

Game Design Project Notes

Team Friday

1. What is the genre?

- a. Inspiration- Human Fall Flat
- b. (puzzle, platformer, story-focused)
- c. Maze game (player is in a limited 3d environment)
- d. Has to open a door, collect stuff, find an exit
- e. Some narrative

2. What are the physical goals?

- a. Has to find certain collectibles,
- b. has to find the exit (open door, leave the current area)

3. What is the metaphorical activity of the player?

- a. Avatar movements (run, jump, carry, float, swing)
- b. Picking up elements that drive forward the story
- c. Pushing/pulling/interacting with environment
- d. Discovering the story/interacting with the plot
- e. Different stories/motivations throughout each level/world
- f. Branching paths in gameplay/story
- g. The character can die, lose
- h. Avoid obstacles

4. Who is the player?

- a. Aquatic animal, but with legs
 - i. (fish, jellyfish, starfish, lobster)
 - ii. Each level is a new fish evolution
- b. What do they want?
 - i. Food
 - ii. Friend
 - iii. Artifact
 - iv. Ability
 - v. Hydration (extends timer)

5. What obstacles must the player overcome/obstruct their goal?

- a. Enemies
 - i. Predators of fish/animal
- b. Physical obstacles
 - i. Things falling on the player, spikes, pits, etc.
- c. Hidden objectives / unclear solution
- d. Missing key
- e. Time constraint

6. Describe the mechanic

- a. Simple movement
 - i. Walk
 - ii. Jump
 - iii. Swim
 - iv. Eat/drink

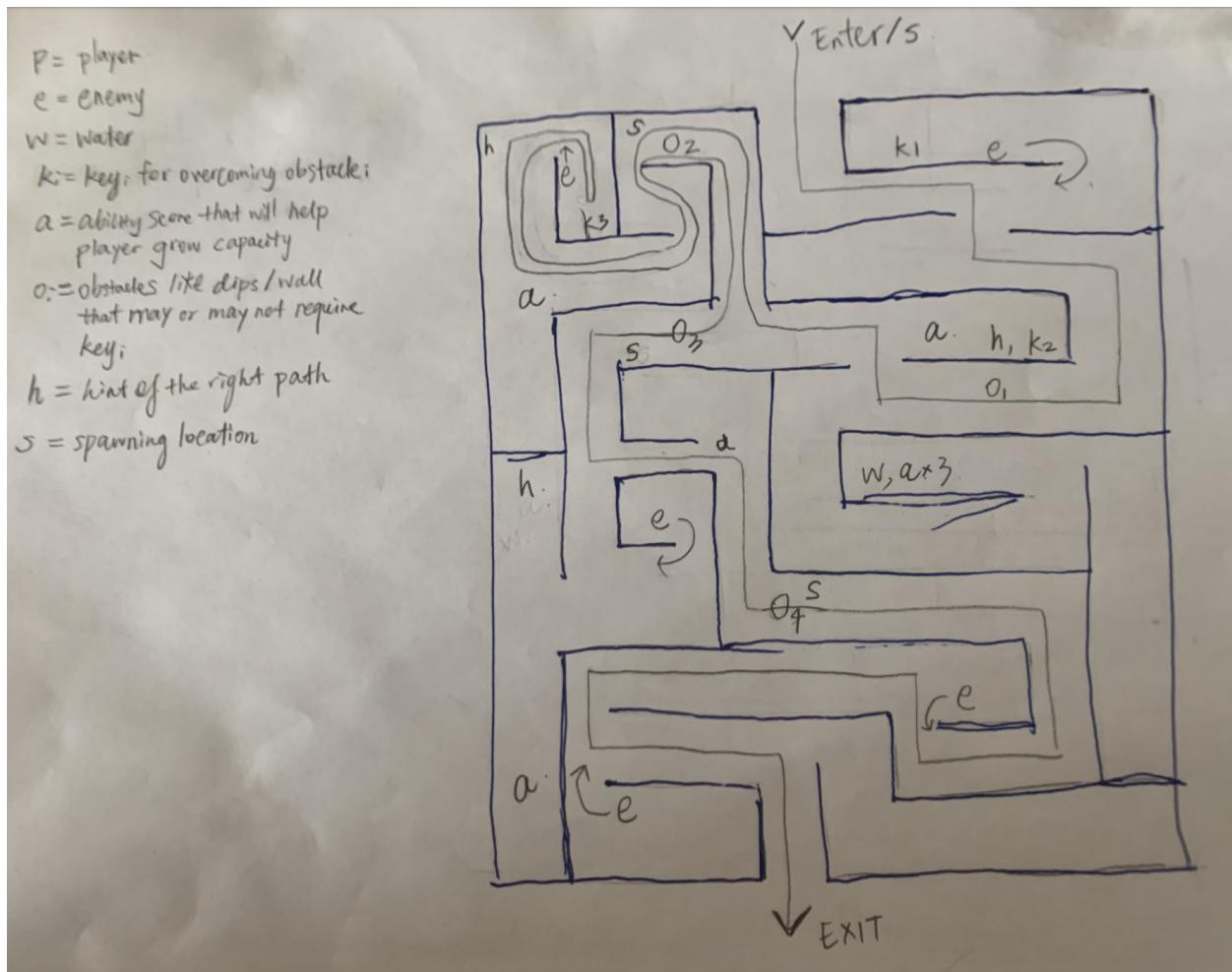
7. How does the player win/lose?

- a. Win
- b. Lose

8. Describe two levels of activity

- a. Level 1
- b. Level 2

Jessica Li & Nate Steckel



The mapping of the maze represents the path layout in a house where the player character, the aquatic animal with feet, will be placed. A false path would not have a door while a correct path will have a door that connects to the next room. The exit the player needs to find is a toilet that can flush itself back to the outside world.

p = player

e = enemy

w = water

k_i = key for obstacle_i

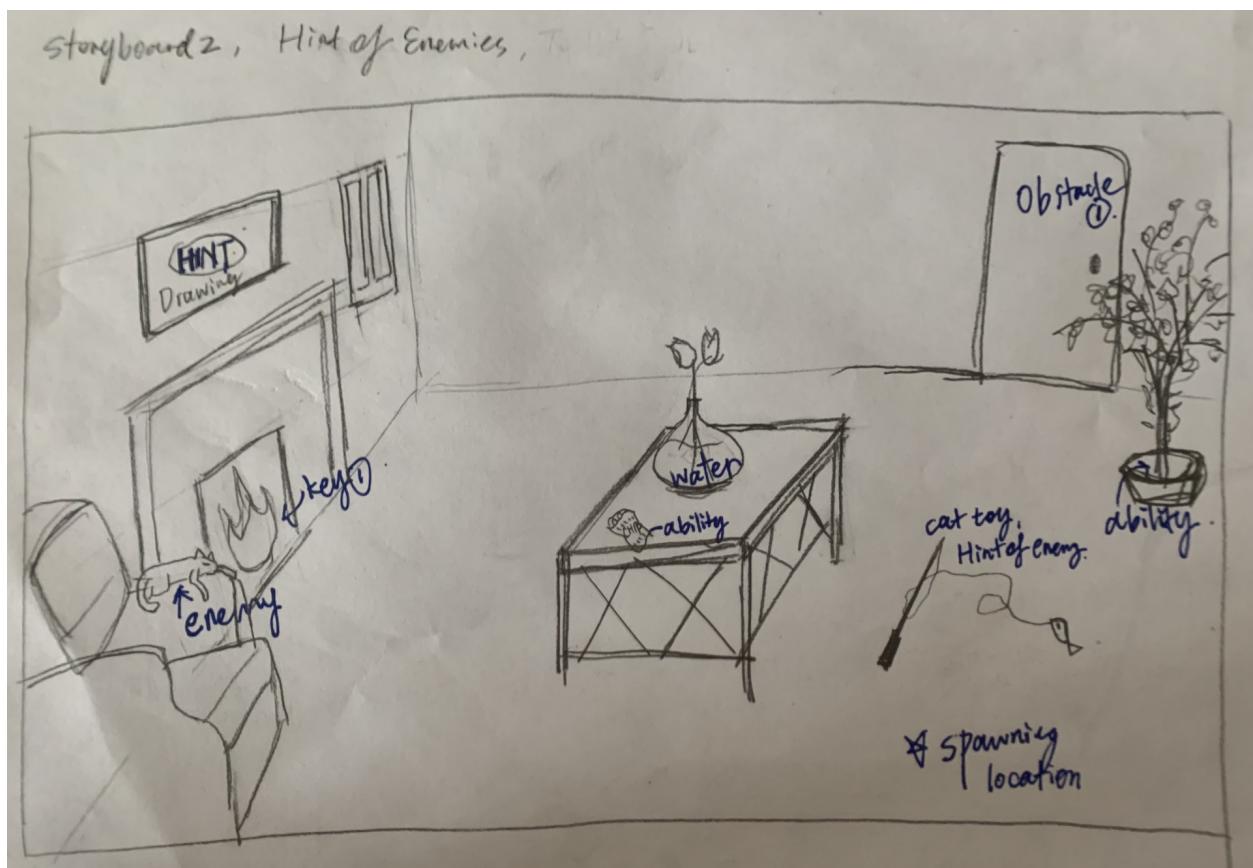
a = ability for potential growth

o = obstacles that may or may not require a key

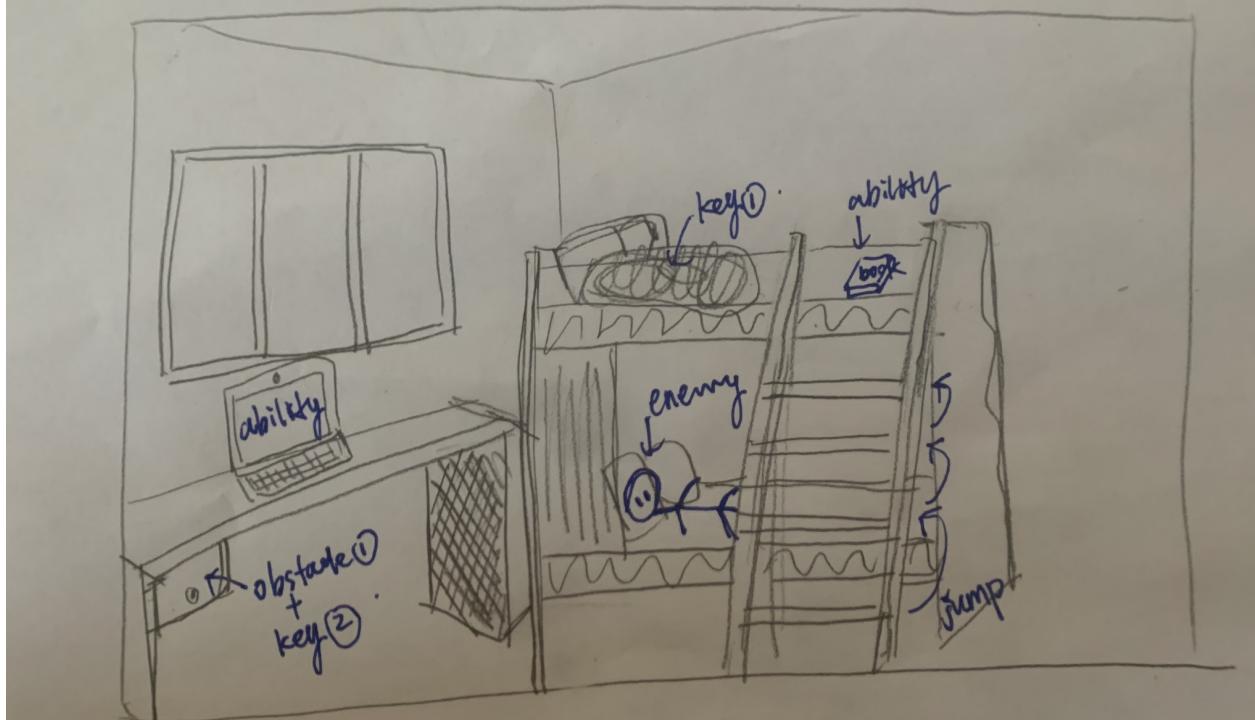
h = hint of the right path

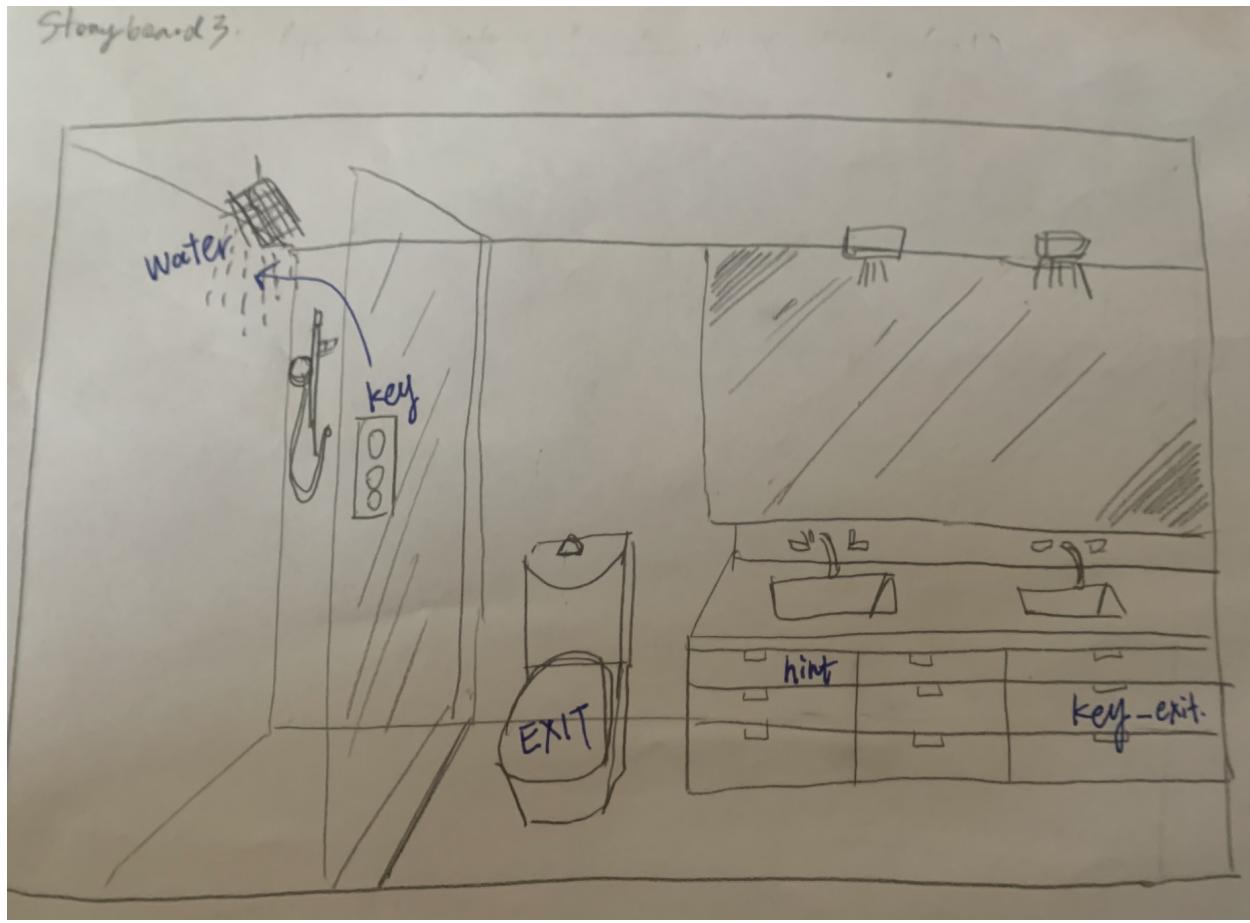
s = spawning location

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Storyboard 2. How to get the diamond +





Input Controls

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Keyboard and Controller

1. WASD keys or left analog stick: movement
2. +/- or right analog stick: camera controls
3. Esc or +: game options
4. Return or -: pause/character menu
5. Space or a/b/x/y: jump
6. Ctrl or a/b/x/y: crouch
7. Shift or trigger 1: sprint
8. left mouse click or trigger 2: attack
9. C or shoulder 1: pick up objects
10. X or shoulder 2: throw object

Technical Design Document

Design Group: Team Friday

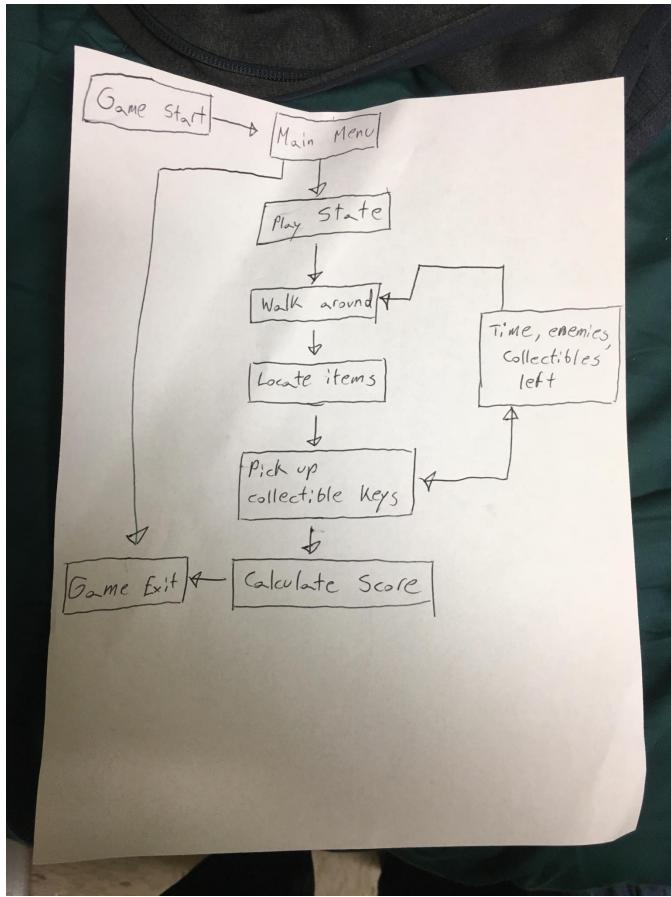
Group Members: Jessica Li, Nate Steckel

Working title: Fish Tale:

Fish Tale (working title), is a game being developed by *Team Friday*, a development team made up of Jessica Li and Nate Steckel. The game is a three-dimensional collection/obstacle course puzzle platformer with a fixed camera angle. There is a little bit of a story, which sees a fish with legs trying to collect pieces of DNA to evolve into new forms and juice boxes to increase the time that can be spent outside of the water on dry land.

1. Mobility Mechanic: Walking

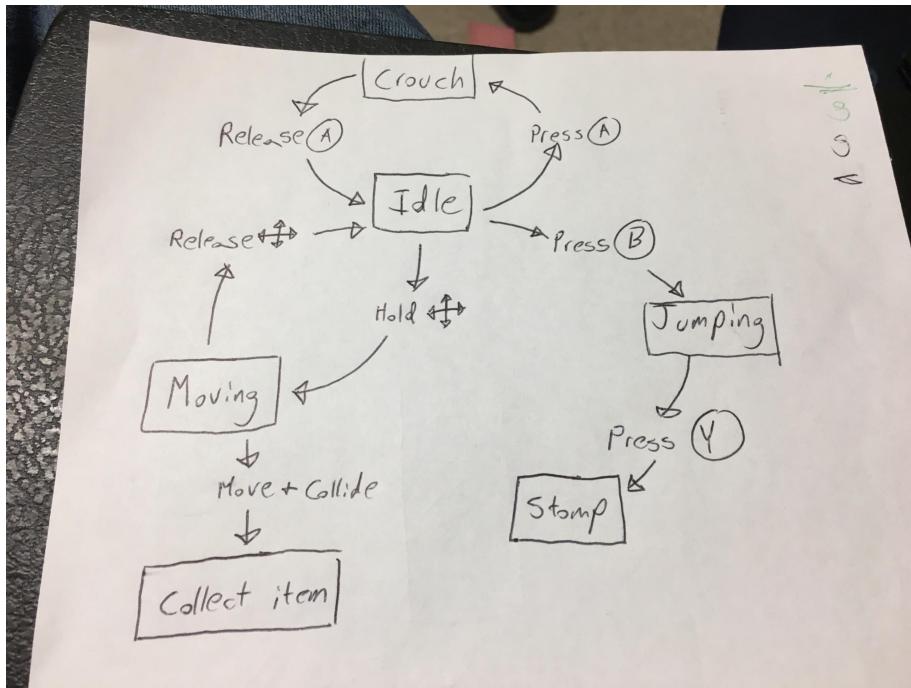
- a. Input: The player character that can be moved with an analog stick or the WASD/arrow keys. In addition to regular movement, the player can jump with the spacebar or X button, can crouch with Z or Y and can toggle between run and sprint with C or a shoulder trigger
- b. Effects: When moving the character with the analog stick, the game will display the character in a run or walk animation, which the player can toggle between by holding or letting go of the run button. While running, the hydration meter (essentially a timer shown in the hud) shown as part of the heads up display will deplete faster, and will slow down when the player stops running. If the player holds down the crouch button, the game will display a crouched animation and disable movement. When crouched, the timer will keep moving at the same walking/idle rate.
- c. Methods & Properties: You will need update and character controller methods, and properties to check if a character is moving, idle or on the ground.



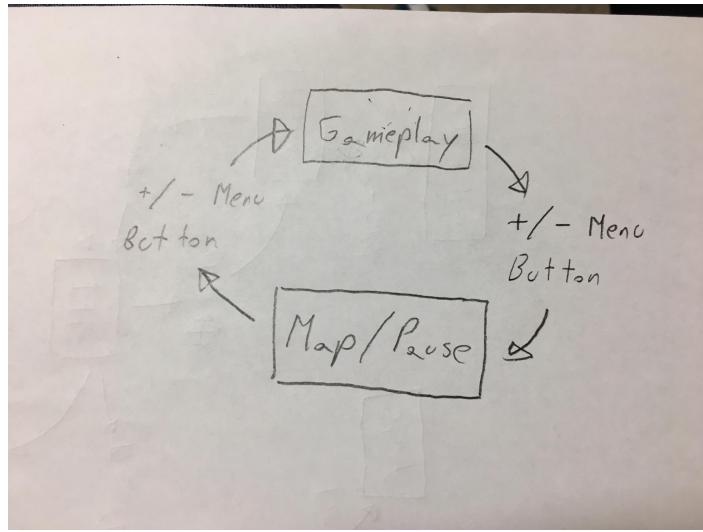
2. Offensive Mechanic: Jump/Stomp

- Input: The character can jump with the spacebar or X button. As they fall in the arc of that jump, if they land on top of an enemy, they will bounce off and do some damage to the stomped enemy.
- Effects: When the character is on the ground, they will display the idle animation. When the player presses the jump button, the game will display the player in a jump animation. As the character moves up in the jump arc, the game will display an upward movement animation, and as they peak and move down in the jump arc, the game will display a falling animation. Once the character makes contact with the ground again, the game will display a landing animation. If the character bounces off of an enemy (stomps on them), the game will continue displaying jumping and landing animations until the player is back on the ground.
- Methods & Properties: This mechanic will need jump and collision methods. The jump method will just handle the character jumping, but there should be two types of collision options. The first option will be the stomp, which should bounce the player off a stomped enemy and deplete that enemy's health. The second option is

for failed stomps/collisions, (if the player runs into an enemy or environmental hazard) and will deplete the player's health.



3. Navigation Mechanic(s): Describe how the player determines where they are in the game map, and how to activate and interact with this mechanic.
 - a. Input: There will be a toggleable map accessible during the game. A small portion of it will be visible as part of the HUD at all times, and the full map (with all objectives, markers, etc.) can be accessed through the pause menu with the esc or +/- buttons.
 - b. Effects: Accessing this through the pause menu will cause the map to be removed from the HUD and displayed magnified over the whole screen.



- c.
- 4. Communication Mechanic: The game's story will briefly be played out in short cutscenes / dialogues that appear before some of the levels. The mechanics themselves will be conveyed through tutorial signs in the first couple of levels.
 - a. Input: These cutscenes can be progressed with the jump button or skipped completely with the menu button. The tutorial signs can be progressed with the jump button.
 - b. The game will not have options to communicate freely with other players or non-playable characters, but activating these cutscenes and messages will temporarily remove the HUD elements to make them easier to absorb.
- 5. HUD GUI: The player interacts with the HUD through collisions with hazards and collectibles.
 - a. Timer: The hydration meter appears as part of the heads up display that acts as a timer that is constantly decreasing. It can be depleted even faster if the player takes damage, but can be replenished by the player finding certain collectibles like juice boxes.
 - b. Hazard collisions: If the player hits an enemy or environmental hazard, they will lose health and time. This will be represented by the player's health and hydration meters being depleted. When one runs out, the player will die, and the entire UI and game display will be replaced by a game over/death screen.
 - c. Collectible collisions: The amount of collectibles the player has will be shown as a counter as part of the UI. As the player locates the collectibles scattered throughout the level, this counter will be increased. After reaching a certain number of items collected, the HUD will include an exit activated message and the player will be allowed to leave the level. At this point, the player can exit or continue exploring to try and find more collectibles. The other item that the player can collide with are the

items that when obtained will increase the level timer, which will be reflected in the HUD. These extra time collectibles are completely optional, and will not affect the collectible exit key counter.

Who writes the draft? Each group must assign a writer that rotates responsibility in each assignment to complete the draft portion. All members of the group must submit their own worksheet..

Game States Flowchart

Game states must be represented as a set of states that can change based on conditions. Using the Control Flow Graph method, draw a Control Flow Graph diagram to represent how the game changes from all possible states to another.

Asset Description Document

Design Group: Team Friday

Group Members: Jessica Li, Nate Steckel

Draft Author: Jessica Li

Working title: Fish Tale.

Fish Tale (working title), is a game being developed by *Team Friday*, a development team made up of Jessica Li and Nate Steckel. The game is a three-dimensional collection/obstacle course puzzle platformer with a fixed camera angle. There is a little bit of a story, which sees a fish with legs trying to collect key objects to escape the room and pieces of DNA to evolve into new forms. The game has one single level, having a bedroom scene and a bathroom scene.

In the game prototype, the setting of each level will be confined in two rooms instead of a larger house so that the player can interact with a denser set of items in terms of space with fewer unnecessary movements. The 3D layout of the two rooms will be simple cubes. Game map, therefore, is not so much of a major concern of the game compared to the logic of how a set of keys leads to the acquisition of another set of keys that eventually frees the player from the room.

Solution steps:

1. By turning on the TV, the player will see slides of codes-meaning mapping tables on the screen.
2. (Bathroom) Two pieces of broken parts, part_a & part_b, that needed to be put together to unlock key_A.
 - 1.1 part_a is hidden in a shampoo bottle behind a mirror cabinet.
 - 1.2 part_b is hidden amid a roll of toilet paper that sits on the bathroom window seal.
 - 1.3 Putting part_a and part_b together forms a complete part named part_c.
 - 1.4 part_c has a symbol of a hint that needs to be decoded. Decode it with the mapping table found in step 1. The hint says 'wash it'.
 - 1.5 Washing part_c in the basin or in the bath turns part_c into key_A.
3. Use key_A to unlock the mirror in the bedroom to get key_B.
 - 2.1 The mirror shows a digital maze given key_A.
 - 2.2 Solving the maze gives key_B.
4. Using key_B to unlock the drawer of the bed table.
 - 3.1 a box with a code lock that requires a set of numbers from 3.2
 - 3.2 UV pen is hidden in a cup on the basin in the bathroom
 - 3.2.1 use the UV pen to scan the wall to find the set of numbers
 - 3.3 unlock the box with the numbers and get a long stick
5. Dirt on the TV table that hides a message.
 - 4.1 use the towel in the bathroom to clean the dirt and see the message. The message hints 'the toilet is the exit'
 - 4.2 use the long stick to flush itself to escape

1. Interior Architecture: List rooms, hallways, windows, doors, tunnels, subways.				
No.	Named Asset	Description	Int	Level
1.1	Bedroom Window	A floor-to-ceiling large window near the bed, with its transparent view signing the greens outside.		Bedroom
1.2	Bathroom Window	An old style four grids window that can be opened by pushing it up.		Bathroom
1.3	Bathroom Ceiling	Red grid ceiling,		Bathroom
1.4	Bathroom Floor tiles.	Same pattern as the ceiling.		Bathroom
1.5	Bathroom walls	Yellow and blue walls.		Bathroom

1.6	Bathroom door	Locked.		Bathroom.
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2. Furniture: List chairs, couches, tables, beds, desks, shelves, drawers, etc.				
No.	Named Asset	Description	Int	Level
2.1	Bed Board	A wooden board behind the bed.		Bedroom
2.2	Bed	A double bed.		Bedroom
2.3	Table	A small table near the bed that has drawers.	X	Bedroom
2.4	TV table	Opposite the bed that holds props.	X	Bedroom
2.5	Closet	A closet with drawers near the bed that is opposite the window. Props inside drawers.		Bedroom
2.6	Mirror	Holds props.	X	Bedroom
2.7	TV	Plays a carousel of screensaver that gives hints.	X	Bedroom
2.8	lamp	simple lamp for decoration		Bedroom
2.9	Toilet paper holder	for decoration		Bathroom
2.10	Towel rail	Use the towel to clean dirt.	X	Bathroom

3. Props (non-weapons): List non-weapon objects that are discreetly separate from other objects. Reminder: Use the abbreviation INT bolded to indicate if the object is interactive.				
No.	Named Asset	Description	Int	Level
3.1	Toilet paper rolls on the window seal.	Item hidden in the middle hollow space in the paper roll.	X	Bathroom
3.2	Basin	The player will need to turn on the tap to wash a broken part. Squeeze the hand soap to collect DNA. Find a UV pen in the toothpaste cup.	X	Bathroom
3.3	toilet	The player needs to flush itself outside of the toilet to escape the room.	X	Bathroom
3.4	Cabinet mirror	Holds DNA pieces.	X	Bathroom

3.5	Bath	The player can make a bath to grow DNA pieces.	X	Bathroom
3.6	Carpet	For decoration.		Bathroom
3.7	DNA piece	Many DNA pieces scatter around.	X	Bathroom, Bedroom
3.8	broken item piece	Two copies of a full item that slightly differs will need to be put together to form a key.	X	Bathroom, Bedroom
3.9	Shampoo bottles.	Breakable shampoo bottles that are put inside the cabinet. Unscrew the bottle to find a broken piece.	X	Bathroom

No.	Named Asset	Description	Spk	Int
4. Animal or Non-Humanoid Characters: List all animal or non-humanoid characters. Mark bold X if interactive or if the characters have spoken lines.				
4.1	Fish	A small goldfish with legs. This is the player character, and can be controlled with the arrow keys		X
4.2	Shark	An enemy appearing on the first level. It is one of the first hazards		X
4.3	Bird	An enemy appearing on the second level. It is one of the first hazards		X

5. Sound Effects: Review all the categories above. Ask if when any of the assets above collide with each other, do they make a sound? Is the sound essential for your prototype game play. If so, write the number from an above listed Linked asset. E.g. "11.1" for horses from the table above.

No.	Named Asset	Description	Linked
5.1	Footsteps	This effect should be played when the player character walks around and makes noise	4.1
5.2	Collect DNA	Played when the character gets a DNA collectible.	3.7
5.3	Collect Juice	Played when the character gets a juice collectible.	
5.4	Receive	Played when the character takes damage	

	Damage		
5.5	Deal Damage	Played when the character stomps an enemy	

6. Music: Review all the categories above. Are there any state changes in the game that should be highlighted with music, like game start, game end, level change, power up, scoring a point, etc? Give a *state name* that would trigger music.

No.	Named Asset	Description	State
6.1	Win	A motif played when the player finishes a level	Win game
6.2	Lose	A motif played when the player dies or runs out of time	Die
6.3	Level 1 sfx	A melody played when the player enters the first level	Enter Level 1
6.4	Level 2 sfx	A melody played when the player enters the second level	Enter Level 2