Project Collection for GAME 3400 - Level Design & Game Architecture Fall 2021

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Week 2 Project:

Description:

This idea will make it exploration based, but be guided by what the player sees that he is capable of. For example, as soon as the game starts, they see multiple passage ways, but only 1 is available. From there, at some point they will return to the main hub creating a connection. Go to a new gate to unlock a newer gate. But this will trigger the main enemy/boss of the game which will lock them in, and will have 2 available rooms. From there, the enemy will follow the player all the time, but it is able to be tricked for a little bit to escape. At the end, the player will have access to the full map and use it to securely damage the enemy and escape him.

Design Problem:

How do you create creative puzzles that make the player use a variety of their range of tools to solve them?

How should you control player access to physical space?

How do you promote character progression in a game with resources, and spur them to explore their game space?

How your pattern applied to the design problem:

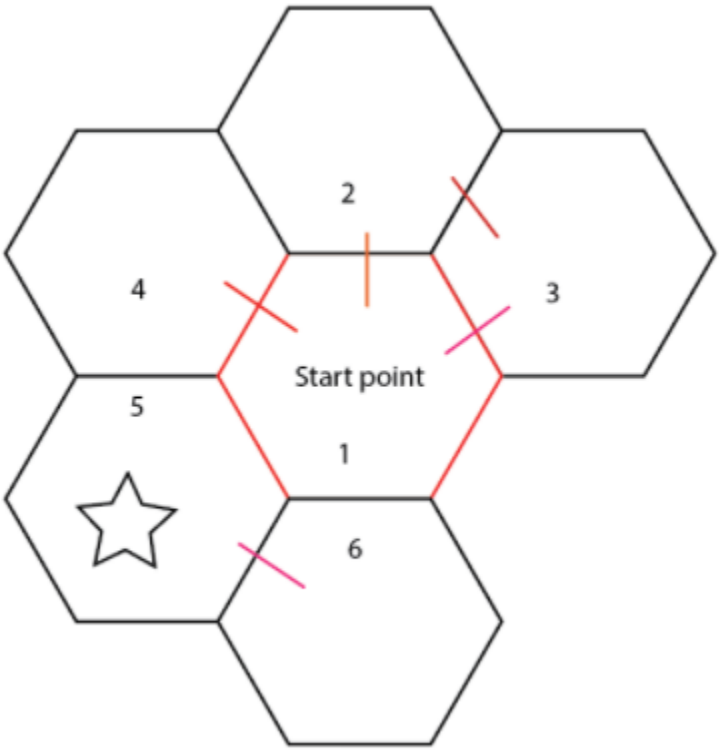
In a game with resources, crafting is a mechanism that can be used to promote player choice and act as an agent to allow players to explore their game space. Based on the availability of resources, crafting can offer a means of allowing a player to adapt their playstyle into the game, thus allowing them to immerse themselves more.

Limiting access allows the designer to control the sequence of game events. Granting access signals to the player that whatever follows is different than what came before.

Branching access gives the player agency over the sequence of game events. Checkpoints control when a player has completed the challenge. In general, controlling space controls player focus.

Shooting arrows in conjunction with other items can make for creative and multifaceted ways to solve puzzles. Arrows combined with other items or effects can make the player have to think about what tool is needed to solve a certain problem and there could even be more than one correct way to solve the problem based on the properties of an item. Shooting an arrow usually provides a way to get a straight shot at a target for puzzles.

Sketches:



*there is a Line that goes from Room 1 to 5

Legend:

Lines > Gates.

Numbers > Room ID but also order the player will generally follow

Star > Encounter of the Beast/Animal

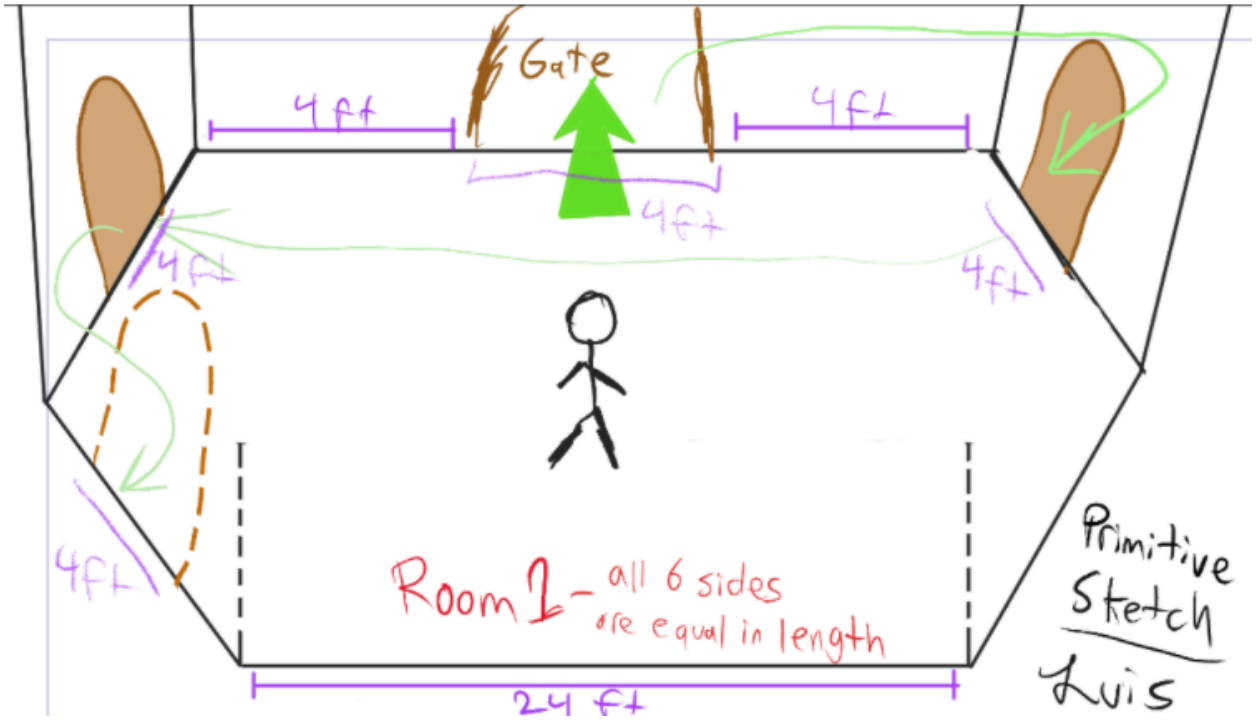
Design:

Hexagonal Design Makes it compact to where we are able to guide the player through systems like gates while also giving a sense of discovering and being able to get items for crafting

- Room 1
    - Utility
        - Spawn Room
        - Initially, 4 options but the only gate to Room 2 is open
    - Items Found:
        - Wood for arrow
- Room 2
    - Utility:
        - Discover and items collecting
        - Open space to be used later
    - Items Found:
        - Metal for key and arrowhead
- Room 3
    - Utility
        - Same as 2, but are not able to unlock gate that leads back to Room 1
        - Now you have connecting rooms
    - Items Found
        - Crafting location
        - Craft: Key, arrows
- Room 4
    - Utility
        - Crafting Location to be able to go to Room 5
    - Items Found
- Room 5
    - Utility
        - Where the Beast is found and will chase you throughout the map
        - As soon as you enter, the gate you just entered closes, and have to enter the next room
    - Items Found
- Room 6

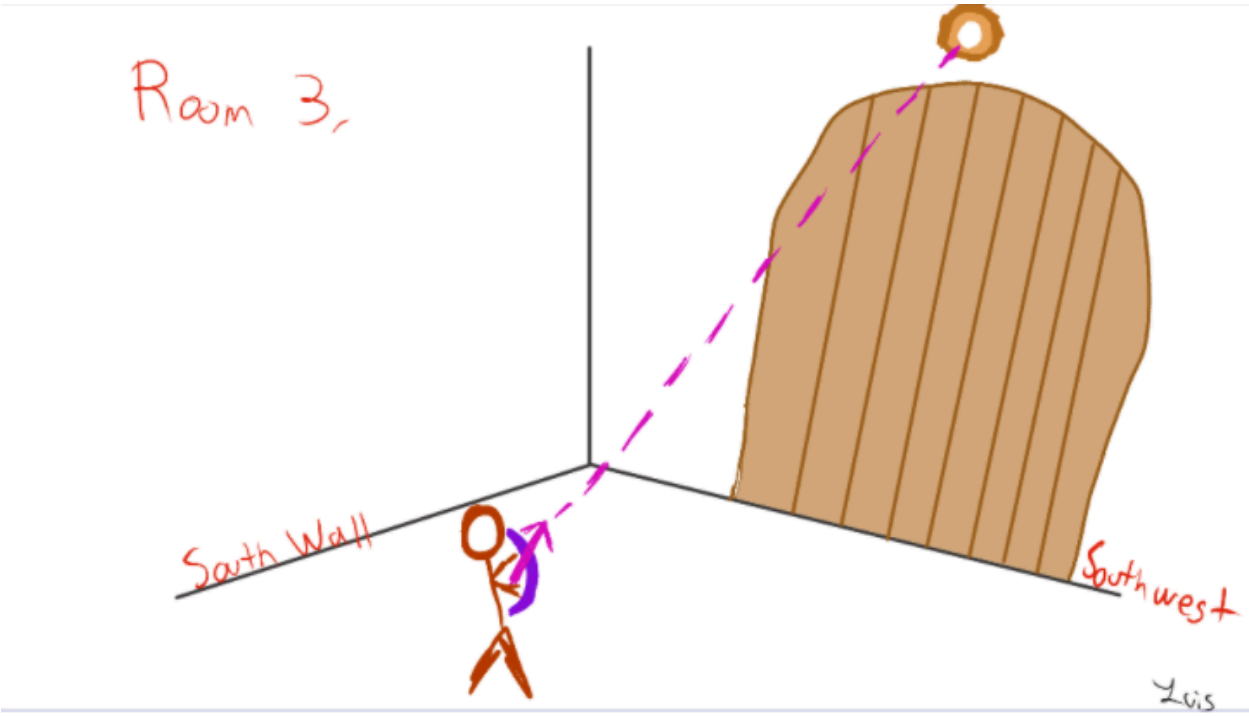
- Utility
    - Be able to unlock the gate that was closed, giving you access to the full map as you are chased by the Beast
    - Players learn they can distract the beast for a little bit
- Items Found

Annotated Screenshots:

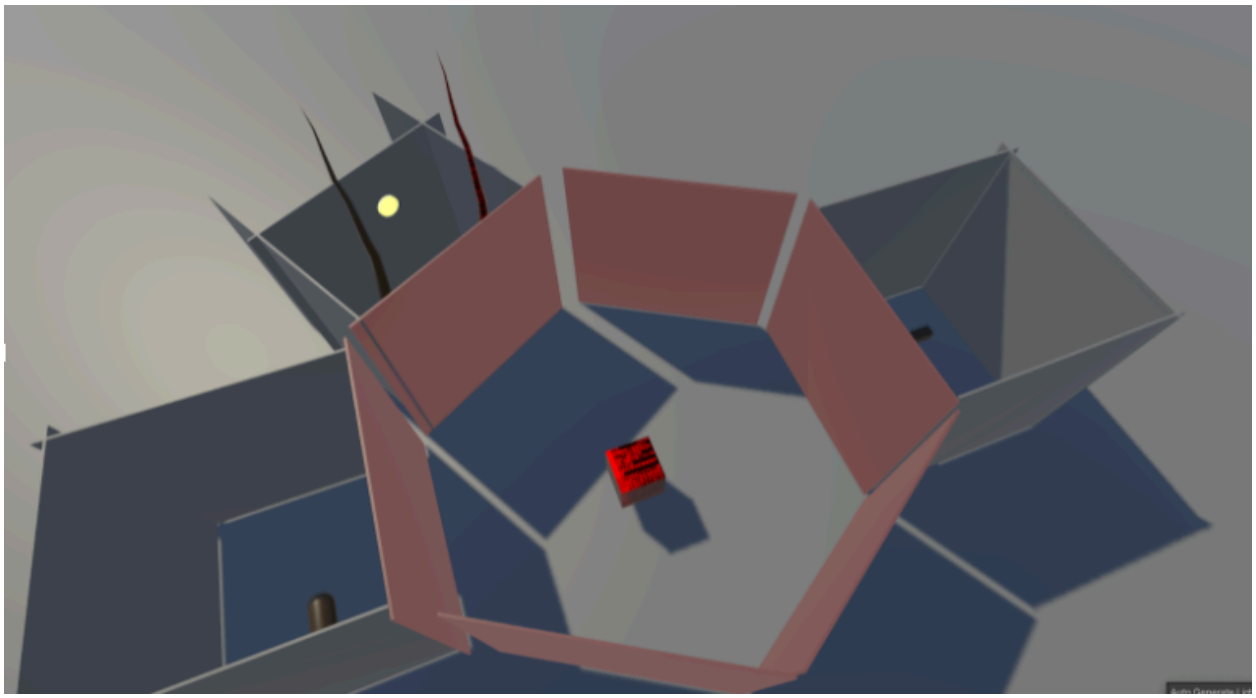


Camera on south wall, higher than the player, looking down

- Green line shows order of where the player should go according to what was mentioned
- Reference, a standard exterior door is 3 feet wide



- Possible way to activate a door with an arrow
- Update: Will now be mixed with crafting



Video:

https://drive.google.com/file/d/14QZ4T3_S7WRE_78gWkw9bHITwMNk3RVy/view?usp=sharing

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Week 3 Project:

Description:

Your car broke down in the woods. The closest town is across a wide river. There is a monster lurking in the woods, and you have to collect wooden planks and other items as fast as possible to rebuild the bridge while not making contact with this monster because any contact will kill you instantly. Other items can make it easier to hide or run away. There are no checkpoints/save areas.

Design Problem:

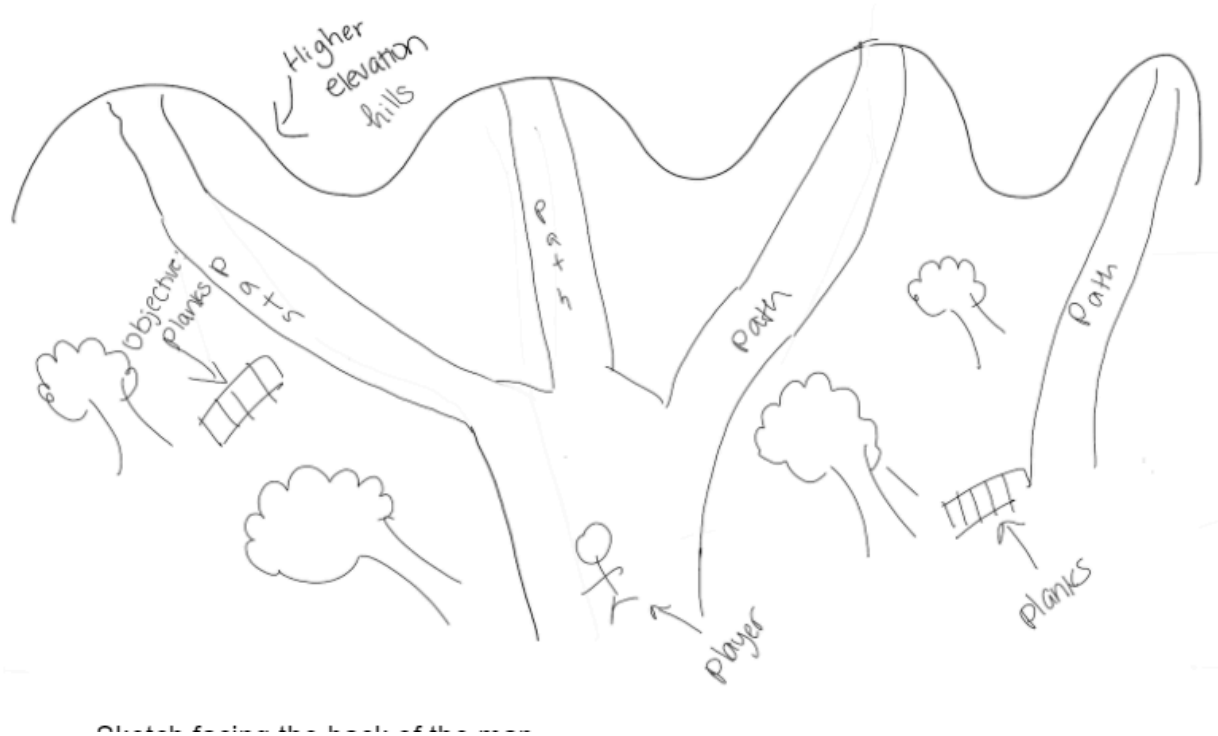
- What can a designer promote by adjusting their punishment for failure?
- How could one spur players to aim for a higher level of mastery and work to improve their skills?

How your pattern applied to the design problem:

- If a designer increases the punishment for failure in their game they will increase players desire to mitigate risk and carefully plan out their actions, while decreasing players' desire to experiment. Players will feel more scared to die because they fear losing progress, so they will try their hardest to play carefully and avoid failure, while if the punishment for failure is small the player will feel encouraged to be creative and experiment when they can.
- Having no cushion in case the player fails will increase the tension that they experience. Checkpoints or savepoints are a method of ensuring that players will not lose the progress they gain as they go through the game. It is a good way of marking game progression and player improvement that they can see. However, decreasing the amount of checkpoints or making failing more detrimental will cause players to feel tense since they can't afford to make mistakes so easily. Because of this, players must improve their abilities and gain

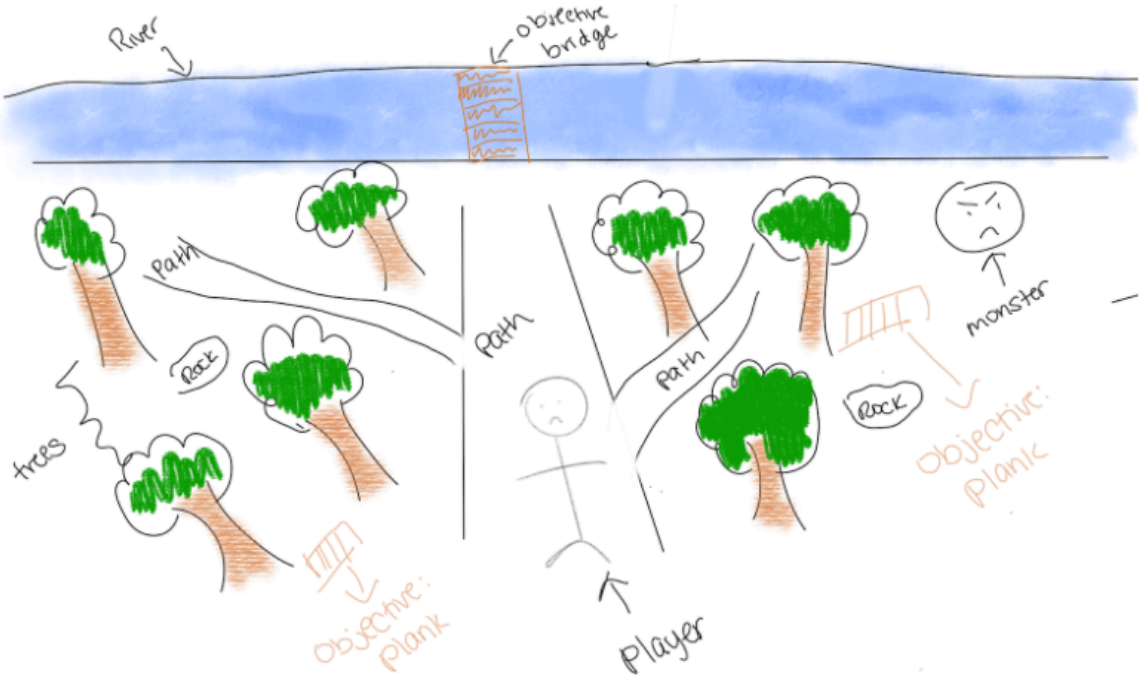
a level of mastery of the game to avoid losing progress. (CoD Zombies, Minecraft, Mortal Kombat, Getting Over It, Dark Souls)

Sketches:

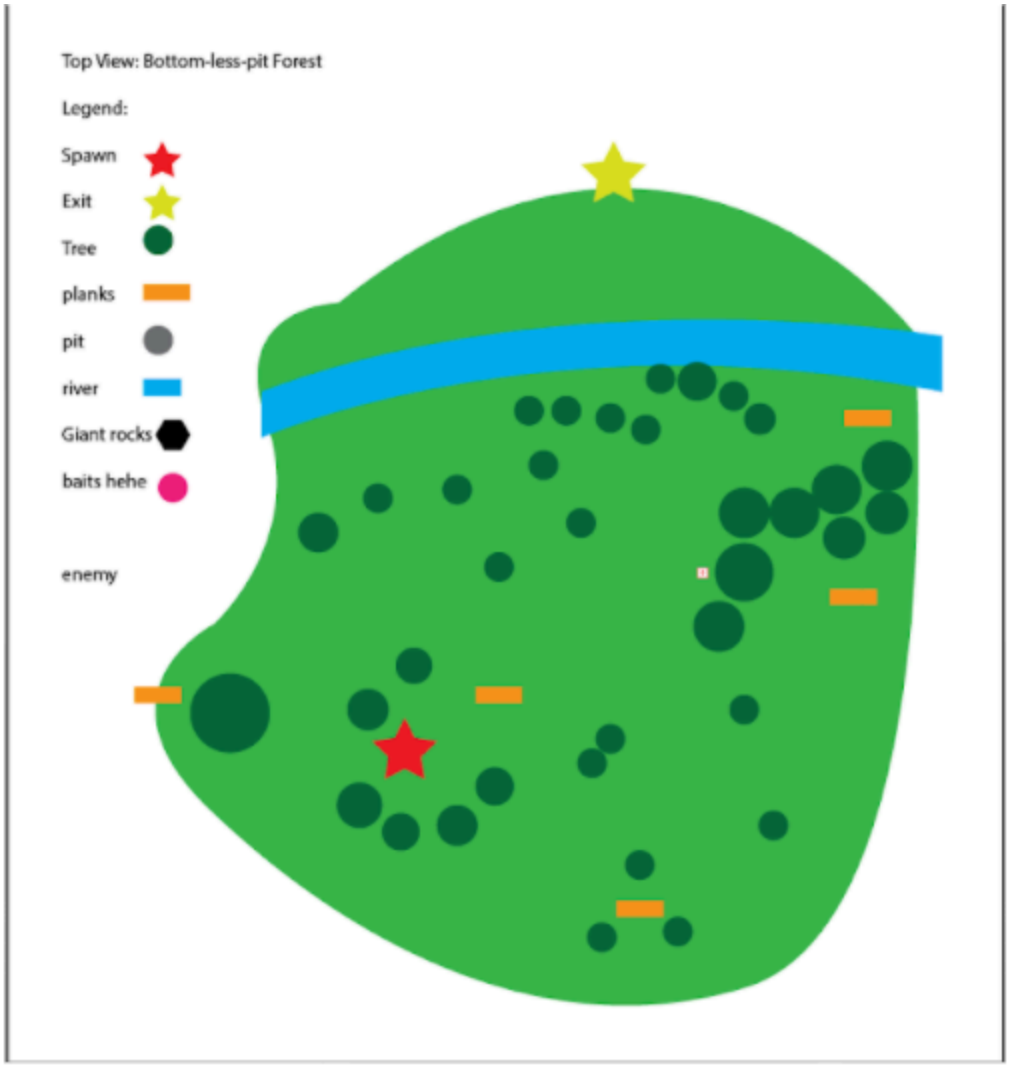


Sketch facing the back of the map

- Sketch facing the back of the map
- Use higher elevation to allow players to look across the map to strategize how they are going to collect planks and maneuver the map
- Different paths leading up to elevated areas for more map access

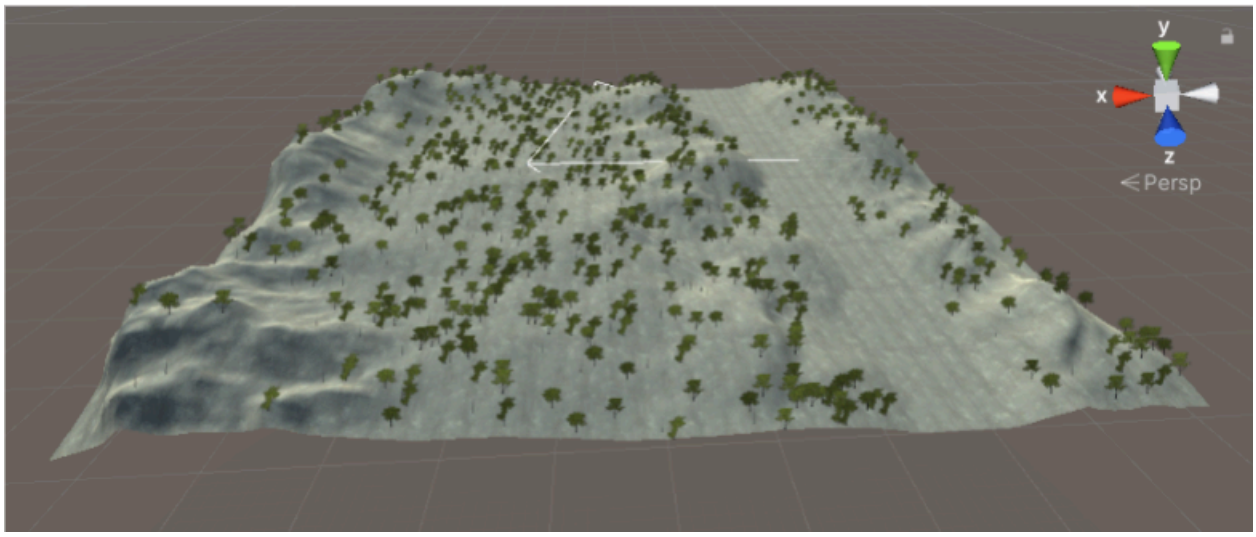


- Sketch facing the front of the map
- Objective: Crossing river into nearby town by fixing a bridge
    - Collect planks around map while avoiding monster
- Various paths leading around the map for map access and a path to bridge to direct players
- Monster lurking in forest to hunt players and force players to think carefully about their next moves

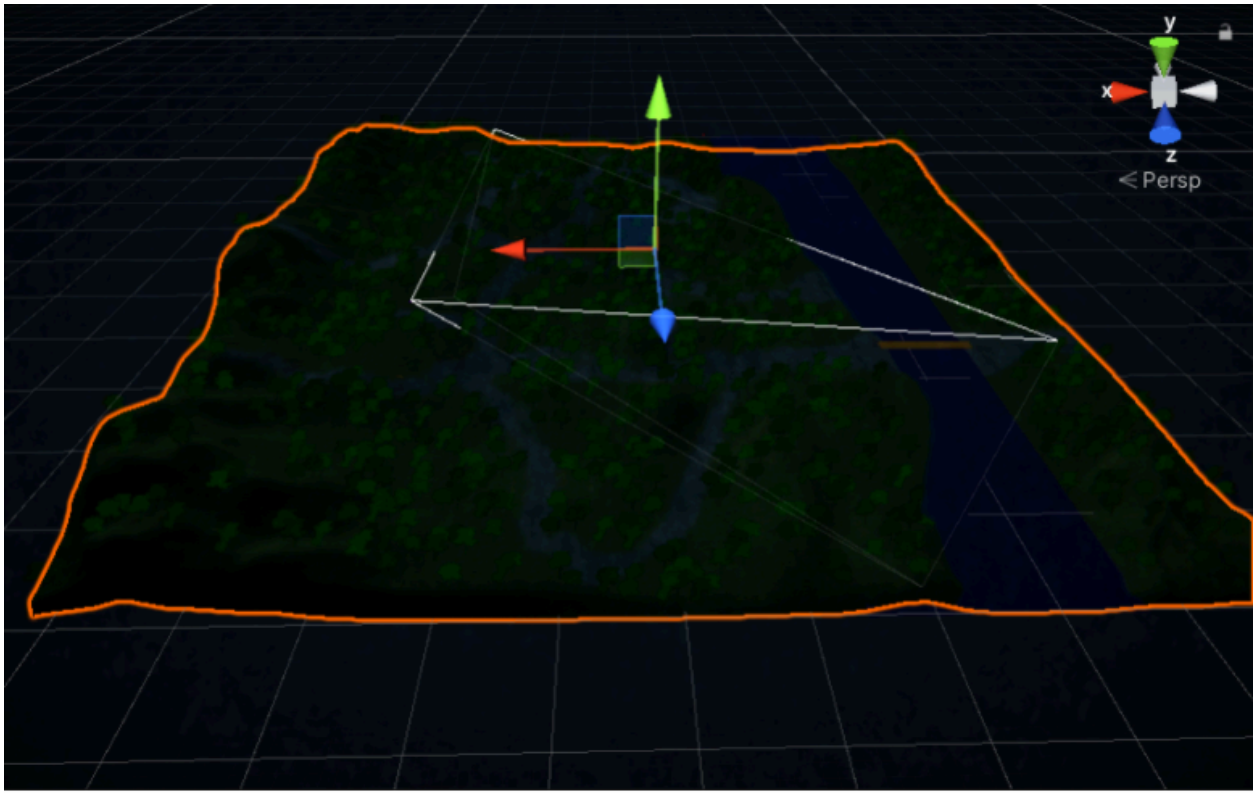


- Map overview
- Shows general map overview of the forest and locations of river and objective town
- Scene should use some of the same materials used such as trees, river, and planks to make basic scene

Annotated Screenshots:



- A basic layout of our scene
- Shows the topography of our scene and where elevated surfaces will be
- Shows locations of trees and what our forest will look like and where our river will be
- No rest points or checkpoints for players to increase risk



- Shows a more fleshed out design of our map including the rest of our scenery

- Depicts paths the players can take and the location of river and bridge

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Week 4 Project:

Description:

You are an adventurer looking for the dragon egg (???) that is being defended by a dragon to bring back to your village. You traverse through a forest to get to a clearing with a cave where the dragon is protecting the treasure. You must defeat the dragon by evading its attacks using the terrain around you.

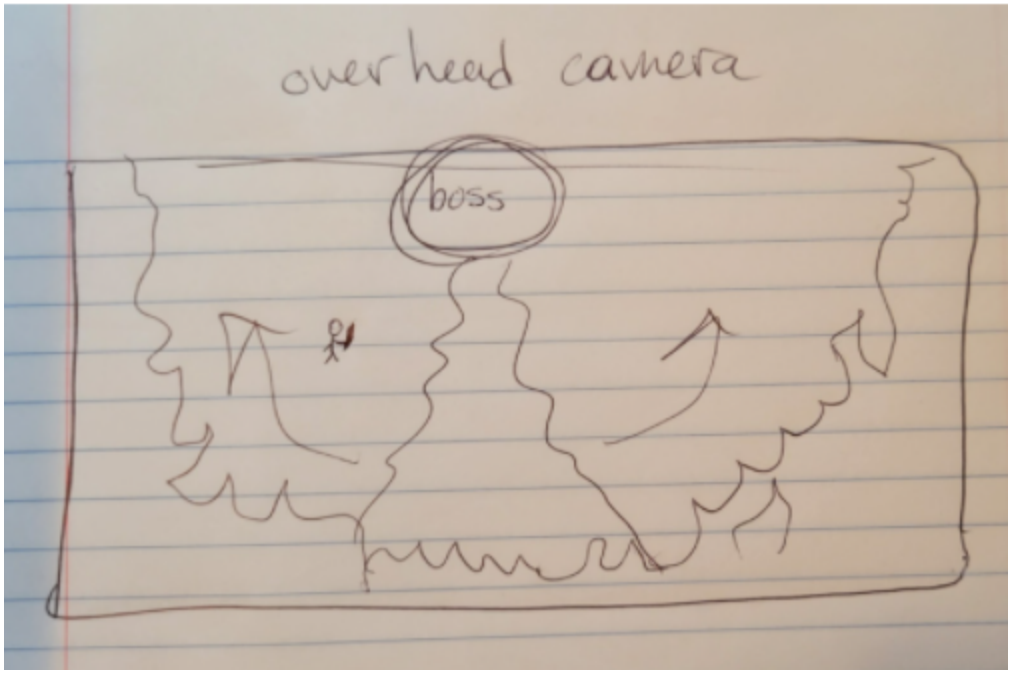
Design Problem:

Cut Off : A designer might want their encounter to become gradually more intense as time passes, without directly increasing the difficulty of the encounter itself.

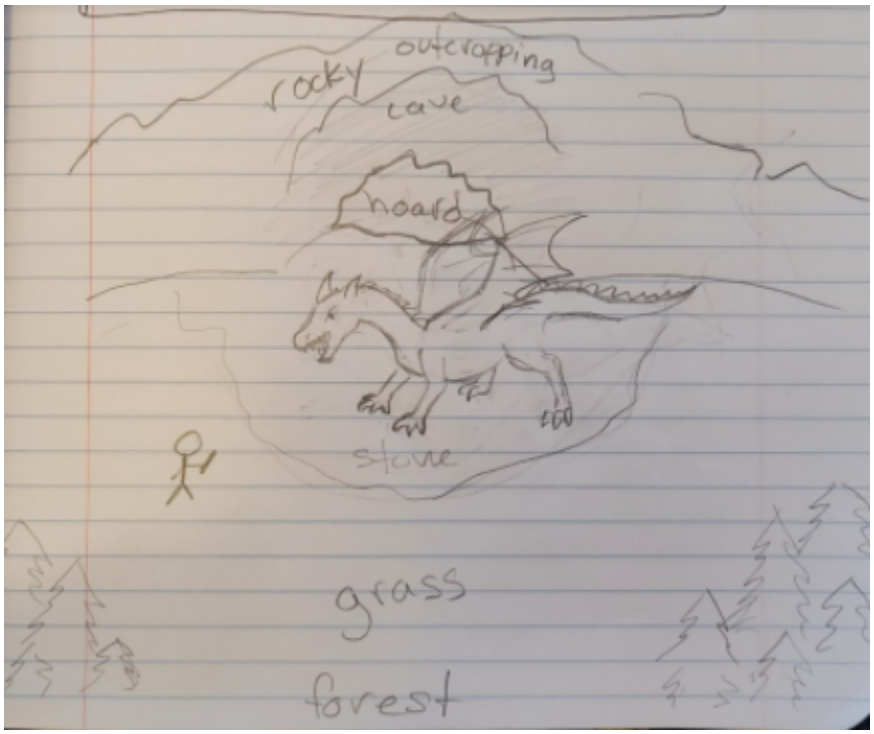
How your pattern applied to the design problem:

The wildfire makes the battle arena smaller over the course of the fight. This makes it harder for the player to maneuver and increases the difficulty and intensity of the encounter.

Sketches:



- A rough sketch of the general terrain
- General flame circle outline and boss location

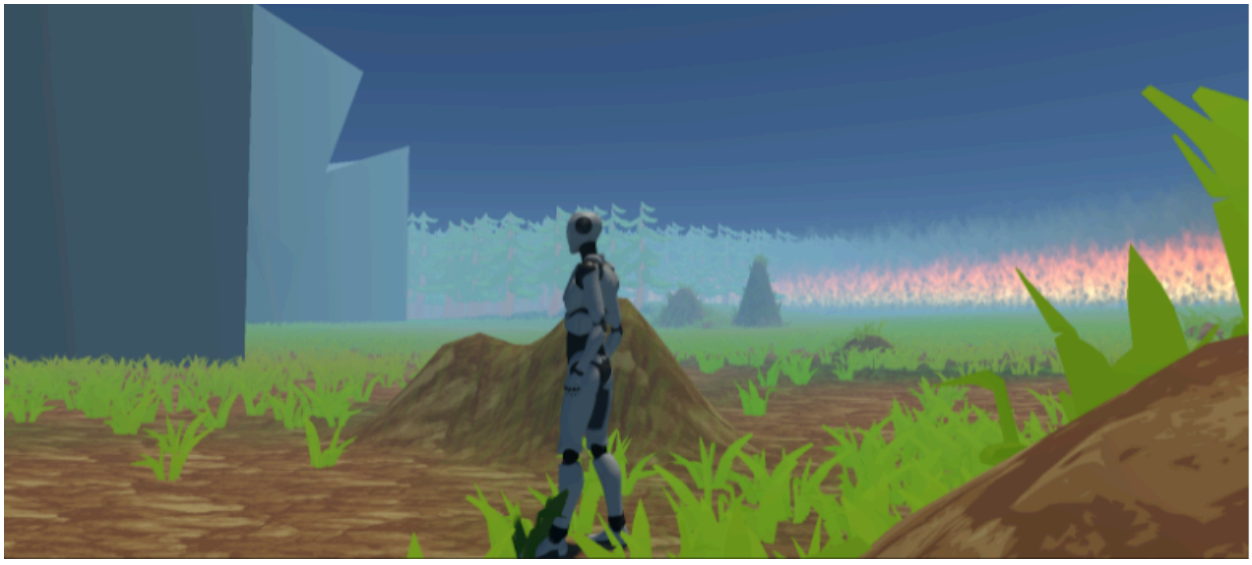


- Sketch showing overhead view of level
- Shows dragon, area around dragon, and the cave that the dragon is protecting

- Sketch showing the overhead view with more specific attack details
- Shows the dragon's attack patterns: fire breathing -> fire ring, gusts of wind to push player

Annotated Screenshots:

- The whole of the floor catches lava when Boss uses fire breath attack (floor is lava)



- Player needs to move to elevated positions on the map to avoid the lava

- Wind gusts at random elevated positions to try and push the player into the fire

Mid Game Boss

Setting is a plain in the middle of a forest/plateau

Monster Hunter motive: need to kill dragon to get hoard that they are protecting in center

Player attacks with sword

Attacks:

- 1st phase:
    - Normal attacks (won't show)
- 2nd phase:
    - Fire breath attack that creates a ring of fire where player has to now play in
        - Fire can move towards center as it eats at the grass
- 3rd phase:
    - Wing gusts that push player back into ring of fire

Week 5 Project:

Description:

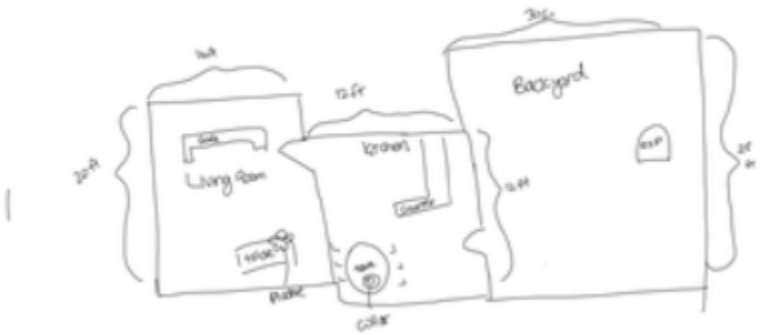
The player takes on the role of a pet owner walking through their living room and kitchen and ending up in their backyard. Along the way, they pick up items that their pet uses such as a collar and a stuffed animal and reminisce about their pet dog and the moments they spent together. Upon reaching the backyard, there is a gravestone awaiting the player with the dog's name on it which tells players that their pet has died.

Design Problem: Creating a genuine feeling of grief in a game is difficult.

How your pattern applied to the design problem:

To create the feeling of grief, create a situation in which a tragic event happens to a character the player cares for. To make the player care for a character, develop the character and the relationship between the player and the character by creating a narrative landscape that has contrast between positive and negative experiences. These experiences can be embellished with visual and audio elements, and implemented with a character design that makes characters likable and relatable. The relationship between the player and the characters can be further deepened by allowing the player to make choices that affect the characters. After the grief-inducing moment occurs the game must show the character's sadness to the player, incorporating sad undertones in the environment to emphasize the loss.

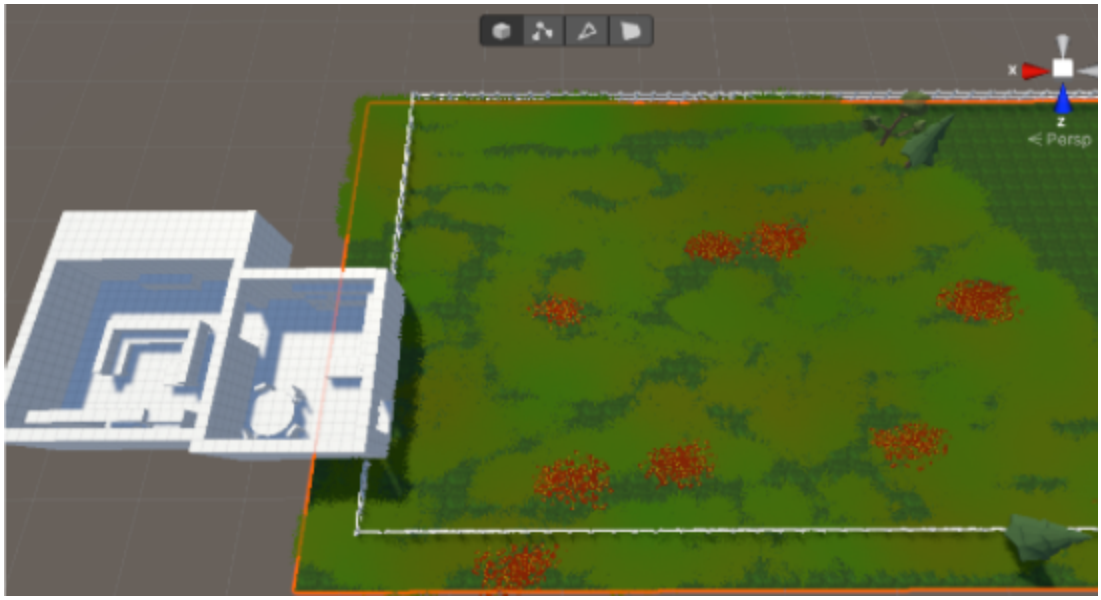
Sketches:



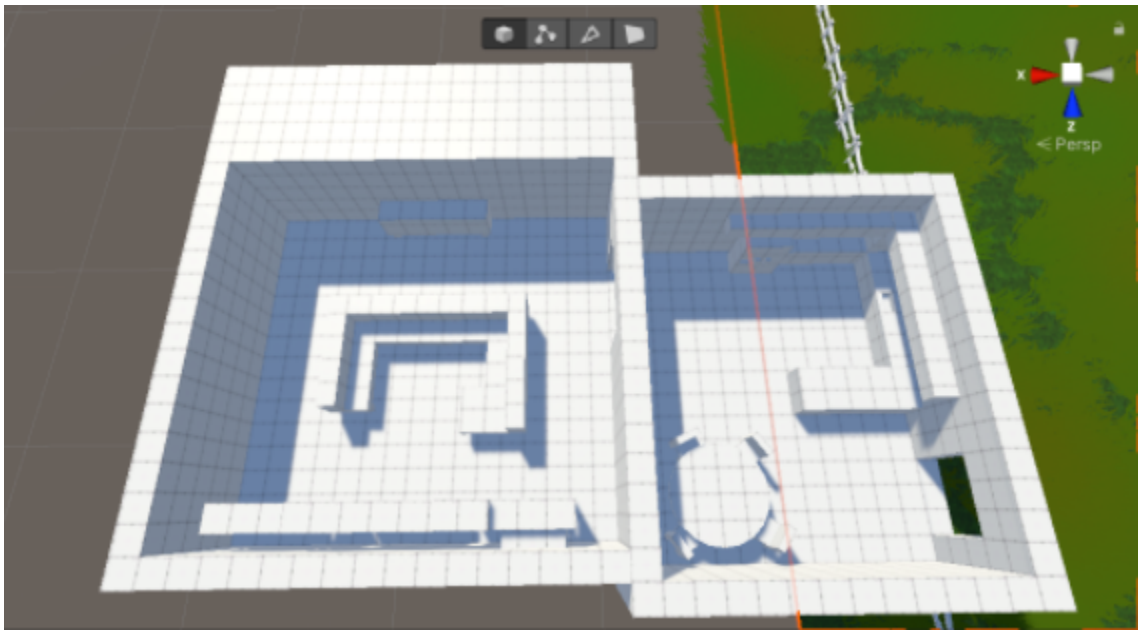
- Floor plan of the house with general locations of furniture and objects

Annotated Screenshots:

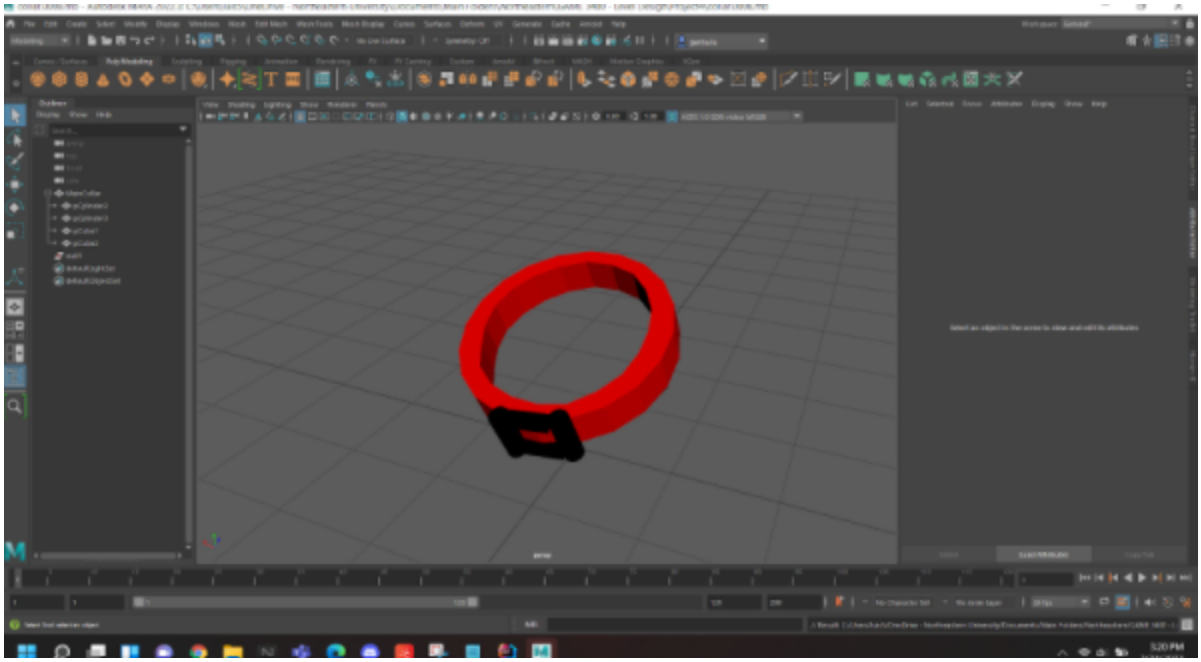
<As many as you like. Mark up the screenshots or include text describing how the scene implements the patterns you used>



- Top down view of house and backyard
- Gravestone will be located in backyard



- Top down of only house
- Objects will be located in the house



- Dog collar in progress
- Touching it will trigger a flashback between the player and the dog

- Gravestone of pet dog (RIP)

Design Idea:

Dead Pet walking simulator

- Walking up and interacting with objects that give narrative queues
- Have good lighting and ambience (music)
- Contrast (happy memories)
- Developing relationships and destroying them

For flashbacks:

- Have a picture and then dialogue

Battlefield

- See bodies on the floor after a battle and get narrative dialogue about them
- At the end realize you had to kill them

Walking through your backyard picking up objects which give you a memory of the past. These memories describe your relationship with your pet and show happy moments. Then you arrive at the makeshift grave.

- Collar
- Ball
- Stick
- Favorite food
- Frisbee
- Pile of dirt (grave)

Assets:

- House interior
- Exterior/backyard
- Door
- Collar (bringing them home), done
- Stuffed animal (cuddling), done
- Ball (playing), done, simple
- Grave
    - Pile of dirt
    - Wooden cross?
- Sad music

Week 6 Project:

Description:

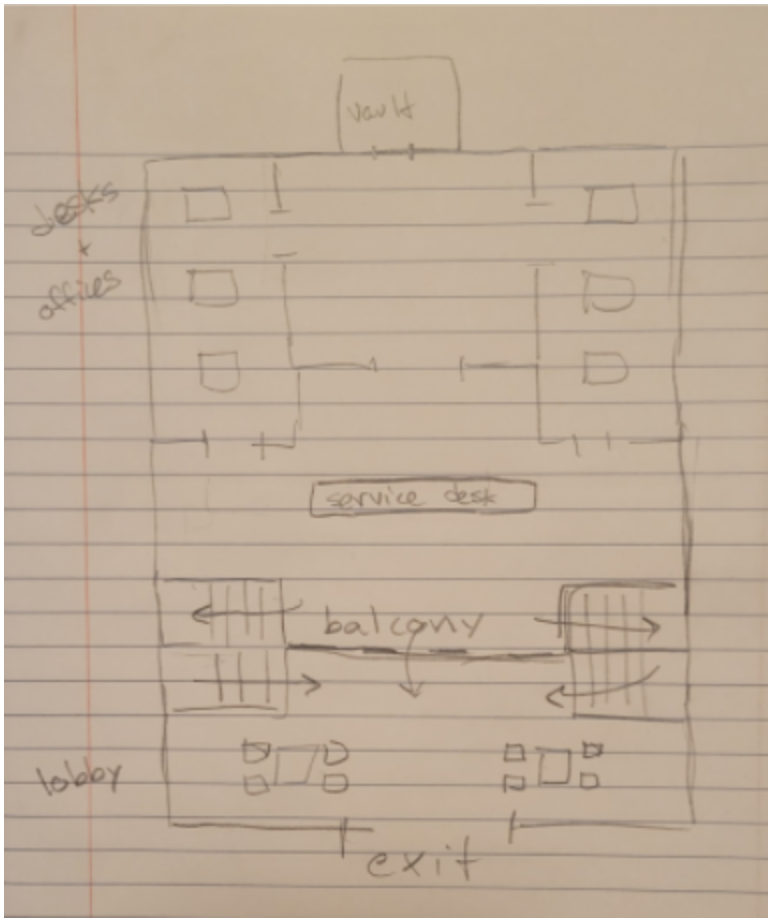
You appear in the vault, in front of you is the huge Hollywood hatch door leading into the rest of the building. Once you open the door, you must make it to the exit without being tackled by security guards. There are multiple paths through the building and the positions of the guards are randomized. You can jump over chairs, tables, and counters that the guards must go around. You must choose what path to take in order to juke the guards in your way.

Design Problem: Players can easily navigate obstacles you, the designer, put in place to challenge them when the obstacles are known by the player.

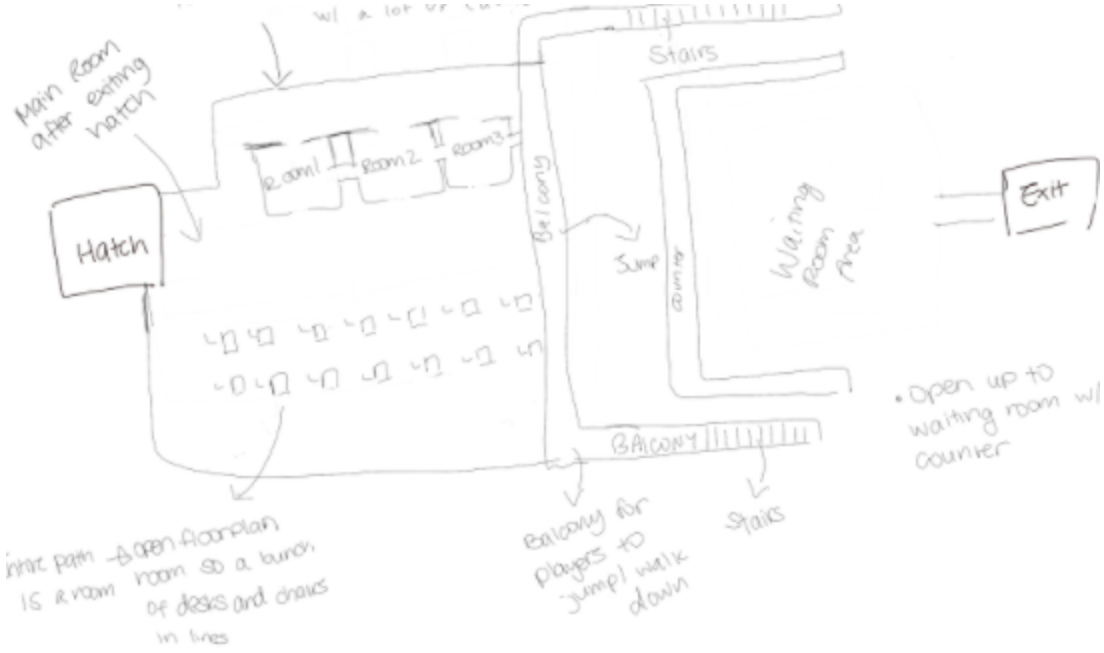
How your pattern applied to the design problem:

By randomizing the guards and making multiple paths with different obstacles, the player is forced to make quick decisions to avoid these obstacles to escape the bank.

Sketches:

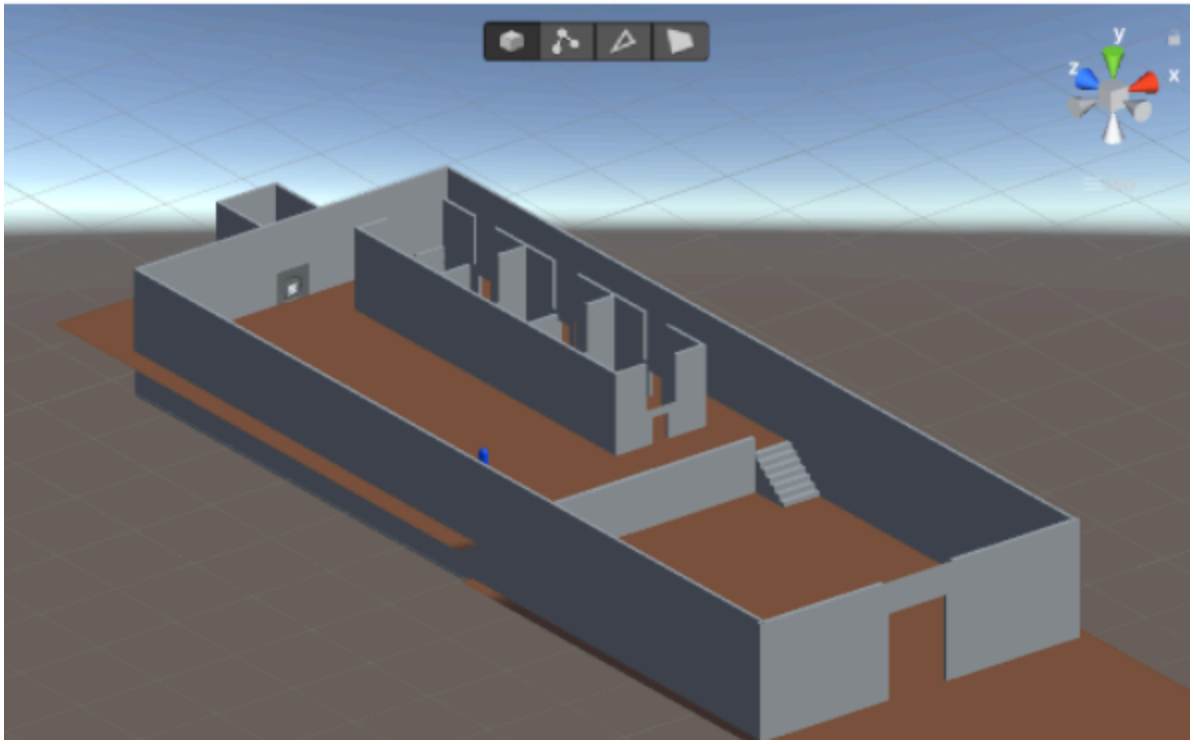


- By Fen
- First sketch depicting the floorplan of the bank



- By Holly
- Map of the bank and the paths/obstacles in the way

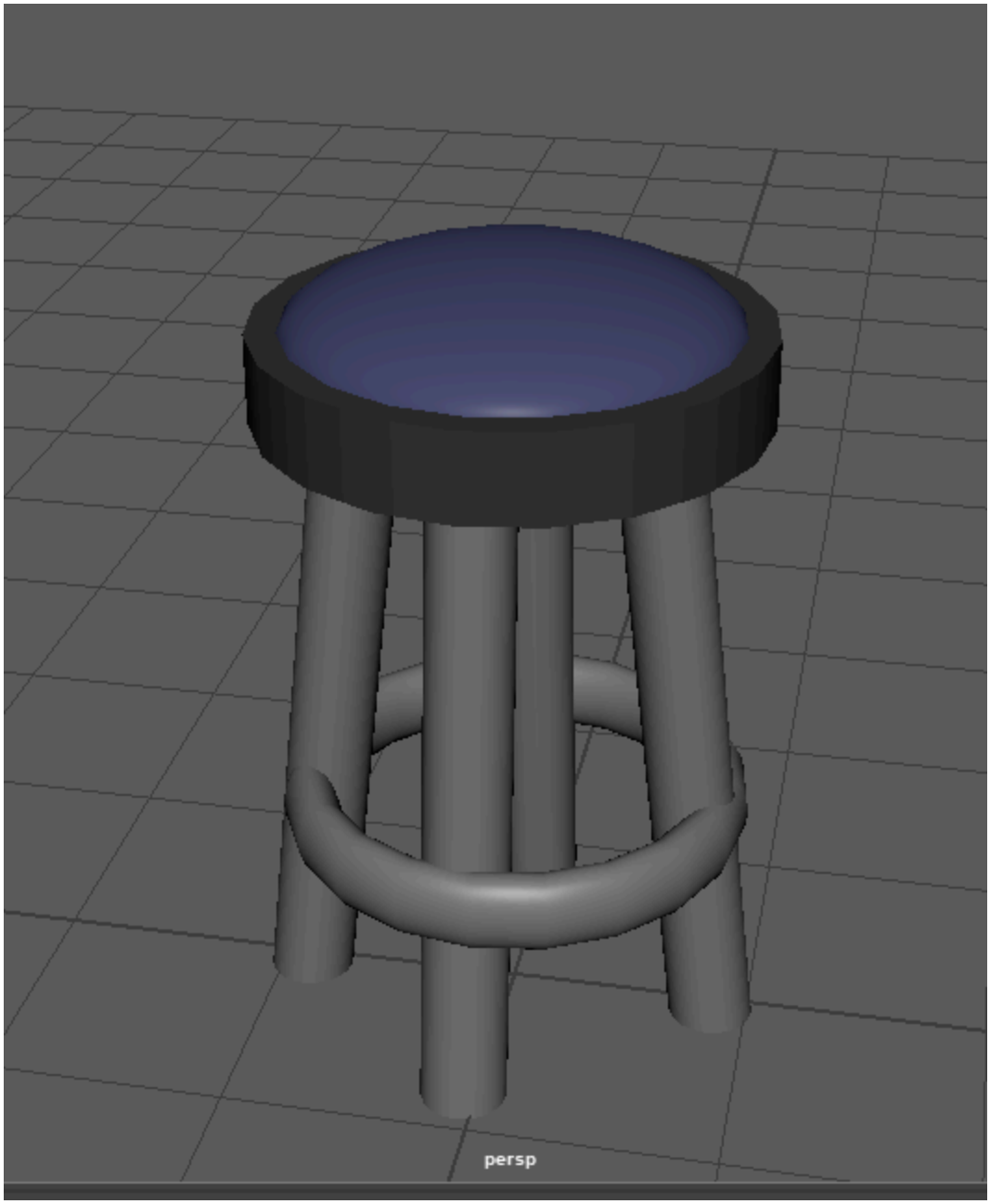
Annotated Screenshots:



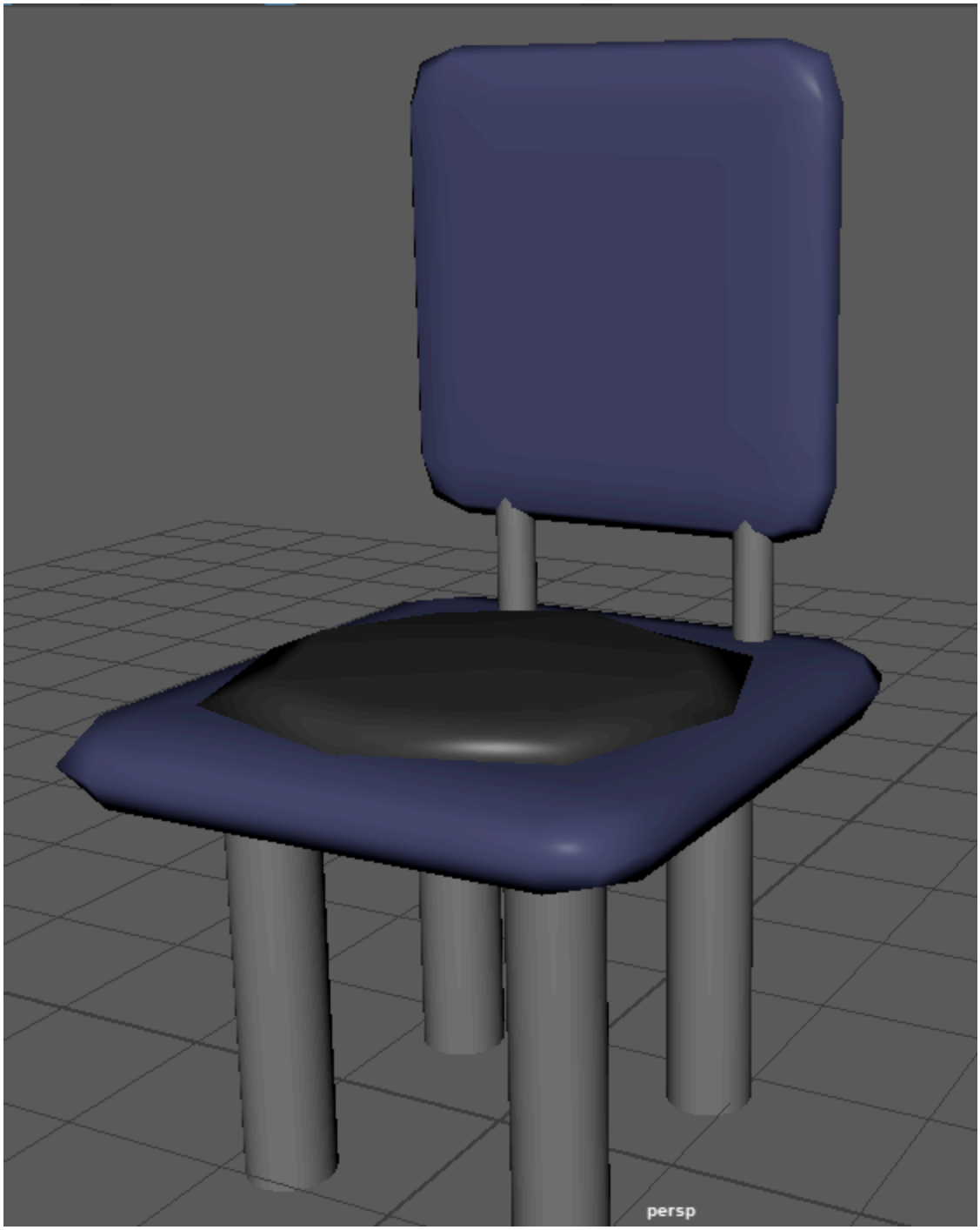
- The positions of security guards will be randomized. After the player opens the vault door, they will have to quickly choose a path and make their way to the exit juking security guards.

At least when I submitted this, this section is NOT done YET, will be by presentation in class, but for now, I am able to show what I have worked on, 3D Modeling.

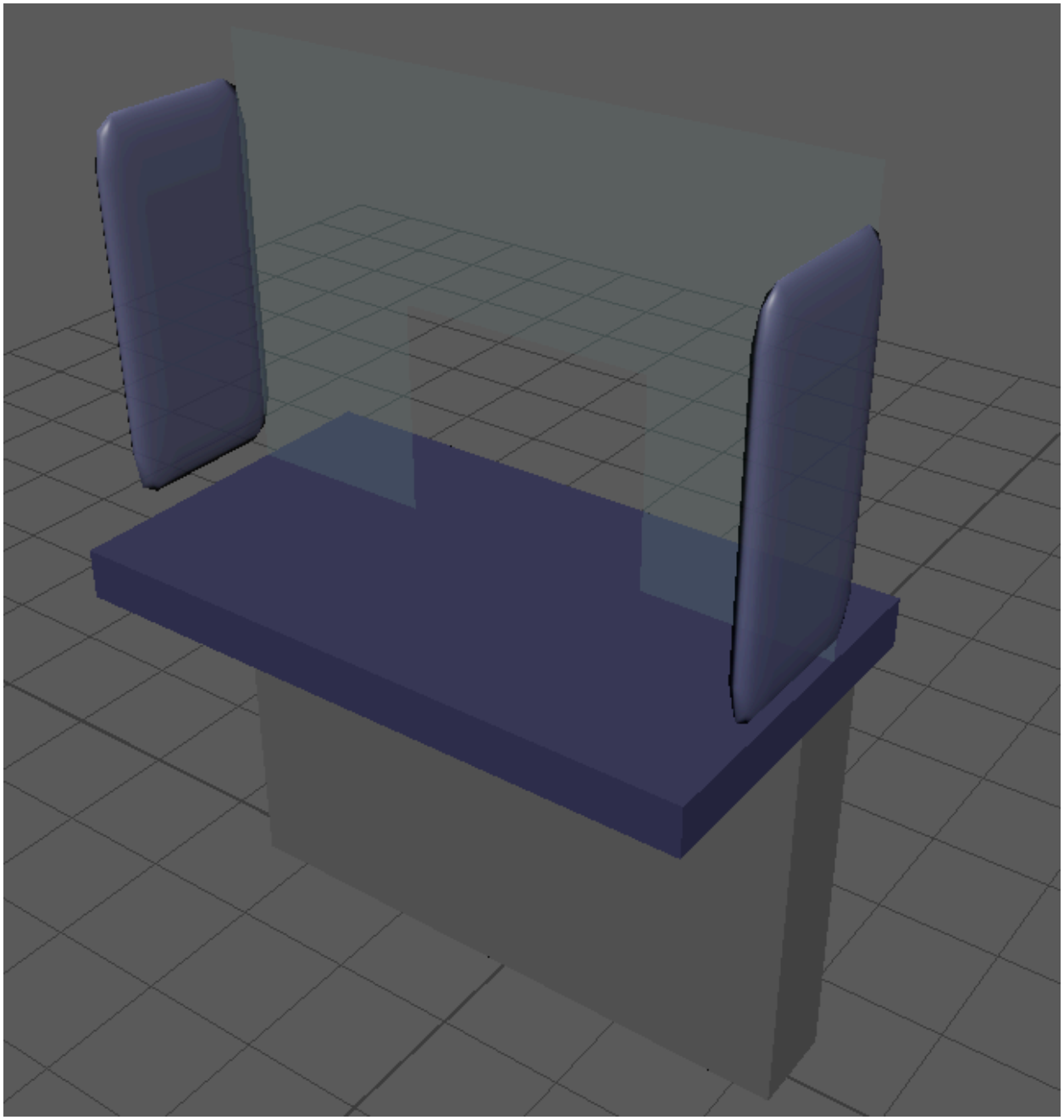
Chair Type 1



Chair Type 2



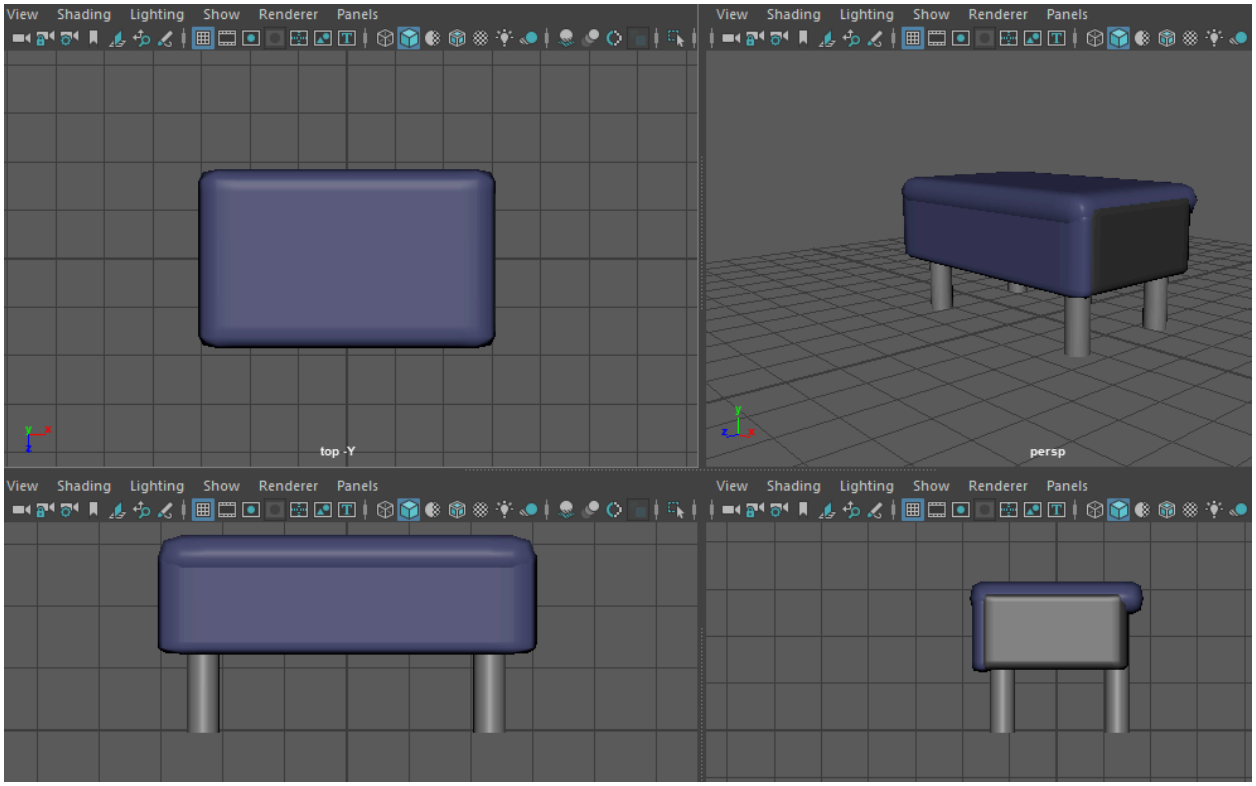
Counter



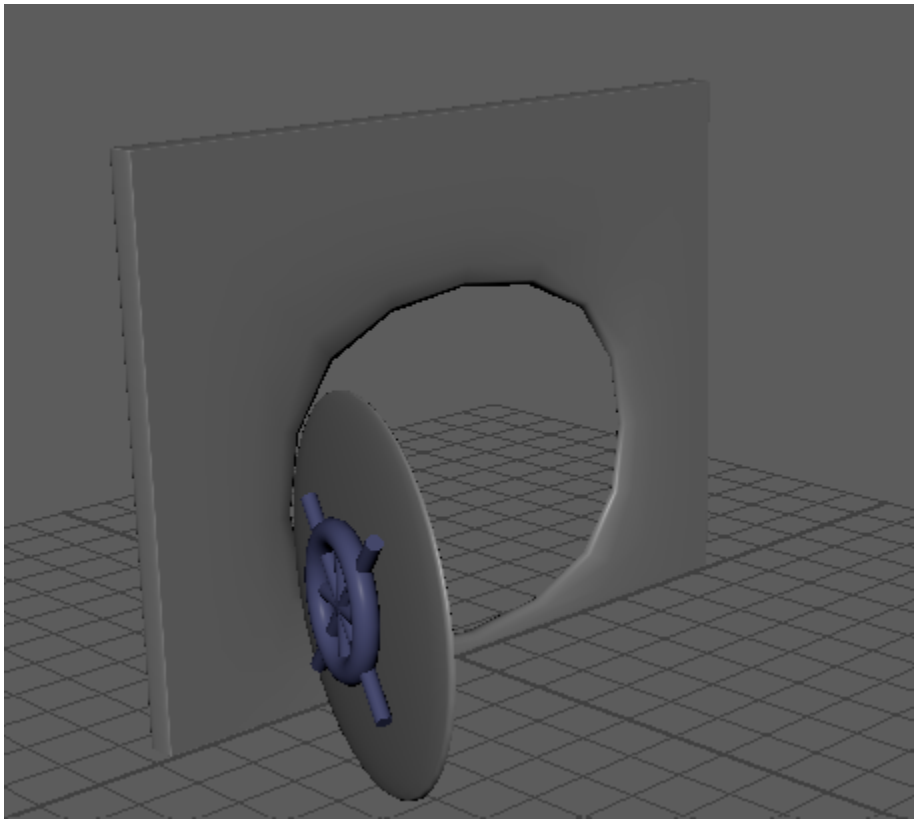
- Has transparent effects

- Was later removed so the player could jump over them

Desk

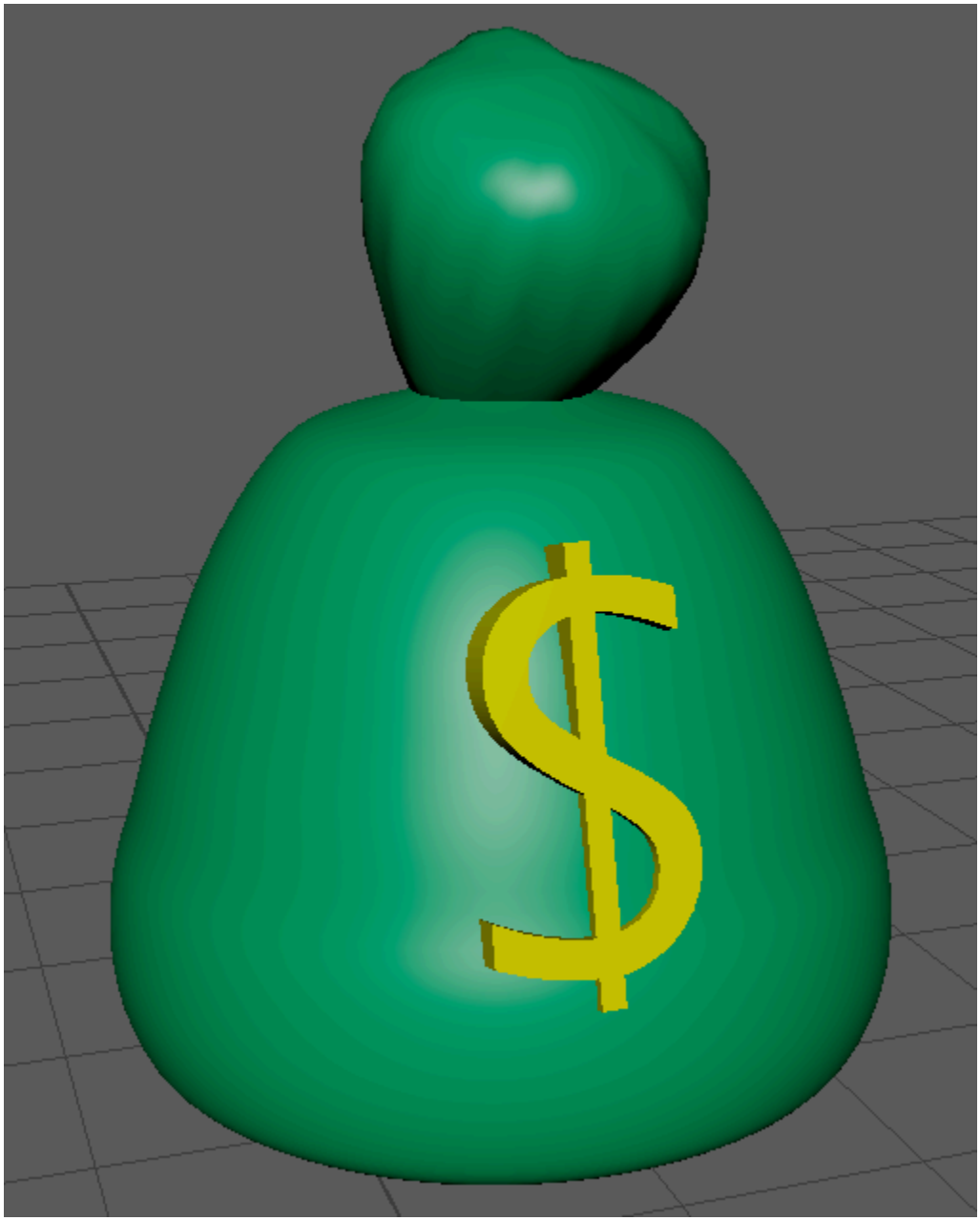


Vault

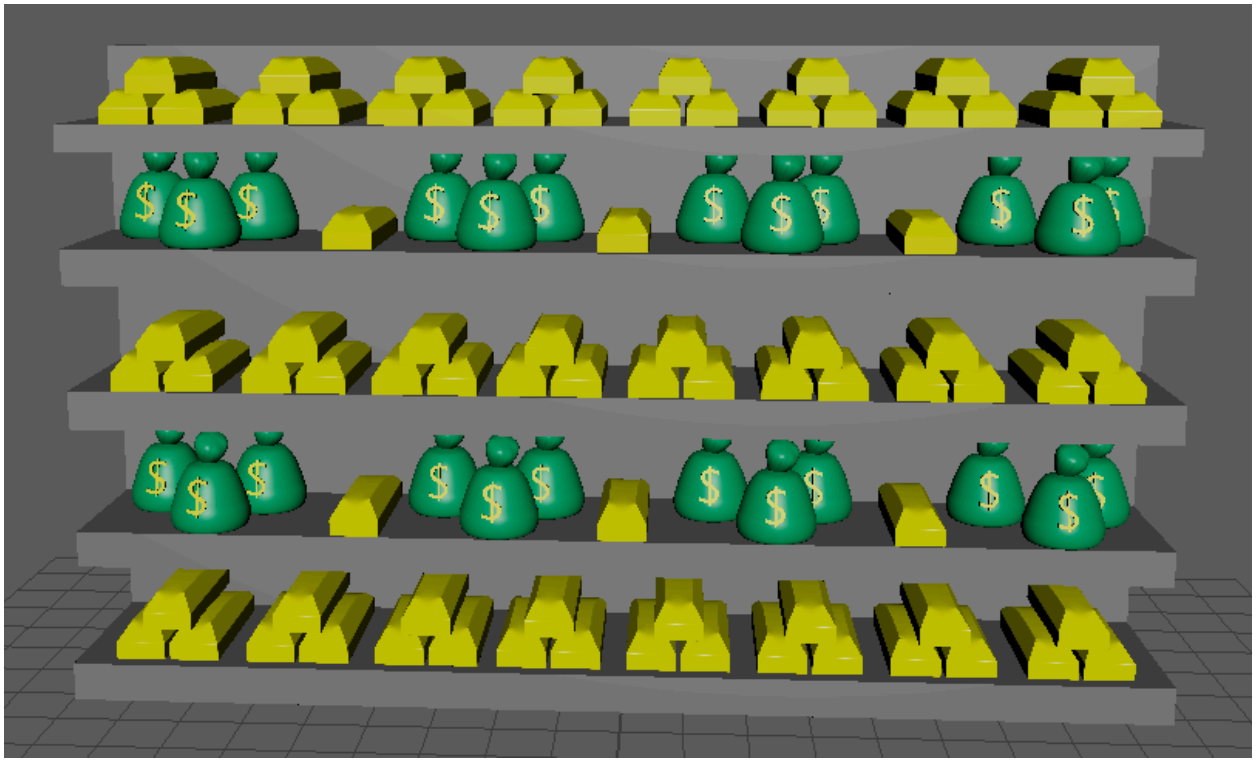


- for some reason, this was the HARDEST asset to perform. Mostly because of Smomthing and when importing it to Unity, the circled door came out as a box, A BOX. And took an hour more than it should until i figured it out

Money bag



Inside the vault



- to be used repeatedly in game

Design Ideas:

3 Time periods:

Goal: Bring back an art piece in the present time

Distant Past: LDV's crib

- 14th - 17th century Renaissance
- Leonardo Da Vinci => tells u who he sold painting to => go back to present and learn more about that person => find out where the painting was stored in the past

Past: npc's crib

- 19th century
- Painting was stolen mid war
- Find the painting from the distant past that you learned of from the present

Modern: ur crib

-

Kid who can time travel => learn that art painting was stolen from npc =>

Present => Past => Present => Distant Past => Present

Mom wants painting => go back in time to distant past => meet LDV => tells u who he sold painting to => go back to present and learn more abt that npc => go back to past where there is war and find painting and steal it yourself => return to present and find it in your bedroom the whole time

Week 7 Project:

Description:

The player takes on the role of a character who has designed a machine that can help them time travel. The player is tasked with retrieving a stolen painting because his mother wishes to see it for her birthday, so he goes back in time to Renaissance Italy to connect with Leonardo Da Vinci who sends the character to other time periods in Italy to locate the painting.

Design Problem:

How do you convey that past events in the game have an impact on the current time period or gameplay?

How your pattern applied to the design problem:

In order for a player to learn about past events in a game setting that have an impact on the current state of the game world, a designer should try to describe the past in a way that the player recognizes as being archaic. To do this, a designer could implement narrative elements that describe the past and the events that took place. A designer can also implement UI elements and/or architectural design that hints at events that occurred in the past. Furthermore, to make it more obvious that an event occurred in the past, a designer can include real dates, historical settings, and other symbols into the game that a player would recognize as being from a different time period.

Sketches:

<As many as you like. Include text describing how you would like the scene implements the patterns you used>

Annotated Screenshots:

<As many as you like. Mark up the screenshots or include text describing how the scene implements the patterns you used>

Final Project:

Ideas:

- Go see a friend after a while and ask how are they doing abt school/hw or smthn
    - Text boxes show dialogue from friend saying they are fine
    - Look at surrounding environment to see that they are, in fact, not fine
        - Lighting
        - Audio

Tasks:

- Model living room, bedroom (rishav)
- Model assets (Luis/rishav)
- Story writing (Holly, Fen)
- Drawing stuff (Fen)
- Textbox scripting
- Character model + animation + scripting interaction

Game Mechanics - (Samik/rishav):

- FPS Controller
- Interactable objects (affects music, lighting, rotation)
- Effects when they get close to door
- Dialogue
- Pick up objects (View closer)
- An invisible 3 min timer before friend comes back
- Scripted scene where friend walks in and sees you in the room then says we need to talk
- Music Player

3D Assets (Likely):

- Bed
- Mattress on the floor, messy sheets
- Dirty plates + cups piled up + trash + clothes on the floor
- Alcohol bottles + pill bottles
- Trashcan
- Photos of friend + partner with face scribbled out in the trash
- Music player

- Creepy lighting
- Living room
- Sofá
- Some random table
- Doorways to bed, bathroom, outside
- Door to bathroom
- Light under the door
- Bathroom sounds (running water)

Introduction:

- Opens on black screen
- *dorm room door opens* Kyle: Hey! Come in!
- Fade in scene. You are standing facing your friend in the living room.
- You: Hey, whats up man? I have the handouts from class by the way.
- friend : Oh yeah thanks so much.
- You: So yeah how have you been? Why weren't you in class?
- Kyle: Oh no reason I just didn't feel like it today
- You: Everything good?
- Kyle: No yeah I'm good, yeah. I've had a little cold.
- You: Oh, that sucks. I hope you feel better soon. Did you still wanna watch Shrek 2?
- Kyle: Yeah sure. I'm gonna go to the bathroom first real quick.
- Fade to black
- Fade in scene. Friend is in the bathroom. Player has control.

Music box:

- This sure ain't Taylor Swift.

Photo:

- Oh shit is that Stacy? He never mentioned…

Alcohol bottle:

- Oh Kyle, I'm gonna kick your ass.

Week 7 Project:

Description:

The player comes over to visit their friend's dorm with handouts from class after they made plans to watch a movie together. While the player's friend is in the bathroom, the player is given 3 minutes to look around their dorm room and find pieces of evidence that imply that their friend is actually not okay.

Design Problem:

For a story intensive game, how does a game designer provide context for the world in a way that gives players the information they need to understand without oversaturated text boxes?

How your pattern applied to the design problem:

In story intensive games, the level environments can be used to convey subtle messages or themes in the plot that, if described in a cutscene or text box, would take away from the player's experience, immersion, and leave no room for player interpretation.

Description:

The player plays as a child who is left home alone after their parents have left for the weekend. The player is left to their own devices to explore the house and fulfill missions during the day until night falls. The power shuts off in the house, but the player notices that neighboring houses still have power. The player must complete tasks and flip the breakers while moving around in the same space that feels completely different.

Design Problem:

How does a designer make a location that feels safe to the player at points and threatening at others?

How your patterns applied to the design problem:

From our ideas, we wanted to convey the feeling of being trapped and having the environment work against you, even though it initially felt safe. The player being inside the house and unable to leave until they flip the breakers as well as the lack of light contribute to having the player feel confined within the house. Furthermore, the different ways that the environment changes such as furniture being moved or the noises makes the environment feel unsafe for the player even more in addition to the darkness.

- https://patternlanguageforgamedesign.com/PatternLibraryApp/PatternLibrary/856
- Links to an external site.
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    - Attention Players! We're Now Arriving at the Gamespace!: the beginning of the game should feel safe, get players familiar with the area, allow the player to understand the controls, and hint at the plot
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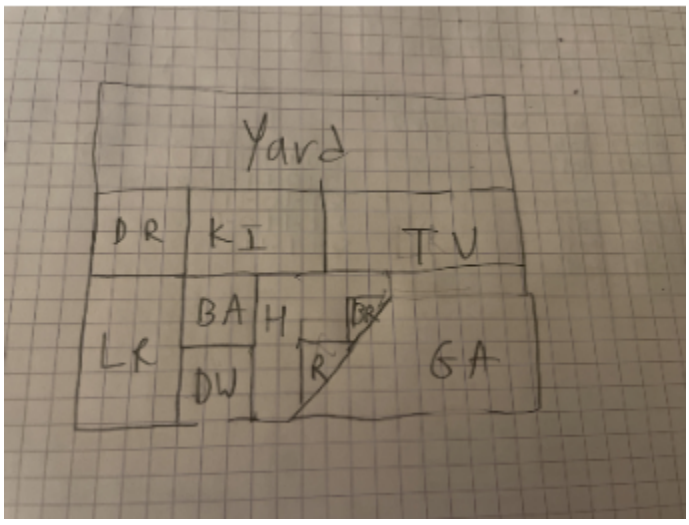
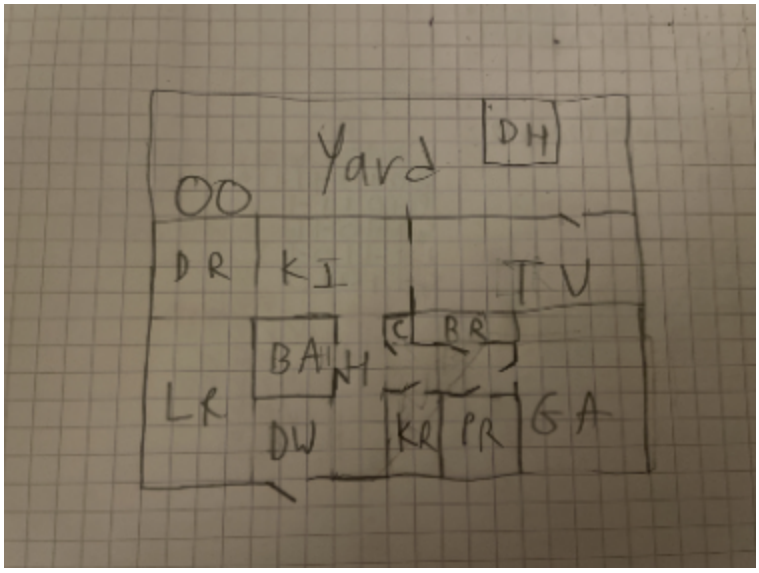
Sketches:

<As many as you like. Include text describing how you would like the scene implements the patterns you used>



- Sketch of the floorplan we took inspiration from

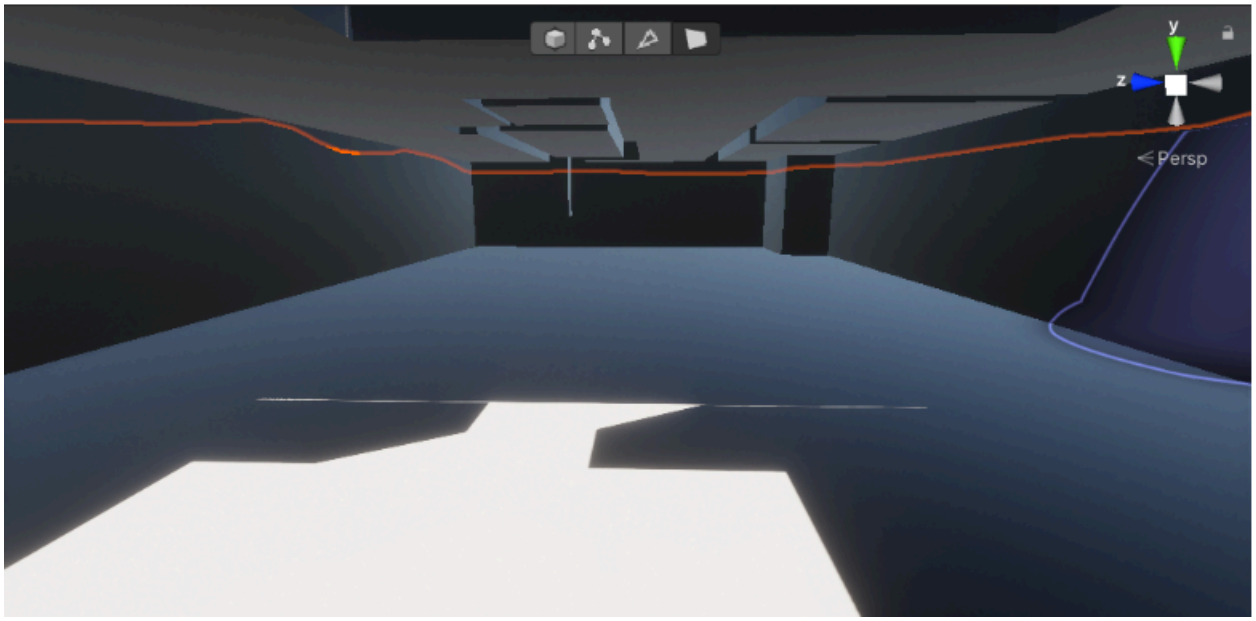


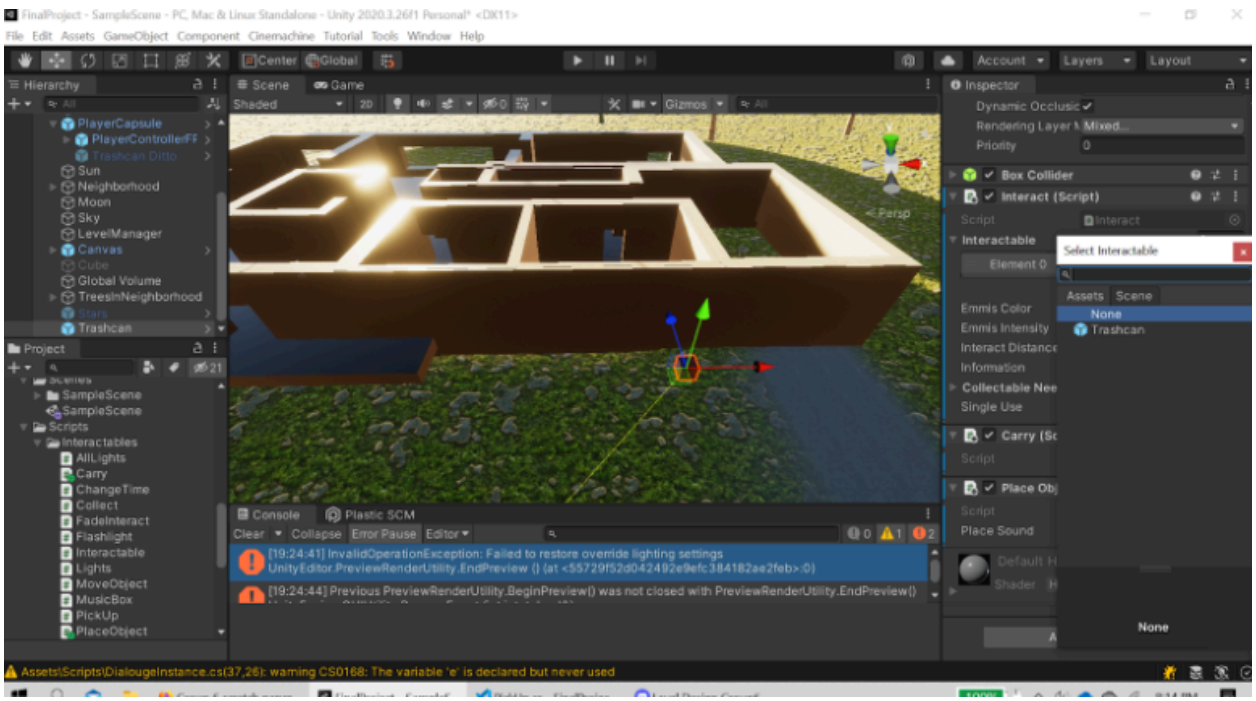
- Sketch of the updated floor plan with locations and rooms that better fit our game

Annotated Screenshots:

<As many as you like. Mark up the screenshots or include text describing how the scene implements the patterns you used>

Evolution of the level:


y
z
Persp



Create a general high level concept / design for a game. (1 paragraph to 1 page)

You are a kid home alone and your parents have left for the weekend. You are just chilling, eating dinner and watching tv. Your mom reminds you to take the trash out. You must take the trash out to the street, and when you return to the house the power is out. But all of your neighbors' lights are still on. You must go into the basement to check the breakers. As you move through the dark house, you think you hear noises and feel as if objects have moved. Once in the basement, you flip the breakers, the lights turn on, and all is well. The end.

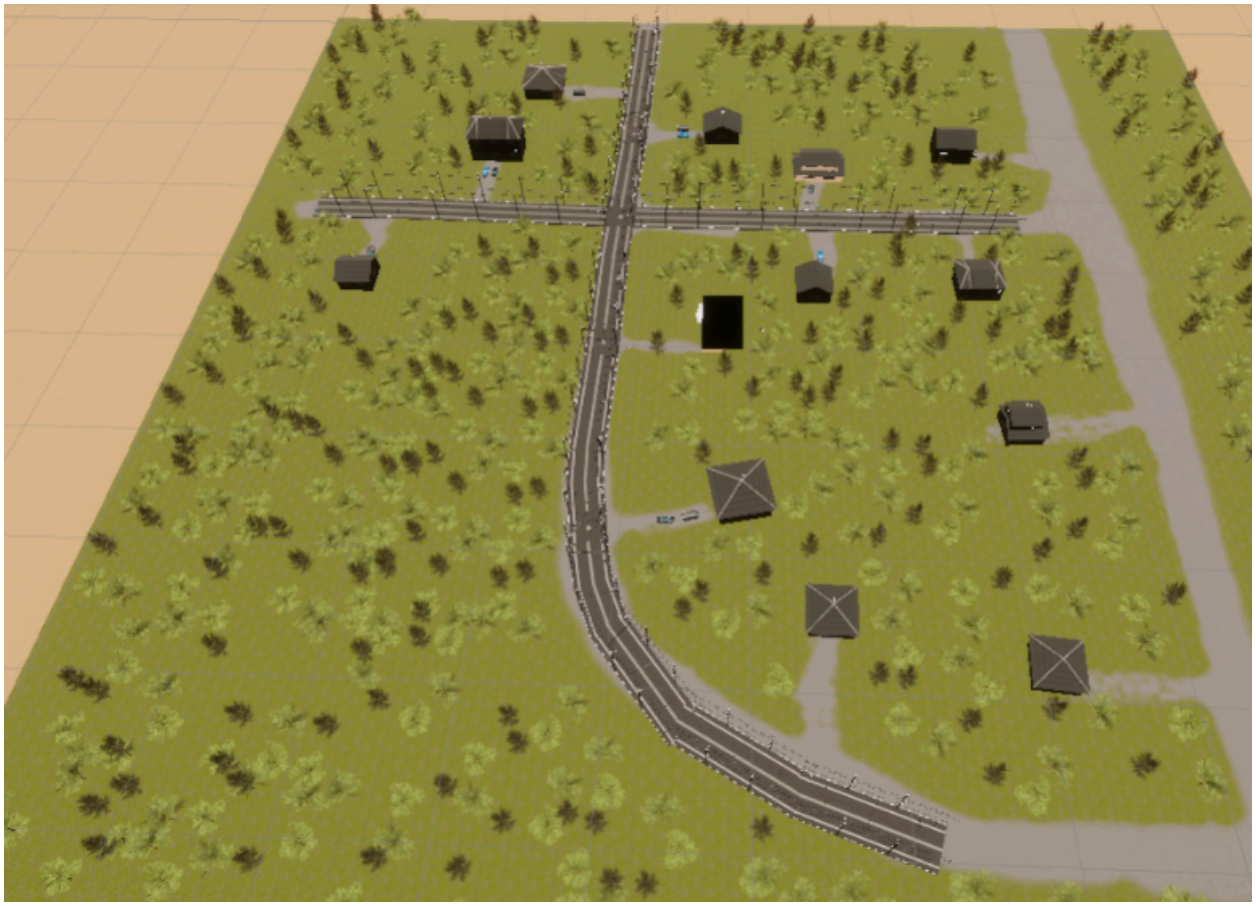
We plan to convey the story through text conversations on the players phone. They would be talking to their parents and neighbors during the game to get context on the situation. We also plan to tell the story through the environment. We plan to use one of the 15 properties, Contrast, to help tell the story. The lights in your house are out while the houses around you are still lit. This will create a sense of fear in the player because their safe place no longer feels the same.

From our ideas, we wanted to convey the feeling of being trapped and having the environment work against you, even though it initially felt safe. The player being inside the house and unable to leave until they flip the breakers as well as the lack of light contribute to having the player feel confined within the house. Furthermore, the different ways that the environment changes such as furniture being moved or the noises makes the environment feel unsafe for the player even more in addition to the darkness.

Pick a scene from that game to focus on, just a single room or encounter from one level of the game.

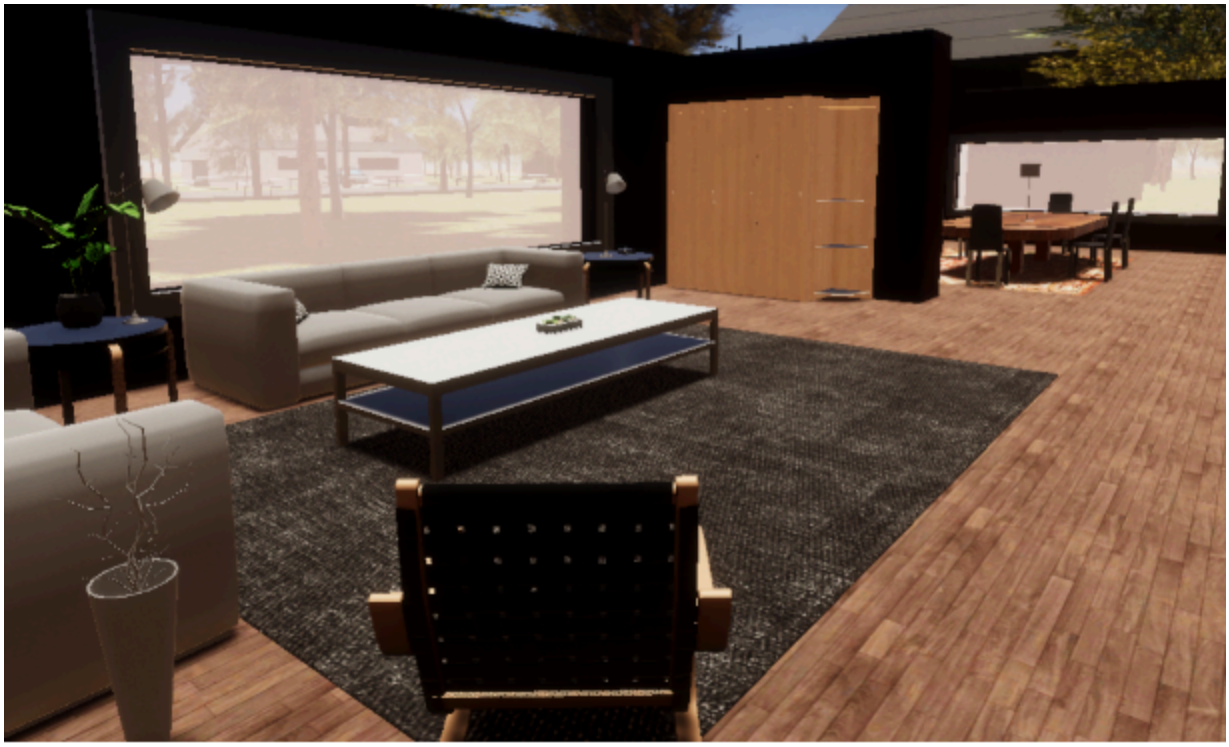
The scene is of the child's house and the outdoor area (front yard and backyard). The player will be able to see neighbor houses in the background with their lights on signaling they only had their power out. The house will contain two floors, which contain basic rooms, such as the living room, kitchen, bathroom, basement, and upstairs bedrooms. There could be other doors to rooms that cannot be opened. The player will be able to move throughout the house, traverse the stairs to the different rooms and check them out by opening doors. The house will have two states, one when the lights are on and the house feels safe, and one where the lights are off and nighttime house noises and other environmental factors contribute to making the house now feel less safe and more suspenseful.

More Sketches:



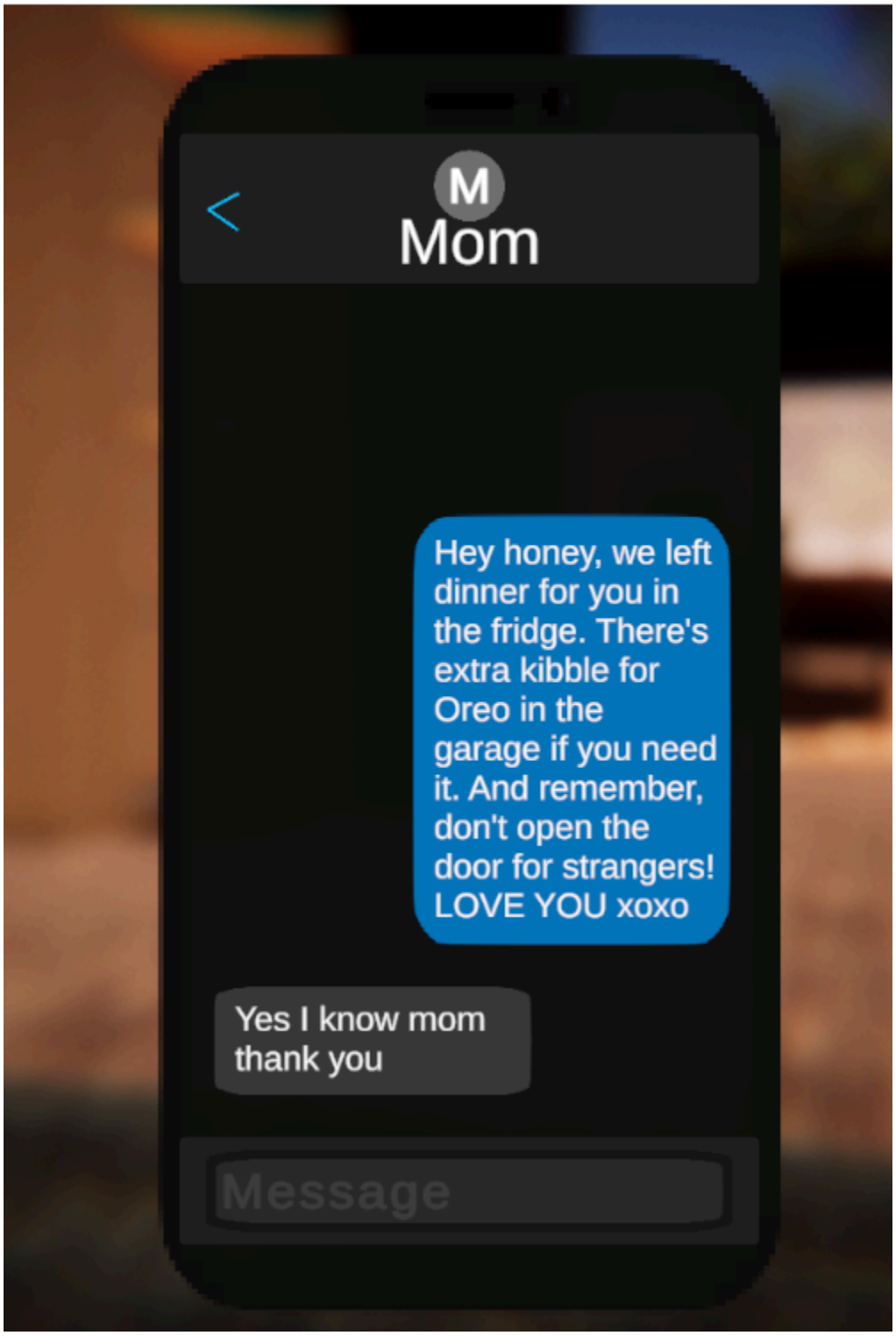
Overview of neighborhood created for outside

Top down of house



Interior pictures

Phone UI:


M
Mom
Hey honey, we left dinner for you in the fridge. There's extra kibble for Oreo in the garage if you need it. And remember, don't open the door for strangers! LOVE YOU xoxo
Yes I know mom thank you
Message

Which of your patterns apply to that scene? (list these in your Readings and Assignments document)

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New words:

1. Verticality
2. Advantage
3. Traversal
4. Restriction
5. Cause and Effect
6. Evidence
7. Icon
8. Grief
9. Relationship
10. Personal Connection
11. Tragedy
12. Prospect Space
13. Access
14. Turning point
15. Threat