

**UNIVERSITI POLY-TECH MALAYSIA**

**DARKER THAN BLUE**

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## Abstract

*Darker Than Blue* is a 3D animation short film that explores the psychological experience of despair through the eyes of a young woman named Ella. This project was created with the goal of increasing awareness about mental health concerns and inspiring empathy and understanding for those who suffer in silence. The animation serves as a tool to create deeper talks about mental health, which is increasingly important topic in today's culture. The production followed a disciplines animation workflow which included design of concepts, scriptwriting, storyboarding, 3D modelling, rigging, animation, rendering and post – production. Major results show that abstract visual metaphors such as drowning, darkness and physical isolation can effectively express the weight and complexity of depressed symptoms. The project demonstrates how animation may effectively depict mental health narratives. *Darker Than Blue's* symbolic and sensory approach not only promotes awareness, but also contributes to larger discourses about emotional vulnerability, providing viewers with a meaningful and introspective experience.

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# 1 INTRODUCTION

## 1.1 Introduction

Depression is a mood disorder that causes persistent feelings of sadness, emptiness and loss of joy. It differs from the mood fluctuations that people regularly experience in life. Major life events such as the death of a loved one or the loss of a job can trigger depression more. Depression can affect adults, teenagers and even children (Goldman, 2025). The common features of all the depressive disorders are sadness, emptiness or irritable mood accompanied by somatic and cognitive changes that significantly affect individual's capacity to function (P.Chan, 2023).

The citation that was cited previously indicates that the theme or topic that I have poured forth is related to depression. A combination of two media specifically 3D animations and a bit more graphic 2D animation will also be used to execute this brief animation project. The title for this animation short film is "Darker Than Blue". Why is it blue? Because blue is commonly connected with sadness, despair and a person's sad emotions. As a result, the title name picked is consistent with the story's intended message that the darker blue colour represents not just sadness but depression.

This story will be animated in first view person to give viewers a different experience. This short animation short film also depicts the narrative of a woman who sees unusual moves towards her housemate and is astonished and saddened to discover that her friend has been suffering from depression without her knowledge.

Basically, this short animation short film will be totally in 3D animation with a few additions of 2D animation visuals to provide an extra dimension to this animation. As usual, the animation will be separated into three stages which are pre – production, production and post – production. To make this short animation film a success, several software will be used such as Autodesk Maya. Procreate, Adobe Substance 3D Painter and Adobe Premiere Pro.

## 1.2 Background Study

Depression can affect everyone, regardless of age. However, studies have shown that symptoms typically occur in the late teens to mid – 20s. However, it is increasingly being diagnosed in older adults. In fact, there is no single “common” age for depression because risk factors and onset times vary greatly between individuals.

Depressive disorder also known as depression is a common mental disorder. It involves a depressed mood or loss of pleasure or interest in activities for long periods of time. Depression is different from regular mood changes and feelings about everyday life. It can affect all aspects of life including relationships with family, friends and community. People who have lives through abuse, severe losses or other stressful events are more likely to develop depression. Women are more likely to have depression than men (World Health Organization, 2023).

Let me use an example from another film that discusses depression or mental health. “A Quiet Voice”. This anime film from Japan explores bullying, social isolation, redemption and communication issues. In this film, Shouko Nishimiya, a deaf teenager girl, is shown being bullied by a boy named Shoya Ishida in elementary school. As a result, he becomes socially isolated, experiences significant social anxiety and thinks about committing suicide. This film is also regarded as a very impactful and emotionally evocative picture that explores themes of self – acceptance, empathy and personal growth leaving a lasting impression on its audience. It depicts the problems of human relationships as well as the route to personal growth and healing with uncommon sensitivity.

Lastly, the concept of emotion and psychology serves as the foundation and aim of my animation project, “Darker Than Blue”. This short animation film is presented in first person view to give viewers new experience. In short, this narrative is about Luna, who notices peculiar behaviour from her housemate, Ella and is shocked to discover that Ella is silent not because she is sulking at her, but because Ella has faced a more serious condition which is depression. This short animation film will also be created in 3D animation with some visual elements drawn from 2D animations.

## **1.3 Problem Statements**

Depression is a common mental health illness defined by chronic sadness, loss of interest and a wide range of other emotional, physical and behavioural symptoms. This is distinct from typical mood swings and feelings about daily life. People suffering from depression may have interrupted sleep and changes in appetite. They also may experience feelings of low self – worth. Thought of death and hopelessness about their future. It causes a lot of people to feel invisible, alone or invalidated. In a way that is often impossible to express through words, shorts animation can emotionally and physically capture the inner experience of despair, bridging the gap between comprehension and empathy.

### **1.3.1 Depression is Misunderstood and Invisible**

Depression is not always visible. In fact, some people go to considerable measures to disguise the signs of depression from those around them, disguising the problem so successfully that they may not even recognise it. This is why hidden depression is sometimes called “smiling” depression. Someone with hidden depression may seem content, happy, and productive. Their work life and relationships, from all outward appearances, seem fine. But inwardly, in quiet spaces that aren’t easily shared, depression symptoms are affecting their thoughts, feelings, and physical health. And those symptoms aren’t going away (Stanborough, 2021).

### **1.3.2 Challenges in Showing Depression Symptoms in a 3D Animation Short Film**

It was enormous challenge for me because portraying an emotion in a cartoon character is really difficult because 3D characters do not have feelings like humans. Not only that, but depression is also includes inner experiences such as hopelessness or emptiness which are difficult to observe and visualise. It takes a lot of expertise and works to create animated expression and posture that effectively communicate these complex emotions.

## **1.4 Project Objectives**

Project objectives are important for successfully completing a project. The content for this project must be simple and meaningful to viewers in order to reach their hearts and minds. This short animation film will be based on a real – life scenario that is plot and connected to the problem statement, which is that of a person suffering from depression. The followings are some of my project objectives for conveying crucial content to audiences through this 3D animation project.

### **1.4.1 To Raise Awareness About Depression Among Society**

Raising awareness helps to educate others about the symptoms, causes and effects on daily life dispelling myths such as depression being “just sadness” or a personal weakness. Misconception and misunderstandings of depression contribute to continuing stigmas about people living with the condition, the reasons it occurs and their willingness to seek care (Danielle, 2023). Additionally, greater awareness fosters understanding and empathy two qualities that are essential for helping people impacted also knowledge of depression.

### **1.4.2 To perfectly Combine Visuals and Storytelling to Maintain Audience Interest**

To increase and attract the audience’s interest, the animations must have visual metaphors capable of expressing internal states. Because my animation short film has no dialogue in it, a character’s body language, animation timing and setting should speak for itself. Furthermore, the characters in this animation should be expressive and emotionally relatable even in stylised form. To increase the audience’s mood based on the genre of the story, I must also employ appropriate colour and lighting as emotional tools.

## 1.5 Project Scope and Limitation

### 1.5.1 Project Scope

The project scope would describe the entire amount of work needed to make a short film animation about depression in both 2D and 3d. With only 2 to 3 minutes, I am hoping that this animation short film can be emotionally impactful in raising awareness and understanding of depression. As previously said, this short animation short film will be created using a combination of the two types of animation mediums, specifically in 3D animations with a few touches of 2D animation.

This project's scope also covers concept development, scriptwriting and storyboard creation. It also includes designing characters and backgrounds, creating 2D and 3D animations and seamlessly integrating them throughout the film. In addition to the animation, the project contains narrator voice, sound effects, background music and final editing such as colour grading and subtitles.

The finished deliverables will consist of the entire short film, a promotional teaser or trailer and even a poster. However, the project excludes activities such as live – action filmmaking, sequel development and film distribution and promotion. The table below shows the final output for the specification of animation short film.

Specification	Description
Resolution	1920 x 1080 Pixel
Video Format	MP4 in x264 codec
Duration	2 – 3 Minutes
Type of Content	3D + 2D Animation Short Film

**Table 1: Project Scope Specification**

## **1.5.2 Project Limitations**

The following are some of the project limitations that I will face when finishing this type of short animation film such as time constraints, budget limitations and level of skill.

### **1.5.2.1 Time**

Making an animated movie takes a long time. Even if it is only a short story. With a 10 to 14 weeks deadline, I may need to simplify sequences, reduce animation complexity or cut the script in order to stay on track because after all, I need to complete my animation within the time limit provided. Furthermore, rendering 3D sequences in particular might take hours for just a few seconds of video, slowing down the whole process.

### **1.5.2.2 Software/Hardware Limitation**

In order to create a 3D animation, a laptop must have a powerful hardware because if the hardware cannot handle rendering or animation software properly, it will interfere with my schedule and slow down progression. This is why 3d animation requires a powerful computer with a good graphic card, plenty of memory and quick processing. Also, certain professionals' animation software might be very expensive, therefore I have to rely on free or limited software that may lack some capabilities.

### **1.5.2.3 Level of Skill**

Since that I am still learning animation techniques, I will probably face technical problems with modelling, rigging, animating and even compositing. Creating both 2D and 3D animation takes distinct skill sets and it will be tough for me to get good results. I may also struggle with more sophisticated tasks, such as genuine character movement and emotional narrative. Without enough experiences, the overall quality and effect of the film may not match my original idea.

## 1.6 Project Requirement

To successfully complete an animation project, it is necessary to collect and specify a comprehensive set of project requirements. Project requirements are essential to the effective completion of an animation project since they serve as the basis for all subsequent phases, from creative development to final delivery. The following are the hardware and software requirements that I will use to finish this animation project.

### 1.6.1 Software Requirement

Software requirements specify exactly what the software should perform and it will assist the animator or project objectives. They act as a guide throughout the project, preventing confusion and ensuring that everyone understands what is planned. The following is a list of software that will be used by the animator using both hardware that have been explained before to complete this animation project.

Software	Functions
Procreate	It is used to make drawings such as character design and storyboards. It can also be used to make animations.
Autodesk Maya	A 3D software that uses to create all 3D characters, including modelling, rigging, lighting and even animation.
Adobe Substance 3D Painter	A software that adds realistic textures and materials to 3d models making them look detailed and lifelike.
Adobe Premier Pro	A video editing software that uses to cut clip, add effects and produce polished final films.

**Table 2:** *Software Requirements*

## 1.6.2 Hardware Requirement



**Figure 1:** ASUS TUF Gaming A15 Laptop

Description	Specification	Purpose
Central Processing Unit (CPU)	AMD Ryzen 7 7435HS	Support rendering and multitasking in 3D software
Graphic Processing Unit (GPU)	NVIDIA GeForce RTX 4050	Speeds up rendering and real – time 3D previews.
RAM	32 GB	Stores data for smooth 3D modelling and animation
Storage	500GB	Saves all 3d files and software

**Table 3:** Laptop Requirements



**Figure 2:** An iPad and Apple Pencil

The diagram above shows the Ipad, which will be helping me during the pre – production and production stages. This Ipad will mainly be used during the drawing process of character design and 2D animation.

## 1.7 Conclusion

In conclusion, depression is invisible to the eye, but heavy on the soul. Behind every silent struggle is a story waiting to be heard. Depression is treatable. Overcoming depression involves a combination of self – care, lifestyle adjustments and professional’s support. By creating this animation short film, I hope that those who suffer in silence are not alone. Not only that, but I hope that the objectives provided will reach the hearts of every viewer, as awareness can save a life. Being more sensitive allows it to demonstrate empathy and provide early support to persons suffering from depression. Even in the darkest moment, there is hope. Healing begins with compassion, connection and the courage to reach out.

Furthermore, I believe that this initiative will serve as a training and testing ground for me before I pursue a more general subject and job. No matter if it is in the field of 2D or 3D animations, it is crucial for expanding my knowledge and enhancing the abilities that I have acquired.

## 2 LITERATURE REVIEW

### 2.1 Introduction

A literature review discusses and analyses published information in a particular subject area. Sometimes the information covers a certain time period. A literature review is more than a summary of the sources and it has an organizational pattern that combines both summary and synthesis. For scholars, the depth and breadth of the literature review emphasize the credibility of the writer in his or her field. Literature reviews also provide a solid background for a research paper's investigation (WashU Libraries, 2025).

So, the focus of this section will be comprehending and studying the topic to be conveyed. To improve the evidence in online searches, some already studied information and articles are provided. The objectives of this literature review are to examine current research and creative works on depression and 3D animation.

### 2.2 Research Topics

Depression is a mood disorder that causes a persistent feeling of sadness and loss of interest. The American Psychiatric Association's Diagnostic Statistical Manual of Mental Disorders, Fifth Edition (DSM-5) classifies the depressive disorders into Disruptive mood dysregulation disorder, Major depressive disorder, Persistent depressive disorder (dysthymia); Premenstrual dysphoric disorder and Depressive disorder due to another medical condition. The common features of all the depressive disorders are sadness, emptiness, or irritable mood, accompanied by somatic and cognitive changes that significantly affect the individual's capacity to function (P.Chan, Hasan Arif, 2023).

Depression can happen to everyone, regardless of age or gender. Although there is a lot of knowledge or awareness regarding depression and anxiety, there are still many individuals believe that depression or anxiety is simply a mood swing problem. Untreated depression or anxiety can lead someone to death, which is as horrible and evil as the condition itself. Thus, this study discusses the potential of 3D animation short film as a medium for expressing and representing the psychological and affective aspects of depression. This 3D animation short film is trying to communicate the deep emotional problems that are frequently connected with depression disorder by merging psychological research with visual storytelling.

## 2.3 Related Works

This section will provide examples and a brief explanation of a few films that focus on mental health conditions like anxiety and depression. These films were picked because they are related to my idea for a 3D animation short film project called Darker Than Blue. Some of the films chosen were A Silent Voice, Inside Out 2 and Soul.

### 2.3.1 Storyline

#### i) A Silent Voice



**Figure 3:** *A Silent Voice (2016)*

The story revolves around Shôko Nishimiya, a grade school student who has impaired hearing. She transfers into a new school, where she is bullied by her classmates, especially Shôya Ishida. It gets to the point where she transfers to another school and as a result, Shôya is ostracized and bullied himself, with no friends to speak to and no plans for the future. Years later, he epically sets himself on a path to redemption (Ariodito Koestoer).

What I like about this movie is that when the bully finally receives punishment for his bad behaviour, but sadly, due to the karma that occurred he begins to develop social anxiety, depression and even suicidal thoughts. His story shows how bullying has long – lasting effects on both the victim and the bully, exposing the importance of human connection, accountability and healing.

**ii) Inside Out 2**

**Figure 4:** *Inside Out 2* (2024)

As Riley tries to adapt to her teenage years, her old emotions try to adapt to the possibility of being replaced. Teenager Riley's mind headquarters is undergoing a sudden demolition to make room for something entirely unexpected which is new Emotions. When it turns out that these new emotions intend on completely changing Riley, Joy and the emotions are determined to stop them. As the years go by, new emotions begin to enter the headquarters of a young female who has travelled a far way. Along the way, the emotions that are already feel that they are getting kicked out of control and sight of the life of the young female who is growing up (RECB3).

For your information, the film Inside Out released by Disney Pixar has 2 related series. The reason why I chose Inside Out 2 is because the main character is now an adult and already gone through puberty, so for her to control sudden emotions and stress is not the same as when she was a child in Inside Out. So, this story really affected me when Riley tries to adapt to her new emotions to avoid becoming too anxious. Have an anxiety reflect the real fears young people face about fitting in, being good enough or meeting expectations, making the emotional tension very real.

## iii) Soul



*Figure 5: Soul (2020)*

Soul follows Joe Gardner, a middle-school music instructor and jazz pianist with aspirations of performing professionally. Just as he receives his big break, an unexpected event rips his soul from his body and transports him to the "Great Before," a mysterious location where souls develop identities before arriving on Earth. There, Joe meets 22, a soul who has never desired to live, and the two of them set off on a trip that tests their conceptions of passion, purpose, and what life is all about. Soul cover's themes of fulfilment, identity, and enjoying the little pleasures in life through poignant moments and soulful music.

For me, what I like about this story is that it actually touches on themes related to mental health. The film shows that if a person struggles to achieve what they want and uses all their energy and effort, it will be in vain when they believe their life only has value if they succeeded in something big. This kind of thinking actually leads to exhaustion, frustration or a feeling of emptiness. And what really affected me was when the character 22, who actually has a lot of emotional struggles that make her afraid to explore something new or just because of her low self – esteem, anxiety and even depression.

### 2.3.2 Character Study



**Figure 6:** Coraline (2009)



**Figure 7:** Design by Alexander Pushai (Behance, 2015)



**Figure 8:** Doll Character from the South Korean Drama (It's Okay to Not be Okay, 2020)

### 2.3.3 Environment Study



*Figure 9: Messy Room Background Reference (Pinterest)*



*Figure 10: Living Room Background Reference (Pinterest)*



*Figure 11: Inside a Train Background Reference (Pinterest)*

## 2.4 Analysis

Criteria/Movie	A Silent Voice (2016)	Inside Out 2 (2024)	Soul (2020)
<b>Main Theme</b>	Bullying, Mental Health, Social Isolation	Emotional Growth, Adolescence, Identity Development	Purpose, Self – Worth, Meaning of Life
<b>Protagonist's Goal</b>	Shoya Ishida seeks redemption by making apologies with Shoko Nishimiya, a deaf girl he used to bully.	Riley, now a teenager and her emotions must deal with the complexities of new feelings and identity changes.	Joe Gardner wants to achieve his dream of becoming a professional jazz musician.
<b>Tone</b>	Melancholic, Emotional, Redemptive	Humorous, Whimsical, Heartfelt	Philosophical, Soulful
<b>Conflict Type</b>	Internal and Interpersonal	Internal and Psychological	Existential and Internal
<b>Narrative Style</b>	Realistic portrayal of emotional trauma and growth.	Journey through the mind with metaphorical storytelling.	Dual – world narrative where it blends realism with fantasy.
<b>Ending Type</b>	Bittersweet but Hopeful.	Hopeful and Uplifting.	Reflective and Hopeful

**Table 4:** Storyline Analysis

Criteria/Movie	Caroline (2009)	Design by Alexander Pushai (Behance,2015)	Doll Character (Korean Drama, 2020)
Character Design	Large Head, Thin Limbs, Realistic Clothing	Long Neck, Small Limb, Large Head	Large Eyes, Pale Skin
Character Emotion	Curious, Brave, Anxious	Happy, Cheerful, Innocent	Mysterious, Solemn, Distant
Environment Design	Handcrafted World	Bright, Playful, Fantasy	Dark, Vintage
Animation Style	Stop Motion	3D Stylized animation	Stop Motion
Rendering Quality	Tactile, Textured Lighting	Smooth, Soft Light Rendering	Detailed, Heavy Shadow
Tone	Dark Fantasy	Fun	Creepy but Cute
Theme	Reality and Illusion	Joy, Imagination	Isolation, Fear

Table 5: Character Analysis

Criteria/Movie	Messy Room (Reference 1)	Living Room (Reference 2)	In a Train (Reference 3)
World Type	Realistic, Personal	Realistic, Domestic	Realistic, Public
Environment Style	Stylized Realism	Cinematic	Anime Style
Colour Palette	Cold Blues	Cool, Low Contrast	Warm Sunset Tones
Details & Textures	Messy, Soft and Sharp	Detailed, Textured	Clean and Smooth
Lighting	Strong Natural Light	Mixed Ambient	Strong Directional Sunlight
Interaction with World	Emotional Storytelling	Story – Driven Setting	Atmospheric

Table 6: Environment Analysis

## 2.5 Discussion

Through the comparison of *Soul* (2020), *Inside Out* (2026) and *A Silent Voice* (2016), together with accompanying character and environment analysis, this study brought to light the many ways animation expresses meaning, emotion and theme. Each production takes a unique approach whether through the honest portrayal of personal hardships, the metaphorical journey of adolescence or the thoughtful search for meaning demonstrating how narrative style influences audience connection. The investigation of character design and environmental factors focused on how dimensions, textures, lighting and colour palettes generate instinct moods and storytelling effects. By balancing creativity with an awareness of accepted industry procedures, these discoveries not only demonstrated the creative spectrum seen in other animations but also influenced the project's own trajectory.

## 2.6 Conclusion

In conclusion, depression and other mental health conditions are serious and complicated conditions that impact individuals of all ages, particularly those in the current generation. Young people nowadays suffer a unique combination of external stresses such as academic pressure, environment fear and job instability as well as internal challenges such as self – esteem, anxiety and identity. However, today's youth is more open and eager to discuss about mental health, which is a vital step towards recovery. Even so, there is still a lot of people suffer in silence or do not receive the proper help. Talking openly about depression actually helps break the stigma. Even from movies that show about mental health can actually represent how mental health struggles can affect anyone.

This animation project will use a stylised yet expressive character design to portray powerful feelings like vulnerability, loneliness, and personal growth. The characters will have simple but impactful characteristics, allowing their emotions to be plainly conveyed without relying mainly on dialogue. The story will combine genuine experiences with inventive visual elements to address themes of emotional healing and self-discovery. Internal struggles will be portrayed not just through dialogue but through visual storytelling, allowing the audience to connect deeply with the characters' journeys. The surroundings will be based on reality, with intimate locations such as bedrooms, houses, and trains. These settings will use lighting, colour, and mood to depict the characters' internal states.

## 3 METHODOLOGY

### 3.1 Introduction

3D animation is the process of making three-dimensional, moving visuals using computer software. Unlike 2D animation, which uses flat graphics with only height and width, 3D animation incorporates depth, allowing actors and objects to move and rotate in a more realistic environment. This provides a sense of reality to scenes, improving their visual attractiveness (Render Forest, 2024).

Animation production needs to be carried out with three main important stages which are Pre – Production, Production and Post – Production. The animation pipeline is like whipping up a gourmet meal, but you're cooking cartoon magic instead of food. It's a three-course feast which is pre-production where you planning the menu, production where you cooking up a storm, and post-production where you adding those fancy garnishes (Joozi, 2025). Having a streamlined pipeline is vital to keeping an animation project on track and maintaining efficiency, quality and cost effectiveness while avoiding delays. To achieve this, finalizing pre – production and planning for production and post – production is required to set a detailed schedule with clear goals (Heyland, 2025).

### 3.2 3D Animation Pipeline

#### 3.2.1 Pre-Production

Pre – Production is an early stage of any project, including but not limited to creating storyboard commercials, music videos, short films and features films. This crucial step defines how efficient, organized and ultimately on how successful the production stage will be (Studio Binder, 2024).

**a) Ideation and Story Creation**

- Generating multiple ideas and selecting the best one.
- Crafting a basic plot structure such as beginning, middle and end.

**b) Concept Development**

- Designing key environments and settings.
- Gathering inspiration from films, art or photography.

**c) Character and Background Designing**

- Sketching multiple iterations of characters to define their appearance, proportions and expressions
- Developing turnaround sheets such as front, side and back view.
- Creating detailed environments where the story takes place.
- Considering perspective, lighting and depth for immersion

**d) Script Writing**

- Ensuring clarity in storytelling while leaving room for visual interpretation.
- Refining pacing, humour, drama and emotional beats.

**e) Storyboarding**

- Drawing rough panels representing key moments in each scene.
- Indicating camera angles.
- Adding notes on movement, timing and transitions.

**f) Animatic**

- Basic motion to simulate camera movement.
- Timing adjustments.
- Voice over and sound placement to sync with visuals.

**3.2.2 Production**

When an animation enters the production stage, it is time to put all of the concepts from pre-production into action. A number of procedures and methods are used to do this, some of which may involve modelling, texturing, and building a 3D design. During this stage of the production, lighting, visual effects, and other special effects may be added. This is a critical element of the process since animators must work diligently to ensure that the animation follows the original storyboard and concepts (RMCaD, 2024).

**a) 3D Modelling**

- Creating 3D objects, characters and environments using Autodesk Maya Software.
- Models are built from polygons, edges and vertices.
- Ensuring clean edge flow for smooth deformation.

**b) 3D Texturing**

- Adding colour, surface details and materials properties to 3D models.

**c) Rigging**

- Adding a digital skeleton to a 3d model for animation.
- Rigging includes bones, joints and controllers for animation.

**d) Animating**

- Bringing 3D models to life by using the rigs.
- Creating movements, expressions and actions frame by frame.

**e) Lighting**

- The placement and adjustment of virtual lights in a 3D scene.
- Enhancing visual clarity, atmosphere and emotional impact.

**f) Camera Works**

- The virtual cinematography of a 3D scene.
- Involving camera placement, movement and settings to frame shots effectively.

**g) Animation Rendering**

- Final step where the 3D scene is processed into video frames.
- This computes lighting, shadows, textures, and effects.

**3.2.3 Post-Production**

Post-Production is the stage after production when the filming is wrapped and the editing of the visual and audio materials begins. Post-Production refers to all of the tasks associated with cutting raw footage, assembling that footage, adding music, dubbing, sound effects, just to name a few. The post – production process is highly collaborative, across a few months to even a year, depending on the size and need of the project (Maio, 2024).

**a) Editing**

- Select best takes and arrange scenes logically.
- Adjust clip durations for flow.
- Adds cuts, fades or effects between shots.

**b) Colour Grading**

- Enhance visual tones and consistency.
- Fix exposure or white balance issues.

**c) Sound Mixing**

- Balance and polish audio elements.
- Set volumes for dialogue, music and SFX,

**d) Final Output**

- Embed titles, subtitles and credits.
- Setting the render with chosen format.
- Check the quality controls.

### 3.3 Conclusion

The animation pipeline is a well – planned procedure that takes an animated project from original concept to final delivery. It is divided into three essential phases which are Pre – Production, Production and Post – Production and each of those being critical to the project's success. Understanding and mastering the animation production pipeline is critical for producing high-quality animated products quickly. Each phase of the production process, from pre-production planning, storyboarding, and character design to layout, animation, and compositing, is important to bringing a story to life. Post-production activities such as sound design, music integration, and final rendering guarantee that the animation is polished and ready for release. Animators can avoid typical obstacles and complete projects on time by reducing the pipeline, encouraging clear communication, and establishing standardised workflows.

## 4 PRE – PRODUCTION

### 4.1 Introduction

When talking about pre-production, we're referring to the stages that precede the animation stage. More specifically, this comes before we get to the point where every scene of a video is illustrated, the voiceover is recorded, and before any kind of movement is designed at all. It consists of strategy, scriptwriting, style development, and storyboarding. But even though some of those stages may not be a surprise for those experienced in live-action development, the way they should be approached in animation is unique (Felippe, 2025).

Pre - Production of animation is so critical that it can make or break an animated movie. It establishes the overall vision of the project and sets the tone for the animation. It also helps the animators to understand what is expected of them and what they need to achieve (Kyle, 2023).

### 4.2 Ideation

**Title** : Darker Than Blue

**Genre** : Psychological, Thriller, Drama

Darker than Blue tells the story of Luna, a busy woman who notices strange changes in her housemate. At first, Luna thinks that Ella, her housemate, is just sulking at her for some reason, but soon, Luna discovers that Ella is actually suffering from depression.

### 4.3 Treatment

**Logline:**

When a busy woman fails to listen to her housemate's problem and realises too late on how heavy silence can be.

**Characters:**

Luna Blair - 24, a really busy corporate woman who finds out about her housemate problem.

Ella Ford - 24, is a close friend and housemate of Luna who in secret suffers from depression caused on by events from the past.

**Act One:**

Luna is a very busy woman who ignores Ella, her housemate, when she asks for time to talk with her. She feels bad at first since she needs to decline Ella's question because she is already late to work. When Luna returns home from work, she wants to check about Ella's situation in her room, but it is too late, so she decides to wait until the next morning.

**Act Two:**

Ella remained in her room the next morning. Luna thought Ella was still sleeping, so she went to work as normal. After getting home from work, she bumped into Ella in the living room, and Luna quickly asked Ella about yesterday but Ella rejected Luna's question by saying it was late, so just go to sleep and went immediately into her room without looking at Luna.

**Act Three:**

It had been three days, Luna felt guilt so she decided to apologise. When Luna returned home, she saw a figure and assumed it was Ella, so she continued to apologise to Ella. Ella ignored her and went to the kitchen, picking up a knife and appearing to want to stab herself. Luna instantly ran and shouted to stop her while her hand pressed the light switch. When the light was turned on, Luna was taken aback since the figure she had seen was gone. She ran into Ella's room and was stunned to see Ella knee hugging herself in the corner of her room.

## 4.4 Script

### DARKER THAN BLUE

Written by  
SHAFIQA MUSTAFFA

1.

FADE IN:

**1 BLACK SCREEN****1**

LUNA (V.O.)  
They say, you only see the signs  
when it is too late. But, the signs  
were never hidden. All it took was  
a moment, to truly see them.

CUT TO:

**2 INT. AT THE HOME - DAY****2**

Luna took the freshly baked bread from the toaster. She then  
hurried out of the house because she was late for work.

LUNA (V.O.)  
I still remember that morning when  
I was rush to go to work. But  
suddenly, Ella asked, if we could  
talk.

Ella standing in front of her room.

LUNA (V.O.)  
She didn't say it in a dramatic way  
or anything...

LUN (V.O) (CONT'D)  
Just, a quiet, 'Can we talk?'

LUNA (V.O.) (CONT'D)  
I was silent. I was already too  
late. So I told her perhaps after  
work. Without waiting for her  
response, I closed the door and  
just walked away.

CUT TO:

**3 INT. IN THE HOUSE - NIGHT****3**

Luna opened the door and saw the house was really dark.

LUNA (V.O.)

2.

Work ran late. I arrived home drained and Ella's door was closed. I assumed that she was sleeping.

Luna stood outside of Ella's bedroom.

LUNA (V.O. (CONT'D))  
For a moment, I stood outside her room. My hand was halfway to knocking then suddenly I heard someone was crying. I stopped.

LUNA (V.O. (CONT'D))  
I even don't know if I should just open her door or just, pretended not to hear it. So, I told myself maybe I could check on her tomorrow morning.

DISSOLVE TO:

4 INT. IN THE HOUSE - DAY

4

LUNA (V.O.)  
The next morning came and went. Still no Ella. I assumed she was still sleeping. I left for work as usual. I told myself not to overthink.

DISSOLVE TO:

5 INT. IN THE HOUSE - NIGHT

5

LUNA (V.O.)  
After I came back from work, I finally saw Ella. She was walking toward her room. I stopped her and asked about yesterday.

LUNA (V.O. (CONT'D))  
She just standing there and without even look at me, she just said 'it's late. Go to sleep.'

Ella went to her room and slammed the door.

LUNA (V.O.)  
Honestly, that hurts more than I expected.

3.

CUT TO:

**6 EXT/INT. INSIDE A TRAIN - DUSK****6**

LUNA (V.O.)

It's been three days. I have waited three whole days to finally say sorry and find out what happened to Ella.

LUNA (V.O.) (CONT'D)

I don't even know what I was waiting for. A better moment? The right words? There are no perfect words.

**7 INT. IN THE HOUSE - NIGHT****7**

LUNA (V.O.)

I came home ready to talk. Suddenly, I saw a figure near the kitchen and just assumed it was Ella. So, I just start apologizing.

LUNA (V.O.) (CONT'D)

She didn't say anything. Just walked to the counter and suddenly, she picked a knife. I froze.

The figure act like wanted to stab itself.

LUNA (V.O.)

My mouth moved before my feet did. My hand hit the light switch without thinking. But, when the light came on, she was gone.

LUNA (V.O.) (CONT'D)

No one was there.

LUNA (V.O.) (CONT'D)

I ran to her room. And there, I saw her. Knees to her chest, head down, shaking.

LUNA (V.O.) (CONT'D)

The moment I saw her like that, I knew that something was totally wrong. I missed all the signs. I was too busy, too tired and too late, to listen when it actually mattered.

4.

LUNA (V.O.) (CONT'D)  
She asked for help. But, I did not  
hear her.

8 EXT. IN THE SEA - NIGHT

8

Ella was drowning in the deep sea,

LUNA (V.O.) (CONT'D)  
Ella was drowning long before I  
noticed. A quiet, endless sea of  
thoughts, pulling her deeper, where  
no one could hear her scream.

LUNA (V.O.) (CONT'D)  
She wasn't just sad. She was  
trapped. And I, didn't even see the  
waves.

FADE OUT

THE END

### 4.5 Thumbnail

This project's thumbnails are made up of 4 pages and 62 panels, including the opening and closing sequence.

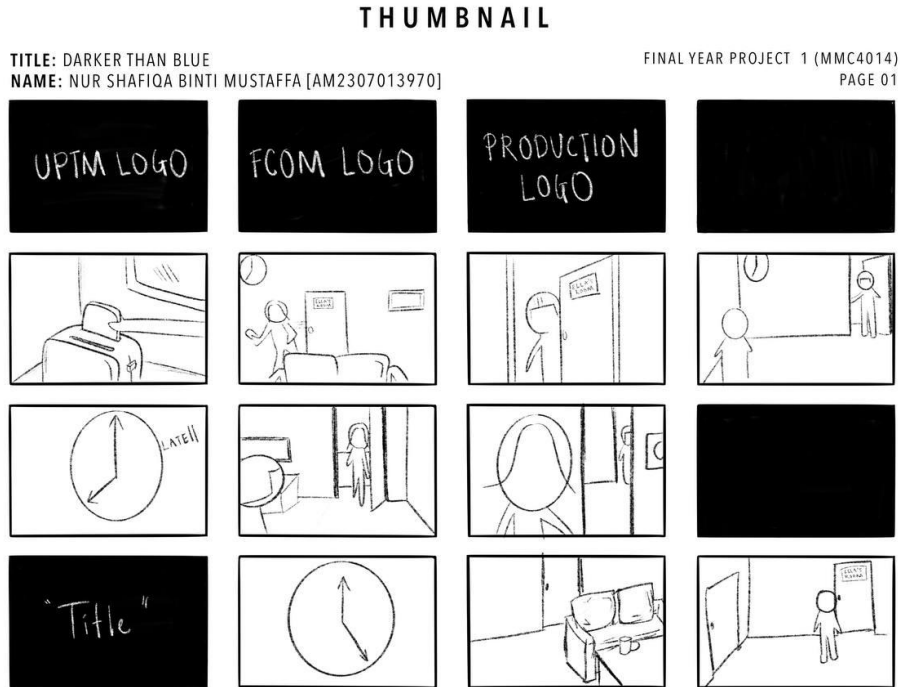


Figure 12: Thumbnail Page 1

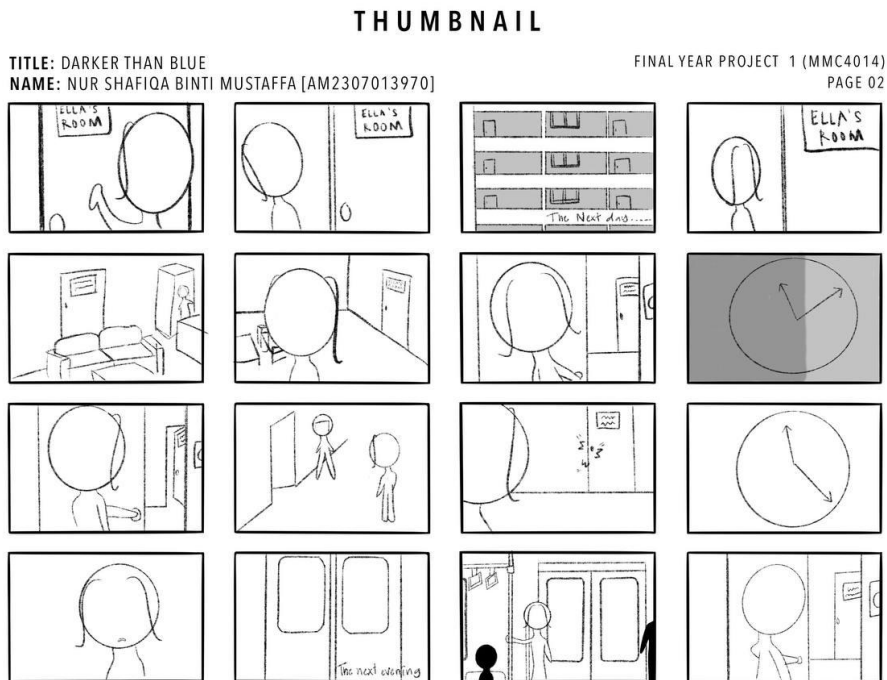


Figure 13: Thumbnail Page 2

THUMBNAIL

TITLE: DARKER THAN BLUE  
NAME: NUR SHAFIQA BINTI MUSTAFFA [AM2307013970]

FINAL YEAR PROJECT 1 (MMC4014)  
PAGE 03

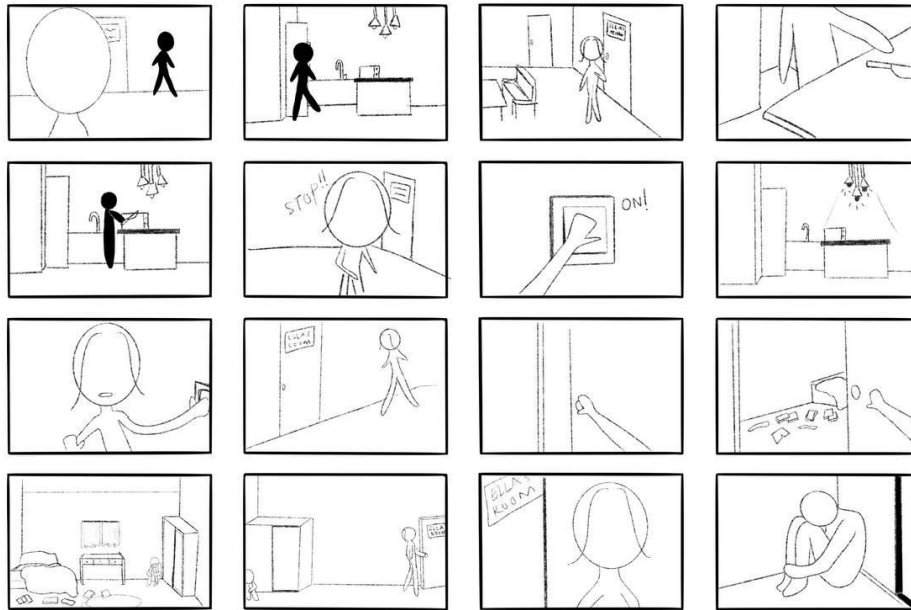


Figure 14: Thumbnail Page 3

THUMBNAIL

TITLE: DARKER THAN BLUE  
NAME: NUR SHAFIQA BINTI MUSTAFFA [AM2307013970]

FINAL YEAR PROJECT 1 (MMC4014)  
PAGE 04

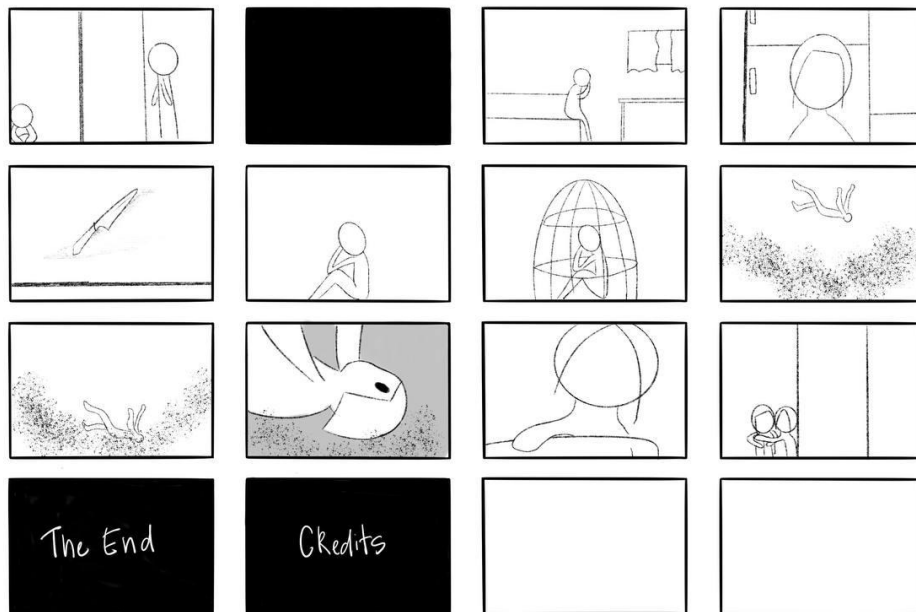


Figure 15: Thumbnail Page 4

## 4.6 Design

This section goes into detail on character development and environment design. To create a character, numerous procedures and phases are followed, including sketches of the character's concept design, colour scheme, facial expressions, poses, attire or accessories, and, most importantly, measurement and turnaround. This acts as a guide for each level of development, ensuring that each character has a consistent and standard design.

### 4.6.1 Character Design

#### I. LUNA BLAIR

#### CHARACTER DESCRIPTION

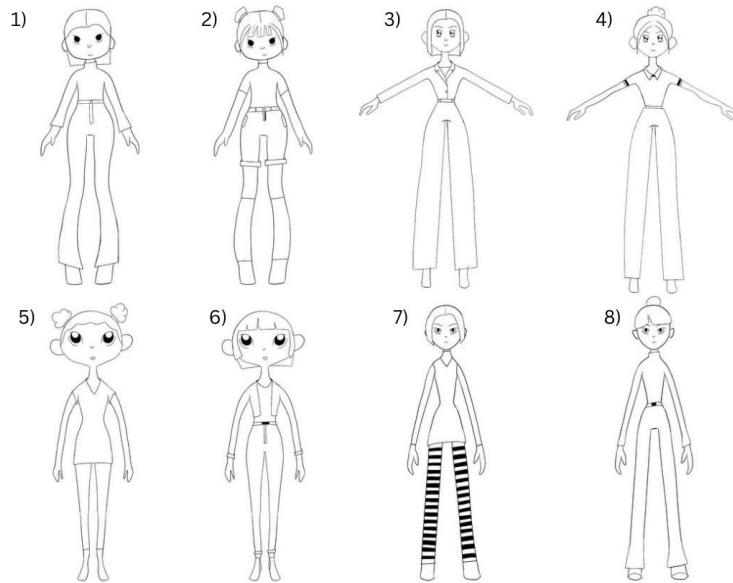
CHARACTER : LUNA

<b>NAME</b>	: Luna Blair
<b>AGE</b>	: 24 Years Old
<b>GENDER</b>	: Female
<b>ARCHETYPE</b>	: The Observant
<b>CHARACTERISTIC</b>	: A busy woman who is very aware of her surroundings.
<b>STORY</b>	: Luna Blair works for a huge firm. She often leaves work early and returns home late. She sometimes does not return home due to workplace issues. Luna notices that Ella may be sulking at her because she appears to be distancing from her. However, Luna discovers that Ella has been suffering from depression without her knowing.



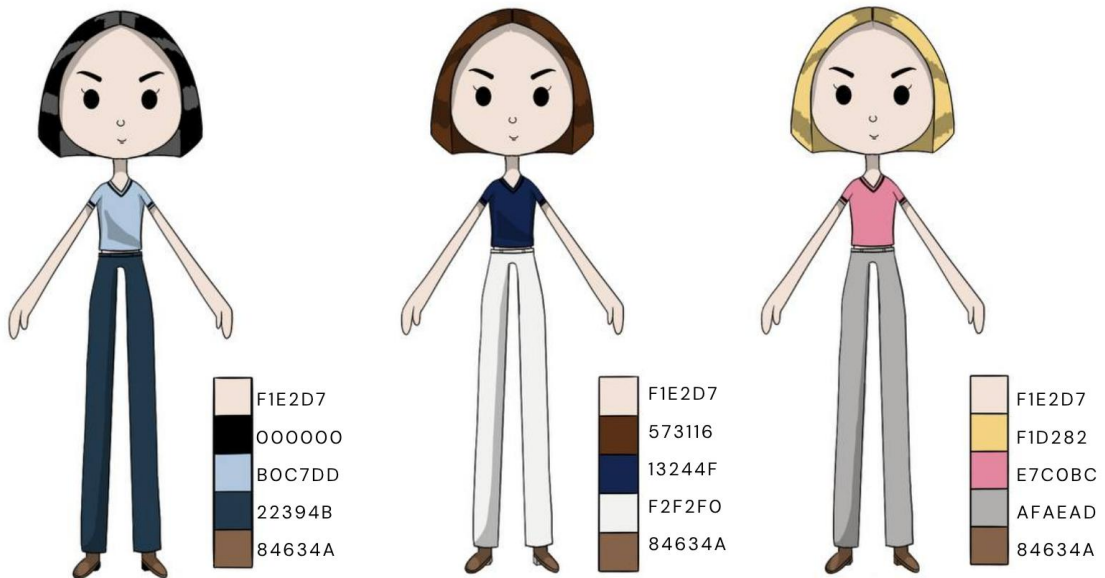
**Figure 16: Luna Character Description**

**CONCEPT DESIGN**  
CHARACTER : LUNA



**Figure 17: Luna Concept Design**

**COLOR SCHEME**  
CHARACTER : LUNA



**Figure 18: Luna Color Schemes**

### MEASUREMENT AND TURNAROUND

CHARACTER : LUNA

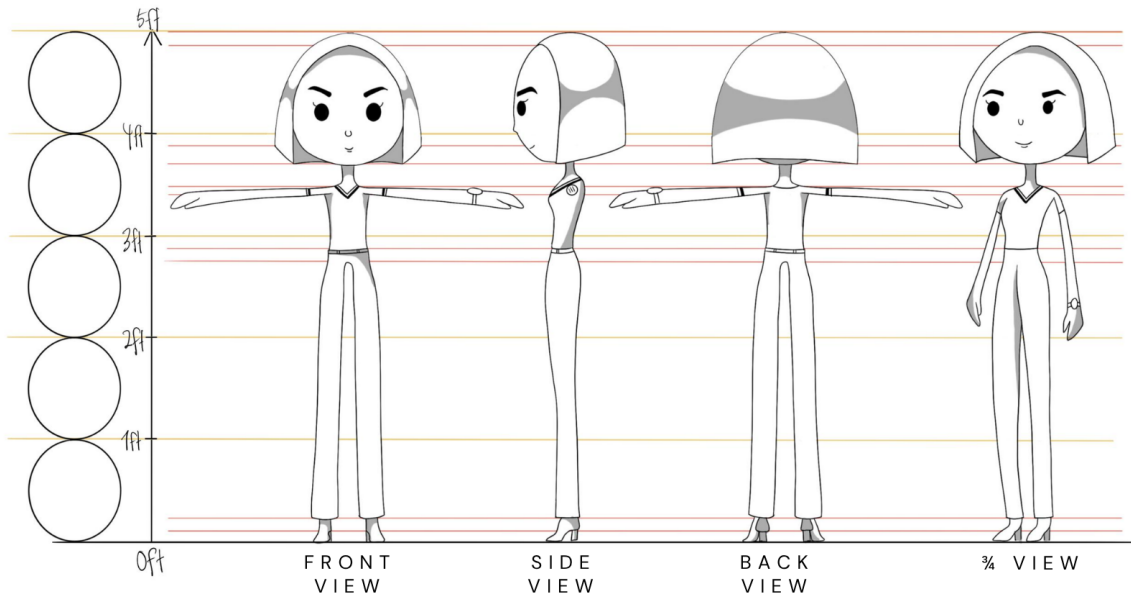


Figure 19: Luna Measurement and Turnaround

### ACTION POSES

CHARACTER : LUNA

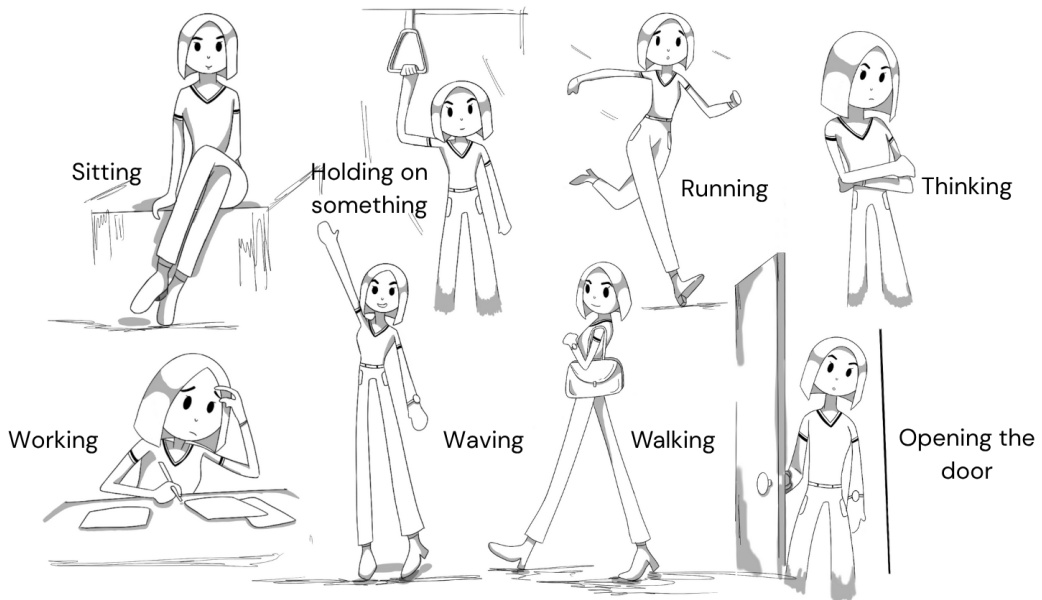
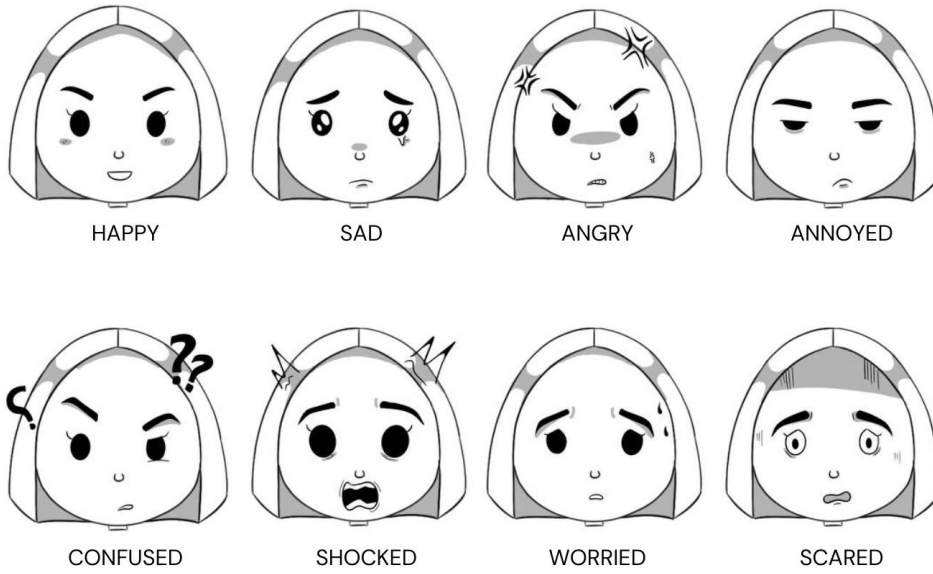


Figure 20: Luna Action Poses

### FACIAL EXPRESSIONS

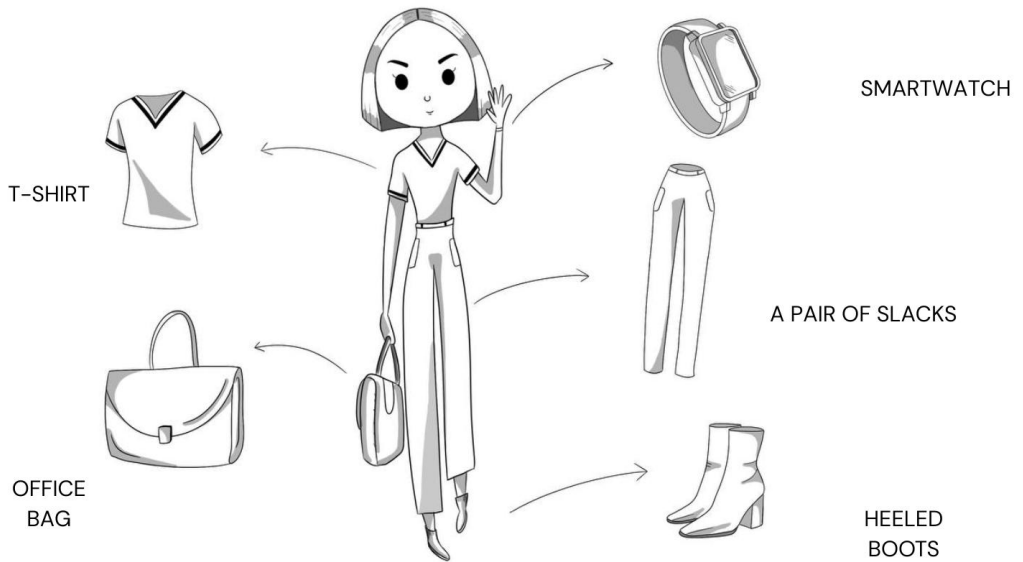
CHARACTER : LUNA



**Figure 21: Luna Facial Expressions**

### ACCESSORIES/ATTIRE

CHARACTER : LUNA



**Figure 22: Luna Accessories/Attire**

## II. ELLA FORD

### CHARACTER DESCRIPTION

CHARACTER : ELLA

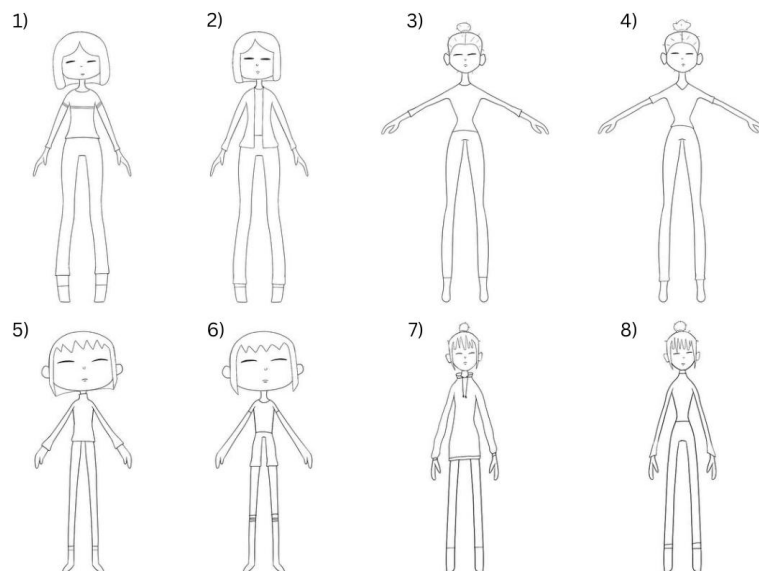
- NAME** : Ella Ford
- AGE** : 24 Years Old
- GENDER** : Female
- ARCHETYPE** : The Suffer, The Shadow
- CHARACTERISTIC** : A person who struggles with depression.
- STORY** : Ella Ford is a close friend of Luna Blair. They live together after both have established careers. Ella is a novelist who works entirely from home. Ella has experienced awful things, and because Luna is frequently away from home, Ella suffers from depression because she has no one who she can express her feelings to.



**Figure 23: Ella Character Description**

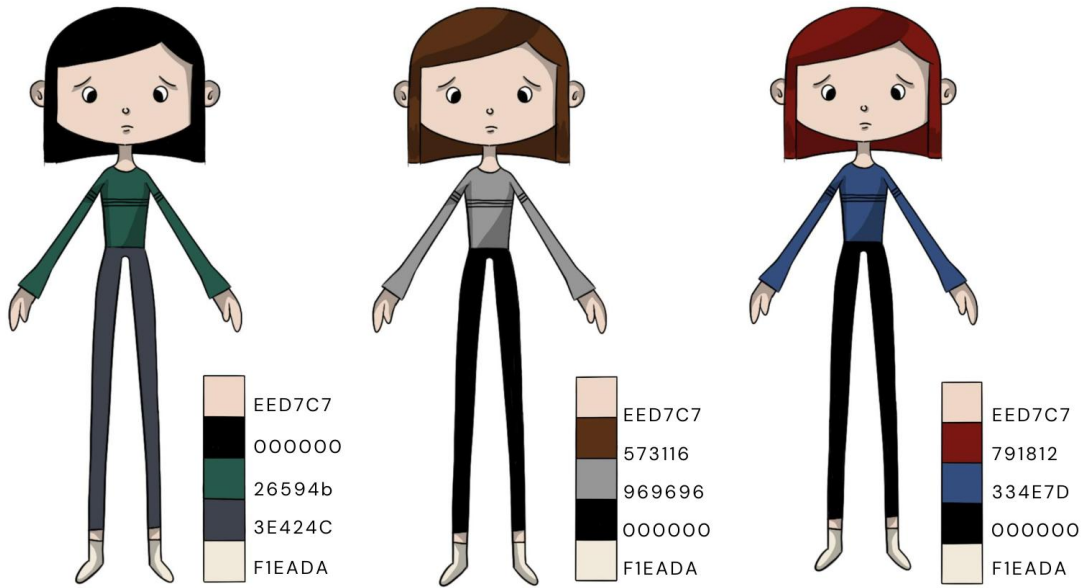
### CONCEPT DESIGN

CHARACTER : ELLA



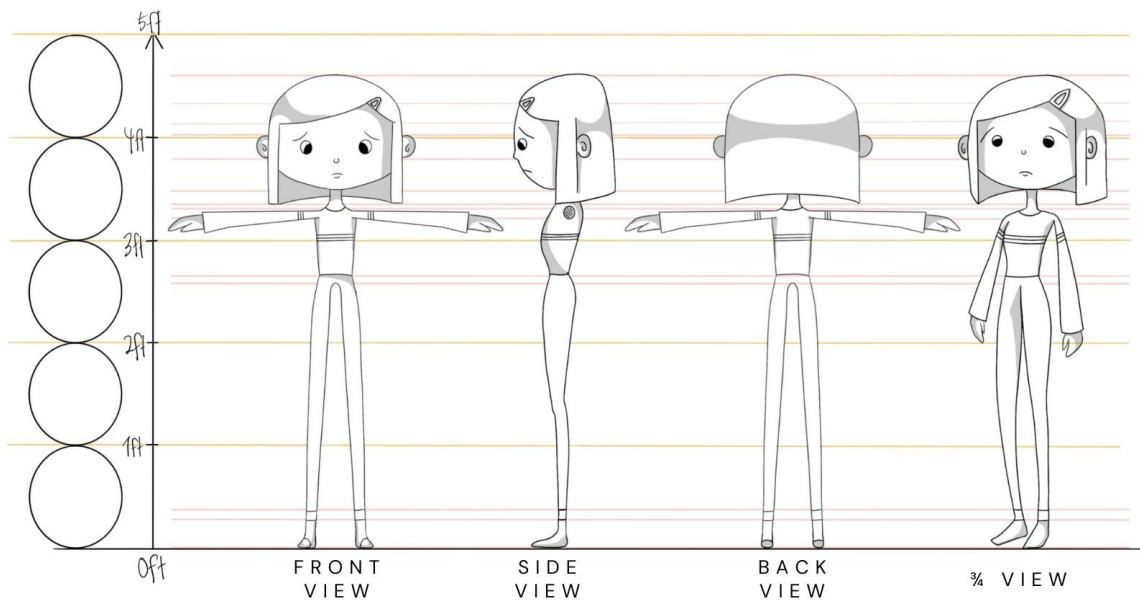
**Figure 24: Ella Concept Design**

**COLOR SCHEME**  
CHARACTER : ELLA



**Figure 25: Ella Color Schemes**

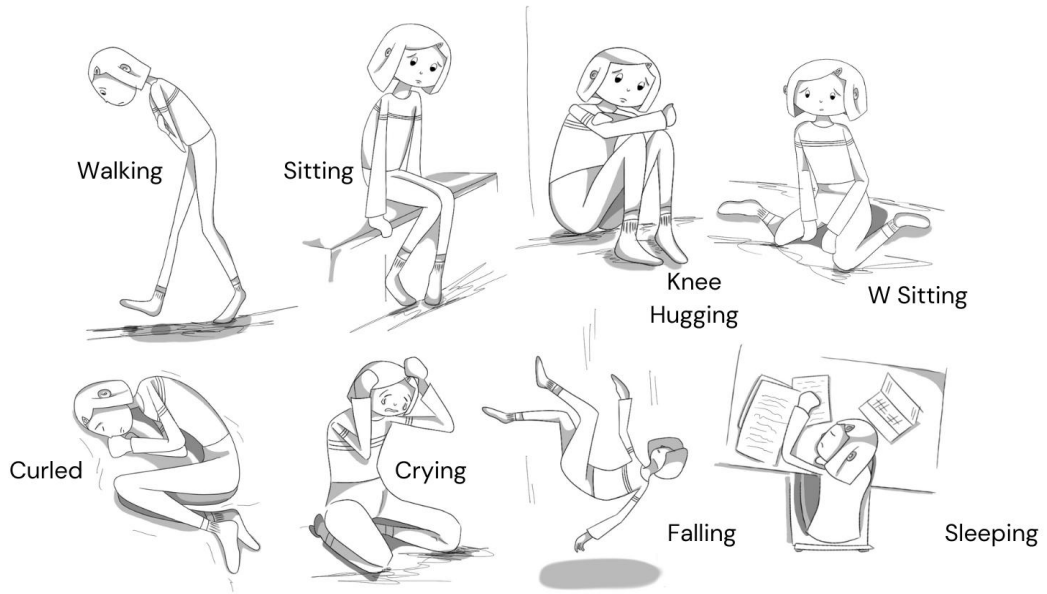
**MEASUREMENT AND TURNAROUND**  
CHARACTER : ELLA



**Figure 26: Ella Measurement and Turnaround**

**ACTION POSES**

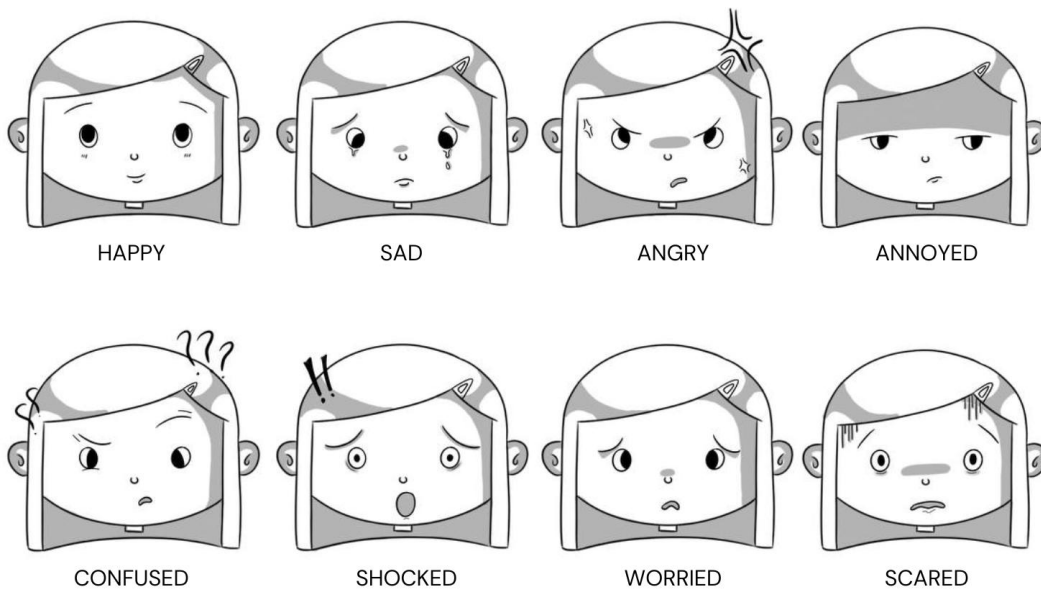
CHARACTER : ELLA



**Figure 27: Ella Action Poses**

**FACIAL EXPRESSIONS**

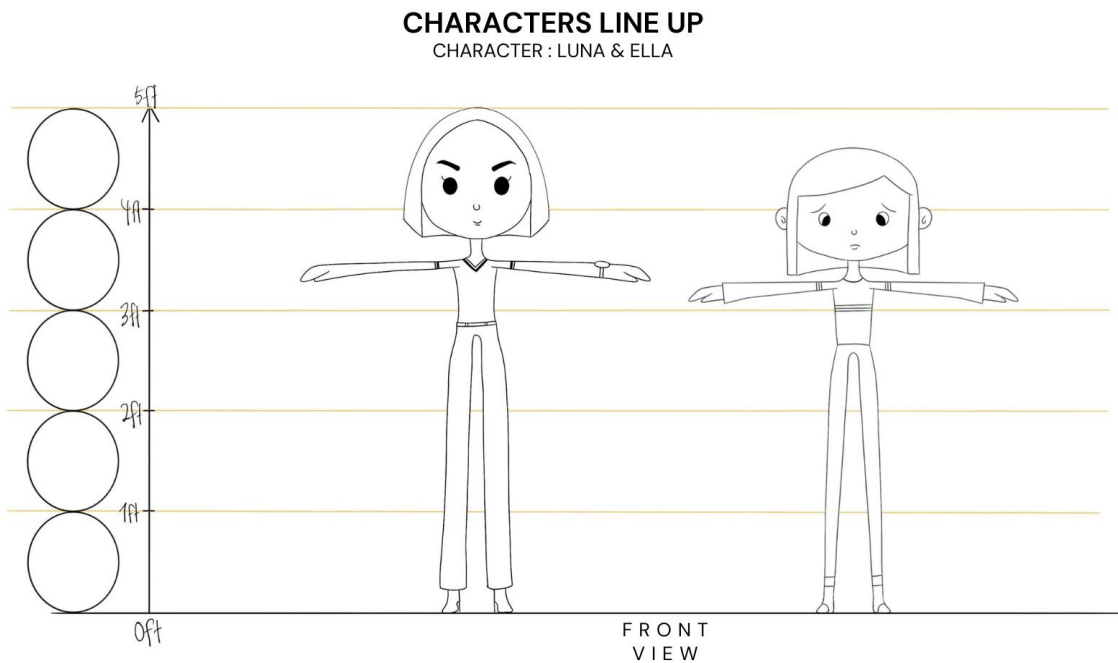
CHARACTER : ELLA



**Figure 28: Ella Facial Expressions**



**Figure 29: Ella Accessories/Attire**



**Figure 30: Character Line Up Luna and Ella**

### 4.6.2 Environment Design

Here are few of the concept designs for the environment.

#### ENVIRONMENT CONCEPT ART

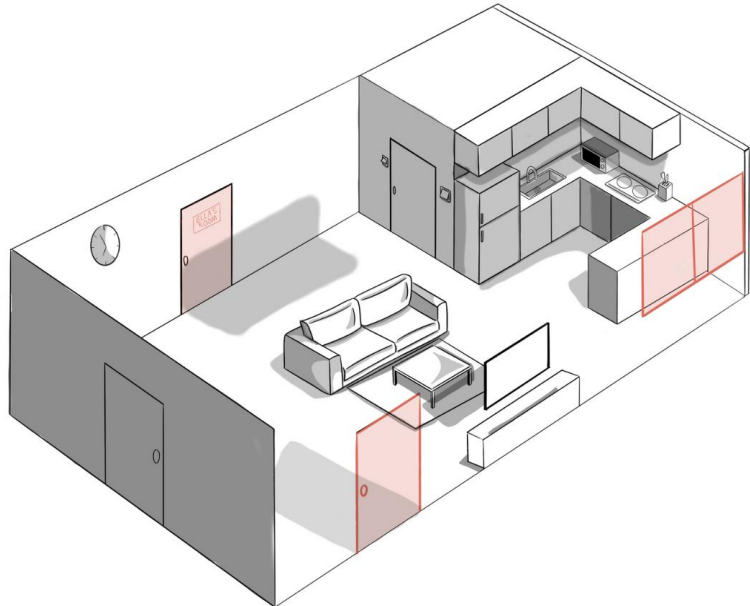
ENVIRONMENT: LIVING ROOM

##### TEXTURE COLOR CODE

- #F5F5F5
- #D3D3D3
- #A9A9A9
- #c99d70
- #333333

##### LIGHTING COLOR CODE

- #FFF3CD
- #AABACD



**Figure 31: Living Room Concept Art**

#### ENVIRONMENT CONCEPT ART

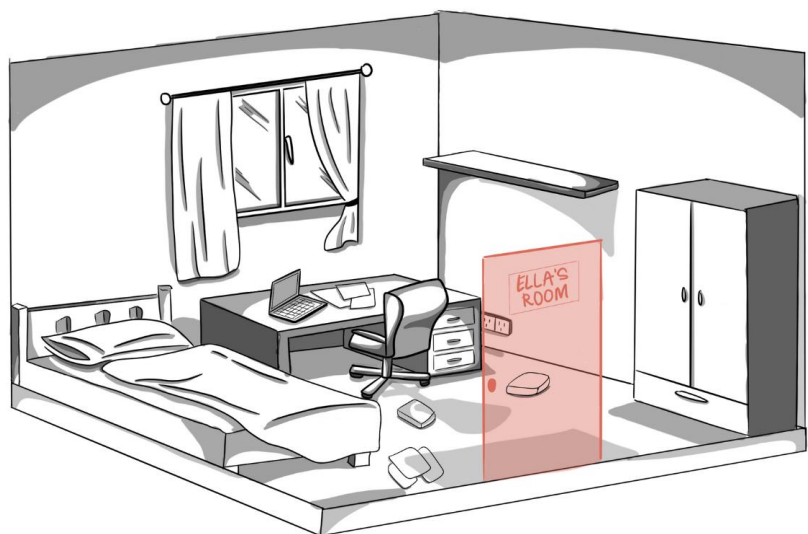
ENVIRONMENT: MESSY ROOM

##### TEXTURE COLOR CODE

- #FOEDED
- #E8E2D6
- #A89F94
- #4F4F4F

##### LIGHTING COLOR CODE

- #AABACD



**Figure 32: Messy Room Concept Art**

**ENVIRONMENT CONCEPT ART**

ENVIRONMENT: INSIDE A TRAIN

**TEXTURE COLOR CODE**

- #737373
- #000000
- #d3d3d3
- #6cceed

**LIGHTING COLOR CODE**

- #f0a371



**Figure 33:** *Inside a Train Concept Art*

### 4.7 Storyboard

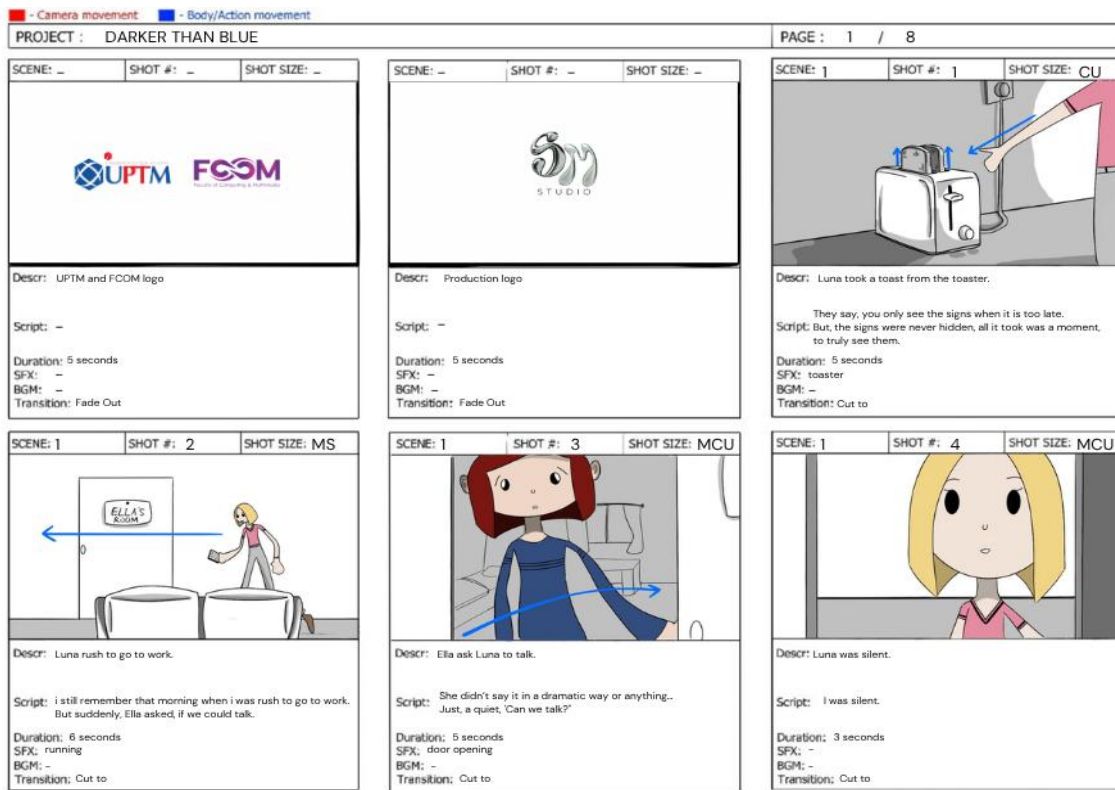


Figure 34: Storyboard Page 1

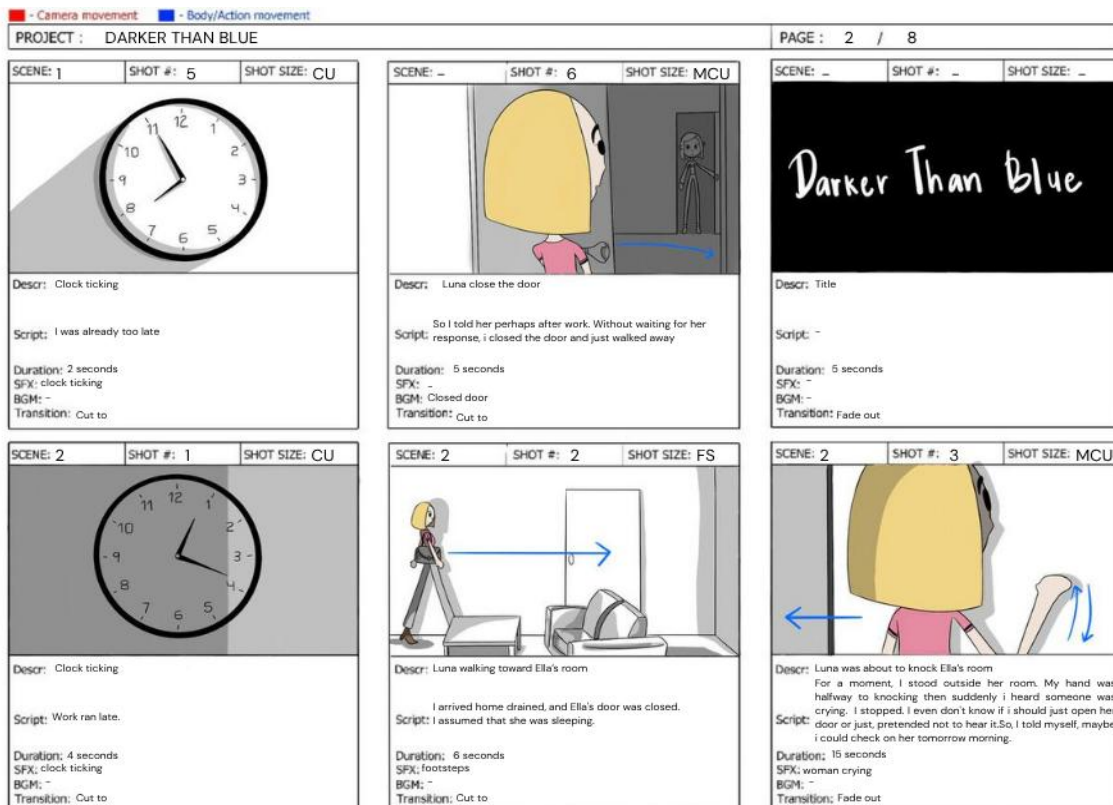


Figure 35: Storyboard Page 2

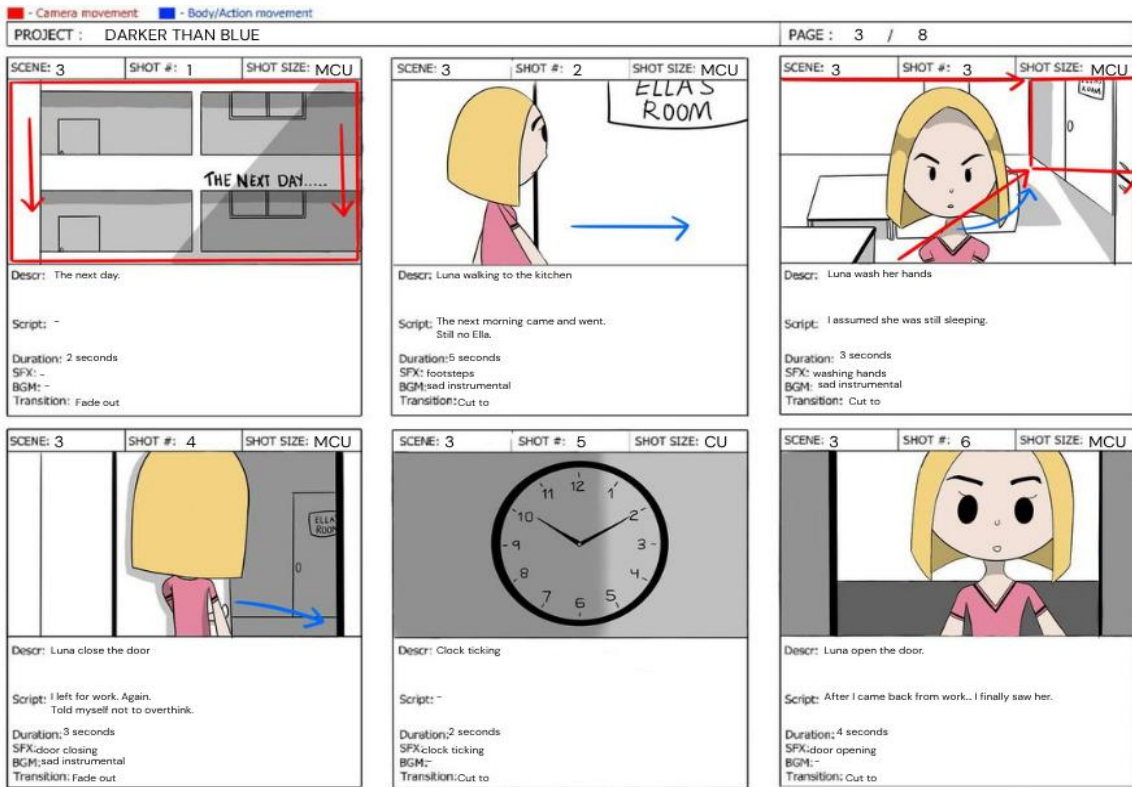


Figure 36: Storyboard Page 3

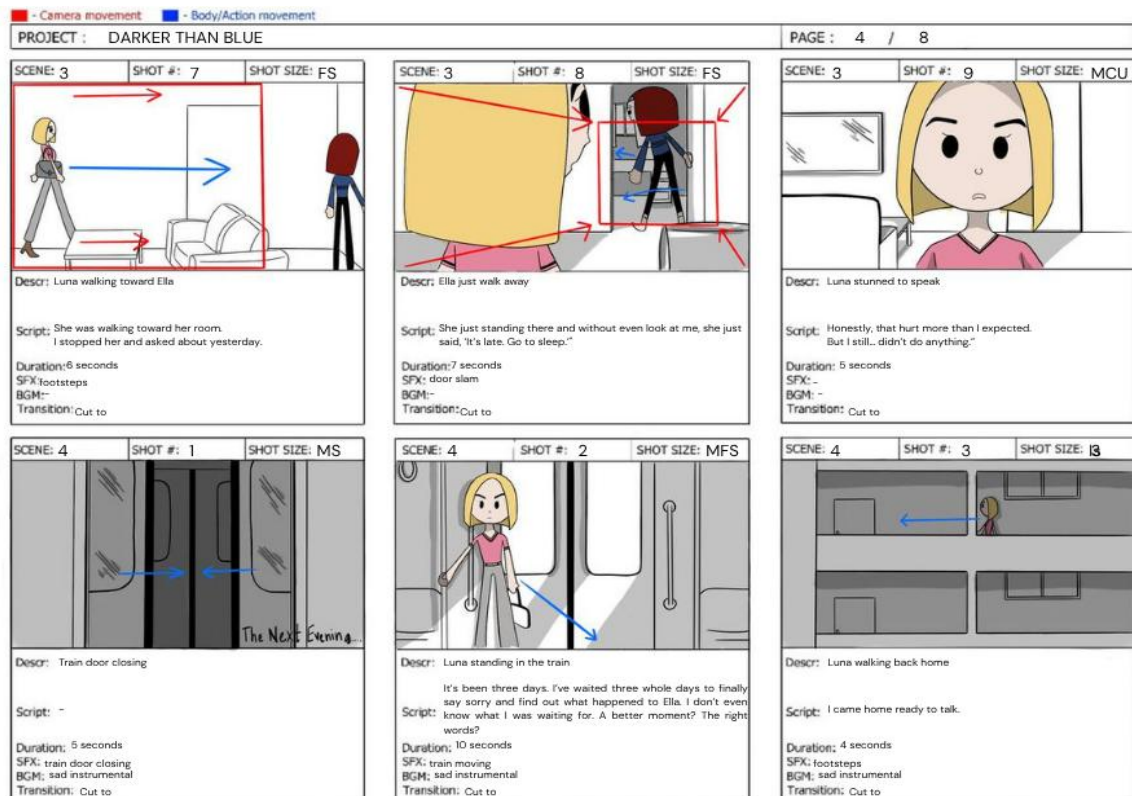


Figure 37: Storyboard Page 4

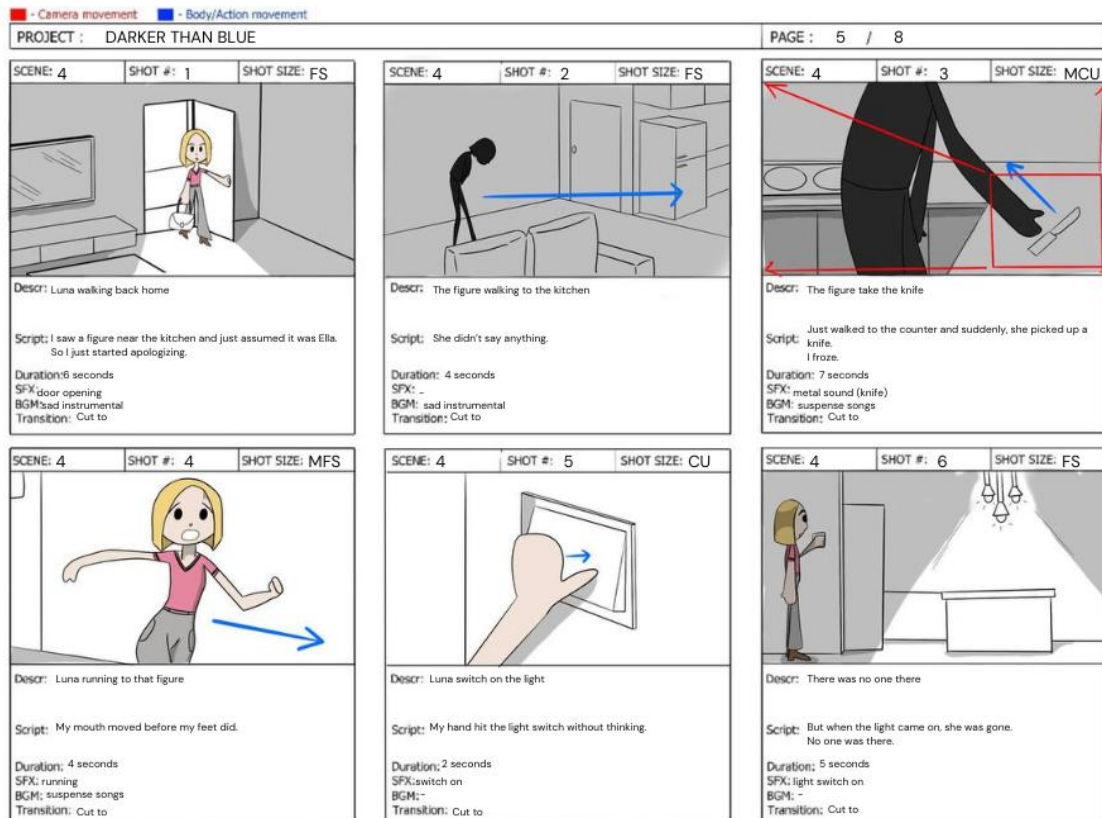


Figure 38: Storyboard Page 5

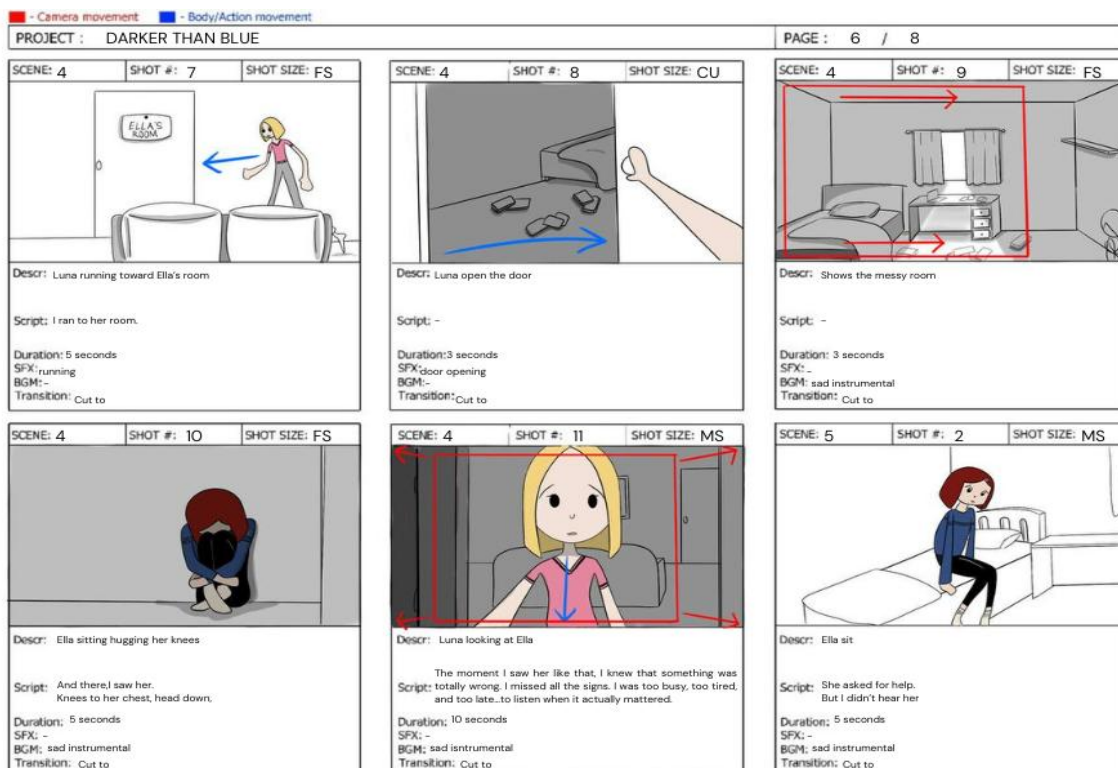


Figure 39: Storyboard Page 6

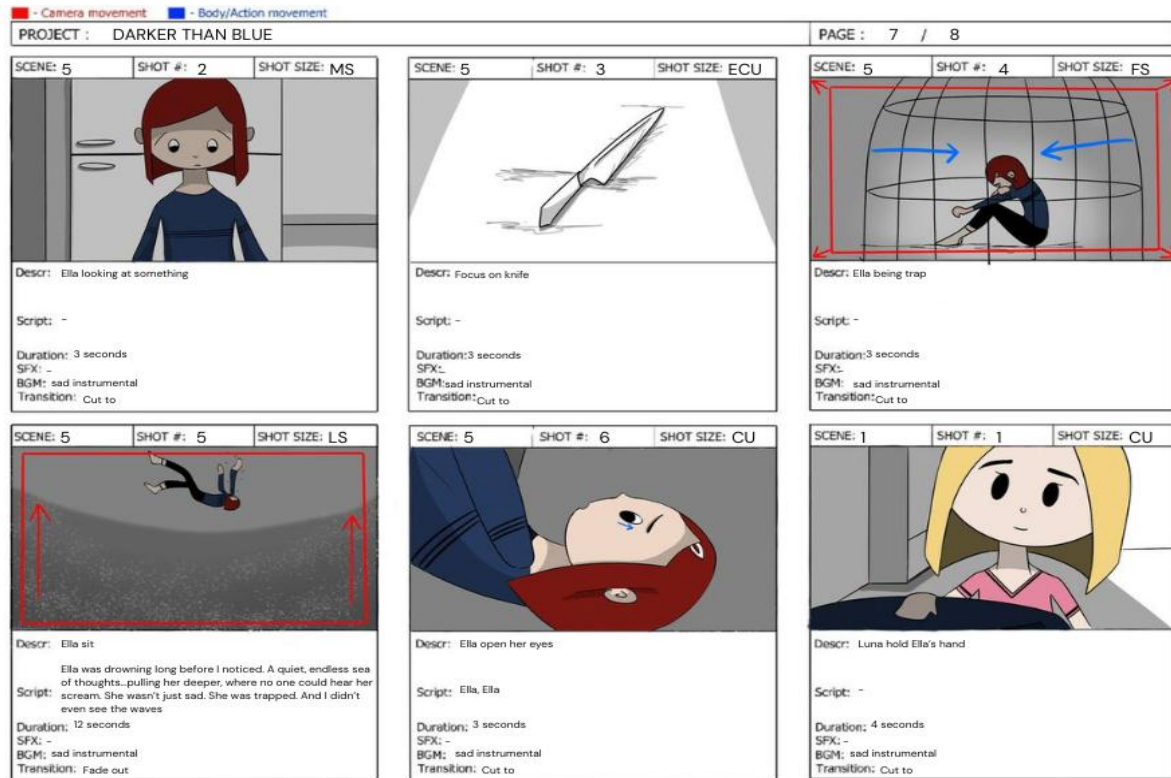


Figure 40: Storyboard Page 7

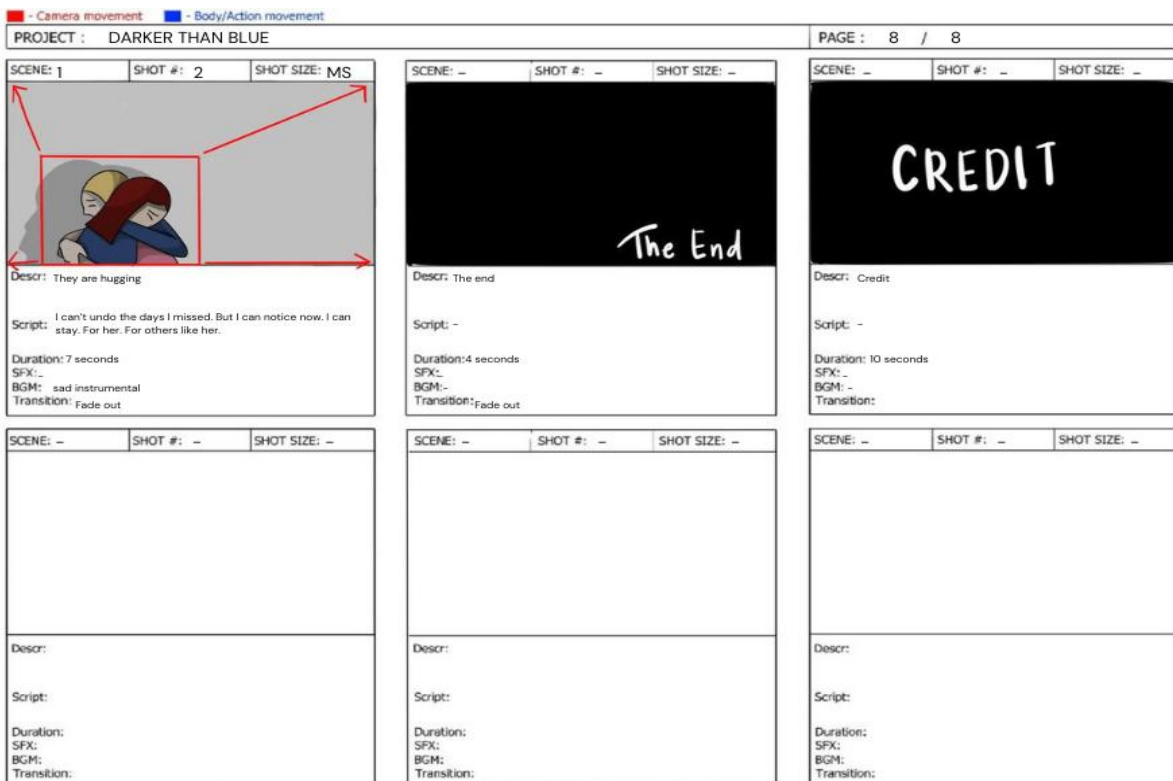


Figure 41: Storyboard Page 8

### 4.8 Animatic

An animatic is an animated storyboard. It's a rough cut of a sequence or film, sometimes with a soundtrack, that producers use to gain a sense of how a sequence would look. Animatics are used to assess timings and flow, and to see if the sequence conveys the correct information at the suitable tempo (Adobe, 2025).

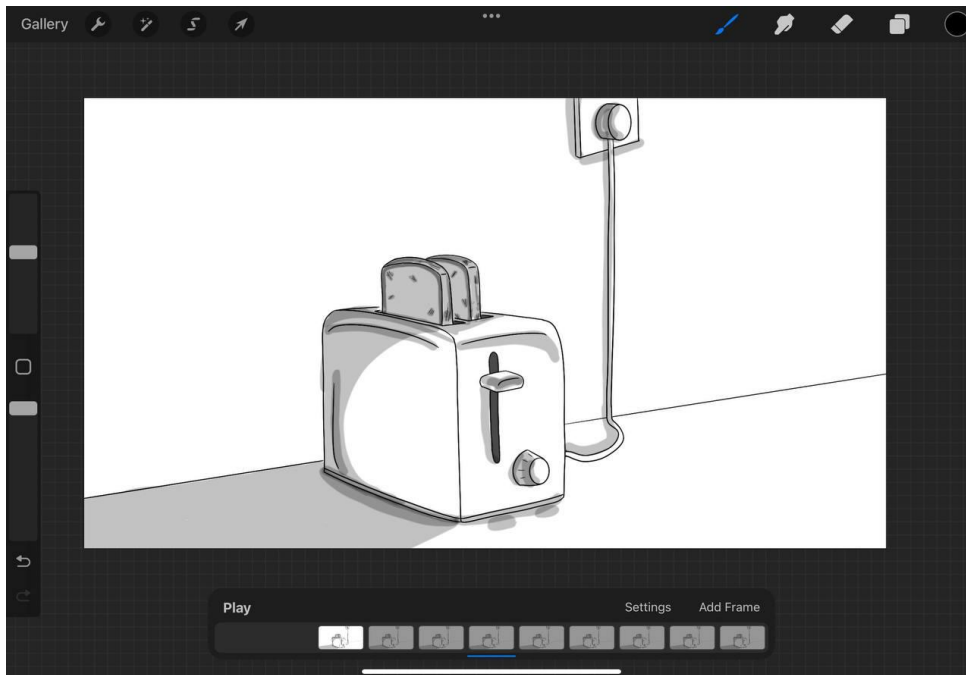


Figure 42: Animation in Procreate

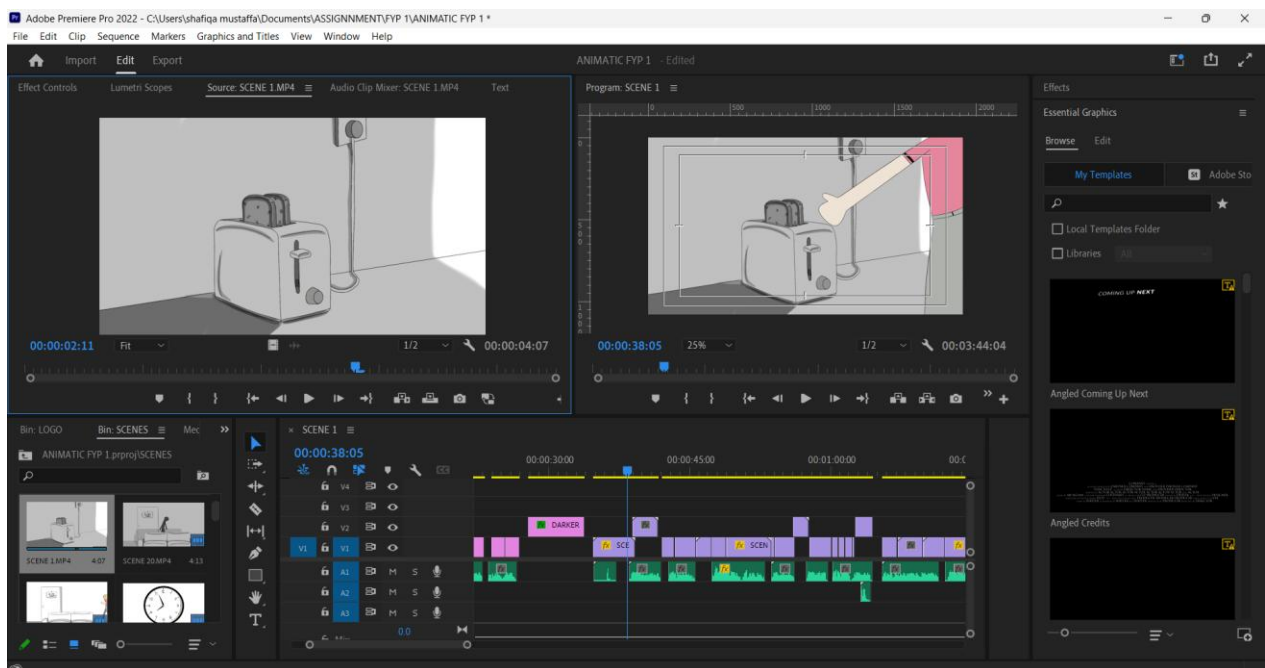


Figure 43: Editing in Adobe Premiere Pro

## 4.9 Conclusion

In conclusion, the pre – production phase of *Darker Than Blue* established the necessary foundation for a seamless and efficient process. During this stage, essential planning and development activities such as concept ideation, scriptwriting, storyboarding, character and environment design and even animatic creation were completed. These aspects contributed to the narratives structure, emotional tone and visual style of the animation. By thoroughly studying the issue of depression and converting in into a compelling visual narrative, the pre – production period ensured that the story was not only artistically strong, but also emotionally authentic and socially relevant. Overall. The pre – production process laid the groundwork for the entire animation, allowing the production to move forward with a clear vision and organized workflow. It demonstrated the value of careful planning and study in creating a meaningful and impactful animated picture.

## 5 PRODUCTION

### 5.1 Introduction

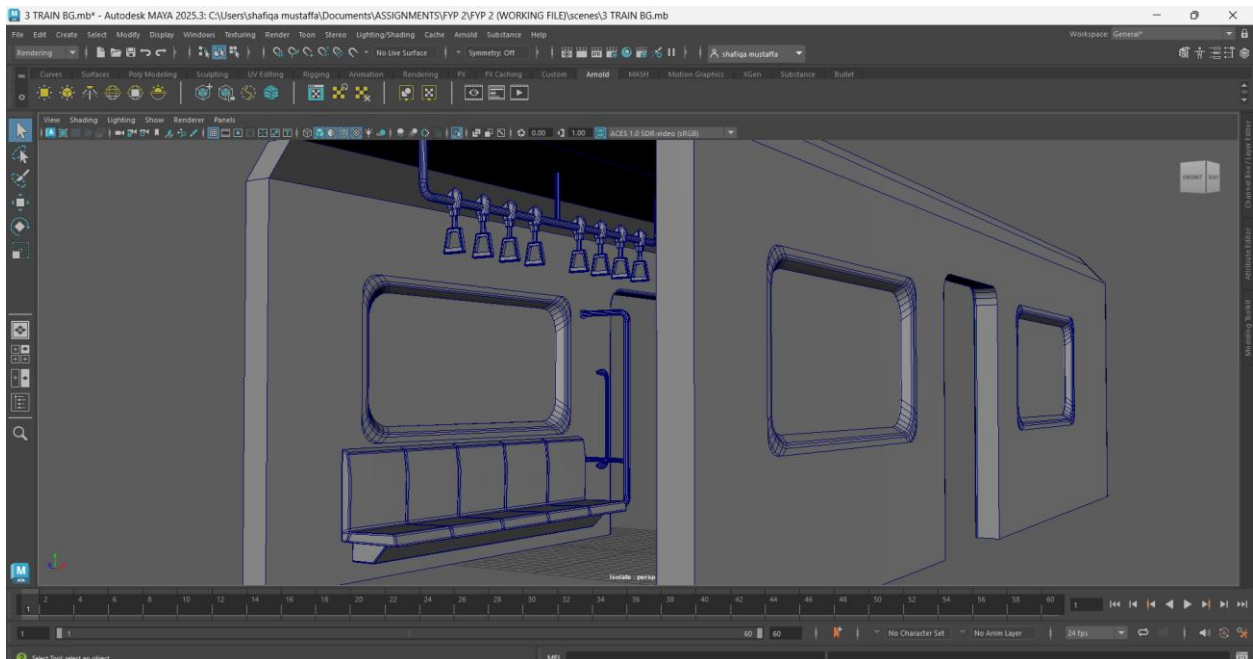
In the animation pipeline, production is the stage where all the actual work of creating the animation takes place. It comes after pre – production where the story, concepts and designs are all planned out and ready to move to the next step.

### 5.2 Modelling

Once the pre – production phase is completed, I will be able to begin producing the 3D model. To put it simply, 3D modelling is the process of manipulating vertices and polygons to create the final shape. I normally start with a block out of basic elements like cubes, cylinders and spheres then alter also combining them to create the overall design. This step is important because it establishes the scale and shape before moving on to specifics. In the process of this production pipeline, I am using Autodesk Maya to create 3D models for my backgrounds and characters.

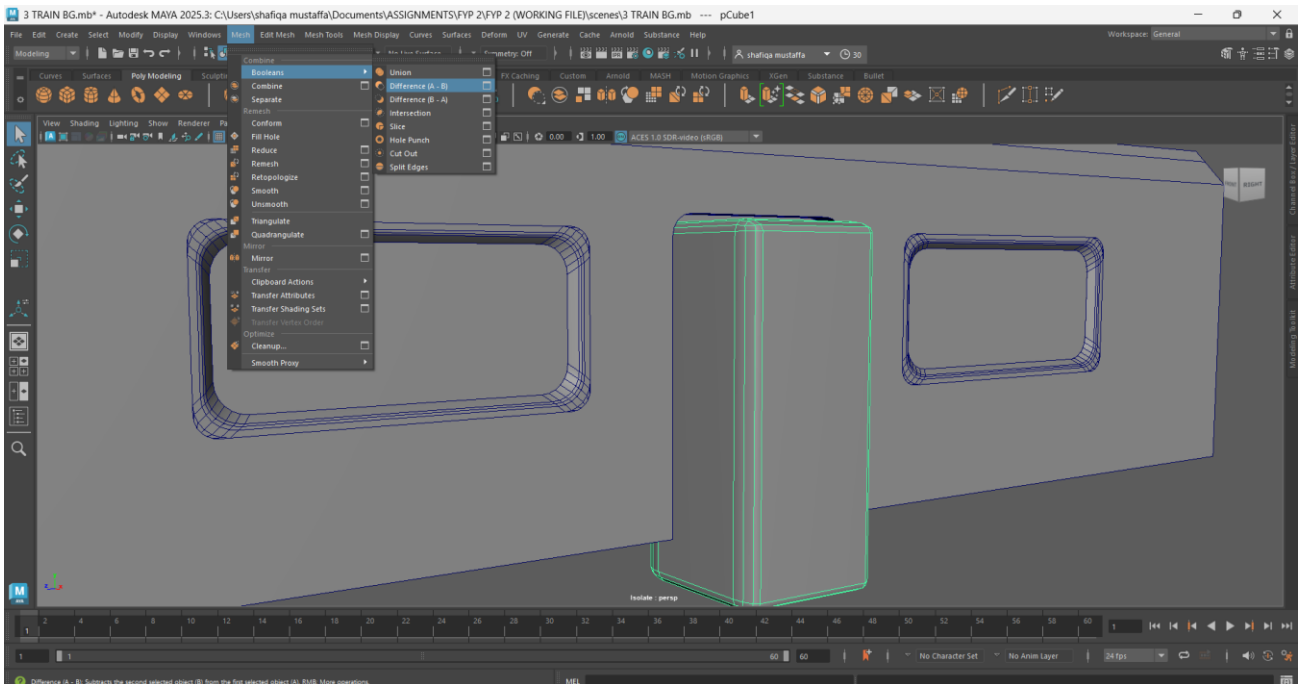
#### 5.2.1 Background

##### 5.2.1.1 Train



**Figure 44:** Train Modelling

I began modelling the background with the first one, which is the train. I began by modelling the train's body using mesh cube, then I size and shape to make it more like the trains we typically see outside. After that, I modelled the chair shown in Figure 43. Furthermore, the handle was created, which is a normal object that we can easily found in the train, busses or any public transports.

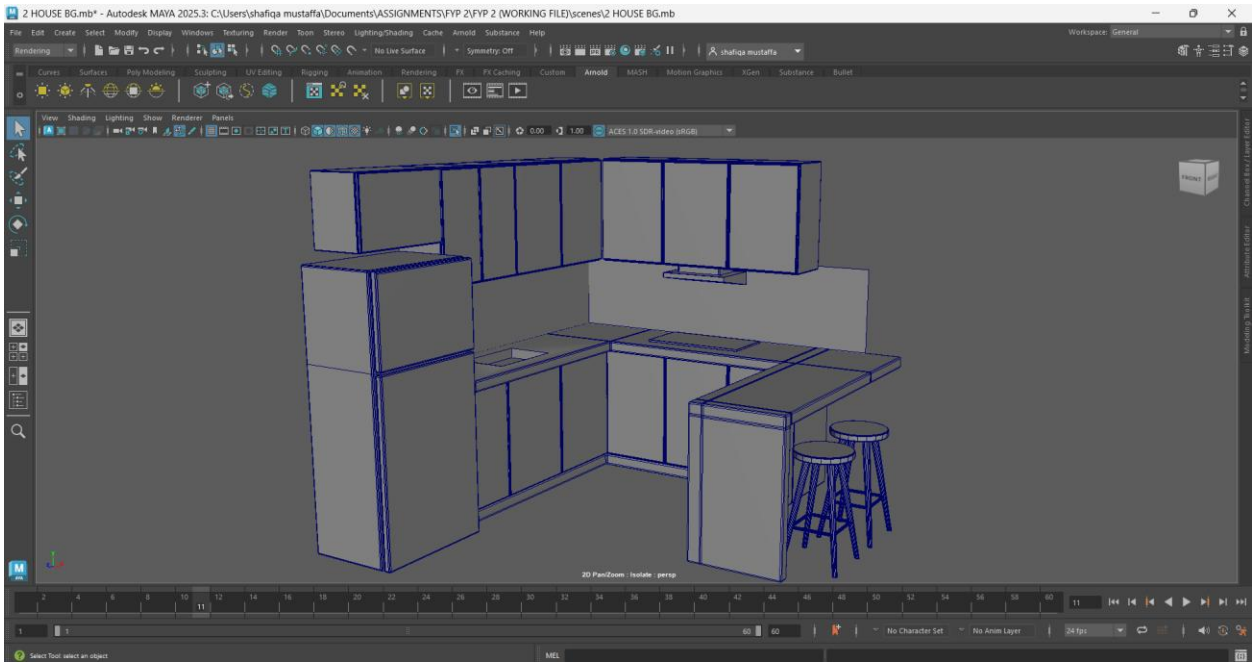


**Figure 45: Booleans**

For doors and windows of the trains, I used a technique that called Booleans to get the shape that I wanted. As you can see, by getting the shape or hole that I want, I need another mesh and make it the shape that I want and then put it at the right place. After that click the option as I show at Figure 45. I do the same technique for both windows as shown.

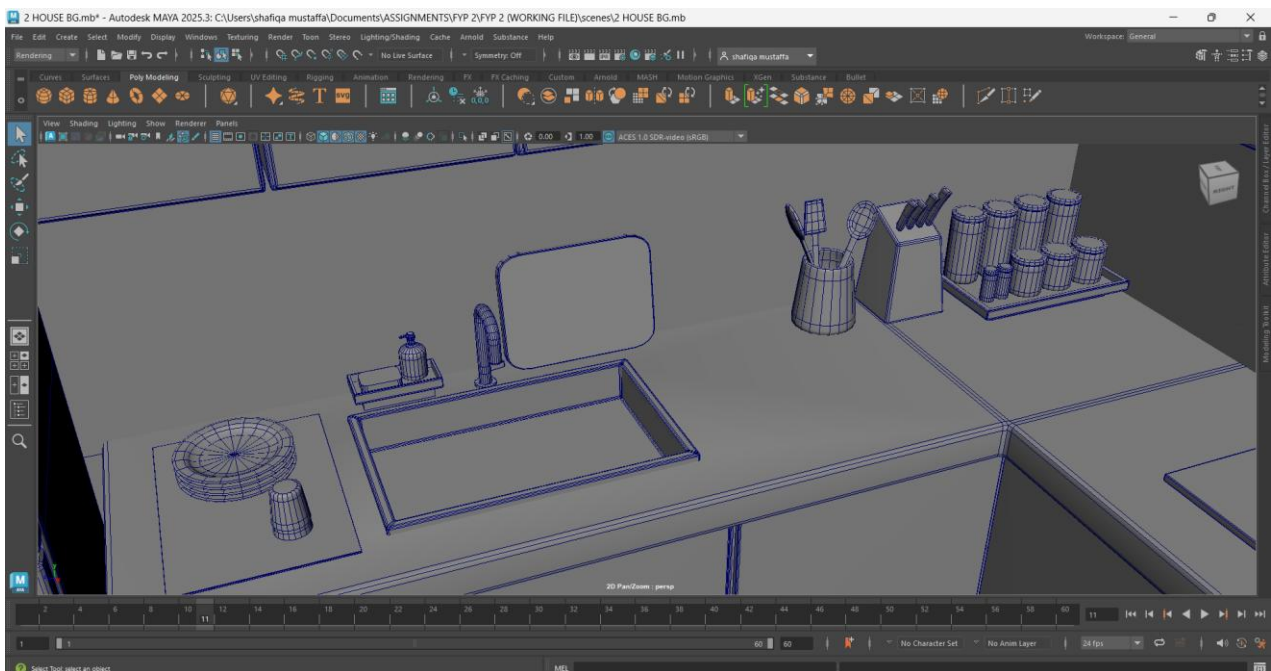
1. Go to **Mesh**.
2. Choose **Boolean**.
3. Select which types of Booleans that u wanted.

### 5.2.1.2 Kitchen

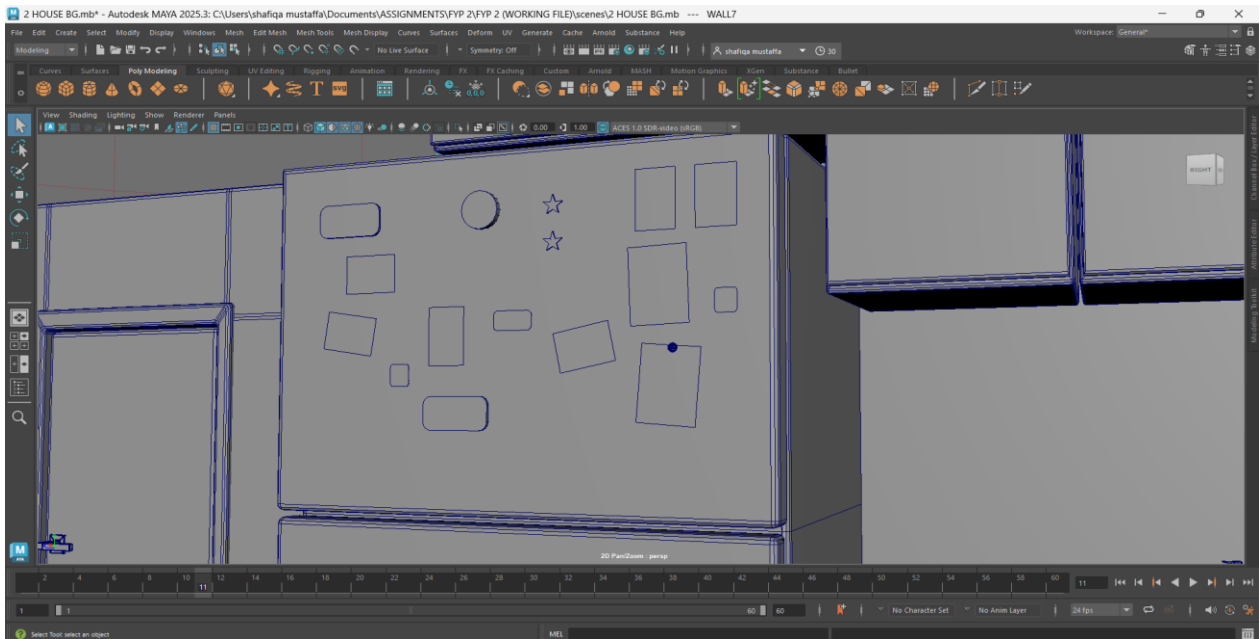


**Figure 46: Kitchen Modelling**

I started modelling the kitchen background with the large objects first. As you can see, there are kitchen cabinets, a fridge, a table top, an exhaust hood and even stools. These objects are normally created with only mesh cubes, then I modify the shape to get the outcome that I wanted. I am also using a technique called Bevel (**ctrl+B**) to make the edges of the items less sharp and more smooth looking.



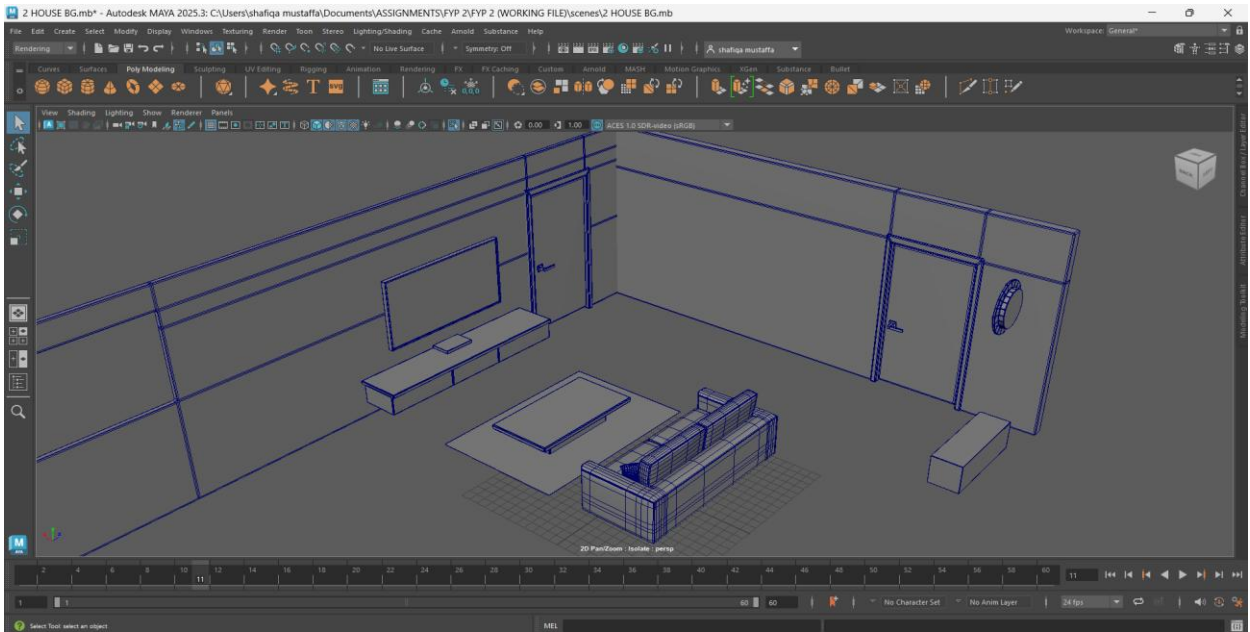
**Figure 47: The Details in the Kitchen**



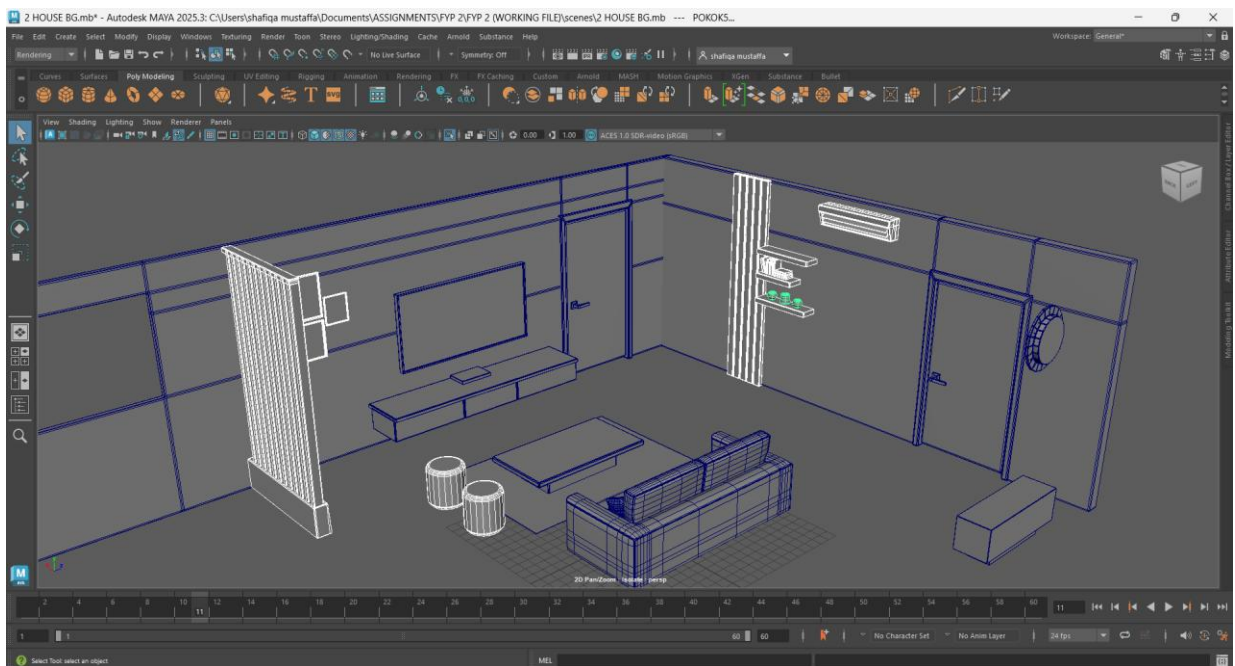
**Figure 48: Details on Fridge**

To make this kitchen appear to be in use, I spent some time modelling the small details. Referring to Figure 47, I arranged several dishes and cups near the sink to make it appear as if it had just been cleaned. The sink also has sponge and soap. As well as a cutting board. In addition, certain ladles and knives as well as their placement are included to make the kitchen appear natural. On the far right, there are little containers for cooking items such as salt, sugar and turmeric powder. In Figure 48, some small details such as fridge magnets are also placed in the refrigerator to show the natural side of this kitchen.

### 5.2.1.3 Living Room



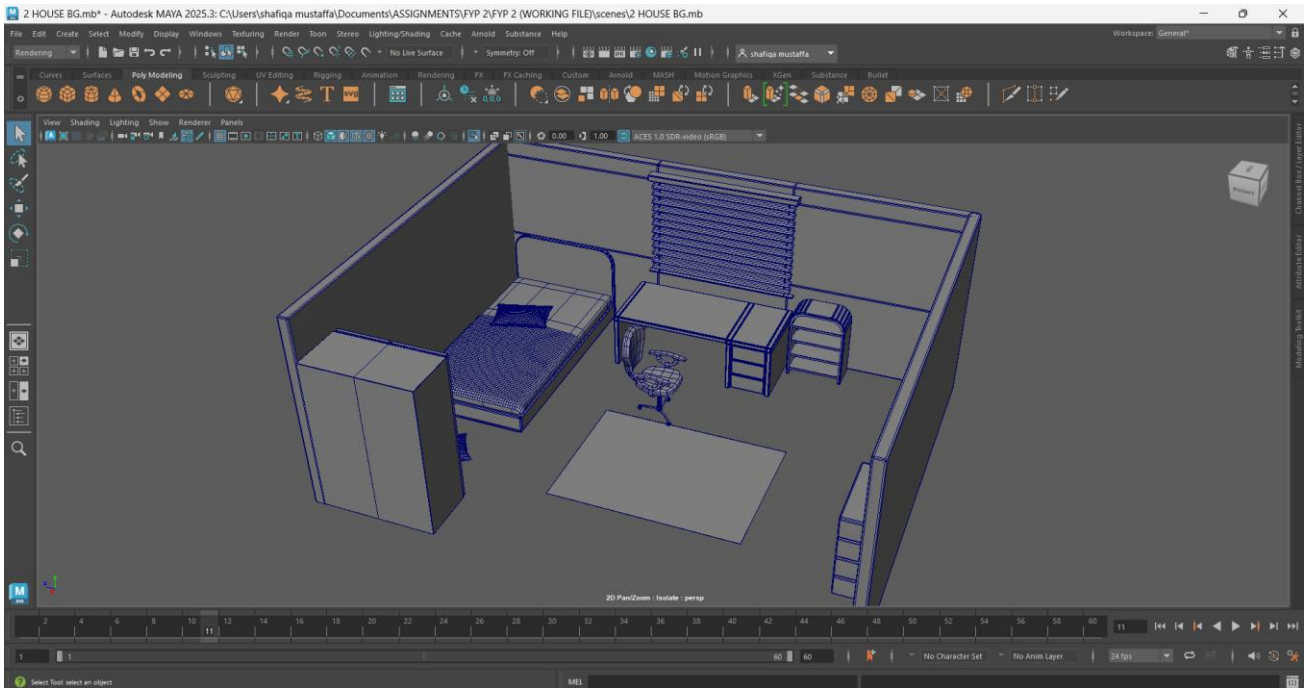
**Figure 49: Living Room Modelling**



**Figure 50: Details in the Living Room**

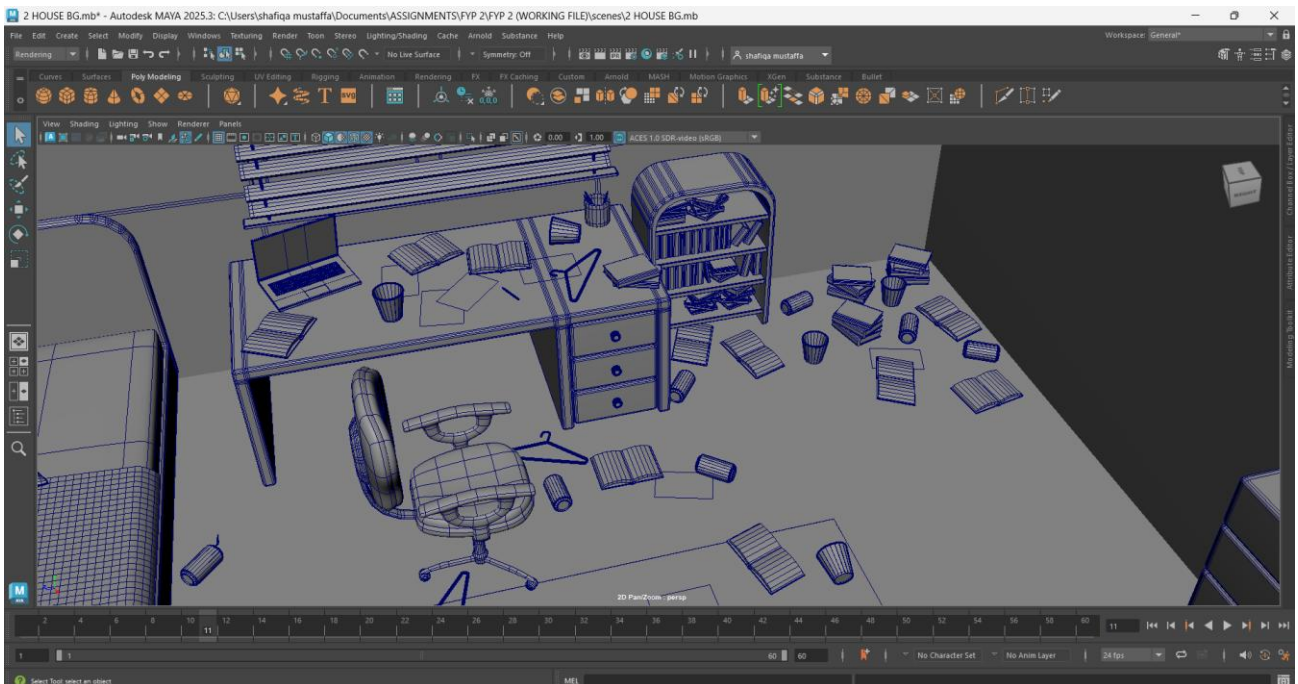
The next step is the living room. Because it is such a simple house, I only model a few essentials items such as a sofa, small table, television, tv cabinet and a wall clock. Referring to Figure 50, I also added wooden decoration to the wall and the middle section between the living room and kitchen. Aside from that, tiny chair was placed near the table, alongside with an air conditioner, small arrangements and books on the wall.

### 5.2.1.4 Bedroom/ Messy Room



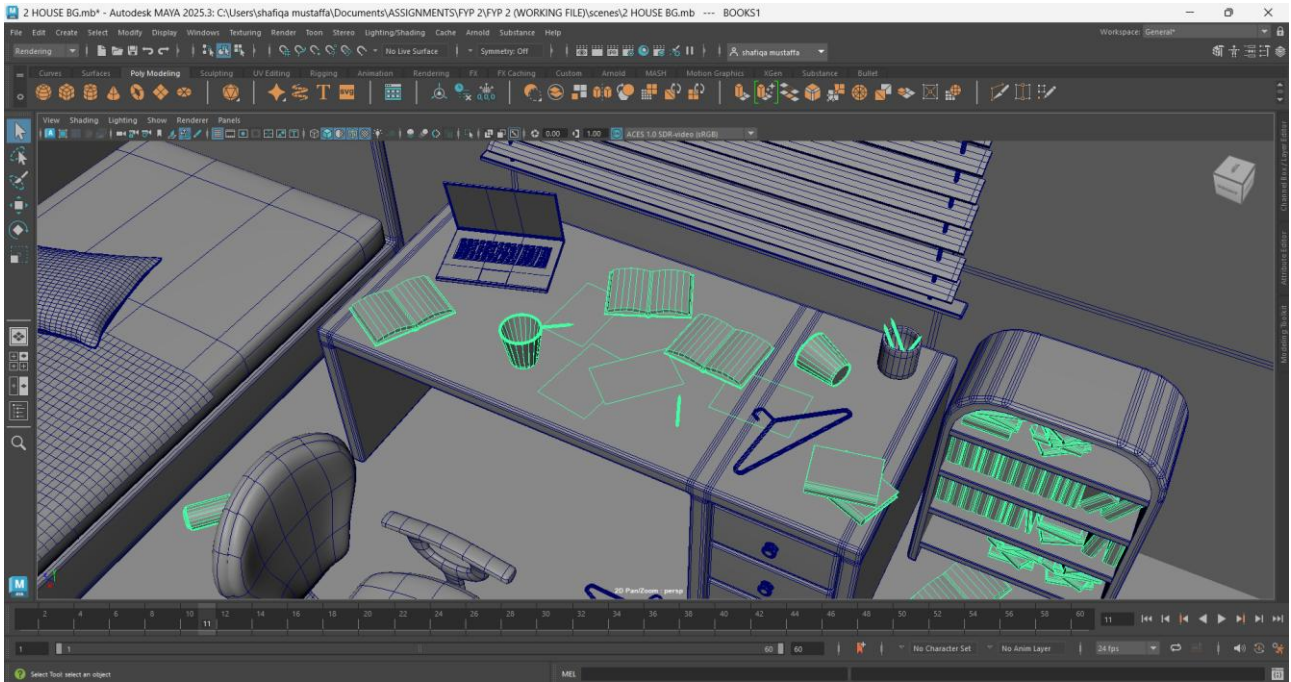
**Figure 51: Bedroom Modelling**

This is the modelling of the bedroom. There are several important and main objects that are only modelled for the room such as study table, study chair, closet and of course bed.

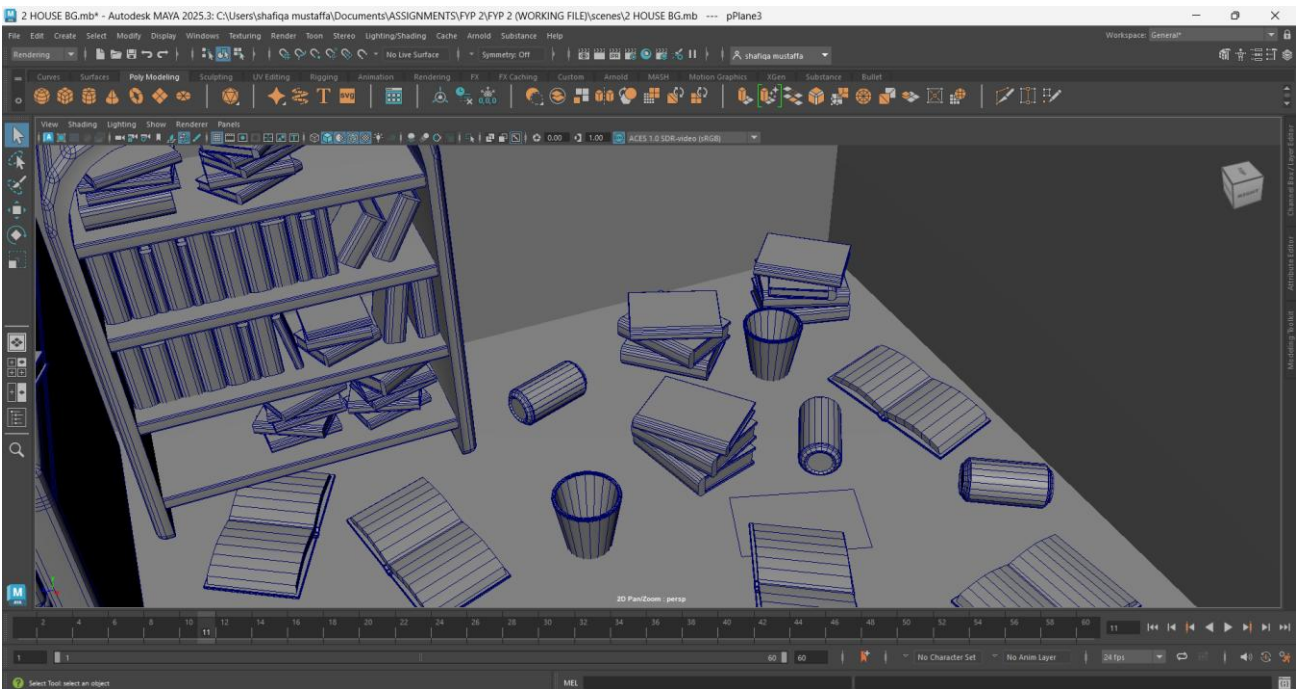


**Figure 52: Details in the Bedroom**

Details for the bedroom are also not missed. Because the concept for this room is untidy, the small objects that are modelled are grouped haphazardly to reflect the messy theme. As shown in Figure 52, small details such as books, papers, laptop, hangers, canned drinks and also instant noodle cups are used to convey the messy concept. Details close – ups are shown in Figure 53 and 54.



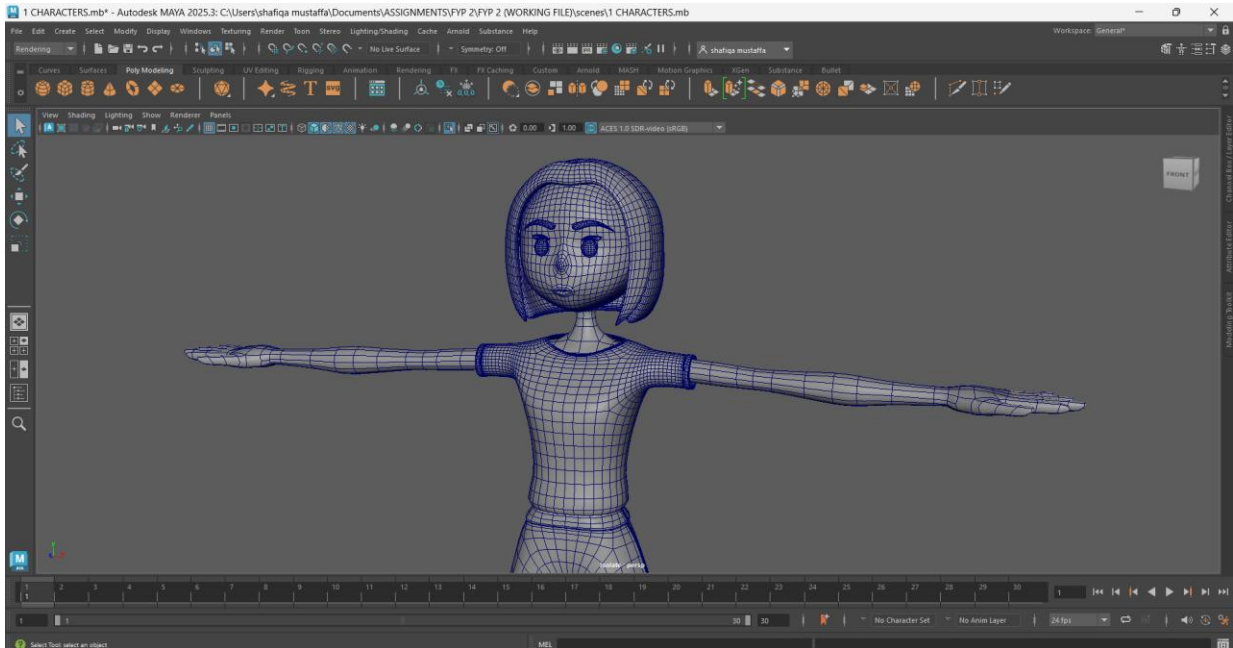
**Figure 53: Details Close – Up 1**



**Figure 54: Details Close – Up 2**

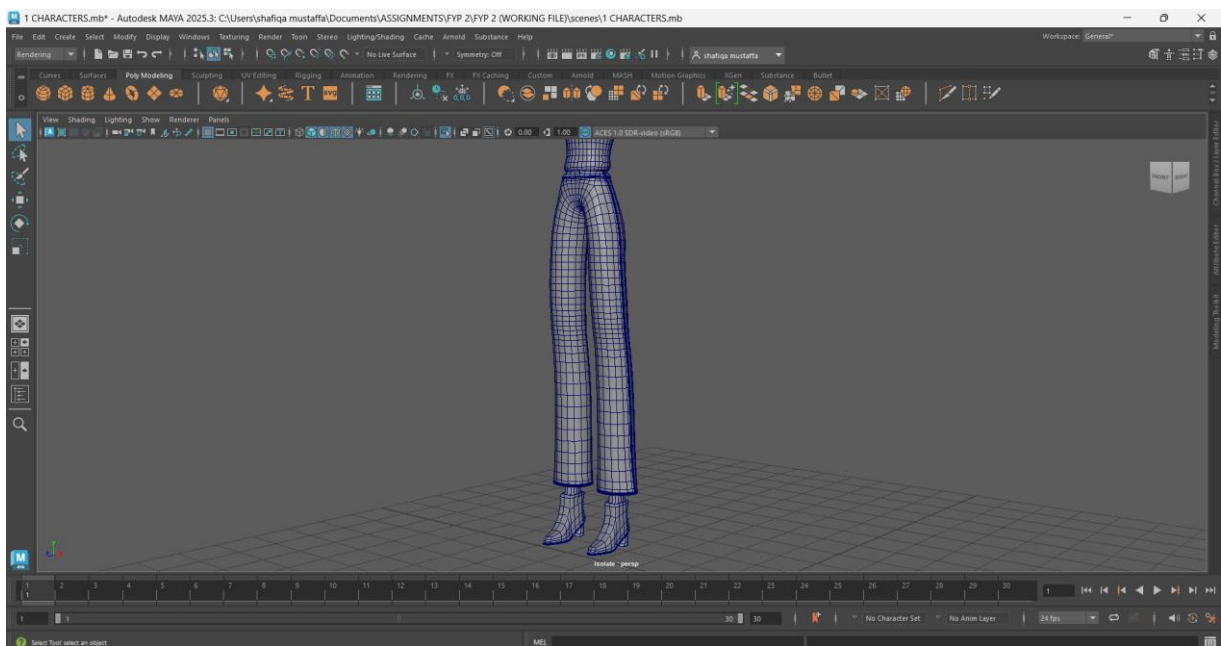
## 5.2.2 Characters

### 5.2.2.1 Luna



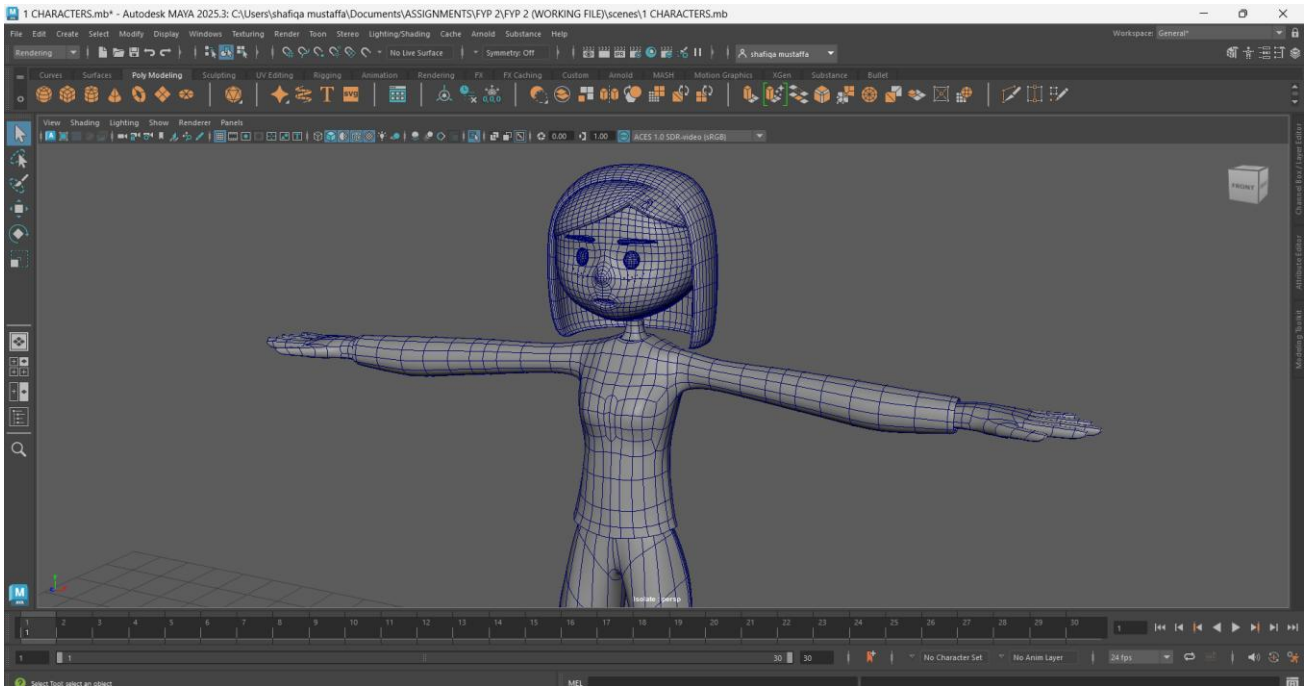
**Figure 55: Luna’s Character Modelling**

I began modelling Luna’s character on the body, hands and feet first. Before I began modelling the clothing, trousers and boots (based on **Figure 56**), I first obtained the body shape. After finishing the body and legs, I began modelling the face and the head. Figure 55 shows that I solely used button eyes for my character, unlike the real detailed one. I also divided the hair into two pieces, as shown in the figure above, a front part and a back part to show the shape of the character’s hair in greater details.



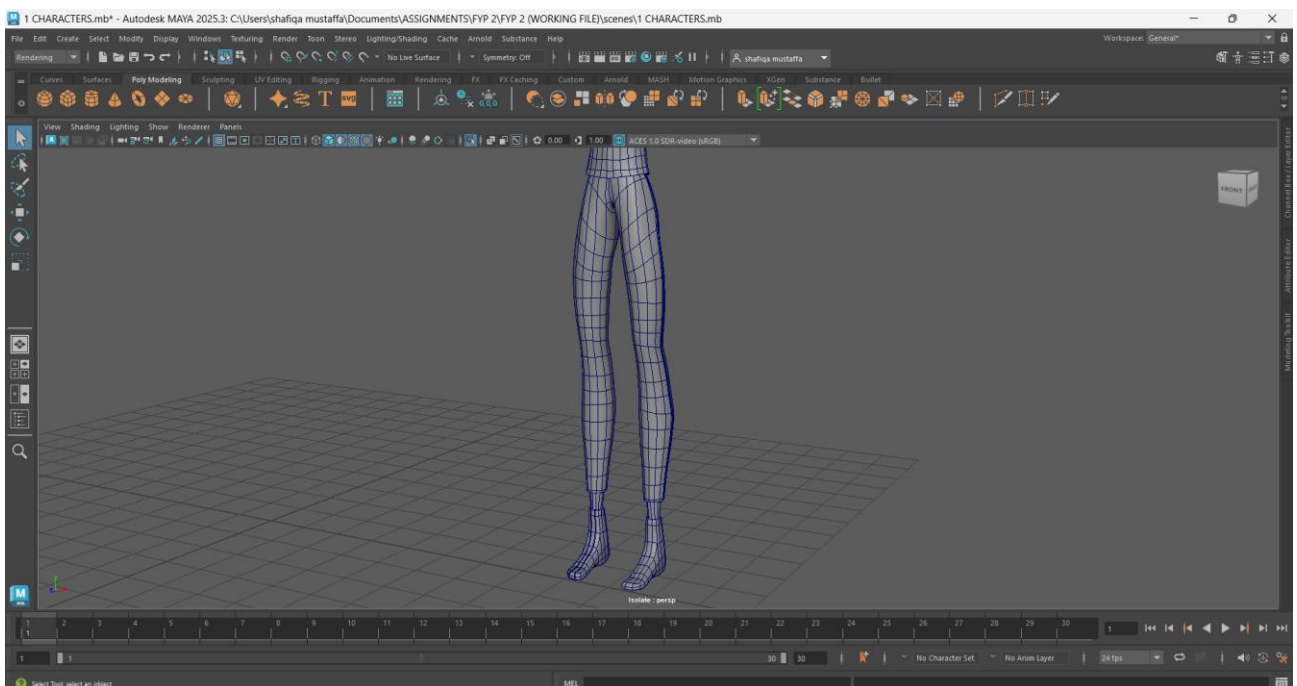
**Figure 56: Lower Body of the Character**

### 5.2.2.2 Ella

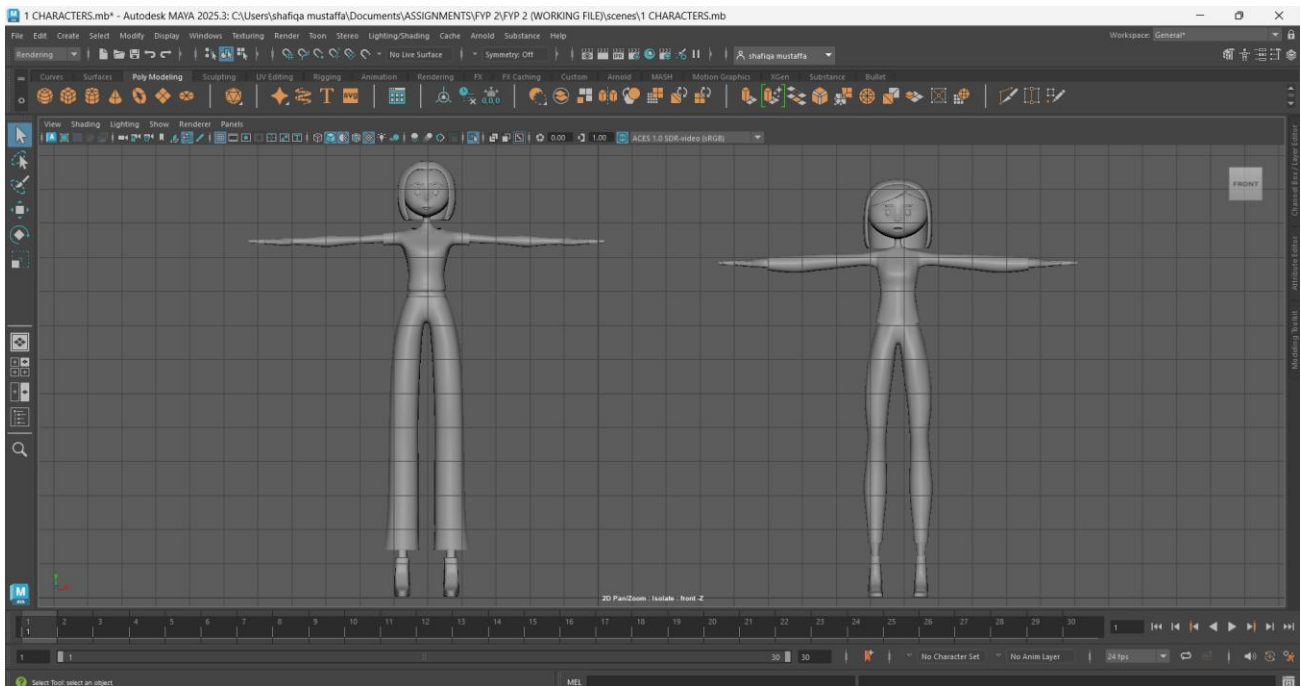


**Figure 57: Ella's Character Modelling**

Basically, Luna and Ella have a fairly similar body shape. So, by only using Luna's body that was already modelled, I modified her body shape a little to fit the criteria that had been drawn for the character Ella. So, in terms of legs, hands and body they are quite similar. However, their height and head shape are quite different in size. So, just like Luna earlier, I finished modelling Ella's upper body first before modelling the legs (*based on Figure 58*).



**Figure 58: Lower Body of the Character**



**Figure 59: Character Sizes Comparison**

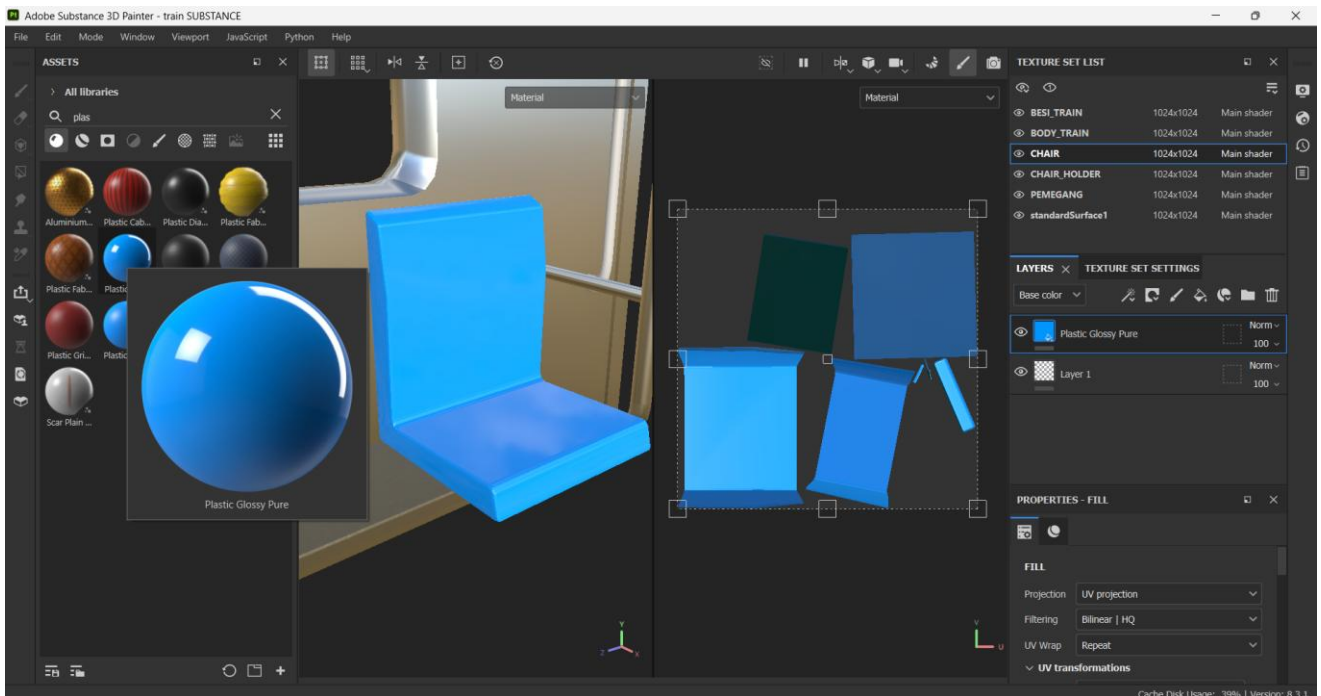
Based on Figure 59, it can be seen that there is a slight difference between these two characters, Luna (left) and Ella (right) in their height, head shape, hair and clothing. Maybe in this part it is difficult to distinguish between these two characters because they have not yet been textured.

## 5.3 Texturing

After completing the modelling and UV mapping, I proceed to the texturing step of the 3D modelling pipeline. For this step, I am using Adobe Substance Painter because I am currently learning how to apply textures and colours to materials using this software. Texturing adds elements like roughness, metallic effects and normal maps to the model to determine its overall look and feel. These aspects determine how light interacts with the surface, giving the model a more realistic and visually complex appearance.

### 5.3.1 Background

#### 5.3.1.1 Train



**Figure 60:** Texture in Adobe Substance Painter

For the train texture, mostly all the body parts of the train I used textures from Adobe Substance Painter. Based on **Figure 60**, the following is how the Substance Painter interface is used to add textures to the modelled objects. As can be seen in **Figure 61**, the following is how the texture looks when it is rendered later.

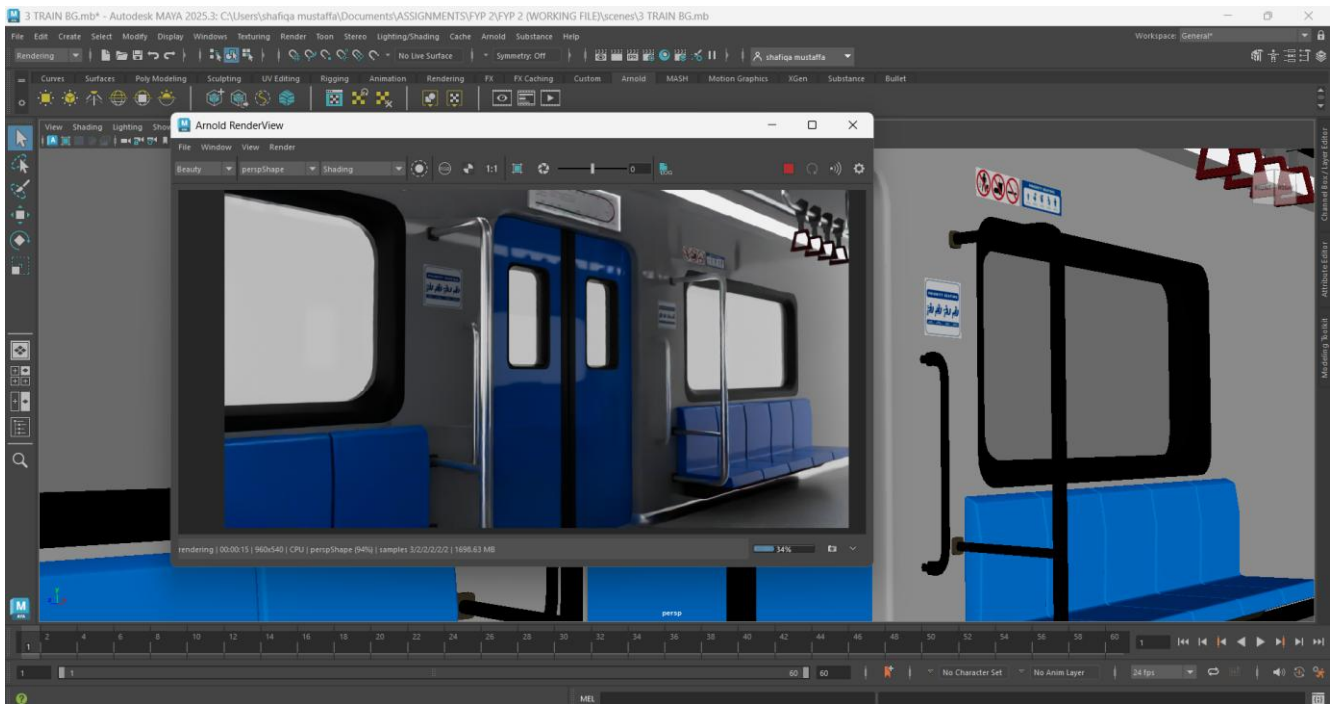


Figure 61: Train Render view

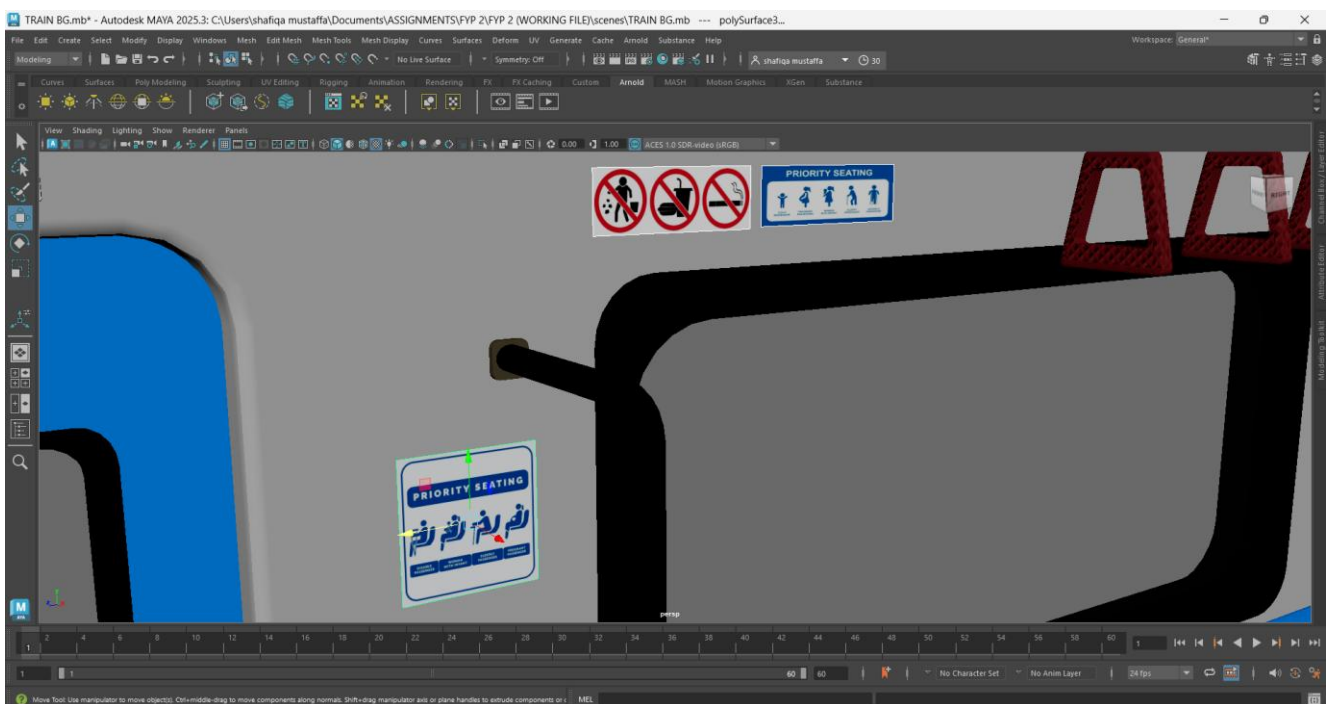


Figure 62: Detail Textures in the Train

Based on the diagram above, there are the texture details that I used to show the train in more details. Warning stickers that are commonly used on public transports.

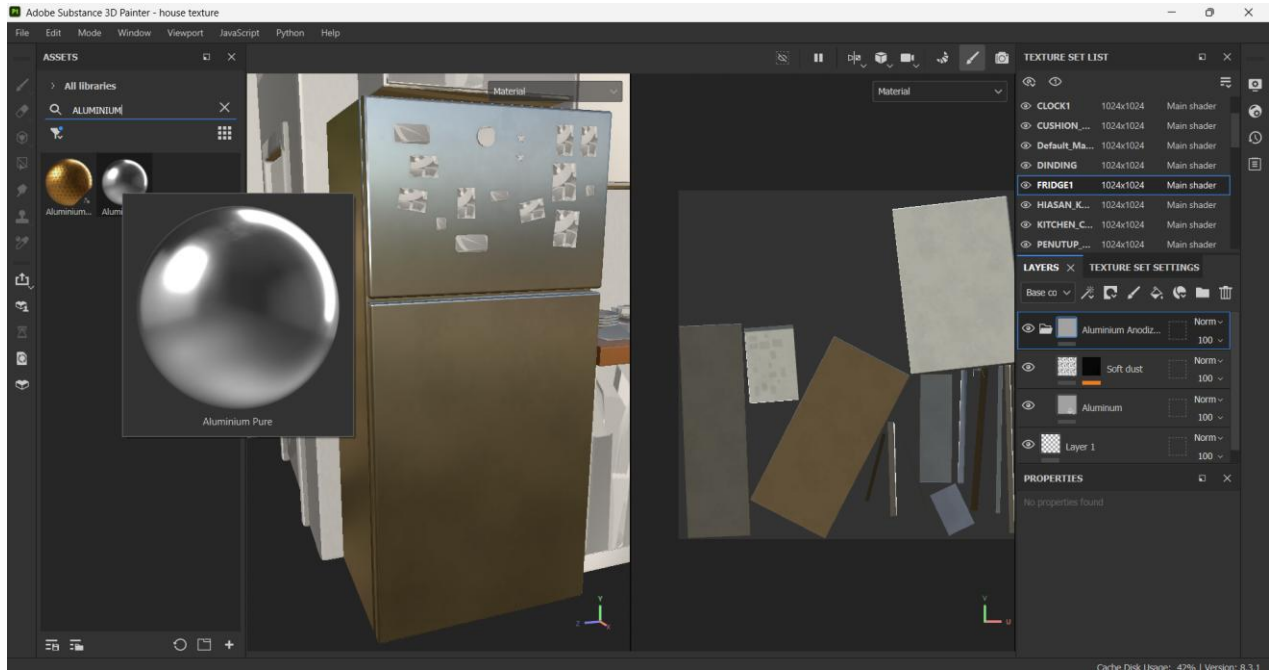


Figure 63: Texture of Fridge

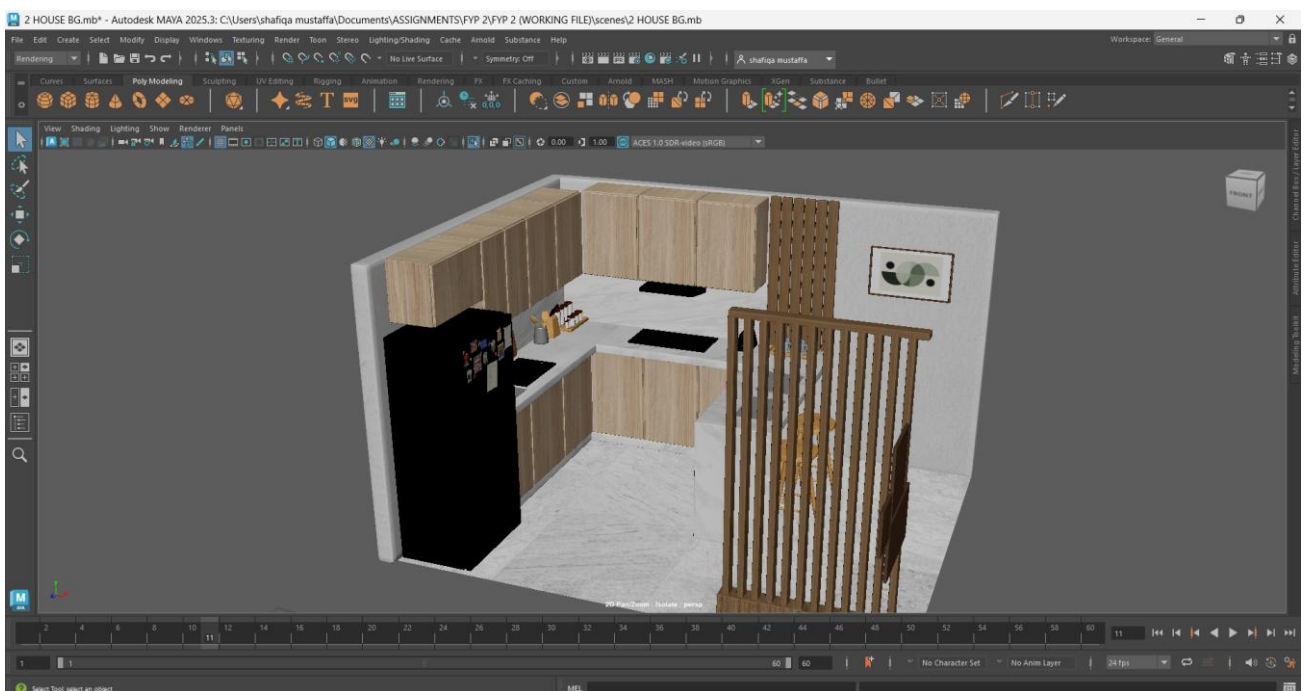
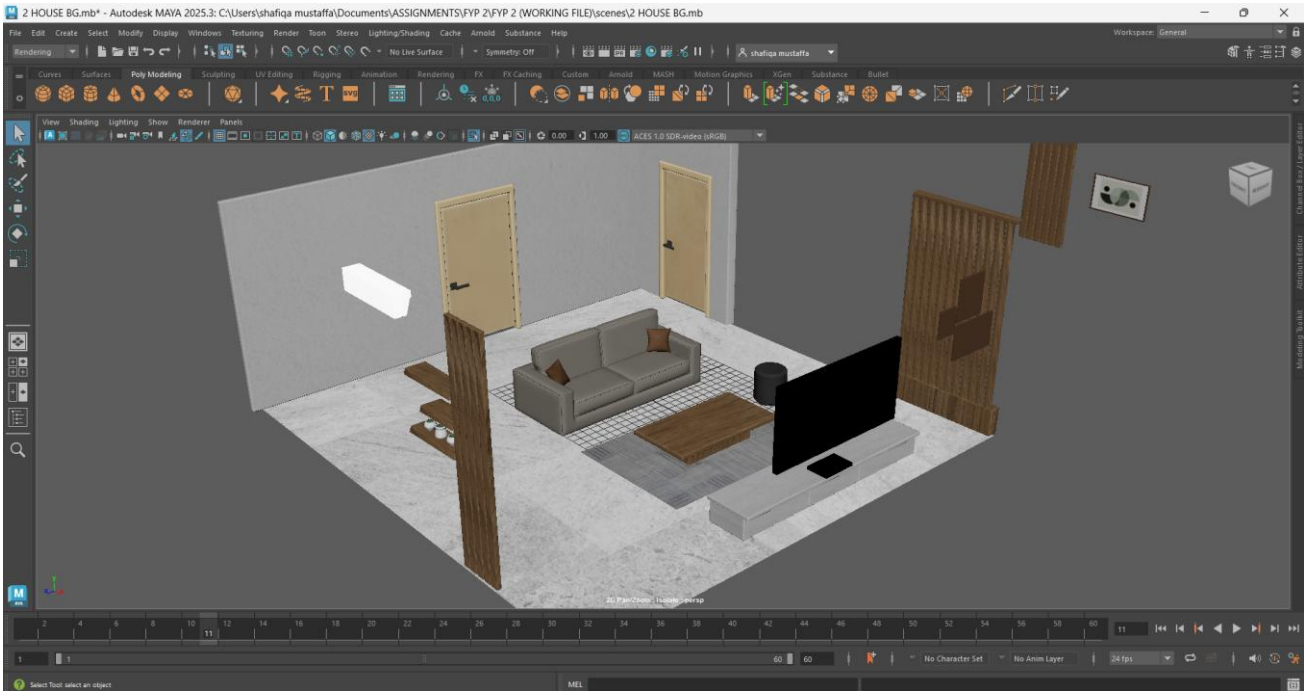


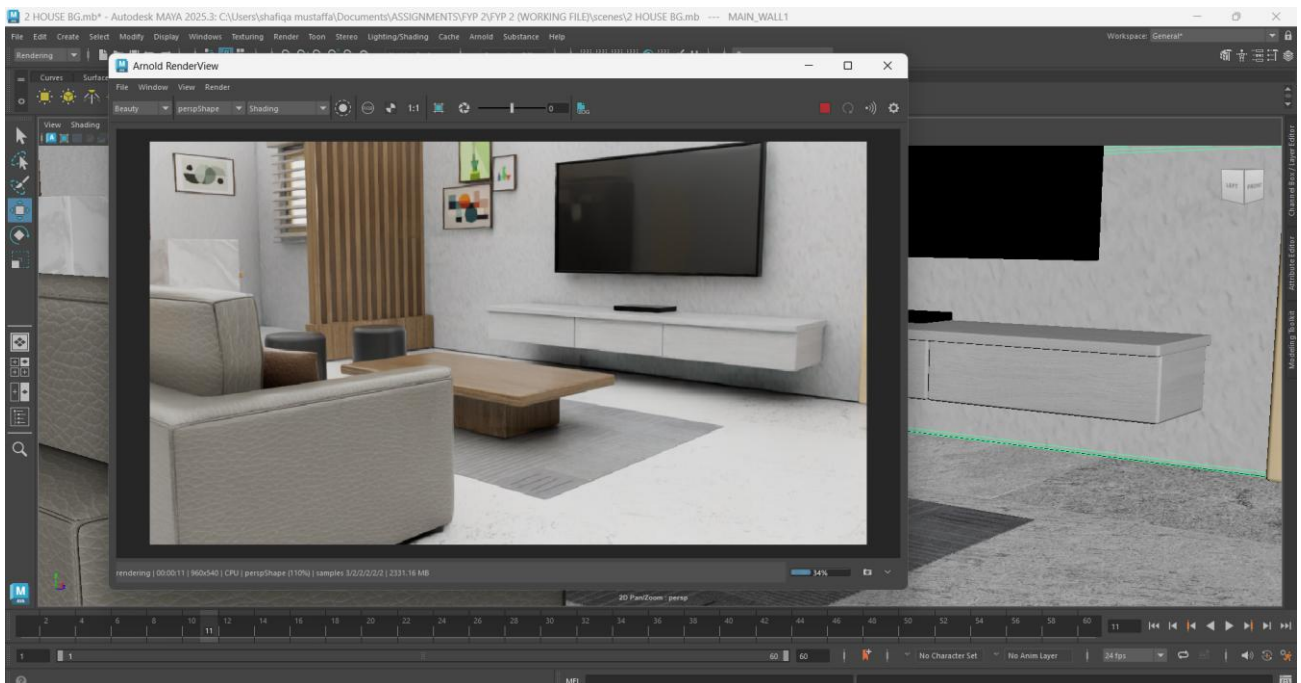
Figure 64: Texture in the Kitchen

For the textures of the fridge, I am also used Substance Painter to get the aluminium texture on the fridge itself. However, if you look at Figure 64, I did not use the Substance Painter for all the textures in the kitchen. Mostly for the textures I only used *jpeg* or *png* images taken from the internet and made them into textures.

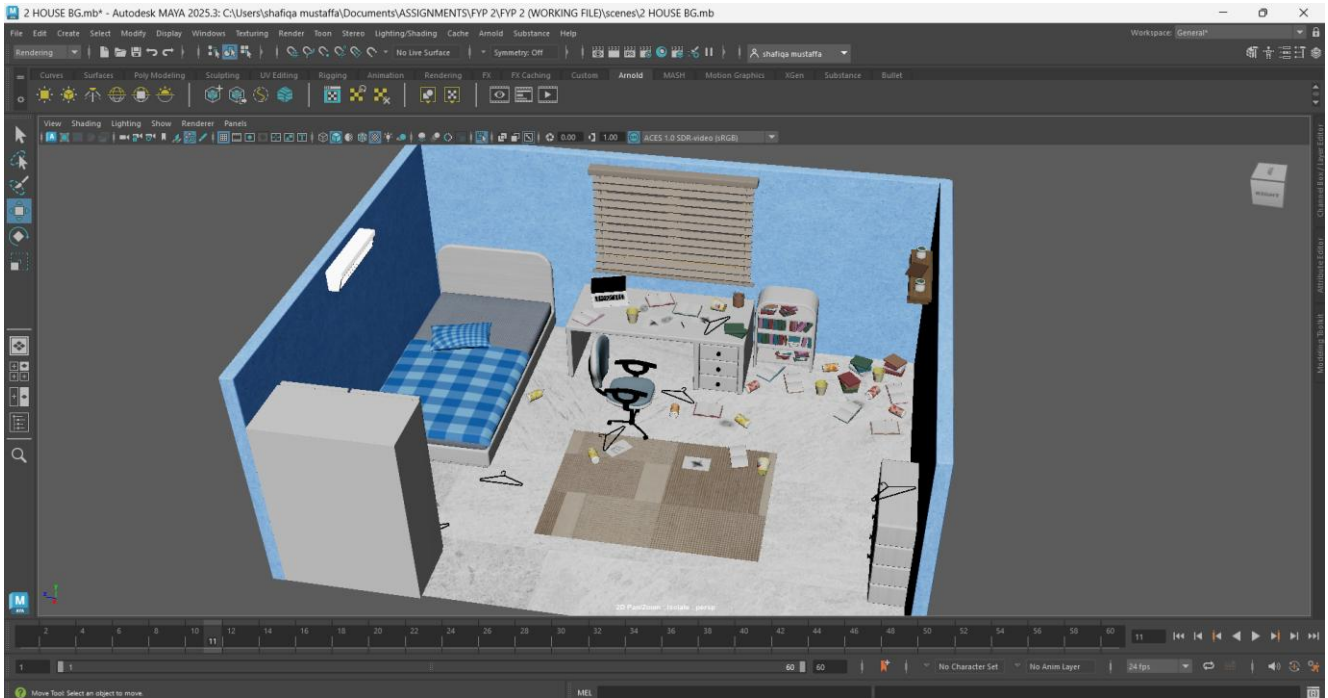


**Figure 65:** Texture in Living Room

So basically, all textures on living room background I am using only jpeg texture from the internet and apply it on the objects. Other than that, I am just using only base colour in Maya. Based on the Figure 66, there is how it looks when it rendered later.

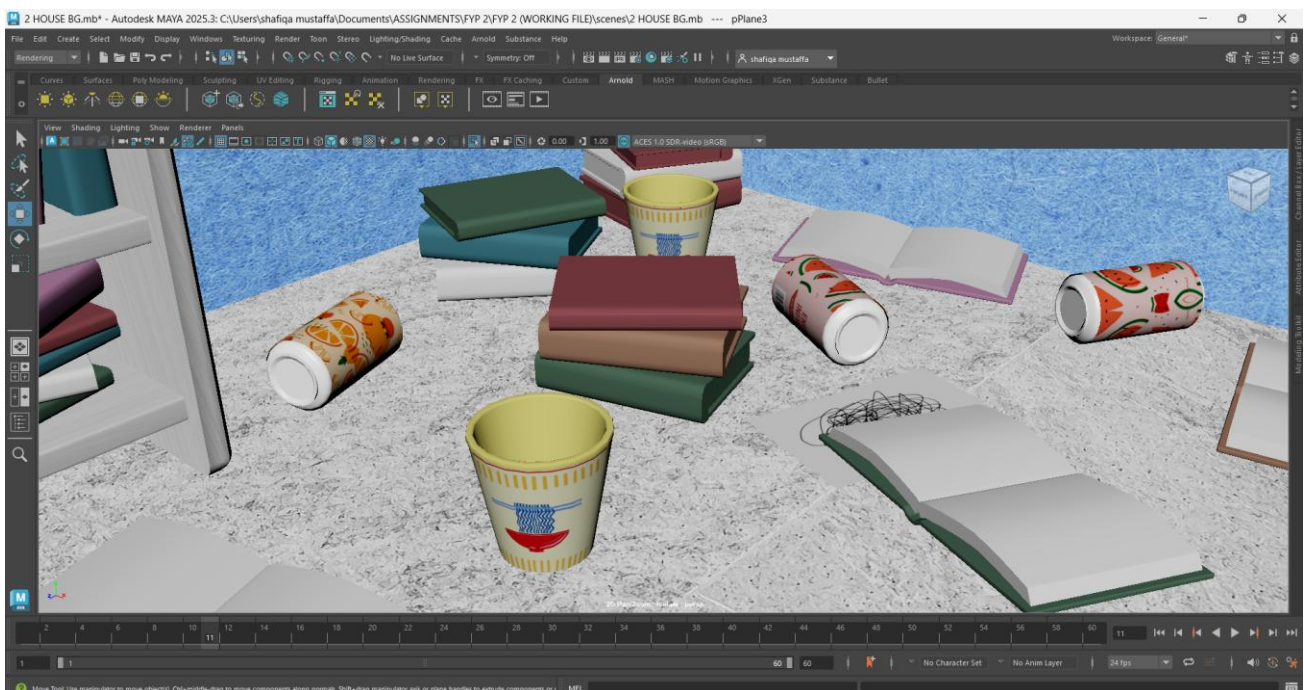


**Figure 66:** Living Room Render View



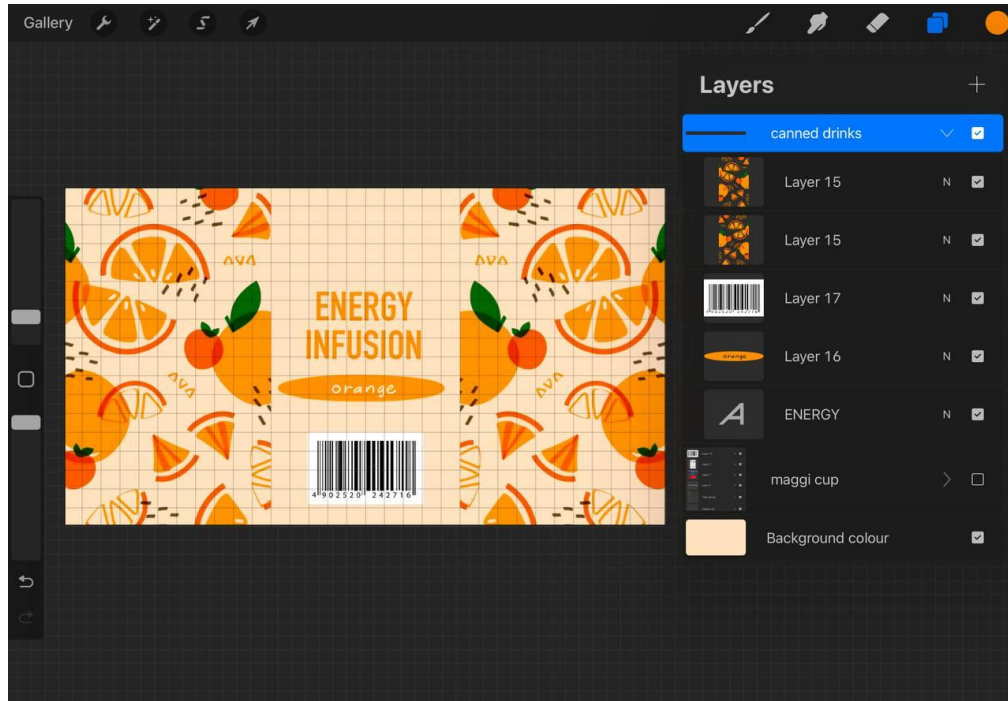
**Figure 67: Texture in Bedroom**

I used the same technique I used on the texture in the living room for the bedroom background and this is how it looks like.

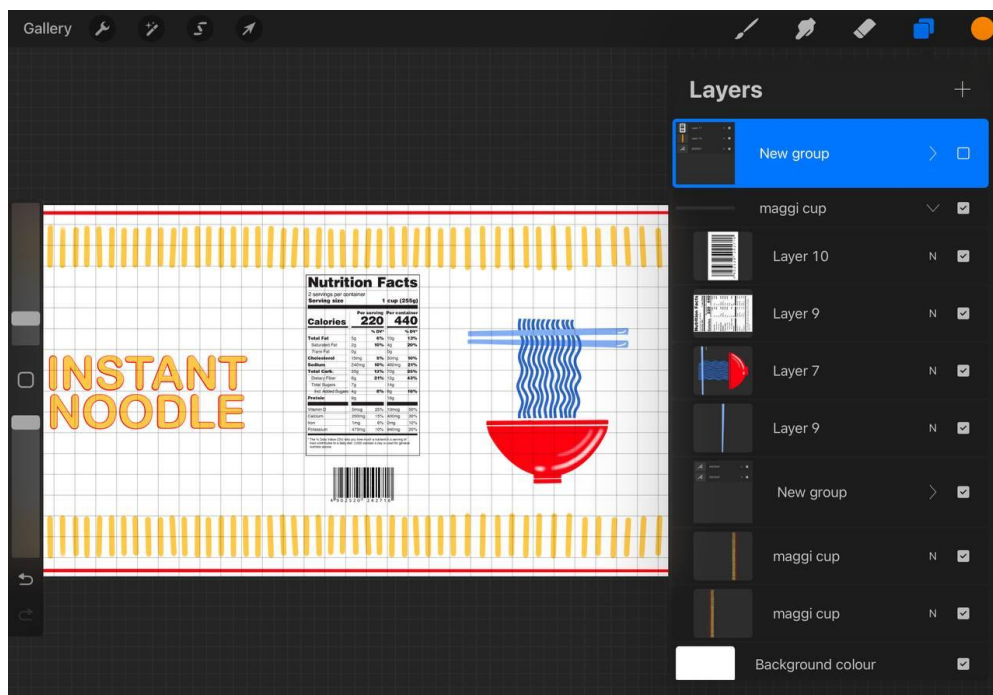


**Figure 68: Details Texture in Bedroom**

Based on **Figure 68**, I wanted to focus on the texture details on the canned drinks and instant noodle cups because they are the textures that I designed myself using Procreate, then imported in into Maya.



**Figure 69:** Canned Drinks Design in Procreate



**Figure 70:** Instant Noodle Cup Design in Procreate

### 5.3.2 Characters

#### 5.3.2.1 Luna and Ella

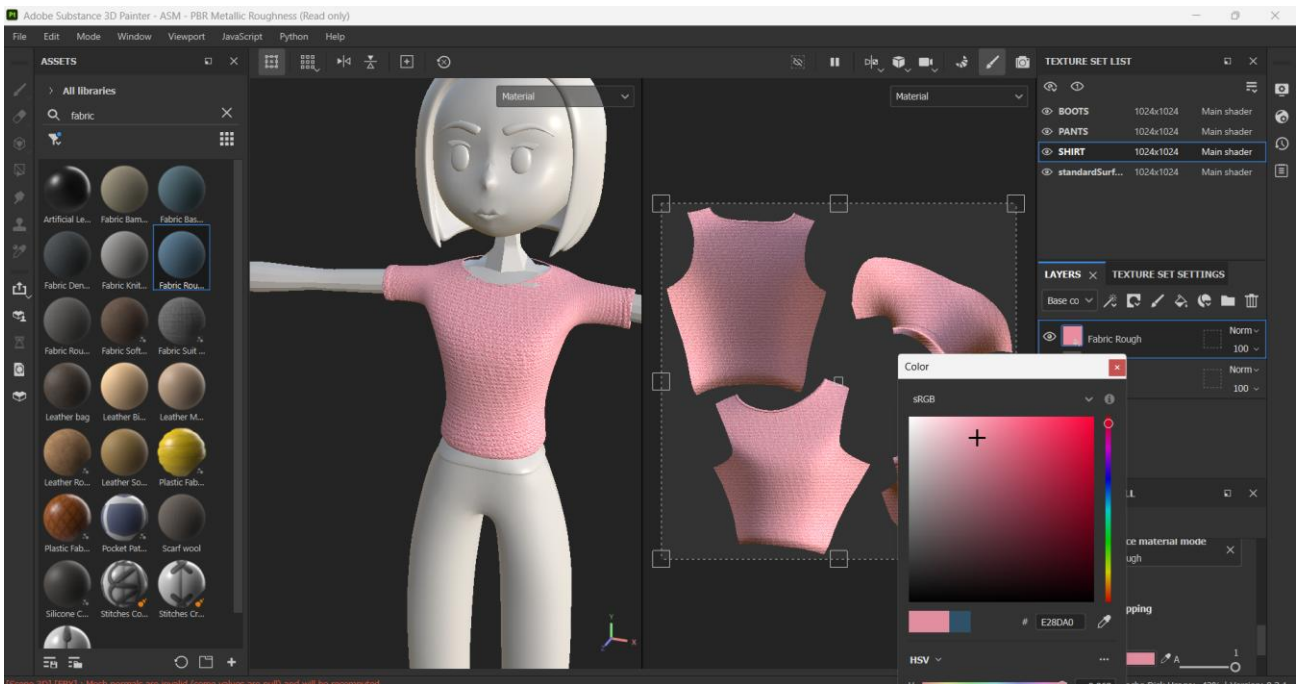


Figure 71: Character Luna Texture

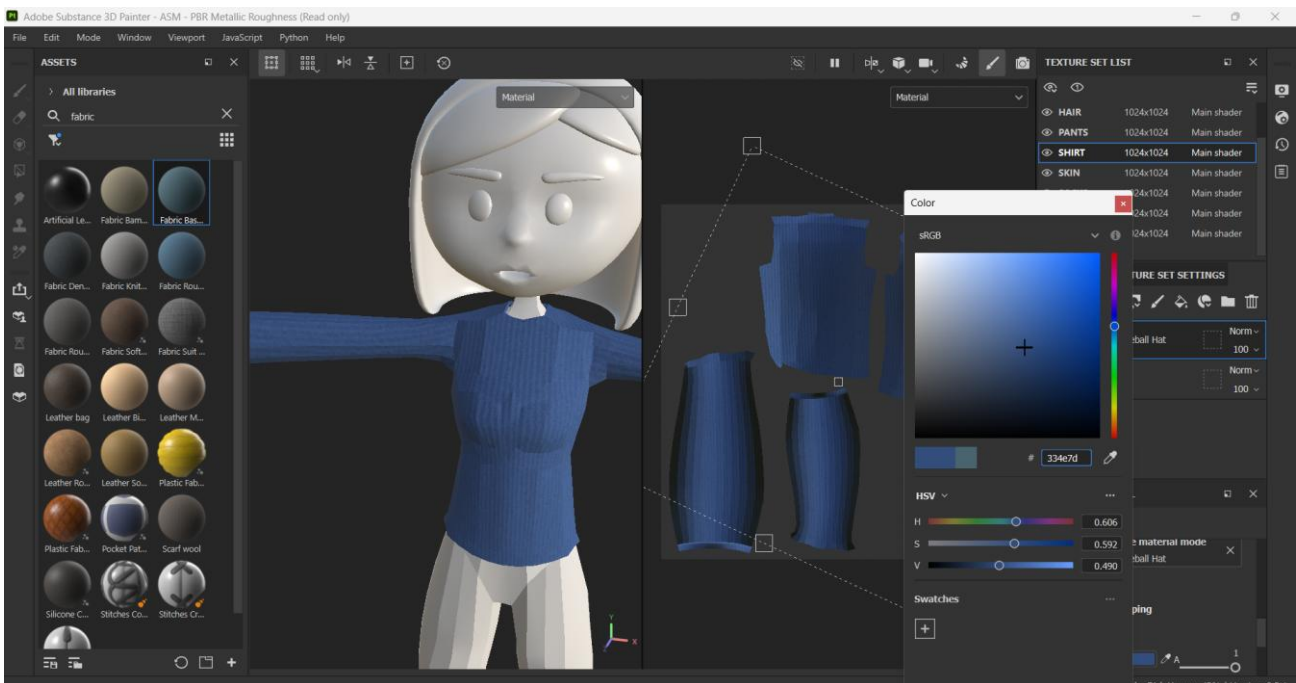


Figure 72: Character Ella Texture

For Character Textures, both characters I used textures from Substance Painter. However, I only used texture for the shirt and pants of the characters only. For other body parts such as hairs, eyes and skin I only used base colours in Maya due to some unavoidable problems.

## 5.4 Rigging

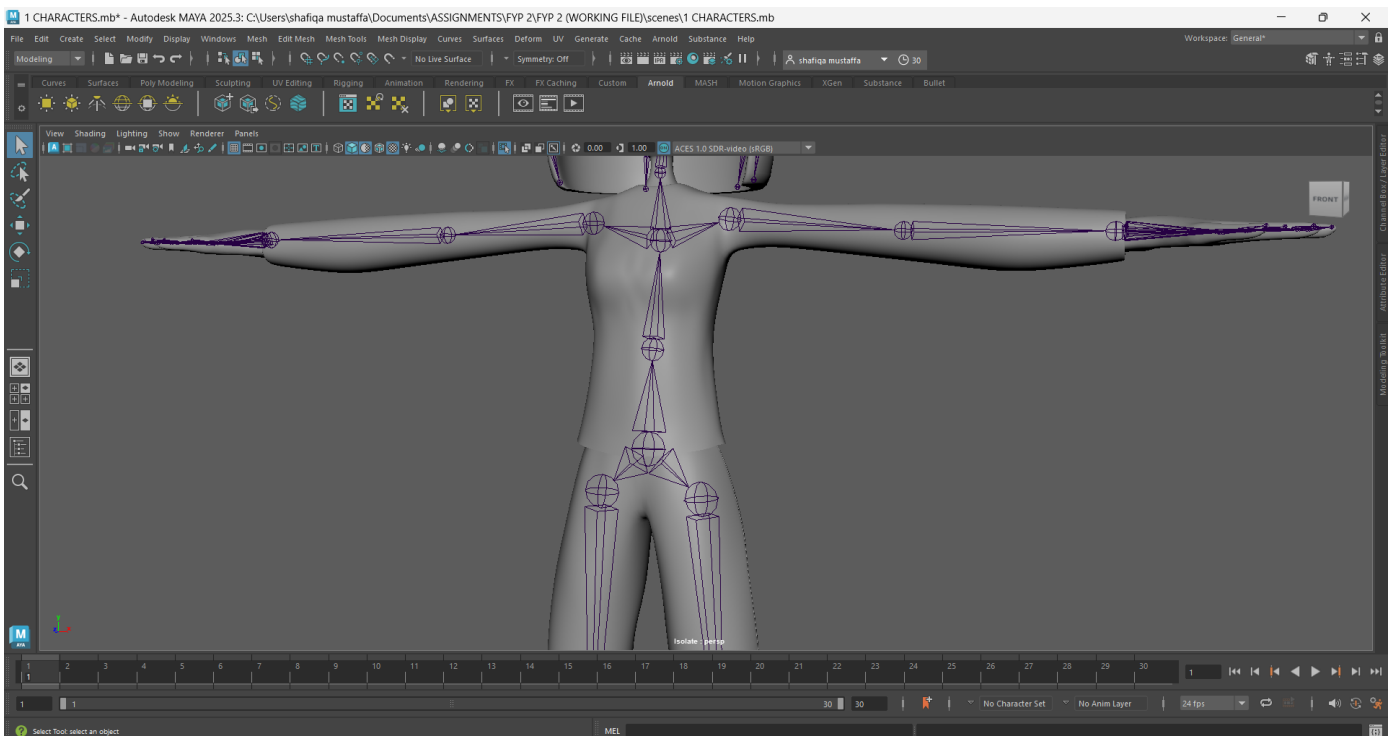
Rigging is utilised for animation and is normally required for organic models, but not for non – organic or hard surface models. Rigging provides a skeleton structure for the model, allowing it to move naturally during animation rather than standing static. It is an important step when a model includes a character because it is necessary for creating effective and believable animation.

### 5.4.1 Characters

#### 5.4.1.1 Luna and Ella

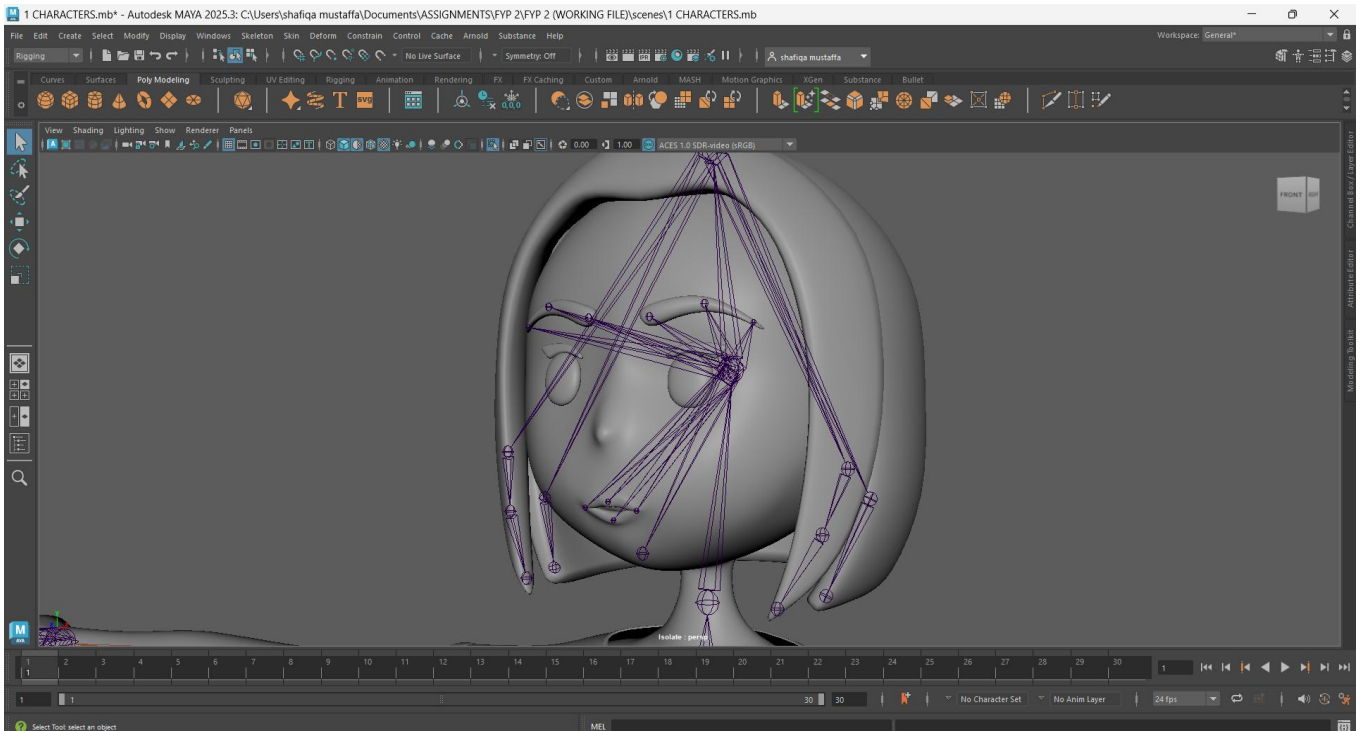
After I finished applying textures and colours to the character, I proceeded with rigging, which involves adding bones to the character body to allow it to move. It was simple for me to finish rigging for Luna and Ella because they both have bodies that are comparatively similar overall.

Figure 73 shows how I began by adding bones to all of my character's bodies. Both of my characters have the same bone dimensions, however I need to improve them slightly due to their height differences.

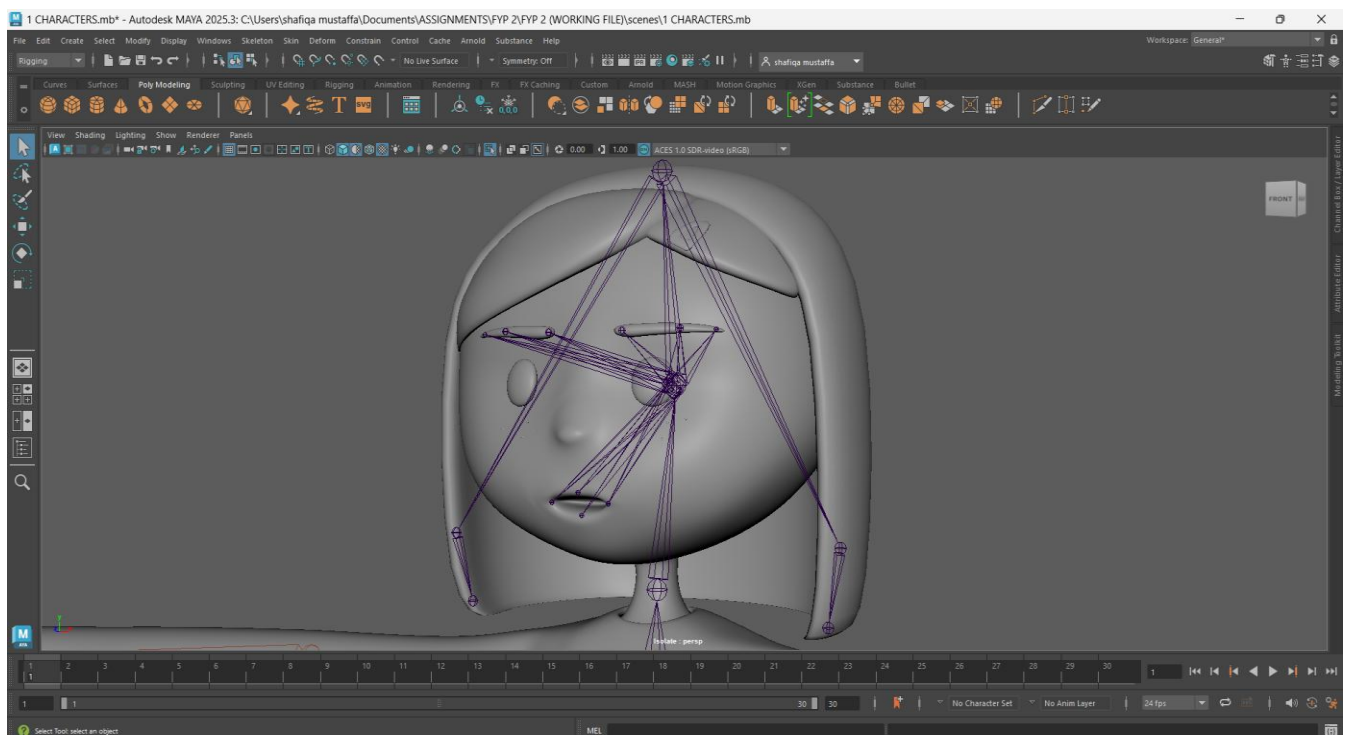


**Figure 73:** Adding Bones to Character

After adding bones or joints to Luna and Ella's complete bodies, I focused on adding bones to their faces. Diagram 74 and 75 show that joints were placed on the mouth, brow and even hair. The eyes were not places with joints because I used Driven Key technique to move the eyes. Since that my eyes look like a 2D so it just blinks and move slightly from left to right.



**Figure 74: Joints on Luna's Face**



**Figure 75: Joints on Ella's Face**

After that, I use the IK Handle technique on the character's hands and feet. An IK Handle is an object you can select and move that affects the joints it is assigned to. It is easier to use IK Handle on the legs and arm because it will move in the same direction as a normal human moves. The following are an example of how the IK Handle on the legs and arms look like.



Figure 76: IK Handle on the Legs

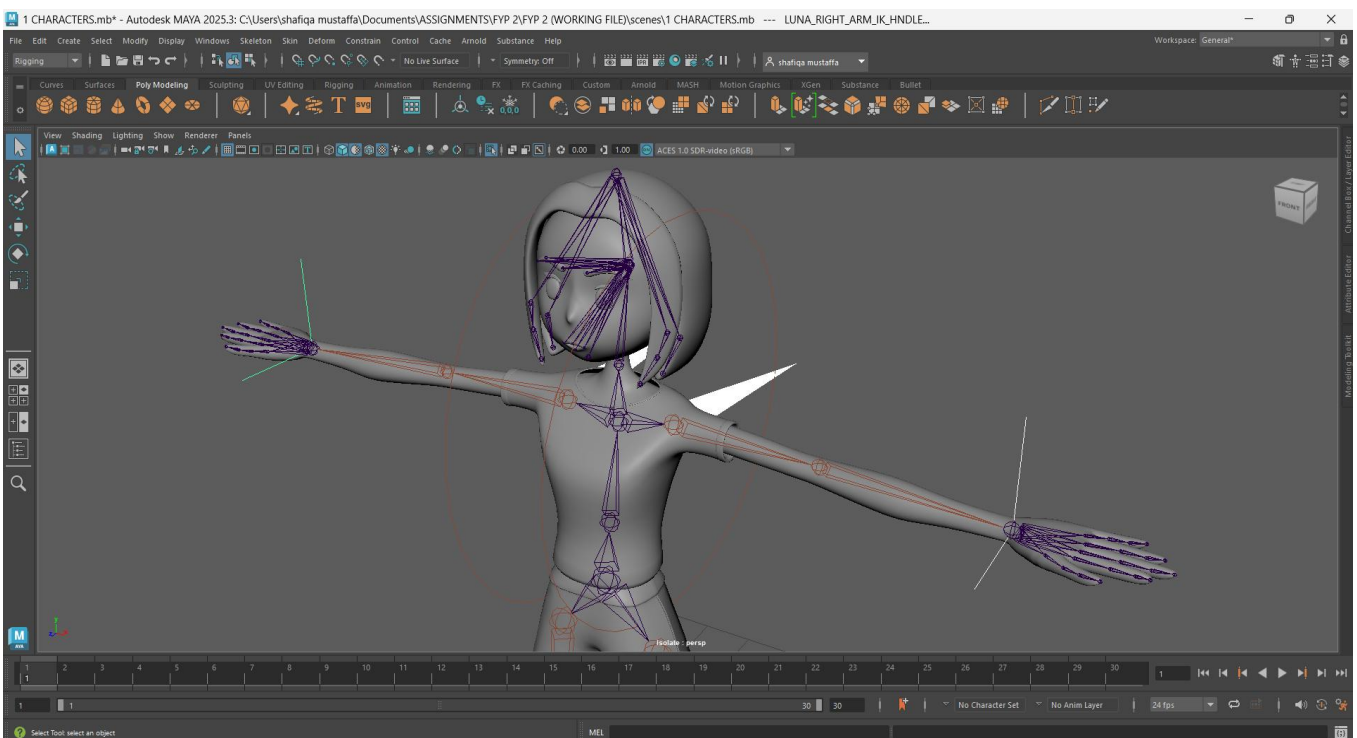
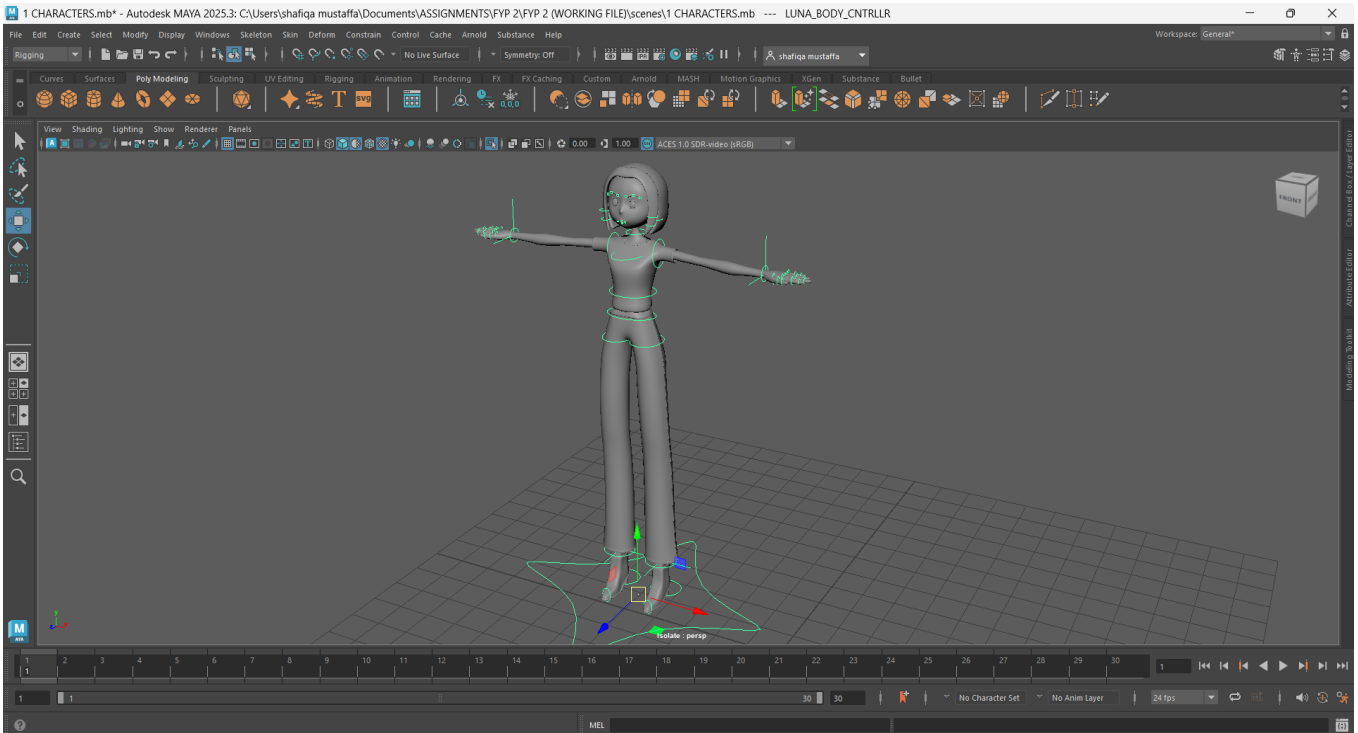
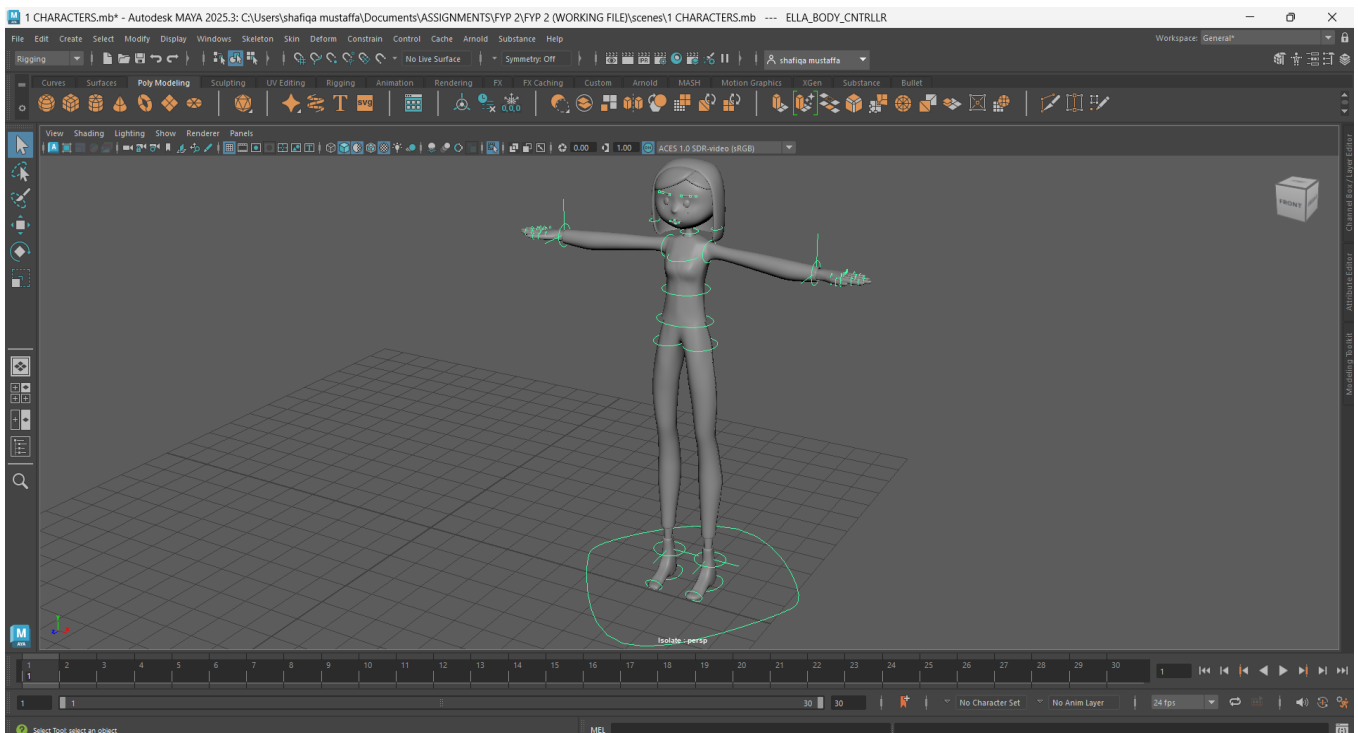


Figure 77: IK Handle on the Arms

After that, I will add controllers to each joint on the character's body. The function of the controllers is to provide a simple, intuitive and more efficient interface for animation, as they drive the hidden skeleton's movement through connections like parent constraints. So, the controllers will be parented with each joint and to move the character, just use the controller that has been placed outside of the body.



**Figure 78: Controllers on Luna's Body**



**Figure 79: Controllers on Ella's Body**

Rigging does not end here. There are two more steps that need to be done. Namely Bind Skin and Paint Weight. Bind Skin means that all controllers and joints that are created will be attached to the object (character's body) as a whole. And the last one is Paint Weight. Paint Weight is the process of manually adjusting how much a specific joint or bone influences the vertices of a character's skin when it deforms.



Figure 80: Bind Skin

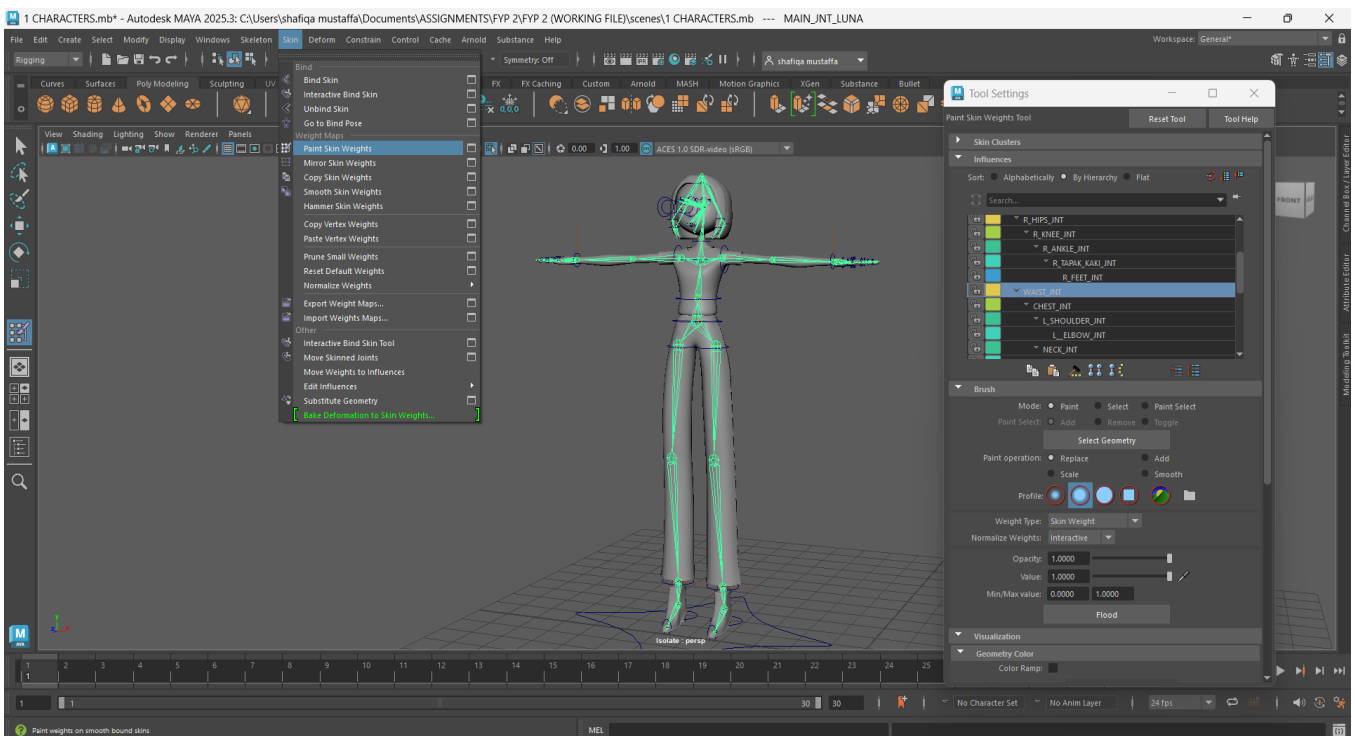


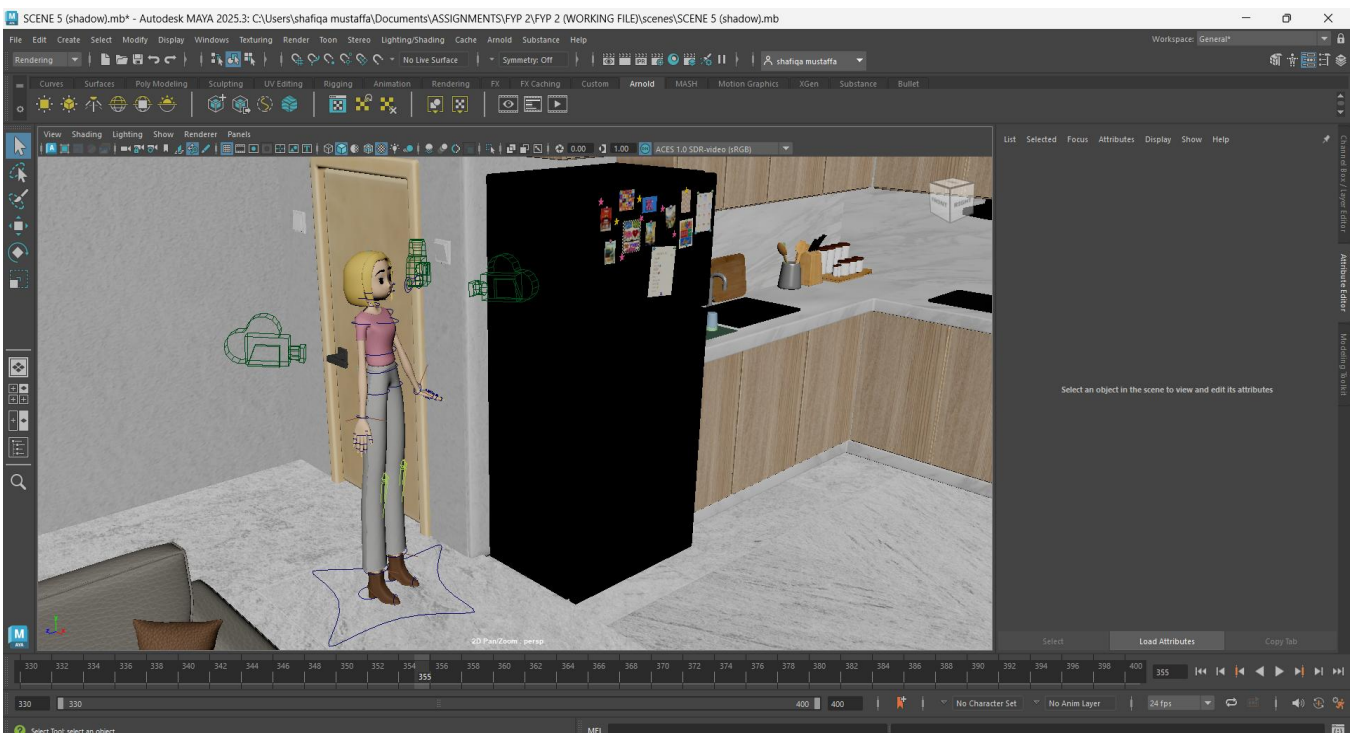
Figure 81: Paint Weight

## 5.5 Animation

The final and most critical step is animation. Animation is always done once the rigging is completed. Animation is typically the most important and time – consuming aspect of creating a 3D animated video. 3D animation is the technique of bringing characters and objects to life. Using the rigged models, animator generate the movements and actions that will appear in the animation. In this procedure, keyframes are created to specify the beginning and ending points of movements and the motion between those points is filled in using interpolation (Cada, 2024).

### 5.5.1 3D Animation

This 3D animation for this project was completed entirely in Maya Software, using the script and storyboard created during the pre – production phase. The animation involved key framing each step on the timeline, as well as camera movement for dynamic shots. I have 6 main scenes in total. I use a separate file for each of my six main scenes since it makes it easier for me to tell which scenes have been animated. Since every scene has a different background and different moves, this way it is very easy and to prevent crashes from occurring while animating.



**Figure 82:** Animating in Autodesk Maya

## 5.6 Conclusion

In conclusion, the production stage is the most crucial part of the animation pipeline because it is where all the earlier planning such as sketches, storyboards and animatics comes to life through 3D animation. This stage begins with character and background modelling, continues with rigging to support movement and moves into the animation process where all the planned storyline is fully executed. The pipeline's structure workflow, which includes modelling, texturing and animation helps maintain efficiency, consistency and quality through the project. Although time consuming, this stage ensures that every detail of movement and visual presentation is refined, resulting in a polished, engaging and visually cohesive final animation.

## 6 POST – PRODUCTION

### 6.1 Introduction

Post – production is the final stage of the 3D animation pipeline where all elements are refined and polished to create seamless, high – quality product. This phase involves editing, adding visual effects, colour correction and preparing the animation for its intended medium (Shahbazi, 2025). So, basically in this stage, where all rendered elements are refined and combined to create the finished animation. This stage typically involves compositing, where different layers are merged together to enhance visual quality. Color correction is also applied to ensure consistency in tone, mood and lighting through animation. Finally, audio elements such as sound effects, dialogue and background music are synchronized with the animation visuals to create a complete and immersive experience. Overall, post – production ensures that every shot looks polished, cohesive and ready for final delivery.

### 6.2 Lighting

After I finishes animating, I added lighting to give the viewers a mood and to make my animation more realistic. After all, without lighting, no visual animation will be seen in the render view. So, for lighting, I am using various sorts of lighting to complement the background and scene that has been created. Mesh light is one of the lighting elements I utilise in my animations and it is exclusively used for inside scenes such as inside houses and rooms. For exterior lighting, I use Skydome lights with some help from HDRI images I found on the internet. This HDRI's purpose is to produce realistic, physically based illumination and reflections from a single panoramic picture of an actual setting.

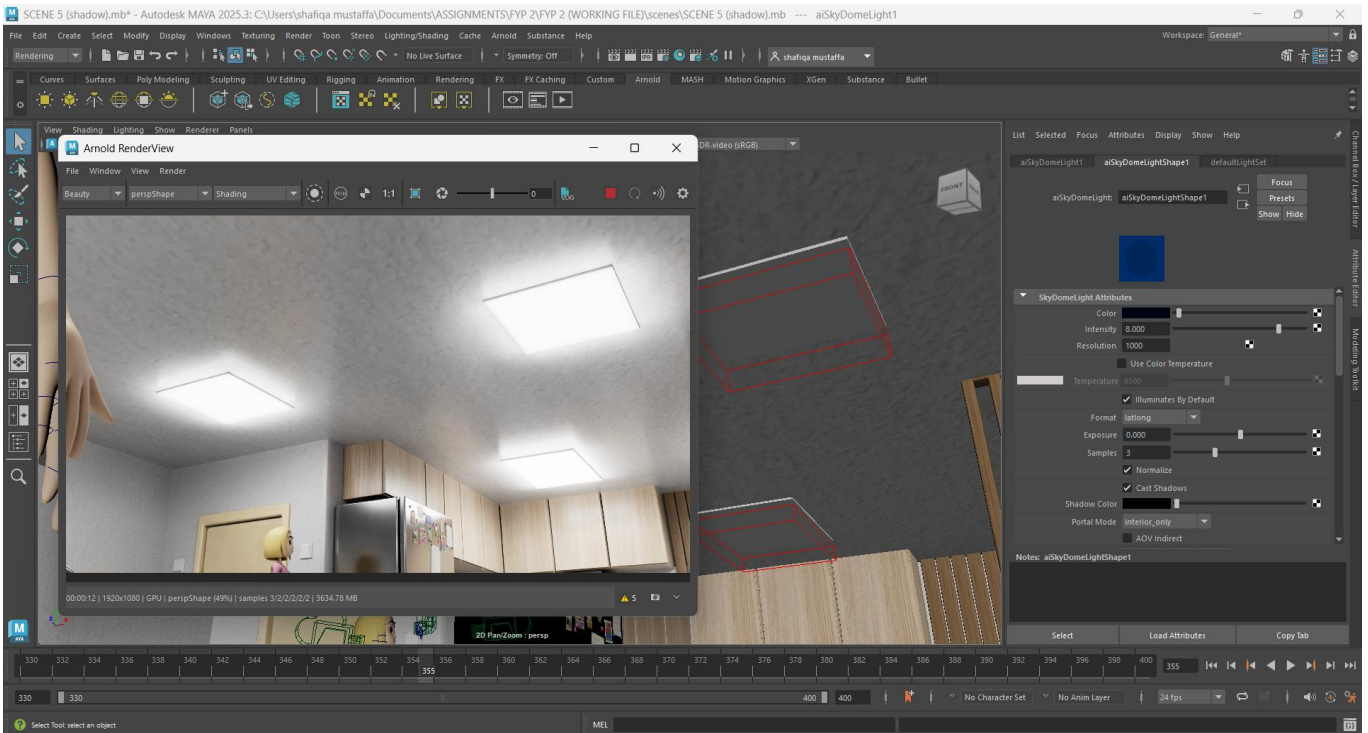


Figure 83: Mesh Light Lighting

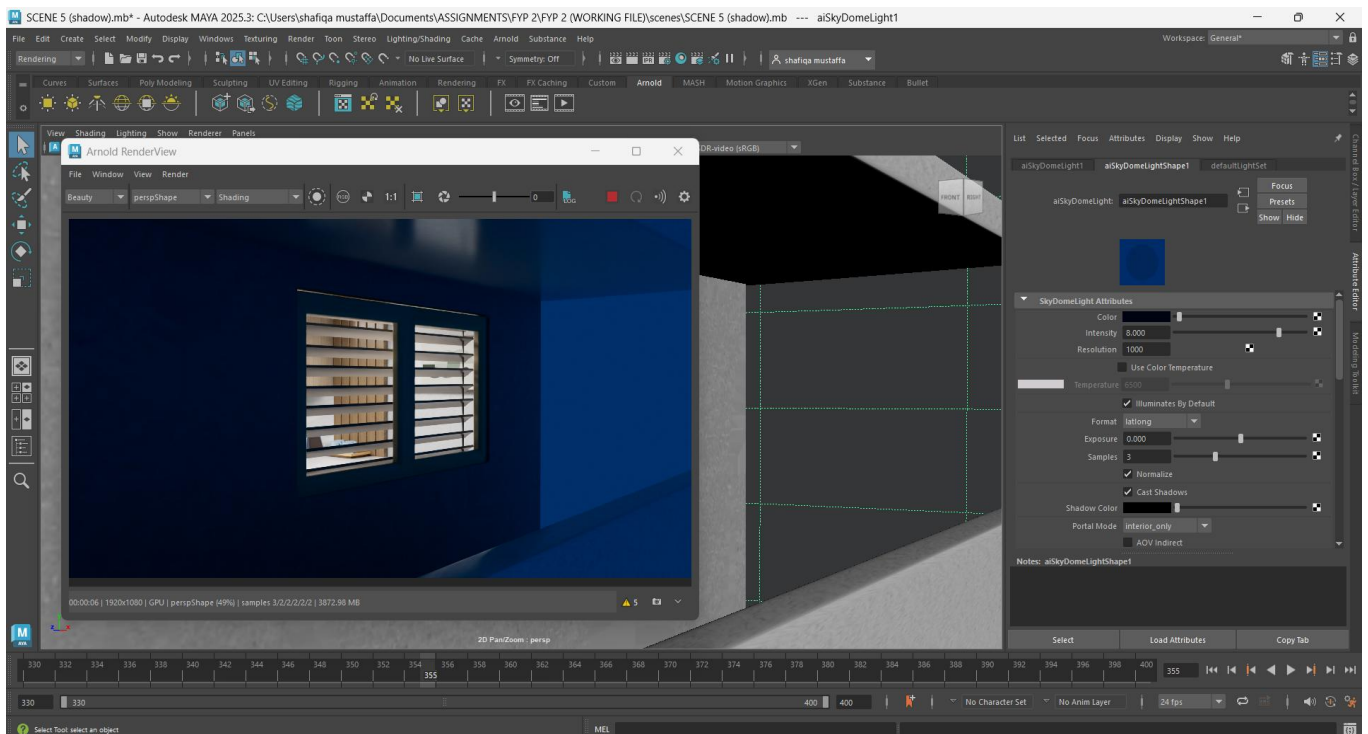


Figure 84: Sky Dome Lighting

### 6.3 Rendering

After I have finished animating everything, I will proceed to render my animation in render sequence. But before I render as a whole, I need to make sure all of my render settings are to my preference. I use HD 1080 scaled photos for more engaging animation productions. Next, I employ a GPU system instead of CPU to generate output more quickly and efficiency.

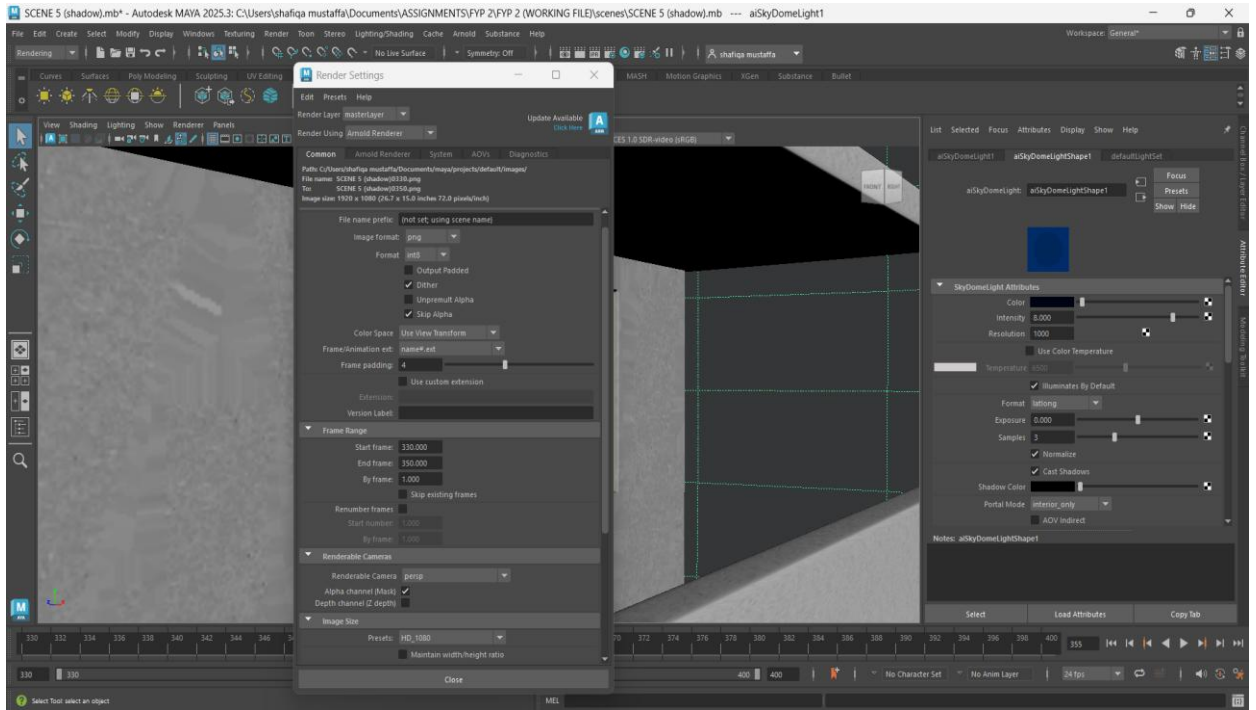


Figure 85: Render Setting

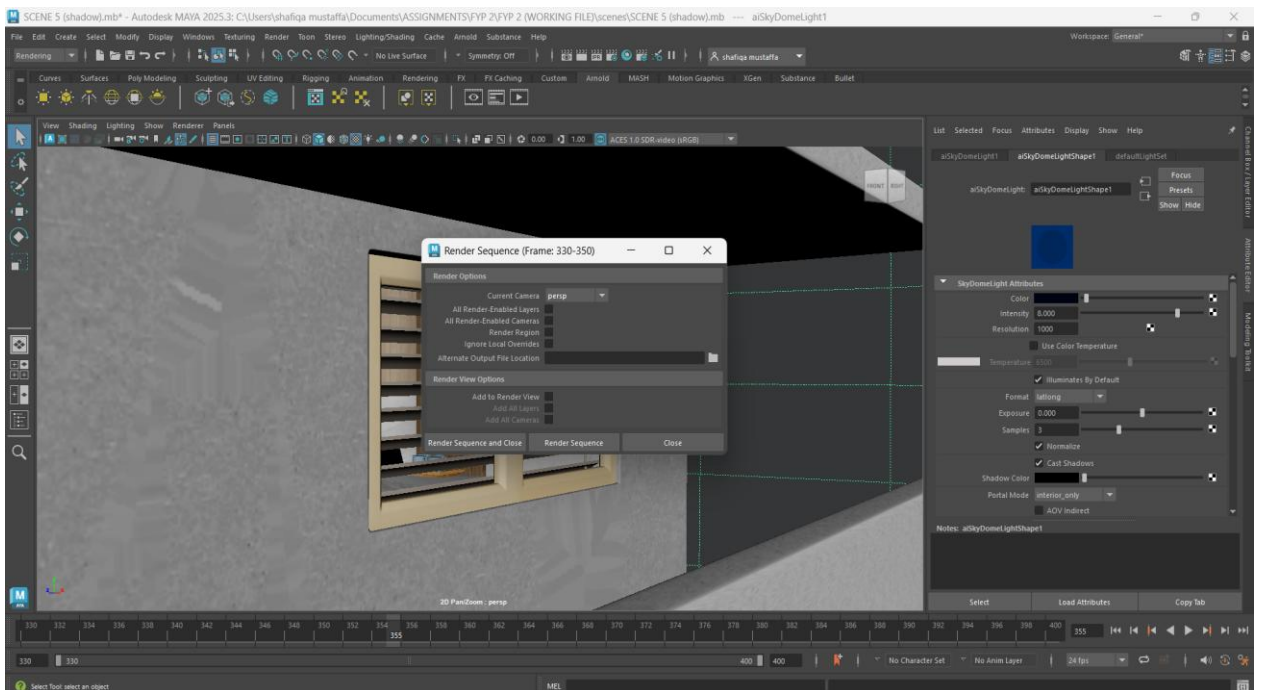
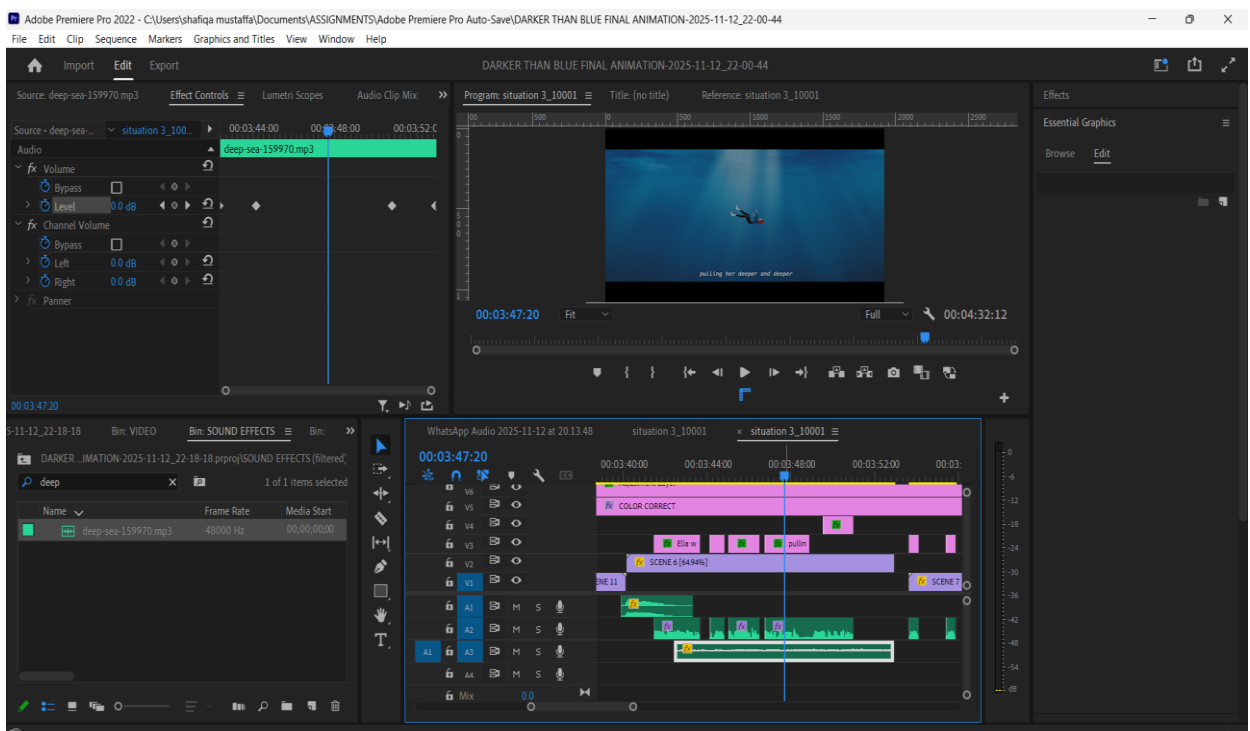


Figure 86: Render Sequence

## 6.4 Compositing

The next step is compositing. I use Adobe Premiere Pro to convert the image sequences into videos. This procedure is also brought together and improved to produce the final look. This method also involves resolving minor flaws such as flickering, edge artefacts and uneven lighting. To increase visual impact, additional effects like glows, blur or depth of field might be used. Overall, compositing helps to integrate all parts and ensures that the final animation appears clean and cohesive.



*Figure 87: Compositing in Adobe Premiere Pro*

## 6.5 Colour Correction

The next step is colour correction. Colour correction is the process of changing the colour, brightness and contrast of rendered frames to guarantee uniformity across the animation. This phase is vital since it not only corrects colour imbalances and lighting variances, but it also contributes to the overall atmosphere of the image. Colour correction improves the emotional impact of an animation by altering tones for example, making colour warmer for a pleasant feeling or cooler for sad or tense atmosphere. This ensures that each shot is visually balanced, cohesive and appropriate for the intended atmosphere and storyline. I believe that colour correction is necessary for my animation video because it impacts the viewer's mood.

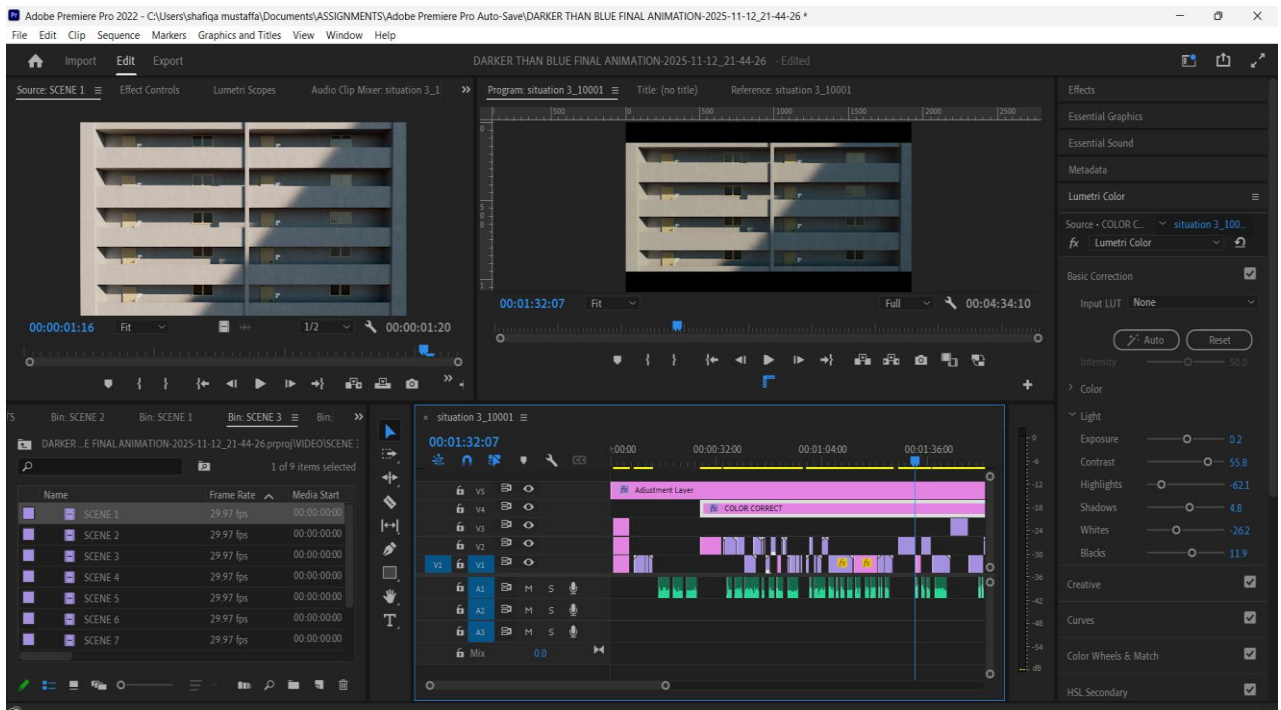
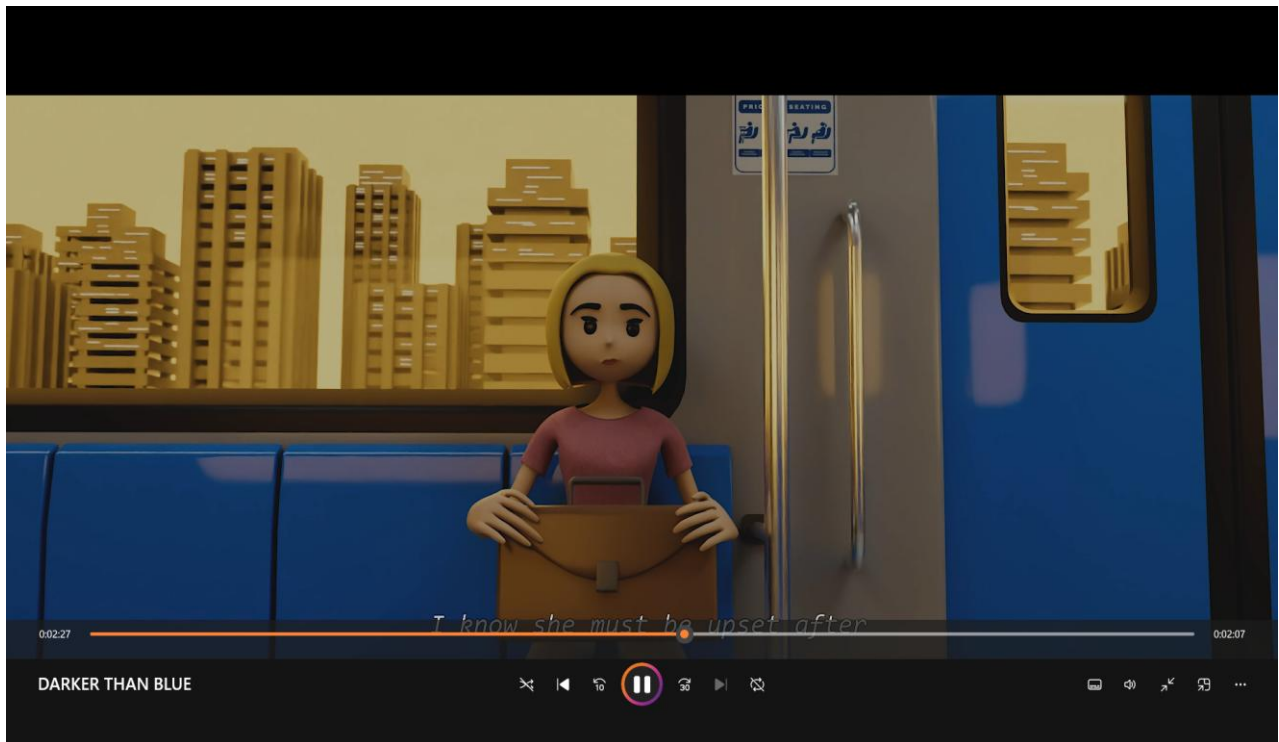


Figure 88: Colour Correction in Adobe Premiere Pro

## 6.6 Final output

Final output is where the finished product or animation is exported in its final format. Each frame is combined into a single video file following compositing, colour correction and audio mixing. Whether the animation is being presented for web platforms, screenings or portfolio use, this step guarantees that it is displayed in the proper quality, frame rate and file format. The ultimate output is a fully polished animation that can be shared, presented or delivered as a complete and professional finished project.



*Figure 89: Final Output*

## 6.7 Conclusion

In conclusion, the post – production process is the final phase in refining and completing a 3D animation project. This step makes sure that all of the visual and audio components blend together seamlessly through compositing, colour correction, audio synchronisation and final output rendering. Post – production improves the overall tone, visual quality and resolves any lingering flaws to provide a unified and polished outcome. Lastly, this technique converts the produced scenes into a professional final animation that is suitable for presentations or promotion.

## 7 EVALUATION

### 7.1 Introduction

This evaluation section discusses both the production process and the audience's reaction to my 3D animation project. It assesses if the project met its objectives, which include visual excellence, storytelling clarity and emotional effect. This part also evaluates how viewers evaluated the animation whether they got the message and how they responded to the whole experience.

### 7.2 Evaluation Method

#### 7.2.1 Questionnaire

For the evaluation strategy, I am using a Google Form to get feedback from the viewers on my 3D animation project. This form contains 12 questions, all of which are concerning depression, which is the theme of my final animation short film. This is to determine whether the message and awareness given by Darker Than Blue animation reached the viewers.

NO	QUESTION	ANSWER
1.	What is your gender?	<i>Answer option consists of:</i> <ul style="list-style-type: none"> <li>• Male</li> <li>• Female</li> </ul>
2.	How old are you?	<i>Answer option consists of:</i> <ul style="list-style-type: none"> <li>• Below 17</li> <li>• 18 – 25</li> <li>• 26 – 35</li> <li>• Above 36</li> </ul>
3.	Have you ever heard of depression before?	<i>Answer option consists of:</i> <ul style="list-style-type: none"> <li>• Yes</li> <li>• No</li> <li>• Maybe</li> </ul>
4.	Do you think depression is the same as feeling sad?	<i>Answer option consists of:</i> <ul style="list-style-type: none"> <li>• Yes</li> <li>• No</li> <li>• Maybe</li> </ul>

5.	In your opinion, who can experience depression?	<i>Answer option consists of:</i> <ul style="list-style-type: none"> <li>• Children</li> <li>• Teenagers</li> <li>• Adults</li> <li>• Elderly</li> </ul>
6.	Do you believe depression is a serious mental health condition?	<i>Answer option consists of:</i> <ul style="list-style-type: none"> <li>• Yes</li> <li>• No</li> <li>• Maybe</li> </ul>
7.	What do you think are the main causes of depression?	<i>Answer option consists of:</i> <ul style="list-style-type: none"> <li>• Stress</li> <li>• Trauma</li> <li>• Genetics</li> <li>• Lifestyle</li> </ul>
8.	How comfortable would you feel talking to someone who is experiencing depression?	<i>Answer option consists of:</i> <ul style="list-style-type: none"> <li>• Very Comfortable</li> <li>• Very Uncomfortable</li> </ul>
9.	Do you believe creative media such as films, animation and art can help spread awareness about depression?	<i>Answer option consists of:</i> <ul style="list-style-type: none"> <li>• Strongly Agree</li> <li>• Strongly Disagree</li> </ul>
10.	Do you think animation can be an effective tool to represent emotions like sadness, loneliness or despair?	<i>Answer option consists of:</i> <ul style="list-style-type: none"> <li>• Yes</li> <li>• No</li> <li>• Maybe</li> </ul>
11.	Do you think you now understand depression better after viewing 'Darker Than Blue'?	<i>Answer option consists of:</i> <ul style="list-style-type: none"> <li>• Yes</li> <li>• No</li> <li>• Maybe</li> </ul>
12.	Would you recommend this type of animation project to people who want to learn more about mental health?	<i>Answer option consists of:</i> <ul style="list-style-type: none"> <li>• Yes</li> <li>• No</li> <li>• Maybe</li> </ul>

**Table 7: Questionnaire Question Lists**

### **7.3 Conclusion**

In conclusion, the questions asked will help me to evaluate my animation project more. Reviews from viewers also help me to improve the weaknesses in my animated short film. I also need to see if the message that I want to convey through my animation film reaches the viewers who have already seen my work. Any good and bad should be accepted with an open heart to further improve the level of animation to be more excellent. Overall, the evaluation provided a clear understanding of the animation's strengths, weaknesses, and the effectiveness of the final message. This reflection will be useful for improving future projects and strengthening the animation workflow.

## 8 DISCUSSION OF FINDINGS

### 8.1 Introduction

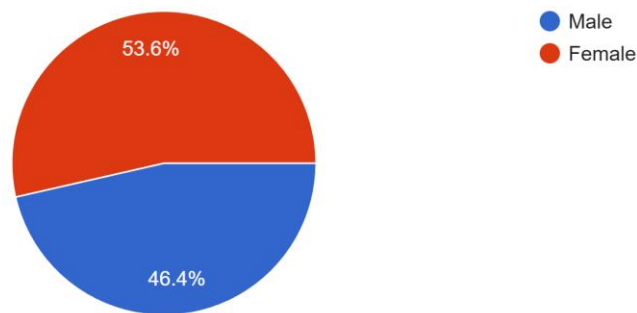
In this chapter, the evaluation results through the questions listed in the previous chapter will be compiled and discussed here. A total of 56 people has answered the survey through the Google Form that I have prepared.

### 8.2 Evaluation Results

#### 8.2.1 Questionnaire Feedback

What is your gender?

56 responses

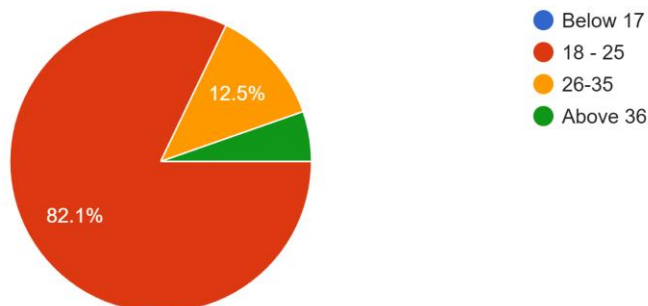


**Figure 90:** Questionnaire Results Question 1

Based on the Figure 90, they were 53.6% of respondents were female while the remain 46.4% were male respondents. With that percentage, the ratio becomes 30:26.

How old are you?

56 responses

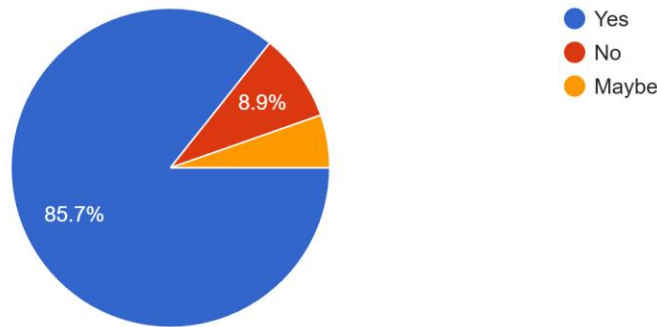


**Figure 91:** Questionnaire Results Question 2

According to the results of Question 2, the majority of respondents (82.1%) are between the ages of 18 to 25. With a percentage of 12.5%, responders are between the ages of 26 to 35 with the remainder over age of 36. There are no responders who are younger than 17.

Have you ever heard of depression before?

56 responses

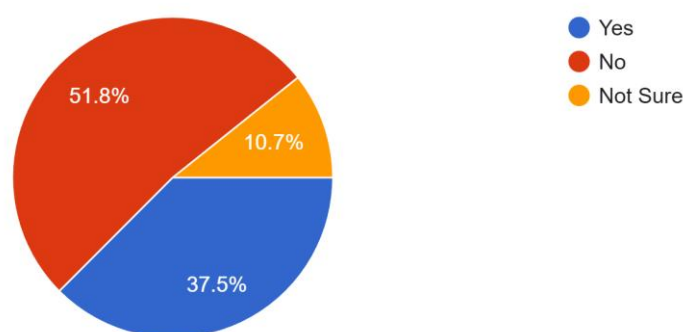


**Figure 92: Questionnaire Results Question 3**

Based on *Question 3*, most of the respondents have heard about depression with a percentage of **85.7%**, while **8.9%** have never heard about depression. The remaining **5.4%** are not sure whether they have heard about it.

Do you think depression is the same as feeling sad?

56 responses

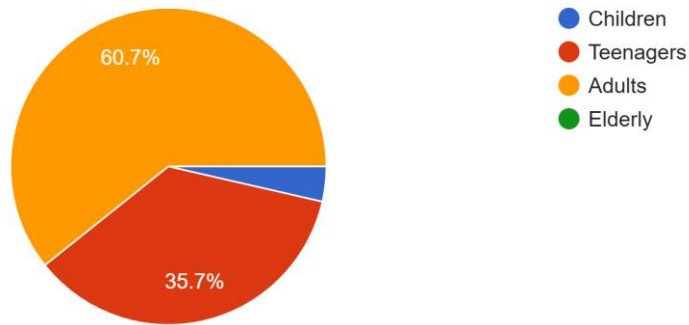


**Figure 93: Questionnaire Results Question 4**

A total of **51.8%** of respondents feel that depression is different from the feeling of sadness. Meanwhile, **37.5%** believe that depression and feeling sadness are the same and the rest choose that they are not sure.

In your opinion, who can experience depression?

56 responses

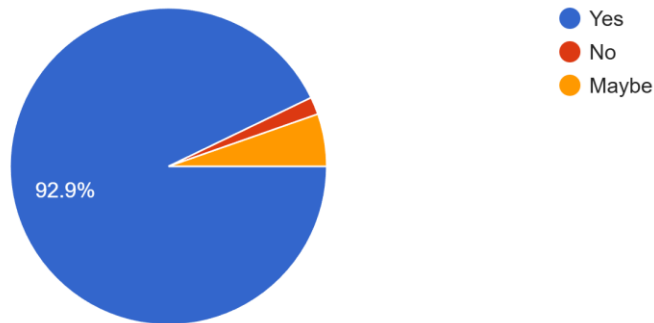


**Figure 94:** Questionnaire Results Question 5

Regarding who can experience depression, from 56 respondents, **60.7%** chose adults as the group most likely to experience depression while **35.7%** choose teenagers and the rest selected children.

Do you believe depression is a serious mental health condition?

56 responses

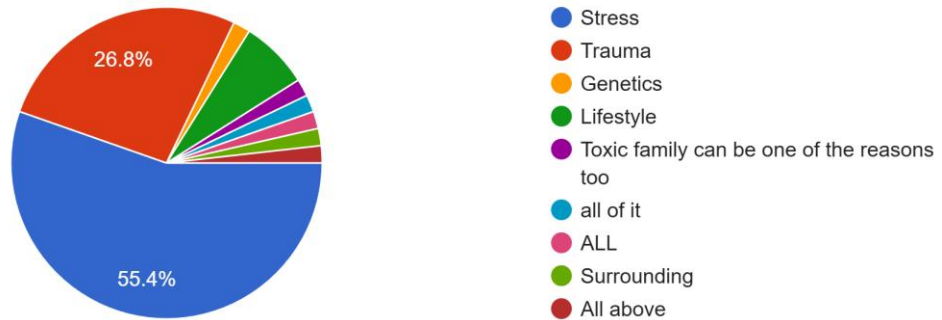


**Figure 95:** Questionnaire Results Question 6

For *Question 6*, the majority of the respondents with **92.9%** agree that mental health is a serious condition.

What do you think are the main causes of depression?

56 responses

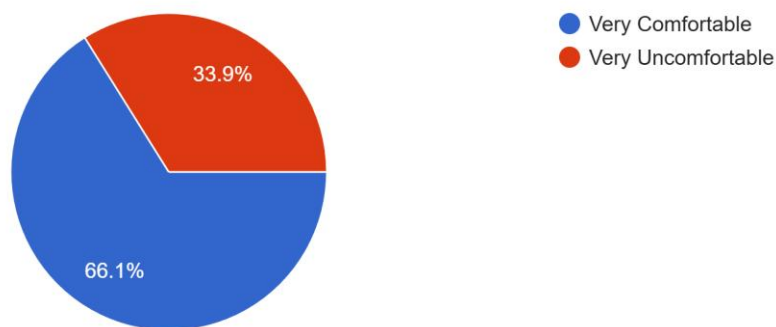


**Figure 96: Questionnaire Results Question 7**

Based on results for *Question 7*, many respondents choose stress as the main cause of depression with **55.4%**. The second most selected cause is trauma with **26.8%**. They also shared their opinions on other causes of depression such as having toxic family or environmental factors. A number of them also selected that all of the causes listed could be the main causes to depression.

How comfortable would you feel talking to someone who is experiencing depression?

56 responses



**Figure 97: Questionnaire Results Question 8**

A total of **66.1%** of respondents stated that they feel comfortable talking to someone who is experiencing depression while the remaining **33.9%** said they do not feel comfortable.

Do you believe creative media such as films, animation and art can help spread awareness about depression?

56 responses

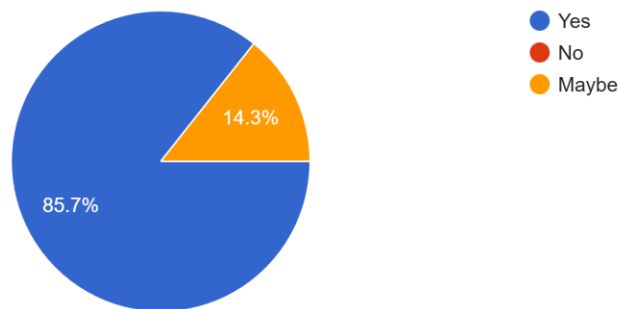


**Figure 98:** Questionnaire Results Question 9

Based on the chart for *Question 9*, **100%** of respondents (*all 56*) agree that media such as films, animation and art can help spread awareness about depression.

Do you think animation can be an effective tool to represent emotions like sadness, loneliness or despair?

56 responses

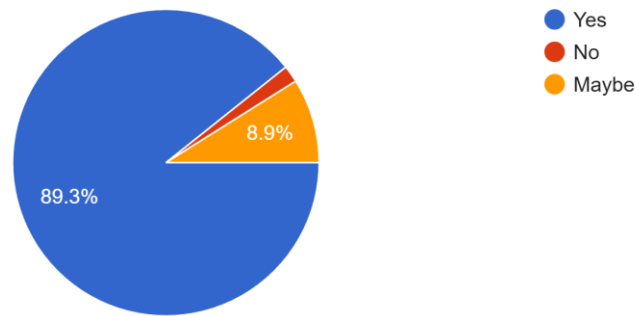


**Figure 99:** Questionnaire Results Question 10

For *Question 10*, **85.7% agree** and **14.3% disagree** that animation can be an effective tool to represent emotions like sadness, loneliness or despair.

Do you think you now understand depression better after viewing 'Darker Than Blue'?

56 responses

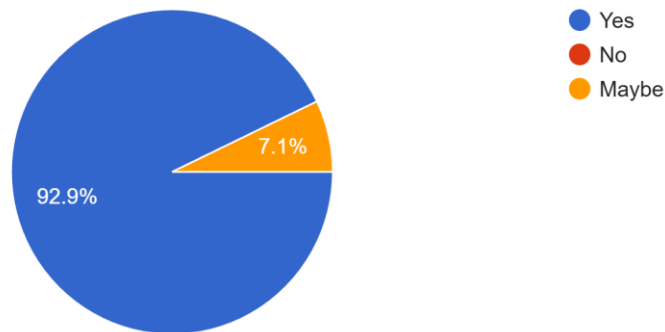


**Figure 100:** Questionnaire Results Question 11

Based on *Figure 100*, the majority of respondents **89.3%** selected that they understand depression better after watching *Darker Than Blue* while **8.9%** selected “maybe”.

Would you recommend this type of animation project to people who want to learn more about mental health?

56 responses



**Figure 101:** Questionnaire Results Question 12

For the final questionnaire answer, **92.9%** chose that they would highly recommend this type of animation project to people who want to learn more about mental health.

### 8.3 Discussion

This survey results provide a thorough summary of respondent's knowledge, attitudes and perceptions about depression and mental health. With a fair gender distribution and a majority of participants aged 18 to 25, the findings mostly represent the viewpoints of young adults. Even though the majority of respondents (85.7%) were aware of depression, many were still unclear about it. While most people identified adults as the most likely to experience depression, less knowledge its influence on teenagers and children. Overall, respondents clearly understood that mental health is a significant issue but a sizable proportion (33.9%) still felt uncomfortable conversing with someone suffering from depression, demonstrating that awareness does not always convert into confidence or supportive behaviour.

This survey also highlighted widespread perceptions on what causes to depression. The main cause was found to be stress (55.4%), followed by trauma. Some respondents also mentioned other variables such as environments and issues with family (toxic family). This demonstrates an increasing realisation that depression is multi – factorial, influenced by both personal experience and environmental events.

Media and visual storytelling have showed significant potential as tools for mental health awareness. All respondents agreed that media including films, animations and arts can effectively promote awareness of depression. With the majority (85.7%) believing animation in particular can depict emotions such as loneliness, sadness and despair. Significantly, 89.3% of respondents believed that the animation Darker Than Blue improved their understandings of depression and 92.9% said that they would suggest this animation project to others. This clearly shows that creative visual media may overcome emotional gaps, remove stigma and promote mental health conversations in ways that traditional teaching cannot.

### 8.4 Conclusion

In conclusion, the findings demonstrate that while young adults are generally aware of depression, there are still misconceptions about how to distinguish melancholy from everyday sadness who is most impacted. Although the majority of respondents recognise mental health as a significant issue, many still feel unconfirmable dealing with people who are depressed. The finding also show that respondents recognise several primary causes of depression, including stress, trauma and toxic environments. Most crucially, the study emphasises the great usefulness of media, particularly animation as a medium for mental health awareness. Darker Than Blue's highly positive reception shows that the project effectively employed symbolic visual metaphors and emotive storytelling to increase understandings about mental health.

## 9 CONCLUSIONS

### 9.1 Introduction

In this final chapter, I will highlight the project's achievements which are largely related to its objectives. This chapter also included an overview of the project's key results, reflections and outcomes. For me, all of the objectives' successes are tremendously supported by the feedback provided by viewers and responders to my survey. It really helps me to improve my work for future and prospective tasks.

### 9.2 Achievements

#### 9.2.1 First Point of the Objective

My first objective is to raise awareness about depression among society. It is first purposely to educate others about the symptoms, causes and effects on daily life dispelling myths such as depression being "just sadness" or a personal weakness. Therefore, the survey results plainly reveal that my objective was well targeted and achieved. A whole 100% of respondents agreed that media such as animations may raise awareness and 85.7% believed animation effectively communicates emotional experiences associated to depression. Most crucially, 89.3% felt that they had a greater understanding of sadness after viewing Darker Than Blue and 92.9% would recommend this animation to others. This demonstrates that my animation short film called Darker Than Blue effectively raised awareness and generated a wider discussion about mental health in society.

#### 9.2.2 Second Point of the Objective

The survey results strongly support my second objective which is to perfectly combining visuals and storytelling to maintain audience interest. The vast majority of respondents felt that animation is a good medium for portraying emotions and may claimed that Darker Than Blue improved their understanding of sadness, demonstrating that they were engaged throughout the visual tale. The fact that 92.9% would truly recommend similar animation projects demonstrates that my images and storytelling capture their attention and had a long – lasting impression. This shows that my creative approach effectively attracted and held the audience's attention as planned.

### 9.3 Problem and Constraints

The process of completing this animation did not go smoothly. I had a variety of challenges and problems, particularly during the production and post – production process. During production, everything went just as planned. However, one of the issues that I experienced during the production process was the paint weight problem on the characters. That was just a minor problem that I cannot fix but I was able to fix it through my friends' help because a few areas of the body were ripped during the movement.

The challenges faced during post – production were among the most difficult for me and I nearly gave up hope of continuing with this project. I lost the Adobe Premiere Pro file that edited my entire animation since I didn't realise which button I suddenly hit. All of the editing had been lost and I was left blank and unsure what to do. I almost gave up but luckily Premiere Pro had autosave, thus my file was safely recovered there. So, what I have learnt is that I should not panic initially and try to save what I can, and that creating a backup file is really necessary.

### 9.4 Future Work

Future work can concentrate on improving both the technical and storytelling aspects of the projects such as increasing animation length to allow for a more intricate storyline, refining character rigging, keyframes, rendering quality and texture resolution for smoother visuals and improving emotional engagement through clearer visual transitions, sound effects and background music. Collaborating with mental health organisations or specialists could improve the content's accuracy and trustworthiness while broadening the scope to include other psychological or emotional disorders would help reach a larger audience. Exploring interactive or instructive formats can boost engagement even more and future study could look into long – term influence of this awareness on social attitudes towards mental health while audience input can help lead further refinements.

### 9.5 Conclusion

In conclusion, this project successfully achieved its objective of raising awareness about mental health by effectively combining animation, visuals and storytelling to engage the audience. The survey results and audience feedback indicate that this project captured attention and conveyed important messages about mental well – being, demonstrating the effectiveness of its creative approach. While technical improvements such as smoother animations, refined visuals and richer sound design could further enhance the project. This project has laid a strong foundation for promoting mental health awareness among society. on societal attitudes, ensuring sustained awareness and engagement.

## Appendix A – Questionnaire

# Final Year Project 2 (CM201)

### 'Darker Than Blue' by Shafiq Mustaffa

Hello, My name is **Nur Shafiq binti Mustaffa**, and I am a Bachelor of Arts student majoring in 3D Animation and Digital Media (Hons) at University Poly-Tech Malaysia (UPTM). I am currently conducting a survey for my Final Year Project 2, which involves a short animation titled "**Darker Than Blue**"

This form contains 12 questions that will assist with data collection and analysis. Please rest assured that your answers will remain private and will be used exclusively for academic research.

Before proceeding to the questions, I have provided a link to view my brief animation film. I hope you enjoy it, and please take your time.

Thank you for your valuable time and support!

#### Synopsis:

*Darker Than Blue* tells the story of Luna, a career-driven woman whose busy life causes her to overlook the growing distress of her quiet housemate, Ella. When Ella begins to act withdrawn and unresponsive, Luna assumes she is simply upset, unaware that Ella is battling deep depression. As strange and unsettling events unfold in their home, Luna's guilt and confusion intensify, forcing her to confront the emotional distance she has built between them.

**Figure 102:** Introduction Of My Questionnaire

### Darker Than Blue Animated Short Film



**Figure 103:** My animated Short Film YouTube Link

**What is your gender? \***

- Male
- Female

**Figure 104: Questionnaire Question 1**

**How old are you? \***

- Below 17
- 18 - 25
- 26-35
- Above 36

**Figure 105: Questionnaire Question 2**

**Have you ever heard of depression before? \***

- Yes
- No
- Maybe

**Figure 106: Questionnaire Question 3**

**Do you think depression is the same as feeling sad? \***

- Yes
- No
- Not Sure

**Figure 107: Questionnaire Question 4**

**In your opinion, who can experience depression? \***

- Children
- Teenagers
- Adults
- Elderly

**Figure 108: Questionnaire Question 5**

**Do you believe depression is a serious mental health condition? \***

- Yes
- No
- Maybe

**Figure 109: Questionnaire Question 6**

**What do you think are the main causes of depression? \***

- Stress
- Trauma
- Genetics
- Lifestyle
- Other: \_\_\_\_\_

**Figure 110: Questionnaire Question 7**

**How comfortable would you feel talking to someone who is experiencing depression? \***

- Very Comfortable
- Very Uncomfortable

**Figure 111: Questionnaire Question 8**

**Do you believe creative media such as films, animation and art can help spread awareness about depression? \***

- Strongly Agree
- Strongly Disagree

**Figure 112: Questionnaire Question 9**

**Do you think animation can be an effective tool to represent emotions like sadness, loneliness or despair?** \*

- Yes
- No
- Maybe

*Figure 113: Questionnaire Question 10*

**Do you think you now understand depression better after viewing 'Darker Than Blue'?** \*

- Yes
- No
- Maybe

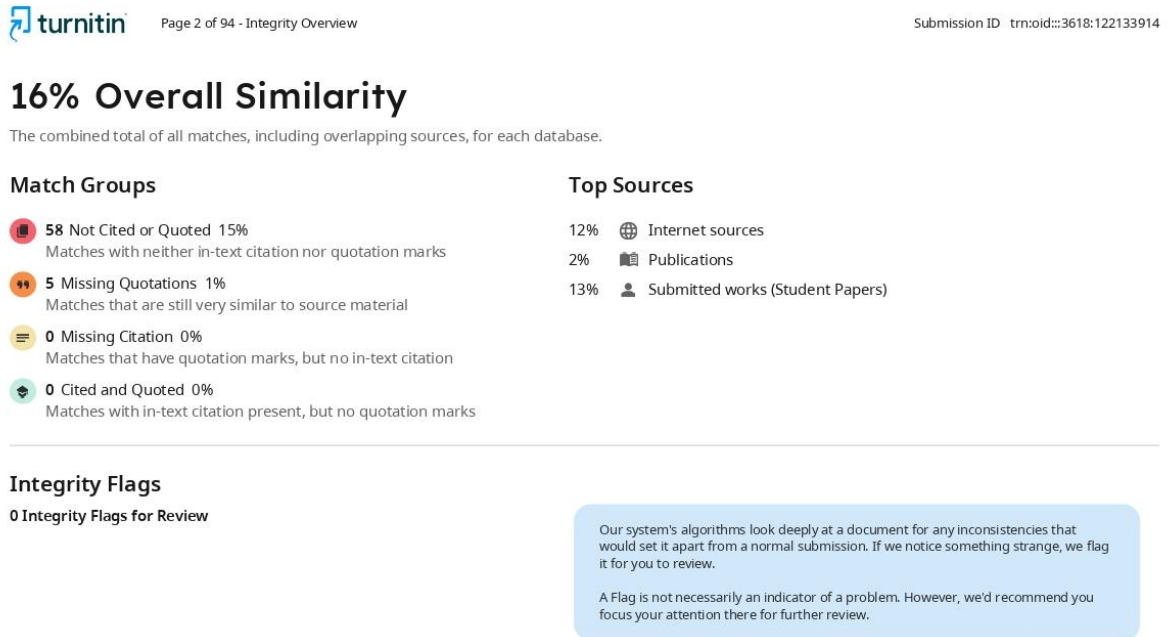
*Figure 114: Questionnaire Question 11*

**Would you recommend this type of animation project to people who want to learn more about mental health?** \*

- Yes
- No
- Maybe

*Figure 115: Questionnaire Question 12*

## Appendix B – Turnitin Result



**Figure 116:** Similarity Result in Turnitin



## \*% detected as AI

AI detection includes the possibility of false positives. Although some text in this submission is likely AI generated, scores below the 20% threshold are not surfaced because they have a higher likelihood of false positives.

### Caution: Review required.

It is essential to understand the limitations of AI detection before making decisions about a student's work. We encourage you to learn more about Turnitin's AI detection capabilities before using the tool.

### Disclaimer

Our AI writing assessment is designed to help educators identify text that might be prepared by a generative AI tool. Our AI writing assessment may not always be accurate (i.e., our AI models may produce either false positive results or false negative results), so it should not be used as the sole basis for adverse actions against a student. It takes further scrutiny and human judgment in conjunction with an organization's application of its specific academic policies to determine whether any academic misconduct has occurred.

## Frequently Asked Questions

### How should I interpret Turnitin's AI writing percentage and false positives?

The percentage shown in the AI writing report is the amount of qualifying text within the submission that Turnitin's AI writing detection model determines was either likely AI-generated text from a large-language model or likely AI-generated text that was likely revised using an AI paraphrase tool or word spinner.

False positives (incorrectly flagging human-written text as AI-generated) are a possibility in AI models.

AI detection scores under 20%, which we do not surface in new reports, have a higher likelihood of false positives. To reduce the likelihood of misinterpretation, no score or highlights are attributed and are indicated with an asterisk in the report (\*%).

The AI writing percentage should not be the sole basis to determine whether misconduct has occurred. The reviewer/instructor should use the percentage as a means to start a formative conversation with their student and/or use it to examine the submitted assignment in accordance with their school's policies.

### What does 'qualifying text' mean?

Our model only processes qualifying text in the form of long-form writing. Long-form writing means individual sentences contained in paragraphs that make up a longer piece of written work, such as an essay, a dissertation, or an article, etc. Qualifying text that has been determined to be likely AI-generated will be highlighted in cyan in the submission, and likely AI-generated and then likely AI-paraphrased will be highlighted purple.

Non-qualifying text, such as bullet points, annotated bibliographies, etc., will not be processed and can create disparity between the submission highlights and the percentage shown.



**Figure 117: Ai Detected Result in Turnitin**

## Appendix C – Log Book

CM201 / BACHELOR OF ARTS in 3D ANIMATION AND DIGITAL MEDIA (HONOURS)



FACULTY OF COMPUTING AND MULTIMEDIA  
(FCOM)

FINAL YEAR PROJECT 02

# LOGBOOK

STUDENT'S NAME	: NUR SHAFIQA BINTI MUSTAFFA
ID NO.	: AM2307013970
SUPERVISOR	: SIR AMIR AARIEFF BIN AMIR HUSIN
PROJECT TITLE	: DARKER THAN BLUE

*Figure 118: Log Book Cover Page*

CM201 / BACHELOR OF ARTS in 3D ANIMATION AND DIGITAL MEDIA (HONOURS)









Week		Agenda	Next Agenda	Signature (Supervisor / Coordinator)
4 - 10/8/2025	1	- Character Modelling	- Finish Background Modelling	
11 - 17/8/2025	2	- Background Modelling	- Finish Background Modelling	
18 - 24/8/2025	3	- Background Modelling - Adding Texture	- Finish Background Modelling	
25 - 31/8/2025	4	- Background Modelling	- Start Character Modelling	
1 - 7/9/2025	5	- Character Modelling - Making Report	- Finish Character Modelling	
8 - 14/9/2025	6	- Character Modelling - Background Modelling - Adding Texture	- Finish All Character and Background Modelling - Finish Adding Textures	
<b>MIDTERM BREAK</b>				
22 - 28/9/2025	7	- FYP 2 Preview - Finish Characters Modelling - Finish Background Modelling	- Completing the Background with Textures - Completing Rigging and Paint Weight	
29 - 5/10/2025	8	- Character Texturing - Character Rigging - Background Texturing	- Finish Rig	

Figure 119: Log Book Page 1

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6 – 12/10/2025	9	- Character Rigging	- Paint Weight	
13 – 19/10/2025	10	- Character Rigging - Character Paint Weight	- Start Animate	
20 – 26/10/2025	11	- Character Paint Weight - Making Portfolio - Making Poster - Making Report	- Animate	
27 – 2/11/2025	12	- Start Animate - Rendering	- Rendering & Editing	
3 – 9/11/2025	13	- Animate - Rendering	- Final Presentation	
10 – 16/11/2025	14	- Editing - Exhibition (Final Presentation) - Making Reports	-	

Figure 120: Log Book Page 2

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