

Daniel McKenzie - 16068920

DEVSLIDES

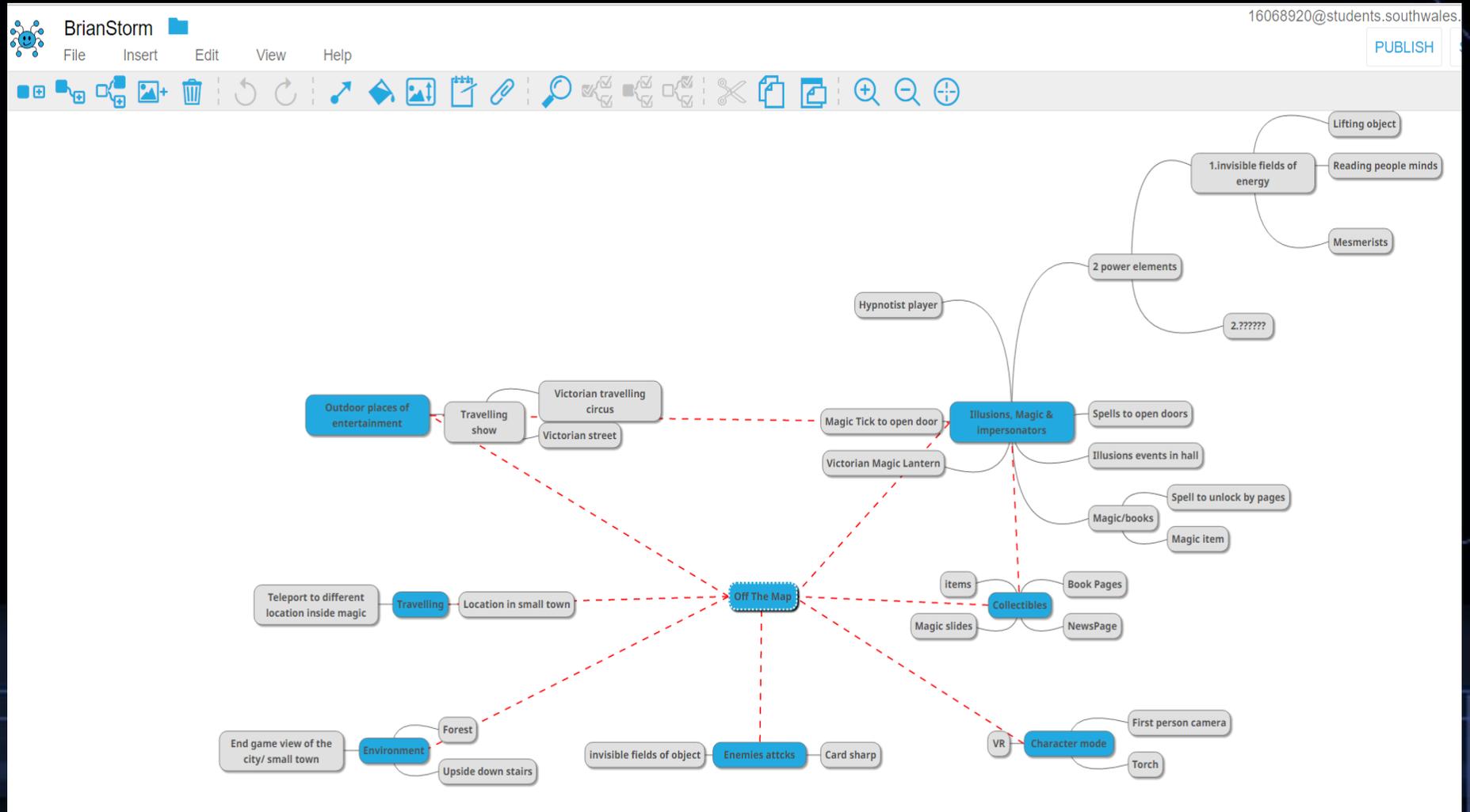
Week 1 23th Jan – 29th Jan

- This week was researching the three theme of magic , illusions and fairground. I started to research into John Nevil Maskelyne to see what kind of magic he dose and written ideas down . John Nevil Maskelyne had create “Psycho” the whist-playing automaton that going to be three separate in our game where the player would go on a quest to found it in three different scene. I also researching at Annie De Montford and how she could guess what people was thinking or provoke them to behave out of character.
- Were still researching I made a mindmap and was throwing ideas on there and when I finish the research I then started to come up with idea for the game using the mindmap.
- I decided to take the leader designer role for this project so that I could make sure what happen last project don't happen again and be able to forces on what need to be done instated of waiting for the leader to give the task.
- With the mindmap I show my teammates to add their thought of this game and what we could do to improve the ideas, everyone ideas add on to the game and we started to discuss what kind of style theme we would go for, so we looked at the top 3 winners in off the map to see what they did and what we could do for our game using that, so we come to a agreement on what style theme were doing and set a group meeting for next week.

<https://www.bl.uk/collection-items/poster-advertising-the-mesmerist-miss-annie-de-montford-at-the-music-hall-barnstaple-devon#sthash.hethCAhB.dpuf>

<http://cyberneticzoo.com/not-quite-robots/1875-psycho-the-whist-playing-automaton-maskelyne-clarke-british/>

Mindmap



John Nevil Maskelyne

- 1875 “Psycho” the whist-playing automaton - Maskelyne & Clarke (British)



Week 2 30th Jan – 5th Feb

- This week I started to work out how we could use the card sharp power in the game and where the player would first get the card sharp, so there was a lot of planning where the mechanics would go and how the player would interact in the world.
- I started to talk to the team on getting the story beat down so we have clearer game flow before assigning the task to the team.
- In Unreal I carry on with setting up the camera for VR and managed to work out where I went wrong, I bring in the VR template to see how they managed to set up the camera to player head, I just copy the code into my third person blueprint and change the node that was handling in the VR blueprint to the third person camera and mess around the setting until I got the right angle, after that I started to work on the Card Sharp power for the game, I brought in the first person template to see how the first person blue was shooting and try create the same thing in the third person blueprint, it was a bit messy at first as it didn't want to shoot so I had to set up an scene component inside the third person character.
- Group meeting - one of the team member was showing their art work and bring in a tree 3D model which I put in Unreal engine to test the scale, the model was too small because the scale wasn't the same with Unreal so we were trying to figure out the grid size as the artist was using 3D Max and I know how to put the right scale in Maya but not 3D Max.
- When all the planning was done I then create a Gantt chart to see roughly how long it would take to get the project completed before the deadline and if there too much task to do which help a lot in this project with time management.

First Story-Beats

Finding My Psycho-Story Beat

Chapter 1- The Forest

- The player wakes up in a forest to see they have been in a crash
 - The toppled carriage blocks the path in front
 - The player is then informed that a valuable item (the Psycho) has been stolen
 - From this point the player will be given full control of the character
 - The main objective; find the Psycho, will be given to the player
 - The player should now explore the area
 - Exploring the forest should organically lead into the first event
- Event 1:**
- The player will encounter a road side merchant to trigger the event
 - The merchant will inform the player that they have a pack of cards for them in their lockbox but has misplaced the key, they request the player find the key.
 - Concluding this conversation will allow the player past the merchant into a more open area to explore for the key to the lockbox.
 - The player will have the freedom to explore the small forest area.
 - Exploring the forest should naturally lead the player back to the toppled carriage, this time on the opposite side. This is where the key will be located.
 - Having found the key the player should return to the merchant and hand over the key receiving a deck of cards in return. (Potentially the player will get to pick a deck from a selection)
- Sub Event:**
- After receiving the deck the player can choose to take part in a tutorial.
 - The tutorial will guide the player in learning how to throw cards.
 - The merchant will instruct the player on button layout and aiming.
 - The player will be asked to aim and shoot at several targets to complete the tutorial.
- Event 2:**
- Having received the deck from the merchant and possibly completing the tutorial, the player will move back into the open area where they found the key.
 - Once back in the open area the player will notice a path has opened up where there was none before, this path will lead into the second open area.
 - From the start of this new area the player should notice a house in the distance.
 - The player may head straight for the house and discover it is locked, or the player might explore the area.

- From the start of this new area the player should notice a house in the distance.
- The player may head straight for the house and discover it is locked, or the player might explore the area.
- Once finding the centre of the second area the player will discover some mystical items/images scattered around including a pair of old Victorian glasses.
- Putting on the glasses will give players the Vision ability (possibly limited use, or on a timer)
- When used this ability will highlight things that could not be seen before (think Witcher sense (the Witcher games) detective mode(Batman Arkham games) Dark Sight (Dishonored))
- Using this new found ability the player will recognize that certain tree's have marking or items attached to them.
- The player will use the Vision ability to find the marks and the Card Throwing ability to strike these marks.
- Striking every marking will trigger an event that opens the door to the house

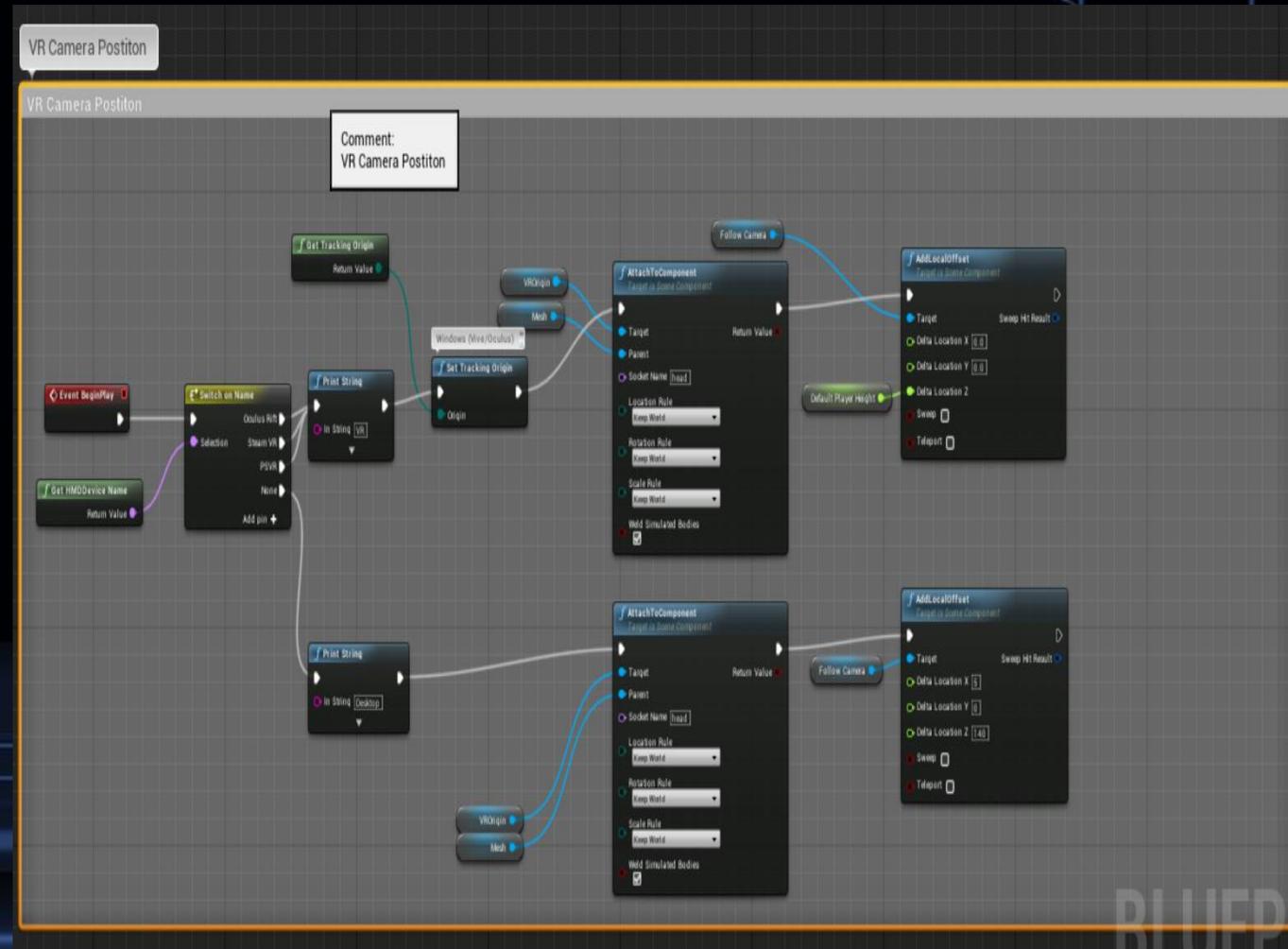
- With the house door open the player will proceed to the house

Chapter 2- Upside Down House

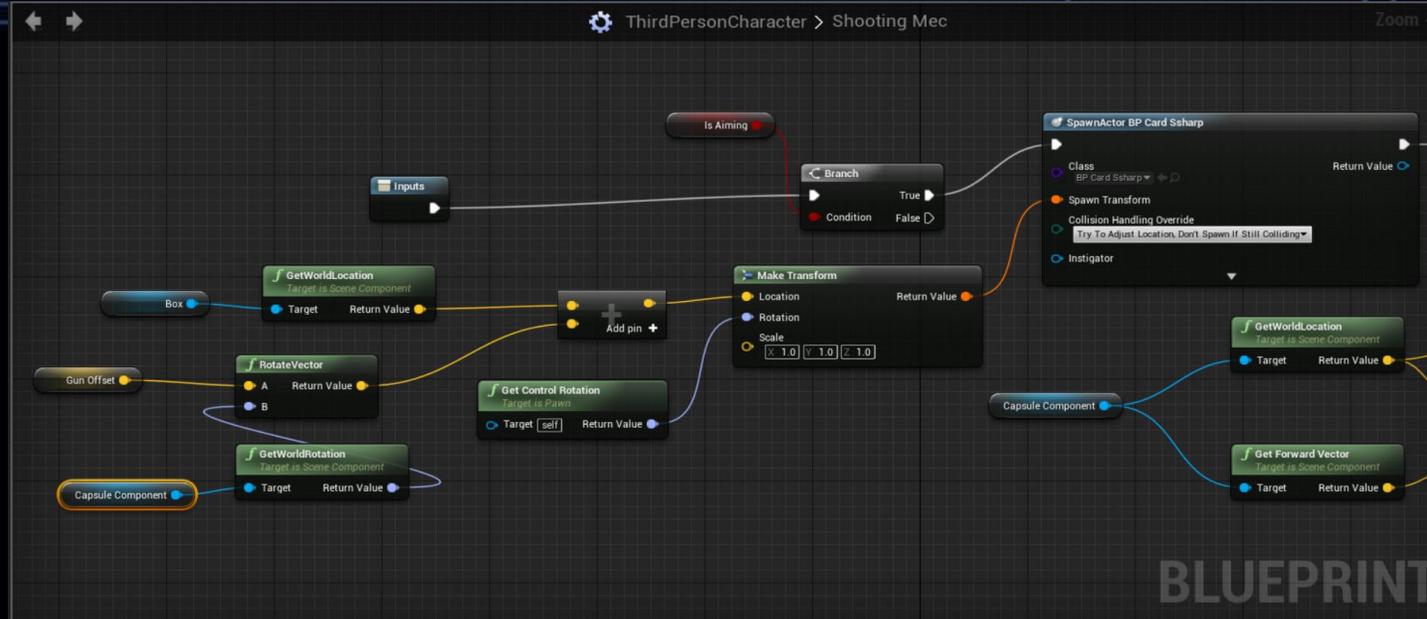
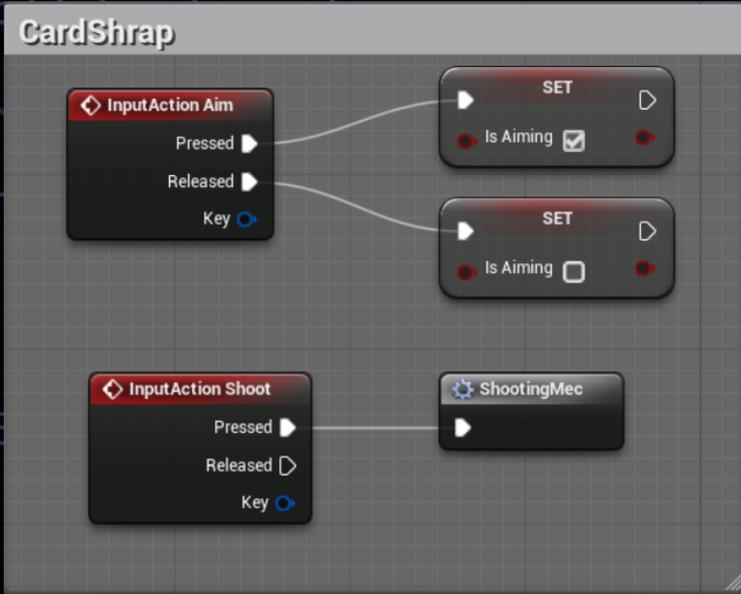
VR Set up with the head position

- Please Click link below to see the VR Head position.

- <https://www.youtube.com/watch?v=-v5OtVuCy5A>

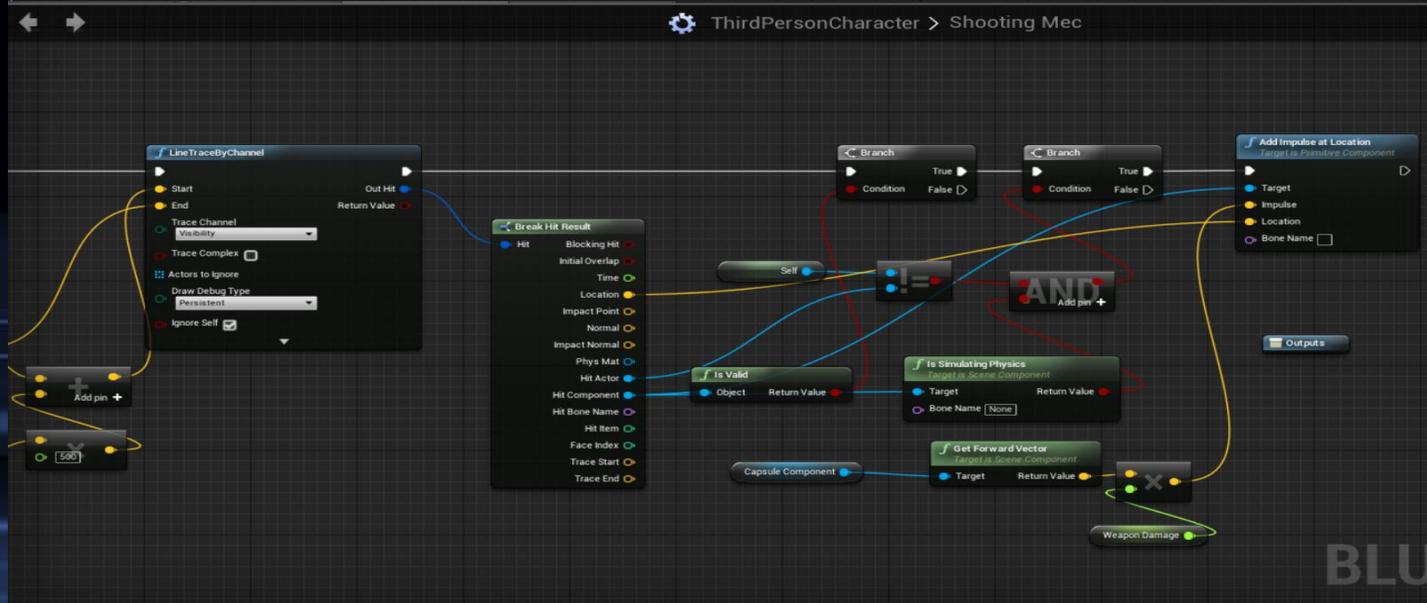


Card Sharp Power



Please Click Link below to see the Card Sharp power Video

<https://www.youtube.com/watch?v=xc3IFKXi3Y0>



Artist First Tree Model



Week 3: 6th Feb – 12th Feb

- This week I was thinking about how this game would end as it original had it where the player would get attack with magic but it would required setting up AI which would need more time and more experience which I don't have, so we changed it to a sword puzzle where you have to place swords in box where your last psycho piece is but if the player got the sword puzzle wrong they would have to start over again. The way were creating this sword puzzle is by having notes in the forest with drawing of the sword puzzle where the player would need to pick up 4 different notes to be able to compete the swords puzzle.
- The group meeting this was with the lecturer to see where were at with the game and if there any changes that need to be made. When we was telling the lecturer about the game the feedback they give the group was that the game is to big and it need to be smaller as you asking the artist to create load of asset even those you be reusing them over again it still a lot. So we had to redo the story beast and the group decided to remove the house in the game and force more on the forest and the theatre.
- During this week I was mainly working on the lock combination that we needed it for the garden gate which we original uses for it but then got changes to chest that is inside magic tent, inside the chest would have the second part of the psycho. During the making of lock combinations I come across a problem where it would span all the wheel which I didn't want so I try different method to try fix it but it didn't work so I am going to continue some time following week.
- Vison was one of the easiest to set up as I made night vision in my third person character on my old project, I just copy the post process component and then set up from there and then change the colour to different blue colour in the setting.
- Please click the link below to see Vinson. <https://www.youtube.com/watch?v=sKytQ-4n2Y4>
- Please Click link below to see Lock Combination not working. <https://www.youtube.com/watch?v=xc3IFKXi3Y0>

New Story-Beats

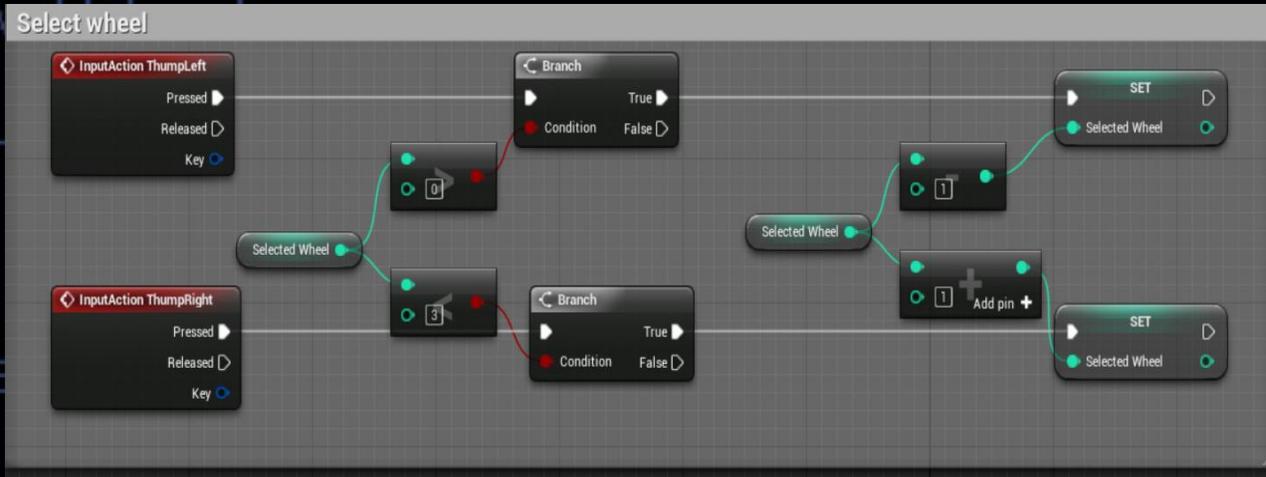
Maskelyne game beats (?)

1. Vision fades in from black.
2. Magician comes to see their carriage broken and toppled over.
3. Finds out that parts for the Psycho are missing; Head, arm etc.
4. Finds a note on carriage explains how there's a shed at the entrance to the forest with tools to repair the carriage with.
5. Magician travels to the Magic Tent.
6. A note is found within the Magic tent with the hotkey to activate the Vision power, along with a locked chest.
7. Vision power triggered, the note now states that a piece of the Psycho is hidden within the forest along with numbers for the chest in bird nests.
8. Magician travels to the forest.
9. Proceeds to collect the Psycho piece and gather the code.
10. Magician returns to the Magic Tent.
11. Unlocking the chest reveals another missing piece of the Psycho and a new note.
12. Note reads that there is a surprise waiting at the theatre.
13. Magician returns to the carriage to fix it.
14. Magician heads to the theatre.
15. Inside the theatre the Magician proceeds to find the Sword box.
16. The previously found code corresponds to which holes in the box the swords should be placed into.
17. Following the code releases the head of the Psycho.
18. Magician then proceeds to assemble the Psycho to begin the show and/or rehearsal.

Week 4: 13th Feb – 19th Feb

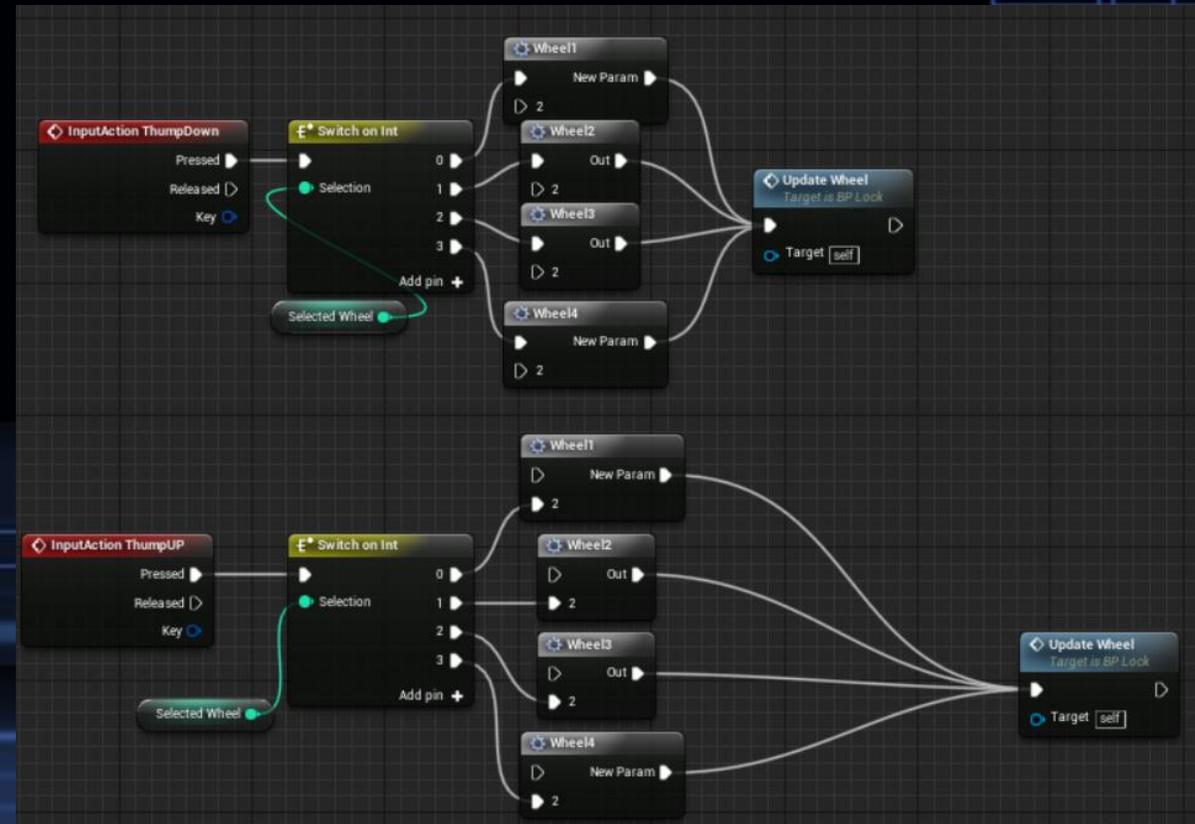
- This week I carry on trying to get the lock combination to work, I managed to figure out how to get it to select the wheels and got the wheel to go down instead of it going sideways as I had set actor rotation and times the rotation by 90 so I change it to set relative rotation and time the Y which sorted my problem with the wheel on how it will rotate but I still had another problem where it would never equal true as it would keep every wheel the same value so I create a child actor in blueprint and bring it over to the parent blueprint so that when I attach it to the set relative rotation node and switch init that should have its own value when selecting different wheel.
- During this week I messed around with vision trying to make it when the player is using it they be able to see text only and when they not the text not there so I made a blueprint with hold my texts and then bring it to my level and keep copying it but keep change the text once that was done I went to the third person blueprint and inside the vision nodes I added in get all actor and bring in my text blueprint so that when it on it should appear and when not using it then it don't appear.
- This week group meeting was discussing what kind of art style were going for and getting the asset list up updated. We was looking different types of style we could go for like Telltable and Arthur Rackham Palette. We all liked the Arthur Rackham Palette style where it look like the kind of theme were going for.

Lock Combination Blueprint Working with Vison

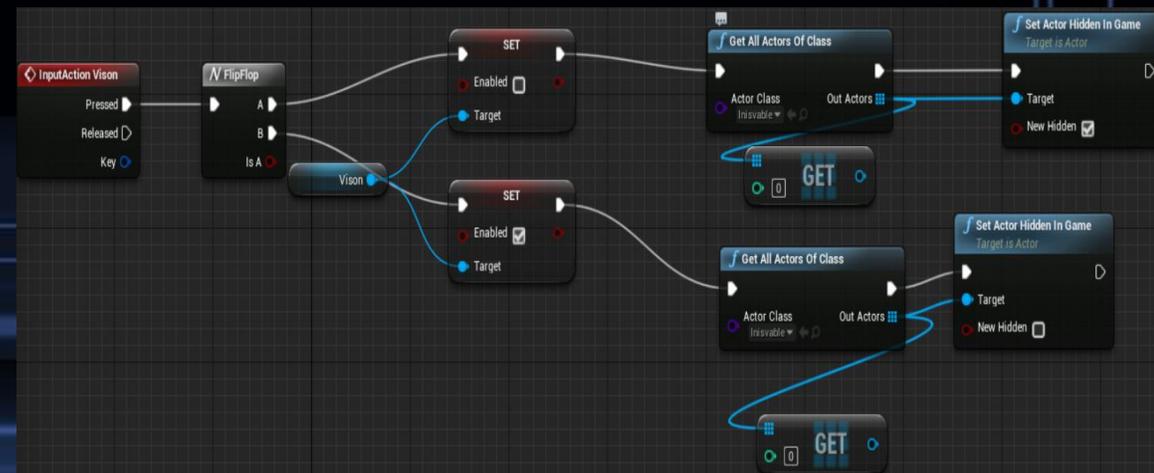
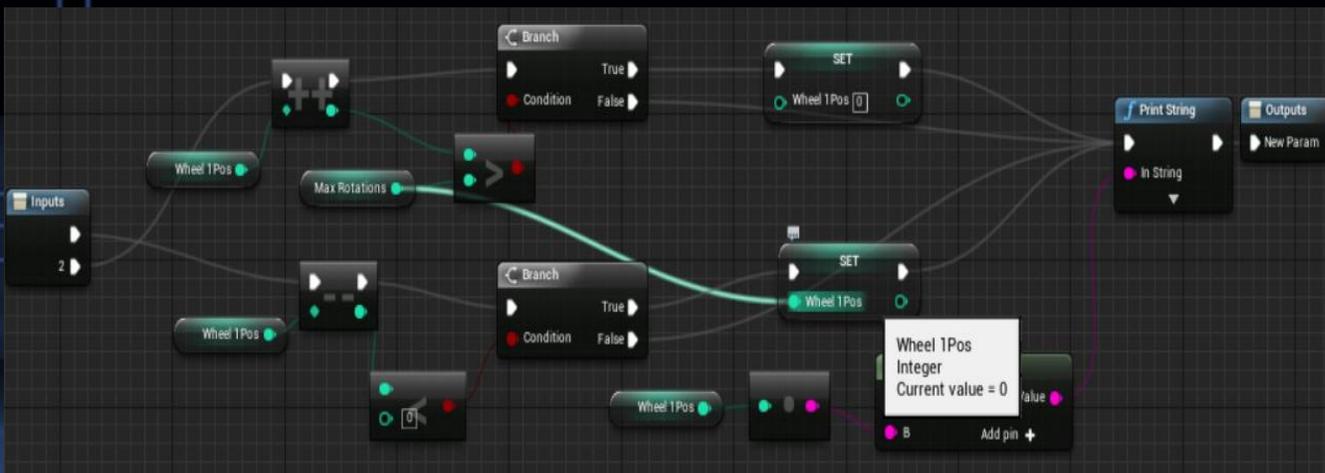
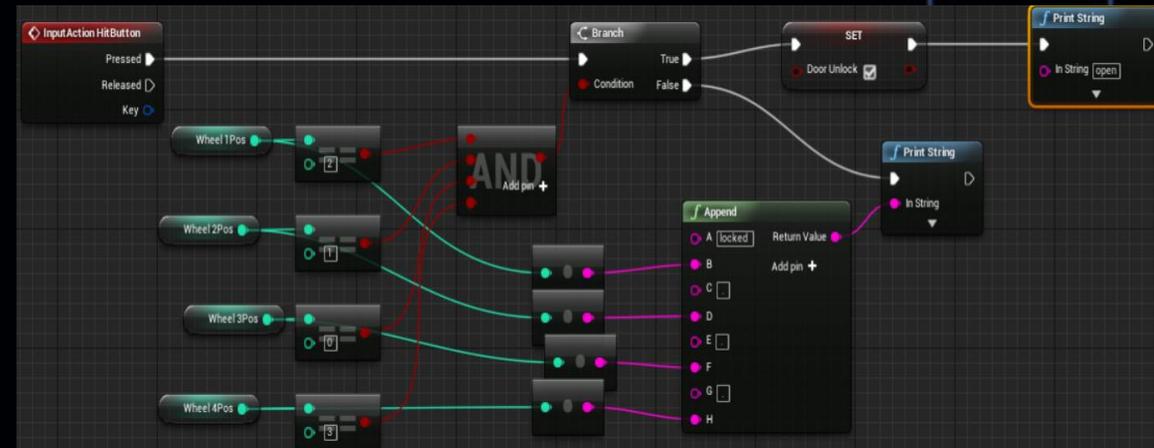
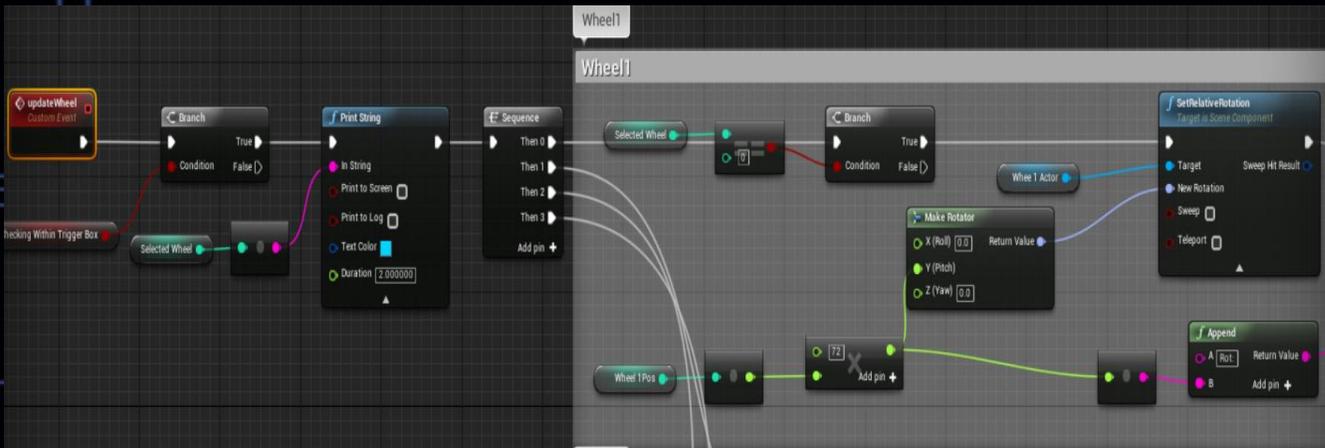


Please click link below to see Lock combination

<https://www.youtube.com/watch?v=AyTgzt7Rf9s>



Lock Combination and Vison Blueprint



Week 5: 20th Feb – 26th Feb

- This week I started to use the foliage tool to try to make a forest, with this tool new to me I don't really know how to use it so I was watching Epic Learning to explain how it works then I tried it out. I first imported some trees and grass that I had from my very first project just to use until the artist has done the tree models. When creating the forest I made two levels with two different map layouts.
- During adding in all the trees and other vegetation I added in a crate asset pack which had different colored mushroom materials which can be used on other static meshes so I thought why not use it on a tree model, so I did and it looked really cool and I wanted it in the game but first started talking to the other team to see if we could use it in the game and have it where you only be able to see it in vision mode but we agreed it wouldn't work in our game so I removed it from the game.
- When I was testing out the forest with the third person character without VR the camera would be on the floor and hard to see where you jump in level as it is trying to pick up the Oculus head set when it's not being used so I had to add some nodes to the VR set up to make it check whether VR is on or not and if it's not just set it as first person camera view.
- During this week's group meeting we were talking about if we were going to have a magic tent or shed in our game and where we would put it and where the notes would go around the map. The group wanted to change the shed to a magic tent and plan where things would be, we also had a look at where the artist was with an update on where they were at and if they wanted to put anything in Unreal.
- On Friday I went to the British Library trip and learned more about what kind of tricks he did and how he did them with different post of show. John Nevil Maskelyne went too and to see if I was missing any part for this project with more understanding on what they know about psycho, I looked at the London Street maps and books of magic tricks.

Glow tree and in vision



Week 6: 27th Feb – 5th Mar

- This week I was mainly just messing around with the foliage trying to get the trees to spread out from one another instead of having them where they were together, I went to the foliage tool and turned down the paint density thinking that would solve my problem which only solved only a little but they were too many overlapping each other. So I found this procedural foliage spawner with epic explain what each setting does when using it, before you can use it you would need to enable it in the Editor Preferences -> General – Experimental -> Foliage -> Procedural Foliage.
- By using the Procedural Foliage it was easier to create the forest as it would only create what inside the box and you be able to have more than one foliage but the only problem with this tool is that if you happy with half of it in the box you wont be able to save it as when you change the setting inside the foliage tree it would recreate the whole trees in different position. With that I had to keep recreating the trees until I get the right setting for each one.
- But I made a new map level and leaving one level with tree tunnel as I thought it could be uses later in are game and I was going to show the team in the group meeting. In the third map I created I went back on to the foliage tool instead of procedural foliage as I managed to figure out where how to make it not create load of trees overlapping with each other and how to use it, When I was using it I need to make sure the density was low and scale is set to free with the scale X min 0.3 and max 2.0.
- During this week I create an road with the splines tool in the landscape and move the point bit higher to create the hills with it as well and then create the landscape material that enable me to be able to paint with brush the road, mud and the grass. I then started to work on the sky light in the game as it was too bright for the player, I added BP_sky_sphere in to the level and some directional light to light up the forest however it the inside forest was dark still. I then watch some speed forest level to see what they are doing and how it could help me in my which I found out how they did there light, I added in the Atmospheric Fog to the level and mess around the setting in there which give the level better sky light but it was still bright when looking up and dark when you looking down though the forest. In the directional light I add an light shaft bloom effect when looking at sun with tree in the way.
- Because I had two many directional light it was fighting on which one to show as you only need one in your level and I found out what was making the light so bright it as was because you cant have BP_sky_sphere and Atmospheric Fog together where you only need one in you level once I deleted that it wasn't too bright any more and also change the light to blue to give it a night time look.

First Forest and the Second Forest

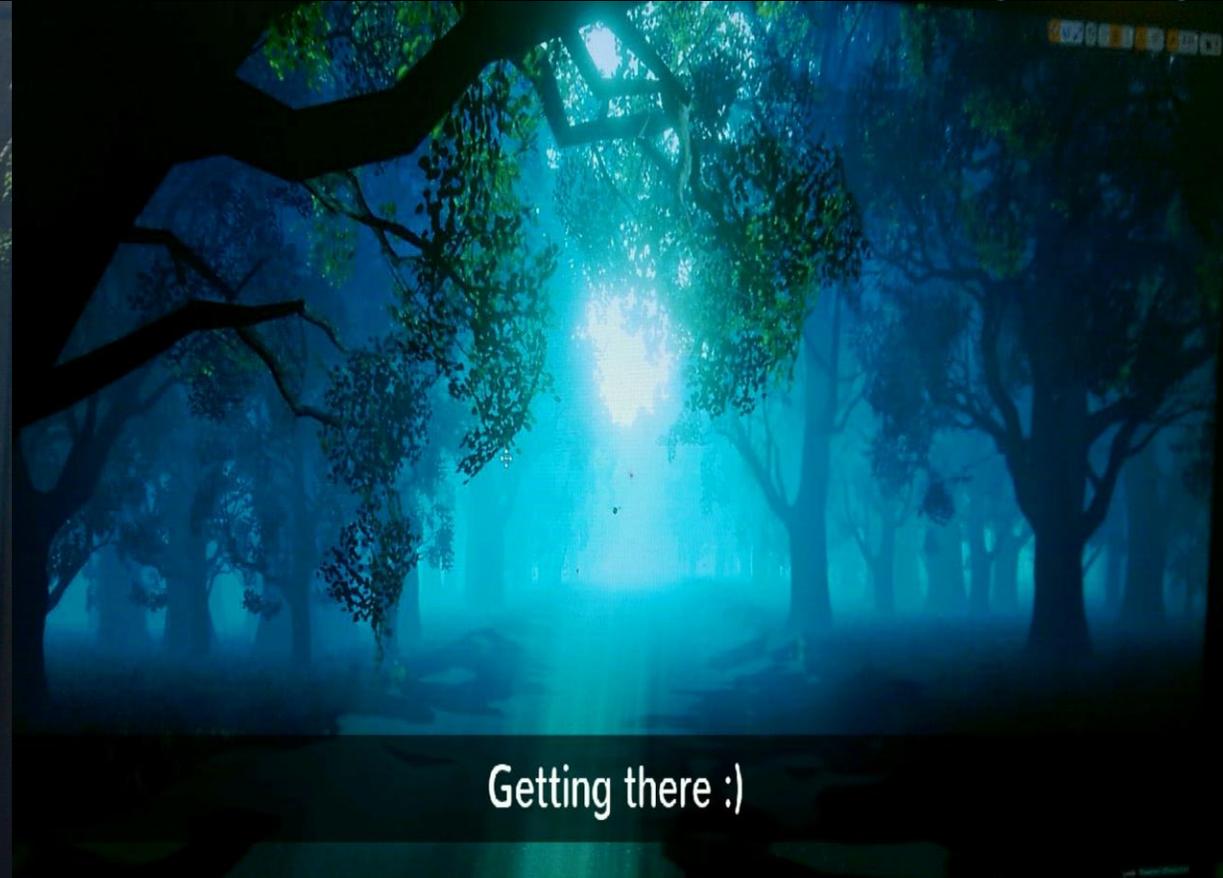
- Please click link below to see First Forest.

- <https://www.youtube.com/watch?v=dXhC-ktTpfE>

- Please click link below to see Second Forest.

- <https://www.youtube.com/watch?v=0l0FsGJxjrU>

Forest light changes



Week 7: 6th Mar – 9th Mar

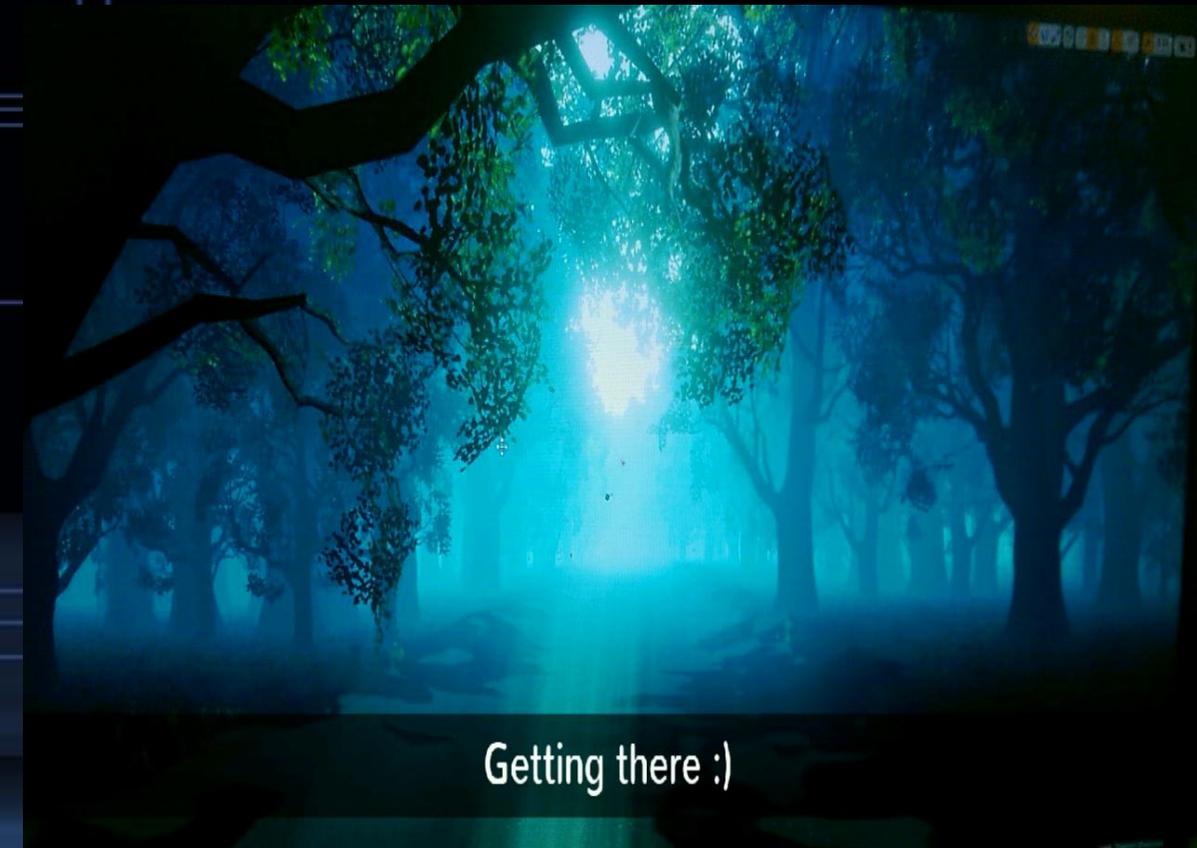
- This week I been testing out all the blueprints making sure it works and there no bugs and the forest level has no tree over lapping with each other and if there were some to remove it or replace it with the loop tool in the foliage.
- The other team mate give me his work to migrate to the master folder. What the other teammate give me was the inventory set up and Theatre white box level.
- During this week I create a title screen in widget but forgot that am doing virtual reality game I would need to uses the 3D widget which is inside the blueprint and link it to the widget. Next week am going to be working on that to get that done soon as I can.

PROFESSIONAL PRACTICE

Week 1 13th March – 19th March

- This week I was working on the sky lighting to brighten the forest as it was too dark and you couldn't really see the path way the player would have to go to get to the tent or even see it. So I was missing around the light setting with Atmospheric Fog BP_SkyLight and direction lights. As it was too dark on the level I created new map level and because know how the foliage work I quickly created the same layout and then added the post process add some efface to the level like blur bright up a bit. It bit dark still but the light still need adjusting so the next few weeks with Cel Shade.
- During this week I created a basics text dialogue to help navigate the player so that they know what they need to be doing. With text dialogue it will keep updating when the player completed the task, in the next few weeks it going to be changes to blend in with the back.
- Also made a path that the player should follow they are finish with the tent.
- Playtesting Report :
 - Sky Lights - Though play testing there was an issue with the environment lighting being dark players couldn't see where they would need to go, Throw that I brighten up the level so player can see the path to the tent. The shadows of the placement tree don't look right.
 - Text dialogue – Throw playing the player is able to start the next text dialogue with the card shape power being uses, when change the text dialogue changes it to third person character.

The forest lighting change



The forest lighting change



Text Dialogue



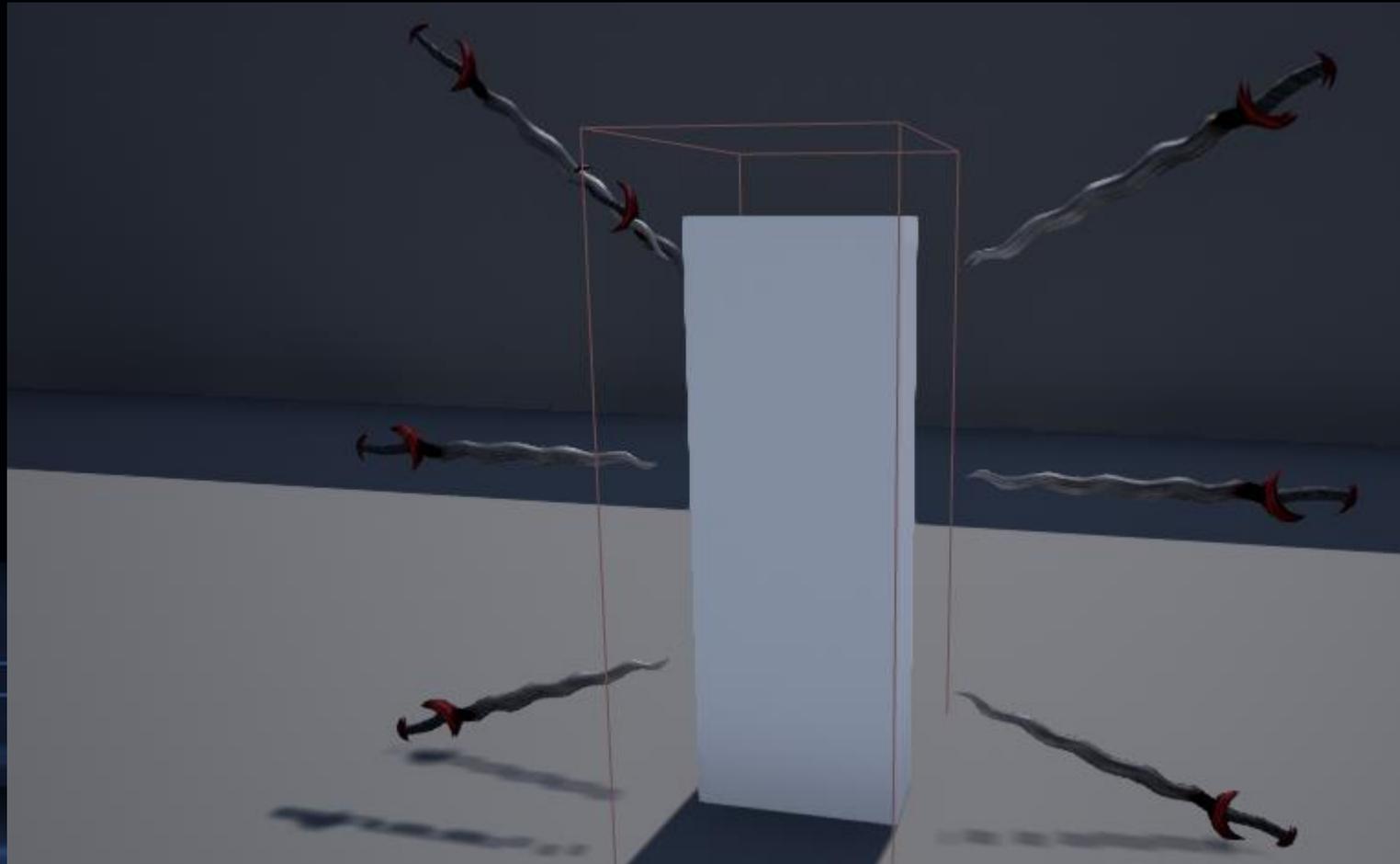
Week 2 20th March – 26th March

- This week I decide to work on the swords puzzle as it is a high priority in the game and because I done the lock combination before I just approach it the same way with the selector and child actor, With the sword puzzle I use the timeline node to move the swords if they were selected but what keep happening was the swords would move into the centre of the sword box and then up that was happening because I had set relative rotation and not add local offset.
- With the sword puzzle I took the infinity blade asset from epic market store to use as a places holder, The infinity blade asset didn't come as a static mesh it came in as a animations so I drag the sword into the world then convent it to an blueprint.
- During testing the swords it was hard to see what sword is selected so the player was always guessing, so I started to looked at how to create a outliner to highlight swords that let the player knows what swords they are on. There was a outliner tutorial where they was using the unreal engine icon outline that you can get from the starter show room, so I migrate it to my game but it didn't work on newer version of unreal, so I research to see if there a way to do it in the version 4.14 but got no where so I then ask some people seeing if they have a ideas I could try, a teacher said to copy the sword so their 2 of the same but change the material then slim it but make it wide so that you edge stick out set visibility on and off so that it only come on if it selected.
- With outline the swords I added fire particle effects around the end of the swords to make the final puzzle more interesting.

Week 2 20th March – 26th March

- Playtesting Report :
 - Sword puzzle interact – Though pay testing the swords was working in order but when you go to the lock combination first the sword puzzle cant be interact afterwards.
 - Sword puzzle interact sword move – when you interact with the puzzle and come out again one of the swords will be move to the centre of the level and it would happen random swords.
 - Moving swords – when the player got the right swords and the swords move the player is able to change swords quickly to another and move that one as well before the first one was finish.
- Resolve:
 - Sword puzzle interact – the reason you not able to interact is because both lock combination and swords puzzle had auto receive input 0 so I had to change the node inside both blueprint and inside the level blueprint I add branch with the condition 'is overlapping actor' link with the lock combination and the same with the sword puzzle so that the player can one interact with either one.
 - Sword puzzle missing – the reason for one sword move randomly to the centre is because in the sword puzzle blueprint each swords actor as a set world location x.0 y.0 z.0. I remove it which fix the problem .
 - Moving swords – the reason the player is able to move more then one swords is because there no condition to stop it so I just had the branch it resolve it.

Sword puzzle



Week 3 27th March – 1st April

- This week I was testing some model that one of my team member has given me making sure it the right scale. The team member given me the cards model for the card shape power and when it first was first imported to unreal it was way to small and it didn't come with the textures, also the model file format was obj. and not fbx. File format so I send it back to the artist letting them know their a problem with the card model and when they are finish to make sure the file format is fbx.
- When I got the model back and reimport it back into unreal it didn't come with the textures again but has the right scale, so I had to create the material for it and apply it to the model.
- During this week I was researching on how the unreal lighting works for the forest as my experience with unreal engine it not great and because am creating an forest environment I need to know how to cast nice shadows and see the lighting different ways you are able to changes the lighting. Were reading the documentation on lighting in unreal I found a way to change the lighting with colour graded when you put it in photoshop to change the image and when you import it back over and uses post process setting with the images change the whole level where the post process is hitting.
- Playtesting Report:
 - Card model – Though playing testing the card sharp power model was too small
- Resolve:
 - Card model – when reimported it was the right size.

Card Model



Week 4 2nd April – 8th April

- This week I was given the magic tent model for the forest level from team member, when import the tent over to the level and play test it with the player characters, it felt small so told the team member to make it bigger.
- While my team member making the tent bigger I started to work on the camp fire that going to be near the magic tent, I uses the same fire particle for the swords for the camp fire but the flames on the camp fire didn't look right and I don't know much about how particle works in unreal and it would be something I would need to look into for further project. I made a copy of it to mess around with the setting to try get the flames small flames, once I managed to get the flames the way I wanted it I added rocks and logs around.
- When I received the magic tent model back I had a problem with the textures as it didn't come with the model so when I created the material let I did for the cards model it didn't work as it needed two material but the size of the tent was fine. I got my team member to have a look at it see what going on and when it fix send it over again. When the team member told me it fix I reimport it over and it still didn't come with the textures so I took the model into Maya and the textures was there so I just export it out from Maya into Unreal.
- Once the magic tent was sorted I then imported the crystal ball model which was too big so I told team member to make it half it size.

Week 4 2nd April – 8th April

- Play testing Report:
 - Magic Tent: The magic tent was too small and need to be bigger at it wont be able to carry other object
 - Fire particle: The frame not going right direction and it if changes it changes sword puzzle.
- Resolve :
 - Magic tent: When reimported to the unreal it was the right scale but it didn't come with the textures.
 - Fire particle: The fire Particle need to have a cone of itself so that it don't interfere with each other.

Magic Tent



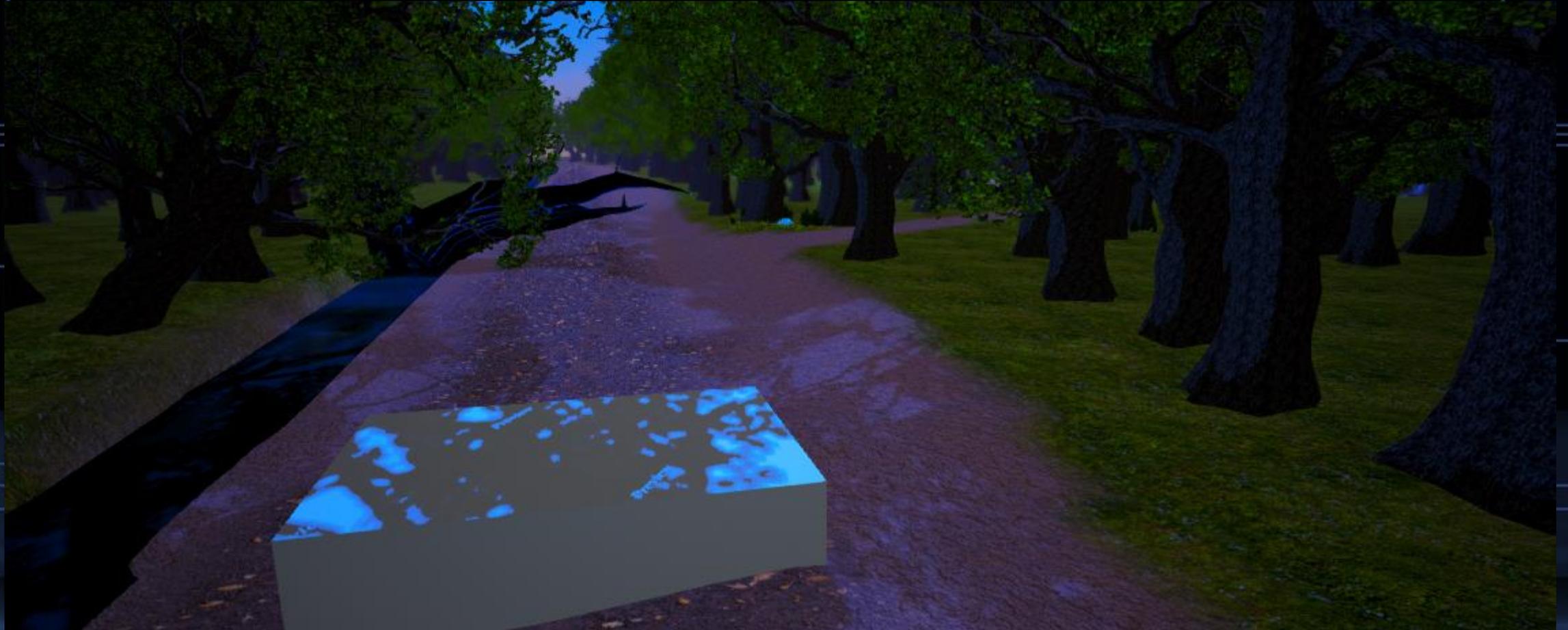
Week 5 9th April – 15th April (Easter break)

- This week I was mainly focusing on changing the forest light as I did some research on how the unreal lighting works and seen how other people create their lighting, because the theme for the game is reference to telltale art style I created Cel Shading which was quick challenging for me as it something I never done before. With Cel Shading I was following tutorial on how to create it and to be able to adjust the Cel Shading depending on the light brightness in the level and with the bright light or the dark light setting able to adjust it.
- When I finish created the Cel Shade I had to change the setting in the post process again to finish off the light, during changing the setting I had change the lighting to 4 different sky light that I thought were good but didn't match what I was aiming for and it had too much blue so it didn't look right. Another thing that I had to consider is when changing the setting in post process is the fire particles as I changes it to green and black, green, and bright red. So it took while to get it to
- During this week when I finish setting up the sky lighting I create a Lake hills where one of the notes will be, when create the lake because am familiar with the terrain I was able to quickly make the mountains and I also look at some images of where the tree might be places around the lake, Then started to add the foliage around the lake. Using the water martial in unreal I was able to create the lake.
- A Team member given me one of the tree model when took it in unreal and the leaf's textures didn't work even when I put another texture on the model, so I got the team member to sort it out on the project before carrying on.

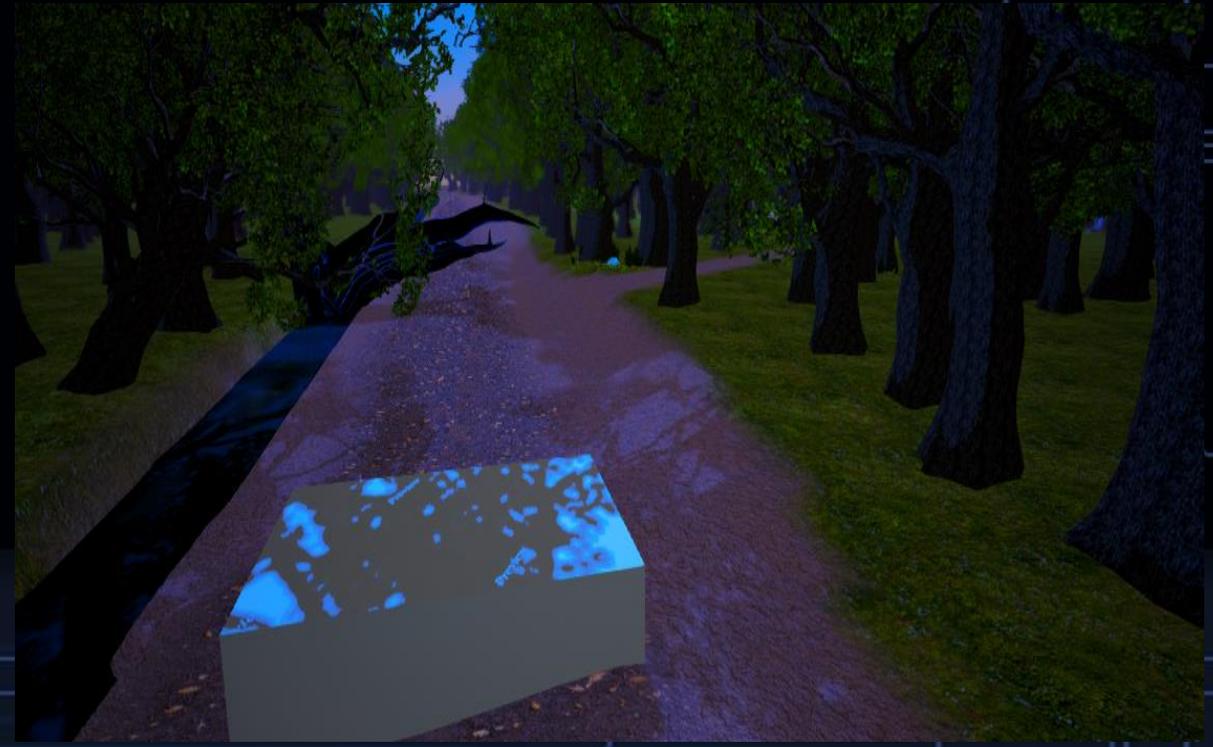
Week 5 9th April – 15th April (Easter break)

- Playtesting Report;
 - Cel Shading Sky lighting – during play testing the Cel shading the were problem where you couldn't tell if the Cel Shading was on or not, another problem was it didn't look right when you was walking towards the magic tent as you can see the ground changing in the distant. The fire changing colour were changing the sky light which when playing the game it doesn't look right.
 - Tree model – though play testing the tree model was too small and leaf texture wasn't showing, team member need to have a look at it.
 - Resolve:
 - Cel Shading Sky lighting: The Cel Shading in the post process need to gave some changing in the

Cel Shading



Changing lighting



Week 6 16th April – 22nd April

- In this week I create a map view mechanic using the level sequence so that when the player go to the magic tent they will be able to see where the notes are when the user intreated with it, it also help the player unlock the chest to get one of the missing psyco automaton.
- The team member given me the table asset for the magic tent when I imported it to the forest level it was way to small so I ask for make it three times bigger. I reimported the crystal ball in unreal as team member rescale it to half it size.

Week 7 23rd April – 29th April (Easter break)

- In this week I created a cave with some models that I have in my models library, inside the cave is where one of the notes going be and it going to have another camp fire. Before creating the cave I did some researching to see what kind of cave I could create with the model I have and it got me thinking of different ways I could set the cave.
- Because of my post process is unbound the cave had light coming inside but has no light source coming in even when rocks was blocking both path ways so that there only one way in and out. With the cave bring too bright I created another post process that should only come effaced when the player get close to it making it dark in the inside.
- During this week I started to add more foliage to the forest like grass and flowers around the tree to give it more in detail and make the forest feel more alive.
- During this week I was given the chest model to put in the magic tent which was 3 separate, as I imported the chest model into the forest level it had the right scale but the lock model of the chest axis wasn't centre to the middle, so when I put the chest into the BP_Lock blueprint it didn't work at first because of it, I had to take the lock model into Maya and centre it to the middle and then export it out to unreal so that the BP_Lock blueprint work.
- The Notes model I was given was too small as the player wouldn't be able to see it so ask team member to make the notes bigger.
- With the notes I was given I try to make a note pick up where if the player pick up a note they be able to see it in their inventory, with the notes inventory when the player pick up a note it should go in to certain slot so that when they collected all 4 notes they should be able to uses vison to see the numbers for the chest.

The Cave



Chest



VR Play-Testing (Easter break)

- During the Easter break I wasn't able to carry on testing the game in VR because of not owning one.
- The testing that need to be carry out in VR when am back are:
 - Xbox controls
 - Interaction with objects
 - Sizes of the foliage
 - Player Camera movement speed.

Week 8 30th April – 4th May

- This week I adjust the VR camera to the player head so that it is able to work in VR again as it was not position the camera to the player head. After I made sure that the lock and swords puzzle is working when the player interact with it as last time it up tinted down to angle and made it hard to see where the numbers are or swords.
- During this week i try to create a title screen in VR which didn't work because it was looking for my 2D widget where it need 3D widget and it need widget interaction in my character so it can get the VR headset to point at the bottom display in 3D widget before being key press. Because of not be able to get the title screen to work I wasn't able to get my update quest text display as well as a pause menu.
- During this week I was given my team member level ready to go into the master file so I just migrate it over without a problem and place the swords puzzle on stage ready for the last level and linked the forest to the theatre when the player has open the chest. Also made the note only display when the player went to the tent for the first time.
- My project crash on me whenever I load up the project but manged to fix the problem by deleting some files within the my project filer .