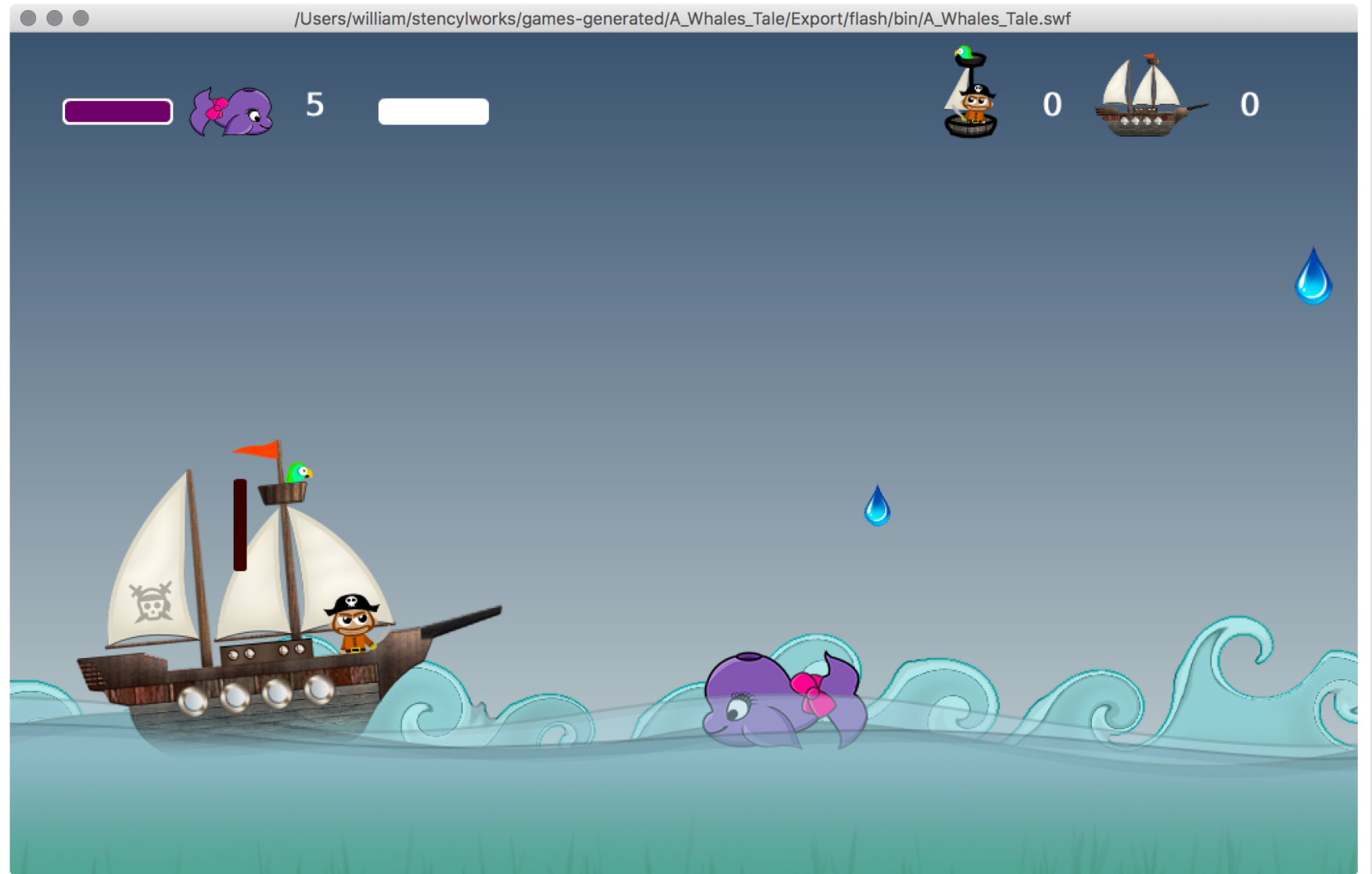
Game Play Look and Feel

Sound

I plan on creating custom sounds effects as well as compose a "sea shanty" set of background music to accompany the game.

One primary goal will be to link sound effects to important in-game events so players learn how to interpret various game states quickly. For example, pirate ships will have a bailing water sound (to let the player know the ship is damaged), a sound they make when pirates abandon ship due to excessive flooding and a sound when the ship is sinking.

Violet will have sounds associated with specific actions such as when she gulps water, fires her blow hole cannon, slaps her tail fins or is overly full.

Game Play Look and Feel

Level Summary & Story Progression

- **Introduction**
  - Player learns how to move Violet, how to drink water and how to shoot water out of her blow hole to sink buoys.

- **Level 1 – Jump!**
  - Player must sink 15 buoys while jumping over deadly sharks.

- **Level 2 – A Flock of Seagulls**
  - Player must shoo away 21 seagulls by firing the side screen cannons. Watch out for flying seagull droppings!

- **Level 3 – Scouts Dishonor**
  - Player must sink 15 pirate scout ships while avoiding sharks and seagulls. Keep an eye out for thunder clouds!

- **Level 4 – One Crowded House**
  - Player must destroy 3 pirate frigates and 10 pirate scouts while avoiding sharks (this one's hard).

Game Play Look and Feel

Game Mechanics (preliminary design)

SHIPS

Name	Pirates	Water Capacity	Lose pirates at fill levels
Pirate Scout	1	5	NA
Shanks Armage (frigate)	4	35	10, 20 and 30

ATTACK, DEFENSE AND SPEED MECHANICS

Pirates on ship	Water bail rate	Iris fill level	Iris blow hole accuracy
1 pirate	1 units per second	10%	5% screen distance
2 pirates	2 units per second	20%	10% screen distance
3 pirates	3 units per second	30%	15% screen distance
4 pirates	4 units per second	40%	20% screen distance
5 pirates	5 units per second	50%	25% screen distance
6 pirates	6 units per second	60%	30% screen distance
7 pirates	7 units per second	70%	35% screen distance
8 pirates	8 units per second	80%	40% screen distance
9 pirates	9 units per second	90%	50% screen distance
		100%	60% screen distance - Full strength
		110%	Random fire full strength
		120%	Random fire full strength
		130%	Random fire full strength

Development Specification

Platform Hardware:
As I am targeting web browsers…the hardware requirements are pretty open-ended. The first version of the game will need a hardware keyboard (or appropriately mapped gamepad) to provide control of the game character.
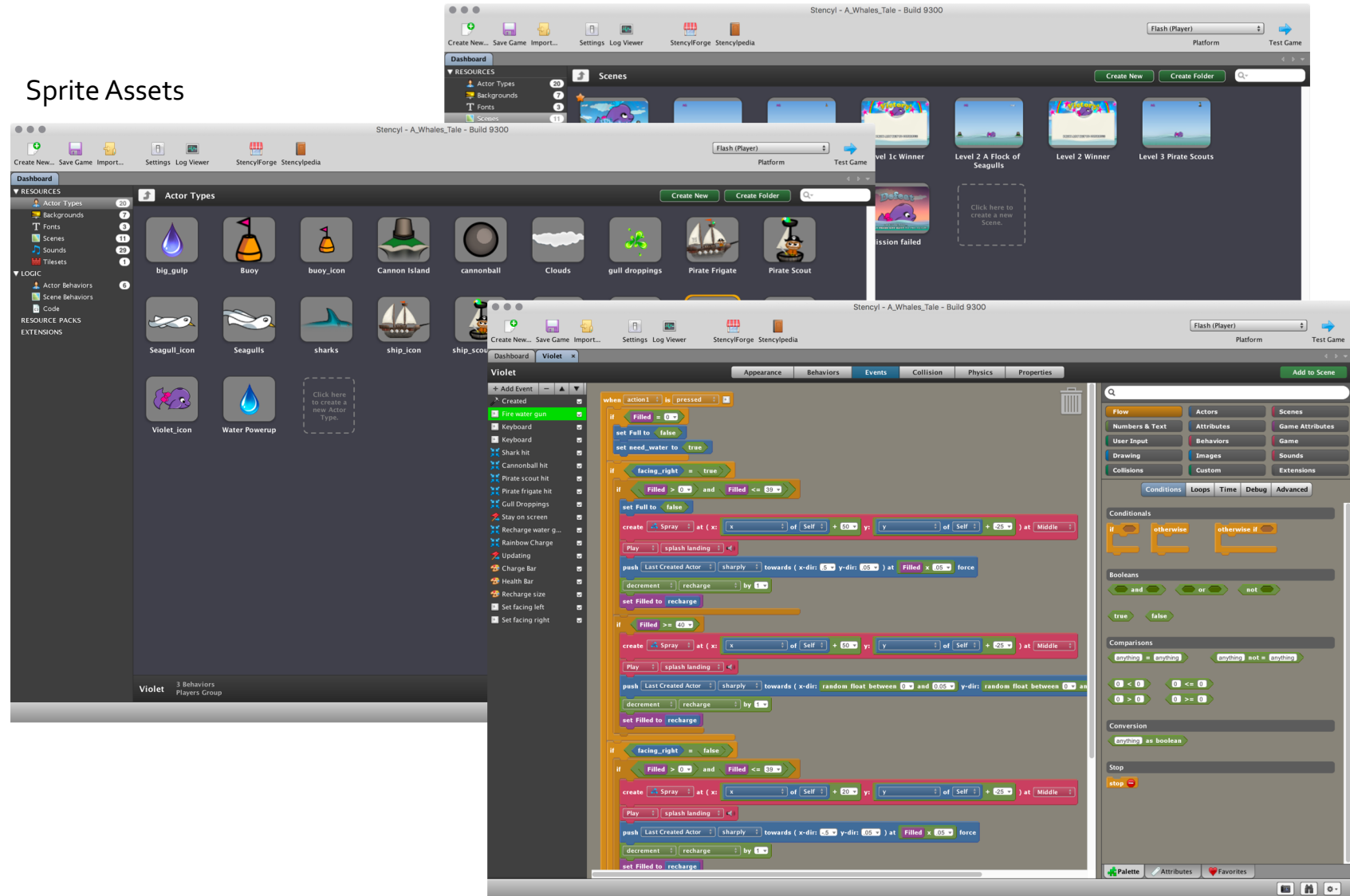
Computing Hardware Used:
iMac 27 inch, Wacom Cintiq, iPad (for concept sketches) and my trusty old sketchbook.

Music Hardware Used:
Prophet 08, Prophet 12, Yamaha EX5, Roland V-drums (for theme songs and sound effect generation).

Development Specification

Sprite Assets

Visual scripting for one of Violet's behaviors

Development Specification

Software

I will be targeting HTML5/WebGL as the primary delivery methods for the game. I am working with a researcher who is interested in providing bundling game with her bladder health education website so desktop playability is a must.

I'll be using the Stencyl game development environment to help me build A Whale's Tale. You can learn more about it at http://stencyl.com. It has a fantastic set of development tools, including a visual behavior constructor based off building blocks. It also ports natively to iOS, Android, Mac, Windows, HTML5 (WebGL) and Flash.

Development Specification

Algorithm Style

The primary algorithms used for A Whale's Tale will be physics simulators such as colliders and attractors. As this is really a simple variant of a 2D platform scroller…there's really not much need for anything super sophisticated.

I think the real tricky stuff will be working out the numerical control of the attack and defense mechanisms of Iris and the pirate ships as well as the overall speed of the in game characters in relation to the game space.

I also think there will be a lot of balancing required on some of the later levels to insure they are not too easy or too difficult.