

Game Design Document

Team Members

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High Concept

"Foraging is a single-player cartoony platformer set in various types of forests. You play as an orange cat (aka Noodle) and must overcome obstacles such as flowing rivers, moving rocks, and falling logs in order to return home."

Because none of us are technically programmers, we decided to go with a platformer since the Hour of Code assignment teaches us about making a platformer. We wanted to make a fun and simple platformer where you have to collect items and clear obstacles, but not one with enemies or attacks. Noodle is not about violence. We chose something that we thought we could do our best in considering our low level of unreal and programming skills.

Storyline

Our basic storyline is that Alex's cat, Noodle, has unfortunately run away from home and needs to find his way back! Noodle gets on a skateboard and rides down a steep hill, without any way for him to stop; he continues until the skateboard stops in a forest. Noodle wants to get back home because he barely has any survival instincts. He will need to traverse forests, mountains, and lakes to get back home! Along the way, he finds toys and treats to keep him content on his journey back home.

For the first level, Noodle has just stumbled into a forest after escaping the moving skateboard. He goes around the area exploring, looking for food and cat treats, and trinkets. There's water! Gross! Noodle has to jump over the rocks without getting wet or he's going to be sad. He sees a maze that he might feel like going through, maybe there are goodies that he might want, once he is done with that he sees a valley he can go through. Hopefully, there's more food if he follows the path.

For the second level, the story is that Noodle needs to cross the river but an NPC blocks him and tells him he must find another way across the river. He could jump across the rocks, but the river current is stopped by the beaver dam. He then breaks the dam and is able to jump across the rocks. After that, he is able to traverse the rest of the level and proceed to Gabe's level, which is the final one.

For the final level, Noodle must go through the most dangerous forest. He must now endure raging waters, waterfalls, and falling logs. During his venture. Noodle encounters a giant blue cat that continuously overstates his hungriness. The blue cat will only acknowledge Noodle's presence once he gets a decent meal, i.e., a bird's egg. After going through all the dangerous obstacles, Noodle reaches his cozy home surrounded by more pleasant-looking trees and plants; this is the end of the game.

Mechanics

- Player Mechanics
 - o Run
 - Jump
 - o Collect
- Game/Level Mechanics
 - Moving Platforms
 - Checkpoints
 - Jump Boost
 - Interactable NPCs
 - They stand in the same spot and talk
 - Falling Hazards (i.e. falling logs)
 - If "Falling Hazards" hit the Player, the Player will "die" and go back to their last checkpoint
 - River current

Level Design

Level 1 (Tutorial Level):

In the first level, the player is introduced to mechanics such as running around, exploring and collecting items. They are also introduced to a fun but easy tutorial level. There is also an optional maze for the player to explore if they wish to get more out of the level as well as collect more items.

Level 2:

In the second level, I used the NPC to help the player know where to go. When you go down the level the NPC cat says to find a way to cross the river, which leads the player up to the beaver dam. The player can break the dam and then jump across the moving rocks in the river. Then coins and gems are used to show the player the way through the level.

Level 3 (Final Level):

Player mechanics-wise, the level does not introduce anything new. Instead, the level reinforces the usage of all the mechanics the player learned in the previous level; the player must utilize these skills to overcome the new obstacles, i.e., the raging waters and the falling logs.

Paper Map Alex: <u>Tutorial Paper Map Level</u>

Paper map Grace: File 000.jpeg

Wendy's Rendition: Team1 Paper Map.png

Paper Map Scottish Gabe: Paper Map for Final Level.png

Paper Map Isaiaahaiaahiihai: Paper Map.png

Objectives

Level 1 (Tutorial Level):

- Reach the end
- Progress through the moving rocks in the pond
- Jump over the rocks to get through the level, don't get wet!

Level 2:

- Break the damn to start the river flowing
- Cross the moving rocks
- Jump over puddles and more rocks.

Level 3 (Final Level):

- The goal remains the same, i.e., to reach the end, which is Noodle's house in this case.
- The player must jump on various rocks and cliffs.
- The player must avoid falling logs.
- Although optional, the player can also collect an egg (and not die) in order to feed the large blue cat.

Assets

Cat Model:



 $\frac{http://marketplace-website-node-launcher-prod.ol.epicgames.com/ue/marketplace/en-US/p}{roduct/brave-cat/reviews}$

Environmental Assets:



 $\frac{http://marketplace-website-node-launcher-prod.ol.epicgames.com/ue/marketplace/en-US/p}{roduct/northeastern-us-plants-and-ecosystems}$



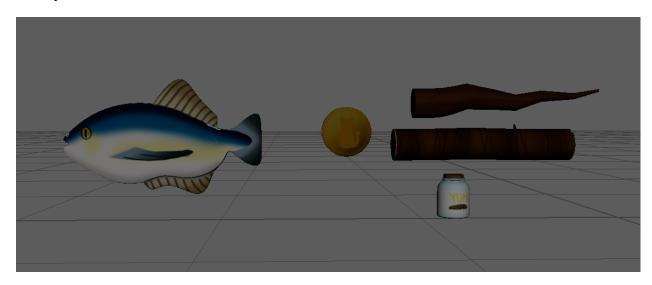
https://unrealengine.com/marketplace/en-US/product/stylized-pbr-nature-pack

Mechanical Assets:



https://www.unrealengine.com/marketplace/en-US/product/unreal-engine-hour-of-code

Wendy's Assets:



Environmental Details

Level 1 (Tutorial Level):

In this level, I used the environment to slowly show the player an open yet bright and relaxing environment. The goal was to use the environment to try and make the level seem like it follows along with the others. I did this by adding matching assets and a valley that opens up at the end of the level.

Level 2:

In level 2 I used the environment to tell the player where to go. Trees and big ferns block where the player should not go, but I also have a secret area on the far side with extra rewards if the player chooses to explore. I also used the environment to try and make the level seem cohesive with the others. I did this by putting mountains around the beginning where this level connects to Alex's because he has mountains in his level. I also have coins leading the player along the main path.

Level 3 (Final Level):

The final level feels more compact, yet still large in scale; this is clear because this level isn't as open as the prior levels, but there are more obstacle areas. Even though there are mountain ranges around, the player is supposed to feel trapped because of the numerous large trees; this element of the level juxtaposes the final section, i.e, Noodle's home. While the majority of the level has tall dark trees, falling branches, and raging waters, Noodle's home and the area around it are supposed to feel more lively through the bright autumn trees and plants.

UI

Because we were not able to put our levels all together in one game, there is not much UI. However, some of us were able to incorporate some of the UI from Hour of Code. We used the Checkpoint that shows how many items you collected and how long it took to do the level. We also have a picture on the screen that shows the jump boost in some levels.

Links.

One Pager: https://docs.google.com/document MoodBoard: https://docs.google.com/presentation

Drive: https://drive.google.com/drive/folders/1uSvFonJDxxx71 1i hJwB01AYBd1BWuG

Final Video: Foraging Game.mp4

Video Description: This is simply a showcase of all three levels and all the game mechanics.