Kitty in the City:

A Lost Paws

Panic! At The Computer, Inc.

(Team Alpha)

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# **Game Overview**

## **Concept**

The game features a cat that gets lost from its apartment in the city and must find its way back home. It will have a fun, upbeat and cute feel. It is reminiscent of Nintendo games such as Super Mario Bros or Kirby. The levels follow a storyline that will provide entertainment to the user.

## **Feature Set**

* 2D graphics and animations
* Five themed levels
* Cat main character
* Enemy characters
* Comic story transitions
* Main menu/level select
* Sound effects
* Background music

## **Genre**

Adventure/Action/Platform

## **Target Audience**

Our game will be designed to bring entertainment to children 10 years of age and up.

## **Game Flow Summary**

The player will move through each level with movement controls (WASD format). The level maps will follow a linear 2D path with camera movement centered on the player (levels 2-4) or moving on its own and thereby prompting the player to move quickly to keep up with it (levels 1 and 5).

## **Look and Feel**

The player will get a fun, cute, and upbeat feel while playing the game. The game will have pixelated art and visuals throughout.

## **Project Scope**

### **Levels**

This game will include five levels. Each will take place in a different location (see the following section).

### **Locations**

There will be five locations in this game: apartment building halls, city streets, sewers, forest, and apartment building fire escapes. Each of these five locations will correspond to one of the five levels.

### **NPCs**

There will be eight types of NPCs in the game. Different NPCs will appear in different levels and will behave differently. There will be somewhere between 1 and 3 types of NPC in each level. Seven NPCs will be basic enemies while the other two will be boss enemies.

### **Collectables**

The game involves two collectables. Heart collectables will increase the player’s health points and food collectables will increase the player’s stamina.

### **Weapons**

One NPC (the squirrel) will attack the player by throwing acorns. These acorns are the only weapons in the game.

# **Gameplay and Mechanics**

## **Gameplay**

### **Game Progression/Flow**

The game will progress through the levels and level transitions portraying the story line. The difficulty in each level will increase as the player advances with differing enemy types that will have varying strength and attack types. The comic styled transitions will progress the story of the main character’s journey that will relate to each level’s theme.

### **Challenge Structure**

The player will have to navigate across varying platforms while the NPCs progress on a set path regardless of what the player is doing and damage the character as a result of a collision.

### **Objectives**

The player will be tasked with getting to the goal at the end of the level in order to progress. This will require the player to surpass multiple enemies by either outrunning them, defeating them, or avoiding them. The player will be able to attack, stun, jump, and duck in order to surpass the enemies.

## **Mechanics**

### **Physics**

The physics of the game will be very simple with no unusual, unexpected change from physics in reality. There will be gravity to pull the player and other characters to the ground. The cat and other players will be able to jump a reasonable height into the air before falling back to the ground. The speed at which the characters walk and run will be as natural as possible.

### **Movement**

#### Player Movement

The player will be able to perform 4 types of movement: walking, running, jumping, and ducking. These will be performed through the WASD keys. If at any point there are no keys are being pressed, the player will be standing still.

To walk left, the player will click and hold the A key. To walk right, the player will click and hold the D key. Releasing either key will make the player stand still. To run, the player must double click and then hold either the A or D key. Releasing either key will again make the player stand still, so the player must click and hold either key again to start walking.

To jump, the player will click the W key, and the cat will jump to a certain height. Holding down the W key will not have any additional effect. While jumping, the player can also hold the A or D key to jump in a specific direction. To duck, the player must hold down the S key. As soon as the S key is released, the player will return to a normal standing position. The player will not be able to move while ducking, so pressing any other key while ducking will have no effect.

#### Enemy Movement

Enemies will also be able to move. Regular enemies will walk back and forth on a designated path while boss enemies will continue forward through the level, chasing the player. For this reason, boss enemies will also be able to jump. The path that the boss enemies take through the level will be pre-planned, so it will take the same path each time the game is played.

### **Objects**

There will be objects in the form of weapons and collectibles. The only form of weapon that is going to be included is an acorn projectile that will be thrown by squirrel enemies towards the player. On impact, the player’s health bar will decrease by one heart.

There will be two types of collectibles: hearts and food items. The player can collect these items by touching them. Collecting a heart will increase the player’s health bar by a single heart. The food collectibles will increase the player’s stamina bar by 20 points. In each level, the food will have a different sprite to go with the theme of the level. Some types of food that will be in the game include bowls of cat food, sandwiches, fish, dead mice, and birds.

### **Combat**

#### Player-performed Combat

The player will be able to fight non-boss enemies in the game. There are two ways in which the player can combat the enemies: scratching and hissing.

To scratch, the player will click the spacebar. Scratching will be a direct attack, so the player must be right next to an enemy to damage it. If the player is close enough, the scratch will reduce the enemy’s health by 1 hit point. To hiss, the player will click the shift bar. Hissing will essentially be a ranged stun attack, so any enemy within a certain distance of the player will get stunned. Being stunned causes enemies to stand still and stop attacking, but it does not inflict any damage.

Both combat types will be accompanied by an animation and a sound effect. Also, both attacks will use a certain amount of stamina (further explained in the stamina bar section).

#### Enemy-performed Combat

Most enemies will not actively fight the player, but will cause them to lose health if they collide. The exception to this rule is the squirrel enemy. The squirrel enemy will throw acorns at the player. If the acorn hits the player, the player will lose health.

## Screenflow

From the Main Menu, the user can access the Options screen, access the Level Select screen, or continue from where they left off in the game.

### Screen Flowchart



The screen flowchart (displayed above) shows how each screen connects to one another. An arrow flowing from one screen to the next indicates that it is possible to move directly from the first screen to the second during gameplay. Note an arrow flowing from one screen to another does not necessarily mean that the latter screen can always be accessed from the former, but that certain conditions can allow moving between the two screen. These specific conditions are as follows:

In summary, the game will begin at the main menu. From there, the player will be able to move to one of the cutscenes. This can either happen if the player selects “begin story,” in which case the game would move to the first cutscene, or if the player selects “continue story,” in which case the game will move to the cutscene preceding whichever level the player left off at. The cutscenes will flow directly to the level that follows them. Once the level is completed, the game will move to the following cutscene.

The player could also move to the level select screen from the main menu by selecting “level select.” From the level select screen, the player can move to any of the levels that they have previously played, and thus have unlocked.

The pause splash screen can be accessed from any of the level screens. From the pause screen, the player may either return to the level they were just playing, or they may choose to return to the main menu.

### Screen Descriptions

The main menu will let the user select where they want to start their gameplay (either they are starting from the beginning, continue where they left off, or select a level to play). There will also be a sound option button and a display of the player controls.

The level select screen will present the user with their options of what they are able to start gameplay from based on what levels they have previously unlocked.

Each level will start with a comic screen that will support the story structure of the game. The final level will have a comic screen at the end of the level as well to show the story conclusion. The comic screens will display for about 10 seconds before the level begins.

Once the level begins, the camera view for each level acts as the screen and will let the user play the game.

A splash screen will appear when the game is paused and will provide options to the user including a sound setting as well as a button to return to the main menu screen.

## Options

There will be a sound option on the main menu and pause splash screen for the user to mute the sound if they wish. This will only impact the experience of the game for the user, but will not hinder any gameplay.

## Replaying and Saving

Whenever the player exits to the main menu from the ingame pause menu or when they close out of the window, the game will be saved. Saving the game involves writing the players “heart” count at the start of the level and the current level that they are on to a separate .dat file. The .dat file values will then be read in when the player hits the “Continue” button so that the player correctly resumes the level they left off on with the heart count that they started the level with. The .dat file will be overwritten each time the player saves so that there is always only one file used for saving/loading.

# **Story, Setting and Character**

## Story and Narrative

### Plot

The user plays as a cat named Cynnamon (working name) who lives comfortably in his apartment home with his owner. One day, in a rush, Cynnamon’s owner leaves the front door open. Being the curious cat that he is, Cynnamon will decide (at the user’s control) to explore outside of his apartment. He will be greeted by a crazed dog that spots him from down the hall, escaping from its owner’s grip on the leash. Cynnamon needs to run away from the dog and escape the apartment building to find safety.

Once in the city, he is overwhelmed by all the noises and people that he starts to run through the streets, jumping over cars and finding leftover food that people have dropped. He decides to explore a stream of water flowing into a storm drain but gets too close and gets washed in!

Cynnamon now must find his way out of the sewers while avoiding the toxic water and scary foes like alligators. After a trek through the treacherous underground tunnels, Cynnamon finds a bright light that leads to an opening; has he found safety at last? He exits to find himself in a dense forest, no sense of where he is. Crap.

He must venture on trying to find more food, for he is starving by now and misses his plush bed and loving owner. All of a sudden something hits his head, an acorn. He is being pelted by evil squirrels and must run to escape. He encounters wild coyotes and must defend himself against them and find the city again.

Eventually he finds his way back to the outskirts of the city and is comforted by the thought of returning home. However, an animal control worker spots him, reaches for her net and breaks into a sprint straight towards him! Filled with panic, Cynnamon starts to run in the opposite direction not knowing where he will end up. By chance he runs past a fire escape and sees an open window. Inside is his favorite place to sleep, his cat hammock! He shoots up the fire escape, leaping from ledge to ledge trying to avoid being caught.

Just when he’s about to finally make it home, he is covered in netting and swept off his feet. He meows and thrashes in attempts to free himself but to no avail. “Cynnamon?!” he hears a panicked yell. It’s his owner! They’ve come to rescue him! Cynnamon is picked up out of the net by his owner, he is finally home. What a day!

### Cutscenes

There will be a cutscene featured before and after each level. Each cutscene will be a comic that displays on the screen in order to convey the plot. The story will be told mostly through pictures with relatively few words.

#### **Cutscene 1**

In the first cutscene, Cynnamon will see the apartment door has been left open. He starts to explore the apartment hallway, but is startled by a dog. He runs, with the dog following close behind.

#### **Cutscene 2**

In the second cutscene, Cynnamon escapes the dog by running inside of an elevator. The elevator doors close and Cynnamon rides down to the first level, where he sees the building exit. He leaves and finds himself on the city streets.

#### **Cutscene 3**

In the third scene, Cynnamon is walking along the street when he falls into a storm drain. He finds himself in the city sewers.

#### **Cutscene 4**

In the fourth cutscene, Cynnamon finds the exit to the sewers. He follows the sunlight out from the tunnels and arrives in a forest.

#### **Cutscene 5**

In the fifth cutscene, Cynnamon arrives at the edge of the forest. He is back in the city. From here, he walks back to his apartment building. He notices the fire escape and intends to use it to get back home. Just as he prepares to climb, an animal control worker begins to chase him.

#### **Cutscene 6**

In the sixth and final cutscene, Cynnamon reaches the window of his home, but is caught by the animal control worker. Cynnamon’s owner sees this and stops the animal control worker, bringing Cynnamon back home.

## Game World

### Look and Feel

The game takes place on earth in the present day in a city near a forest. The world will be drawn in pixel art and will generally be bright and colorful. This world gives a friendly, fun vibe, although the player will face threatening obstacles.

### Area #1: Apartment

The apartment halls are bright, but will be more plain than the other areas. The cat is looking to escape quickly from this area, not explore it. The area will include a carpeted floor with a wall that is uniform throughout the stage. There may be some windows and/or pictures on the walls.

### Area #2: City Streets

The city streets will be bright and detailed. They involve many different items and decorations. The contrast between this and the apartment will reflect how overwhelming the change is for the cat. The city streets will feature cars, enemies, and different areas such as the outside of a grocery store.

### Area #3: Sewers

The sewers will be the darkest and scariest of the areas, though it will not be too dark or scary as to keep the feel of the game. The sewers involve the most dangerous of the enemies, such as alligators. They are poorly lit and damp.

### Area #4: Forest

The forest mostly consists of grass and trees, and will not include any humans or human objects. The forest is reminiscent of the wild. The only enemies the cat will face here will be other animals. While the forest will be darker than the city streets, it will be brighter than the sewers.

### Area #5: Fire Escape

The final level, the fire escape, will be different than the other levels in that it is vertical. The cat will walk exclusively on fire escape platforms in this level. It will be bright and sunny, but should give a sense of urgency since the cat is very high in the air and being chased by an animal control worker.

## Characters

### The Cat

#### Back Story

The cat, Cynnamon, has lived a comfortable life in his apartment with his owner. He and his owner have a strong relationship. Although he loves his life in his apartment, his curiosity led him to explore the outdoors when the apartment door was left open.

#### Personality

Cynnamon is very curious, as most cats are. He is adventurous and brave, although this can often get him into trouble.

#### Look

Cynnamon is an orange striped cat with a white chest, muzzle, and paws and green eyes. He has the ability to walk, run, jump, hiss, and scratch.

### The Dog

#### Back Story

The dog is a pet to someone inside of the apartment building. His owner is bringing him back up to his apartment after taking him for a walk when the dog sees a cat, Cynnamon, leaving an apartment down the hall. The dog quickly runs away from its owner and chases the cat out of the apartment building.

#### Personality

He is an energetic and bored dog who finally finds some excitement when he sees a cat to chase.

#### Look

The dog will be a white bulldog with a red collar. He will have running and jumping animations throughout the level. He does not have any special abilities besides being able to chase the cat. His importance in the game story is to provide an initial challenge for the player in the first level and to transition the level from the apartment building to the city streets. This will be done by having the dog chase the cat through the level, requiring the player to outpace the dog in order to complete the level. There will be one dog introduced into the game and he is the main enemy of level one.

### Squirrels

#### Back Story

The squirrels are creatures of the trees in the forest and have often been frightened off by the evil city cats. Whenever they see a cat come near their trees, they throw acorns at it in order to defend themselves, their territory, and to enact revenge for fellow squirrels who fell victim to the city cats.

#### Personality

Territorial, vengeful

#### Look

The squirrels are orange in color and hold acorns. They have an animation for when they throw acorns. Their special ability is a ranged attack in which they throw an acorn in the direction of the player. The acorn will damage the player if it collides with them. Their relevance to the game story is to provide a challenge for the cat, Cynnamon, when he enters the forest. There will be several squirrels in the trees throughout the forest level that the player will have to defeat.

### Alligators

#### Back Story

The alligators are river dwellers who have found their way into the city sewers. They spend their days in these tunnels, waiting for any unsuspecting animals who may enter.

#### Personality

Vicious, sneaky, hungry

#### Look

The alligators have dark green scaly skin and large white teeth. They have animations for swimming back and forth.

### Animal Control

#### Back Story

The animal control worker has spent her life working for animal control. She is good at her job and very devoted to it. It is her goal to make sure there are no stray animals on the streets. When she sees Cynnamon wandering around in the city, she is determined to catch him no matter what it takes.

#### Personality

Determined, persistent, unforgiving

#### Look

The animal control worker wears her uniform, which is brown, along with a matching ranger hat and black boots. She has red hair, which she wears pulled back in a ponytail. She also carries her net with her.

### Snakes

#### Back Story

The snakes are forest creatures who crawl around on the ground, searching for food. When they see Cynnamon, they think he might be good to eat.

#### Personality

Hungry, curious

#### Look

The snakes are black and orange with forked red tongues and yellow eyes. They are relatively small compared to other creatures and slither on the ground.

### Coyotes

#### Back Story

The coyotes are the kings of the forest floor and are always looking for more food. They are constantly taunted by the squirrels who are too high up to eat. However, when a cat enters their forest, they see it as a new meal and are eager to get the cat for themselves.

#### Personality

Hungry, selfish

#### Look

The coyotes have a tattered, skinny look to them. They have a walking animation. There will be several coyotes on the ground floor of the forest level. They are a difficult enemy that the cat must defeat in order to progress through the level. They have a mutual dislike for the squirrels of the forest.

### Toxic Fish

#### Back Story

These creatures are fish that have lived in the sewers for so long, they have become toxic. They swim in the sewer water, but like to jump out of it on occasion. Sometimes they accidentally poison passerbys, like the cat, in this way.

#### Personality

Sad, sick

#### Look

The toxic fish are a yellowish-green color. They are parana-like in appearance, with a large lower jaw with fangs.

### Hobos

#### Back Story

The hobos are people who live on the city streets. They spend their time wandering around, and are intrigued when they see Cynnamon. They attempt to catch him.

#### Personality

Lonely

#### Look

The hobos have gray hair and ragged clothes. They carry their belongings on a sack attached to a stick.

### Cat’s Owner

#### Back Story

The cat’s owner lives a comfortable life in her apartment with Cynnamon. She loves Cynnamon very much and is distraught when he gets lost.

#### Personality

Kind, caring, worried

#### Look

The owner is a woman with brown hair. She wears jeans and a pink shirt. She only appears in cutscenes.

# 

# **Levels**

## Apartment Building Halls

The first level will take place in the apartment building halls. This level will force the player to keep up with the camera as it pans across the level. This simulates being chased by the dog, who will follow the player in this level.

The pickups in this level will be bowls of cat food, which can restore the cat’s stamina. To beat the level, the player will be required to pick up at least a few of these, otherwise they will not be able to move fast enough to beat the level. While this level has a similar play style and challenge to the final level, this level should be easier.

The goal of the level is to make it to the end of the hall (the elevator) while keeping up with the camera view.

## City Streets

The second level will take place in the city streets. The goal of the level is to reach the end without losing all nine hearts. This will involve dodging enemies like hoboes as well as obstacles like cars.

The pickups in this level are heart pickups, which can restore health points, and sandwiches, which will restore the cat’s stamina. Running is not necessary to beat this level, but can be done anyway.

## Sewers

The third level takes place in the sewers. In this level, the player must make it to the end of the stage without losing all nine hearts. Hearts can be lost by stepping in water, being hit by a toxic fish, or attacked by an alligator.

Pickups in this level include hearts for restoring health points and fish for restoring stamina. Running is not required to beat this level, but the player can still utilize this functionality.

This level should be played in the same manner in the city street level, but will be more difficult.

## Forest

The fourth level takes place in the forest. The goal of this level is to reach the end without losing all nine hearts. Hearts can be lost by being hit with acorns (launched by squirrels) or by being attacked by coyotes or snakes.

Pickups in this level include hearts for restoring health points and mice for restoring stamina. Running is not necessary to beating the level, but may still be done.

This level should be more difficult than both the city and the sewer levels.

## Apartment Building Fire Escape

The final level, the fire escapes, is done in the same style as the first level where the player must keep up with the screen. This time, however, the player must move upwards by jumping on platforms in order to beat the level.

Some platforms will lead the player to the next platform, but others will be a dead end. Players must pick where to move carefully, as too many wrong moves may cause them to lose the level.

Some platforms may lead the player astray by having a food pickup item when the platform is, in fact, a dead end.

The only pickup in this game is the food pickup, a bird. While running is not required for beating the level, it will still be an option.

This level should be more challenging than all the previous levels.

# Interface

## Visual System

### HUD

#### Health Bar

The health bar will be displayed in the top left of the screen. The bar will consist of 9 “heart” sprites, the maximum amount the player can have. The player will lose a heart if he/she is hit by an enemy or an enemy’s weapon. The player will gain a heart when they pick up a heart collectible. If the player loses all 9 hearts, the player will “die,” and a splash screen will be displayed. This splash screen will inform the player that they have lost and must restart the level. The level will then restart, and the health bar will be reset to 9 hearts.

#### Stamina Bar

The stamina bar will be displayed in the top left corner of the screen, under the health bar. The bar will consist of a line of 100 “points,” which are small, yellow, square sprites. While the bar has more than 0 points, the player has the ability to attack, toggled with the shift key and spacebar, and run, which is toggled by double tapping the A key (left) or D key (right).

As aforementioned, the player has two attack types: scratch and stun. A single scratch attack will deplete the stamina by 5 points, and a stun attack will deplete the stamina by 10 points.

While running, the stamina bar will decrease by 3 points per second. If the player goes back to walking, the stamina bar will increase by 1 point per second. If the player stands still, the stamina will increase by 5 points per second.

Players can also increase their stamina by picking up food collectibles. Each food collectible will increase stamina by 20 points. If the stamina bar is completely depleted, the player will automatically return to walking, even if the A key or D key is not released.

### Menus

#### Main Menu

When the game is started up, the Main Menu will be presented to the player. The background art of this menu will consist of the cat looking out of the apartment window as well as the controls of the game. The Main Menu will provide a toggleable on/off sounds button as well as selections for the following:

##### Continue

If selected, the player will start at the cutscene before the level that they left off on. The player will retain the amount of hearts and stamina that they left the game with.

##### Level Select

Brings up a menu where the player can select a level to play. The levels that will be available to the player will be limited to the ones that they have reached ingame. The levels that are locked will be grayed out and unselectable.

##### Exit Game

If selected, the game will close out and the user will be brought back to their desktop screen.

#### Play/Pause Menu

When the player pauses the game, a splash screen will appear in the center of the screen saying “Paused” and game time will stop. A clickable button will be available that allows the player to mute the ingame sound, as well as a button to return to the main menu. This menu will exit if the player clicks the “Pause” button again and game time will resume.

## Music

### Background Music

Music throughout the game and will have a fun/upbeat feel to it. It can be turned on and off in the pause menu. The music will be significantly quieter than the sound effects.

### Cutscene Music

Each cutscene will have music in the background. This music should fit the theme of the cutscene. If the cat is being chased or attacked, the music should be somewhat menacing or scary, though not so much that it breaks from the theme of the game. Scenes where the cat is exploring should play fun, upbeat music to reflect the cat’s curiosity.

## Sound Effects

### Scratch

Plays when the player presses spacebar and attacks the enemy.

### Hiss

Plays when the player presses shift and stuns the enemy.

### Meow

Plays at random intervals throughout gameplay and when the menu buttons are pressed.

### Purr

Plays when the player collects a food or heart item.

### Yowl

Plays when the player loses a heart (when the cat gets hurt).

### Jump

Plays when the cat jumps.

### Splash

Plays when the toxic fish jumps out of and into the water.

## Help System

The controls used to play the game will be displayed in the background of the Main Menu.

# Artificial Intelligence

Most of the enemies will travel along a set path. These enemies will either damage the player upon collision or will have a range in which they sense the player and attack. The ranged attack will be triggered when the distance between the player and the enemy, in the direction the enemy is facing, reduces to a certain amount. If the player closes in on the enemy from behind, the enemy won’t be able to attack.

The squirrel is a unique enemy that won’t travel along a set path and will instead throw acorns towards the cats direction. The direction of the cat relative to the squirrel will be determined based on their x locations.

# 

# Technical

## Target Hardware

The game is designed to be played on PC.

## Development Procedures and Standards

The basics of our team’s development procedures and standards are laid out below. More detailed information can be found in our team charter.

### Coding Standard

The coding for the game will follow a coding standard. All team members should follow this standard. The standard will be the same as the coding standards laid out for the CSCI 477 class. It is also expected that each team member adds detailed comments to all of their code to ensure that it can be understood by others.

### Version Control

Version control for the program itself will be handled through GitHub. All team members are expected to commit and push their changes with helpful messages as to what was changed.

Version control for any documents or files not part of the program will be done with Google Docs, which automatically handles version control. This will ensure that all team members always have access to the most recent version of every document.

### Scheduling and Deliverables

Team members are expected to finish all their work in a timely fashion. Deliverables should be finished and ready to be turned in by the designated due date. If deliverable content needs to be adjusted, team members should discuss this together and agree upon what the new schedule will look like. Ideally, deliverables should be mostly complete two or three days before the actual due date in order to give team members to review and test components as needed.

## Game Engine

The game will be programmed on GameMaker Studio 2. Most of the artwork will also be done through this game engine.

## Scripting Language

The game will be coded using GML (GameMaker Language) which is the standard language for GameMaker Studio 2.

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# Management

## Version Control

Version control will be maintained through GitHub. Version control for any documents involved, such as this one, will be done through Google Docs.

## Detailed Schedule

\*Refer to the Deliverables section in the Project Plan.

## Budget

The current budget is the standard GameMaker Studio 2 rates.

## Risk Analysis

Throughout the production of our game, many risks may arise that we will have to address appropriately. In the case that we do not have enough time to fully complete the game, we will cut the level select, game pause mechanic, advanced art, idle object animations, extra sound effects, and then the in-level storytelling aspects. If, during production, a team member becomes unable to work on their portion of the game due to sickness, family emergencies, or personal matters, the team member’s workload will be split among the other members for the duration. If GameMaker Studio 2 is unable to provide a certain functionality, we will implement the functionality through external code (C++, Python, Java) that will then be imported.

## Test Plan

Each testing round will include a set of test cases for the functionality and further aspects of the game. The Quality Assurance Manager will be in charge of all testing, and the Lead Developer will be responsible for fixing any issues that arise.

### Testing Round 1

This will involve testing object movement and low level interactions (collectibles and characters placed on platforms and physics of game) within each level. We will test that collisions between the main character and collectibles will be reflected in the player object code. All testing results will be recorded in either a spreadsheet or note format.

### Testing Round 2

This round will include complete object interaction testing. All character attacks, animations, and player stamina/health bar will reflect collisions. Difficulty of completing levels will be taken into consideration. The smoothness of the visuals and animations will be tested as well as the level transitions. Functionality of the menu, level select, and play/pause will be included. Overall gameplay will be examined in depth to find bugs that will need to be fixed in the final week.

### Final Testing Round

Last minute kinks to fix will be seeked out in the final week. By this round, there isn’t expected to be any serious bugs, so we should be able to handle refinements needed for the final production of the game.

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# Game Art

## Concept Art

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The concept art for Cynnamon and the Animal Control Worker (pictured above) give the general idea of what sprites in the game should look like.

## Style Guides

All art in the game will be done in pixel art, though the cutscenes may be of a higher resolution. All art should give off a fun, cute vibe. Enemies may give a slightly scarier or more menacing feel, but should still fit with the cute style of the game. In other words, they should clearly be enemies, but also stick to the style of the game.

## Characters

Physical descriptions of each of the characters can be found in the “Characters” section under the “Story, Setting, and Character” section.

## Environments

Descriptions of level environments can be found under the “Game World” section.

## Pickups

### Hearts

The heart pickups will have a very simple design. They will be a red pixel heart with a black border.

### Cat Food

The cat food design will be brown cat food pellets inside of a red cat bowl.

### Sandwich

The sandwich will have tan, square bread with pink meat and green lettuce in between.

### Fish

The fish will be a blue fish that is half skeleton.

### Mouse

The mouse will be a small brown mouse. It will likely be less detailed than enemy animals so that they can be distinguished.

### Bird

The bird will be a small blue bird with its wings spread. It will likely be less detailed than enemy animals so that they may be distinguished.

## Cut scenes

Cutscenes will be done in a pixel-like style, though they will be of higher resolution than the actual sprites in the game. They should be colorful and fit the cute style of the game. Each one will be a brief comic describing the events of the story. They will likely have very few words, mostly conveying the story through pictures.

Further description of the specific events depicted in the cutscenes can be found in the “Cutscenes” section under “Story, Setting, and Character.”

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