



DILEMMA CORP

DilemmaCorp

By Shareen
(updated since presentation)

The steps in making DilemmaCorp

Initial Idea

The first stirrings of
an idea taking form

Research

Finding out what I
will need to

Prototyping

Low and High
fidelity prototypes
and what changes
in each iteration

Building the Game

Starting and the
first screenshots

Conclusion

Final product and
Conclusion

The background features a light gray grid with a central white rectangular area. This central area is framed by four wavy, parallel lines that create a sense of depth and movement. The lines are composed of many closely spaced, thin black lines, giving them a textured, almost fabric-like appearance. The overall aesthetic is clean, modern, and minimalist.

Initial Idea

The background features a grid of thin black lines. Overlaid on this grid are several thick, wavy, grey lines that flow across the page, creating a sense of movement and depth. The overall aesthetic is modern and technical.

Initial Project Prompt

How do we increase people's access to information on climate justice so that people know...

MY Question

How do we increase people's access to information on climate justice so that people know how a business functions and contributes to climate change

Answer

I plan to design a 2D platformer game that highlights how some businesses profit on their laziness to slow down climate change. I also wanted to show ways that other businesses can have a positive contribution to climate change while still making a profit. I also tried to include ways owners can go out of their way to improve the environment.

What to include in the game

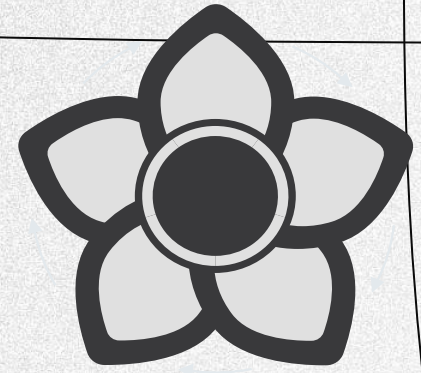
What is the story

- Start in a very green environment
- Cut down your first tree and bring it back to the factory to earn money
- Money can be used to upgrade resources used to cut down more trees
- Eventually you start running out of trees
- Maybe start abusing another resource?
- Everytime you go back to drop off resources you are confronted with an important question
 - ___ has produced ___ waste! How will you deal with it?
 - Public opinion is down! How will you deal with it?
- Will eventually face extremely costly options that are eco friendly



Some rough dialogue text I have prepared

- Demand for your product has gone up. How will you react?
 - Cut down a nearby forest
 - Background forest is cut down
 - Make them wait
 - Stays the same
 - Replace the wood with something easier to make
 - You have replaced the wood with plastic. It is cheaper and faster! Earn an extra \$1 for every product (smog in the air?)
- A species of fish you sell is now endangered. How will you react?
 - Keep fishing, people want what people want
 - The fish is now extinct (you get an award at the top of the screen?)
 - Stop selling them and fund an organization to bring them back
 - You lose \$25
 - Find a new fish to sell
 - Stays the same



The 2 companies I am showcasing in this example is as follows in this order:

- 1) Nestle's palm oil deforestation (<https://www.rainforest-rescue.org/to/pics/palm-oil/nestle/>)
- 2) Western banks provide billions in backing for firms driving tuna species to collapse (<https://unearthed.greenpeace.org/2020/09/28/western-banks-finance-companies-responsible-for-overfishing-tuna/>)

The background features a light gray, textured surface with a grid of thin black lines. Overlaid on this are several wavy, horizontal bands of varying shades of gray, creating a sense of depth and movement. The word "Research" is centered in a large, bold, black font.

Research

Persona 1:



Name: Bethany Jones

Age: 39

Income: low to low-medium

About:

a housewife who worries about the environment and the future her kids will have. She always tries to buy eco-friendly materials but still worries about how her actions may affect the planet.

Persona 2:



Name: George Tweedie

Age: 74

Income: medium to low-High

About:

An old man that doesn't care about the environment. His kids don't talk to him, his wife takes care of him because of his knee problems. he's well off moneywise and doesn't think global warming is real when it clearly is. he is living in denial about how bad the world is around him.

Persona 3:



Name: Isabella Jones

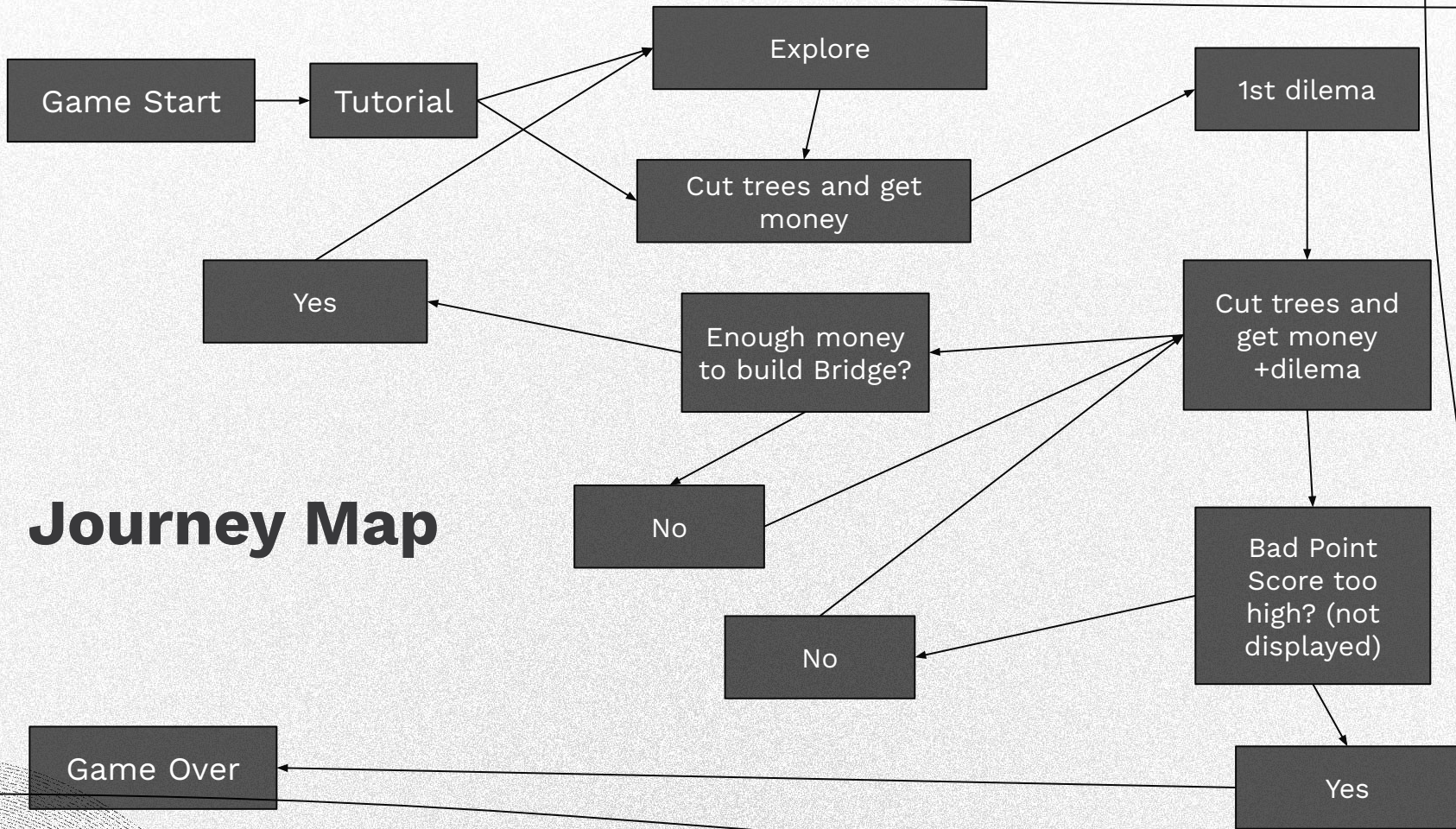
Age: 31

Income: low-medium

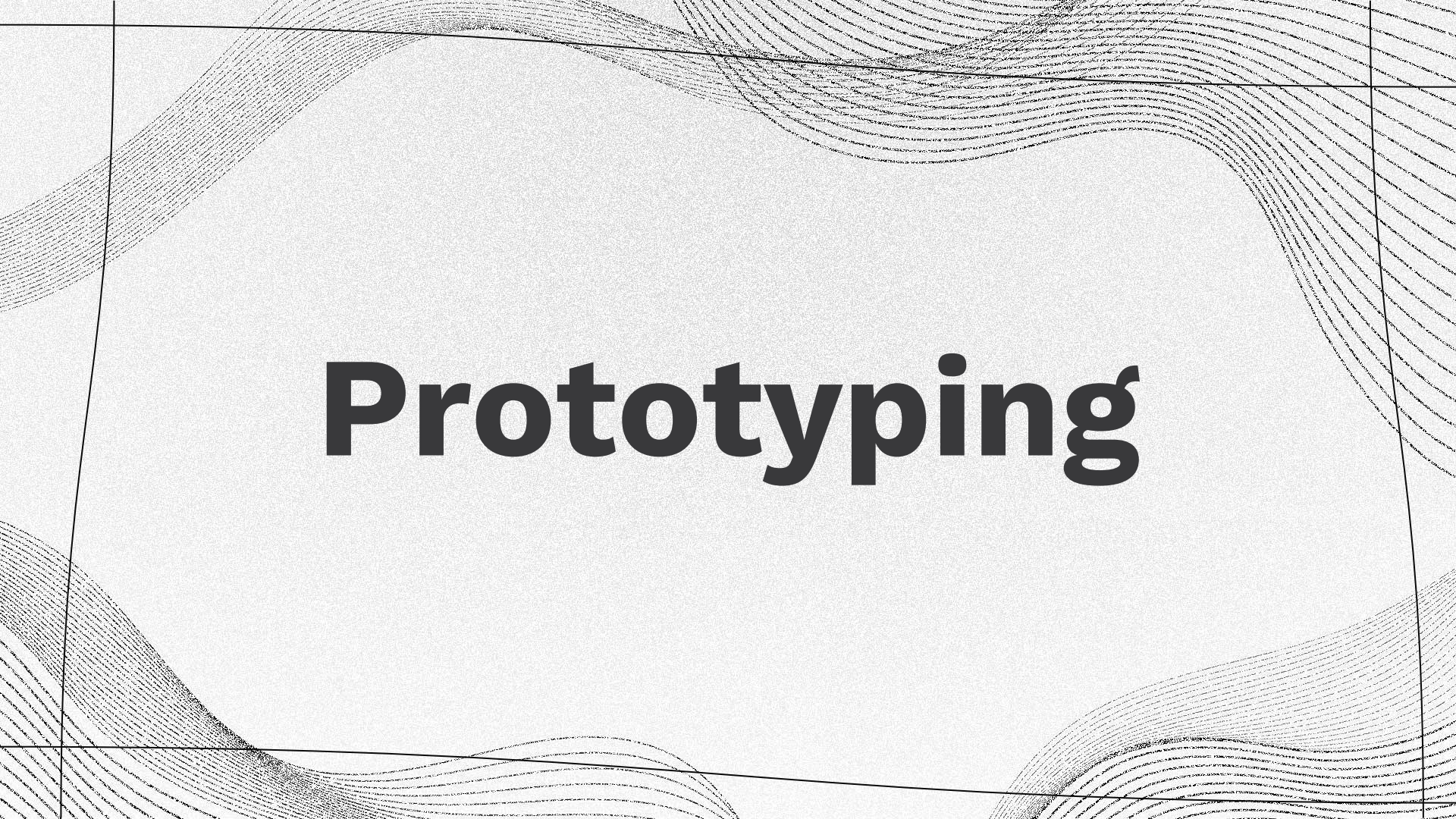
About:

Isabella is a video game enthusiast who owns a store selling board games and the video games she loves. She's dedicated to creating a welcoming community and curating a diverse game selection for her customers. She's recently started to worry about how her business affects the environment and what she can do to help climate justice

Isabella Jones	Before The Game	During The Game	After The Game
Actions	<ul style="list-style-type: none"> -She decides to download and play the game. -She shares her thoughts and curiosity about the game with her community. 	<ul style="list-style-type: none"> -She engages with the game's mechanics and begins making in-game choices. -She makes choices in the game, influencing her virtual world. -She starts aligning her in-game choices with her real-world values. 	<ul style="list-style-type: none"> -She takes steps to promote eco-friendly games, organizes events, and reevaluates her game selection. -She educates her community on the importance of sustainability and eco-friendly actions -She maintains her store's eco-friendly focus, ensures that her community remains engaged, and continues her support for environmental causes.
Opportunities	<ul style="list-style-type: none"> -Discover a game that addresses environmental and sustainability issues. 	<ul style="list-style-type: none"> -Learn about the impact of business decisions on the environment. 	<ul style="list-style-type: none"> -Apply environmental awareness to her video game store and build an eco-friendly gaming community.
Pain Points	<ul style="list-style-type: none"> Uncertainty about how the game will impact Isabella's business and community. 	<ul style="list-style-type: none"> Balancing profit and environmental responsibility creates challenges. 	<ul style="list-style-type: none"> Navigating the complexities of change in the business, potential resistance from customers, and resource allocation.
Emotional Arc	<ul style="list-style-type: none"> Curious, engaged, and open-minded. Growing concern and a desire to make informed choices. 	<ul style="list-style-type: none"> A sense of responsibility and conflict. 	<ul style="list-style-type: none"> Driven, empowered, and passionate about change. Fulfilled, committed, and determined to maintain and expand her eco-friendly efforts.
Other	<ul style="list-style-type: none"> Isabella becomes aware of the game through social media, a gaming convention, or a recommendation from a fellow gamer. Isabella engages in conversations with her gaming community, discussing the game's premise and potential environmental impact. 	<ul style="list-style-type: none"> Isabella starts the game and learns about the environmental challenges presented within it. Isabella faces choices in the game that impact the virtual environment and the business decisions she makes in the game. 	<ul style="list-style-type: none"> -The game concludes with Isabella sustaining her commitment to eco-friendly practices, both in her store and the gaming community she has built. -Action: She maintains her store's eco-friendly focus, ensures that her community remains engaged, and continues her support for environmental causes. <p style="text-align: right;">Key Persona</p>



Journey Map

The background features a light gray grid with four main lines forming a square. Overlaid on this grid are several sets of wavy, parallel lines that create a sense of motion and depth. These lines are most prominent in the corners and along the top and bottom edges, framing the central text.

Prototyping

Lofi testing

Areas of concern

- Amount of money
- How to end the game
- questions



Amount of money

I was unsure how much money to give to each person per “turn”. So I used the Low-Fidelity prototype to test out how much money should be received using dominos. The money system in the game of course will not be realistic to real life situations, but I was hoping to at least gain some perspective on how to dole or take away the game currency. I learned in the end it was more about the order of the questions that the amount of money. So that the questions in the beginning could only cost half as much, compared to the questions at the end.



How to end the Game

Additionally, I didn't know how to end the game. I was deciding (as it is the easiest way to make a game) to have both a good and bad ending. But then that goes against how I didn't want the decisions being made to be obviously good or bad. I still decided to try out a good and bad decision making concept to my Lo-fi testing to see if it would work. I used perler beads to roughly show good (green) beads and bad (black). Even though you are playing as a business owner, these good and bad decisions are from the view of the environment, NOT the company.



Questions

I also got to test some of my questions. Here are said questions and options:

Demand for your product has gone up. How will you react?

- **Cut down a nearby forest**
 - **Make them wait**
- **Replace the wood with something easier to make**

A species of fish you sell is now endangered. How will you react?

- **Keep fishing, people want what people want**
- **Stop selling them and fund an organization to bring them back**
 - **Find a new fish to sell**

How frequently should you check the functionality of your failsafe?

- **Frequently (pay someone to)**
- **Not frequently (every other year)**
 - **Failsafe? What failsafe?**

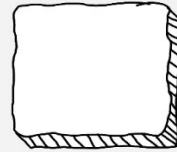
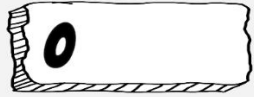
Marie Kondo is the latest trend circulating the internet and her “does not spark joy” meme. What do you do?

- **Make a funny video about it and post it on social media**
- **Show how plastic packaging “does not spark joy” and switch to a recyclable material**
 - **Meme? I'm trying to run a business here,**

Your company exports its labour to other countries and sends thousands of planes a month to transport supplies to and from these places. Locally

- **Is that a problem or fact?**
- **Show how plastic packaging “does not spark joy” and switch to a recyclable material**
- **trade in all old cars to newer electric or energy-efficient cars**

High-Fi Testing



Areas of concern

- Any Bugs?
- Inventory works?
- Money works?



Any Bugs?

There were no bugs per say. There were things that once I had people test it out I realized were a problem. For instance people were flying by the signs and were not going back to read them. It seemed that the character was too hard to control even though that was never said outright. However, once I changed the momentum based movement (if you held the button for longer you would travel faster and farther) to something else (one that only moved at a set speed only when the button was pressed) people were having an easier time hitting the targets for things like the trees or signs. I started with the momentum because I thought once the player started traveling a greater distance to and from the factory it would be easier to move faster. However with this new type of movement, it is so much easier to control the distance the character moves and precisely when you want the character to stop instead of it sliding as if it was on an icy surface.



Inventory Works?

Yes!

Technically yes, the inventory does work

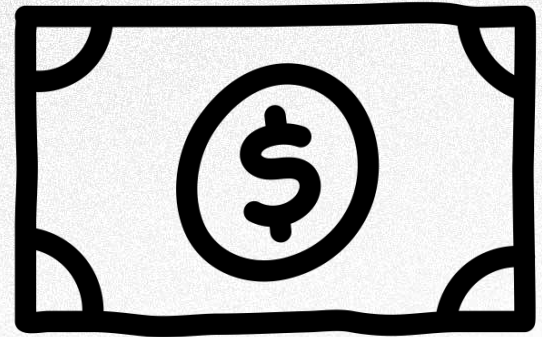
No!

Something about how the trees are being chopped and added to inventory is adding all the trees into the inventory at the same time. So when 1 tree is chopped down all of them disappear. This took so much time, because there was nothing visibly wrong with my code, it was technically doing everything it was supposed to. I showed my code to one of my co-workers and they had noticed what the issue was, at this point I had been stuck on this problem for a little under 2 weeks. What the error was that I had nothing limiting my check to only when the character was in the specific trigger. So when I was pressing E to collect wood, I was pressing E on all the trees at the same time. Once I knew what the issue was I was able to resolve it in a couple hours



Money Works?

Getting the money to work was not an issue since I had used code that was available in my other projects. I think the only thing I learned was that for this testing was that when players were testing this prototype they were unable to tell that the counter on the top was a money counter. They say that it was going up but had no idea what it was for.



The background features a light gray, textured surface with a fine grid pattern. Overlaid on this are several large, wavy, semi-transparent shapes in a darker gray tone, creating a layered, architectural effect. A thin black grid is also present, with lines intersecting to form a square pattern across the entire image.

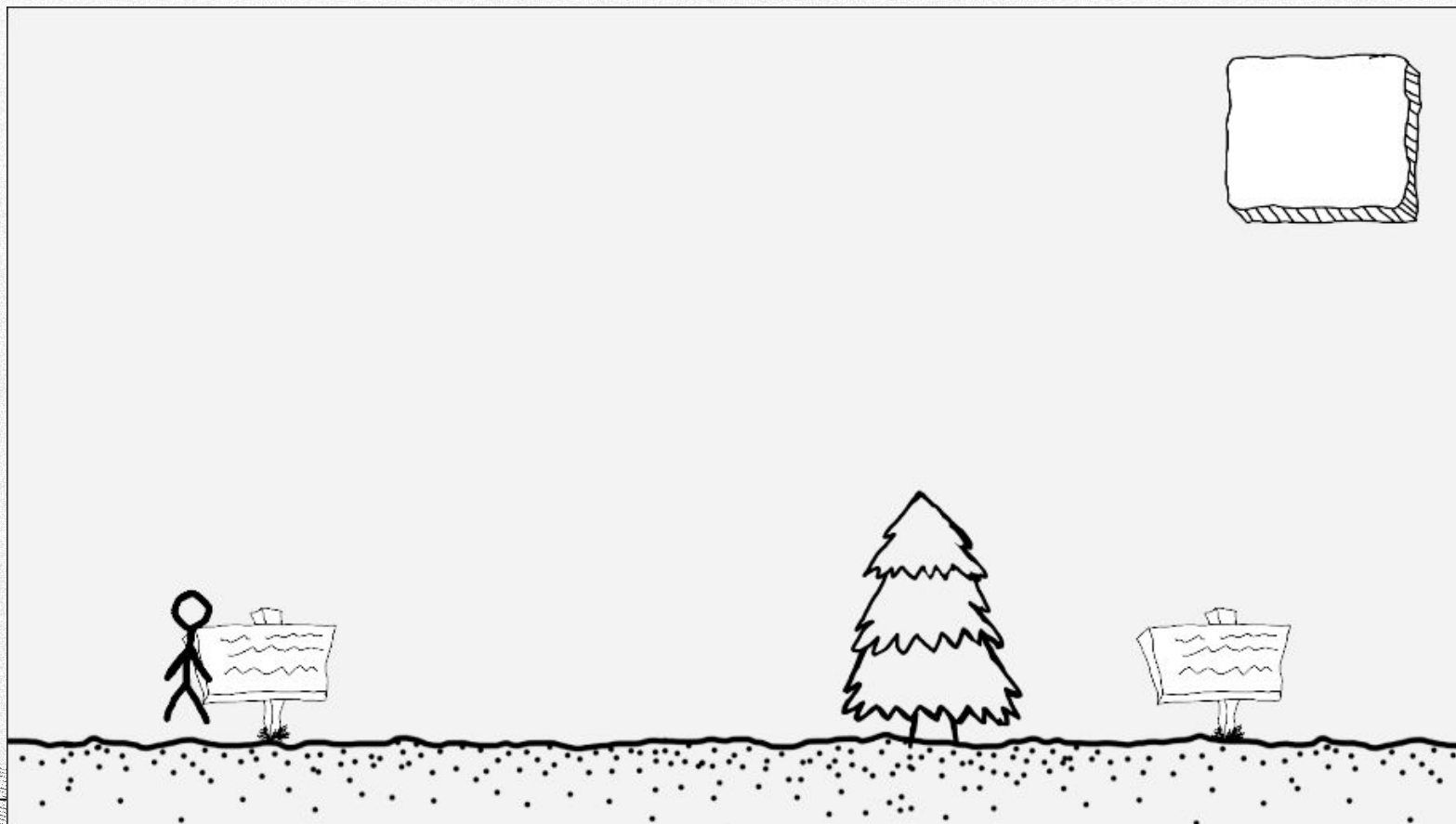
Building the Game

Designing The Game

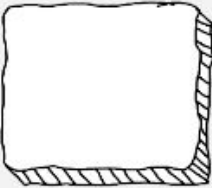
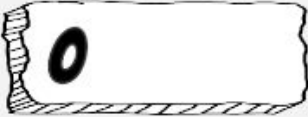
I really enjoy this game called West of Loathing and I drew a lot of inspiration from it. It is a completely black and white game and although it looks simple it is actually very complex and has touch ups of colour here and there. Even with the simple style it thoroughly explains the plot in a fun and engaging way and I wanted to try and reflect that in my game. Even though the topics are vastly different I do think that I accomplished that



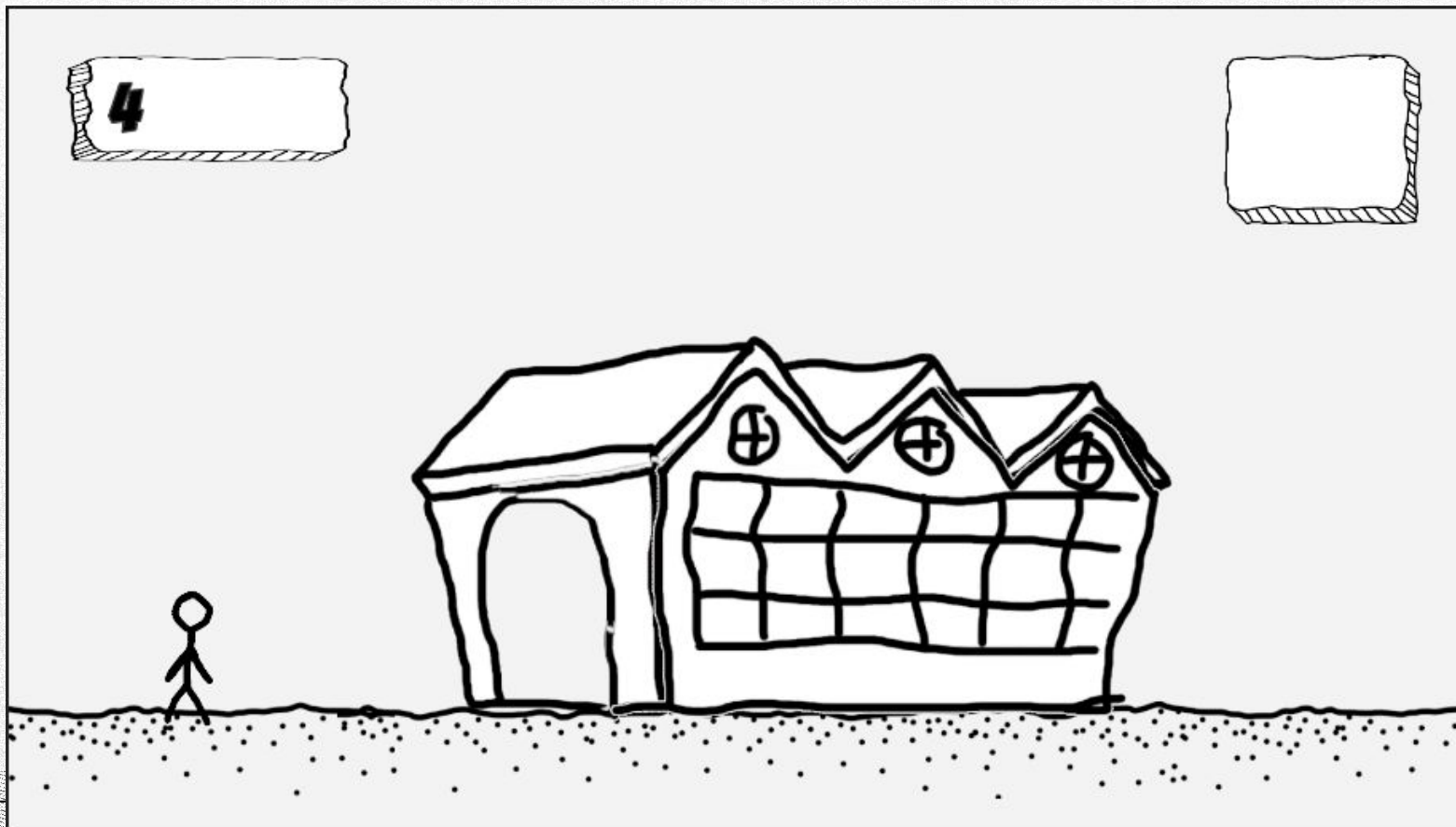
Game Versions - general layout



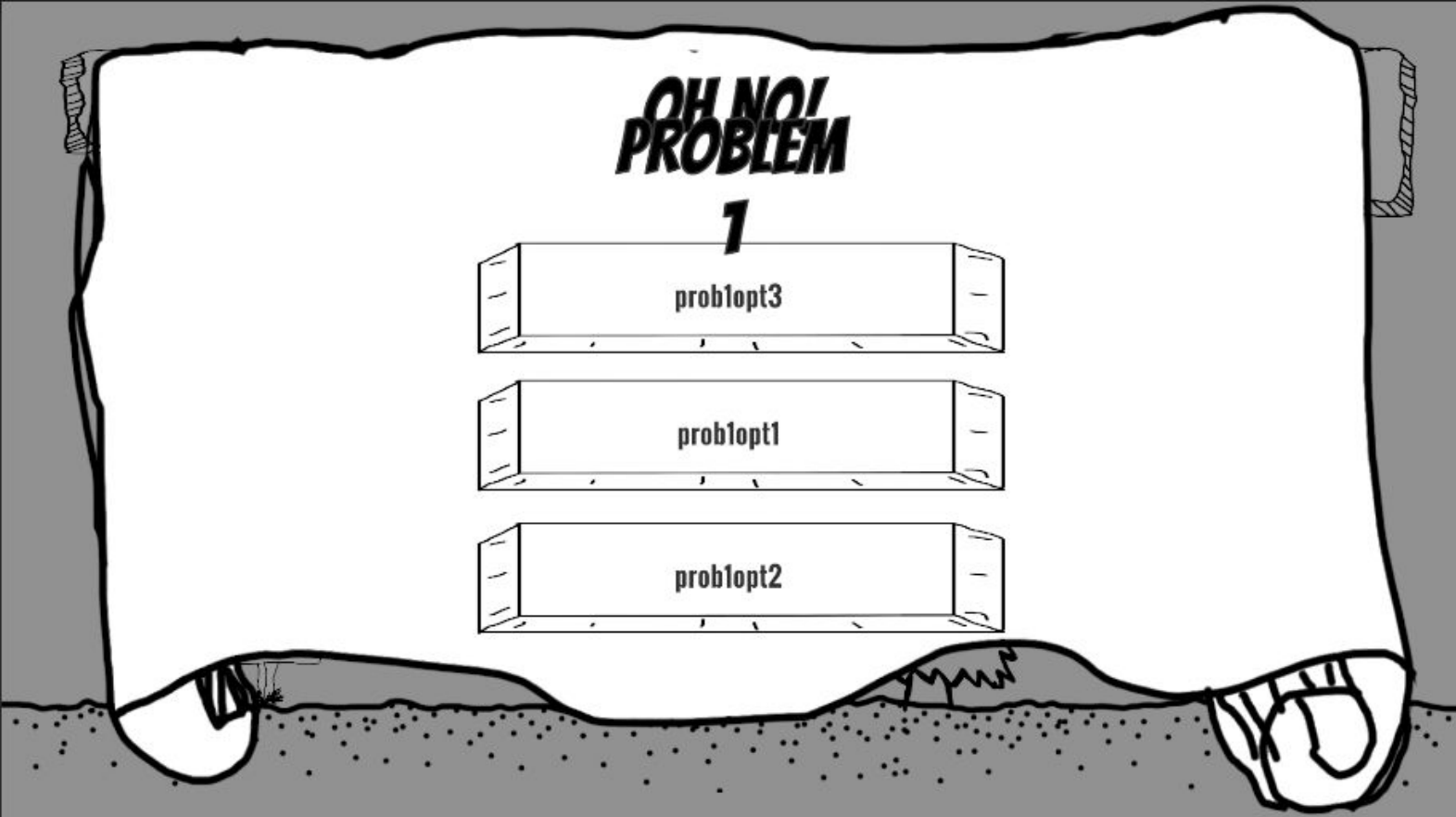
Game Versions - inserting a point box



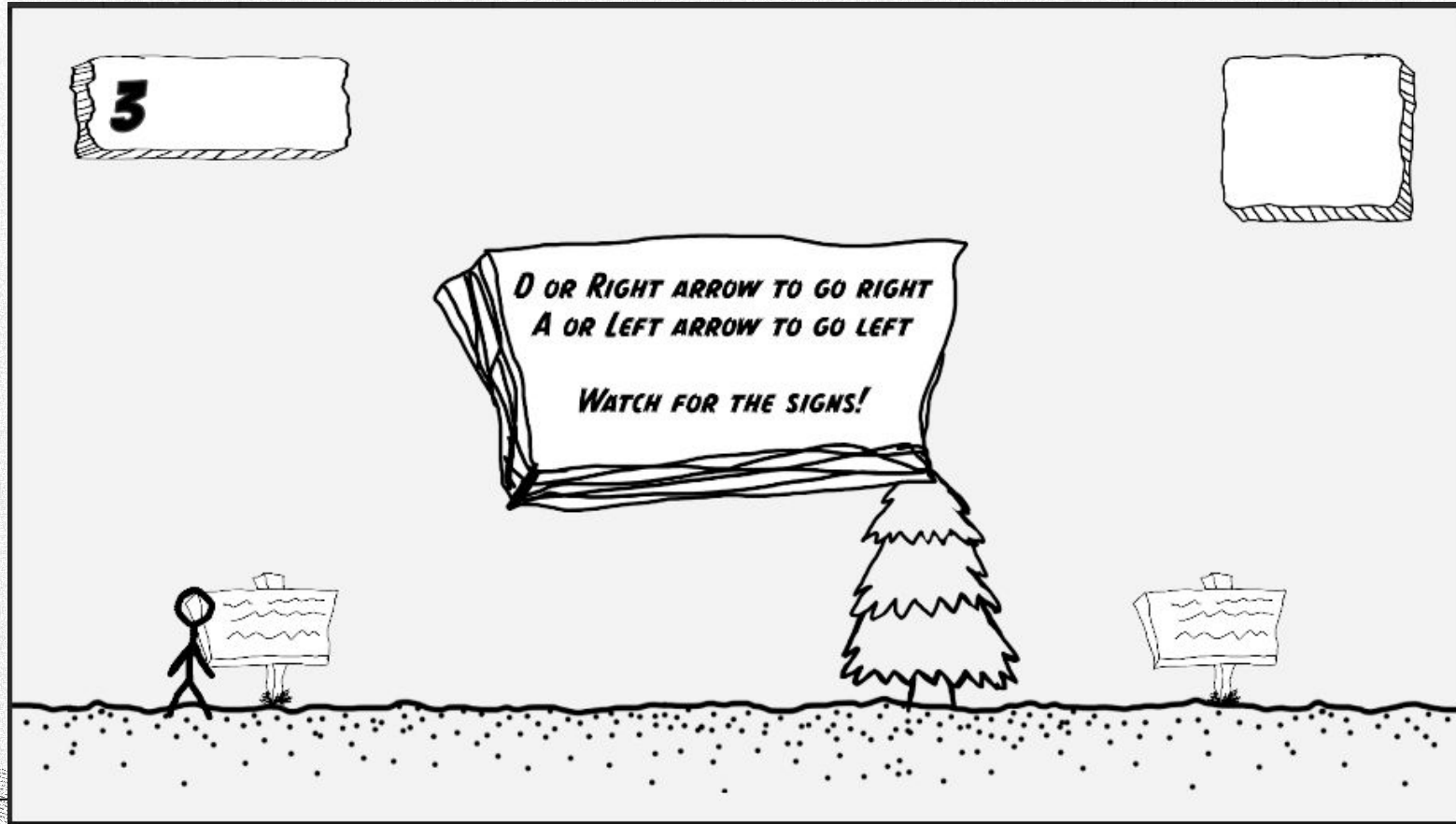
Game Versions - creating a factory



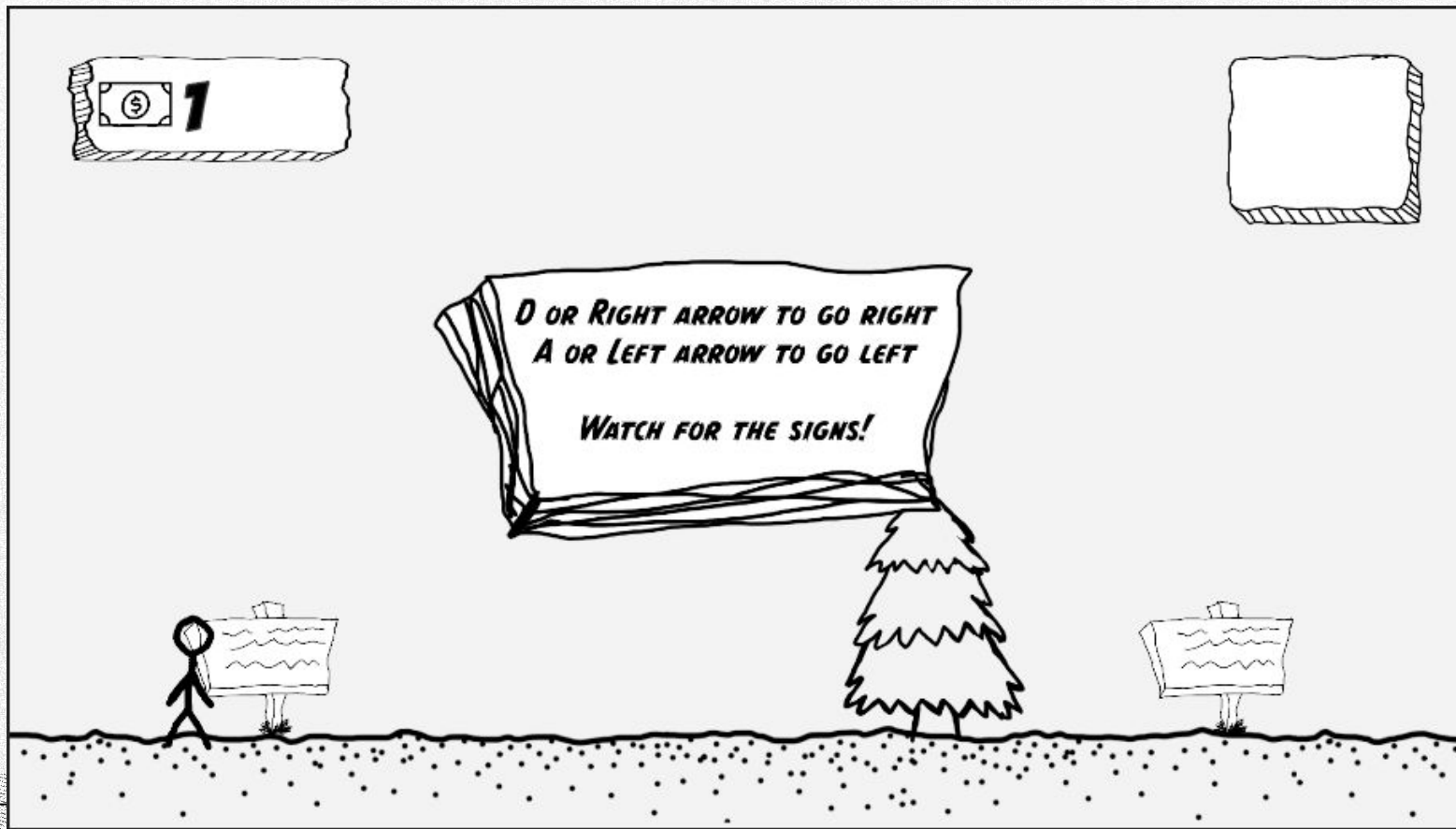
Game Versions - setting up the dilemmas



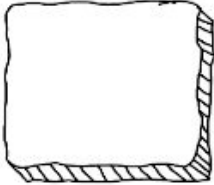
Game Versions - setting up the tutorial



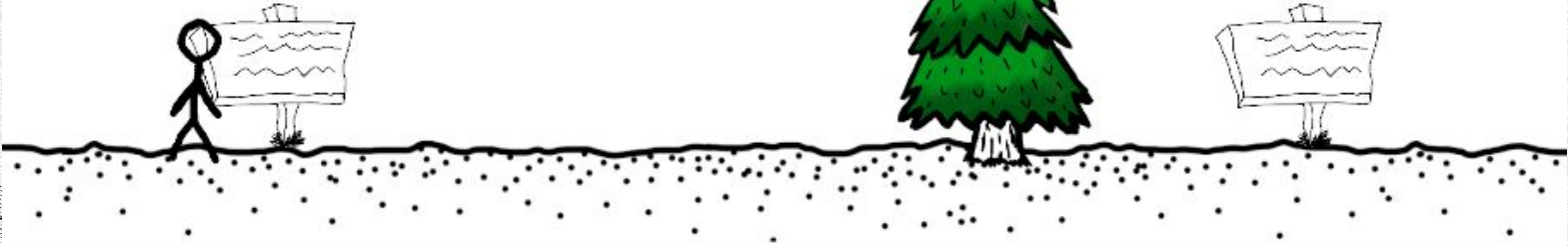
Game Versions - lofi changes (money symbol)



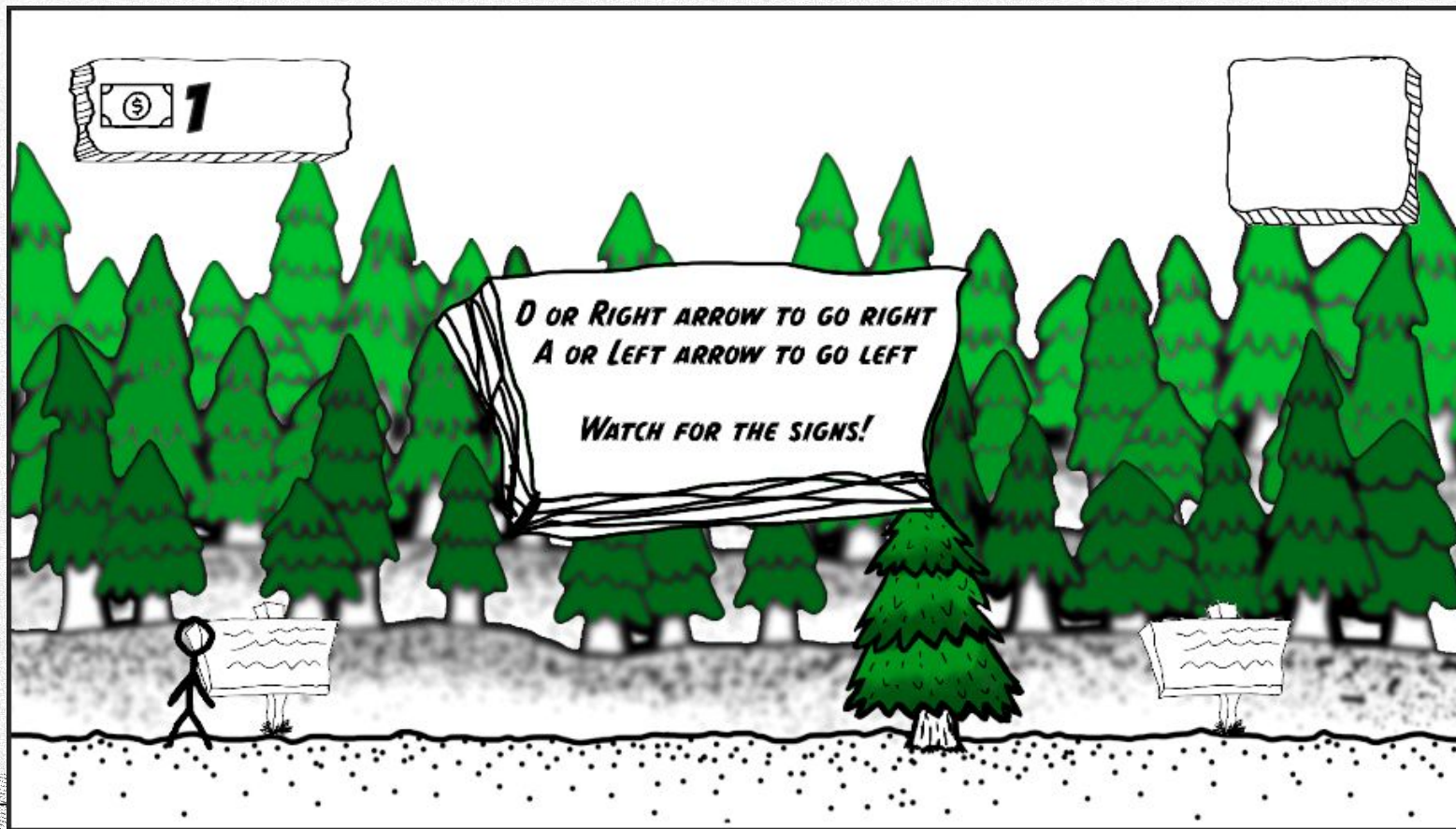
Game Versions - hifi changes (colourful trees)



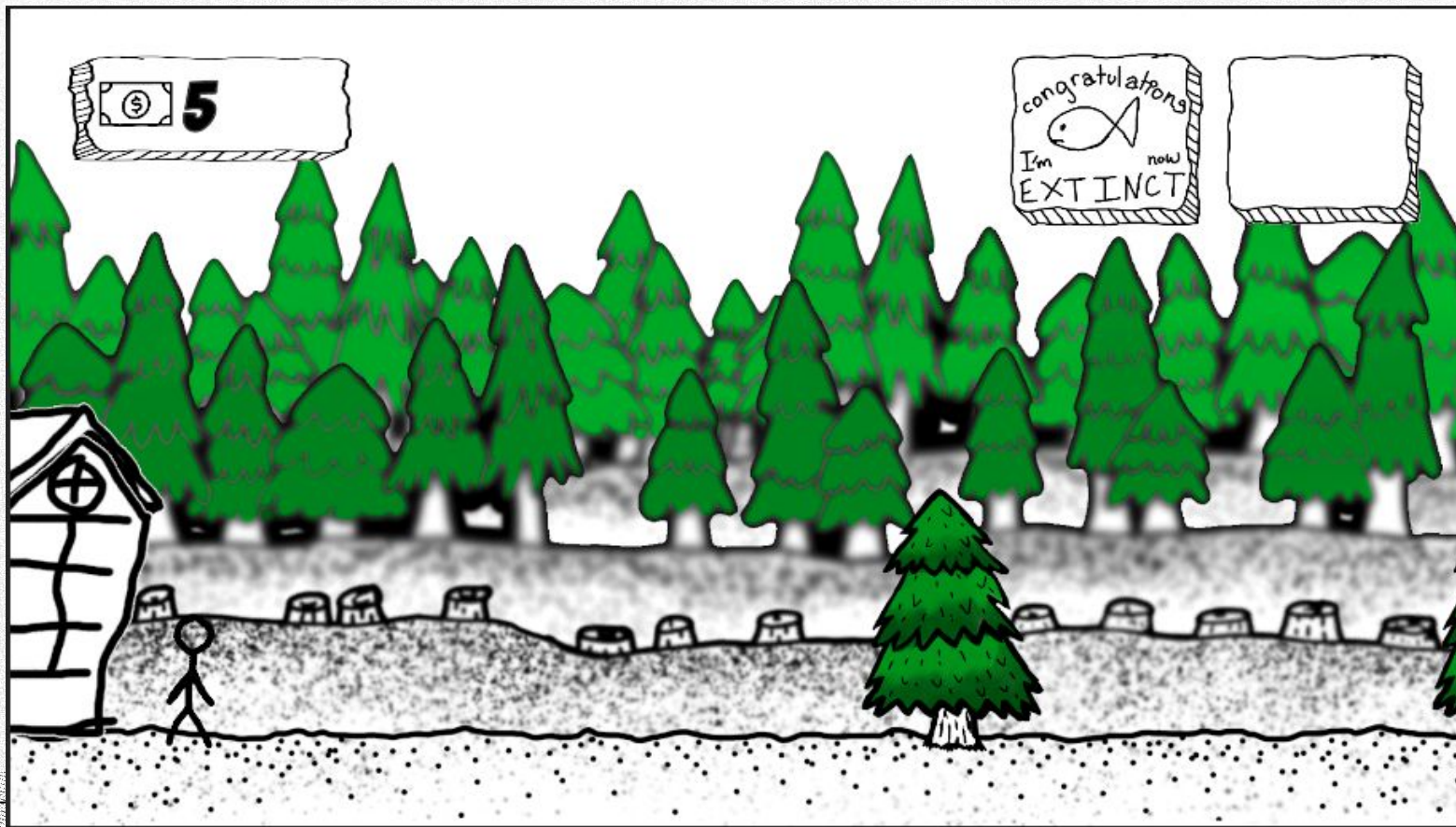
*D OR RIGHT ARROW TO GO RIGHT
A OR LEFT ARROW TO GO LEFT
WATCH FOR THE SIGNS!*



Game Versions - add/creating a background



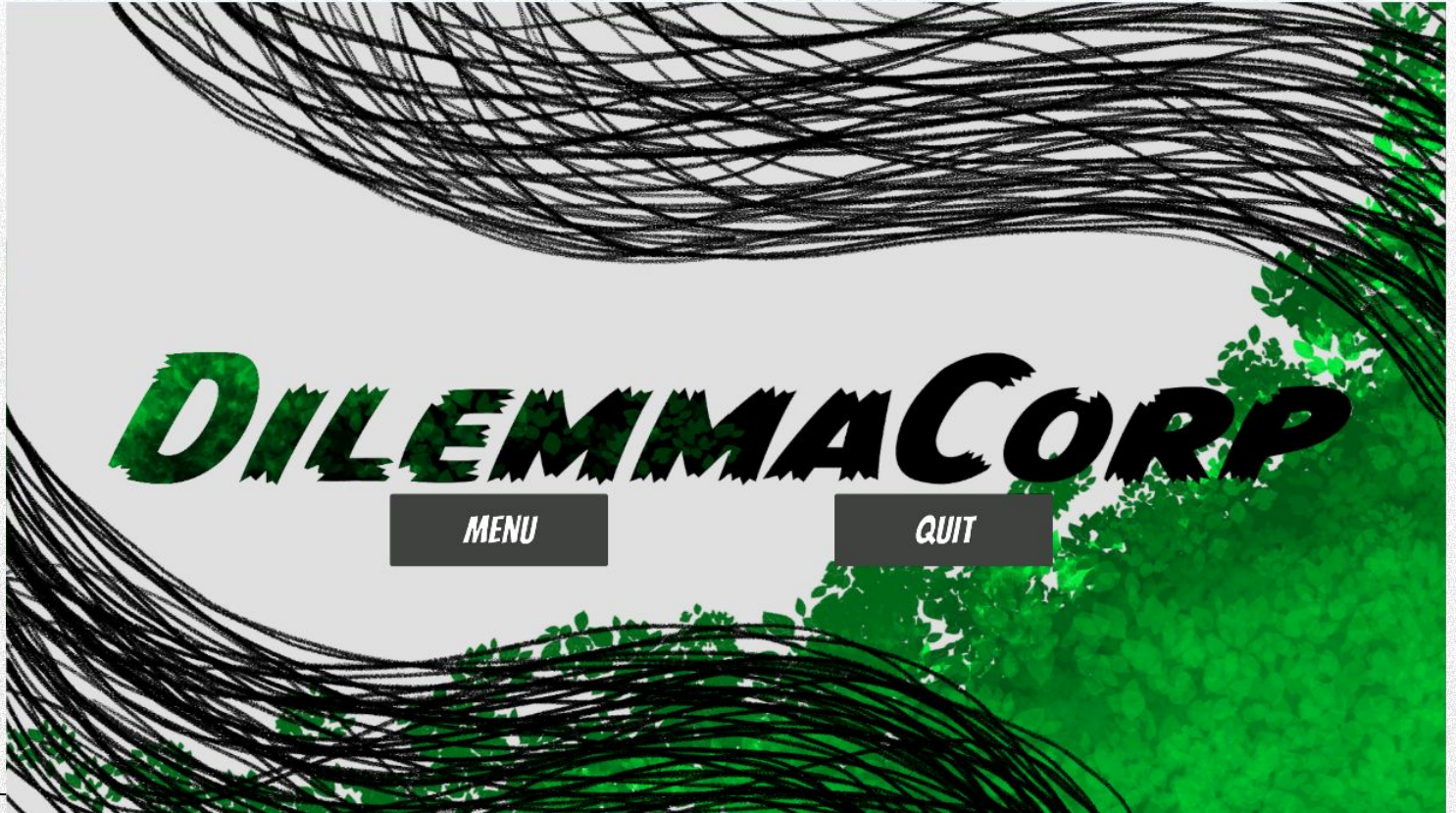
Game Versions - adding awards/consequences



Game Versions - creating title slide



Game Versions - creating pause/start screens



Game Versions - creating an advanced factory



Game Versions - Intro Story

HELLO AND WELCOME TO YOUR FIRST SHIFT AS AN ONSITE PROJECT MANAGER. THIS LETTER IS TO WELCOME YOU AND INTRODUCE YOU TO THE BASICS. LOOK OUT FOR BILLBOARDS; I LEFT THEM AROUND IN CASE I COULDN'T FIT EVERYTHING IN THIS LETTER.

YOU WILL BE IN CHARGE OF ALL THE DECISIONS THAT ARE MADE IN YOUR BRANCH, WHICH IS BASICALLY EVERYTHING YOU CAN SEE. YOU CAN HELP THE PEOPLE IN THE FACTORY BY GATHERING WOOD FOR THEM IF YOU WOULD LIKE; HOWEVER, YOUR MAIN ASSIGNMENT IS TO SOLVE THESE PROBLEMS AND MAKE AS MUCH MONEY AS POSSIBLE. EVERYTHING ELSE COMES SECONDARY.

GOOD LUCK IN YOUR NEW ROLE AND WELCOME TO

DILEMMACORP

CONTINUE

Game Versions - Good Ending (everything that is not bad is “good”)

PREPARE FOR LIFTOFF BECAUSE YOUR TRAJECTORY OF BRILLIANT DECISIONS HAS OFFICIALLY CATAPULTED YOU TO NEW HEIGHTS! AS THE ORCHESTRATOR OF WISDOM, YOUR STRATEGIC PROWESS AND SAVVY CHOICES HAVE BEEN THE WIND BENEATH OUR COMPANY'S WINGS. IT'S MY ABSOLUTE PLEASURE TO ANNOUNCE YOUR WELL-DESERVED PROMOTION TO AN OFFICE POSITION IN OUR HEAD OFFICE! YOUR KNACK FOR NAVIGATING UNCHARTED TERRITORIES WITH FINESSE HAS BEEN NOTHING SHORT OF AWE-INSPIRING. HERE'S TO SOARING EVEN HIGHER ON THIS COSMIC JOURNEY OF SUCCESS!

DILEMMACORP

CONTINUE

Game Versions - Bad Ending

OUR GREEN COMPANY JOURNEY HIT A SNAG, OR MORE LIKE A RECYCLING BIN WE MISSED. IN THE ROLE OF BRANCH MANAGER, YOU FOUND YOURSELF UNINTENTIONALLY FRONT AND CENTER IN OUR NOT-SO-ENVIRONMENTALLY-FRIENDLY ESCAPADES. NOW, WE'RE GEARING UP FOR A DRAMATIC COMPANY MAKEOVER, AND, WELL, IT COMES WITH A FEW PLOT TWISTS. THANKS TO RECENT ECO-DRAMA (WHICH, FOR PLOT CONVENIENCE, WE'RE BLAMING ENTIRELY ON YOU), WE'VE GOT TO TAKE DIFFERENT PATHS.

AS WE PART WAYS, REST ASSURED IT'S MORE ABOUT SAVING FACE THAN CHOPPING TREES. MAY YOUR FUTURE TRAILS BE STREWN WITH RECYCLABLE CONFETTI.

BEST OF LUCK FINDING GREENER PASTURES (LITERALLY).

DILEMMACORP

CONTINUE

Game Versions - Mediocre Ending (run out of questions)

OUR JOURNEY TOGETHER HAS BEEN LIKE A SCENIC DRIVE, BUT WE'RE THINKING OF TAKING A DIFFERENT ROUTE. YOUR EFFORTS HAVE BEEN STEADY, LIKE A RELIABLE GPS, BUT WE'RE YEARNING FOR A BIT MORE OFF-ROAD ADVENTURE. IT'S NOT A CRITIQUE; IT'S MORE LIKE SWITCHING FROM ELEVATOR MUSIC TO A ROCK ANTHEM.

IN THE SPIRIT OF CHANGE, WE'RE WAVING YOU OFF THE SCENIC ROUTE. YOU'RE OFFICIALLY FREE TO EXPLORE NEW TRAILS, AND, WELL, YOU'RE ALSO FIRED.

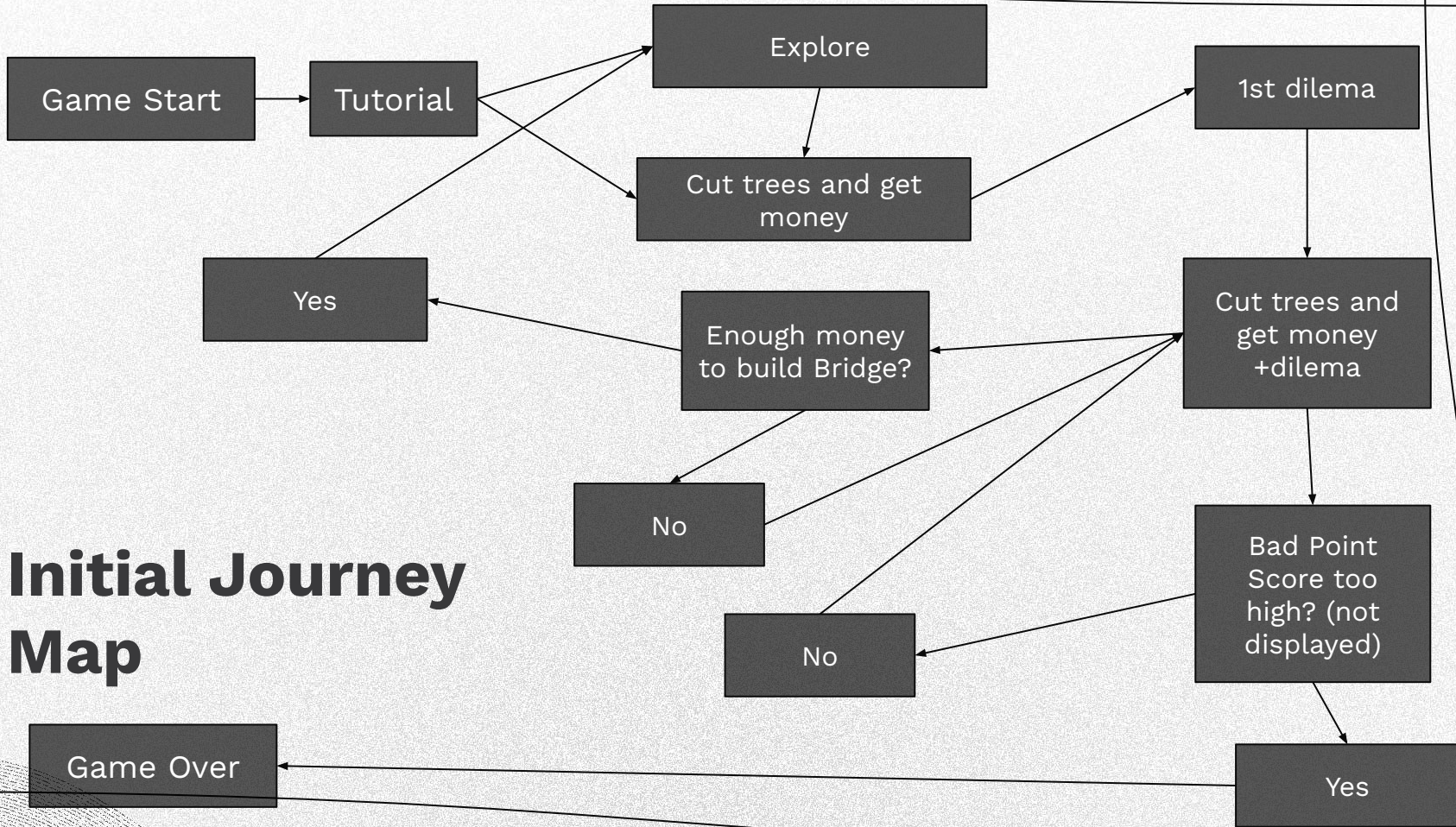
BEST OF LUCK FOR YOUR CAREER ADVENTURES.

DILEMMACORP

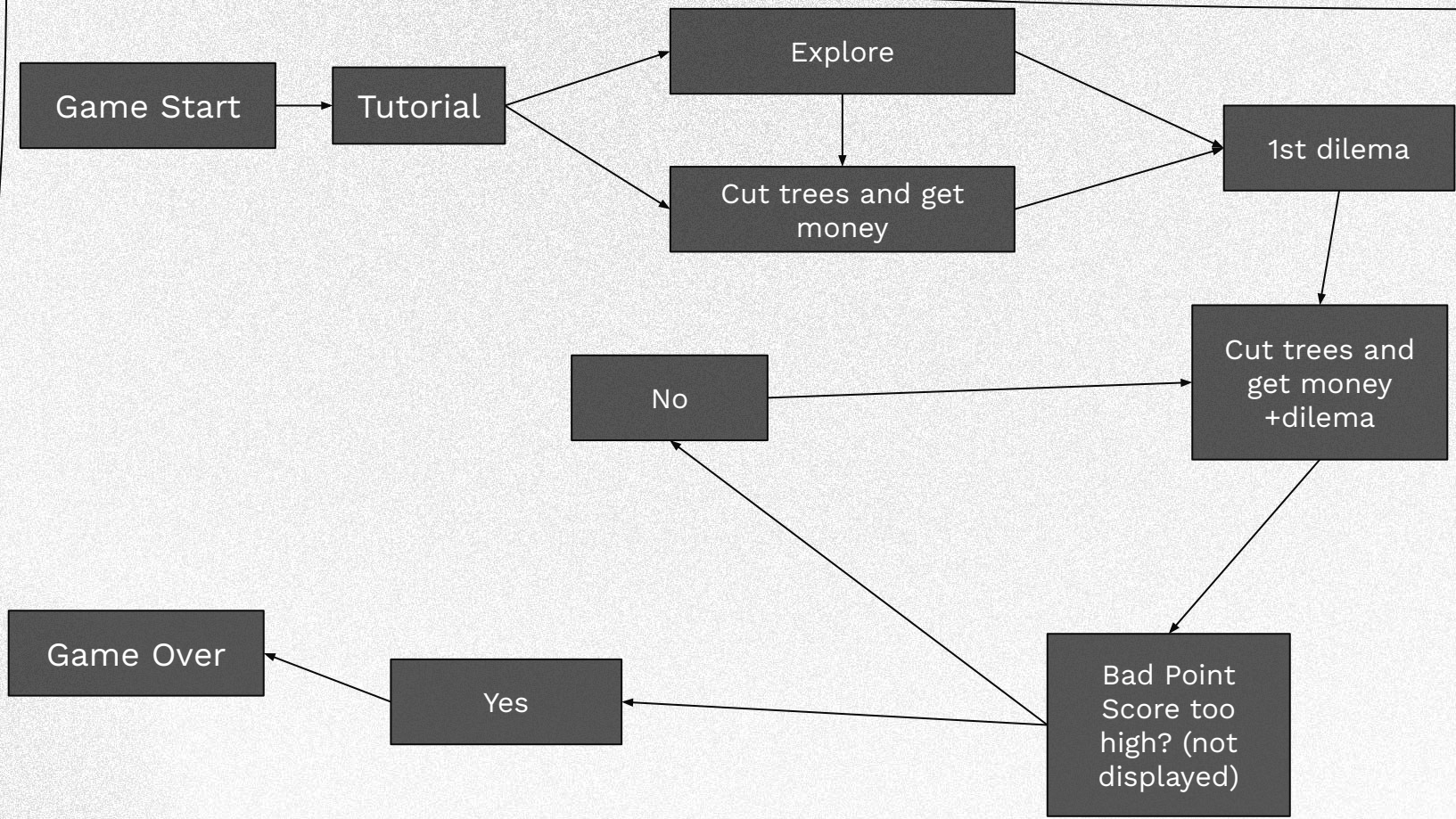
CONTINUE

The background features a light gray grid with thin black lines. Overlaid on this grid are several sets of wavy, parallel lines in a slightly darker gray, creating a sense of motion and depth. The waves are most prominent in the top-left and bottom-right corners, framing the central text.

Conclusion



Initial Journey Map



Bugs

Bugs still in the game

- The consequences for the bad things that you do in the game only make sense if you are only ever making bad decisions. This is because the “bad thing” that happens is based on whatever the counter option is on and not the specific question.
- The music for cutting down the trees only sometimes works (works when I test in editor but fails when I export)
- The canvas (screen size) is based on the resolution of your screen. Because that changes when I switch from PC to laptop it also changed the resolution and makes things not line up sometimes

Hoped

What I hoped to have

- I realized after that the good decisions can be in a meta kind of sense where anything that would cost the company money was a “bad” decision even if it is clearly the right choice of an option. That way it really plays into the title and you can have a good ending where you are either promoted for being too good at your job. Or fired for making some questionable if environmentally sustainable decisions
- I hoped to animate the character walking and maybe have a customization option. Or at least some kind of settings then so that you could lower or increase the volume in the game. I was to overwhelmed with other project in the last few weeks. And things kept getting so complicated and i kept getting stuck. Getting the trees and dilemma itself to work both took the longest amount of time to set up and maintain.

What I got

- I'm really proud that I was just generally was able to get the dilemmas to work. It's hard to tell from here but there is only 4 text boxes (1 for the problem and 3 for each option) and I have it cycling through each section each time. The problem with it is if you attach something to the first option button, that action stays with the button no matter the question. So finding a workaround for that was really fun (even if it only kind of works).
- Adding the colour was a nice touch and I'm really happy with the questions I was able to ask each time the player went back to the factory
- I'm actually really happy that the trees work. I was kind of upset cause I thought it would be one of the easier things to accomplish and yet I was stuck for so long. The most disheartening thing was that couldn't tell what the problem was, because just looking at it it made sense in my head. So I got really angry and frustrated when it wasn't working out the way I expect. Finally my coworker pointed out the issue
- There should be background music AND sound effects for cutting down a tree. The background music is one my brother made and it it mentioned in the acknowledgements
- I had also done this before but if you press escape there is an exit to menu button or close game button
- A good, bad and mediocre ending. Just temporarily because as I said before, I only really wanted one ending so it was more of a story to follow than decisions being made. But for right now for finality, there are 3 ending (mainly so the last question does not repeat when it runs out

Feedback and reviews

Feed back

- hanging trouble reading signs →
- Should add colour →
- don't make the button so dark →
- Don't have to have a singular end →
- there can be choices both good for the company and the environment
 - or there can be balance
- Make the character we play as more of a person →
- And info in the beginning →

Fixed?

- Fixed movement
- Done
- Okay
- There is 1 ending, if I change the storyline so that anything that loses money is a “bad decision” then there is a potential for another.
- There is at least one choice that's good for the environment and the company (recently added)
- I wanted it to be a neutral CHARACTER than a person. I don't want to flesh them out any more than they have to be.
- I added something that hopefully explains why you are in the forest and how you own a company

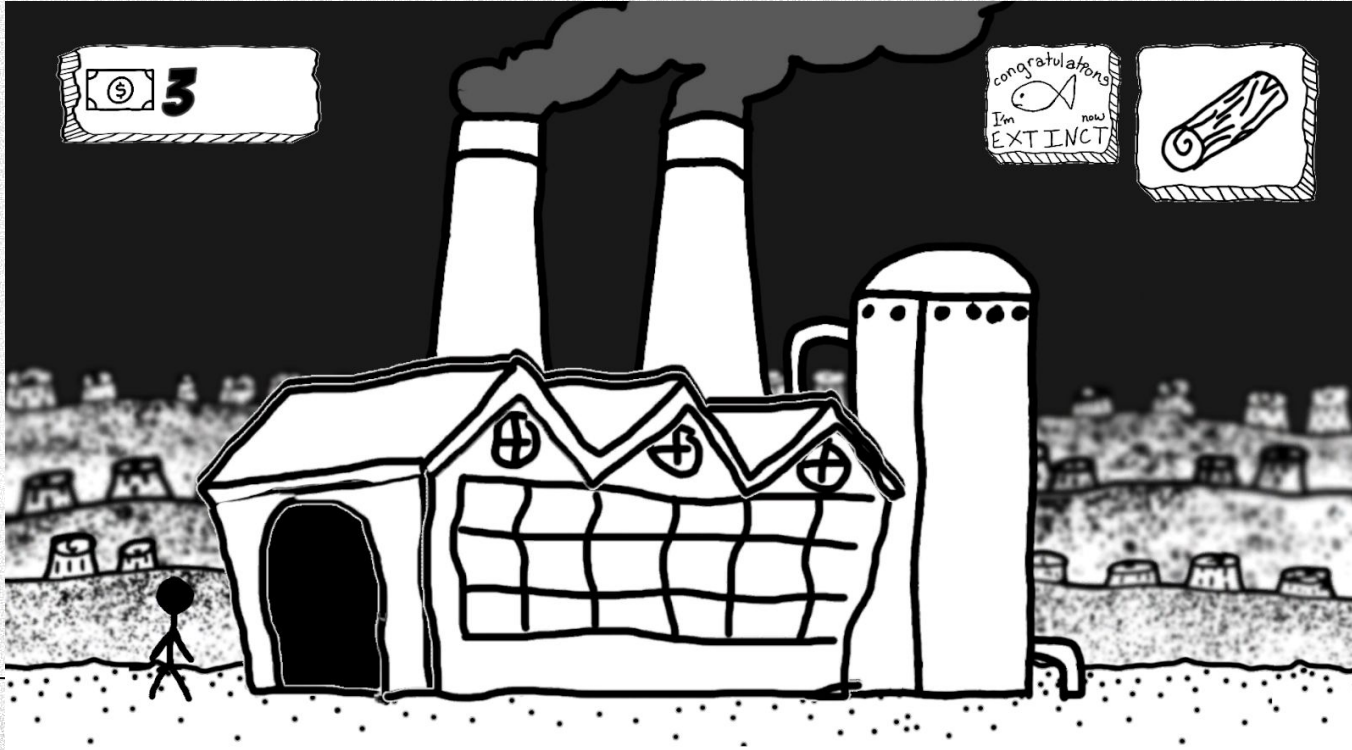
The best view

This is what everything looks like before you *the character) has any kind of interaction with the world



The worst view

This is what everything looks like if all you do is make bad decisions
(not an actual outcome as of yet, I am not sure I will be able to add it
and hand it in on time So you will not be able to play to this ending)



Conclusion

I am really proud of my overall final product. It may need a bit of polishing and some elbow grease, but with the time I had, I did all that I could. I spent too much time focusing on research and the drawing of each of the sprites than on the actual game. I didn't start the two main key factors about my game until halfway through the semester, about a week after reading week. Even though I had warned others who wanted to make games at the beginning of the semester to properly plan and time their projects, I had failed to heed my own warnings.

I think that since the low-fidelity prototypes were due so late in the semester, I had somehow managed to trick my mind into thinking I had a lot more time than I really did. And then suddenly, all of my presentations were due in the same week. It also did not help that my work had scheduled me for extra hours because of Black Friday. I told them they could because I had thought all my assignments would be due the first week of December and not the last week of November.

Looking at my schedule from November 10th to December 1st, I have had work and classes every day without a single day off to even just work on my assignments. I have been getting by on the skin of my teeth, and the fact that this project is as far as it is is more than I could hope for

Shout outs and thanks

Thank you to Laura Kozak for telling me about Lee Maracle and describing his Squamish/Stolo worldview about caring for the environment and the community and about finding balance. I did not understand at first when you were describing but after you emailed me with the link to his work I understand that there are actually many ways that just because something is beneficial to the environment doesn't mean it is bad for us, and vice versa.

Thank you to Daniel (co-worker) for helping me through this project multiple times. I would not have been able to finish the code without him and would be half as far.

Thank you to Chat GPT for troubleshooting and proofreading with me.


The song I used in the game was one that my brother made! I did not tell him I would be using his song, but here is a link to his youtube channel/to the song specifically

- <https://youtu.be/rNzOk085G5g?si=Is298p-Crooipu13>

Resources

Companies that are mentioned in my game

- 1. Nestle Palm Oil Deforestation**
 - <https://www.rainforest-rescue.org/topics/palm-oil/nestle>
- 2. Western banks are providing billions of dollars in financial support to companies responsible for the overfishing of at-risk species of tuna**
 - <https://unearthed.greenpeace.org/2020/09/28/western-banks-finance-companies-responsible-for-overfishing-tuna/>
- 3. DeepWater Horizon Oil Spill**
 - <https://www.britannica.com/event/Deepwater-Horizon-oil-spill#ref294126>
- 4. Coca-Cola is one of the world's most polluting brands**
 - <https://theintercept.com/2019/10/18/coca-cola-recycling-plastics-pollution/>
- 5. Marie Kondo “does not spark joy” meme used in some marketing teams**
- 6. Pollutants produced by multiple companies in the transportation of their products.**
 - <https://climate.mit.edu/explainers/freight-transportation>
- 7. Other links**
 - <https://www.bbc.com/news/world-latin-america-45455984>
 - <https://youtu.be/JivuXdriHK0?si=gxswOnUD7JLE9oK6>
- 8. Sounds**
 - <https://youtu.be/rNzOk085G5g?si=ls298p-Crooipu13>
 - <https://youtu.be/bDD7BJWWMc8?si=dthEcrVxQZb4DGCv>

The background features a light gray grid with several sets of curved, overlapping lines in black and gray, creating a sense of motion and depth. The lines are most prominent in the corners and along the sides of the frame.

THANKS!

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