

EPITA 2023
SECOND REPORT

The Tales of Talris



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1 Preamble

1.1 Introduction

The purpose of this second report is to keep you inform of the overall progress we have made since the submission of the first report, meaning what each member of the group did, how we did it, and the different positive or negative aspects, problems and bugs we have encountered while working on it, but also of the solution we found in order to solve them. We will also include the definitive task distribution and progression for the final presentation.

For now, our project's outline has not changed as it is still a first-person horror survival game. As indicated by its type, the player will have to run from the villain, Talris, and the main goal will be to collect a number of different items before finding the exit. There will also be some riddles to complete to unlock parts or rooms of the current level. However, we have not decided yet about the difficulty management.

Right now, the project's overall progress is alright, since we have the main features of the game implemented such as the player's health bar, the ability of picking up items, the enemy's AI following the player around and being able to do damage to them, the pause menu while we are playing in Story Mode and the beginnings of our story-telling dialogue system. And there are others for which we are late, such as the 3D models' animation or the sanity bar system. And as for the multiplayer, we are also done with the core features but we still need a system of random attribution of the "Killer" role to the players. But because each element is linked, we have learned to now cross performing on each other's task to increase productivity and help things go smoother.



1.2 Task Distribution (New one)

The second task distribution we submitted for the first report was made depending on which feature each member of the group project wanted to work on as we all discover our own strengths and weaknesses.

But as we noticed working individually on each part and not seeing the progress of the others until we all grouped together in one place were not exactly efficient, we decided to mainly work in pairs (except on a few tasks), one pair on the Story Mode we have, and the other one on the Multiplayer. So, here is the updated and final version of our previous task distribution from the first report:

Tasks	ShinysArc	Nightear	A\$H	Shoppy
Gameplay	-	-	X	X
Game Menu	X	X	-	-
Interface	X	-	-	X
3D Models	-	X	-	-
Animation	-	X	-	-
Physics	X	X	-	-
Multiplayer	-	-	X	X
AI	-	X	X	-
SFX/Music	X	-	-	-
Video/Cinematics	X	-	-	X
Website	-	-	X	-

Table 1: X : Main / - : Helper

1.3 Progression

This was the expected rate:

Tasks	1st Report	2nd Report	Last Report
Gameplay	30%	80%	100%
Game Menu	50%	90%	100%
Interface	40%	60%	100%
3D Models	30%	60%	100%
Animation	20%	60%	100%
Physics	30%	60%	100%
Multiplayer	50%	80%	100%
AI	10%	80%	100%
SFX/Music	0%	30%	100%
Video/Cinematics	0%	60%	100%
Website	50%	90%	100%



2 Project Progression

2.1 Website

Since our first report, we don't have any big changes in the website, just some improvisation to the previous things.

Previously we had the background music that used to autoplay in loop as soon as the user enters the website, and because it might feel annoying to some users we have added a control button for the music that allows the user to play, pause and even download the audio file.



Figure 1: The background track

Before we had 4 tabs in the navigation bar *Team*, *Game*, *Downloads*, *FAQ* but now we have added an another *News* bar that will contain all the news about the game.

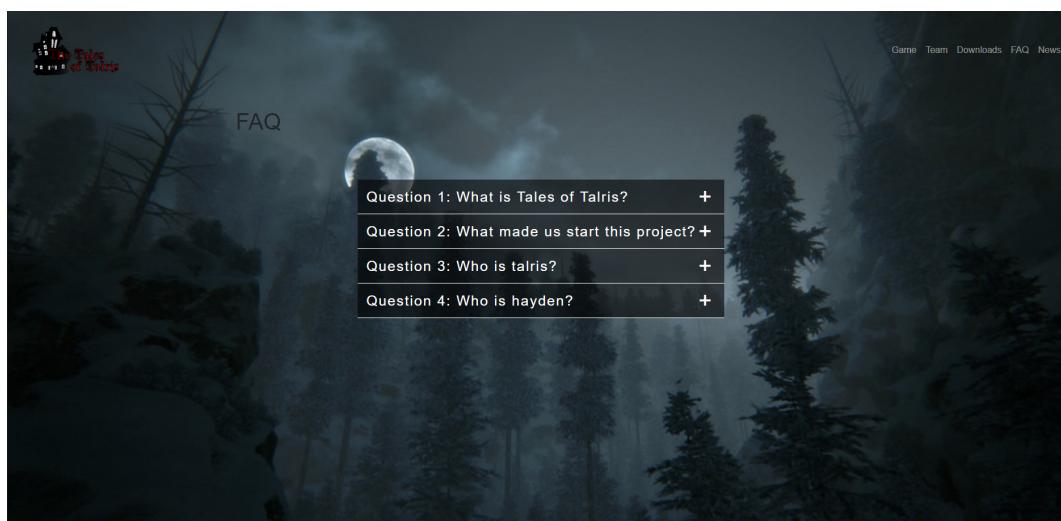


Figure 2: The FAQ

In the first report, we mentioned that we will add some animations to the website but we were not able to do it for now as we focus our attention on the core features of the game instead, but we will probably be able to add them before our final presentation.

2.2 Pause Menu

As of now, the pause menu has been created, it can of course resume the game, show the options menu and quit the game. We actually just had to Photoshop a few buttons that we later added to a panel on Unity. The design was inspired not by a game in particular but by a specific design: we wanted it to look like blood or at least a weird-looking paint trail.

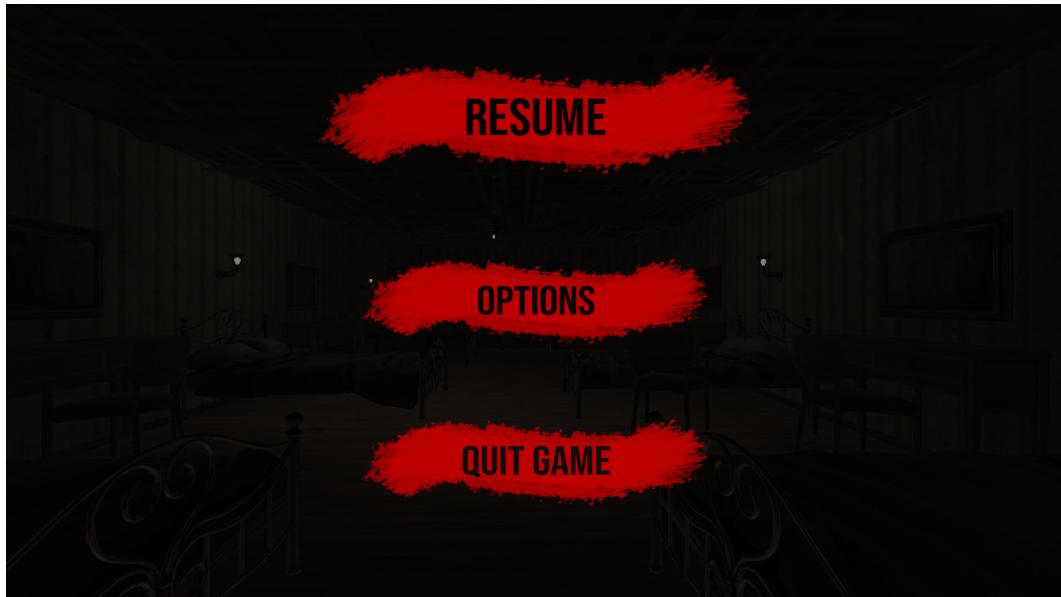


Figure 3: Our Pause Menu

2.3 Multiplayer

Since we have the perfect skeleton for the multiplayer networking done, we have not implemented anything new for this report.

2.4 Gameplay

We have implemented the main backbones of our gameplay this presentation as we finally have a map to show. We also have a working AI, implemented the health system and the pick-up items. So our main character, Hayden, will lose HP every time she interacts with Talris. this can be implemented with other things that can be put in the game like spikes, fires, etc.

As for the pick-up items, we first wanted to create a small item. So we went on with a Joker playing card that Hayden can pick whenever he enters within the collision box of the item. These cards are meant to be picked up in order for Hayden to open the door that is currently unlocked. We also added



a little message when the player is close enough to the object, allowing him to pick the item with a left click.

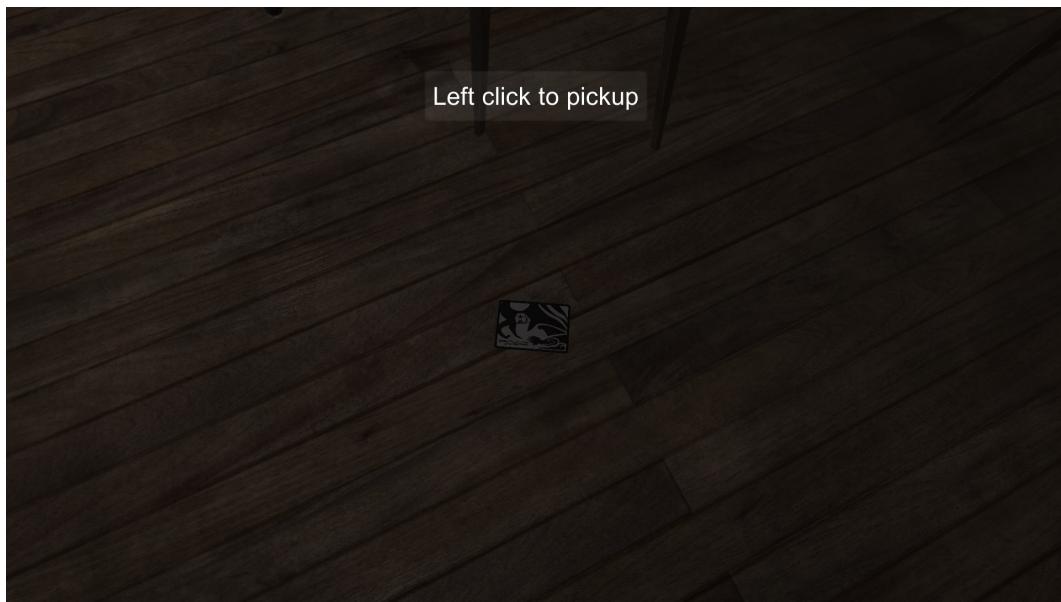


Figure 4: Our first item to pickup

The inspiration behind this item system comes from a very famous horror game called Slender where the player's objective is to collect 8 different pages from a book and do so before the monster comes and kills him.

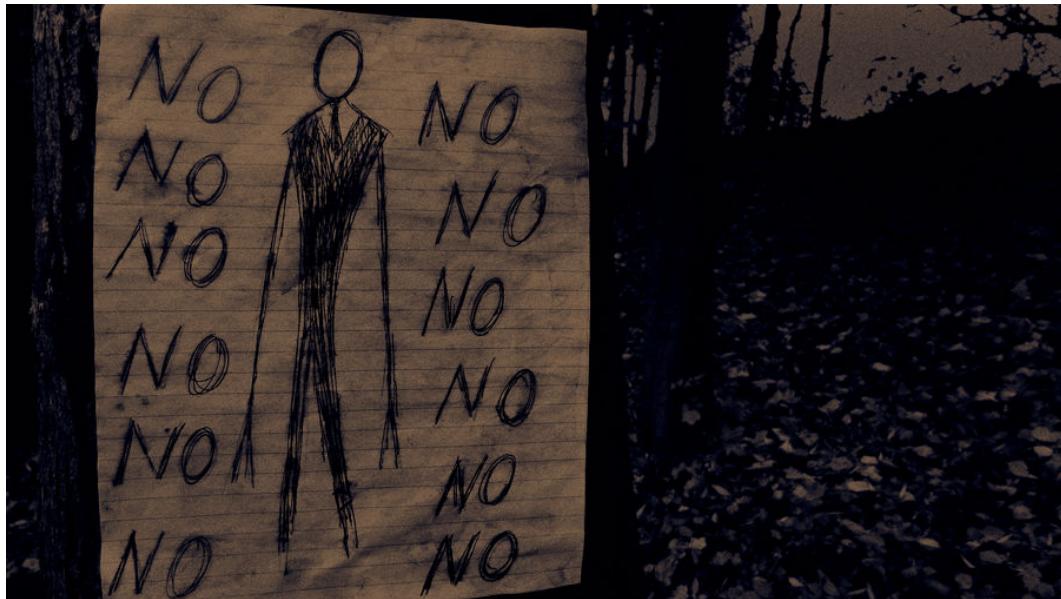


Figure 5: Our inspiration for the items

As for the health system, we also implemented a damage system, that is to say when Talris is too close to Hayden he will inflict damages to him. And if Hayden's health falls down to 0, she will die, and will take us to the game over screen.





Figure 6: Our Game Over screen

2.5 Modeling

As we are still quite new to 3D modeling, we have previously presented you a dysfunctional experimental model for our monster Talris which had many flaws such as small creases on the torso, questionable anatomy and main features of the body that were not sharp or smooth enough. However, as we were working throughout the project, we were able to experiment many times with the 3D software Blender and we have managed to improve our 'sculpting' skills a lot more than previously.

This is why by the end of this second presentation, we were able to create the 3D base models of both our main character Hayden and the monster Talris. Here's a comparison between the previous 3D model we were experimenting with and the current 3D models we have in order to show our progress:

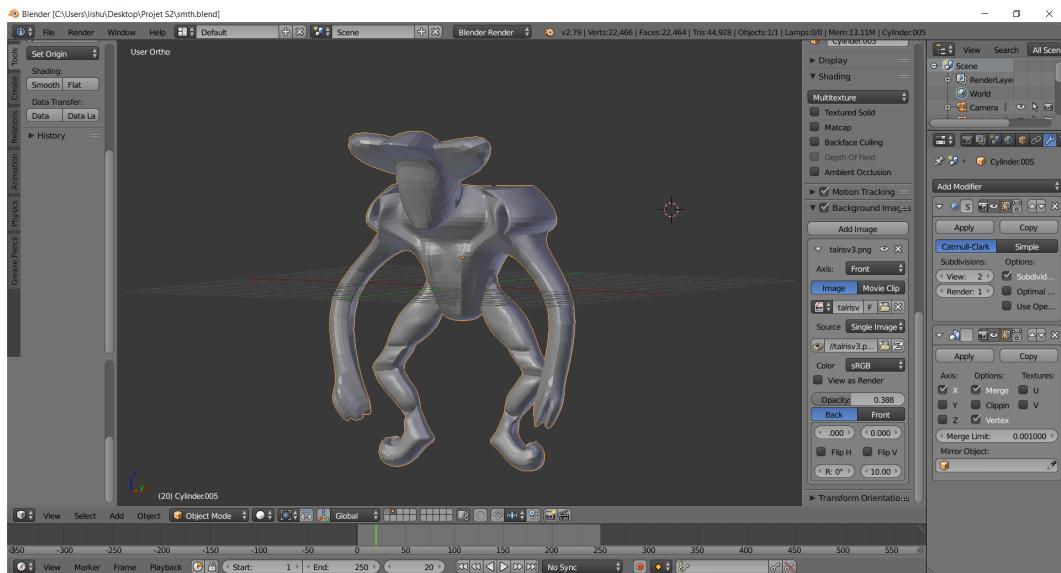


Figure 7: BEFORE: Talris, during 1st experimentation with Blender

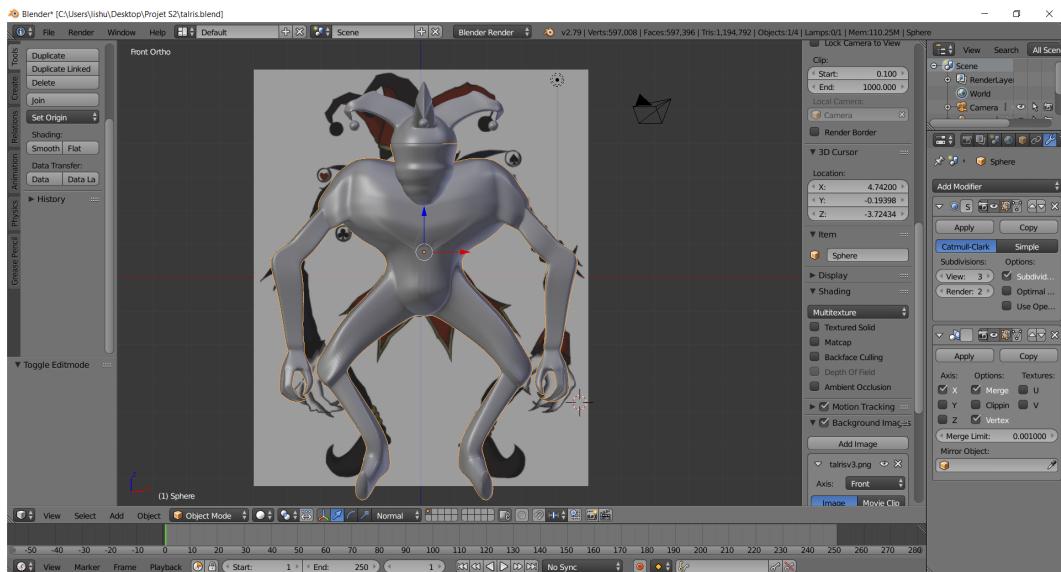


Figure 8: AFTER: Talris, but fitter





Figure 9: Woohoo! Progress!

Not only we can clearly see the notable differences between the first version of the 3D model of Talris and the new version, but we were able to create the basic anatomy of Hayden based on the concept image we have previously drawn and we are now able to understand Blender's features much better.

For example, the reason we had to re-make a whole new 3D model for Talris was not (only) because of aesthetic purposes, but due to problems with what we call *destructive or non-destructive mesh*. One thing in 3D modeling is there are multiple way to sculpt the same model. For example, we can create a 3D capsule either from a sphere or cylinder, the result will be the same. The difference lies in the process of making the capsule: in the former, we can extend one half of the sphere until it makes a capsule, whereas in the case of the cylinder, we have to extend step-by-step the top and bottom face of it until it creates something that looks like a dome on each side of the cylinder.

While the end model results in a capsule in both cases, we can now immediately see that there can be multiple and easier ways to sculpt the same object. It can be a matter of preferences, but it is also important to not create too many faces on the mesh so that later on, if we want to come back and modify an important characteristic of the 3D model, it will be easier and less time-consuming to modify it and will not have much impact on the whole structure. That is why every time we are sculpting and modifying the mesh of an object, we always need to keep in mind if the way we are doing it right now is the most efficient way and if it will make things easier for us later.

2.6 Artificial Intelligence

Since the main focus of this presentation was to work on the Story Mode part, one of the most important feature we had to implement was Talris' AI. Indeed, the whole gameplay relies on the chase between the player and the monster, until it manages to catch up to you and results in a 'Game Over'.

Although we thought that implementing such AI would be difficult at first, while doing so, we found out that it actually was not that hard. The way it works is pretty simple: we gave our monster a radius in shape of a sphere around it, if the player is within range and steps in said area, then it proceeds to compute the distance between the target and itself. If the calculated distance is smaller or equal to the radius around the monster, then it will start to follow and chase the player around until a certain stopping distance.

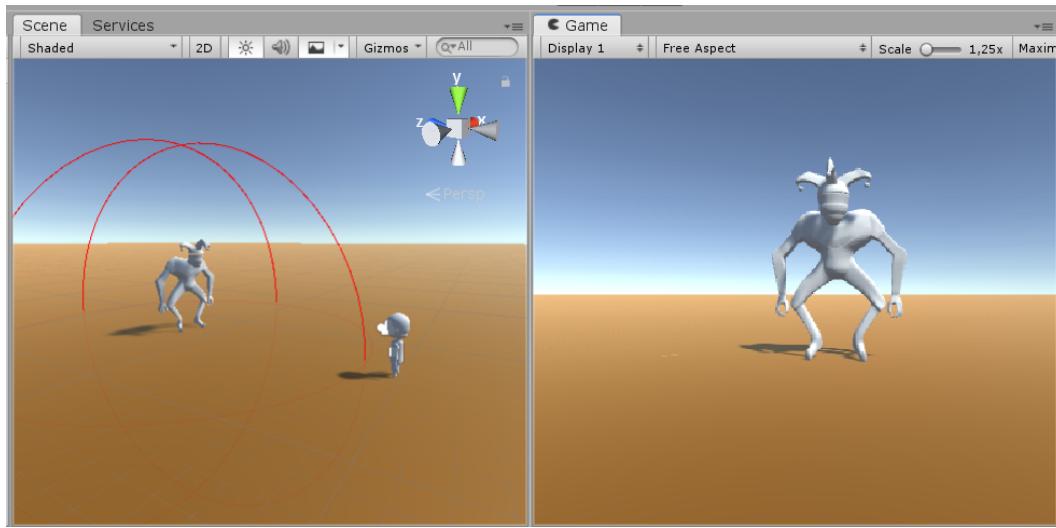


Figure 10: Standing outside the radius

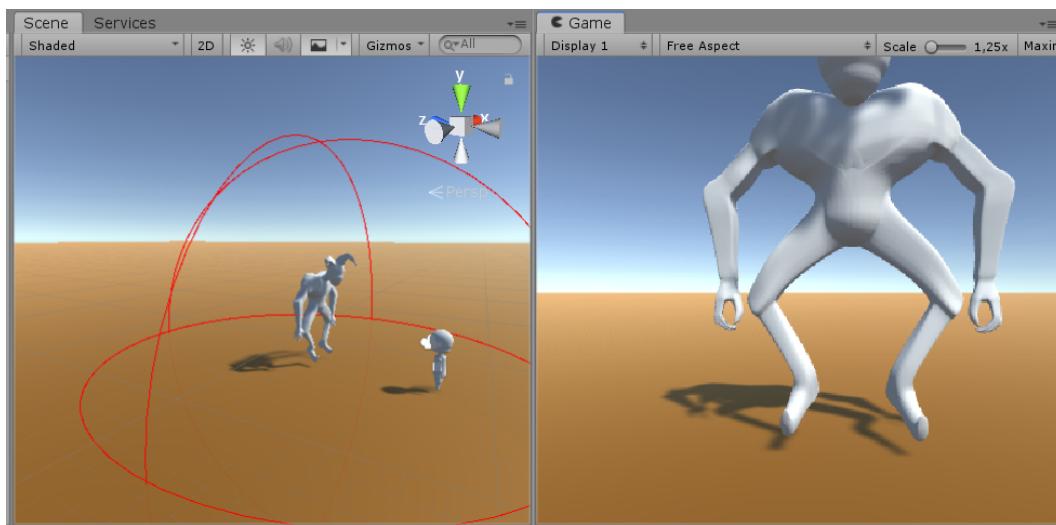


Figure 11: Talris starts to chase the player

2.7 Dialogue System

For the scenario of our game, as our main character Hayden has amnesia at the beginning of the Story Mode, we wanted to tell the story in a subtle way so that the player can understand what is going on by themselves and slowly pick up the pieces of the puzzle as they make progress in the game. In order to do that, we had two options: either leave notes or post-its around the mansion as pickable items for the player to read, or have Hayden slowly recollect memories as she picked up the cards and hints Talris left in various hidden places. For the time going, we chose the former but we can probably have both of them by the end of the final presentation.

As for now, we laid the foundations and the interface of a potential dialogue system to show Hayden talking to herself and telling the player how she is feeling, so that the player can feel more connected and related to her.



Figure 12: Dialogue sprites we made

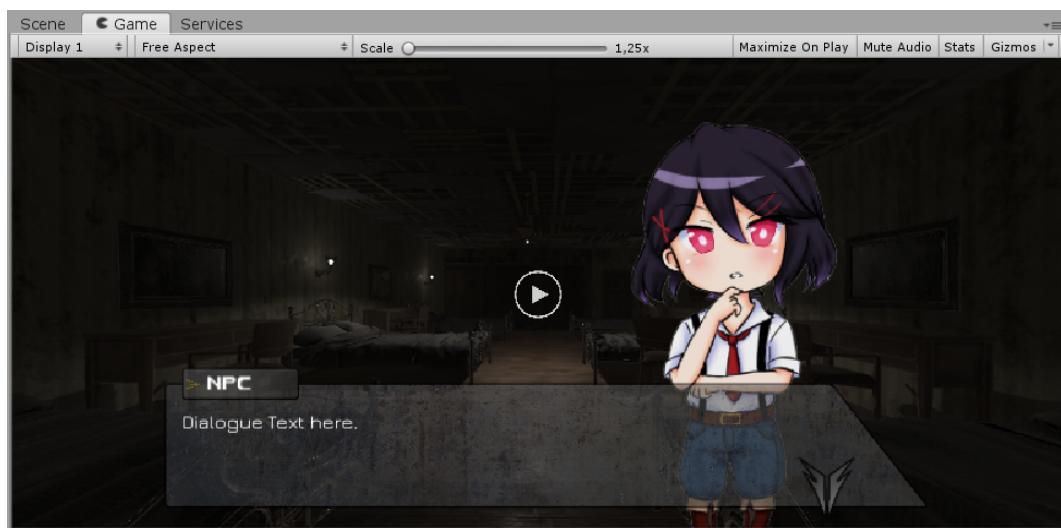


Figure 13: Dialogue system interface showing Hayden



2.8 Overall Review

While it might not look like a lot, but it is honest work. We have written down the scripts that will essentially be the not just the skeleton but also the muscle of the game.

We really are happy with the progression of the project. We changed up responsibilities as mentioned in our last report and that has been working well so far for us. We are very comfortable with our new roles and we found each other's strong points so that work is being split very efficiently.

We have revamped a couple of things, like for example the characters' 3d models, but we did it on order to progress as fast as possible, as we will not lose time on problems caused by the first versions of our features.

Between our first presentation and this one, our main problem is that When we first added the singleplayer map, it was originally so heavy that we couldn't push it to GitHub. We were stuck on this problem for a few days, trying different other services such as BitBucket, but much to our dismay, this service only allows its repositories to weight 2 GB, otherwise they are forced to a read-only mode. As we were getting late, we finally decided to work on Unity Collab which is the collaboration service offered by Unity be default. We let go of Git which had too many problems to work with. And so far, Unity Collab is working very well! We are able to see each other's progress instantaneously and we all are up-to-date at anytime, given the fact that we all have a working internet connection of course.

As for the Website, you can now turn off the music. We get it, we would be scared too if we suddenly hear this track playing in the background. We also tried to make it not necessarily scarier but at least more threatening by changing the buttons' color to red.

We have progressed much further than what we thought we would when we were working on our first presentation even if it does not look like so from the outside, we now have the main skeleton for our game. That is because we first implemented functionalities rather than content so that the progression of the game will now hopefully grow exponentially.



3 Upcoming Updates

3.1 Website

As we have decided to make everything creepy and scary, same goes with the website.

It is still incomplete and we are planning to add some animations as well and make it look a little more scary. so by the next presentation, we will have the final and complete version of our website.

We are trying our best to make the website as creepy as we can and that is why we are planning to add some audio hover effects to it.

We may try to add jumpscare in it too but we still have to discuss about it as it can be annoying to some users if it is too repetitive.

3.2 Gameplay

While we have done most of the gameplay and the health system, we want so Talris attacks instead of just walking into Hayden to deal damage. But to be honest for a survival horror for our scale, we are probably going to just keep it that way unless we change our mind. But for the next presentation we do want to add an adrenalin rush effect after she get damaged that boosts her speed for few seconds.

Some of these interactive items will prompt a text (or something else), that will explain the story and help Hayden jog her memories back to normal. We also plan on add few text dialogues to make Hayden talk, we also plan on working on the trigger system: after resolving the riddles, some events will be triggered like the opening of a door so that the player can keep the adventure.

And finally, of course we will have to implement a save system, it would be much unfortunate to lose all the progression one had made, right? We may try to add some Easter eggs inside the game that would be triggered by interacting with the environment, but that is just an extra idea for the moment.

3.3 Artificial Intelligence

As for now, our current implemented AI for Talris can make him chase the player around once they are within reachable range, which already fulfills the whole purpose of the game. However, for the final version of the game, we would like to make it even smarter.

Overall, we want Talris to patrol around the mansion but we also want it to spawn at random places, maybe after a certain delay, in order to not only scare the player at the most unexpected times, but also for Talris to not stay at one point too long without doing anything, or else, he would not be much



of a threat. We might also need to use pathfinding so he would have a pre-set path for patrolling and avoid obstacles while chasing the player.



3.4 Interface

For the UI, we discussed it at the first report but we have yet to implement it to the game, we decided to model the main skeleton of the game first. We want the UI to look empty with just the cursor on the screen. We also thought adding a sanity bar that could lower would be a good idea for the game, the player would see his 'sanity' get lower and lower and he or she could lose some capacities such as visibility and running speed for example. We also added an item bar at the lower right corner so that the player can see how many items he still has to pick up, which is a feature that we will add soon as we already have the items. And so, the final UI could look like this:



Figure 14: A possible look of the future UI

3.5 Multiplayer

Our goal with this game is for it to be replayable, and for that reason, the Multiplayer section is very important. We have set the groundwork and it is going unexpectedly smoothly. Well, it did take us a whole 2 days of work to make it work.

By the next presentation, we want to accomplish a few things:

- First, a lobby system, where we can get multiple games going on at the same time.
- Second, game room rules, like for example, the max capacity of players, and many more.
- Of course it is planned to add interactability between players: we want the chosen villain to be able to kill the others.
- Lastly, we want to add the randomly generated number factor to choose who plays what by assigning different 'teams' of players.



3.6 3D Models

There are a lot of steps to a 3D model making process, so we have reduce it to a few major ones: mapping it onto a 2D surface, giving it textures, adding a skeleton to it and last but not least, animate it so it can do simple actions such as walking and running around and to make the player and the monster's movements more realistic. Since now we finally have the basis of the 3D models, that means we have at least the hardest step down.

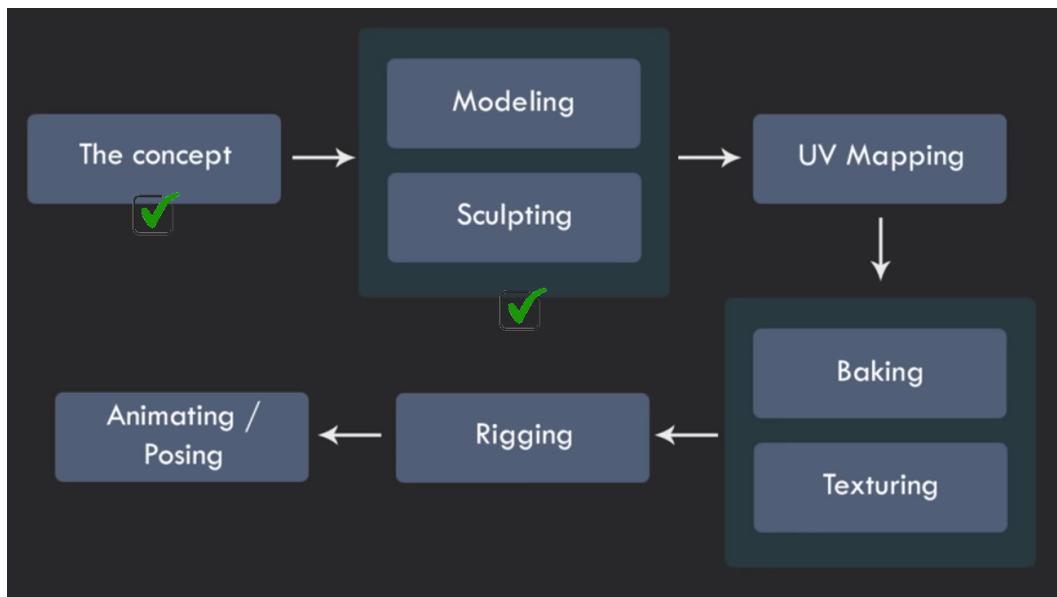


Figure 15: What we still need to do

3.7 Overall Review

Overall, we may have made progress on the game, we still have a lot to do: our multiplayer is to be improved, the single player mode is to be enhanced with new functionalities such as a save system or a trigger system. For the next presentation, we will have a working interface and we hopefully will have usable 3D models for our characters.

We still have work to do before our final presentation, the game will hopefully be fully playable by then. Maybe game designer is not what we all aspire to be, but we will surely work hard towards the objective of finishing our game!



4 Conclusion

In conclusion, we are progressing slowly but surely towards a fully playable game. We have made progress in different parts such as the Pause Menu, the Singleplayer and the pickable items. We have some new 3D models that fit the game more than the previous ones and we have the beginning of a health system.

We still have a lot of functionalities to implement but the game in itself is already playable!

