LONDON METROPOLITAN UNIVERSITY

Islington college
(इस्लिङ्टन कलेज)

SM6P07 Digital Media Project

50% Individual Coursework

2024-25 Autumn

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External Supervisor: Bibek Gurung

Internal Supervisor: Dibesh Maskey

Assignment Due Date: Wednesday, May 7, 2025

Assignment Submission Date: Wednesday, May 7, 2025

Word Count: 1602

Project File Links:

YouTube Link:	**https://youtu.be/rUoa-rFztFE**
Google Drive Link:	**Final Year Project**

Github Link:	**https://github.com/Pyroknightsushi/Final-Year**

I confirm that I understand my coursework needs to be submitted online via Google Classroom under the relevant module page before the deadline in order for my assignment to be accepted and marked. I am fully aware that late submissions will be treated as non-submission and a marks of zero will be awarded.

Abstract

The project is a short 3D video of a game environment. The video is going to showcase all the 3D assets in the environment by following the trail of a cat. This project will help showcase the talents the student has in terms of 3D modelling, rigging and animation.

Introduction

Topic

Neon Echoes

Area of Research

The research topic is to create a 3D animation that answers the question of does environmental storytelling, lighting, and texture design in a 3D space enhance player immersion and emotional engagement in narrative-driven games.

Aim of Project

A short 3D animation video showcasing an environment along with all the assets in a 3rd person perspective. The objective of the project is to showcase all the skills the student has learned from modelling, UV mapping, texturing, animation. This will also be part of the student's portfolio for the future.

Target Audience

Title

Neon Echoes

Tagline

A world forgotten, rediscovered through the eyes of a wanderer

Genre

Sci-Fi Adventure

Post-Apocalyptic Exploration

Storyline

A cat’s journey through breathtaking environments, revealing glimpses of the past.

Target Audience
Age: 16+

Gender: Any

Experience

Immersive Visuals

Emotional Atmosphere

Cinematic Quality

Product Research

Character Modelling

For character modelling this tutorial was followed.

Youtube Link: https://youtu.be/4JvuY3GTPRM?si=T4T_tDHnRIsGGuD7

Figure 1 Research on character modelling

Character Rigging

For rigging the character this guide was taking as reference.

Youtube Link: https://www.youtube.com/watch?v=eucOLC2sOmk

Figure 2 Research on Character rigging

Character Texturing

This video was taken as reference for Character texturing research/

Youtube Link: https://www.youtube.com/watch?v=WDsRtJTc_48

Figure 3 Character Texturing Research

XGen Hair Research

This video was used to research on how groom able hair is created in Maya with the use of XGen.

Youtube Link: https://www.youtube.com/watch?v=x0w4XpZqSCA

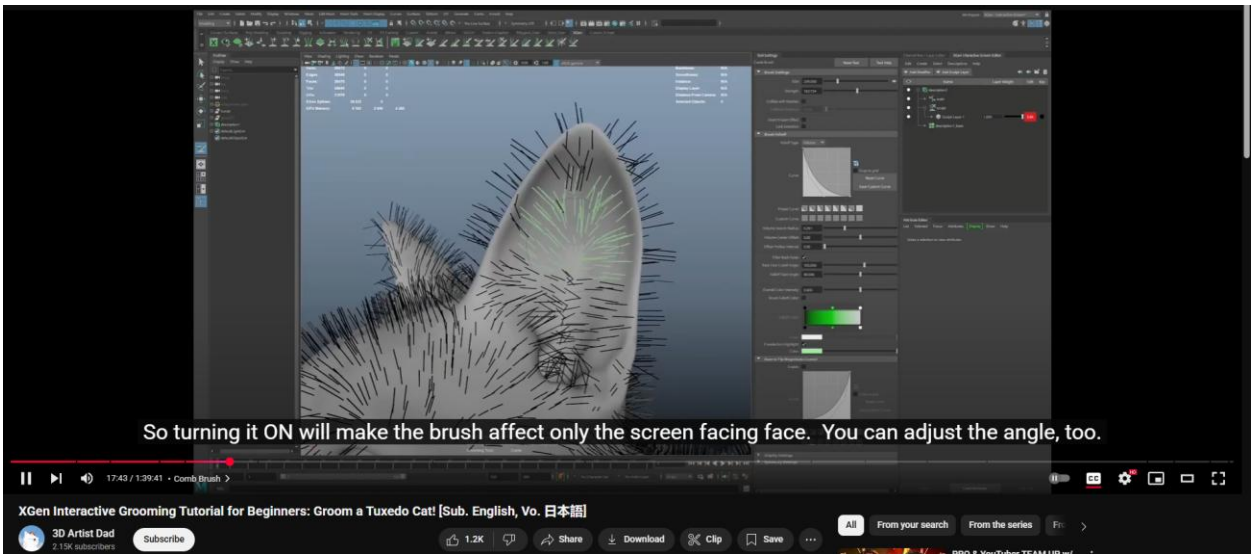

Figure 4 Xgen Hair Research

Environment Modelling

For environment modelling this video was taken as a reference.

Youtube Link: https://www.youtube.com/watch?v=56xMeqWXjSg

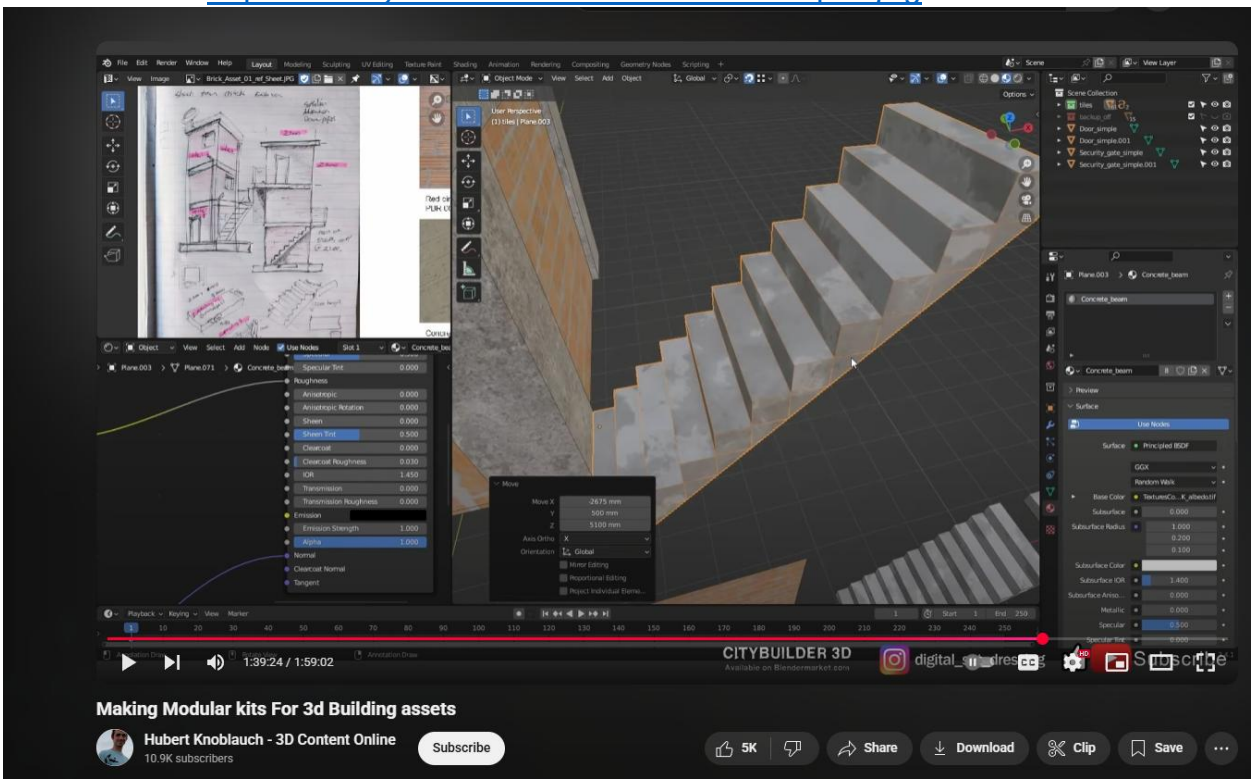

Figure 5 Environment Modelling Research

Box Mapping

This video was used as research for Box Mapping in blender/

Youtube Link: https://www.youtube.com/watch?v=vyNm3I16rHg

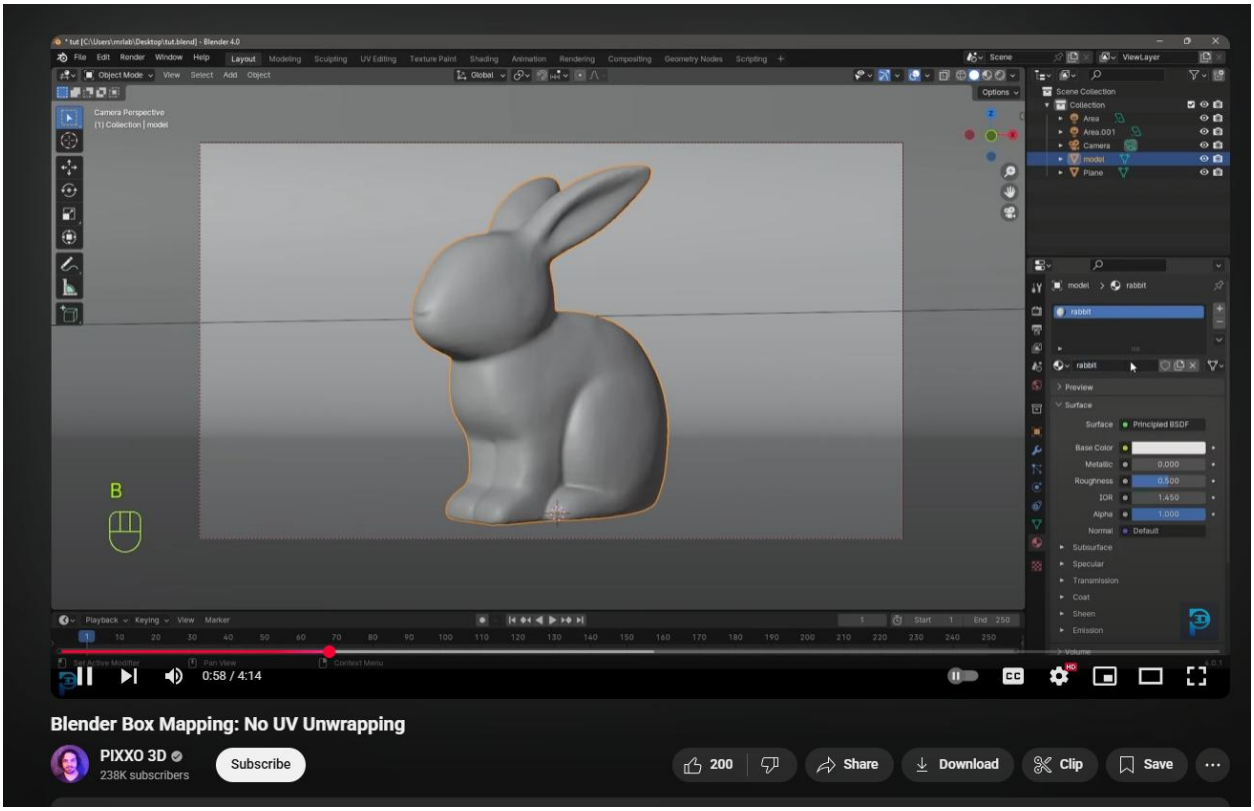

Figure 6 Box Mapping Research

Character Animations

This video was used as reference for character animations.

Youtube Link: https://www.youtube.com/watch?v=v7KANqGGis4

Figure 7 Character Animation Research

2D Image to 3D Model

This video was taken as reference to create 3D polygons from 2D images in blender.

Youtube Link: https://www.youtube.com/watch?v=BcjPCjxsCZo

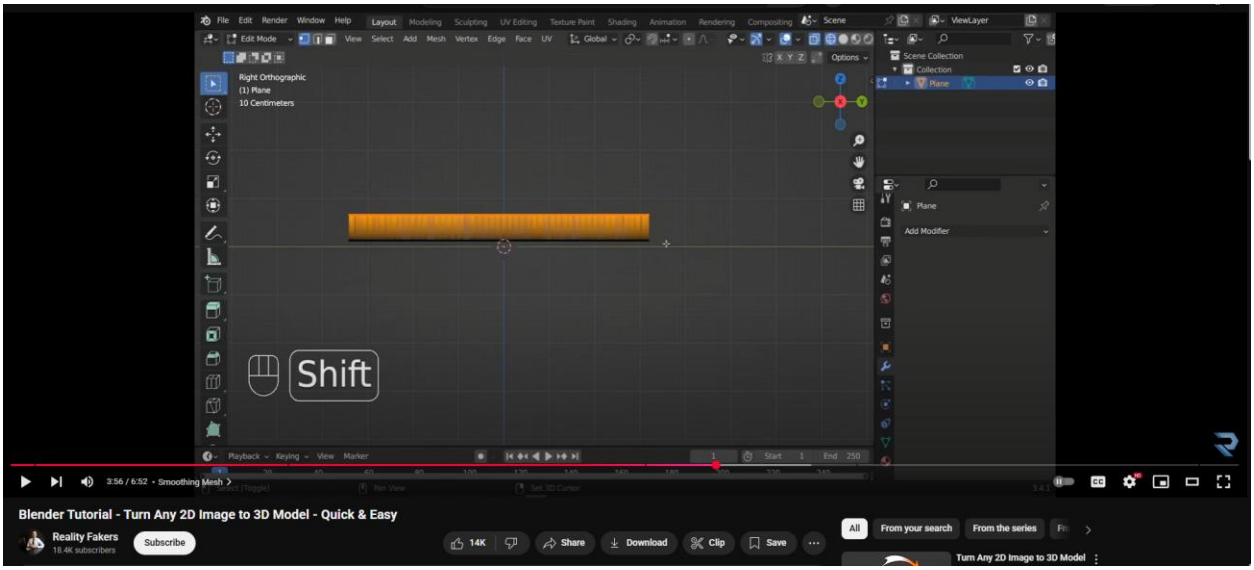

Figure 8 2D Image to 3D Model Research

Creating Wires/Cables using Curves

This video was used to research into making wires/cables quickly using Curves.

Youtube Link: https://www.youtube.com/watch?v=4igTVJOEJw0

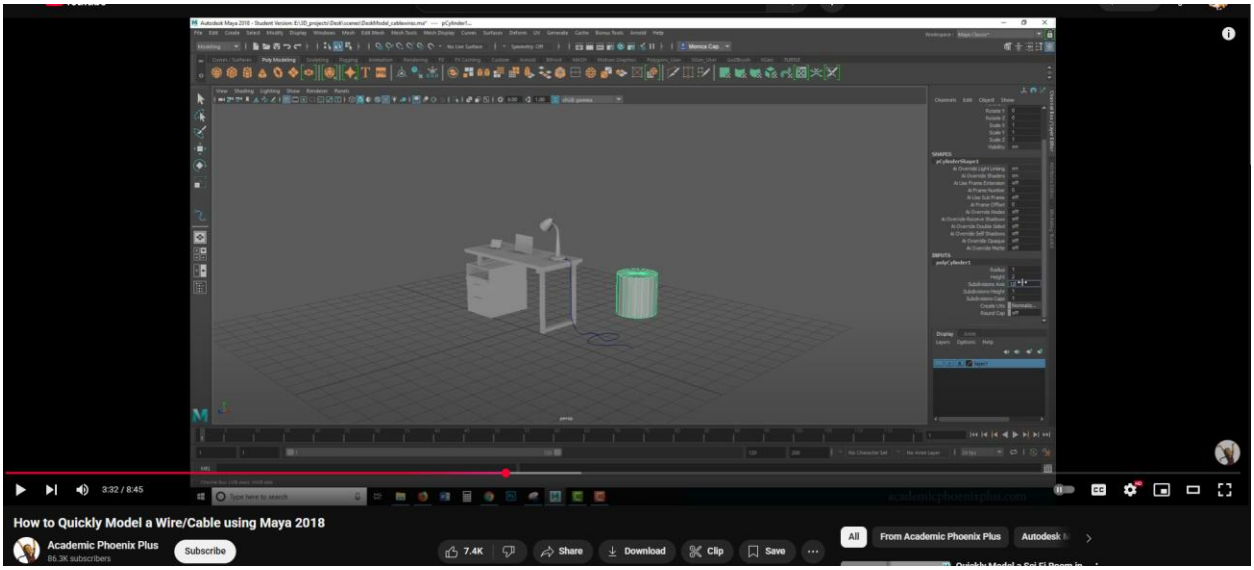

Figure 9 Creating Wires/Cables using Curves Research

Creating Neon Signs

Research into a quick and easy way on how to create neon signs on blender using text

Youtube Link: https://www.youtube.com/watch?v=8eNN2Ep3Rqs

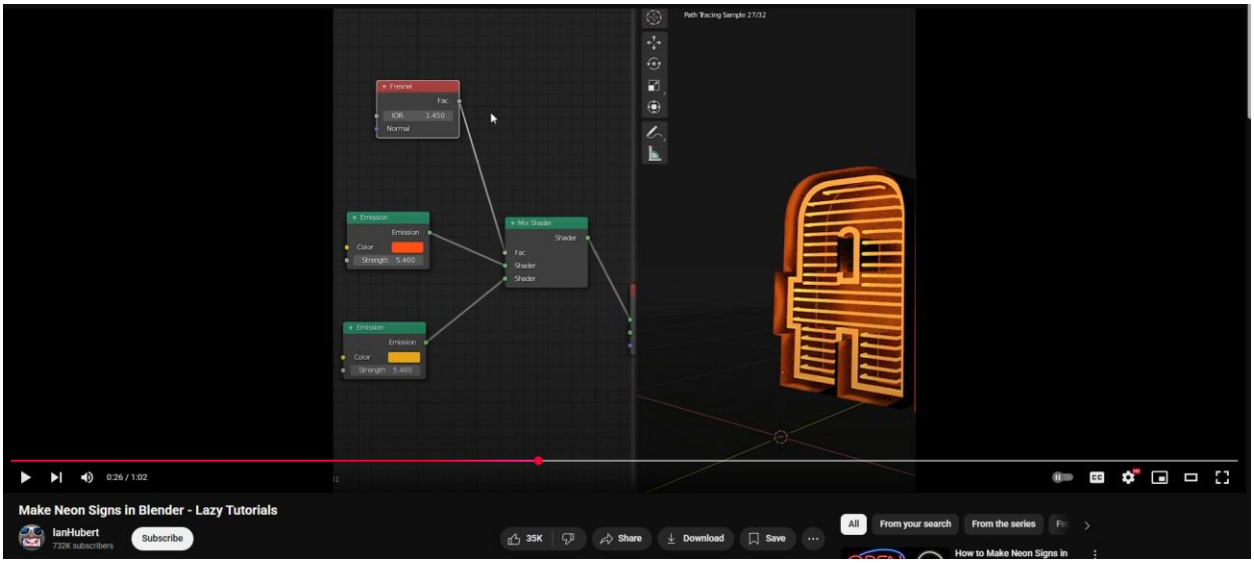

Figure 10 Research into creating neon signs

Creating Fur with nHair

Research into how to create a simple hair system using nHair

Youtube Link: https://www.youtube.com/watch?v=tNZcI_3iFUI

Figure 11 Research into creating hair with nHair

Adding Glow to Objects

Research into adding glow to any object.

Youtube Link: https://www.youtube.com/watch?v=WTFj9B6eFgk

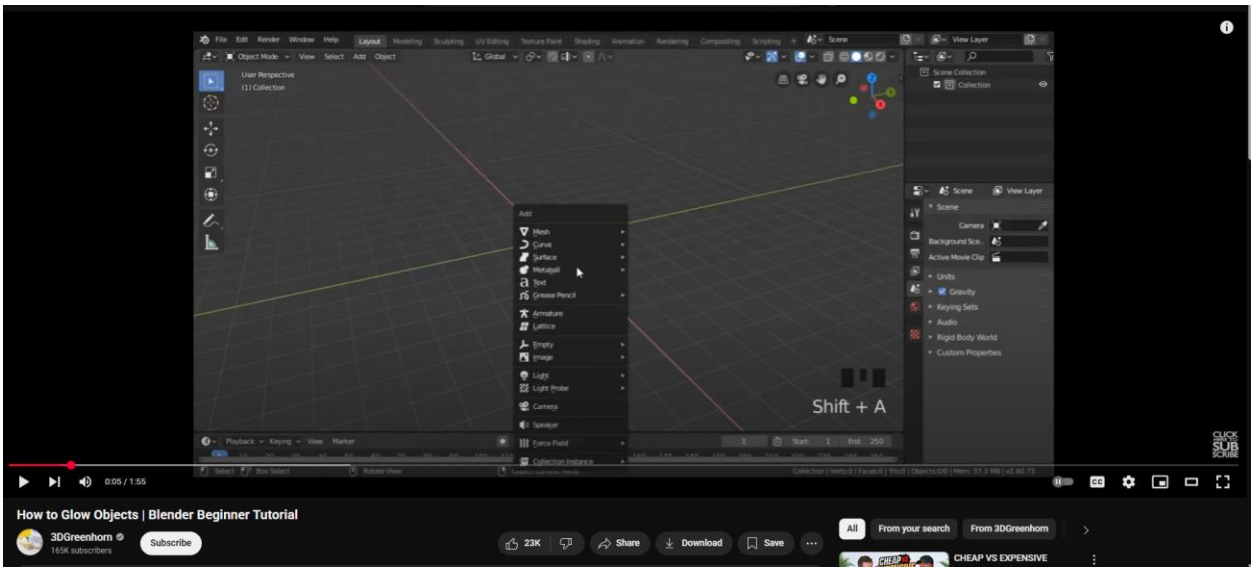

Figure 12 Research into adding glow to objects

Technologies Employed

Maya

Used to model the character, animation, lighting, texturing, and rendering.

Blender

Used for environment modelling, box mapping the environment, along with scene setup with the help of minor assets that were downloaded.

Adobe Photoshop & Substance Painter

Used for storyboard, texturing of assets.

After Effects

Used for creating post-production effects.

Premiere Pro

Compiling footages from the scenes, adding ambient music, exporting the final output

Project Plan

The project timeline had to be changed as the deadline was closer than expected. So, adjustments were according to that. Animation took shorter than expected while documenting everything took a while but since animation didn’t make as much time it was easier to meet deadlines.

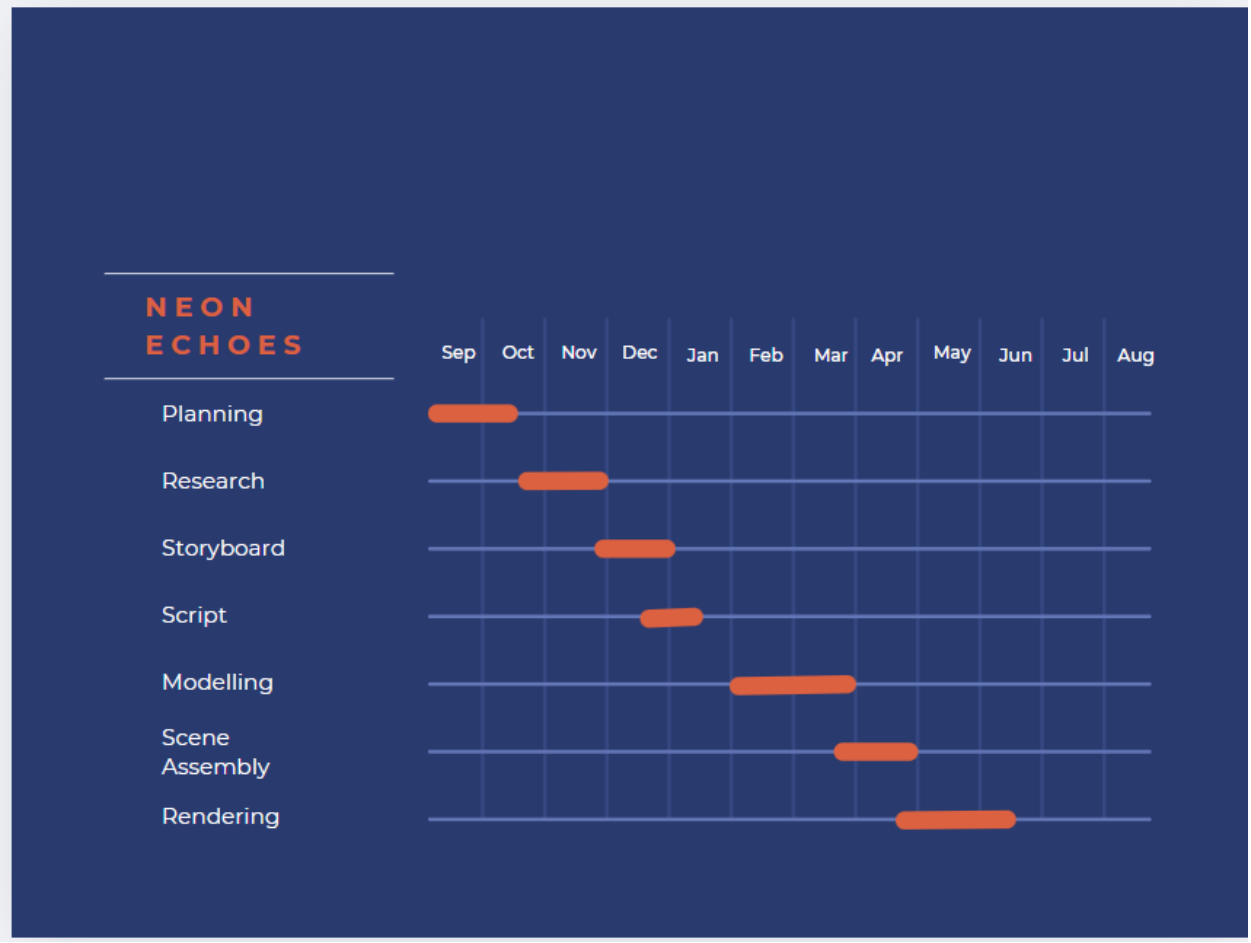

Figure 13 Old Gantt chart

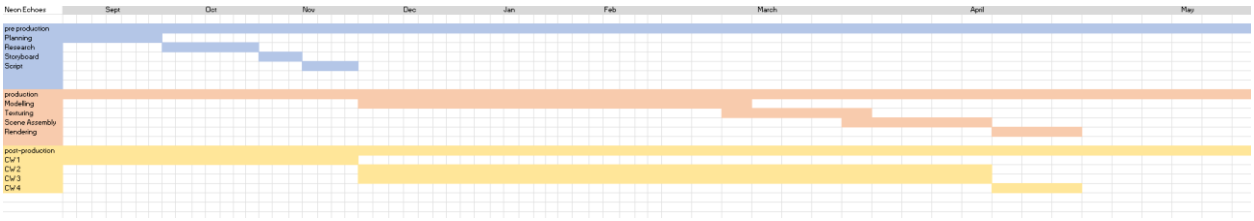

Figure 14 New gantt chart

Character Design

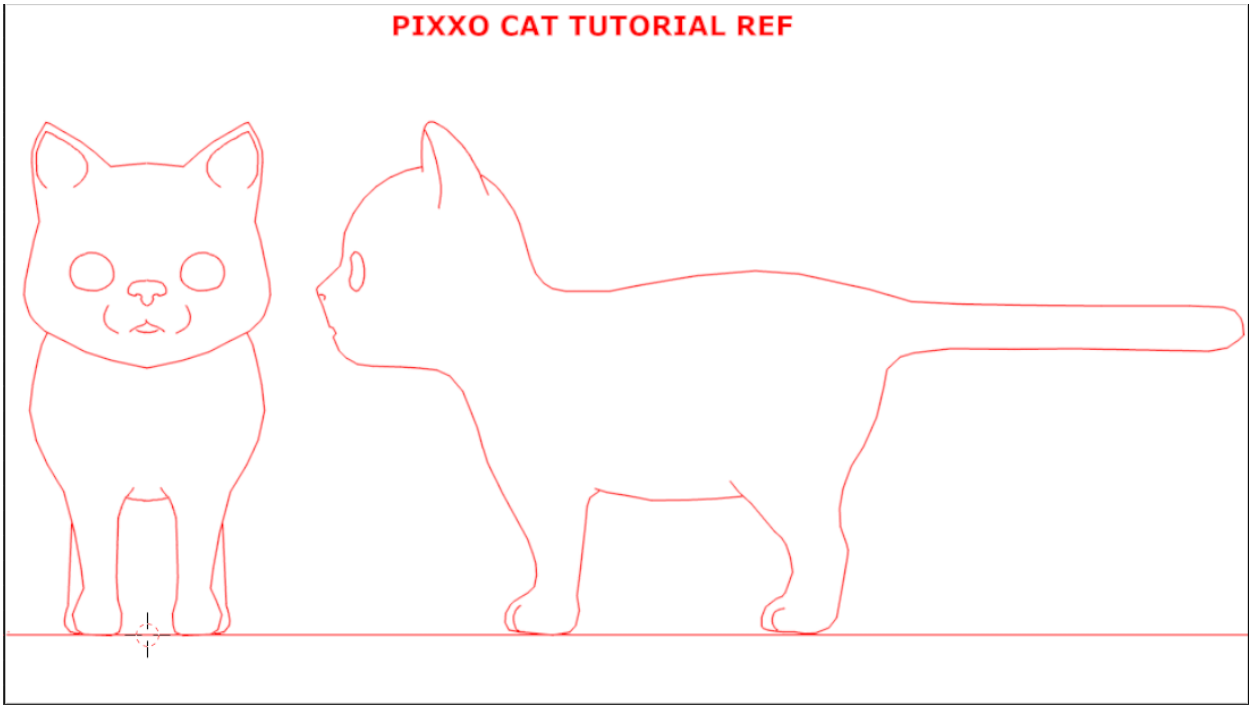

Figure 15 Character Design

Scene 1 : A shot of the alleyway

Scene 2: Zoom in on cat as it jumps to the electric box

Scene 3: Cat jumps to the window sill

Scene 4: Cat walks from one end of the window Sill to the other

Scene 5: Cat Jumps down from window Sill

Scene 6: Cat runs to the end of the alleyway

Figure 16 Rough Script

Figure 17 Environment

Storyboard

Figure 18 Storyboard

Production Stage

Character Modelling and Texturing

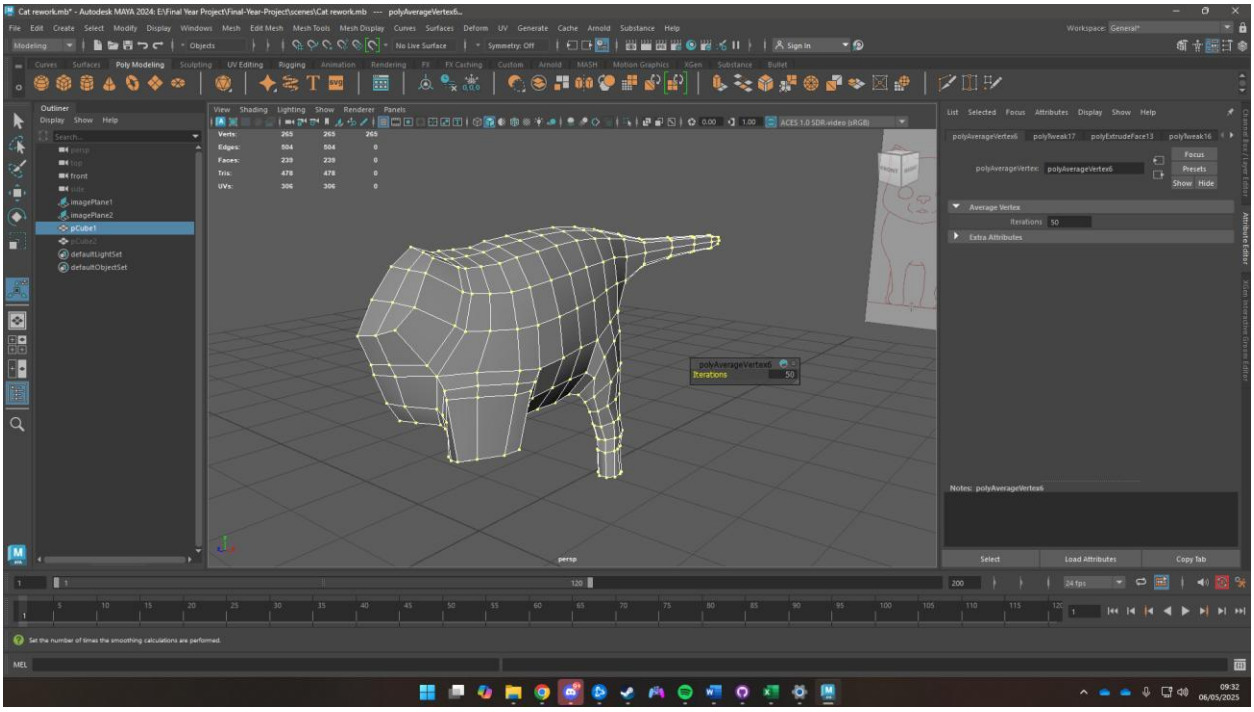

Figure 19 Character Modelling 1

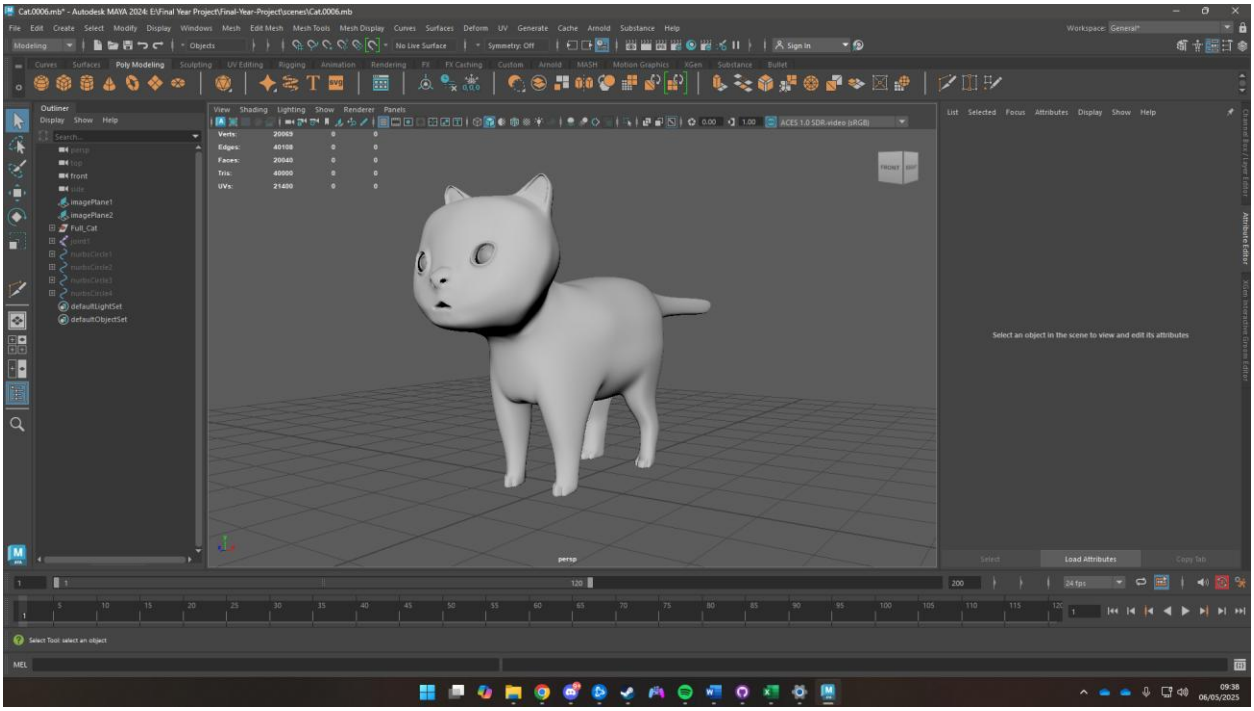

Figure 20 Character Modelling 2

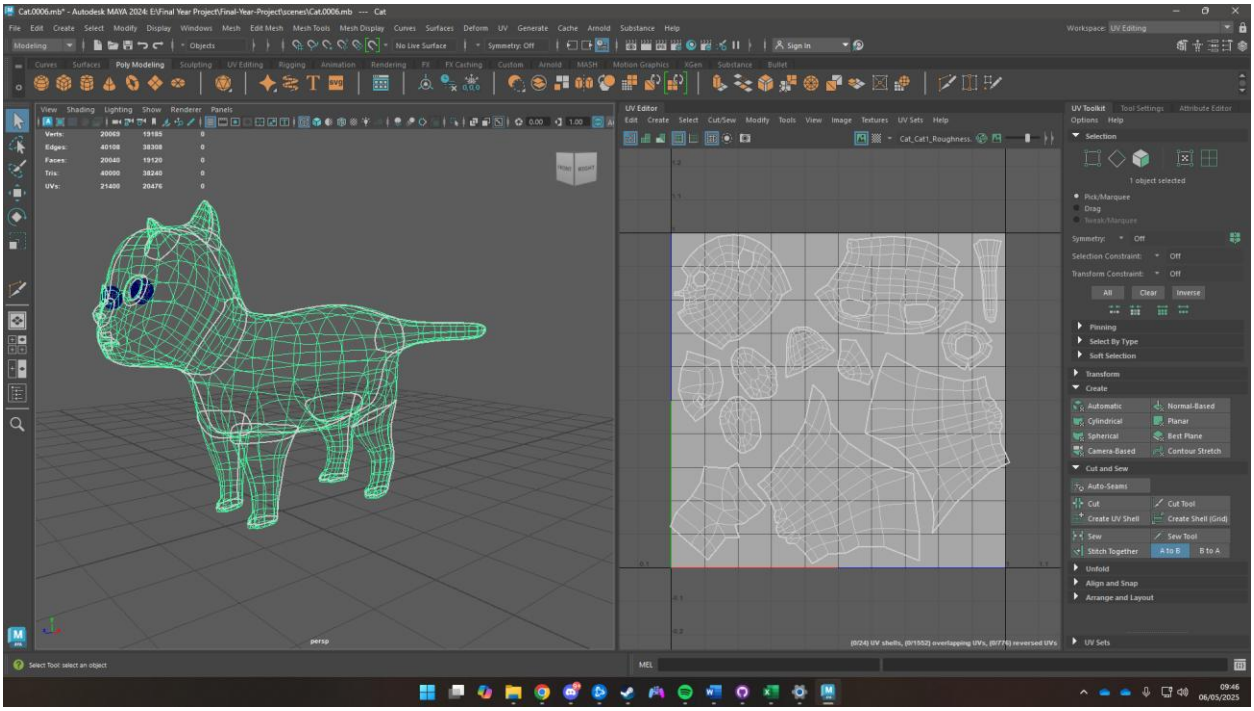

Figure 21 UV Unwrapping

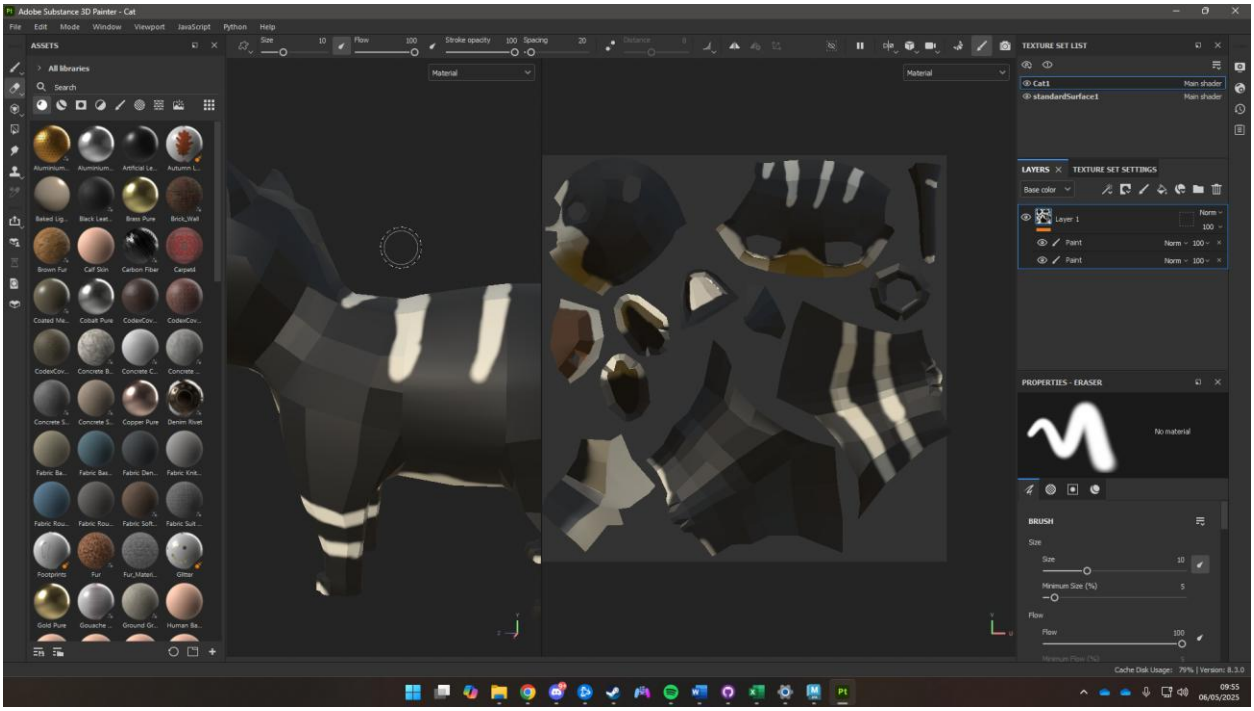

Figure 22 Texturing Character

Rigging

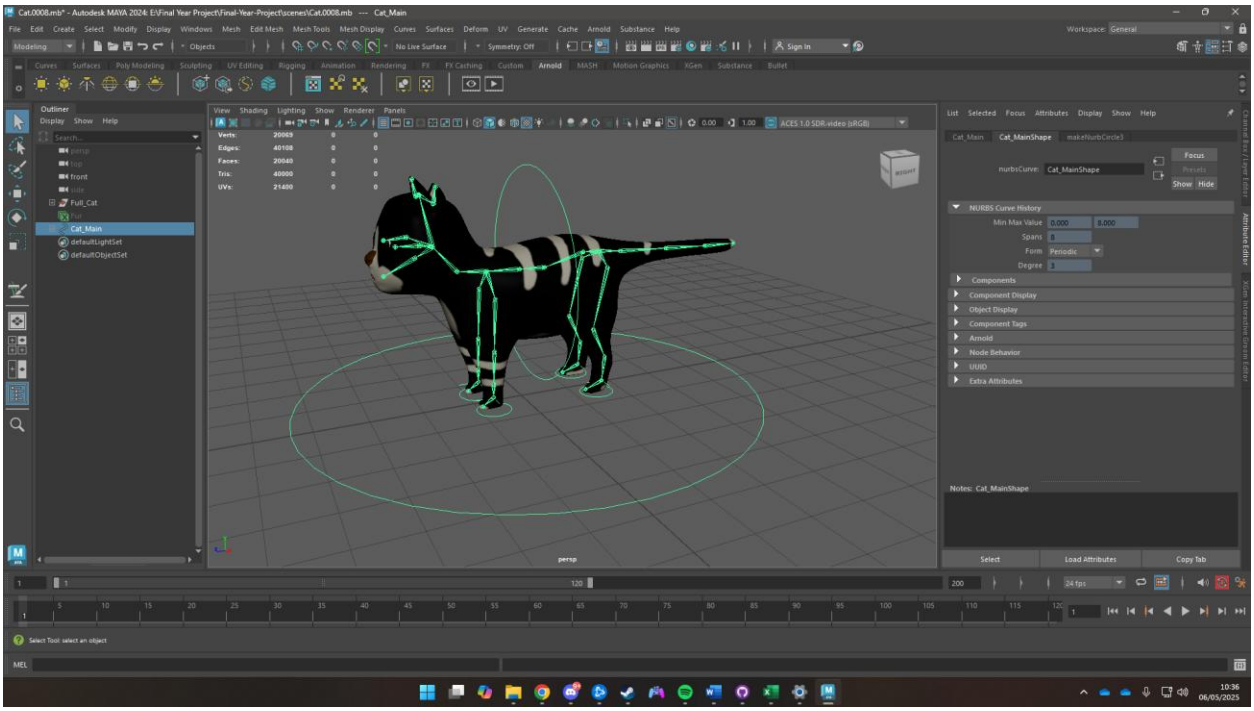

Figure 23 Rigged Character

Environment Assembly

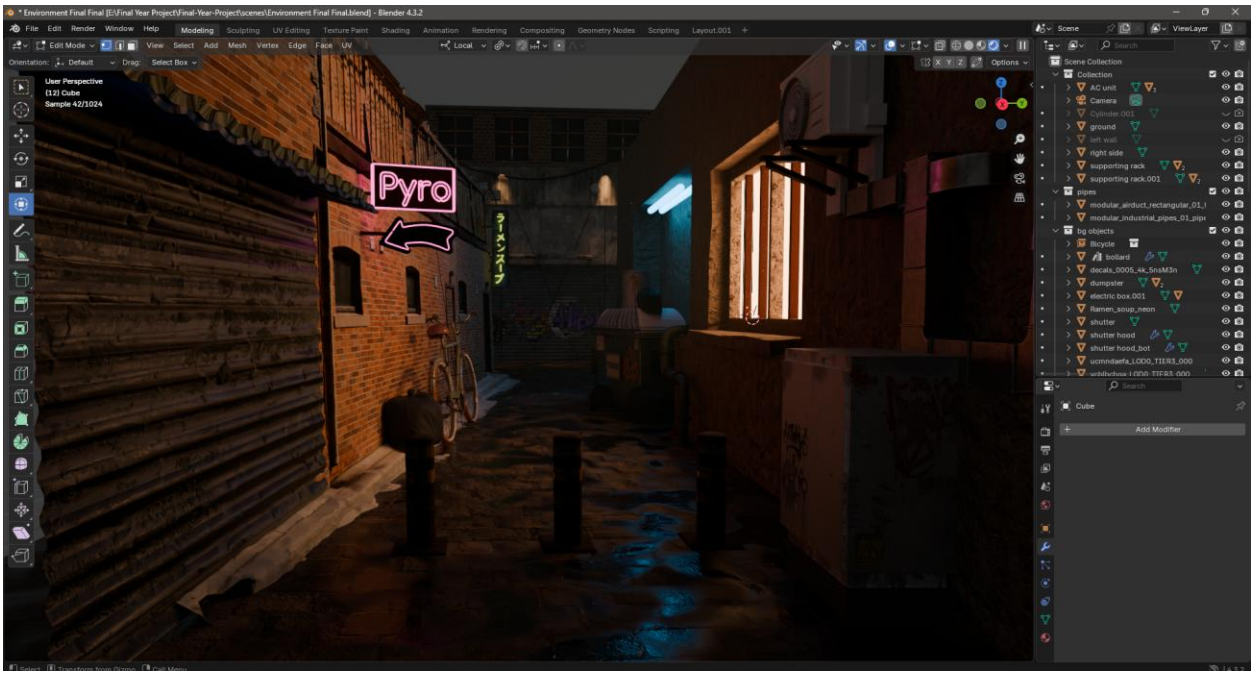

Figure 24 Assembled Scene

Rendering

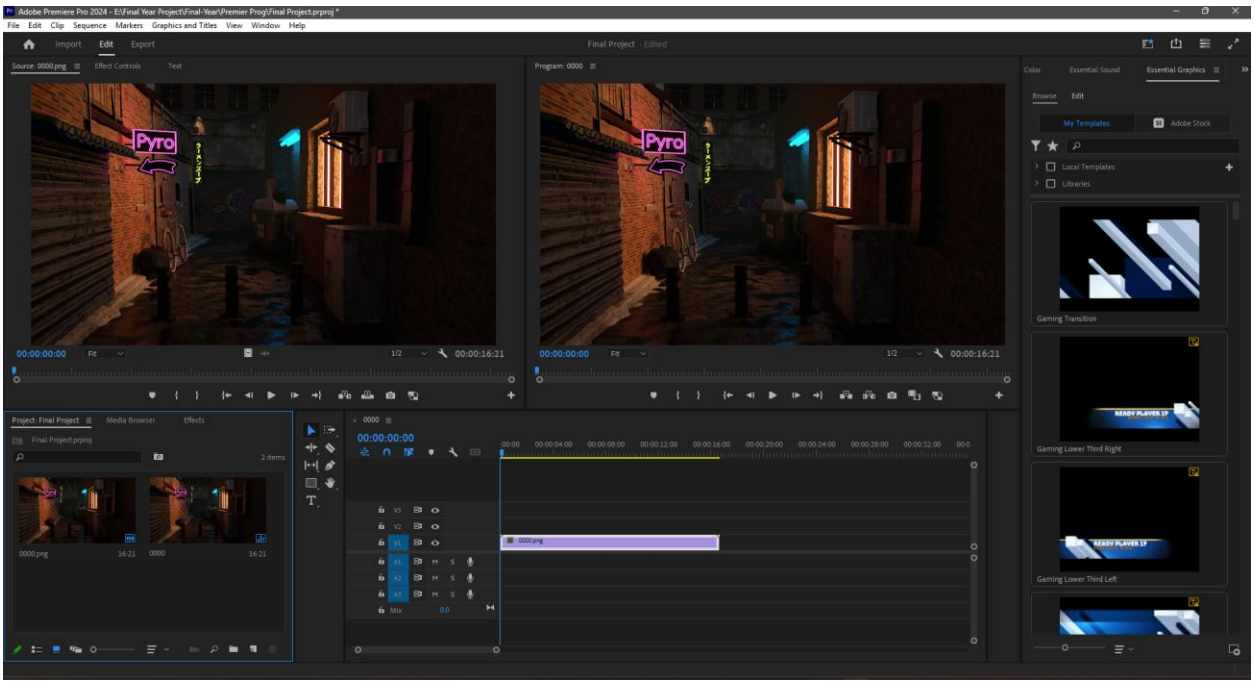

Figure 25 Rendering 1

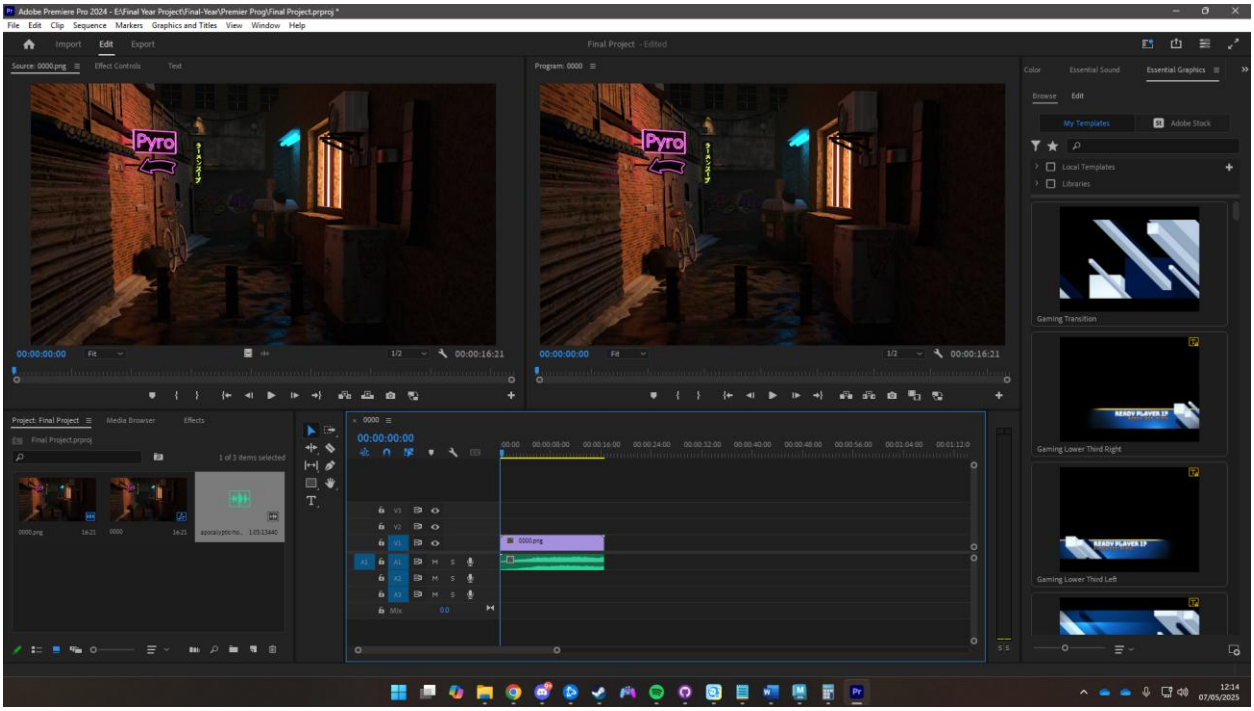

Figure 26 Rendering 2

Composing and Editing

Resources

Software to be used

Maya

Used to model the character, animation, lighting, texturing, and rendering.

Blender

Used for environment modelling, box mapping the environment, along with scene setup with the help of minor assets that were downloaded.

Adobe Photoshop & Substance Painter

Used for storyboard, texturing of assets.

After Effects

Used for creating post-production effects.

Premiere Pro

Compiling footages from the scenes, adding ambient music, exporting the final output.

Websites Used

Shutterstock, Istock, Pinterest, ArtStation

Used for references, mood boards.

Quixel Bridge

Used to download assets

Polyhaven

Used to download HDRI

System Requirements

Drawing Tablet

Wacom Intuous

Desktop

Processor: AMD Ryzen 5 7600x

Operation System: Windows 11

Ram: 32 Gigabytes

GPU: Nvidia RTX 4070 Ti Super

User Testing and Finding

Survey Form Results

A total of 11 questions were asked, names and emails were not revealed in the documentation, but follow-up questions were asked personally. The survey was provided after the responders watched the video.

Survey Link: https://forms.gle/tDqngRJbHQZE6XjS6

The results are as follows

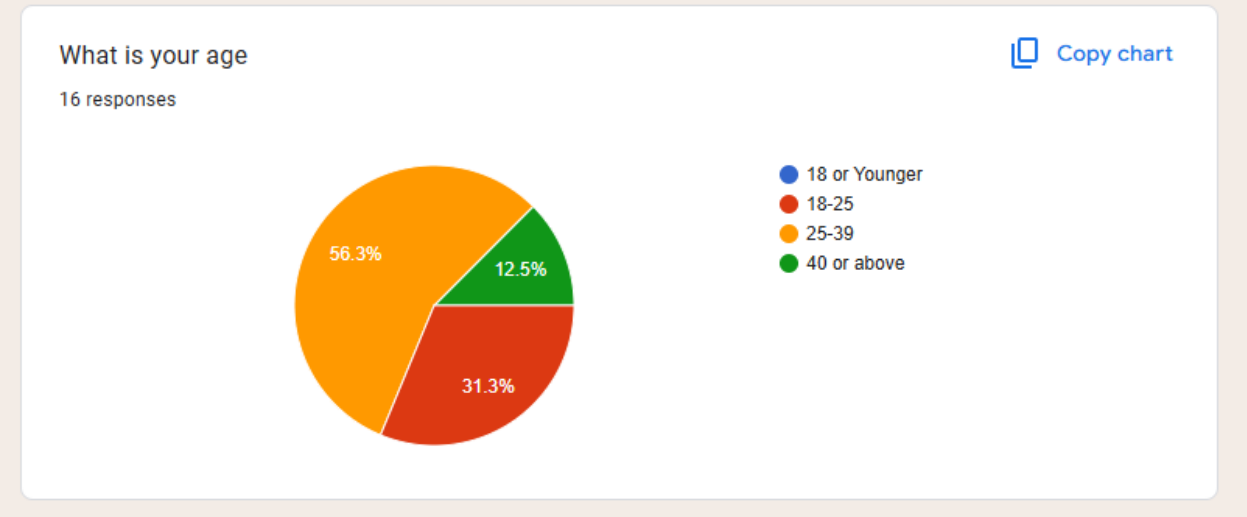

Figure 27 Age Group

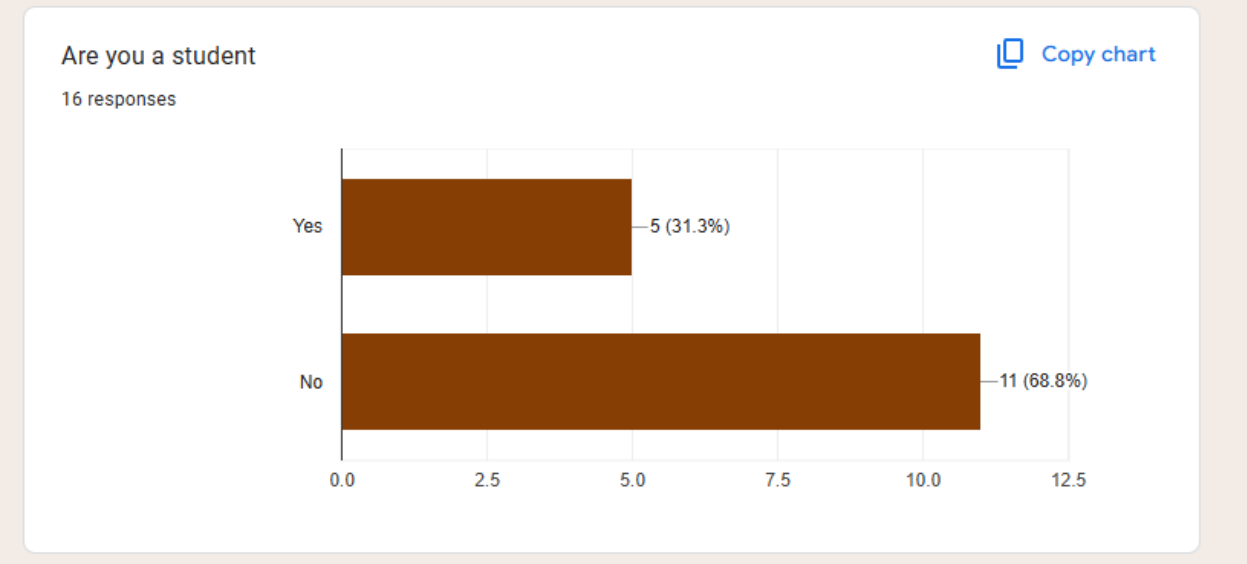

Figure 28 Occupation Status

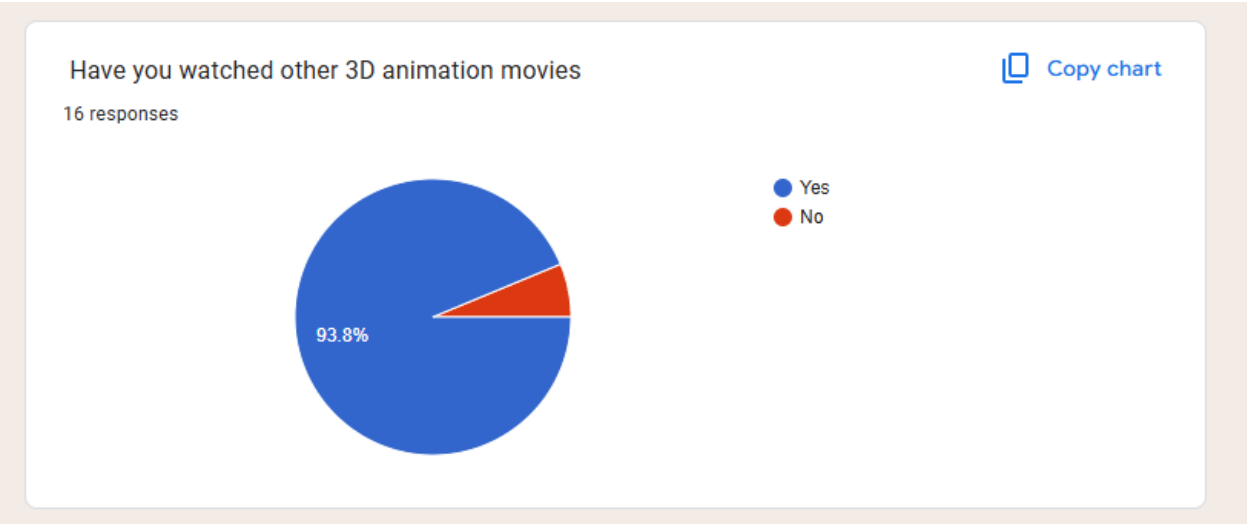

Figure 29 Have they watched other 3D animation movies

Figure 30 Appreciation of 3D animation

Figure 31 Ambience Rating

Figure 32 Asset Rating

Figure 33 Animation Quality

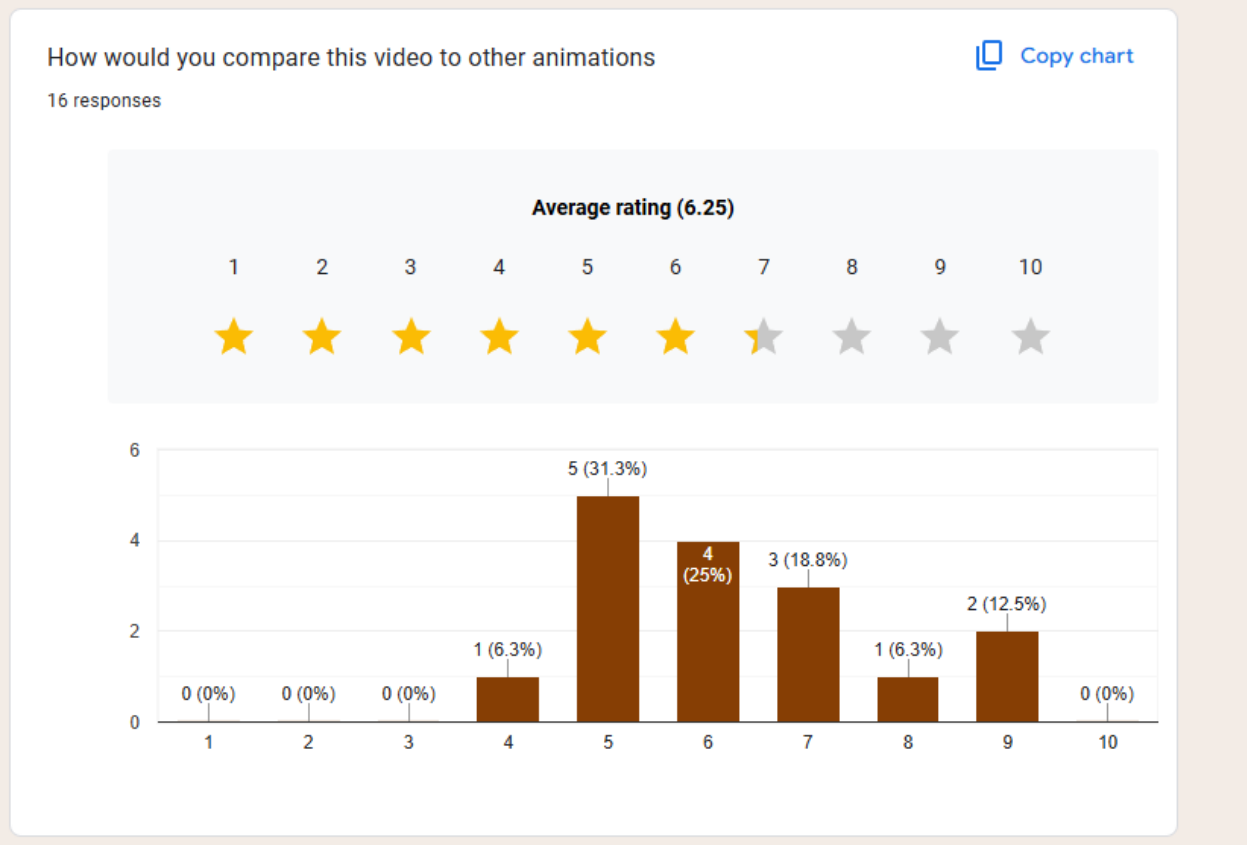

Figure 34 Comparison

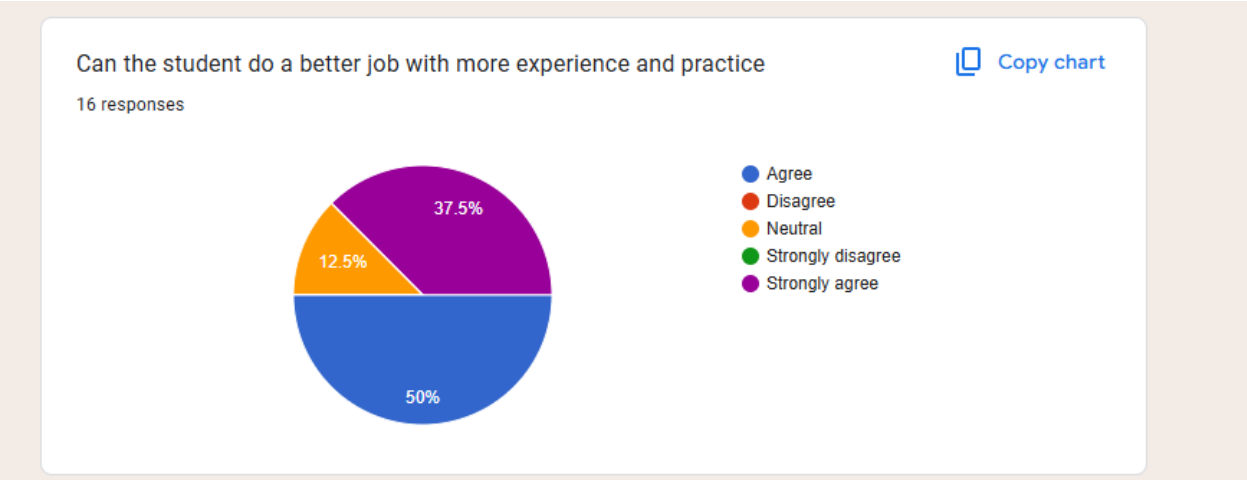

Figure 35 Student Skill

Third Party Testing

Eva De Roy (Exports officer at Bundesamt für Wirtschaft und Ausfuhrkontrolle)

Figure 36 Eva De Roy

The animation looks neat. The aesthetics and mood of the environment look good, and the environment is visually pleasing too. The animation could use some more work as it looks a bit jank. Overall, the effort put in can be seen and it is very commendable. Can’t wait to see what the student will create once he starts working in the industry.

Prajit Man Shrestha

Figure 37 Prajit Man Shrestha

The environment and the lighting are mind-blowing. The video in general is properly made. However, the animations were very choppy, and better work could be done on it.

It can be seen that the student has spent a lot of time on making the environment and lighting look good.

Anna Kasayuke (Project manager)

Figure 38 Anna Kasayuke

Having known the student for a long time now, it can clearly be seen he has been lazy with some aspects of the 3D animation. The animation could've been done much better. However, the environment, lighting, and ambience have hit the spot and look visually stunning.

Conclusion

The coursework turned out to be a long and gruelling task. Problems turned up every now and then, but as challenging as the coursework was, it was also equally as fun to work on. The student learned quite a bit from this assignment.

A lot of personal growth was seen, new skills picked up. The third-party review was harsh but also fair as a lot more work could’ve been done.

This has prepared the student to how the industry works and is prepared for the challenges to come.

References

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Adding glow to objects (no date) *YouTube*. Available at: https://www.youtube.com/watch?v=WTFj9B6eFgk (Accessed: 07 May 2025).