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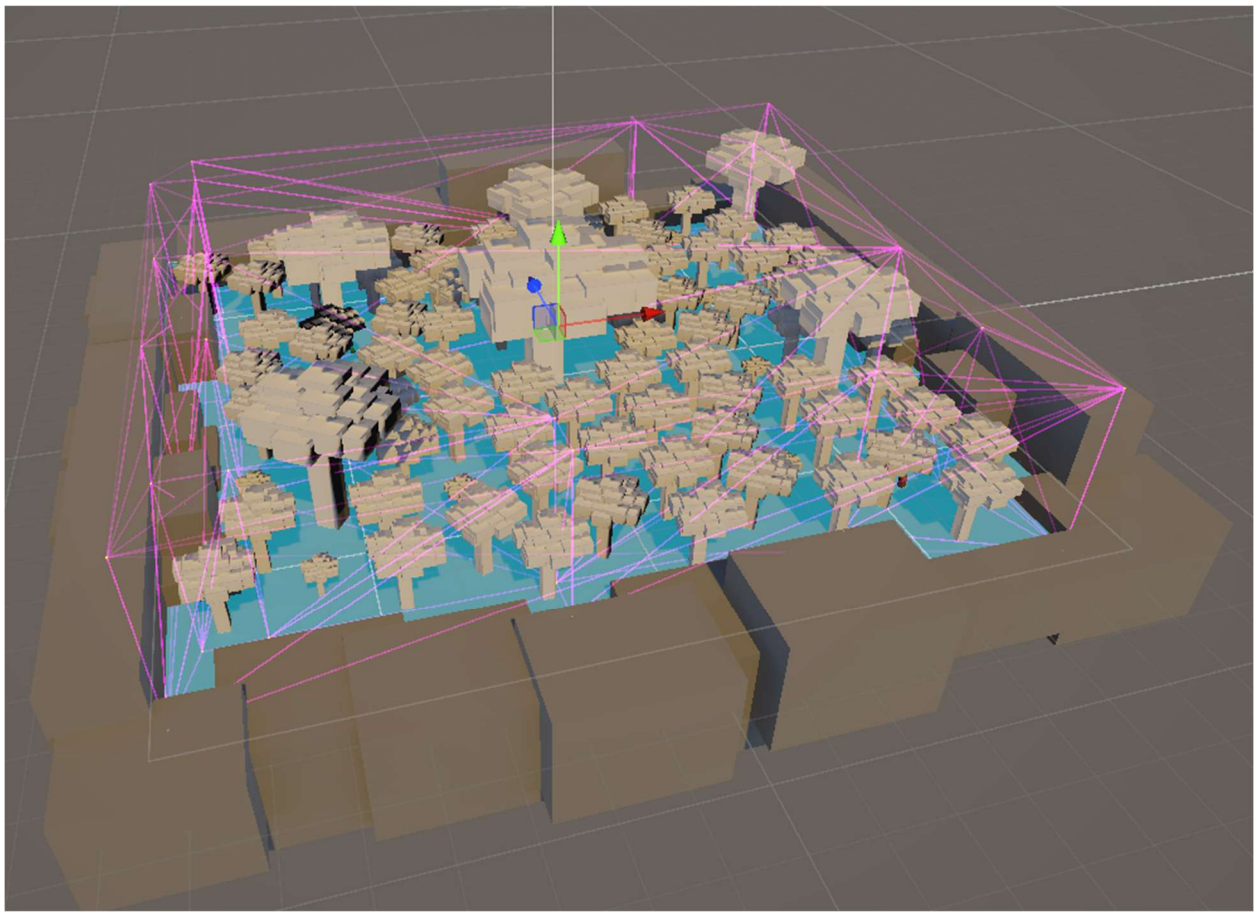
Crafting Knight

Assignment 3

Lighting

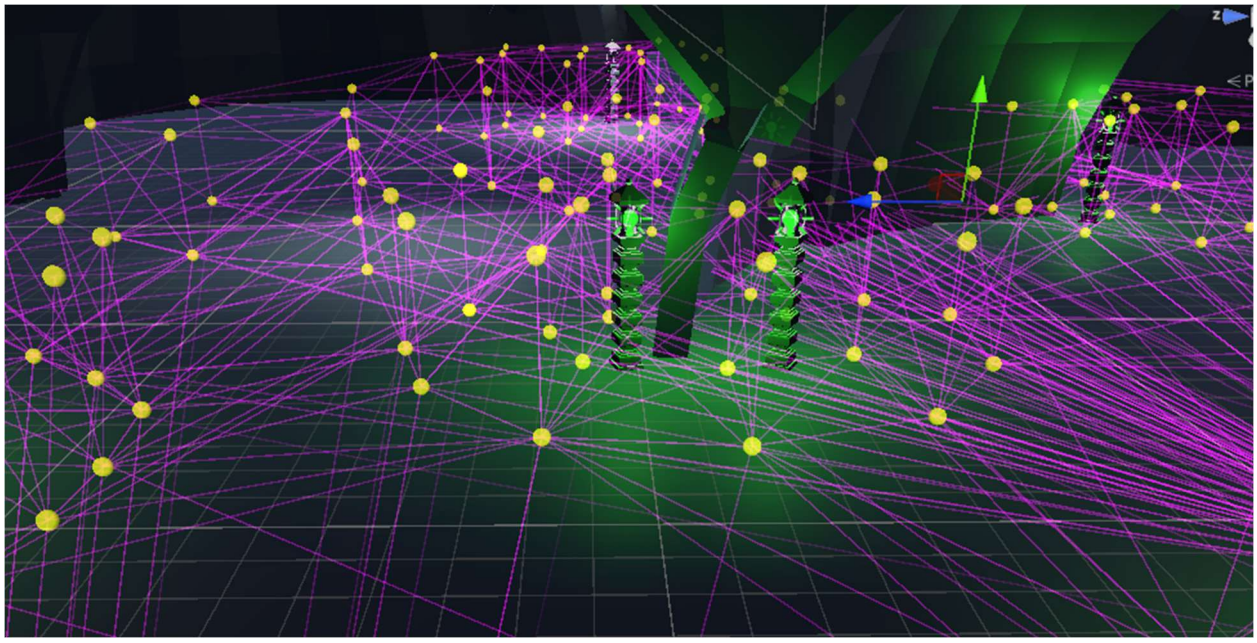
Level one Lighting

This level's main focus is the directional light which represents the sun. The goal was to make the illusion that the player is in a foggy forest with light peering through the treetops. While the new version of unity does not always require light probs, it was help full to use to show the difference between the edge shadows.



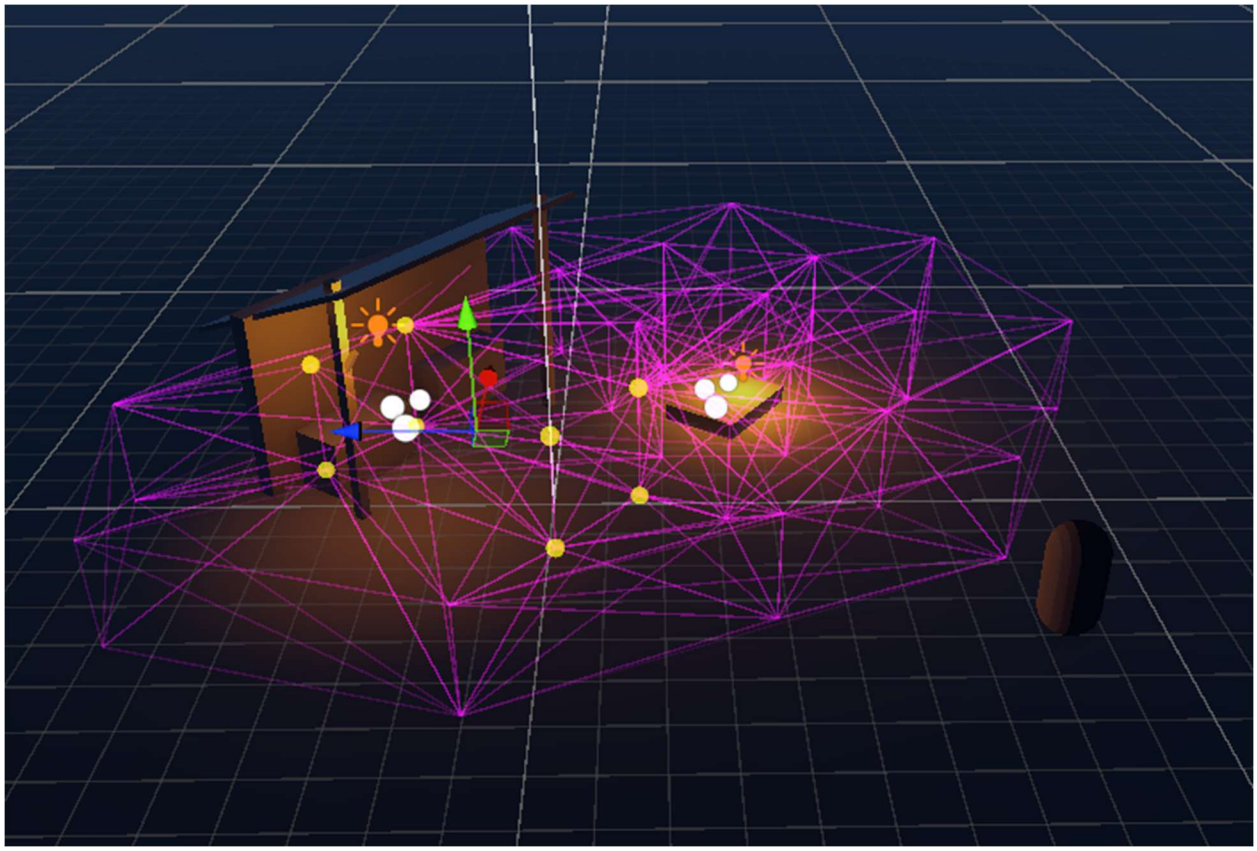
Level Two Lighting

This level is a cave, so the lighting needs to help the player see but not break the illusion that it is nighttime in a cave. This is done by lowering the power of the skybox to be darker and using point lights to represent the moon peering through the cracks on the cave. Torches are also present throughout the level this is to represent the magic that is around the area this is show in more detail by having the torch that is in the moon light to not be lit. Light probes were very important to this level as there a lot of area s where shadows and light change such as the green torch light and the dark cave and the moonlight blending in with the green hue of the torch.



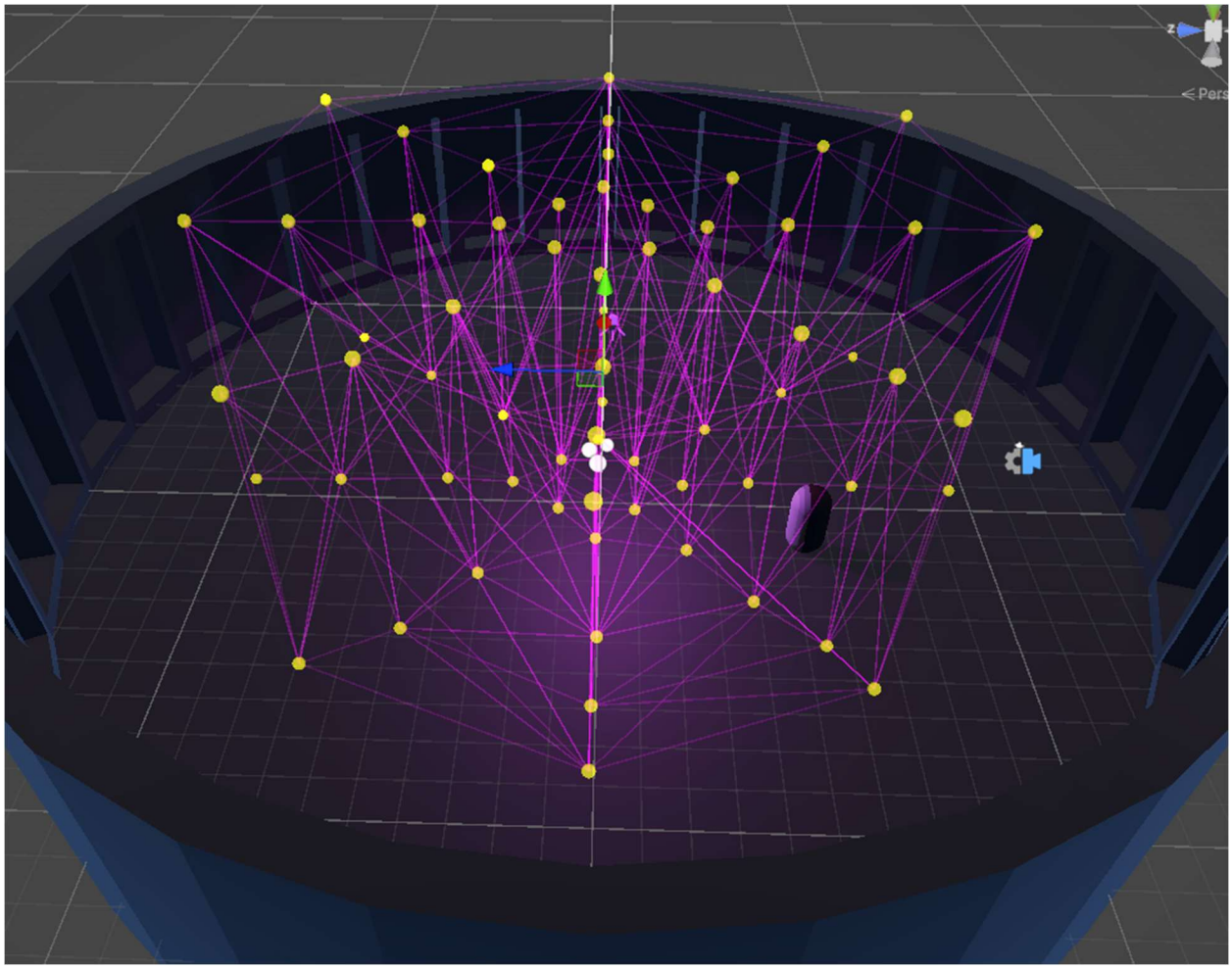
Merchant lighting

This is a smaller level as it represents a rest period between levels where the player can upgrade their gear. There are two forms of light, which are both point lights which represent a torch and a fire. These are warmer lights to invoke a feeling of relaxation from the player. Again, light probs are useful to differentiate between different lights



Final Boss

The final arena is small, but it represents the witches last ditch effort to defeat the knight. The lighting is simple; it is a one big point light that is the color purple. This is the color of the magic that has to is represented the knight is in her domain and must fight to survive.



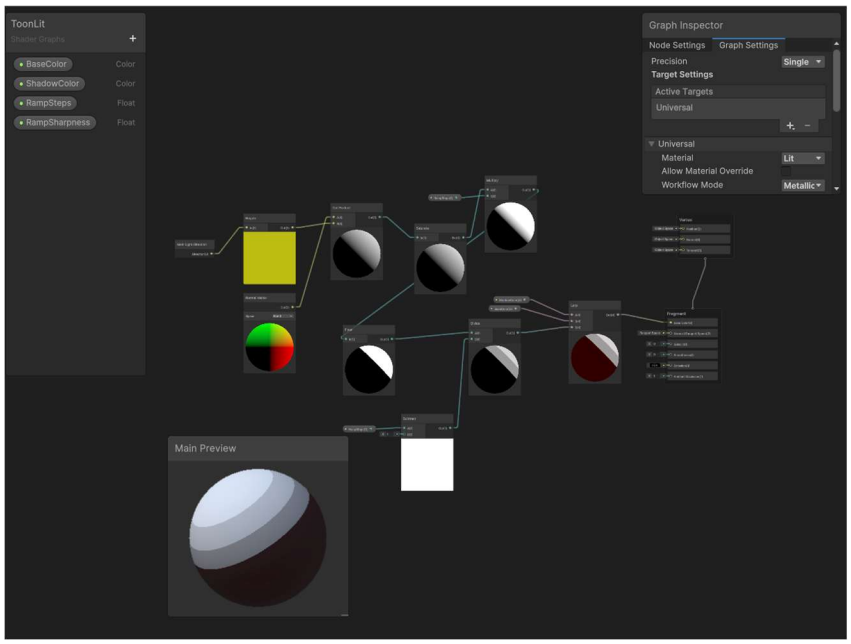
Each level represents a progression in the game from a sort of sunny forest to finally a dark and scary arena where the knight will have to fight for his life.

Shaders

There are 3 different shaders made for this game each of them made to satisfy the logic for different materials that will be needed for the game objects.

Shader 1 (Toon Shader)

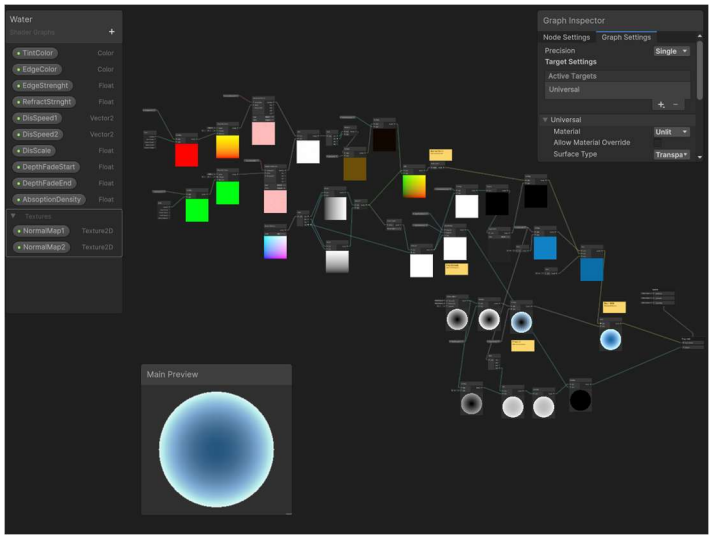
The Toon Shader will be the primary shader for most objects in the game like trees and other backgrounds to make the sprites of the characters like the knight feel more cohesive with the rest of the world.



The Toon Shader basically divides the light and dark with sharp transitions instead of a smooth 3D shadow. There are also different values that can be edited in the inspector when we create a material with the shader to change how many divisions of light are shown and the colors of the shadows.

Shader 2 (Water/Liquid Shader)

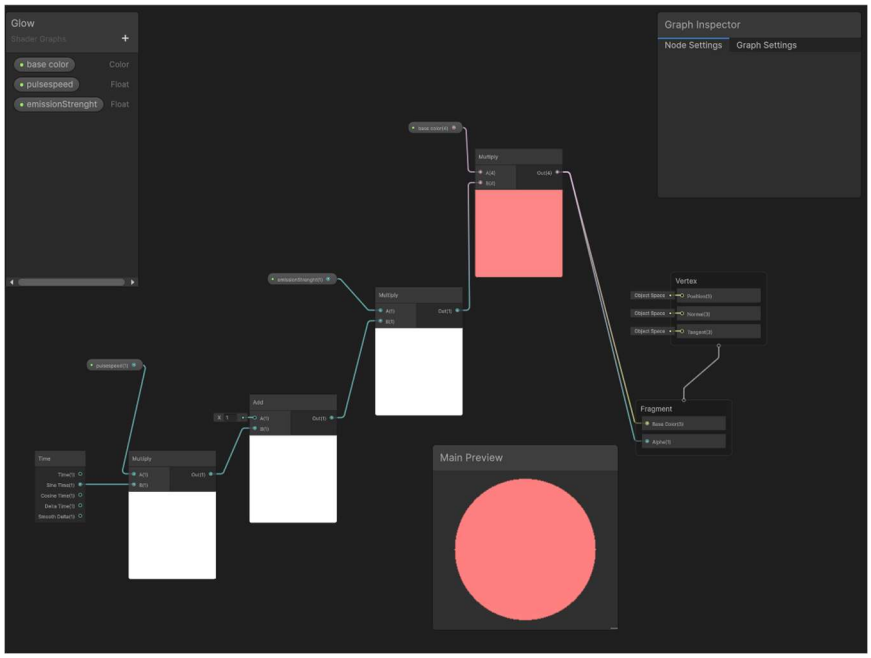
The Water/Liquid Shader is made for all liquids. Any liquid materials we create will rely on this shader, and maybe other transparent materials like glass if we need it.



This one was the most complicated one to make; it has transparency to mimic liquids, a lighter edge around the object to help define it and a bit of glow. It is still a cartoony version of liquids, so it merges well with the rest of the shaders.

Shader 3 (Glow/Critical Shader)

The Glow Shader is made for objects that blink out of view; we plan to use it for some spells and other light sources. It could also be used for a critical health alarm on the character health bar.



This one was very simple, it just has a time node that tells the material to increase in brightness every so often, then with the color variable we can change what color it turns into. By connecting it to the alpha channel and making the shader transparent, the object also disappears between blinks.

AI

Two AI aspects are present, the goblin and the pig. There is a base Enemy AI class that I can use to create scripts for the goblin and other enemies later on that can be overridden and slightly change. The goblin is the first mob that the player will come across; they are located in level one, and they pursue the player. The second AI is the pig which is also in level one. These enemies will roam the forest unless the player interacts with them, resulting in them becoming hostile.

Game Mechanics

We have decided to cut level 3 as each level takes ten minutes if there were three levels. That would be a minimum of 30min of gameplay which would be too long for this project.

The menu has UI that can be used and read with the implementation of settings for the player to use.

The player can also move around with WASD though the speed at which will most likely be changed later.

Two types of cameras are present now in the game the Push able camera or the third-person camera and the first-person camera. This can be changed per the players' likes, and each camera is better for different levels. For example, the third-person camera is good for level one and the final level, and the first person would be better for the cave level.