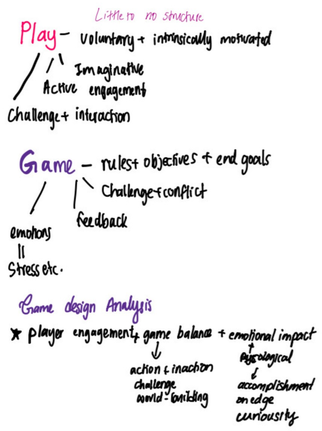
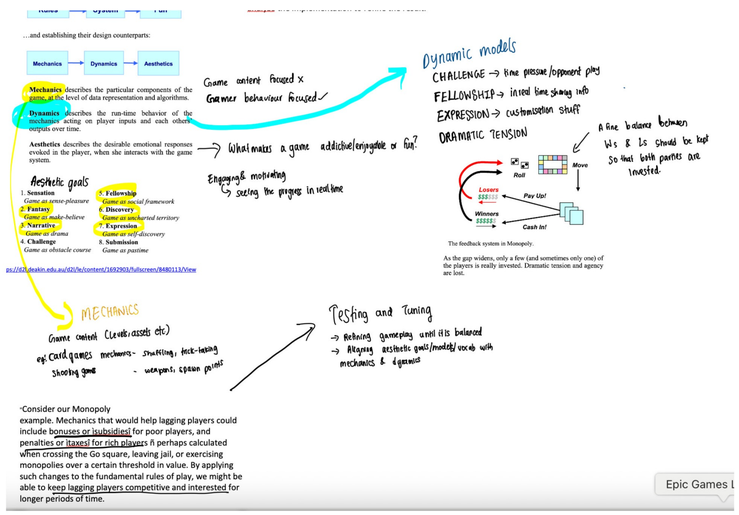
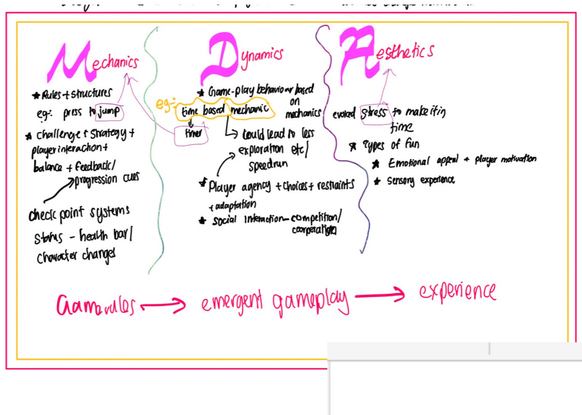
Week 1 class notes







Exploring game design resources



Indie game development process

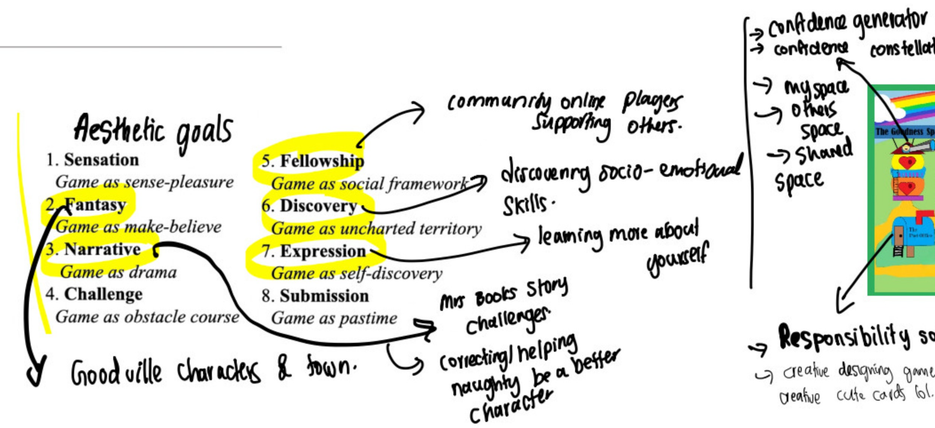


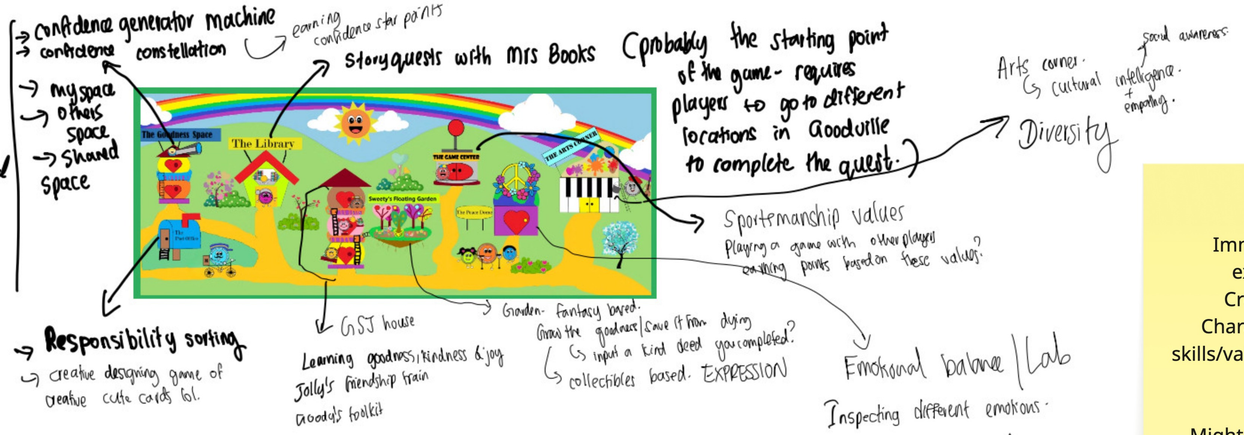






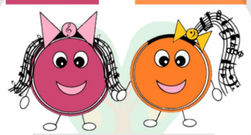
Brainstorming my game ideas





Goodville's Musical Twins

Melody & Harmony



Character Traits

- ♫ They love to connect and make music together.
- ♫ They always listen well to each other.
- ♫ They love making others happy through their music.
- ♫ They don't fight.
- ♫ They love to cheer each other on.

Pros
Ties in with my personal identity as a musician and music educator + my values on cultural empathy/intelligence and embracing diversity + my love for music
Also personal experience of actually designing the cultural music stations for a 2 week educational program I designed for an education unit which I can bounce inspiration off.

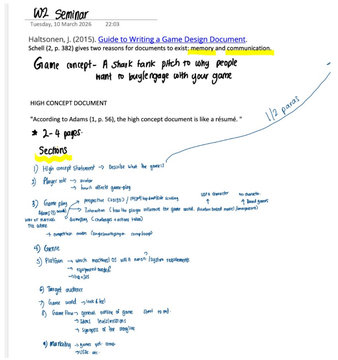
MUSIC EDUCATION game
melody & harmony?
Metronome beat/tunes
Soundscape game. → exploring natural sounds and putting them together

Globe.
Different countries / cultures to explore
finding objects/ collecting sounds
then creating your own
maps culturally-influenced
soundscape/ music narrative

Pros
Immersive game world experience for kids
Creative and original
Characters and building skills/values are already de

Cons
Might be too complicated design

W2 Seminar content



SEMINAR OUTLINE

The Role of a GDD
- GDD as a communication tool for diverse team members
- GDD function as a reference throughout the game development process
- Importance of clarity, conciseness, and accessibility in a GDD

Starting with a Vision
- The importance of a clear vision statement
- Including a logline and gameplay synopsis
- Conveying the game's uniqueness and appeal

Setting Clear Goals
- Defining player experience goals and desired emotions
- Setting sales, demographic, and artistic goals
- Aligning team efforts towards these goals

Crafting the Game World
- High-level overview of the game world and progression
- Importance of maps and reference art for visualising the world
- World-building elements and their contribution to immersion

Defining Mechanics
- Mechanics as the core of player interaction
- Using player "verbs" and game responses to define mechanics
- The value of visual aids in explaining mechanics

Developing Characters
- Role and importance of characters in the game
- Character relationships and development
- Use of reference art for character design

Weaving the Story
- The role of narrative in different types of games
- Balancing story elements with gameplay
- Tools and approaches for narrative-driven games

Designing the User Interface (UI)
- UI/UX design principles for games
- Visual aids and diagrams for UI planning
- Media list for UI assets

Integrating Audio
- The impact of sound design and music on player experience
- High-level audio needs and media lists
- Collaboration with sound designers for cohesive audio

Prototyping
- The value of paper and digital prototypes
- Prototyping to test and refine game mechanics
- Encouraging innovation and problem-solving through prototyping



HARMONY HOUSE IDEAS

Game mechanic:
-Collecting instrument, ambient sounds, rhythm patterns, vocal fragments.

To unlock levels to more rooms, the player has to compose a specific soundscape and find the sounds to create it.

Core loop

1. The player gets a **soundscape challenge**
2. They explore different rooms and maybe a small outdoor area
3. They identify and collect the needed sounds
4. They return to the **Composition Chamber**
5. They arrange the sounds in the correct mood or sequence
6. The soundscape plays back and unlocks the next area

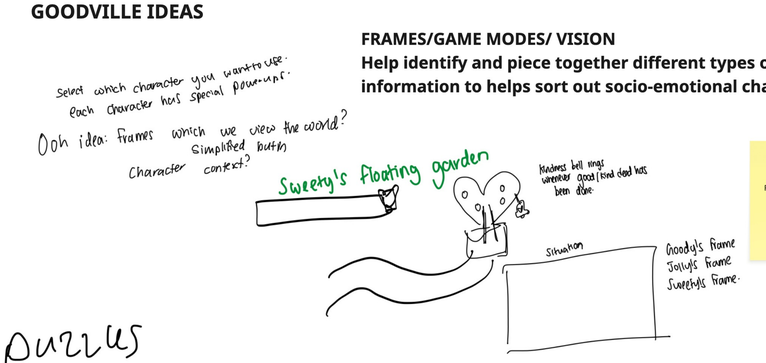
Advice by Todd

To simplify, get the player to collect the sounds and then put it in a particular order/place it and then play the integrated soundscape without having the player to create it.

My game idea exploration/ideation

GOODVILLE IDEAS

FRAMES/GAME MODES/ VISION
Help identify and piece together different types of information to helps sort out socio-emotional challenges



Advice by Todd

Rather than having 3 modes/frames, have the player interact with Goody, Jolly and Sweety in a dialogue based system and have a challenge by each and when they complete each challenge the goodness tree becomes more healthier.

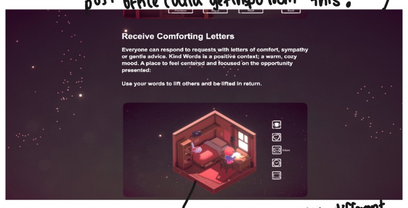


Which game should I choose???

I asked Todd and he said to think which game (Harmony house or Goodville) would I be happier or more excited to work on in the following weeks. He said the hard parts of each would be creating the sounds for harmony house and the dialogue creation for Goodville. Since I am a musician (and have composed songs before), and I would like to explore the digital creation of sounds so this would be a great opportunity to do so. I also think I would be more relaxed (?) if I choose the music game haha. Todd also mentioned I could still work on another game privately so I guess I can still end up creating both these games. I also think that since I am very new to unreal engine working on a heavy dialogue based games might be a bit of a challenge but I am willing to take it on within a longer and more relaxed time frame.

Game inspos

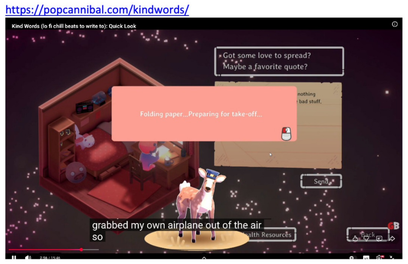
I like the community feel & the emotional support part of this game. The Goodville post office could get inspo from this!



perhaps unlocking different rooms — different spaces to write letters or even visiting other players' rooms could be cool!

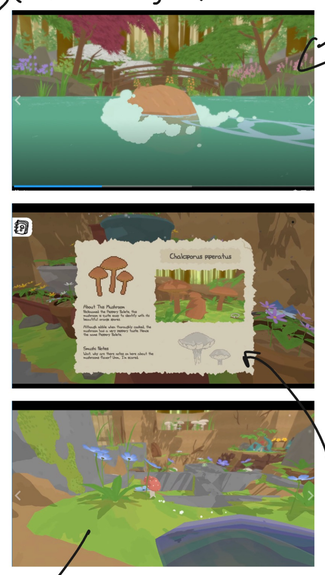
perhaps the messages can be delivered as goodville flying postcards? flattering objects that open out messages?

https://popcannibal.com/kindwords/



Alba a wildlife adventure

I like the objects/animals I could've collected during exploration

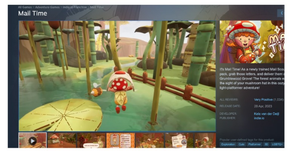


Inspo for Sweety's floating garden?

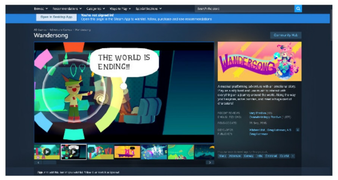
I really like the aesthetics of this game world

ooh maybe have a sweety-vision mode for you to see all the perspectives?



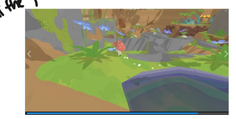






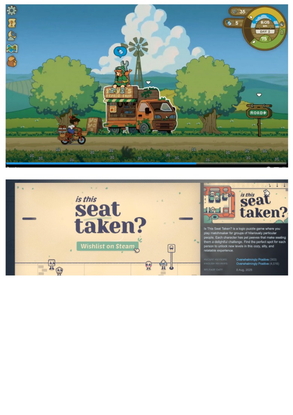
this is so unique.

could be like what appears when you click on an object

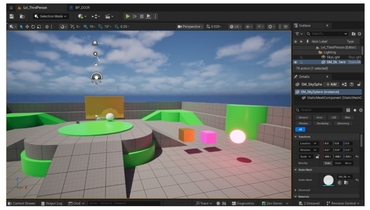




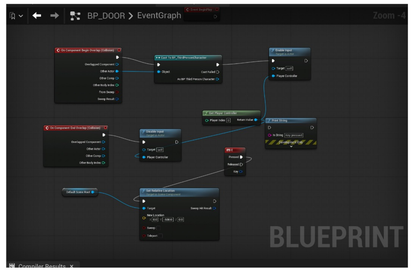




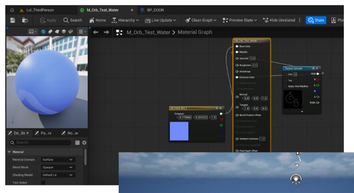
Learning UNREAL engine through the seminars

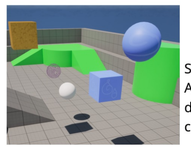


Learning about blueprints

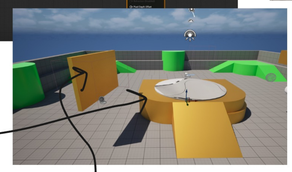


Experimenting on my level map on unreal



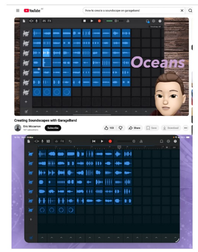


Suspended objects - can use for Wind room. Also experimented with applying my original designs for the elements onto the objects to create the harmony orbs

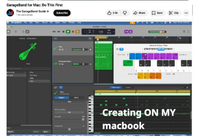


Rough exploration of the central chamber musical shield and graphic score

Experimenting and and learning how to use garage band to create the sounds and potentially the game sound

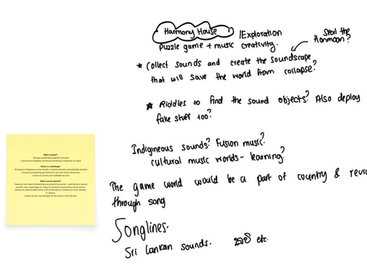








Game ideation/exploration



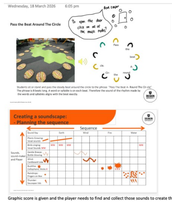




Final Game idea:

Saving Harmonia. Mixing my love for fiction/fantasy and love for music and values of connection.

Inspo from my EDU202 unit: Exploring soundscapes



Puzzles to unlock rooms

Graphic score is given and the player needs to find and collect those sounds to create this piece

Game design

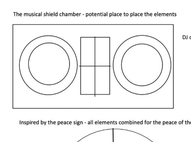
Idea inspo to create my shield room

Can have like circles and symbols on the ground?

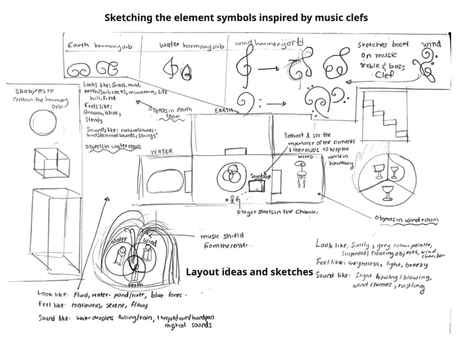


Have a similiar geometric shape to place the elements in?



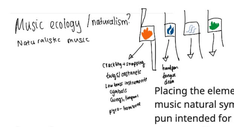






Inspos to create me elemental orbs





Make it the elements cuboid?



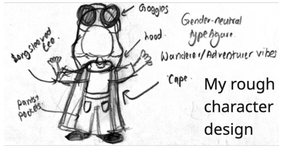
Placeholder idea for the orbs in the musical shield

Character design inspo

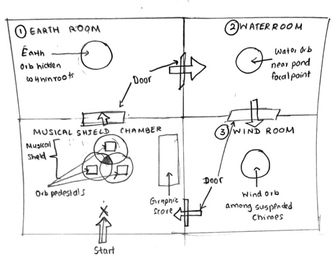


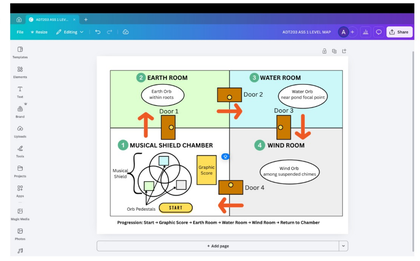




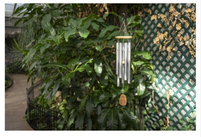


Creating map of the level layout





Wind Room inspos





Portal is the obvious first choice inspiration fo...

Portal is the obvious first choice inspiration for a scientific test game. The aesthetics are that it is a run down old facility. I think for mine I would l...

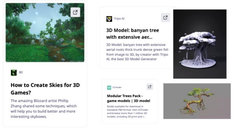


Woodstock Chimes

Take Me Out to the Ball Game Chime

Celebrate the spirit of baseball with this chime, inspired by the Chicago Cubs' 2016 World Series win. Tuned to the opening notes of Take Me Out to...

Earth Room inspos





https://discussions.unity.com/t/released-fantasy-worlds-forest-stylized-environment-pack/932719





Cool Greys

procreate color palette
30 swatches

@kotanilia

https://www.etsy.com/au/listing/1140352637/cool-greys-color-palette-30-handpicked

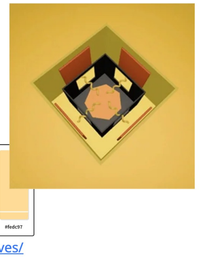
Chamber room inspos



Water room inspos



https://www.pondtrademag.com/vertical-waterfalls-and-grottos-add-height-and-depth/





https://www.reddit.com/r/StableDiffusion/comments/wpt95f/3d_game_caves/

https://www.etsy.com/au/listing/1391138039/natures-greens-color-palette-30

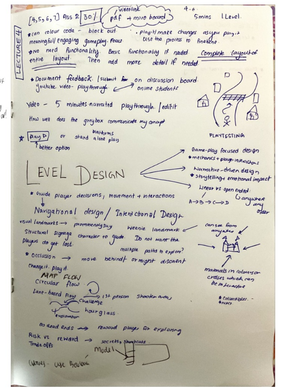
Designer Blogs

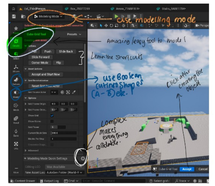
Yellow & Brown Color Palette

Inspired by the look of stunning gold trees and clear blue sky, yellow & brown color palette will be perfect for autumn crafts.

Seminar 4 notes

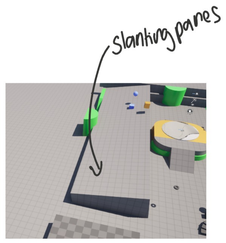


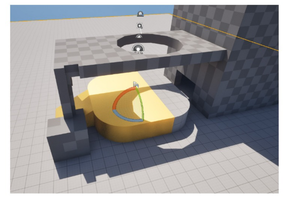


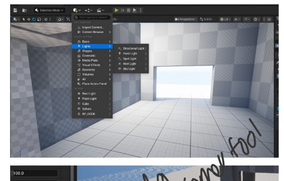


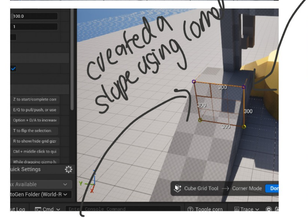
Created staircase and platform together and couldn't elevate the platform to make another level

Experimenting with cubegrid and the wider modelling interface on unreal engine

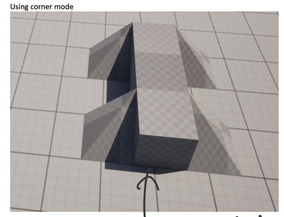




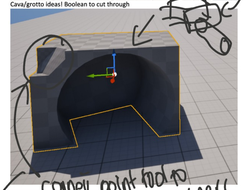




Using corner mode



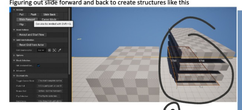


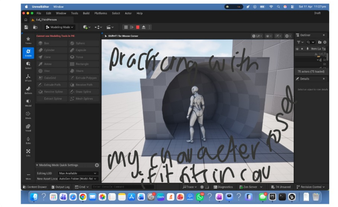


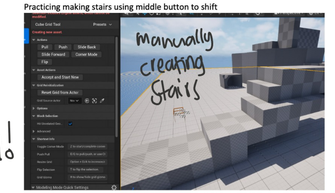


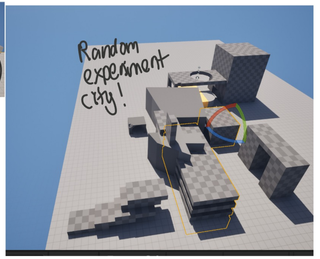
Polygonextrude to draw any shape out!

Figuring out slide forward and back to create structures like this







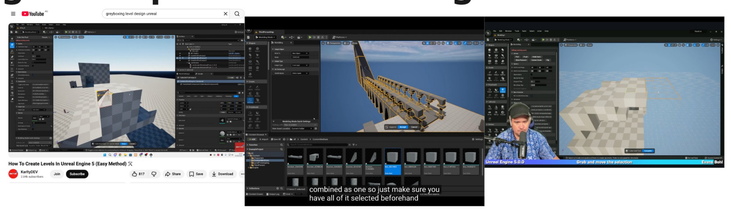


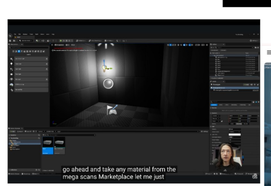
Roof designs

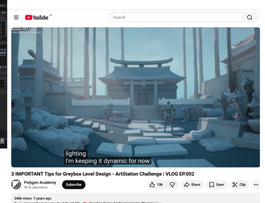
experimenting with different structures

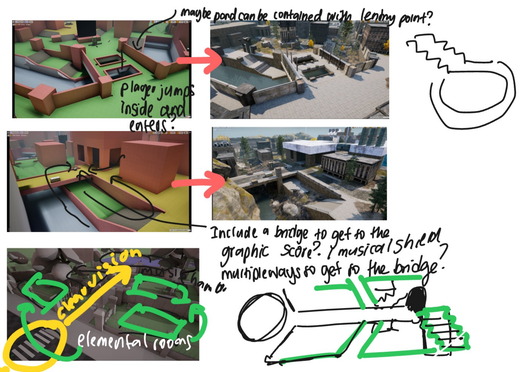
WEEK 4

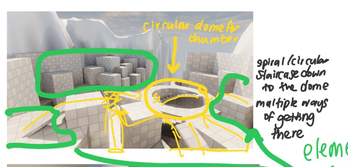
Watching greyboxing tutorials on youtube to gain deeper understanding

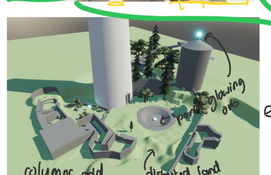


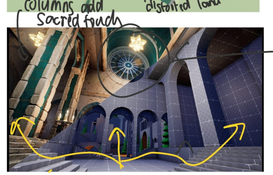












experiment more with an open world to give more exploration

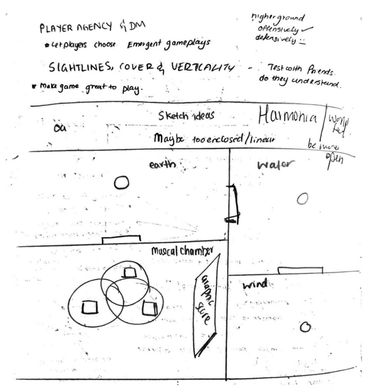
more linear or maybe too linear

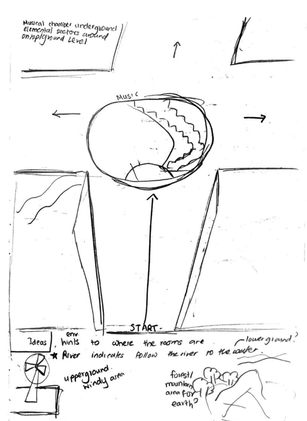
VS

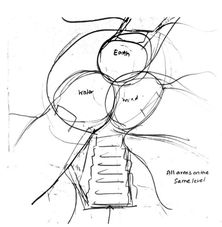
chamber Arches

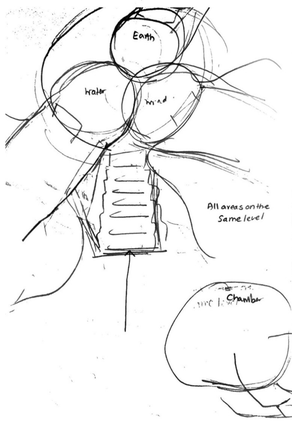
top design is rovely going into the more elemental rooms

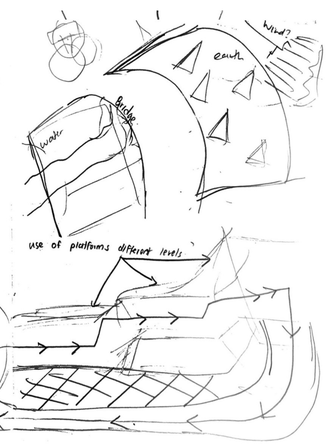
Sketching out potential maps for my game





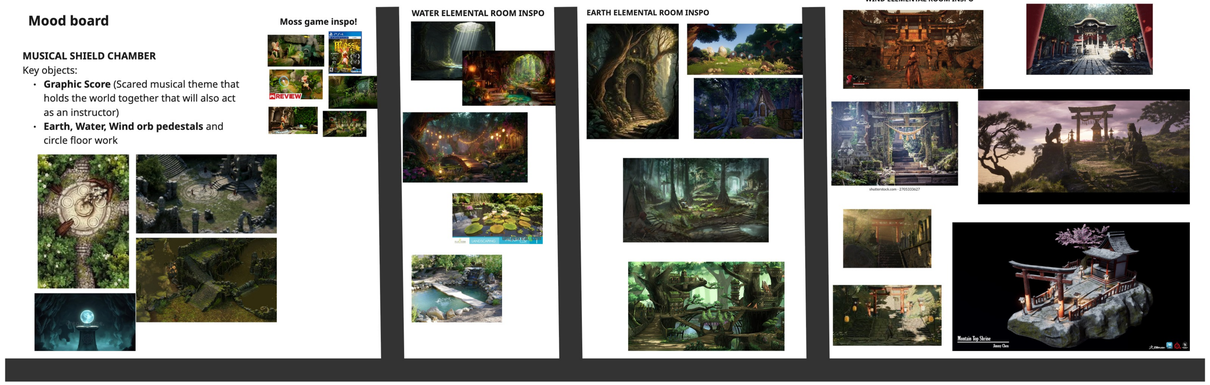




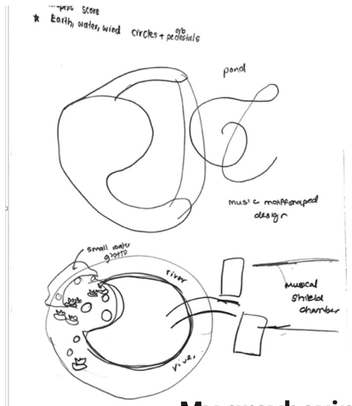


Mood board

MUSICAL SHIELD CHAMBER
Key objects:
- **Graphic Score** (Scared musical theme that holds the world together that will also act as an instructor)
- **Earth, Water, Wind orb pedestals** and circle floor work



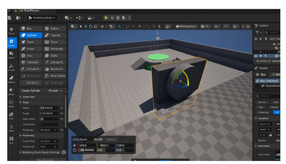
Sketches

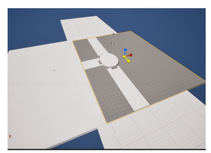


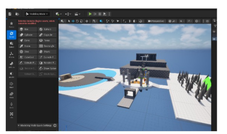


WEEK 5

My greyboxing process in unreal engine

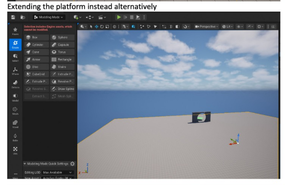


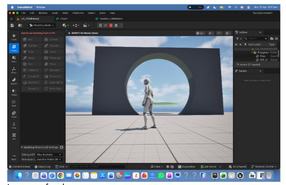


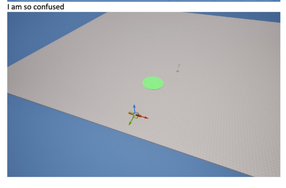


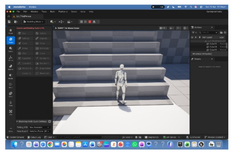
Trying to play around with polyextrude tools to draw river lines

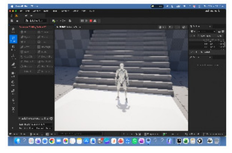


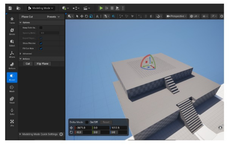

Extending the platform instead alternatively

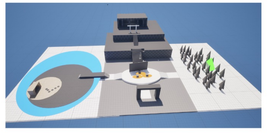

I am so confused



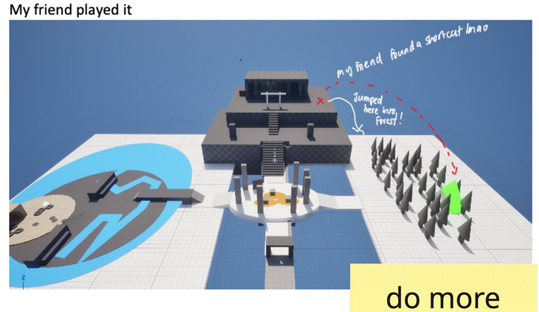

Rescaled stairs







My friend played it

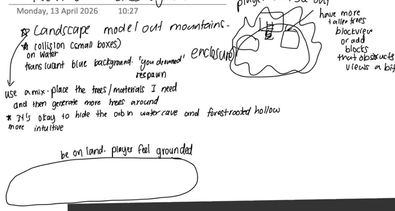


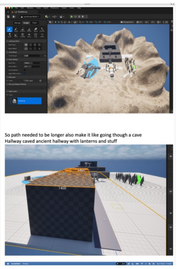
do more playtesting it is worth it!

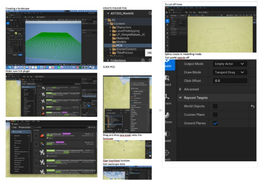
Working on my greybox design

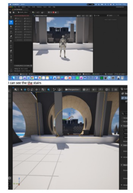
Lecture 6 notes

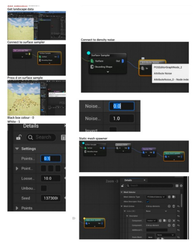


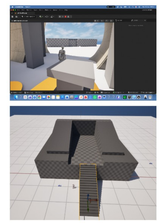


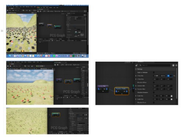








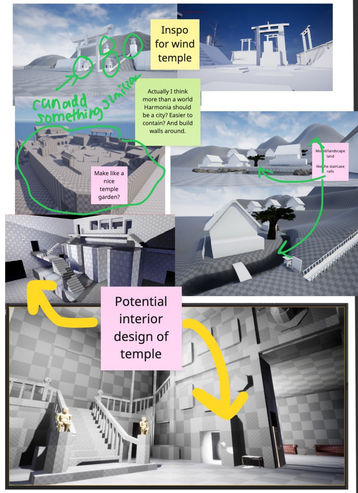




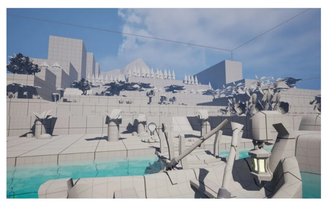




More Greybox inspo images

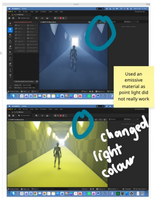


Use layered land/slopes for forest?

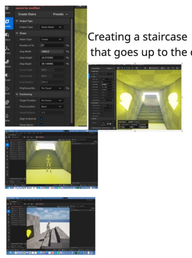


Hallway And Music Chamber

Creating a hallway when player start



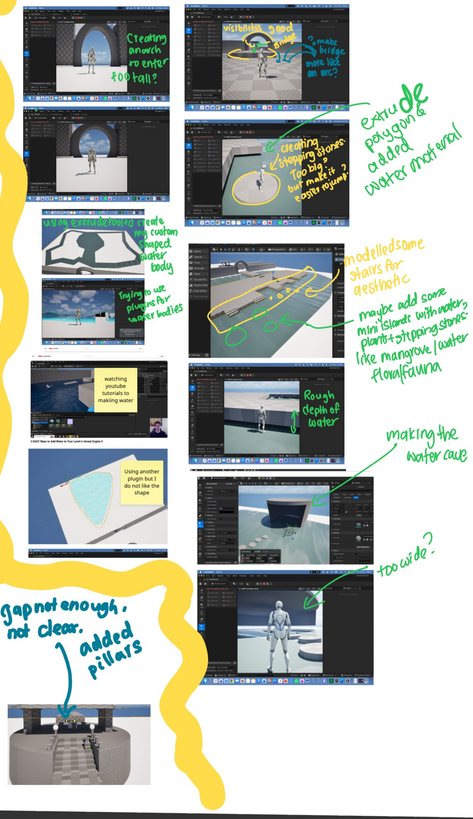
Creating a staircase that goes up to the chamber



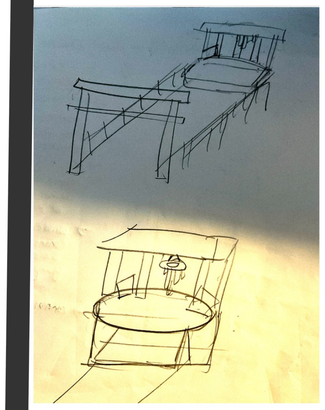
Trying to experiment with creating a closed cylindrical r chamber that opens up from



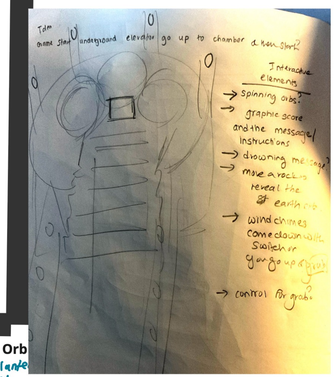
Hallway And Music Chamber

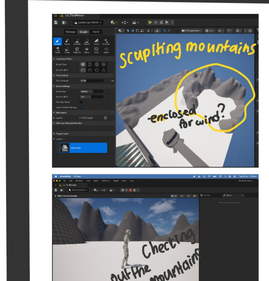


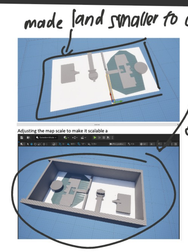
Wind temple sketches



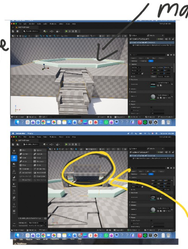
Interactivity



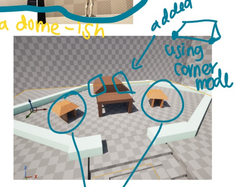


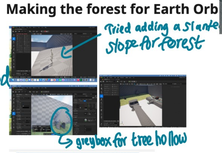


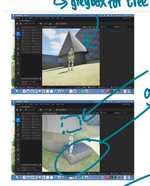


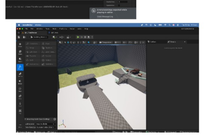


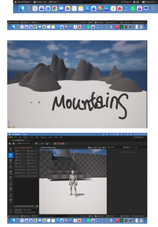


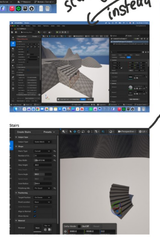


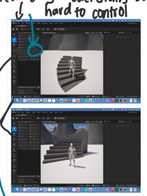


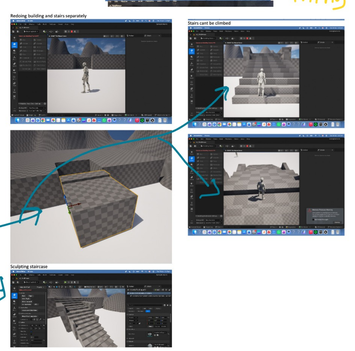








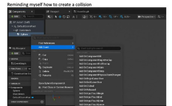


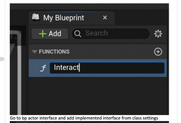
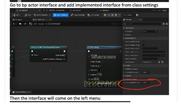


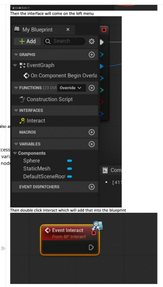
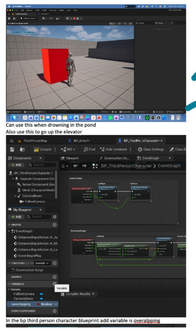
WEEK 6

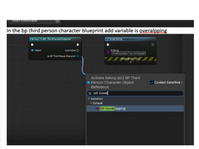
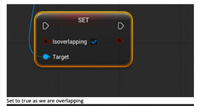
WEEK 7

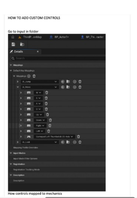
Practicing unreal alongside the lecture recording

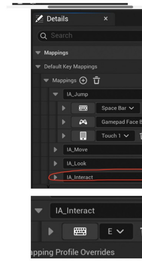


Reminding myself how to create a collision




Then the interface will come on the left menu


I can also access a particular variable using a get node
Also check by using an equal node and saying is this the third person character that cast is referencing
Cast to tells the blueprint into memory and anything else that blueprint has a reference to

Drowning in pond get the printstring
Can use this when drowning in the pond
Also use this to go up the elevator
In the bp third person character blueprint add variable is overlapping

In the bp third person character blueprint add variable is overlapping

Set to true as we are overlapping

Further create a branch node if overlapping

So you can have conditions when using this method
How many times we overlap can be counted for example - can link this to game over?




Seminar notes

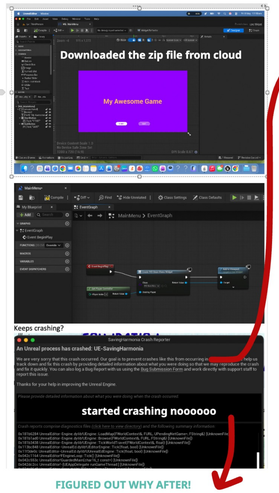
Replacing the placeholders with real game assets
Textured environment with materials, sound (royalty free, non-commercial music - Reference in miro - check week 9 sound content - wav format
Meta human - heavy , use mixamo characters
Playtest the games do not explain and see how they figure it out
No need to package game - just the screen recording - and miro boards

Um, uh, but with refined object models, environmental assets, materials, controls, gameplay mechanics, sound, music, and visual effects.

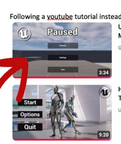
Proper UI.
Have a title menu/main menu, start and quit game, and pause game - only 2 menus
5 minute video
Test the miro
Participation in week 10%
How has the game developed 30%
Sometimes simplifying is evolution! Clear strategic game development - high level of evolution
The thinking the mechanics to get HDs, competency in blueprints - how well have I used the blueprints to create meaningful gameplay - not really how complex it is

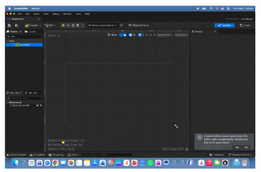
START WITH MECHANICS FIRST BEFORE MAKING IT PRETTY!

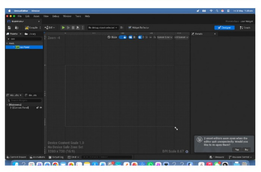
Creating a main menu



Following a youtube tutorial instead



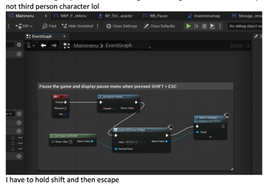




Keeps crashing?

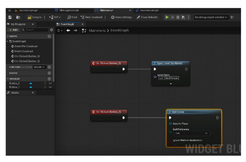
FIGURED OUT WHY AFTER!

I was wondering why this was not working I was editing in the main menu blueprint and not third person character lol

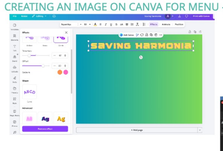


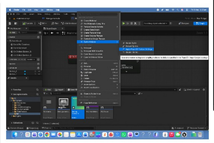
I have to hold shift and then escape

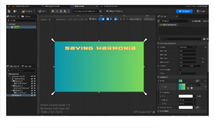




CREATING AN IMAGE ON CANVA FOR MENU - JUST A QUICK DRAFT

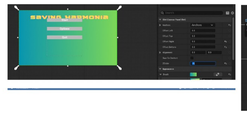




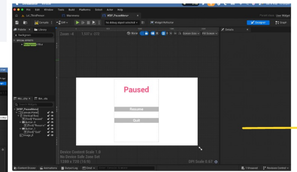






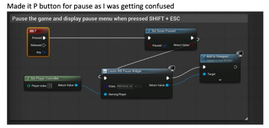


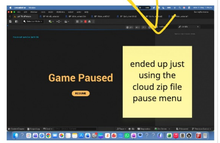




SHIFT AND ESC FUNCTION DID NOT WORK so made the button P

Made it P button for pause as I was getting confused

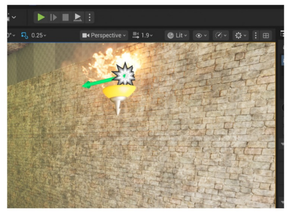


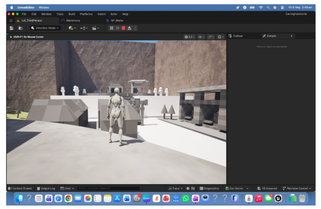




Add my own sounds for buttons!

Adding material





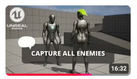
Experimenting with different interactive mechanisms



How To Make A 3D Interaction Prompt In Unreal Engine 5 (Tutorial)
Matt Aspland · 174k views



How to Interact, Open a Chest, & Interaction Prompt in Unreal Engine 5
Code With Ro · 2.5k views

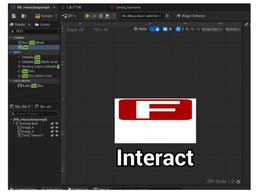


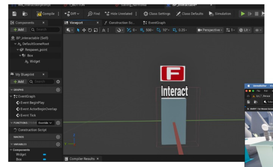
How to Make a Simple Dialogue System in Unreal Engine 5
Gorka Games · 153k views

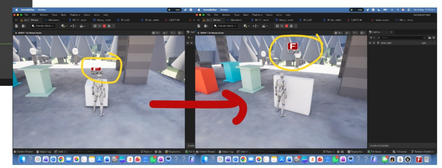
Adding clear buttons for player to know what button to press

EDITED a quick f button on canva

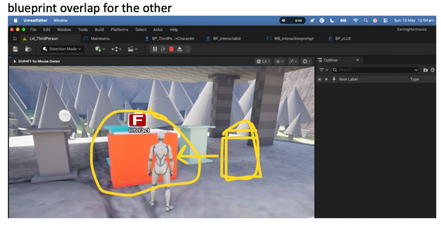








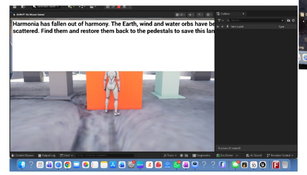
Added that box into the clue box as I could not add those nodes into the blueprint overlap for the other

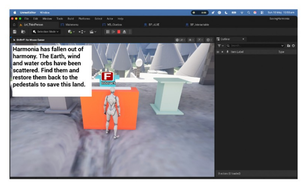


Converting the string prompts into widget

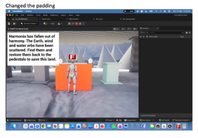




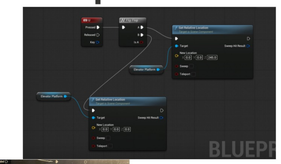


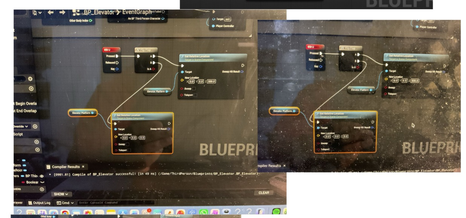


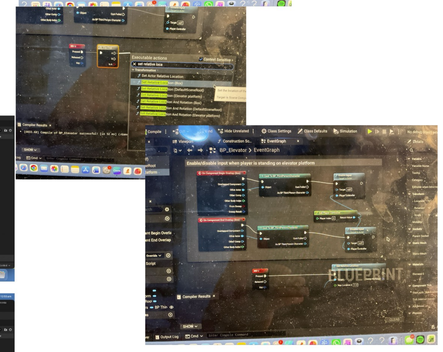
Changed the padding



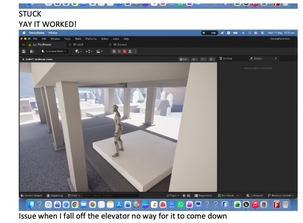
Fixing my elevator platform blueprint



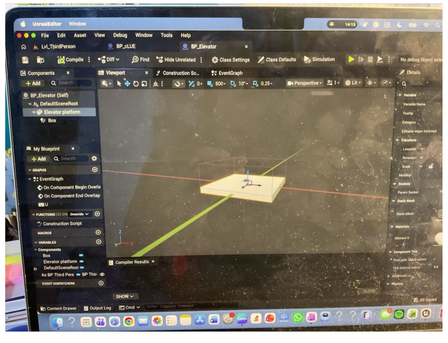


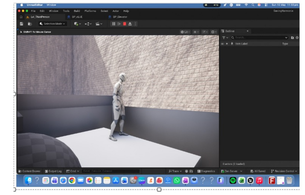


STUCK
YAY IT WORKED!



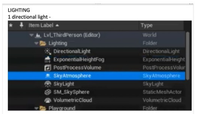
Issue when I fall off the elevator no way for it to come down





WEEK 8

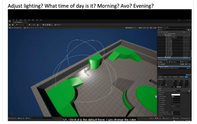
Seminar 9 lecture notes



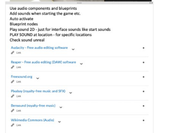


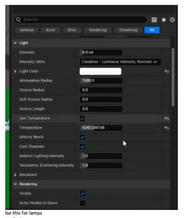


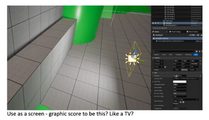




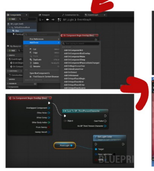


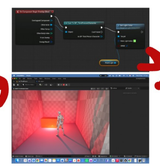


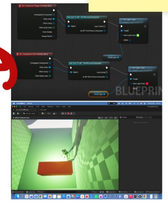






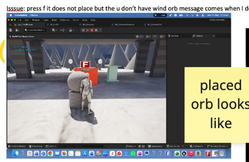




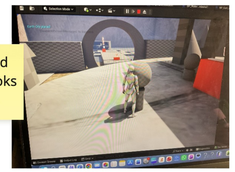


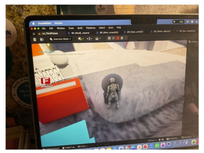
adding a colour changing light to signal clueboard

Working on collecting and placing orb on pedestal blueprint



placed orb looks like





Not working

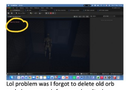


Figured it out it was the key

pedestal blueprint



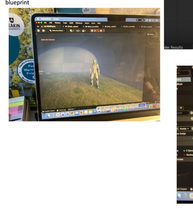
Element orb blueprint

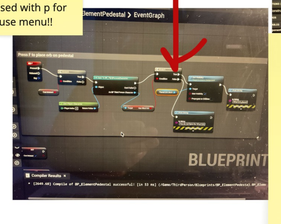




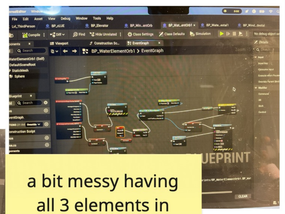


changed P key to F key as "P" getting confused with p for pause menu!!

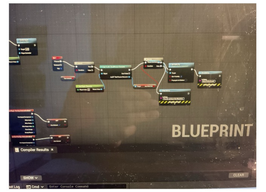


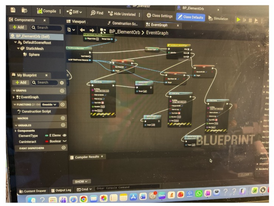


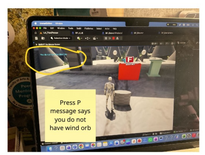
a bit messy having all 3 elements in one pedestal blue print so created separate blueprints for each pedestal and orb

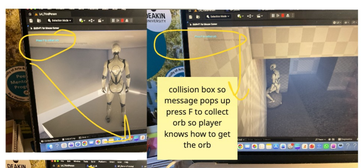


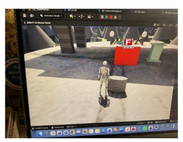


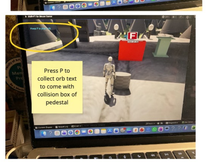


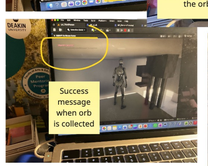












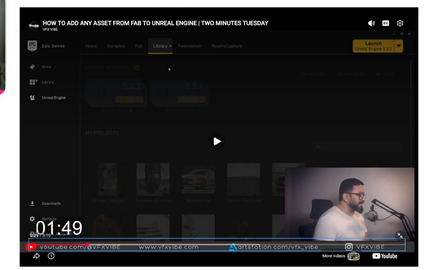


Experimenting with assets and learning from Youtube

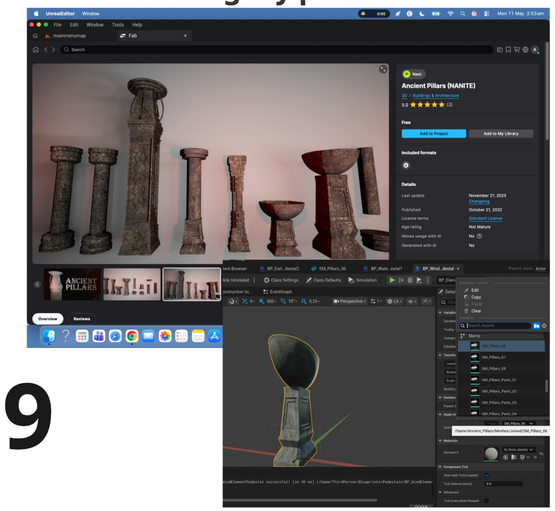


HOW TO ADD ANY ASSET FROM FAB TO UNREAL ENGINE | TWO MINUTES TUESDAY

VFX VIBE • 2.9k views



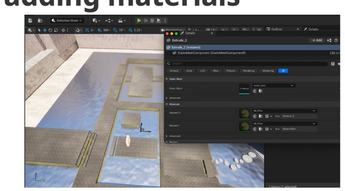
creating my pedestals



WEEK 9

colour coded my pedestals to match

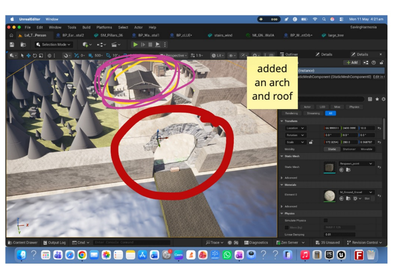
adding materials





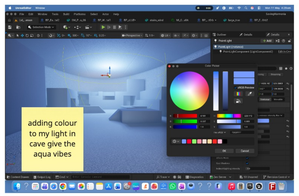
use these rock assets make a maze in the forest??



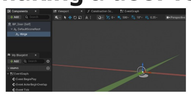


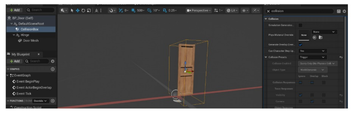
W10 playtesting feedback from Todd

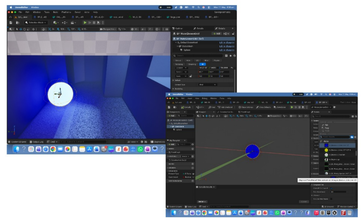
Change strings to widgets. Strings are just for trouble shooting
Have the same floating widget for consistency
Add timeline to elevator platform



Making a door for the houses

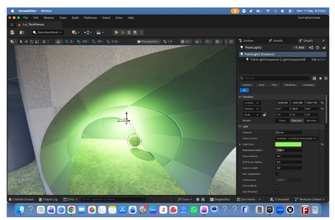


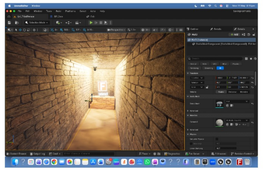




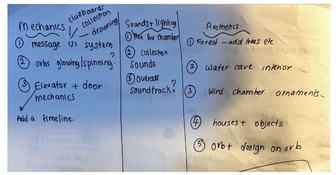






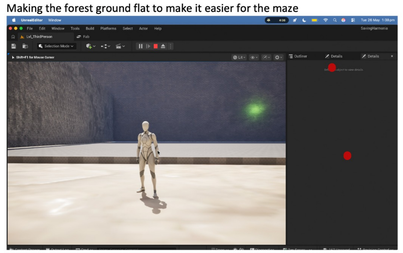


To do quick list

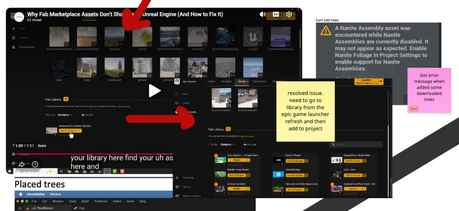


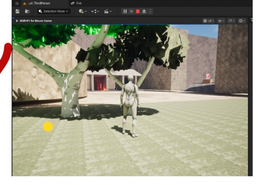
WORKING ON THE FOREST

Making the forest ground flat to make it easier for the maze

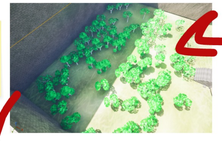


Tried to download tree assets from FAB but could not add them to project so watched YT video and figured it out

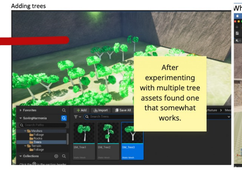




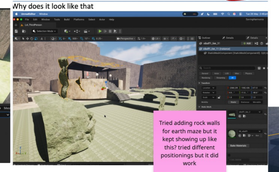
Made the entire ground grass material

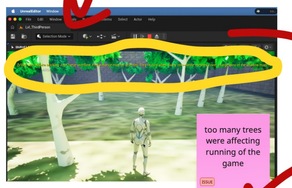


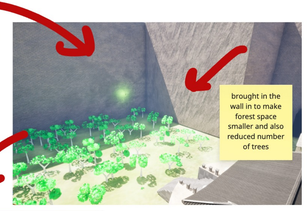
Adding trees

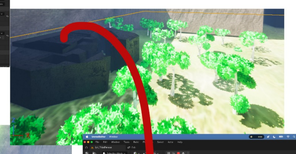


Why does it look like that

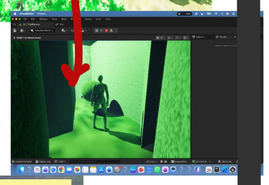


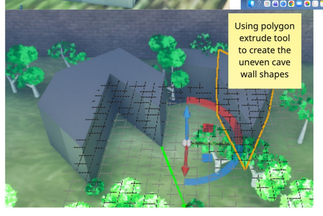










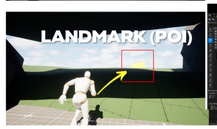


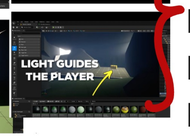
Watching youtube video on cave design to get ideas



Use of funneling



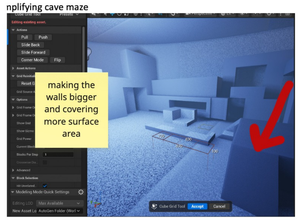


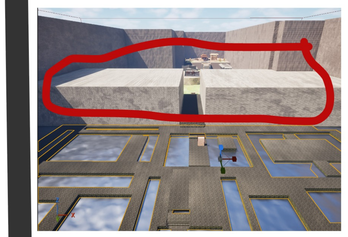


WATCHING YOUTUBE TO KNOW HOW TO MAKE A PROPER CAVE

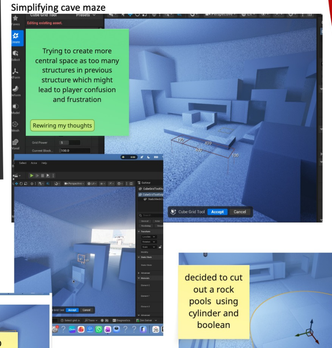
WORKING ON THE WATER CAVE

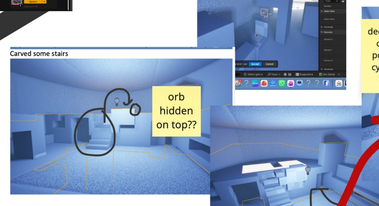
nplifying cave maze



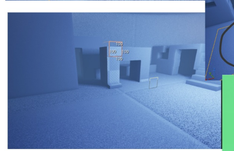


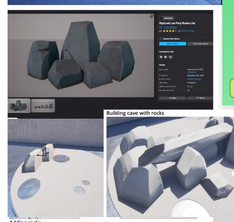
Simplifying cave maze

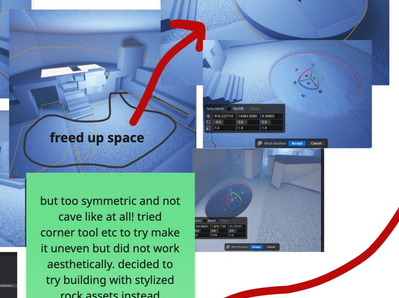




Carved some stairs







decided to cut out a rock pools using cylinder and boolean

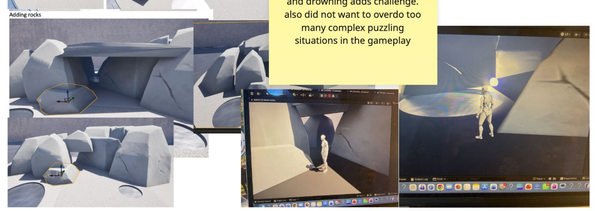
but too symmetric and not cave like at all! tried corner tool etc to try make it uneven but did not work aesthetically. decided to try building with stylized rock assets instead

Rewiring my thoughts

Building cave with rocks

Looks much better with the rocks. also simplified it focusing on simple aesthetics as the hard part of stepping stones and drowning adds challenge. also did not want to overdo too many complex puzzling situations in the gameplay

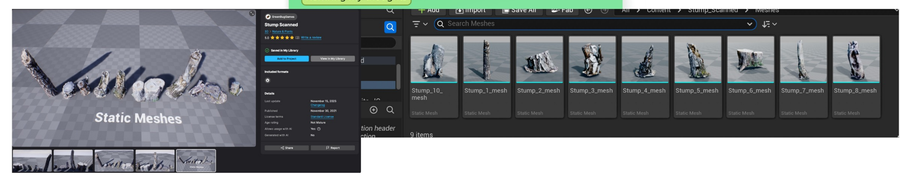
Adding rocks



WORKING ON THE FOREST CAVE AGAIN

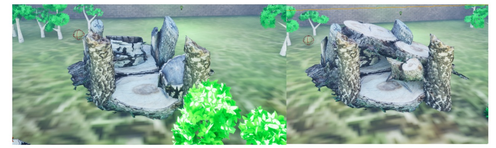
Trying to revert to OG rooted tree hollow idea but could not find any assets. decided to download tree barks assets and create a tree stump structure instead

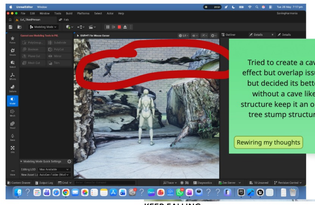
Rewiring my thoughts



Trying to rebuild cave out of tree barks







Tried to create a cave effect but overlap issues but decided its better without a cave like structure keep it an open tree stump structure

Rewiring my thoughts

Changing forest tree stump with some material as stump

Made it bigger surface area as I KEPT FALLING OFF

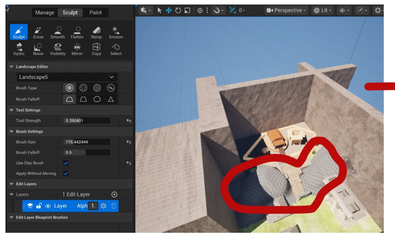
KEEP FALLING

creating a clear path for player to climb to top to get the orb

Removed some trees

WEEK 10

WORKING ON THE WIND TEMPLE





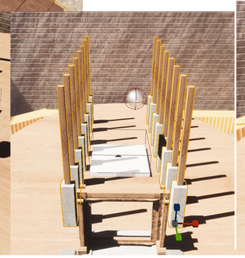


Sculpting in landscape mode to break the symmetry and add some real world texture into it

Rebuilding temple using assets











Pillars look too thin and too many. does not match with the heavy ornamented roof. need thicker ancient pilars



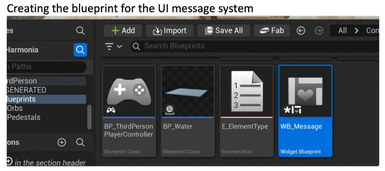


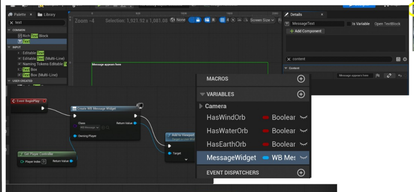
chose to go with a stone temple instead of a predominantly wooden one

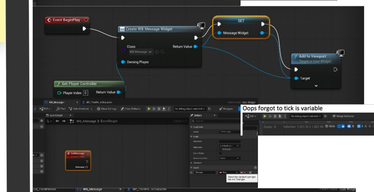
Rewiring my thoughts

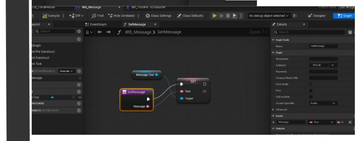
WORKING ON MECHANICS/BLUEPRINTS

Creating the blueprint for the UI message system

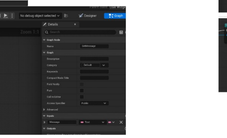




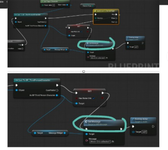


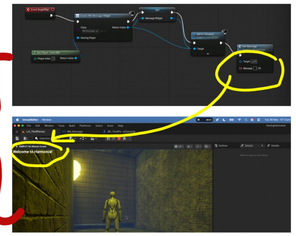


Oops forgot to tick is variable





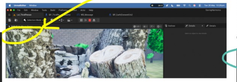




testing if UI widget text works

Updating my earth orb blueprint to add ui message





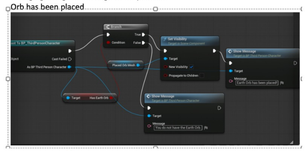
Created a new function show message





Adding to earth, water and wind orb blueprints replacing string with message widget

Changing strings to message UI for pedestal Orb has been placed





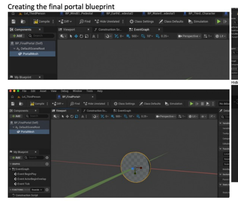
FIX POSITIONING OF PLACED ORBS

Checking if messages are working for orb collection and placement system

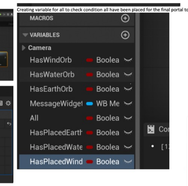
CREATING FINAL MESSAGE WHEN ALL ORBS ARE PLACED

IDEA: portal to go into once saved harmonia?

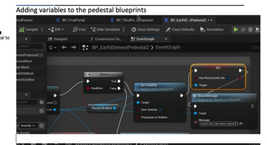
Creating the final portal blueprint

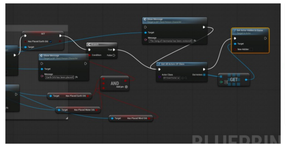


Creating variable for all to check condition all have been placed for the final portal to

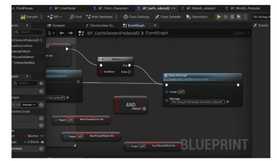


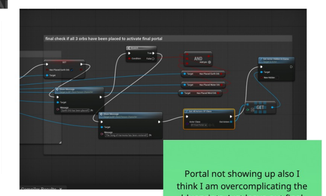
Adding variables to the pedestal blueprints









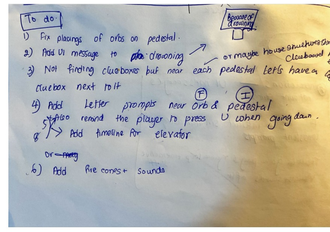


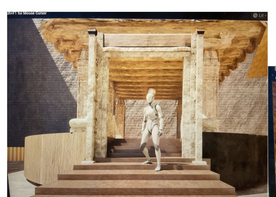
Portal not showing up also I think I am overcomplicating the blueprints. Just leave out final portal and have a simple game ending and message for successfully placing all orbs and saving harmonia!

Rewiring my thoughts



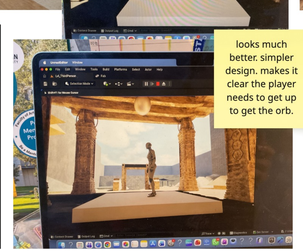






oops collision cannot enter

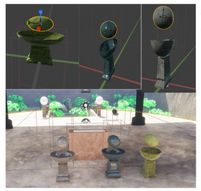




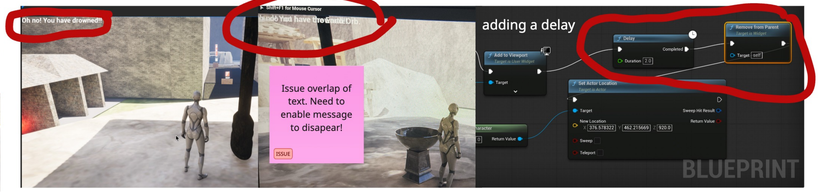
looks much better. simpler design. makes it clear the player needs to get up to get the orb.

WEEK 12

FIXING ORB PLACEMENTS



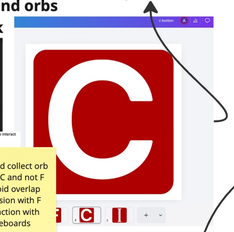
CONVERTING DROWNING MESSAGE INTO WIDGET UI FROM STRING

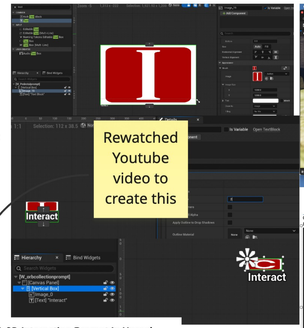


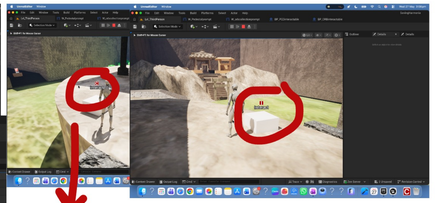
Adding similiar floating interaction to pedestals and orbs make it consistent with following Todd's feedback

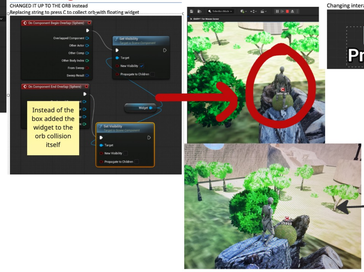


Creating icons in canva









Changing interact word to press to make it clearer

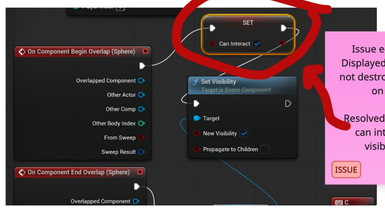




How To Make A 3D Interaction Prompt In Unreal Engine 5 (Tutorial)

Matt Aspland ▷ 176k

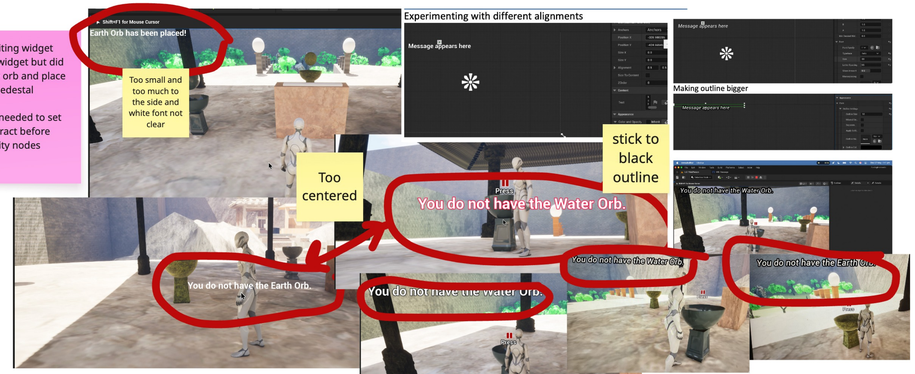
REPLACING ALL STRINGS WITH MESSAGE UI AS PER FEEDBACK FROM TODD



Issue editing widget Displayed widget but did not destroy orb and place on pedestal

Resolved: needed to set can interact before visibility nodes

ISSUE



Experimenting with different alignments

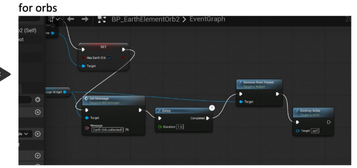
Making outline bigger

stick to black outline

NEW ISSUE: UI text is not leaving the screen!

ISSUE

Making text disappear after 1 second without staying on the screen for orbs

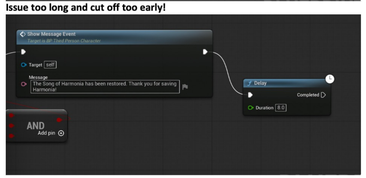


Creating the final thank you message once all orbs have been restored

Creating a custom event in the third character blueprint

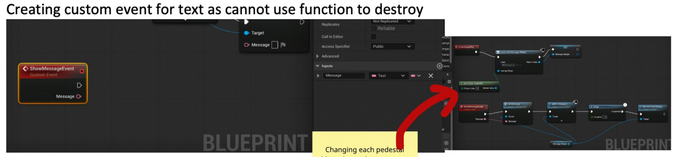


Issue too long and cut off too early!

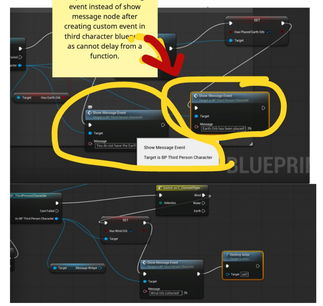


Making text disappear after 1 second without staying on the screen for pedestal by editing in third character blueprint

Creating custom event for text as cannot use function to destroy



Changing each pedestal blueprint to showmessage event instead of show message node after creating custom event in third character blueprint as cannot delay from a function.



Pedestal UI Message Debugging

Problems:

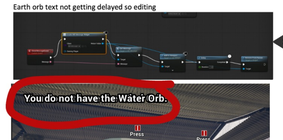
During gameplay testing, the pedestal feedback messages were not updating correctly. When interacting with different pedestals, the previous message sometimes stayed on screen or appeared again at the wrong pedestal. For example, after checking the Earth pedestal, the Water pedestal continued showing the Earth Orb message. Some pedestal messages also overlapped, especially after placing multiple orbs.

What Was Working

The orb collection messages were mostly working correctly. When an orb was collected, the correct message appeared, disappeared after a short delay, and the orb was destroyed. This showed that the issue was mainly with the pedestal interaction system, not the orb collection system.

ISSUE

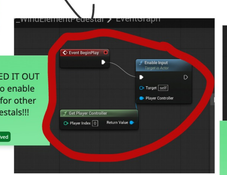
still did not work...

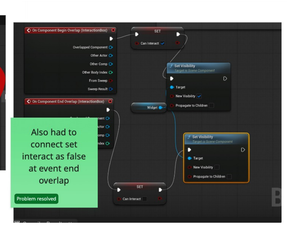




FIGURED IT OUT Had to enable input for other pedestals!!!

Problem resolved



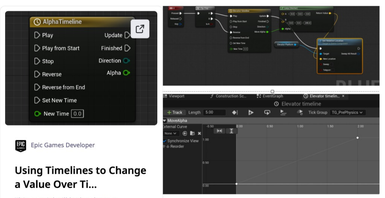


Also had to connect set interact as false at event end overlap

Problem resolved

Adding sound effects

Adding timeline for elevator using lerp



Epic Games Developer

Using Timelines to Change a Value Over Ti...

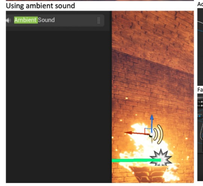
This tutorial will look at how to smoothly move between two variables using Blueprints and provides step-by-step instructions on how to us...

Editing my lamps

Adding fire



Using ambient sound



Adding success sound to collect orbs

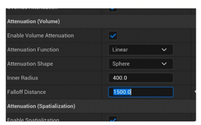


Fail and success sounds



Sound to drown







Added up sound to elevator



Found a sound

https://pixabay.com/music/beats-adventure-game-262423/

https://pixabay.com/music/search/ancient%20temple%20ambience/

Added background sound



FINAL SOUND CHOSEN LINK:

Pixabay

Mesopotamian Calm | Royalty-free Music

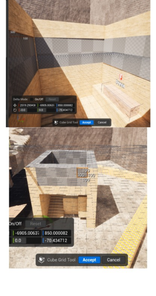
Listen to Mesopotamian Calm track or browse more ambient audio. ✓ Royalty-free music download ✓ Browse thousands of tracks

MY FINAL GAMEPLAY VIDEO

https://www.youtube.com/watch?v=Ag9bDyPa7LE



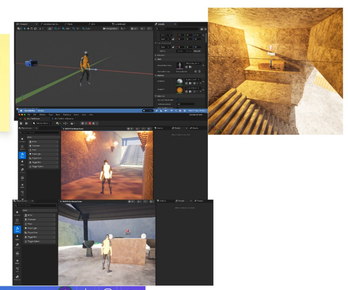
Closing up the upstairs



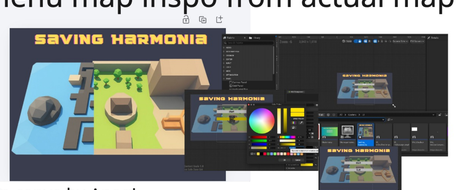


Decided to go with clue huts to make it easier for the character to find.

Customised the manny a little!



Edited menu map inspo from actual map



edited in canva by Anagi