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Assignment Title: Written Evaluative Report

Module Title: Level Design and Development

Module Code: ACCA5041

In this assignment I am tasked to create a written evaluation of the work accumulated throughout the module as well as an overview of the general game idea, the desired target audience, design and theming choices with justification towards them, any self-directed learning conducted, all research relative to my role, game design theory principles, and an evaluation on my research and how I researched.

So, to start, what actually is the general game idea?

Our game idea is to be a thief who robs a jewelry store, the player is tasked to steal as much money, gold and jewelry before the police arrive at the store. There will be guards present who will be patrolling the store, and customers will also be present at the store who will also be able to spot the player. The player is tasked to navigate the jewelry store with stealth and caution and to take the greatest number of valuables as they can in the time limit they have whilst in the store. The player also has the choice at the start of the level to choose between a fast but loud approach with a knife, crowbar and gun, or a slow but silent approach using a knife, stun gun and laser cutter. The guards will be searching for the player and are armed with guns and a baton. The player is to keep out of the guard's vision and not be caught or this will alert the guards and cause a shootout. Similarly, the player is also to avoid the security cameras which will have sequences where they look in different directions every couple of seconds to give the player a moment to sneak past them undetected. The player can also access vents to immediately access different areas of the store undetected. There will also be monitors the player can interact with to be able to turn off the camera feed. And there will be a code the player can find in the store to enter into the vault keypad to access the valuables in the vault.

We intend to aim our game to players aged 12+ due to the inclusion of guns, knives, and animations of death and immobilization of guards, customers and the player themselves. We decided not to aim this target audience to players aged 16 - 18+ due to the fact there is no blood, gore, body dismemberment, or profanity. For our intended demographic we will aim this towards players who enjoy stealth based gameplay, or to players that are fans of heists in video games.

At the start of the project, our team faced challenges in establishing an agreement on a central game concept, each team member had different interpretations of the original game we wanted to make, the original game was something on the lines of the player being a miner and mining ores in a *Skyrim* [1] style of dungeon, the player would find enemies to fight in the dungeon and will be able to sell their ores at a store to be able to get better gear, however this is my own understanding of the original game idea and my team members may have a completely different understanding than I did of the original game. So, due to this lack of alignment on the same agreeable game concept, this led to a two-week delay in planning.

Below is an unfinished level layout of the original game idea we wanted to do:



To address our poor decision making, I proposed we should stick with a simple game concept we can all understand, what I proposed was that we should make a game similar to that of the *Chilla's Art* titles, this is due to their straightforwardness and low poly aesthetics which the original game idea was supposed to be like. And then this led to our current game idea of the Robbery Simulator.

What I mean by *Chilla's Art* titles being straightforward is that we drew from the minimalist and low poly aesthetics which create tension, and realistic grounded experiences – particularly titles such as *The Closing Shift* [2]. This visual simplicity reduces the cognitive load which then enables the player to focus deeply on the gameplay elements such as stealth and timing rather than the visual noise of busy levels. For our team, this was a strategic decision to be able to construct a believable and navigable level in our own production capabilities.

Here is an image which displays how the game *The Closing Shift* [2] from *Chilla's Art* chooses minimalist architectural designs which ground the player in an immersive realistic scenario [7]:



Below are different images of a jewelry stores; I re-imagined many features of these stores and incorporated them to fit our game and to also keep the minimalistic nature of how *Chilla's Art* games represent alive:

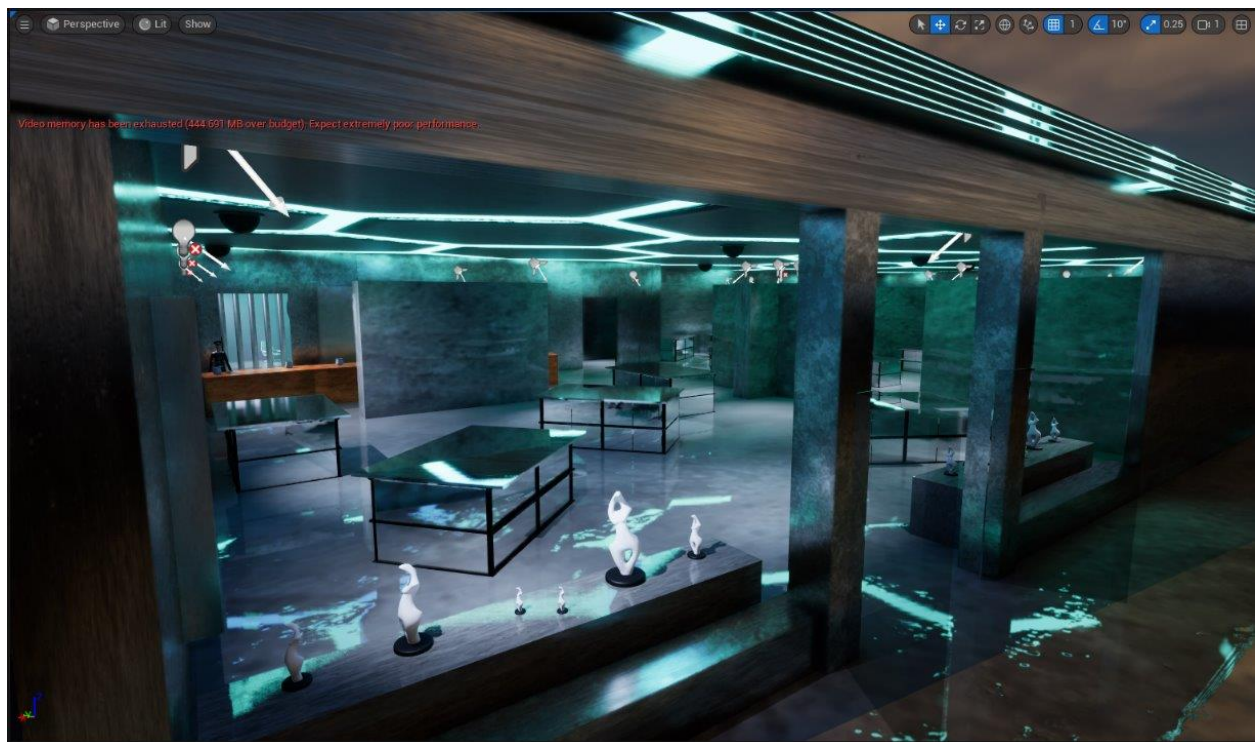


[3]



I chose to texture our jewelry store based on these reference images due to their minimalist depersonalization via design incorporating brutalist colors to control the players emotions, as this is because it sucks the life out of vibrant locations eliminating emotion and humanization. Due to the muted color pallet, the player will not feel a sense of security, but a heightened sense of control and hostility. This is perfect for our game as it makes the player feel dehumanized, this indirectly heightens the player's role as an outsider within a hostile environment and watchful space.

Here is a screenshot demonstrating our level, and its muted color palette to evoke a sense of hostility:

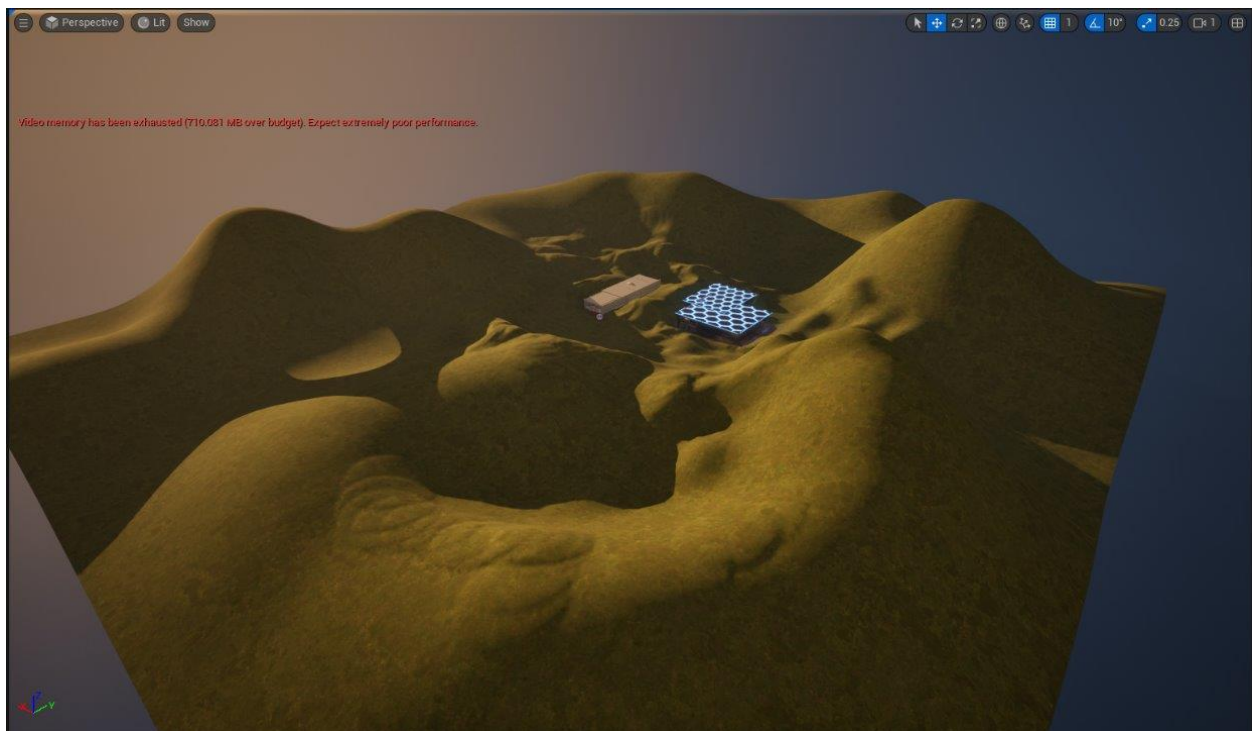


I believe I successfully implemented the sense of deprivation and minimalism of a *Chilla's Art* game into our game, however I do believe that there is too much lighting in the level which strips away the sense of hostility – I added lighting initially due to how dark it was, so in future projects I aim to perfect the brightness levels of the lighting to present the emotions I want the player to feel. I would do this by making the lighting dark but dark enough for the player to be able to just barely see. This would highlight player agency, giving the player freedom to move in the shaded areas of the store, this works well with the risk and reward of stealing loot fast or slow too.

As previously mentioned, if the player opts for the slow but silent approach, they will have a high risk of being spotted as it takes a while for the laser cutter to cut through the glass, the player has to gauge the risks and time their actions with the guard's vision and patrolling patterns. Similarly, the player can opt for the fast but loud approach by smashing all the glass cabinets and stealing the loot quickly, but this comes with a high risk due to all the guards being alerted and will shoot the player in response.

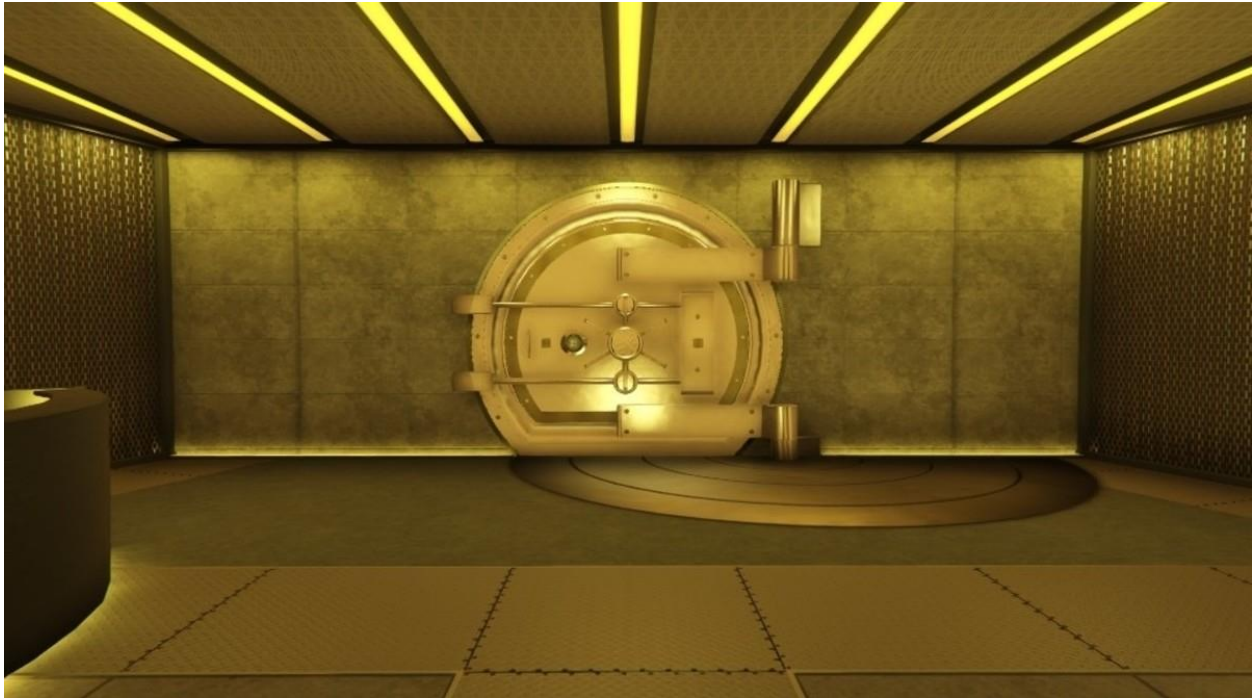
To further enhance the eerie and hostile atmosphere, I also wanted to tap into the idea of making the store feel like a liminal space, to make it feel eerie, which is why I added a landscape to our game to create a sense of smallness and isolation in the player. What I mean by smallness is that the area surrounding the store is vast, however I do agree that it looks quite odd that a jewelry store is in the middle of nowhere. So, to address this issue in future projects I aim to create a street layout and add big cubes with textures/images of houses on this street to enhance this eeriness and make it look like the store is actually in a city instead of the middle of nowhere.

Here is a screenshot of how the store looks like in our game:



I learned how to create landscapes in Unreal Engine through my own experimentation of the landscaping tools menu, I found it quite easy to figure out, and I believe this will become quite useful in future projects.

We also drew inspiration from the game *Grand Theft Auto V* [5], specifically from the Diamond Casino Heist. Rebecca (2305750) made the original level block out which is inspired by the vault from the Diamond Casino heist, and I placed the gold bars in the vault to show that they are inspected frequently, these images illustrate how the *Grand Theft Auto V* [5] vault presents itself to the player:



[6]



[8]

We also drew from *Grand Theft Auto V*'s [5] incredible level design theory and the players readability of the level; the level is designed in a way to show the player straight away where they are supposed to go from the very moment they enter the jewelry store.

My level expansion from Rebecca's original level block out presents to the player a visual cue of taking another route to the vault door for player agency, the player gauges the risk and rewards of taking this route for extra loot but at the cost of being in the store longer and having more opportunities for the guards and customers to spot you.

In the image below, the red circle indicates the part of the block out I created:



I implemented walls to give the player areas where they can sneak past patrolling guards and stay undetected as the walls act as a barrier to the guard's vision cones.

We managed our time and workflow as a group by using the asset list Rebecca made us, we each chose the assets we wanted to do and then arranged them according to highest priority and lowest priority, here is the full asset list from top to bottom:

Asset List

TASK	PRIORITY	STATUS	START DATE	DUE DATE	% COMPLETE	NOTES
Level blockout	High	Complete		2/26/2025	100%	Completed unless changes are needed (see teams for unreal & maya files)
Safe - Model	High	Complete	26/02/2025	3/16/2025	100%	Doorway done - On unwrap
Safe - UV and Texture	High	In Progress	3/16/2025	17/03/2025	75%	UV done, needs texture
Safe - Animations	Normal	Complete	17/03/2025	17/03/2025	100%	
Safe - Import to unreal	High	In Progress	17/03/2025		50%	Collisions need to be fixed
Misc jewellery stand models	Low	Not Started			0%	
& Texture	Low	Not Started			0%	
Big diamond - Model & Unwrap	Normal	Complete	2/26/2025	2/27/2025	100%	
Cushion for diamond	Low	Complete			100%	
Bracelet 1	Normal	Complete			100%	
Earrings	Low	Not Started			0%	
Bracelet 2	Low	Complete			100%	
Security desk	Normal	In Progress	4/5/2025		50%	Uvs done - needs texture
Desk monitor	Normal	Not Started			0%	
Desk clutter	Normal	In Progress			50%	UV done, needs texture
Cash register	Normal	Not Started			0%	
Keypad for vault door	High	Not Started			0%	

Colour code names

Jared
Rebecca
Chloe
Justin

Desk chair?	Normal	Not Started		0%	
Baton	Normal	Not Started		0%	
Increasing width of store (Expanding from Rebecca's work)	High	Complete		100%	🟢 Complete
Another level design - Jared's one	High	Cancelled		25%	
Landscape	High	Complete		100%	🟢 Complete
Guard and Customer idle animations	High	Not Started		0%	
Guard/Customer Walking animation	High	Complete		100%	🟢 Animated
Guard/Customer Running animation	High	Not Started		0%	
Guards and Customers (as a whole)	High	Complete		100%	🟢 Complete
Guard design 1 NO HAT	High	Complete		100%	🟢 Textured
Guard design 2 WITH HAT	High	Complete		100%	🟢 Textured
Customer design 1	High	Complete		100%	🟢 Textured
Customer design 2	High	Complete		100%	🟢 Textured
Guard - Rig	High	Complete		100%	🟢 Rigged
Crowbar	High	Complete		100%	🟢 Textured
Crowbar attack animation	High	Not Started		0%	
Crowbar idle animation	Low	Cancelled		0%	Idle animations are not priority
Wallen-SS style Visor Cap (For Guard) Without Swastika	High	Complete		100%	🟢 Textured
Stun Gun	Normal	Complete		100%	🟢 Textured
Prongs for stun gun	Normal	Complete		100%	🟢 Textured
Stun Gun animation	Normal	Not Started		0%	

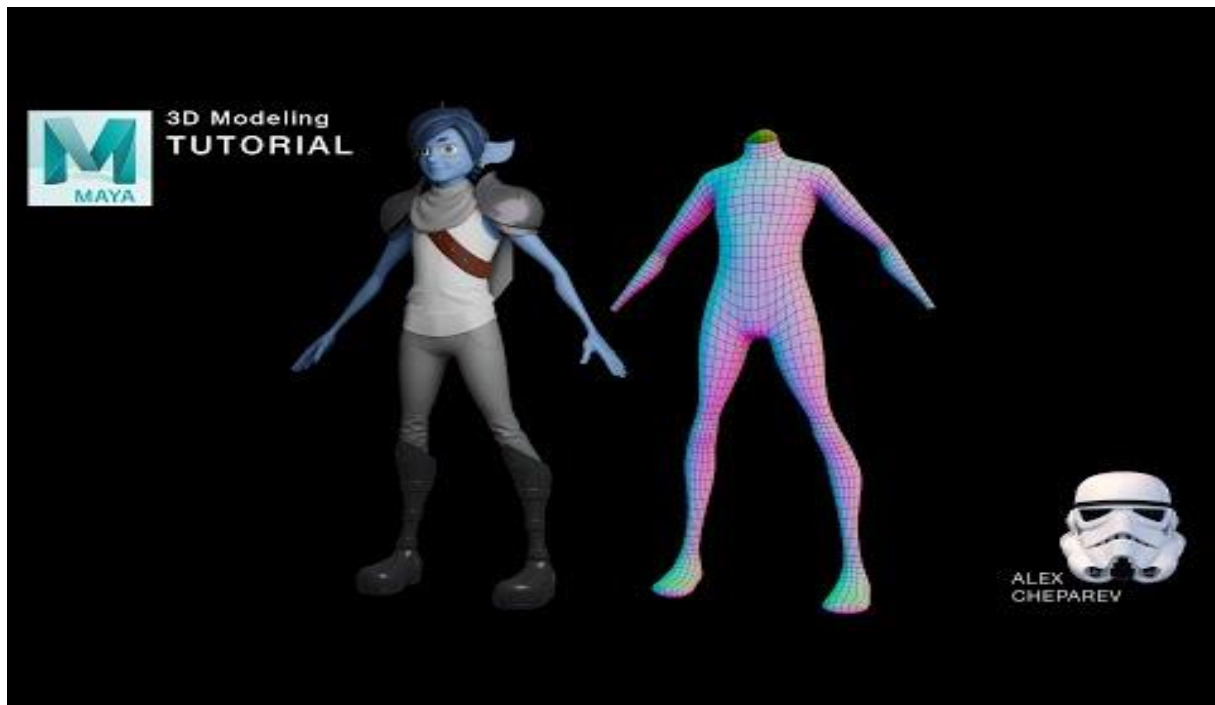
Stun gun idle animation	Low	Cancelled		0%	Idle animations are not priority
Hunting knife	Normal	Complete		100%	🟢 Textured
Knife attack animation	Normal	In Progress		0%	
Knife idle animation	Low	Cancelled		0%	Idle animations are not priority
Security Camera Type 1	Normal	Complete		100%	🟢 Textured
Security Camera Type 2	Normal	Complete		100%	🟢 Textured
Security camera type 2 animation	Normal	Complete		100%	🟢 Animated
Lazer Cutter	Normal	Complete		100%	🟢 Textured
Lazer cutter animation	Normal	Not Started		0%	
Lazer cutter idle animation	Low	Cancelled		0%	Idle animations are not priority
Glass cabinets	Normal	Complete		100%	🟢 Textured
Fridge	Normal	Complete		100%	🟢 Textured
Gold bars for safe	Low	Complete		100%	🟢 Textured
Front desk	Low	Complete		100%	🟢 Textured
Cup/Mug	Low	Complete		100%	🟢 Textured
Coin (A model of one)	Low	Complete		100%	🟢 Textured
Coin throwing animation	Low	Not Started		0%	
Floor texture	Low	Complete		100%	🟢 Textured in Unreal
Wall texture	Low	Complete		100%	🟢 Textured in Unreal
Pillar texture	Low	Complete		100%	🟢 Textured in Unreal
	Normal	In Progress	4/17/2025	5/23/2025	25%

Necklace stand	Low	Complete	4/27/2025	5/11/2025	100%	🟢	
Necklaces for the store (or they could literally just be a texture on the stand)	Low	Complete	4/27/2025	5/11/2025	100%	🟢	
UI - Main menu	Normal	Complete	2/17/2025	2/28/2025	100%	🟢	
Menu background art	Low	In Progress	2/17/2025	2/28/2025	25%		
Storefront	High	Not Started	2/17/2025	2/28/2025	25%		
	High	Not Started	2/17/2025	2/28/2025	0%		
Rings	Low	In Progress	4/27/2025	5/11/2025	50%		unwrapped
Gun Low poly for convenience sake	Normal	In Progress	4/27/2025	5/11/2025	50%		unwrapped with a bullet
Chandelier	Low	In Progress	4/27/2025	5/11/2025	50%		unwrapped
Office lights	High	In Progress	2/17/2025	2/28/2025	50%		unwrapped
Make destructable glass add model pieces - apparently theres something in unreal to make planes destructable I asked adam earlier	Normal	Not Started			0%		
Character animations	High	Not Started			0%		
Money - guessing like traditional stack of money?	Normal	In Progress			50%	🟢	unwrapped
Break room - Table (assuming we're keeping the mini break room I put in block out)	Normal	Not Started			0%	🟢	
Break room - Counter	Normal	In Progress			50%	🟢	unwrapped
Break room - chairs	Normal	In Progress			50%	🟢	2 chair made and unwrapped
Break room - matching sofa	Normal	Not Started			0%	🟢	
String to suffocate guards - called a garrote	High	Not Started			0%	🟢	
	High	Not Started			0%	🟢	
	High	Not Started			0%	🟢	
	High	Not Started			0%	🟢	
	High	Not Started			0%	🟢	

I will now talk about the research that helped me develop my skills in Maya, Substance painter and Unreal Engine.

This video helped me understand the basics of character modeling which grew my skills in character creation [9]:

<https://www.youtube.com/watch?v=ik2OHLcwUU0>



This video was perfect in trying to help me create a basic character model for our game, and it also works well as our game is low poly. This tutorial also helped me learn vital skills such as symmetry which progressed my skills exponentially rather than individually moving each vertex on each side slowing down my workflow.

The video below taught me sculpting in maya [10]:

https://www.youtube.com/watch?v=jRlc8_jWJS4&t=283s



This video taught me vital skills of sculpting tools not only for character modelling, but for modelling as a whole. This is because I can sculpt environments like mountains and holes in the ground, or small details in the surfaces of objects. I plan to master this tool in future projects so that I can create more intricate modeling designs.

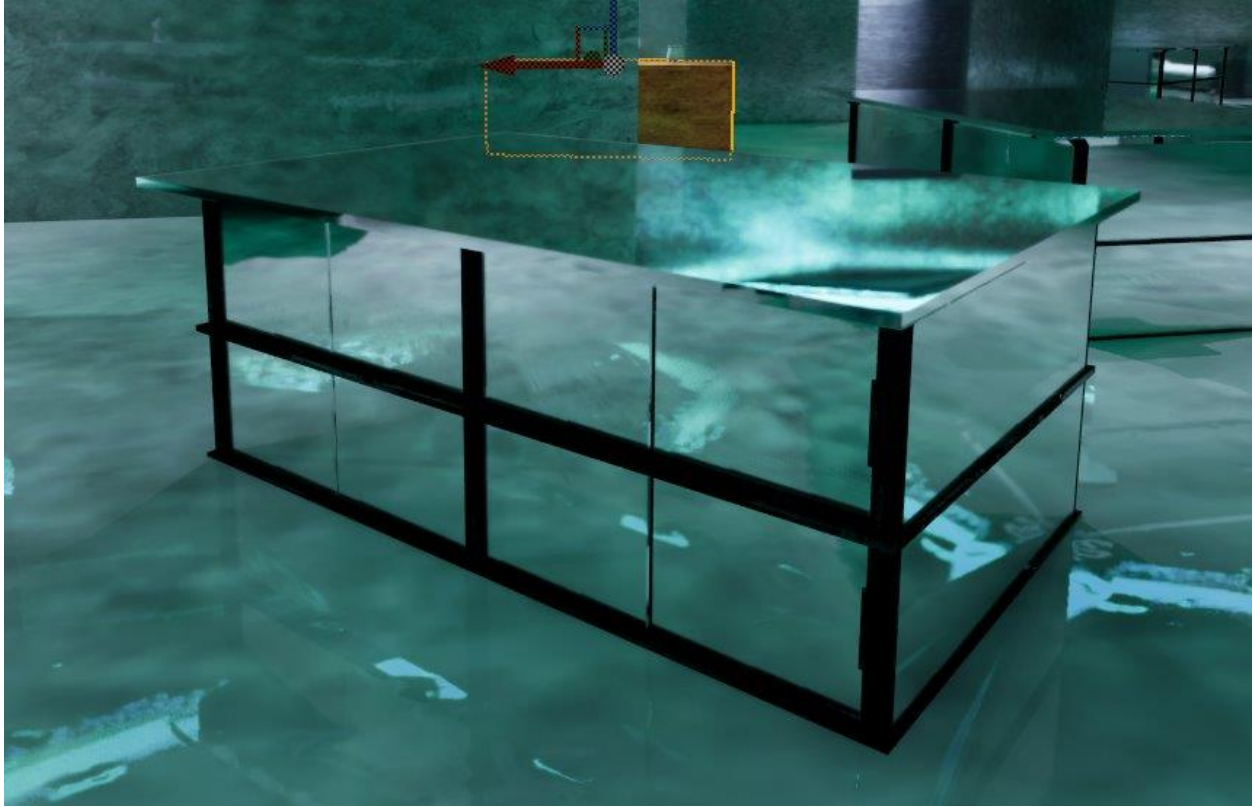
The video below taught me how I can make transparent glass in substance painter [11]:

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



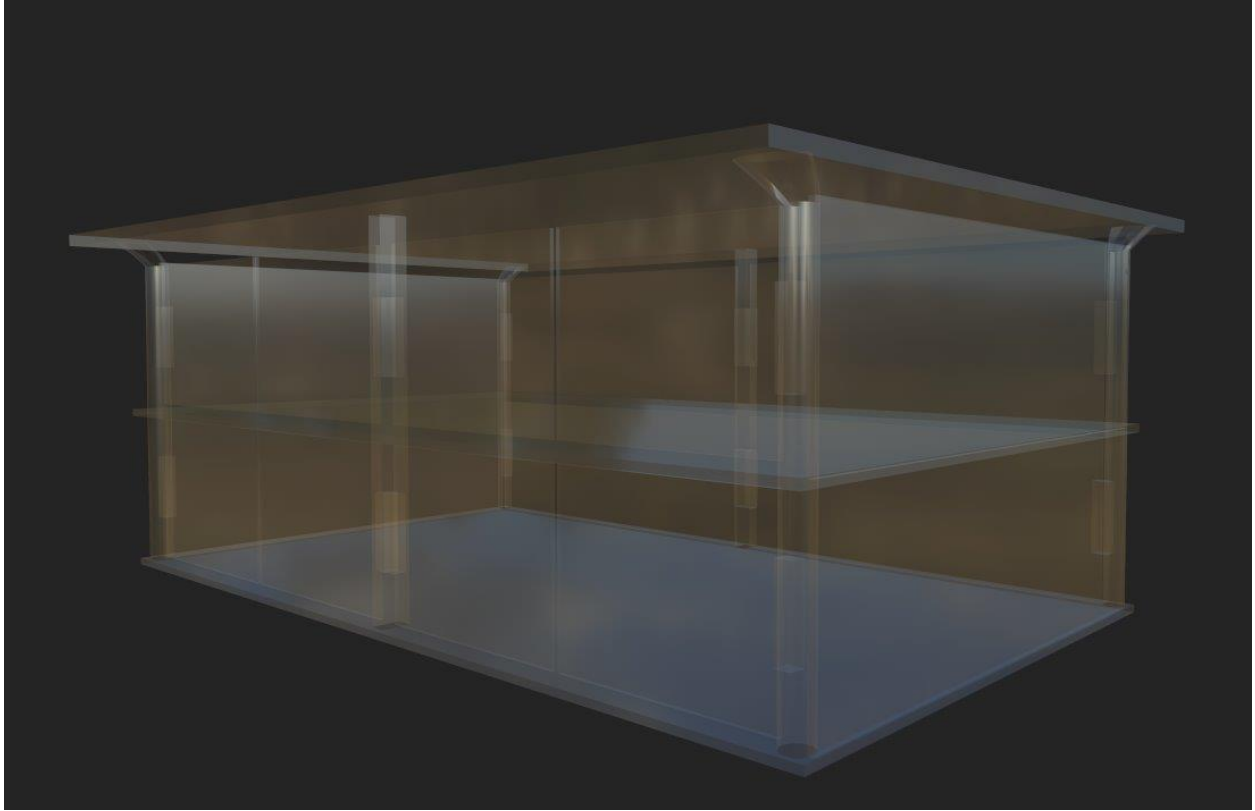
However, despite me figuring out how to make the glass transparent in substance painter I believe I didn't make it transparent enough for it to keep its transparency in Unreal Engine thus resulting in a mirror-like texture for my glass cabinets.

Here is how the glass turned out in unreal:



As you can see, the glass is highly reflective and didn't carry over the transparency I intended to be there, in future projects I aim to fix this issue so that I can create transparent objects to show in Unreal.

And here is the same object with transparency in substance painter (I deleted the save with the original texturing to free up space which is why it's only the glass texturing):



As you can see here, I managed to make the glass transparent in substance painter which I planned on working in Unreal Engine, however I think the original texturing I did, didn't have a low enough opacity in the opacity channel which made it reflective in Unreal Engine.

I then went on to research about how I can shape/structure my models more flexibly, and I came across the soft selection tool in maya, this in turn made it possible for me to create more smooth and natural shapes. I discovered this tool when modelling the stun gun asset and I used this to shape the grip which I think looks pretty good. In future projects I plan on using this tool much more frequently as it gives much better flexibility in my modelling capabilities.

Here is the stun gun for reference:



And here is the YouTube tutorial which helped me gain this vital knowledge using the soft selection feature in maya [12]:

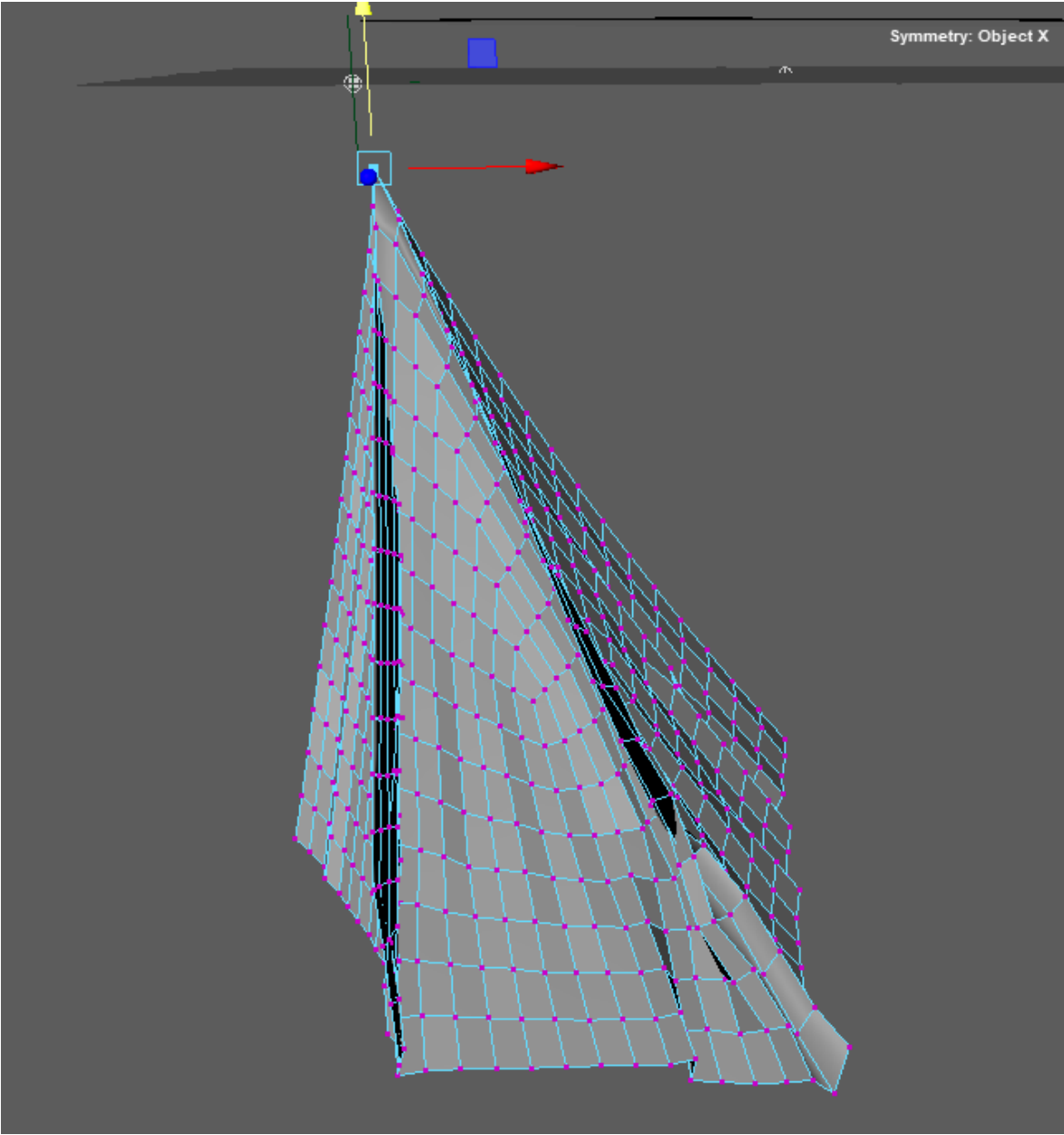
<https://www.youtube.com/watch?v=Zd-uPHi8Zk4>

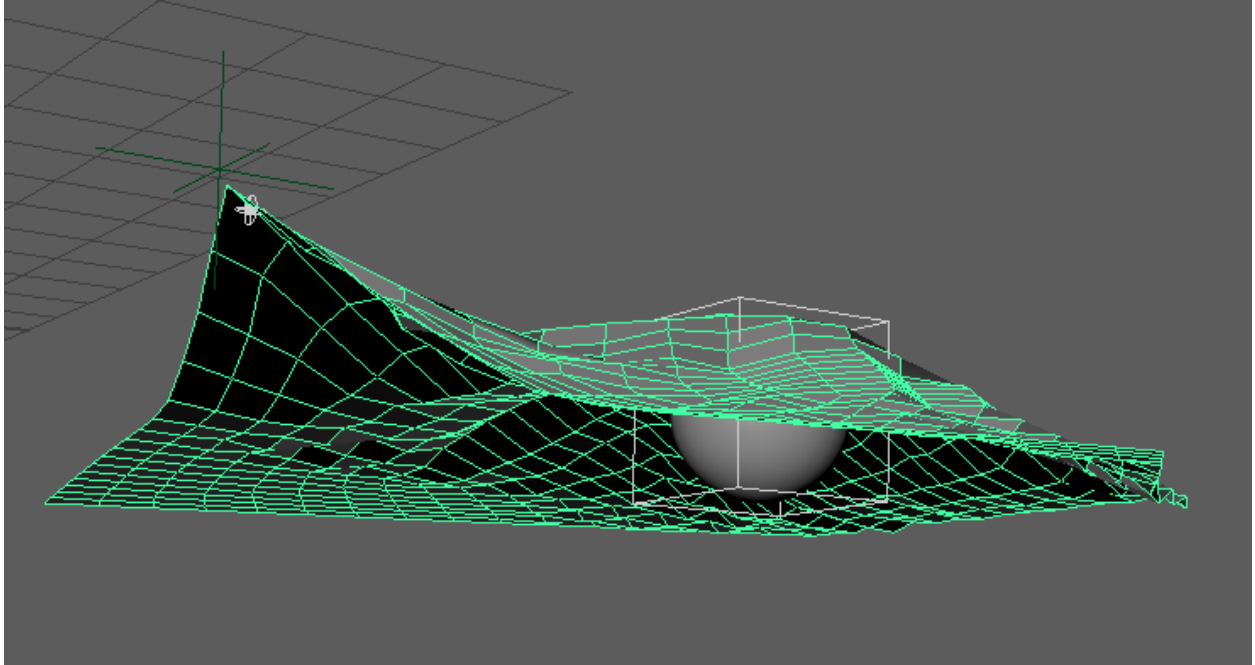


Soft Selection **IN MAYA**

Another thing worth mentioning is that I learned how to add cloth physics to objects in maya, which I believe will become handy in future projects, however we decided to not add clothing or anything of the sort due to it creating lag, and also due to our game's low poly aesthetics.

Here are screenshots of the cloth physics working in maya:





I learned how to do this using maya's Autodesk help website which went step by step on how to create cloth simulation using a bullet soft body, here is the website [13]:

<https://help.autodesk.com/view/MAYAUL/2024/ENU/?guid=GUID-6FA1B885-DF4C-45A8-B7E3-B0991449471C>

In conclusion, I believe I have Greatly improved in my modelling and texturing capabilities during this project, I learned many new skills which I believe are vital to my progression and that I also believe these skills I have learned will be useful in upcoming projects in the future.

However, aside from my positives, there were also many negatives. I myself severely underestimated the asset priority and I believed I could do them in a quicker amount of time than that they actually took to create. This led to a stressful couple of weeks nearing the deadline due to my severe misjudgments in my modelling capabilities. I initially focused on the low priority assets first which I deeply regret doing as this made the high priority assets feel rushed and not to the liking of how Intended them to be. So, to fix this vital problem in future projects, I **Must** place high priority assets above all else, so that I can create my assets in a paced manner rather than rushed.

Bibliography in IEEE format:

- [1] *The elder scrolls V: Skyrim special edition on steam (no date) Welcome to Steam.*
Available at:
https://store.steampowered.com/app/489830/The_Elder_Scrolls_V_Skyrim_Special_Edition/ (Accessed: 11 May 2025).
- [2] [Chilla's art] *the closing shift: 閉店事件 on steam (no date) [Chilla's Art] The Closing Shift | 閉店事件 on Steam.* Available at:
https://store.steampowered.com/app/1843090/Chillas_Art_The_Closing_Shift/ (Accessed: 11 May 2025).
- [3] (No date b) *Valley Mall in Union Gap Washington Jewelry Store.* Available at:
<https://www.morganjewelers.com/union-gap-valley-mall> (Accessed: 11 May 2025).
- [4] (No date a) *King's plaza - jewelry store - malsons jewelers.* Available at:
<https://malsonsjewelers.com/company/locations/kings-plaza/> (Accessed: 11 May 2025).
- [5] *Save 66% on Grand Theft Auto V enhanced on steam (no date) Welcome to Steam.*
Available at:
https://store.steampowered.com/app/3240220/Grand_Theft_Auto_V_Enhanced/ (Accessed: 11 May 2025).
- [6] (No date a) *How to complete the Diamond Casino Heists in 'Gta online' - hubpages.*
Available at: <https://discover.hubpages.com/games-hobbies/How-to-Beat-Casino-Heists-in-GTA-Online> (Accessed: 11 May 2025).
- [7] Pete Davison *Pete is Rice Digital's editor (2022) Chilla's art's the closing shift is plausibly unsettling, Rice Digital.* Available at: <https://ricedigital.co.uk/the-closing-shift-review/> (Accessed: 11 May 2025).
- [8] VxRuz_DanZ (2022) *Diamond Casino heist, GTA5.* Available at: https://www.gta5-mods.com/scripts/diamond-casino-heist-vxruz_danz (Accessed: 11 May 2025).
- [9] (No date a) *YouTube.* Available at: <https://www.youtube.com/watch?v=ik2OHIcwUU0> (Accessed: 11 May 2025).

[10] (No date) YouTube. Available at:

https://www.youtube.com/watch?v=jRlc8_jWJS4&t=283s (Accessed: 11 May 2025).

[11] (No date a) YouTube. Available at: <https://www.youtube.com/watch?v=kUZljNIWEjl>

(Accessed: 11 May 2025).

[12] (No date a) YouTube. Available at: <https://www.youtube.com/watch?v=Zd-uPHi8Zk4>

(Accessed: 11 May 2025).

[13] (No date a) Help. Available at:

<https://help.autodesk.com/view/MAYAUL/2024/ENU/?guid=GUID-6FA1B885-DF4C-45A8-B7E3-B0991449471C> (Accessed: 12 May 2025).