Game Design Document for *A Pup's Travels*[1]
Version 1.2 (12/13/16)
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1. Introduction/general information

"A Pup's Travels" is a video game about a puppy trying to find its way home while avoiding enemies trying to thwart its journey back. As the pup, you must work to destroy enemies, find treats and the special snack that will guarantee a safe arrival home. The more enemies destroyed and the more treats collected, the more powerful pup you can be!

2. Detailed game description

a. Core gameplay and its elements

In this game, the player must use the keys in order to move around the layout. In each level, the character will start off with 3 lives. The character has to increase its score by collecting the dog treats, collecting the hams, and destroying the enemies. Whenever an enemy collides into the player, the player then loses a life (or two if it's by the car). Using the space bar, the player can shoot bones at the enemies in order to make it easier to defeat them. Once the player collects all three hams, a chime will play, and the player must look for the key that will "unlock" the wooden boxes blocking the end of the level. Once the boxes are gone, the player is then free to reach the doghouse, and win the level.

b. Game flow
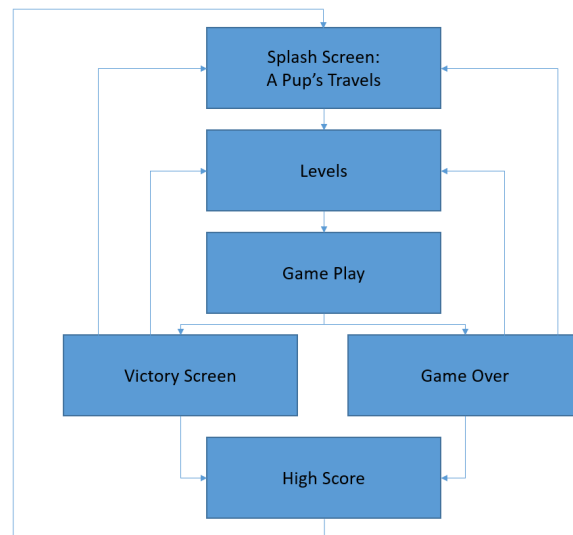
c. Characters and units

My main character for this game is going to be a puppy, going on a journey, and trying to find its way back home. You will be able to move the puppy around with the arrow keys, just like in the jungle game. Its score will increase by collecting dog treats. Its weapon will be shooting dog bones at the enemies. Its health will decrease based on colliding with cars, birds, and poop. The puppy's goal is

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[1] This template is adapted from an example included in Roberto Dillon's *HTML 5: Game Development from the Ground Up with Construct 2*. Although this template could be modified for any type of game, this example assumes that you are creating a platform game.

to get back home. The player will start off with three lives, but collecting hams will allow 1 extra life for each ham collected.

The characters that will oppose the player would be cars, birds, and poop that run back and forth across different parts of the layout. These "enemies" will prevent the puppy from getting home. If the puppy collides with an enemy, its health will decrease. In order to destroy the enemy, the puppy will shoot dog bones. In the first level, the only enemies are the birds and the poop, but in the second level, the car is added to increase the difficulty.

d. Game physics

In the background of the game, there are mostly solid platforms. However, there are also a few moving platforms that are used to help the player get into and out of different parts of the layout. The moving platforms are also jump through platforms, so it is easier for the player to get onto the platform. In order to open up the part of the layout with the doghouse, the player must get three necessary objects. Once collected the layout is no longer closed, and the player can finish.

e. Artificial intelligence

For the non-player characters, both the poop and the bird make the player lose only 1 life. But whenever the player collides with the car, the character then loses 2 lives. This is also why the car only appears in the second level, that way the difficulty can increase. The dog treats and destroying the enemies all are only worth 5 points, but the hams are worth 10 points and 1 extra life.

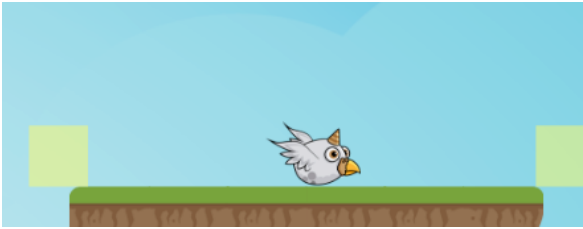## 3. Level requirements and progression

a. *Level diagrams and maps*

Level 1

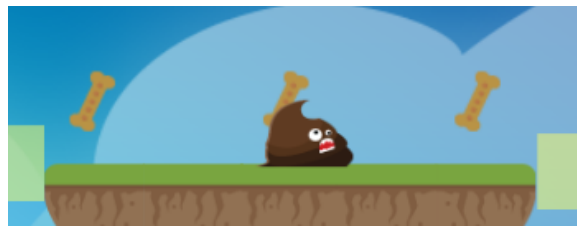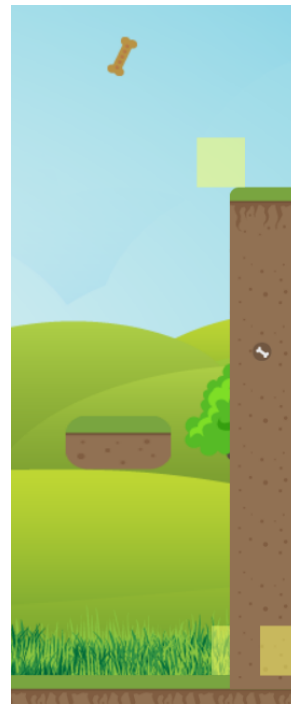**Level 2**

b. Environmental challenges

Bird Enemy

Poop enemy

Car Enemy

Moving Platform

c. Description of game puzzles

      The main puzzle I have in both levels is that the player has to collect three hams in order for the key to reveal itself. Once the key is revealed, the player then has to go retrieve the key in order for the wooden boxes to disappear so that the player can go through and make it to the house. At the same

time, the player must maneuver through the solid and moving platforms in order to collect the hams and the key.

d. Assets

| **Player Character** For example: Animated player with following states: running, idle, jumping, firing.	- puppy (running, idle, jumping)
Enemies	- cars, birds, poop
Objects For example: Sword, coins, gems, power-ups.	- doggy treats, ham (power-ups), bones (as the shooting object), key
Environment For example: Forest ground tiles, fence tiles, ice tiles, crate tile.	- grass, house, cars, ground, wooden boxes, dog house,
Sound effects	- honking, bird noise, "ow" noise, barking, sparkling noise (for the key)
Background music	- A happy upbeat song
HUD and Interface Elements For example: Start button, Next button	- start, levels, high score, play again, next level
Other	

4. Story

There isn't really a huge story line to this game, except for trying to get the puppy back to its little house. I had considered making some levels be "in the city," but for now, just one location works.

5. Graphical User Interface (GUI)
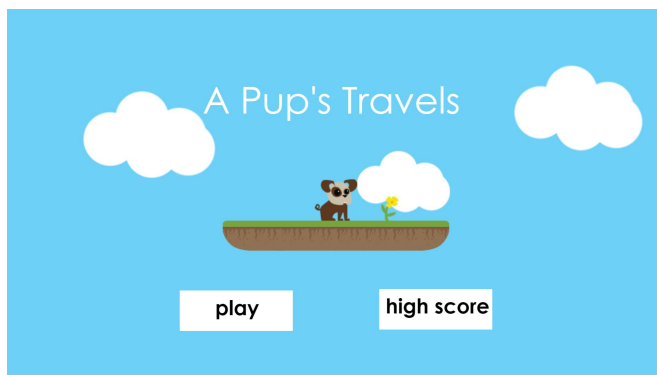
Splash Screen
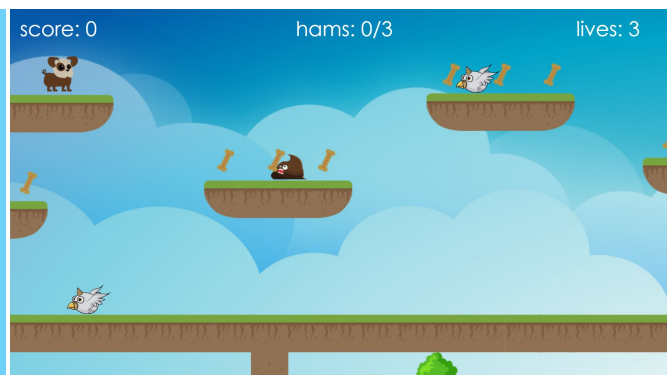
HUD Display

Game Over Screen

6. Visuals and sound

a. Art style

The art style I choose was cartoon-like, but not like the 8-bit style. This is why I chose to use

this sprite: . I want the overall game to feel like a children's game, so cartoons were the best fit.

b. Background music

For the background music, I would like happy, upbeat music playing throughout the game. I would choose a song that sounds somewhat relaxing, so the player can enjoy the level and not necessarily feel rushed through the level.

c. Sound effects (GUI)

I would definitely want background music playing during the splash screen, high scores screen, levels screen, and game over screen. This way the game isn't quiet at random moments, and so the mood can continue throughout the game.

d. Sound effects (in game)

The sound effects will come mostly from different types of collisions between the sprites. For example, whenever the poop, the bird, or the car is destroyed, those objects will make sound effects (a yell, a bird noise, and a car honk). Whenever the puppy grabs the ham or the key, it will bark. Meanwhile, there will be music playing in the background.