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MEDIA

徐焕桉

2025

DEVELOPMENT

RESEARCH

CAMERA

True-life newspaper thriller All the President's Men, directed by Alan J. Pakula, uses split diopters (basically a deep depth of field) as a clever visual trick to create tension. In this shot, Woodward is on an important phone call, interviewing a source providing crucial information, while his colleagues in the background watch TV. Both foreground and background remain in sharp focus. By using this camera technique, Pakula reminds the audience that Woodward is far from alone in this loud, hectic space. There's interest in the scene because of what the reporter is learning, but there's also additional energy in the framing because of what's going on around him, depicting the amount of motion and chatter that is present in the film. I want to do something similar by using 2 different shots that have different DOF and merge them in post to create this effect.

All the President's Men
1976
Cinematography: Gordon Willis
Director: Alan J. Pakula
Actor: Robert Redford
https://static0.colliderimages.com/wordpress/wp-content/uploads/2020/07/all-the-presidents-men-robert-redford-phone-call.jpg

ACTING

When it comes to acting, having characters with clear motivations through the narrative is a must. In this grungy New York thriller, clear character motivations drive the narrative. Connie and his brother Nick are crooks, and when Nick is arrested, Connie's goal becomes freeing him. A thief and manipulative liar, Connie is self-centered, using others to achieve his goals. On paper, he's hard to root for, but Pattinson makes him compelling. Though far from lovable, Pattinson burrows inside this character in such a way that this small-time hood has an internal logic that makes sense. Through these motivations, Pattinson was able to fashion an arresting character, allowing for audiences to resonate and ultimately engage with his character. I need to make this clear in my protagonist otherwise my narrative will be hard to understand which can be detrimental for my production.

Good Time
2017
Director: Benny and Josh Safdie
Actor: Robert Pattinson
https://static01.nyt.com/images/2017/08/11/arts/11goodtime-web01/11goodtime-web01-videoSixteenByNineJumbo1600.jpg

MISE-EN-SCENE

Wes Anderson's The Grand Budapest Hotel displays a high level of mise en scène. The symmetrical composition and centered framing create a sense of order and precision, reflecting the hotel's meticulous management. The rich red and oversaturated warm colour palette helps draw the audience's attention to every detail, underscoring the grandeur of its architecture. This simple yet detailed visual depiction of the hotel interior establishes the film's majestical tone and invites viewers to engage and explore the charming, surreal-like universe Anderson has created. I want to employ this minimalistic approach Anderson has chosen, allowing for a simple but detailed shot composition.

The Grand Budapest Hotel
2014
Director: Wes Anderson
Actor: Ralph Fiennes
https://www.housedigest.com/img/gallery/how-to-decorate-like-the-movie-the-grand-budapest-hotel/use-symmetry-1667954971.jpg

EDITING

In Doctor Strange films, portals are the essential powers of Dr. Strange himself. These ethereal devices act as a method of transportation in the film, drawing the attention of viewers with the clever visual effects the portals adopt in post production. Such effects like the radiating frame with sparks and a neon orange glow can easily be distinguishable from other objects within the scene, allowing for this post-production edited entity to capture the audience's attention. Like many portal designs, Dr Strange uses circular portals to convey notions of wisdom and organic design which again, aligns with the films recurring themes. Since portals are such a powerful motif in the film, Raimi invites the audiences to question and be curious about the portals. This allows for audiences to ponder how Dr. Strange will ultimately utilise his portal ability to its fullest, hence engaging the audience.

Dr Strange: Multiverse of Madness
2022
Cinematography: John Mathieson
Director: Sam Raimi
Actor: Benedict Cumberbatch
https://static.wikia.nocookie.net/marvelcinematicuniverse/images/1/19/DocStrangeRagnarok.png/revision/latest?cb=20180419092335

LIGHTING

Mudbound's plot follows a white and black family working together to keep a Mississippi farm running in the late 1930s. The film strives for a realistic portrayal of life among the working poor, reflected in its naturalistic lighting. In this scene, the key light shines on Mulligan from the left, with a touch of fill light illuminating the other side of her face. A backlight subtly separates her from the background. This classically lit shot avoids drawing attention to itself with the lighting elements harmonising to resemble sunlight and natural sources. It's the most important task for any director to compose a lighting scheme that perfectly mimics real life, allowing to convey a grounded tone. These notions implied by the lighting helps engage audiences through its realism. I want to adopt a similar lighting style to ground and make my film more realistic.

Mudbound
2017
Cinematography: Rachel Morrison
Director: Dee Rees
Actor: Carey Mulligan
https://m.media-amazon.com/images/M/5BNzAzNTdmNmEtZjY0NC00MTMzLTg4ZmItMmU2MTEwNWE0Njc0XkEyXkFqcGc@.RayV1RayQL75RayUX328Ray.jpg

SOUND

In Blade Runner 2049, sound deepens the film's atmosphere and emotional impact. Diegetic elements like vehicle hums, rainfall, and ambience, along with the wide range of sound effects, ground the world in realism, while non-diegetic music creates isolation and tension. The score, composed by Hans Zimmer and Benjamin Wallfisch, uses deep synths and slow, pulsing tones to create a sense of unease and mystery. The deliberate slow pacing of the music affects the audience's perception of time, making moments feel more haunting and adding overall tension in the corresponding scenes. The film's use of sound not only immerses the audience but also defines its melancholic, dystopian tone. Sound can be the breaker for audiences and a captivating soundtrack along with sound effects are vital in creating an immersive and engaging product. I want to create my own soundtrack that can provide a nice background to my production.

Blade Runner 2049
2017
Sound Design: Theo Green, Mark Mangini
Composer: Hans Zimmer, Benjamin Wallfisch
Director: Denis Villeneuve
https://film-grab.com/wp-content/uploads/photo-gallery/bladerunner009.jpg?bwg=1551282394

CAUSE & EFFECT

Rainless Love in a Godless Land is a Taiwanese TV series that follows a young woman navigating a world where gods are preparing to leave as the end of days approaches. Initially, the series presents her to be a stranger who is experiencing strange moments that disrupt her ordinary life. The cause of these moments leads to her ultimately meeting a god along with other events. By employing cause and effect this way, it creates a strong narrative as the audience is constantly introduced to new scenarios, anticipating how each supernatural event will influence the protagonist's journey and deepen her relationship with the divine being.

Rainless Love in a Godless Land
2021
Director: Pon Hung
Episode 2
https://youtu.be/5ezOUHVDgng?si=gXUmqGRay4K94nHEtM&t=154

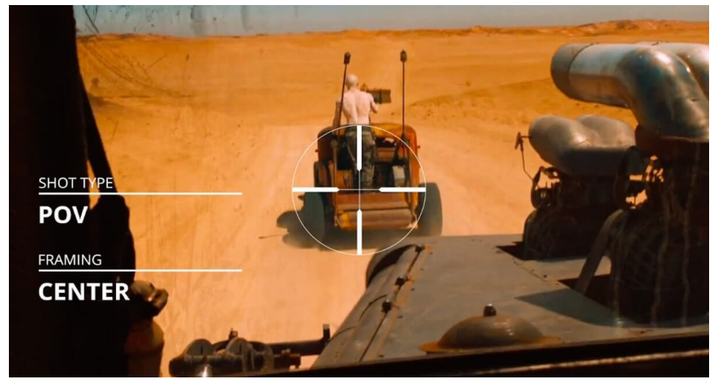
3 ACT STRUCTURE

Rear Window by Alfred Hitchcock is a classic film that masterfully uses the 3-act structure. The film first establishes Jeff as a confined and curious photographer, setting up his voyeuristic tendencies and the confined setting of his apartment. By foreshadowing the climax through small, suspicious details observed by Jeff and the growing tension in the neighborhood throughout the second act, Hitchcock is able to build suspense and keep the audience invested in the mystery. When the climax is reached and Jeff breaks his leg for the second time, the resolution settles in and allows the truth to be revealed, justice to be served, and Jeff to reflect on his actions. As a result, the film is able to engage the audience through its meticulous pacing, psychological tension, and the moral questions it raises about observation and privacy.

Rear Window
1954
Director: Alfred Hitchcock
https://m.media-amazon.com/images/M/5BYzY1YTA3NzItZGQ5Yi00ODhiLWI5MzMtYjBlNDA0OTYxOGE0XkEyXkFqcGc@.RayV1Ray.jpg

POV

Mad Max: Fury Road by George Miller effectively uses point of view to immerse the audience in Max's experience. Miller achieves this through subjective camera angles and close-ups. By positioning the viewer within Max's perspective, Miller allows them to witness both the chaotic external world and Max's internal struggles, fostering a deeper emotional connection to his character. This technique not only heightens the film's tension and urgency but also fosters empathy for Max, allowing the audience to connect with his psychological turmoil and reluctant heroism. Of course, I will want to employ similar techniques to create a deep connection between the viewer and the protagonist.



Contagion
2011
Director: Steven Soderbergh
https://static01.nyt.com/images/2011/09/09/arts/09CONTAGION/09CONTAGION-articleLarge.jpg

MULTIPLE STORYLINES

Contagion is a drama-thriller film that explores the global impact of a deadly virus through multiple storylines, each offering a unique perspective on the crisis. The film uses parallelism by following different subplots, such as a doctor researching a cure, a father protecting his daughter, and a conspiracy theorist spreading misinformation, all interconnected by the central outbreak. These subplots enhance the film's realism, showing how individuals from various backgrounds respond to the same catastrophe. In employing multiple storylines, the film allows for audiences to give their own interpretations, adding a layer of interactivity and engagement. The film keeps the audience engaged while also serving to be an allegory for real-world pandemics. Though this narrative convention can work well, I think keeping it to one storyline in my production can reduce the chaos and allow audiences to understand the plot and to be more engaged.

Mad Max: Fury Road
2015
Director: George Miller
https://s.studiobinder.com/wp-content/uploads/2017/03/How-to-film-a-car-scene-Best-car-chase-scene-Pov-shots-to-reset-orientation.jpg?resolution=1440,1

ESTABLISHMENT & DEVELOPMENT

Hirohiko Araki's fourth iteration of JoJo's Bizarre Adventures titled "Diamond is Unbreakable" establishes Kira Yoshikage as an unassuming office worker who has a hidden identity as a serial killer with a fetish for women's hands. Kira's character is developed through his deadly Stand, Killer Queen, which reveals his personality and obsession with order, diverting from villain archetypes. While he is initially not seen as the antagonist, Araki subtly hints towards his role in the narrative through his actions and dialogue, especially when he finally changes his identity. By exploring his complex psyche and unconventional character, audiences become curious of his true motives, engaging them to watch deeper at every move he performs. Hence, Araki is able to establish and develop Kira to be a notorious villain in the narrative. I want to similarly develop an antagonist like this, allowing for a slow and dramatic build up.

JoJo's Bizarre Adventure: Diamond is Unbreakable
2016
Studio: David Productions
Episode 21
https://i.redd.it/l5vbdegoxuna1.jpg

STRUCTURE OF TIME

Interstellar is a science fiction drama that explores the concept of time dilation and its effects on human relationships through a complex narrative structure. The film uses non-linear storytelling by following multiple timelines. The film employs relativistic time dilation as a key narrative device, most notably during the crew's visit to Miller's planet. With time passing differently than Earth, it creates a dramatic tension between the mission's urgency and the personal cost to the characters. This structure enhances the film's emotional impact, showing how time affects relationships differently for those experiencing it at varying rates. By utilising this complex temporal structure, Interstellar keeps the audience engaged while serving as an allegory for the human struggle against time and the sacrifices made for the greater good. I want to keep my production simple so audiences can understand it clearer, hence I will choose a traditional linear structure.

Interstellar
2018
Director: Christopher Nolan
https://sciencevshollywood.com/wp-content/uploads/2015/03/Millers-Planet.png

SLUGTERRA: CASE STUDY 1

'Slugterra' is a kid's animated Canadian TV show directed by Asaph Fipke that began airing from 2012–2016. Some say it is a nostalgic remedy, the show influencing many 2000's kids' childhoods. The show was an extremely influential piece of media that was more than just a mere goofy show about slinging slugs; it subtly commented on various real-world issues such as animal abuse, environmental degradation, and even climate change.

Figure 1

Sources:
https://encrypted-tbn0.gstatic.com/images?q=tbn:ANd9GcRTbB_zNmX5YGq3VZQRrZR-gutCYzYuDyqrWdg&s
https://static.wikia.nocookie.net/slugterra/images/3/31/Slugterra_Slug_It_Out_2.jpg/revision/latest?cb=20160929234215
https://youtu.be/ICc_f_2cLYY?si=BOq6_NGMN6GRnibq&t=473

Figure 2

Figure 1 is an art banner created for one of the spin-off games the TV Show had created, named "Slug it Out 2", released in 2016. The game employed the slug-slinging mechanic seen from the show, where players can shoot their slugs from blasters to defeat their enemy. The game was built around a central story, allowing for the player to progress through a similar narrative, along with the features to duel other players around the world with slugs. The slugs are collectible projectiles, each with unique abilities.

The core mechanic of this game is innovative, taking on a match-3 style game to charge up meters where you can fire your slugs. The battles were determined on how fast you matched, the slugs you chose and how you fired your slugs. These mechanics helped the game fall under the Adventure, Action, Match-3 and Strategy genres, making it a unique hybrid that was different from the games in the market of the time.

Unlike traditional match-3 games, which typically focus on casual puzzle-solving and score maximisation with limited turns, the game integrates high-stakes, reflex-based decision-making. The pressure of fast-paced duels adds a layer of intensity, pushing players to think strategically while maintaining speed and accuracy, hence following the genre convention of Action games. This also helped mold the game into the Strategy genre. While holding onto these genres, the game also shows the use of Adventure game conventions through the need to collect new slugs to battle, alongside a rich narrative that is aligned to the TV show.

Back to the main TV Show side of Slugterra, Asaph Fipke's choices in media codes and conventions helped greatly in shaping the messages the animated show conveyed, most importantly through the use of camera angles, composition and mise-en-scène.

Figure 2 is a sequence from Season 3 Episode 4. It shows Eli and Junjie fighting the Emperor, revealing how the show cleverly distinguishes good from evil as well as how they manage chaotic scenes. The technique they employ is to create the antagonists with darker hues, especially those that hold negative connotations. Colours such as black, dark greens and reds symbolise the evilness and corrupt nature of the antagonists well, hence the choice of them. To manage the chaotic sequences, Fipke uses wide shots to capture the entirety of the space, allowing for the illusion of more space when in reality, the slugs that are being slung are still travelling in a chaotic manner.

The mise-en-scene and camera ultimately harmonise well together to create a coherent narrative while also building tension. This also makes the slug-slinging aspect become a vital part of the show, displaying the stakes of it. Fipke conveys the idea on how bonding with these creatures are a necessity for survival.

I want to adopt the slug-slinging aspect of the show into my production if I choose to produce a game, making my player able to shoot out a type of projectile. In Slugterra, the slugs are living creatures, each with unique abilities and elemental powers, which the characters collect, upgrade, and build bonds with. This mechanic is not only fun and action-packed, but it also brings a layer of strategy and personality to combat. Inspired by this, I plan to implement a similar system in my game, but instead of using living slugs, the player will be able to launch possibly magical or cosmic projectiles infused with elemental powers.

These projectiles will be based on the four classical elements: fire, water, earth, and air. Each element will behave differently in combat and interact with the environment in unique ways. Approaches I might consider are:

- Enemies having elemental weaknesses
  Eg. A Fire enemy may be weak to a Water projectile
- Interactable Environmental Objects
  Eg. Flames can be put out by Water projectiles

In doing so, I aim to not only create exciting gameplay mechanics but also add a layer of complexity and challenge to it. Furthermore, I want to carefully consider how I present these elements visually and functionally. Just as Slugterra used vibrant colors, fast-paced editing, and expressive animation to make each slug feel unique, I want my game to visually differentiate each elemental power. Fire might be represented with sharp, jagged animations and glowing reds and oranges; water might flow gracefully with fluid blue trails; earth could use heavy, grounded textures in browns and greens; and air might shimmer with light, swirling patterns of white and pale blue.

DRAWING GAME: CASE STUDY #2

The mobile game “Car Drawing Game”, along with many similar titles in the casual mobile game space, represents an emerging yet underdeveloped genre that combines physics-based mechanics with interactive drawing tools. While these games showcase innovative gameplay potential through their “stroke-to-object” feature, they frequently fail to capitalise on the creative opportunities offered by this mechanic. Instead, they rely heavily on repetition, basic level design, and shallow reward systems that cater to short attention spans rather than long-term player engagement.

From my understanding, these games are meant to be simple, designed for short bursts of play: the player draws a shape and that drawing is transformed into an in-game model that interacts with the environment. The objective is to navigate through a level filled with obstacles, often using basic physics simulations to create a sense of challenge. This makes the game fall under the casual puzzle genre, but its real-time feedback and interactive design elements also borrow from sandbox and physics simulation genres.

This feature is unique, seen rarely in any of the top charting games. The sole purpose of this mechanic that is present in these rare games invites players to come up with creative solutions, by giving them control over how game elements are formed. It is the implementation that usually becomes limited, destroying all potential in the game. While the mechanic itself is innovative in form, the execution lacks depth in terms of progression, narrative, or skill development.

Form conventions of these games include exaggerated visual feedback, minimalistic sound design, and heavy use of rewarded ads are tailored for monetisation instead of innovation which creates a contradiction. Games like “Car Drawing Game” introduce creative mechanics but never fully develop them, wasting their potential in favour of short-term popularity.

This is evident as games in the current era either follow the latest trends or bombard their free-to-play games with ads instead of being innovative. For example, games try to copy Fortnite for its original innovative Battle Pass, where they try to make it authentic but fails. It quickly becomes irrelevant and you will see it in every game, making it feel not special anymore. Similarly, gacha games have also been derived from Genshin Impact, with companies creating soulless copies such as Honkai Impact 3, Zenless Zone Zero and Wuthering Waves. Indeed does the gameplay differ, but the mechanic that stays the same in all of these games is the gacha.

Instead of following the current trends or making a simple puzzle game, I want to create something innovative. If I end up choosing to produce my production as a video game, I want to follow the drawing mechanic that these lackluster games waste. As we shift into an era where our phones are used more, a portable game that can be played on your phone with an extremely easy mechanic; drawing, could become a very fun and addictive game. This drawing mechanic can elevate my game, making it stand out from other games that are produced.

Source:
https://imgs.crazygames.com/games/car-drawing/cover-1663856270243.png

THOR: CASE STUDY #3

"Thor (2011)" directed by Kenneth Branagh is an Action and Fantasy film. It is appropriate to its media form of a film, and has a narrative that aligns with my vision of my game.

The narrative follows the journey of Thor, a powerful but arrogant god who is stripped of his powers and banished to Earth by his father Odin after reigniting an ancient conflict. On Earth, Thor must learn humility and what it truly means to be a hero. Entangling himself in multiple storylines, Thor has to balance his starstruck awe for scientist Jane Foster while he also has to face threats from both his homeworld and his jealous brother Loki. The story follows a classic hero's journey through the three-act structure, where the protagonist undergoes significant character development from an entitled prince to a worthy leader who understands the weight of responsibility and sacrifice.

Branagh employs striking visual effects to portray the celestial realm of Asgard in contrast to the earthy tones of New Mexico. Branagh uses dramatic camera angles and long establishing shots to emphasize the grandeur of Asgard, while utilising more intimate framing and handheld camera techniques during Thor's time on Earth to highlight his vulnerability. Colours such as blues, golds and silvers dominate in Asgard to further evoke the senses of majestical and grandeur, while more grounded tones such as brown, green and monotone hues are used on Earth to bring back the sense of realism.

The film's composition and mise-en-scene helps contrast the two worlds, something that would work if I chose the form of a video game. However, if I decided to choose a short film, it could also work if I work under the genre of supernatural, joining to dimensions together.

Thus, this visual juxtaposition between the two worlds becomes a powerful message in showing what is real and what is fantasy. I want to replicate this by illustrating striking but simple backgrounds that are composed in a way to capture the real cities and fantastical cities present in the universe. By following Branagh's method, I aim to use colours and angles to help create a sense of immersion for the players.

Moreover, the film adopts several genre conventions appropriate to both action and fantasy. In terms of action, Thor features stylised combat sequences, heroic poses, fast-paced editing, and dramatic stakes often centered on physical confrontation or military force. In fantasy terms, it draws on mythological world-building, magical weapons like Mjölnir, and the notion of god-like beings navigating moral dilemmas.

In the perspective of a video game, these conventions can directly inspire mechanics. I am especially drawn to Thor's elemental abilities of lightning, storms, and supernatural strength because it aligns with my concept of elemental projectiles. A combat system where the player selects or draws projectile paths based on elemental affinities (fire, water, earth, and air) could work extremely well.

In a short film perspective, these conventions can help ground or detach certain scenes, allowing for a more ethereal tone. It can help build up tension and overall increase the stakes present in the film, allowing for audiences to feel more engaged.

Finally, the film's tone of balancing epic stakes with moments of humour, introspection, and humanity is something I hope to capture in my narrative. Whether I choose a video game or short film form, I will attempt to follow themes of self-discovery and growth, tying to how Thor regains his power by the end of his narrative.

Source:
https://m.media-amazon.com/images/M/MV5BNjRhNGZjZjEtYTQzYS00OWUxLThjNGEtMTIwM-TE2ZDFlZTZkXkEyXkFqcGc@._V1_FMjpg_UX1000_.jpg

FORM STUDY

What form of media should I produce?

Film is a form of media that conveys its messages via visual storytelling and cinematography. It is when moving images, dialogue, sound, and music combine to tell a narrative. It is traditionally shown in cinemas or through digital platforms such as streaming services. Films can be short or feature-length and are created through a process that includes scripting, filming, editing, and sound design.

A video game is a form of media that allows audiences to interact with the product. Players can control characters or elements within a virtual world to achieve objectives or experience a story. Games can be played on various platforms such as PCs, consoles, and mobile devices. A comic is a form of visual storytelling that uses sequential art. Comics often have panels containing images and text to convey a narrative. Comics can range from single-page strips to full-length graphic novels.

The three main forms I am considering are:

- Video Game
- Short Film
- Comic

On the right side, I compiled a table and compared the pros and cons for each form. I decided not to do comic as my art skills aren't consistent and are rather clunky. I decided to brainstorm a few ideas for a short film and video game.

Media Form	Pros	Cons
Short Film	▪ Rich storytelling ▪ Easy character development ▪ Resonate with audiences easier	▪ May need actors and teamwork ▪ Time-consuming to shoot and edit ▪ External Forces (eg. weather)
Video Game	▪ Highly interactive ▪ Allows for deep world-building ▪ Can combine elements of various media forms	▪ Time consuming if need to learn ▪ Expensive ▪ Steep learning curve
Comic	▪ Static images ▪ Readers can engage at their own pace ▪ Can use stylised visuals to explore abstract or complex ideas	▪ Less immersive compared to audio or visual media ▪ Requires art skills ▪ Relies on reader imagination for pacing and interpretation

Ideas:

Short Film:

- A student gains the ability to create portals and causes chaos at school the next day.
  (Supernatural, Slice of Life)
- A student discovers their watch can pause time, but each use ages them slightly.
  (Supernatural, Drama)
- A student finds notes from an "apparant" future self hidden throughout the school.
  (Thriller, Psychological)

Video Games:

- A drawing mechanic based game where users draw paths to guide creatures to defeat enemies.
  (Puzzle, Adventure)
- A physics-based game where drawing bridges, ramps, and catapults helps guide a ball to the goal.
  (Puzzle, Physics)
- An autoscrolling platformer that only runs forward where the player guides it using drawn objects.
  (Platformer, Adventure)

DEVELOPMENT

PRODUCTION EXPERIMENTS

GAME | EXPERIMENT #1 - ART STYLE

Introduction:

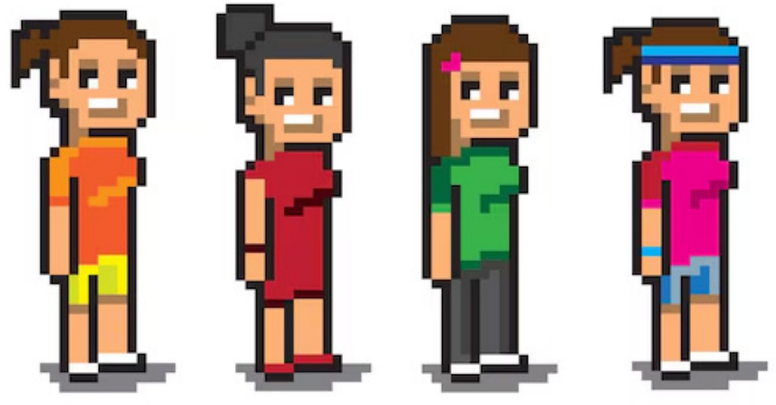
For my first production exercise, I will be studying the various art movements and finalise the aesthetic and style for the overall game. I want my game to have a modern, minimalistic vibe while also maintaining a slight fantastical tone.

I want to experiment with different visual aesthetics as different styles can change the perception when players play the game. I will also learn the conventions of each art style, employing them in the final product.

The main styles I will be focusing on refining are Flat Design, Toon Style, Pixel Art. I might want to create my own style, perhaps a hybrid between to styles I researched before.

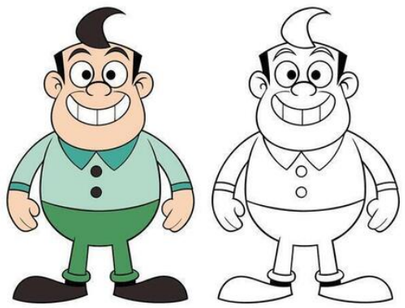
I will create my designs in Adobe Photoshop. I will design one character and one background, then ask my peers on which one might engage/ interest them the most.

Pixel Art:



Flat Design:

Toon Style:



Flat design is a minimalist style that uses clean lines, solid colors, and a two-dimensional look without gradients, textures, or detailed shading. It is often associated with mobile and casual games.

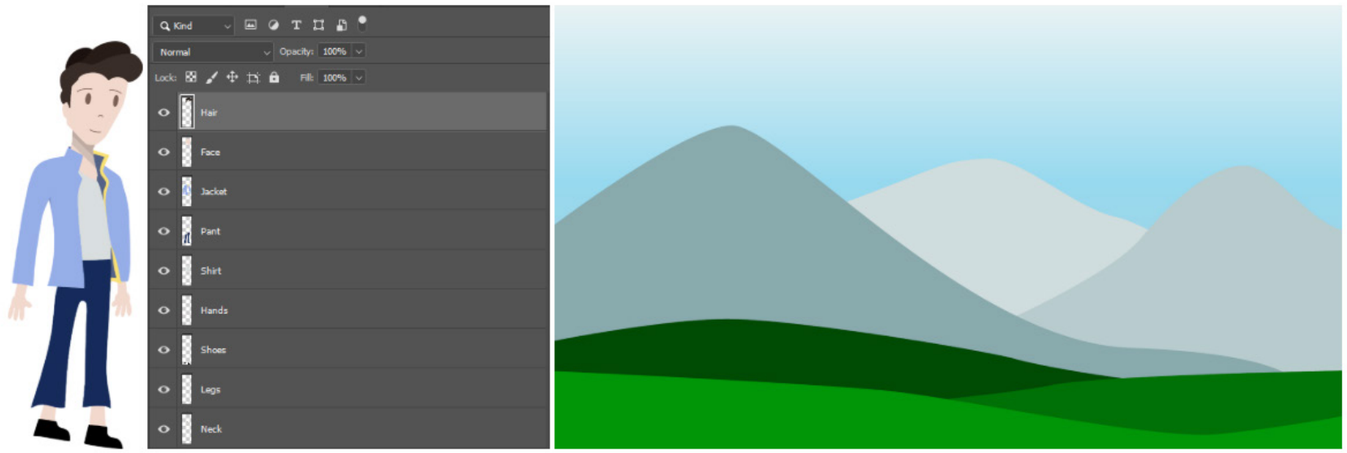
Toon style refers to cartoon-like visuals inspired by either Eastern or Western animation which sometimes employs thick outlines or strokes to emphasise the playfulness of the characters. It is often associated with story-rich and adventure games.

Pixel art is a retro-inspired visual style where images are created with individual pixels placed by hand, often limited to a low resolution. It draws from the aesthetics of early video games such as Pong, Space Invaders and Super Mario.

Feature	Flat Design	Toon Style	Pixel Art
Visual Complexity	Low	Medium	Low
Ease of Production	Easy	Medium	Medium
Device Performance	Excellent	Good	Excellent
Artistic Appeal	Clean	Playful	Nostalgic
Learning Curve	Low	Moderate	High
Emotional Range	Limited	Wide	Moderate
Ease of Animation	Easy	Moderate	Difficult
Best for	Casual games	Adventures	Retro games

GAME | EXPERIMENT #1 - ART STYLE

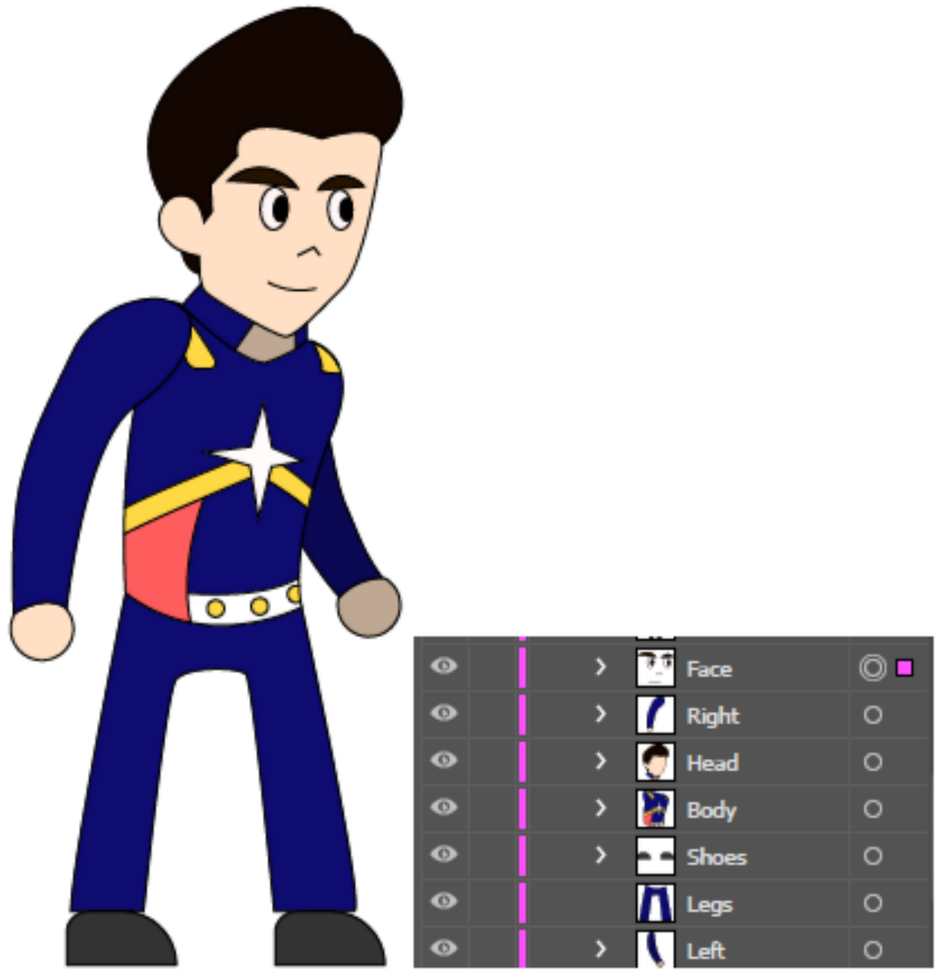
Flat Design



Toon Style

Pixel Art

Custom Hybrid



GAME | EXPERIMENT #1 - ART STYLE

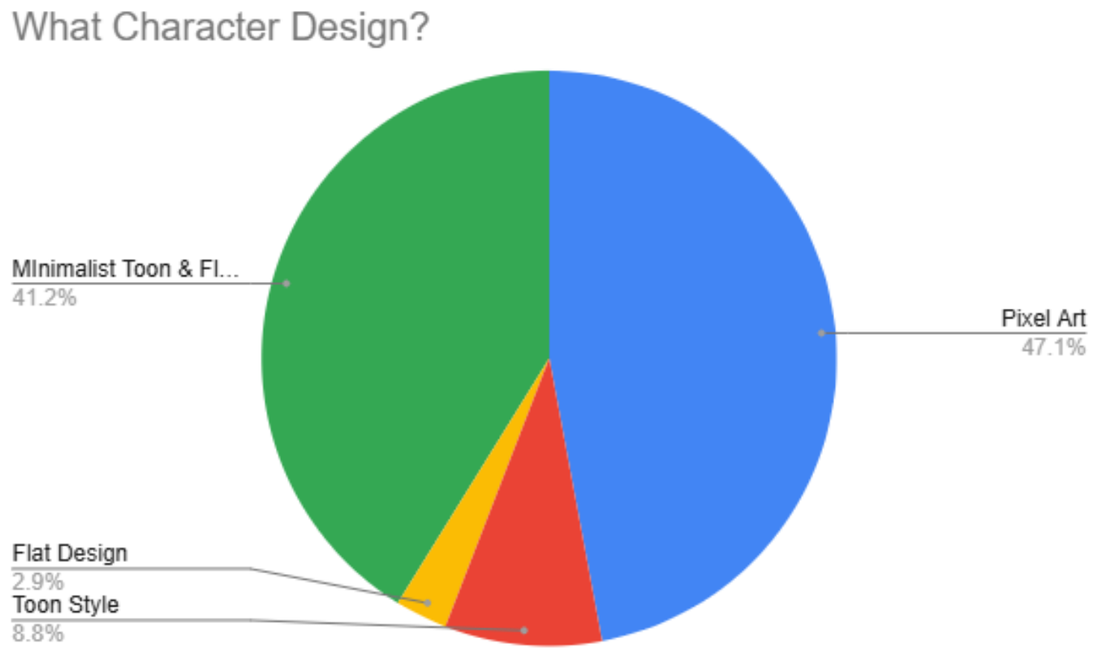
Summary

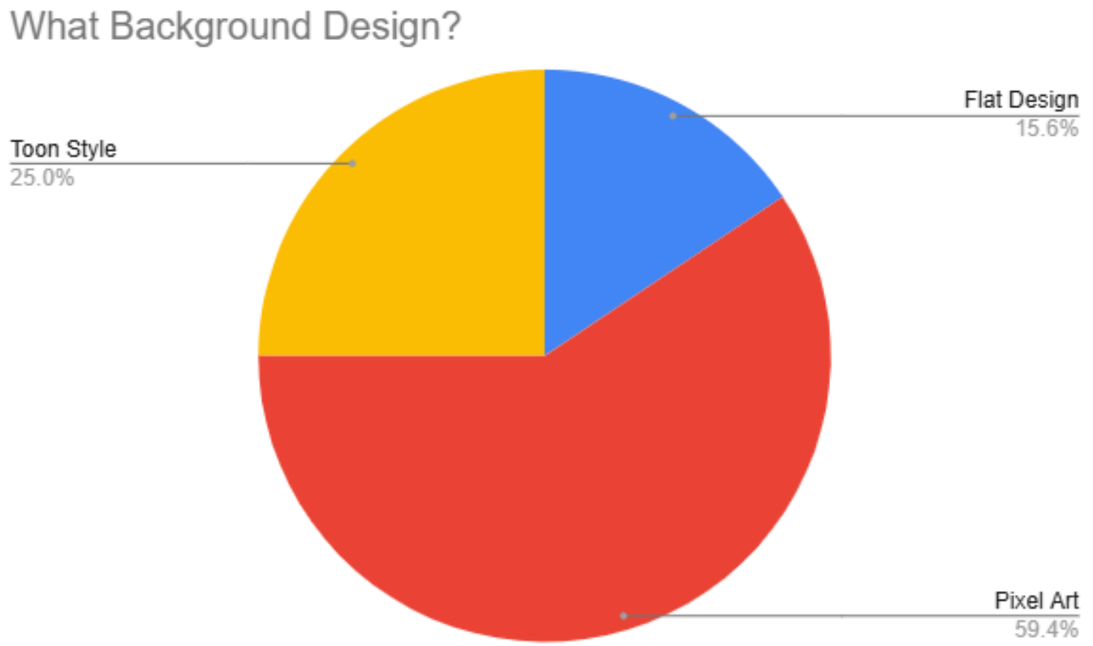
For some of the character designs, I had to keep some body parts as separate layers. This is because I will need to animate the sprites later on. By separating the body parts, animating the characters will be much easier as I can adjust the position, rotation and scale of each when necessary without needing to erase and redraw the whole part. The Hybrid was the only one that was created via vectors in Adobe Illustrator, allowing for vector based animation which is easier than redrawing each frame when animating later.

Conclusion

Having animations in games allows for backgrounds and especially characters to feel more dynamic and engaging. They help immerse the player as well as enrich the overall gameplay cycle.

I created a Google Form to ask my peers- which art style they liked best. According to the statistics, the minimalist toon hybrid style and pixel art dominated the character design while pixel art dominated the background. For consistency and a smoother aesthetic, if I decide to produce a game, I will be choosing Minimalist Toon Hybrid with Toon Style Background as they are easier to animate than pixel art in my opinion.





Sources/Images Referenced:

https://img.freepik.com/premium-vector/pixelart-person_989095-5.jpg
https://static.vecteezy.com/system/resources/previews/057/847/019/non_2x/cartoon-character-designs-color-and-line-art-comparison-vector.jpg
https://99designs-blog.imgix.net/blog/wp-content/uploads/2019/02/a72251e3-7331-4cea-8386-e88c1087380b.jpg?auto=format&q=60&fit=max&w=930

GAME | EXPERIMENT #2 - SCORE COMPOSITION

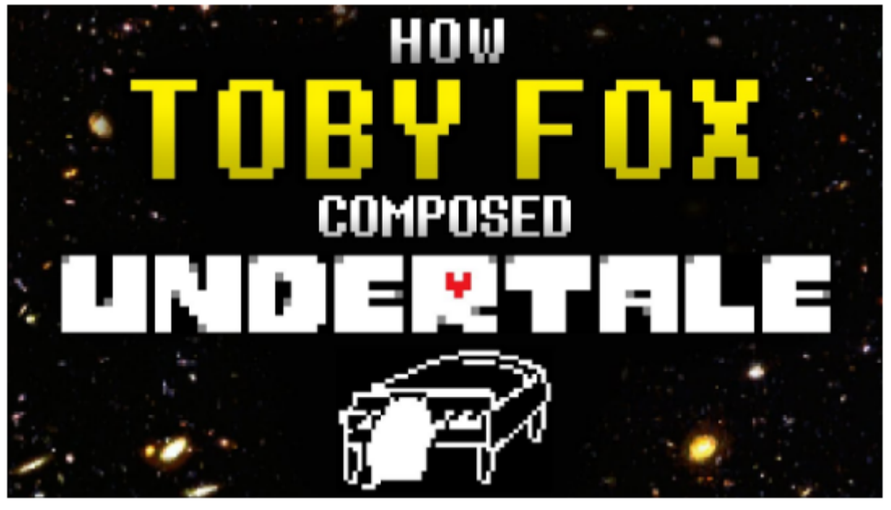
For my second Production Exercise, I will be investigating the use of sound in game. Sound effects and a strong soundtrack is crucial for an addictive game, playing a vital role in keeping the player playing.

Music Conventions

Sound design is important as it shapes the player's emotional response and overall immersion, providing useful feedback about the game environment. In my game I want my soundtrack to follow the genre conventions of the relevant soundtrack. I will perform this production experiment as if the game adopts the genre of adventure, keeping it simple

Common soundtrack features in adventure games:

- Often major keys (D major or C major)
- Fast tempos (around 120–160 BPM)
- 4/4 time signature
- Ostinatos (repeated short patterns)
- Syncopation adds unpredictability
- Brass instruments (e.g. horns, trumpets)
- Strings
- Percussion
- Leitmotifs



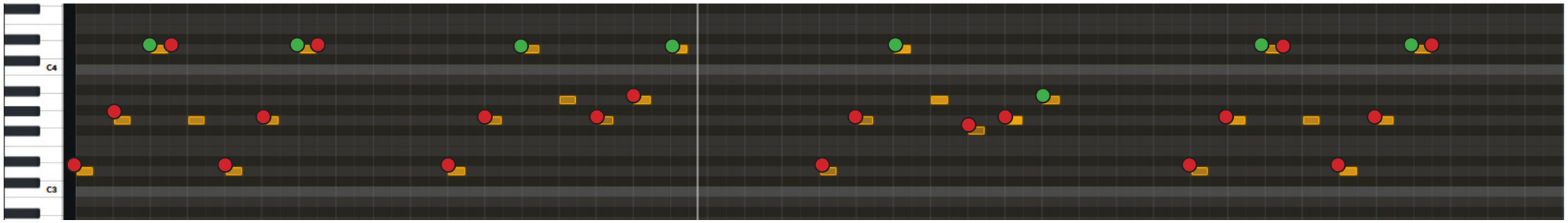
I will be using Bandlab, an online music workspace to create the soundtrack. I learnt some tips and tricks, alongside some video game music theory on YouTube, linked on the right side. I most prominently researched Toby Fox, a notable developer and composer for the hit indie-game Undertale (The hit song Megalovania)

First, I will create the main track that will play in the menus. This track sounds calming, while needing to convey the notions of exploration and adventure.

Sources:

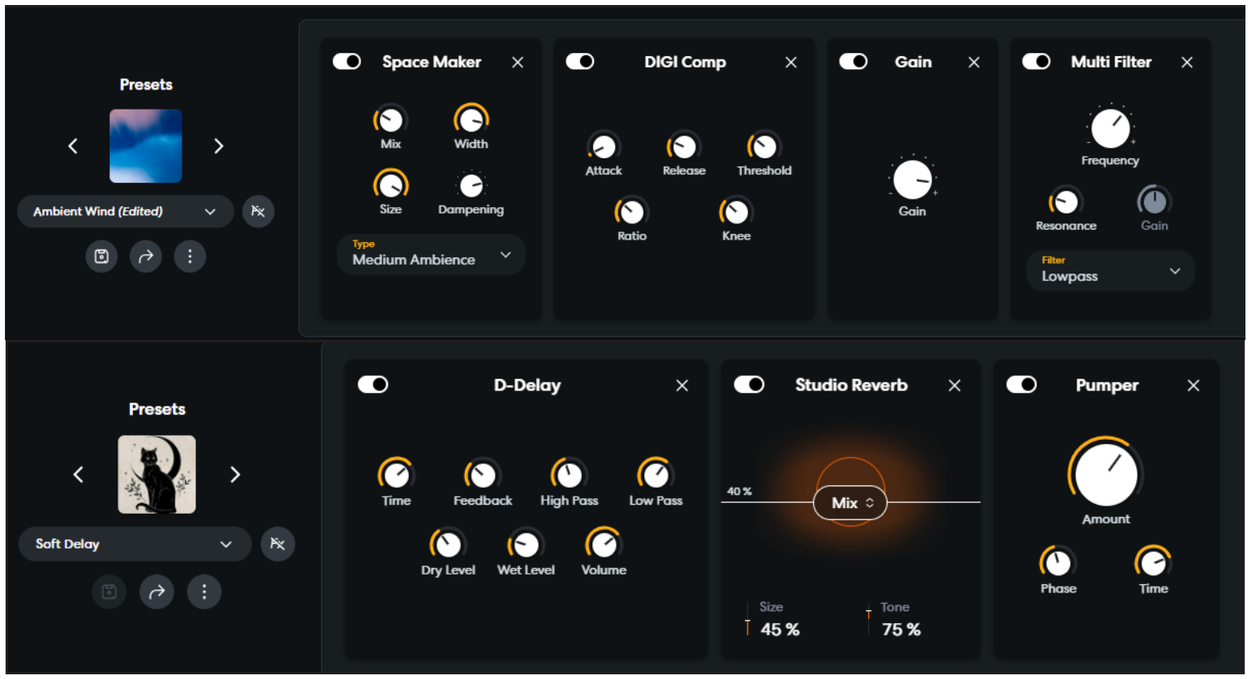
https://youtu.be/dMkTdYmOgiQ?si=8siPcWIVlzfvzg7a
https://youtu.be/LPCBm59yFfI?si=RD0ULinhn8fKeBZF

GAME | EXPERIMENT #2 - SCORE COMPOSITION



= Notes Bells Play

= Notes Marimba Play



FM Keys Keyboard

The FM Keys Keyboard serves as the harmonic foundation of the track. Above is the note pattern of the keyboard, including how the Marimba and Bell instruments are derived from it, helping emphasise certain notes. The preset Ambient Wind aims to shift the already bright and calming FM Keys into an instrument with long reverb tails. Effects such as Space Maker that simulates virtual environments are used to add natural reflections and spatial depth. I added a multi-filter with the lowpass setting to remove higher frequencies, further increasing the chilling tone.

Marimba

The Marimba is derived from the main lead, using its root notes to play a supporting melody. It uses the Soft Delay preset. The preset aims to further add texture by delaying and repeating the notes. The notable part of this instrument is that it creates a bone-like rattling effect, achieved through the pumper. The reverb and delay harmonise together to stretch out tones and makes the notes feel more airy and hollow.

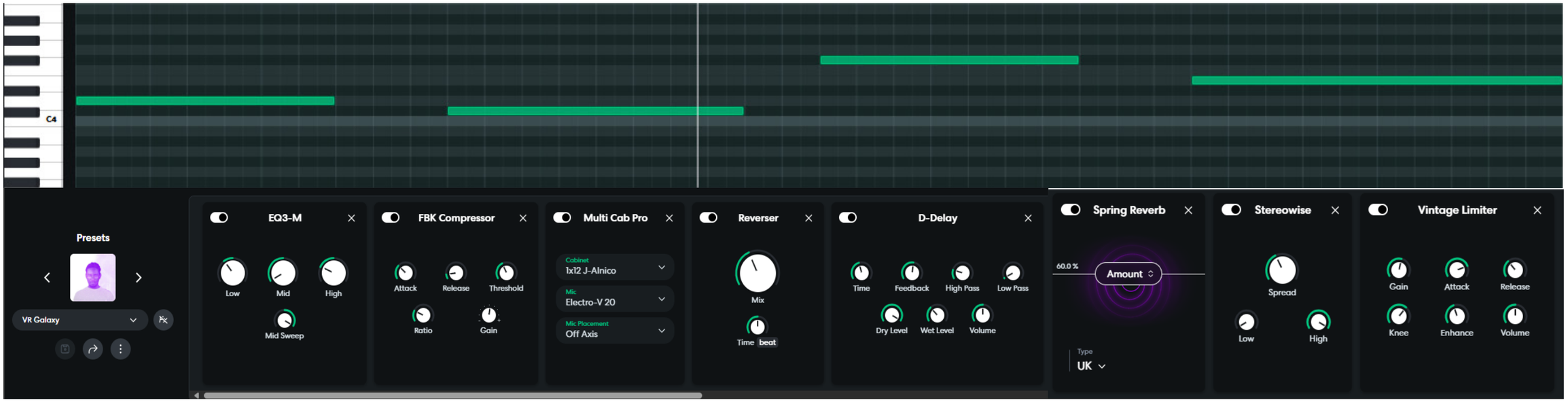
Bells

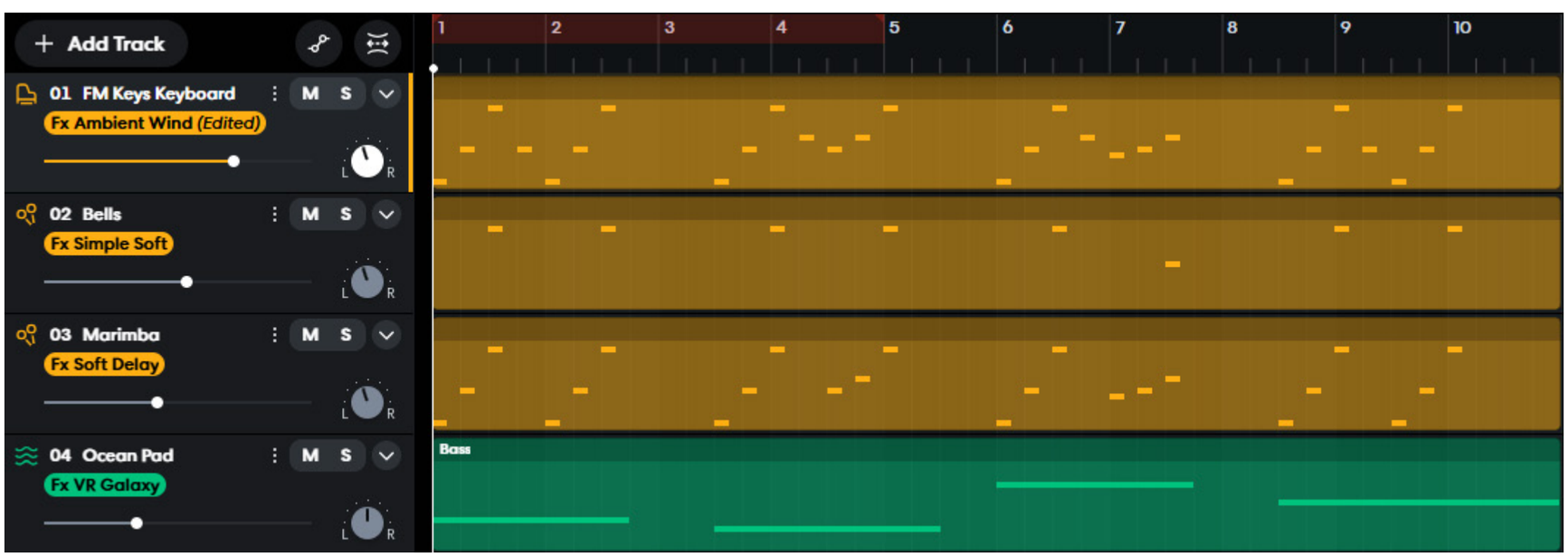
The Bells instrument uses the Simple Soft preset which adds a delicate and airy melodic component. The effects chain here is focused on clarity, space, and movement. A Lowpass Multi Filter removes any sharp high frequencies, keeping the bells smooth and consistent. The use of reverb effects creates a natural, echoing space that makes each bell note feel like it's drifting through air. Most notably, the ST Tremolo introduces rhythmic modulation in volume, giving the bells a gentle pulsing effect.

GAME | EXPERIMENT #2 - SCORE COMPOSITION

Ocean Pad

The Ocean Pad employs the VR Galaxy preset which provides a wide, enveloping atmosphere that acts as the backdrop for the entire track. A Spring Reverb gives it a slightly metallic yet soft reverb character, simulating a spacious environment. Multiple dynamic controls are used to ensure the notes sound space-like and ethereal since the name implies galaxy, forcing tones to be quieter. These foundational tones help ground the music emotionally, evoking a sense of serenity and timelessness.





Timeline

Melody Pattern Used: ABCA

Scale used: D Major

Tempo Used: 99 BPM

The final composition is shown above of all the tracks. It is only 10 bars long because I will loop it in the game. This will go for the battle theme as well.

You can listen to it here: https://www.bandlab.com/revisions/984b1ca9-fb1b-f011-8b3d-000d3aa44618?sharedKey=shjJKzTdCk-VyphAVlbNfA

GAME | EXPERIMENT #2 - SCORE COMPOSITION

Arcade Lead

The Arcade Lead is the melody of the battle theme, serving as the focal point of the composition. I chose this lead because it gives a rich, arcade and 80's vibe which aligns with the pixel art style I chose. I also chose the ST Chorus and Studio Reverb effects which add depth and shimmer to the melody, making it sound lush and expansive. The Multi Shifter and other dynamic effects subtly enhance harmonic complexity, ensuring the melody remains engaging without becoming overwhelming.

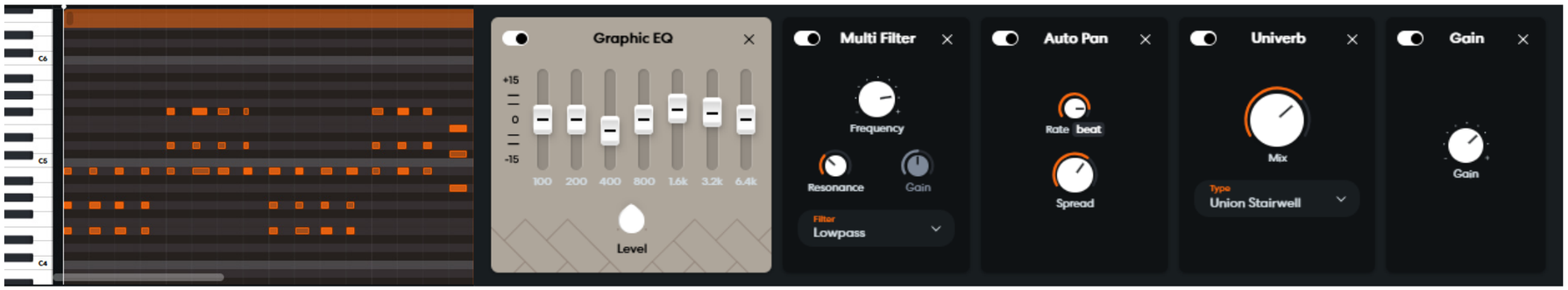
Flute

The Flute introduces an ethereal, melodic layer that complements the main melody, acting like a pad. The instrument introduces an elegant and whimsical tone to the track mainly via the Reverb effect, complementing the overall game. The Noise Gate prevents higher frequencies from passing, while the TecLab BA-2A, EQ3-M and Graphic EQ balance the remaining dynamics.melody remains engaging without becoming overwhelming.

GAME | EXPERIMENT #2 - SCORE COMPOSITION

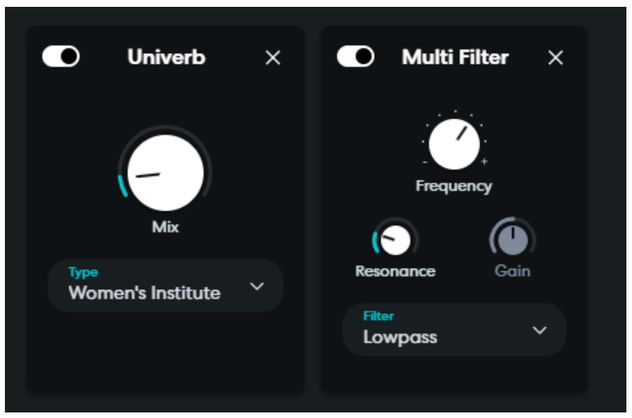
Exceedingly Nice Bass

The Exceedingly Nice bass is an unconventional bass that employs lighter notes, but still holds a lot of grit. The Phaser and BL Driver adds texture while the Univerb and Multifilter harmonise to create long tail reverb and balance dynamics, all contributing to the gritty, intense sound the instrument gives.



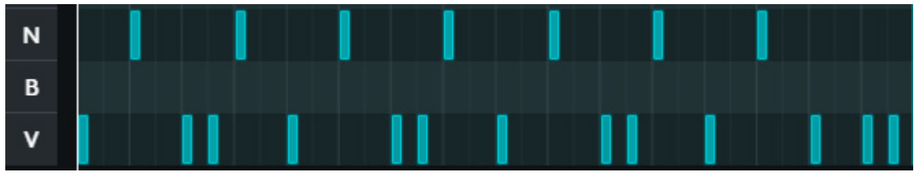
Sparkle Keys

The Sparkle Keys play a vital role as the chords as it is the secondary instrument. The role of the keys is to generate the atmosphere and tone of the track. Here, the Graphic EQ effect is employed to adjust the dynamics while the Auto Pan and Univerb carve out space in the mix, giving it the much needed sci-fi feeling. The Multi-filter is also used to remove higher frequencies, allowing for a much smoother and a slightly muffled effect.

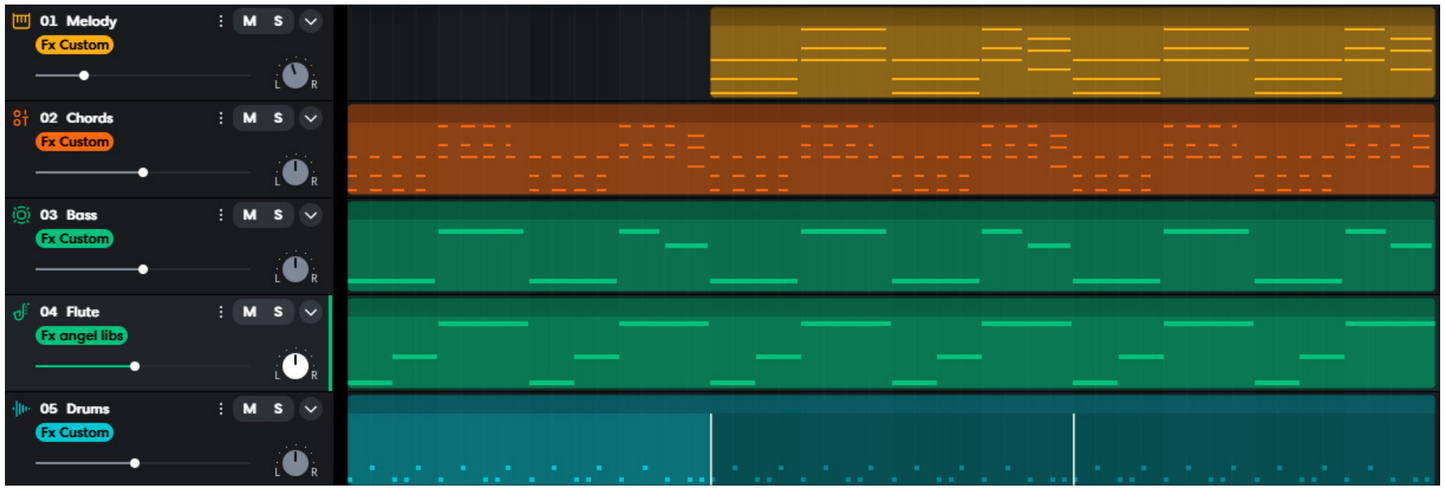


Drums

The drums are made from a sampler, taking sounds from a non-copyright library. The letter V is binded to the sound sample of a kick, while the letter N is binded to the sound of a snare. I modified a four-on-the-floor pattern to create the drums. I chose the Univerb effect to give the drums a bit of air and the Multi Filter to muffle the drums so they don't overpower the other instruments.



GAME | EXPERIMENT #2 - SCORE COMPOSITION



Timeline

Melody Pattern Used: AA

Scale used: B Minor

Tempo Used: 128 BPM

The final composition is shown above of all the tracks. Although the game's genre is action and adventure, the reason I chose B Minor is because the scale holds connotations of mystery and intensity, aligning with the respective scenes. Furthermore, as the relative minor of D Major on the wheel of fifths, the scale introduces a contrasting emotional tone by shifting from brightness to tension which is effective in supporting the dramatic weight of battle scenes.

You can listen to it here: https://www.bandlab.com/post/89e74b52-551c-f011-8b3d-000d3aa44618

Feedback

Feedback

Mike:

- Main track: Pretty solid
- Battle track: It sounds goofy, unserious

Tom:

- Main track: I really like it, gives off a really spacey vibe!
- Battle track: I prefer the main track than the battle track

Michael:

- Main track: Sounds really spacey...atmospheric, ethreal somewhat
- Battle track: Has a nice melody, gives off retro vibes

Conclusion

In this production exercise, I explored the role of sound design in games. I learnt a lot on how the soundtracks need to be simple yet complex in a way to grasp the player's attention. Sound can be argued to be one of the most important aspects of gaming as most games have an iconic soundtrack or song, for example the iconic Super Mario 8-bit tune and indie developer Toby Fox's Undertale.

Through the creation of two distinct tracks using Bandlab, one for the battles and one for the menus, I aimed to learn and practise my sound design skills.

The main track was designed to evoke a sense of exploration and adventure, utilising ambient sounds and spacious effects to create a calming yet engaging backdrop. In contrast, the battle theme embraces a more intense and driving feel, employing a faster tempo in a minor scale to generate a sense of mystery and urgency, appropriate for action-packed scenarios.

Ultimately, the sound design choices were made to support the game's action-adventure genre and narrative, with the music intended to heighten emotional engagement and immerse the player in my game. Though the battle track wasn't good, I will keep it like this since I don't want to create more scores. Moreover, even if I choose the form of a film, I can modify these tracks so they can align with the film's genre, adding a copyright free soundtrack.

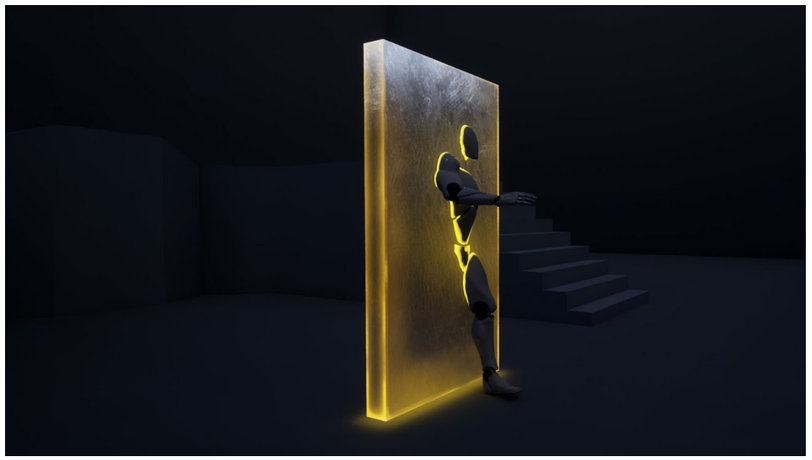
FILM | EXPERIMENT #1 - PORTAL DESIGN

Portals are commonly decorated with warm hues as seen in the above, Dr Strange having a more orange tone while Loki adopts a more saturated yellow hue. This trope of portals adopting warm colours not only appear in these two films, they appear in Sonic the Hedgehog films, Sonic's rings being yellow and also a portal. I believe this is because portals generally lead people to a place of warmth, safety and happiness as the connotations of the colour yellow is similar. I want to subvert these portal design conventions by using colder hues, possibly using purples or blues to convey the sense of mystery and allure. I strongly believe colour theory is a vital aspect in designing these portals as it can shift the message the film conveys.

I will also experiment with the shape, possibly adding rounded corners to the rectangular shape. I will be using Photoshop to design my portal and using some stock images to mock how the portals will fit inside my film. I may try to make the portal frame into a video that has animations, adding some depth and intrest. This is because in both Loki and Dr. Strange, there is movement, whether through the sparks or opacity of colour. This can add additional visual interest that may engage the audience.

Loki

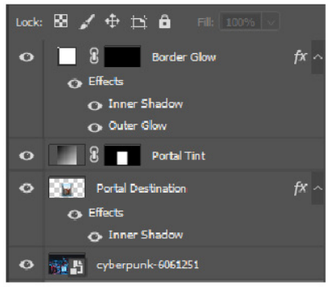
Rectangular and yellow, portals from Loki evoke a steampunk and futuristic feel to it, adopting a geometric aesthetic. It is simple and clean, with soft shadows and glow illuminating the edges and base, underscoring the idea of extremely advanced tech.



Dr Strange

Dr. Strange's circular and organic shaped portal adorned with an ethereal glow with magic sparks flying out evokes a sense of nostalgia and conveys the idea of something natural. Unlike traditional portals, the warm hues also suggest the speed.

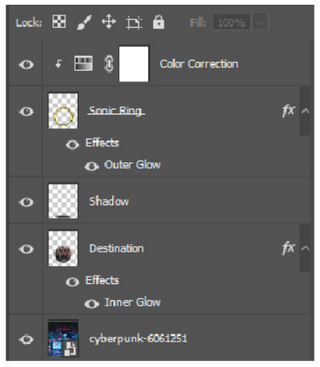
FILM | EXPERIMENT #1 - PORTAL DESIGN



Raw | Add Tint | Add Border

Attempt #1

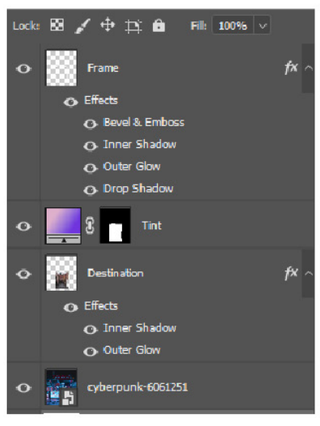
Here, I played with some purple tints, glows and shadows to create the illusion of the portal having surreal features. To align it to the supernatural genre, I also changed the solid colour to a subtle gradient to make it look nicer. I chose a rectangular shape for simplicity for the first one.

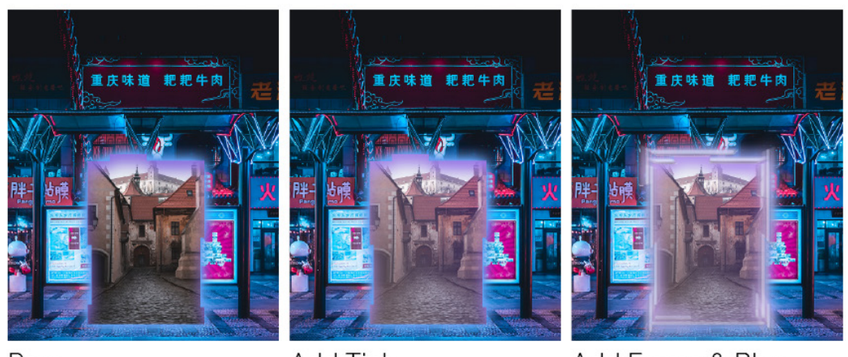


Raw | Add Border | Colour Correct

Attempt #2

For my second attempt, I used the Sonic Ring as the frame and colur corrected it to make it unique. I desaturated the colour and changed the hue to a periwinkle. I also added a slight shadow for some realism. Again, I also made a tint so all the attempts has some consistancy, as it will be what I want to do in my production.



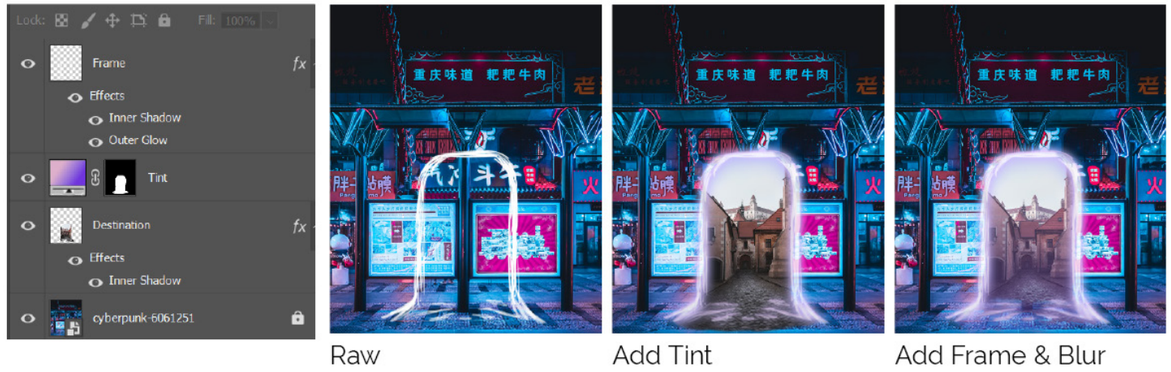


Raw | Add Tint | Add Frame & Blur

Attempt #3

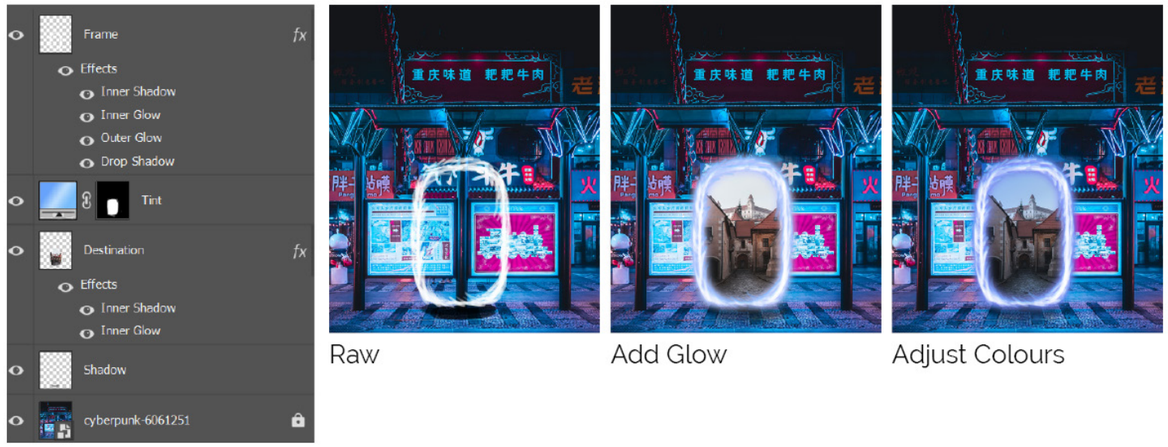
The third attempt to create my portal, I used my cursor to draw some geometric lines to draw out the frame. It ended up being to geometric and strays from my vision. I do like this style of drawing the frame manually so I might go down this path and explore hand drawing frames.

FILM | EXPERIMENT #1 - PORTAL DESIGN



Attempt #4

My fourth attempt at manually drawing the frame turned out not bad. I liked how the portal frame flowed into the ground, but it still felt a bit out of place for some reason. I think it feels too ethreal, not suitable for a slice of life short film. However, this generec shape has intrigued me, and I think I will keep using this rounded rectangle shape.



Attempt #5

My final attempt. I really like how the final result turned out. The shadows and colour looks really good and the shadow grounds the portal, adding that needed realism. It is probably my favourite out of the 5, I really like the aesthetics and vibes of it. It gives almost a cartoonish and light-hearted feel while maintaining that slight ethereal feel.

FILM | EXPERIMENT #1 - PORTAL DESIGN

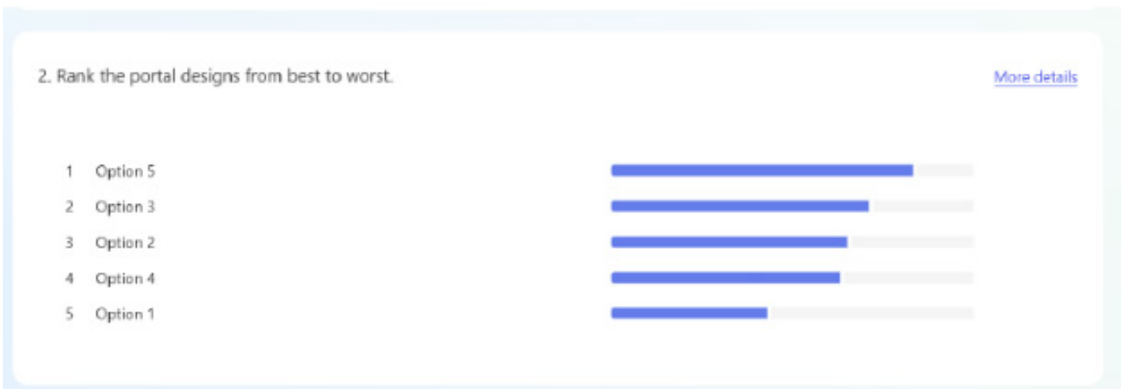
Conclusion

I asked my peers to rate how good each portal design was on Microsoft Forms. I first asked which was their favourite, then asked for them to rank the 5 designs from best to worst. It is obvious that 1 performed badly. I expected option 4 to perform well, but what surprised me was that option 5 was really popular. Options 2 and 3 were also favourites, with the geometric frame drawing their attention. In conclusion, the portal frame design was a success. I will construct my final portal based on the aesthetics of frame 5 and 2.

Portal Design was challenging to say the least, to find a design that will nicely embed into my production. I believe after the feedback of peers, I was able to reinforce my design that will aid my production.

I will definitely add a purple tint in post-production while editing, along with any other required effects, such as a potential shadow to help make the portals appear more realistic. In essence, I think by performing Portal Design as a production experiment, my production's quality will increase and potentially gain more visual interest within the audience.

Stock Images Used:
https://pixabay.com/photos/road-historic-center-rainy-7705909/
https://pixabay.com/photos/cyberpunk-street-city-platform-6061251/
https://static.wikia.nocookie.net/sonic/images/7/74/Moviering.png/
https://i.ytimg.com/vi/9A4dehrHqY0/maxresdefault.jpg
https://cdnb.artstation.com/p/assets/images/images/033/805/183/large/jorge-salido-captura-de-pantalla-2021-01-14-a-las-9-19-56.jpg?1610613462



FILM | EXPERIMENT #2 - COLOR GRADING

What is Color Grading?

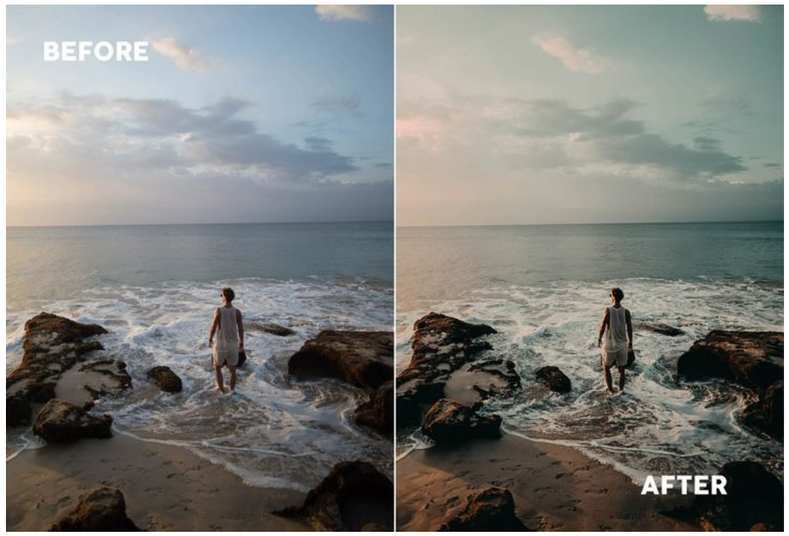
Color grading is when the photo's hues, colors and lighting is adjusted to convey certain ideas and feelings. I want to explore various color grades then apply it to my production. I will first analyse a few different grades then compare them.

Teal Orange

The Teal-Orange grade is a common film colour grade that helps give footage a cinematic look. The aim of this grade is to shift the shadows to a orange hue while adjusting the highlights to teal, creating a vibrant look.

Golden Hour

The Golden Hour colour grade is another common colour grade that evokes feelings of warmth and richness. It is often considered to give scenes a dreamy feel to it, allowing for spaces to feel surreal,



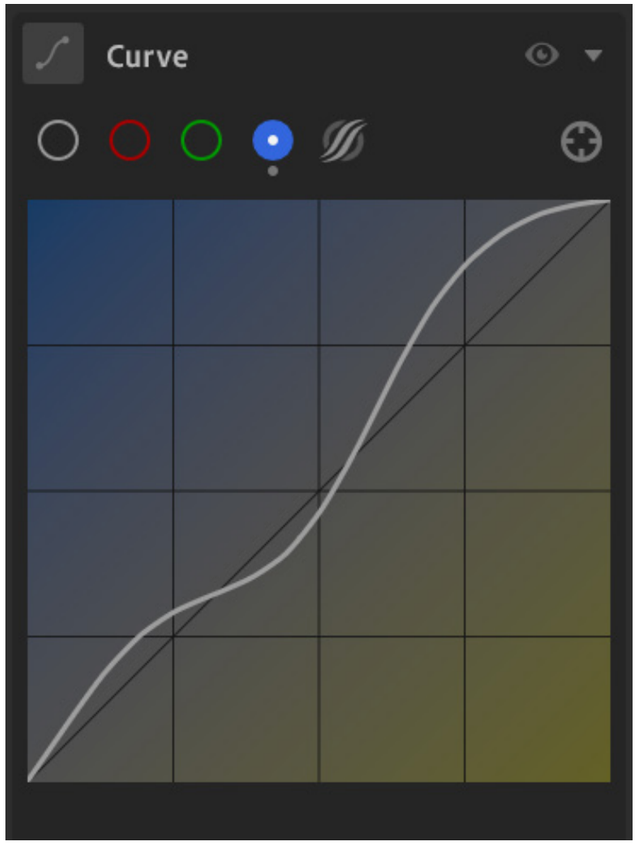
Kodachrome

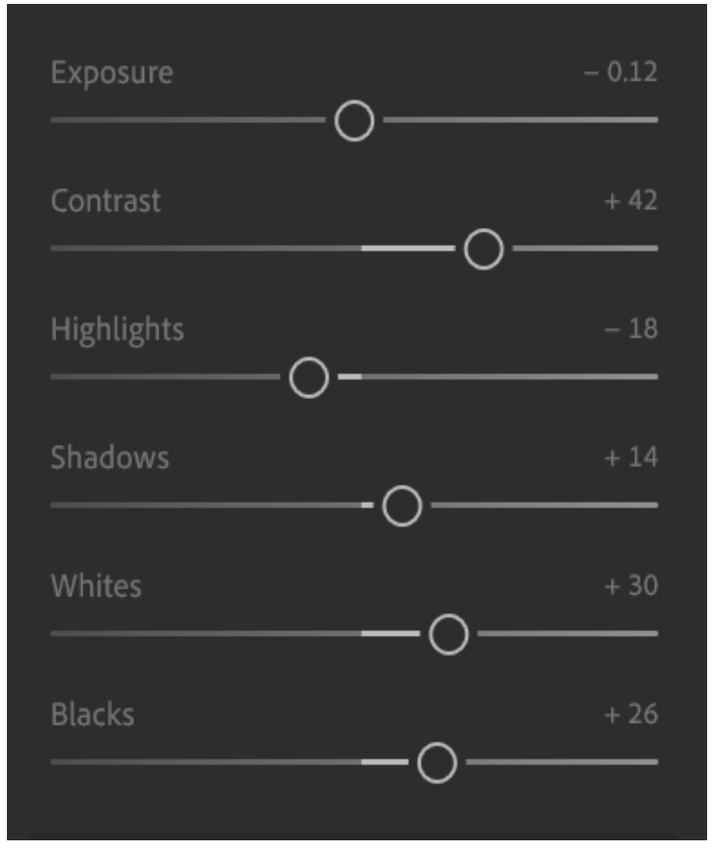
The Kodachrome refers to Kodak cameras that dominated photography and videography during the 20th century. Adopting an almost sepia tone that hinted at notions of vintage, nostalgia and retro, the grade aims to create a soft and warm tone, engaging the audience by making the scenes look something of a bygone era.

FILM | EXPERIMENT #2 - COLOR GRADING

Light

The photo on the left side is the raw image while the image on the right is the light adjusted image. By adding contrast and exposure, it gives the scene a more cinematic look. I adjusted the curves accordinly to bring out the murky yellow and warm tones seen in the Kodachrome filter I analysed earlier.

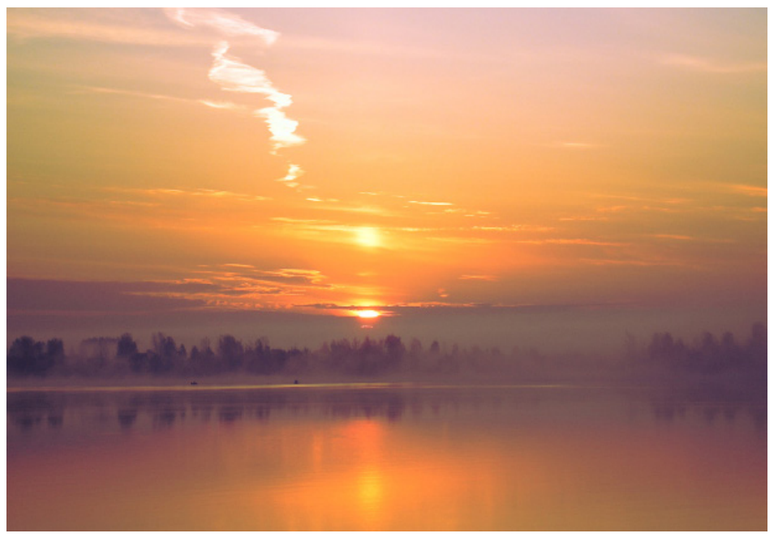


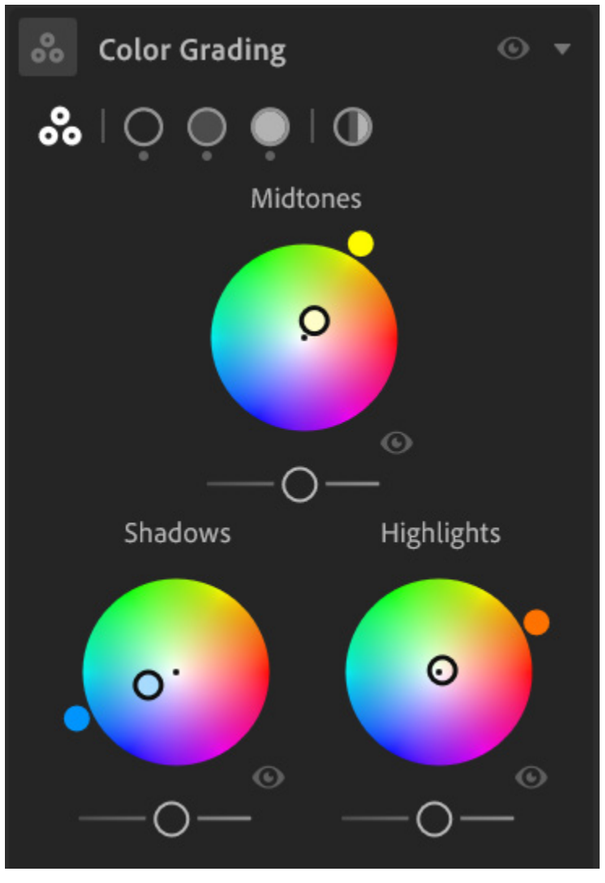


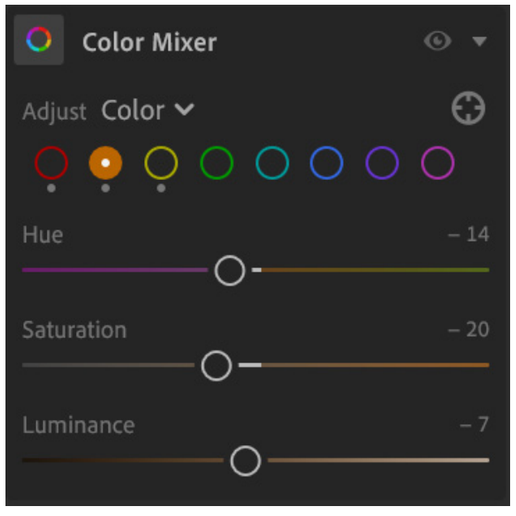
FILM | EXPERIMENT #2 - COLOR GRADING

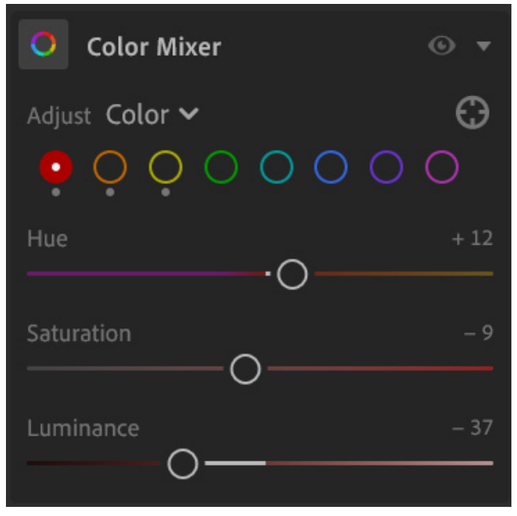
Color

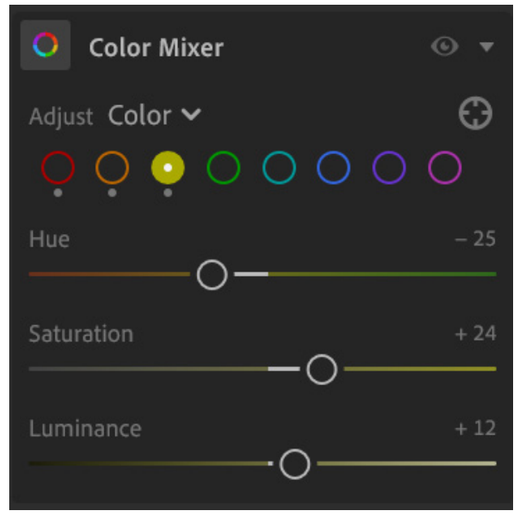
The photo on the left side is the light adjusted image while the image on the right is the color adjusted image. By reducing the overall temperature and shadows of the scene to more blue hues, I was able to saturate the yellow, orange and red values to balance everything out. The final result turned into a nice warm grade, a balance of cinematic with a touch of surrealism which matches the genre of supernatural.

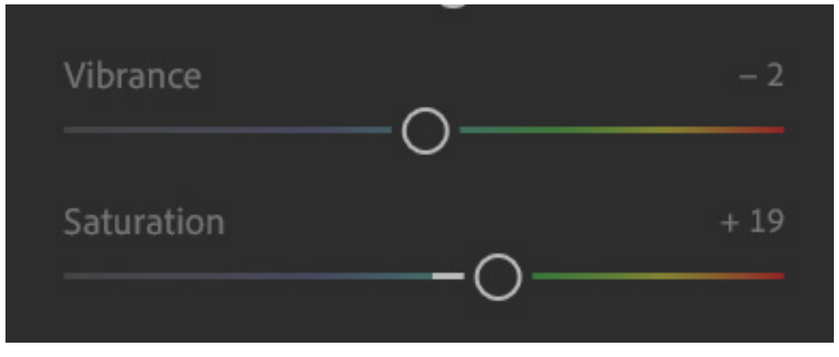


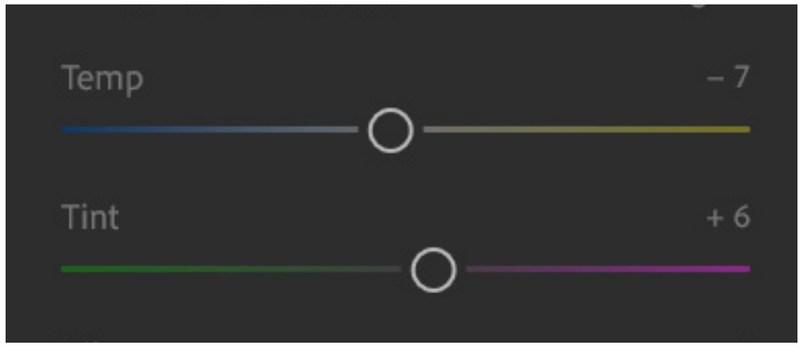












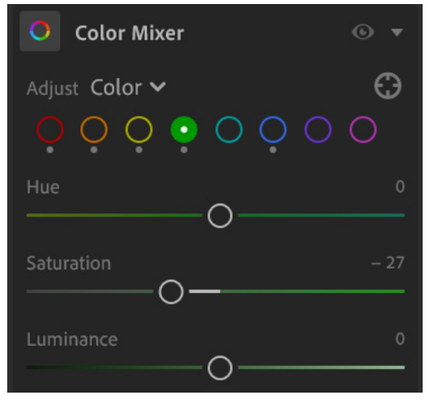
FILM | EXPERIMENT #2 - COLOR GRADING

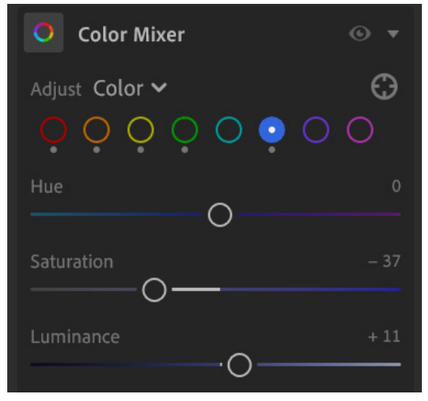
First Thoughts:

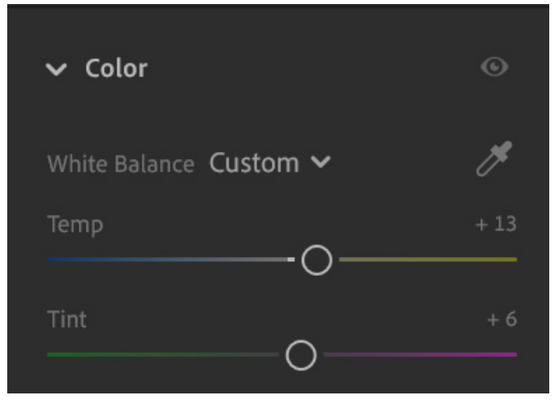
After editing the image, I will use the settings from this edit onto another photo, to see if it works well. I need the preset to work well, only needing slight adjustments. This will allow for better effeciency and faster workload.

In Lightroom, I saved my grade as “Production Grade”. I will use this grade now to experiment with other photos, documenting any adjustments I need to make.

Some photos I want to try with is definitely some blue dominant photos. For example, the image below is of a city skyline with a lot of blues. After I applied the filter the image appeared too cold, the blue too saturated which made the sky contrast with the buildings heavily. I adjusted the blue hues and desaturated them, also turning the temperature up a bit. It looks good now. Below are the values and notches I had to adjust to achieve the final image on the far right. The far left image is the raw. The middle image is the filter I made previously applied to it.





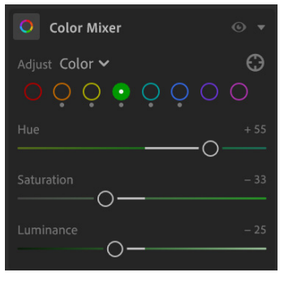


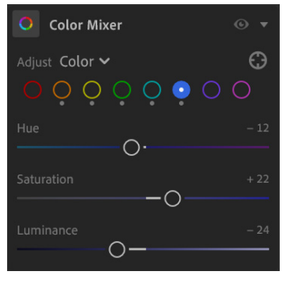
FILM | EXPERIMENT #2 - COLOR GRADING

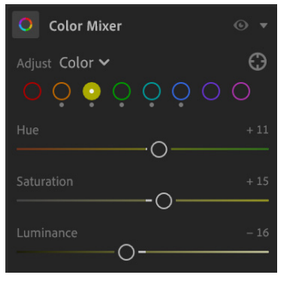
Second Thoughts:

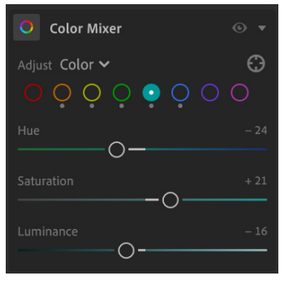
I chose a classroom for the second mockup as it offers a new variety of colours. The classroom scene allows for more natural colours like browns and greens which might work differently with my filter because warm colours are emphasised in my filter. The issue I had with the filter was that the curves adjustment messed the warm tones up, and I really didn't like it. I believed that adjusting the values and notches would be too difficult and would sway too far from the filter.

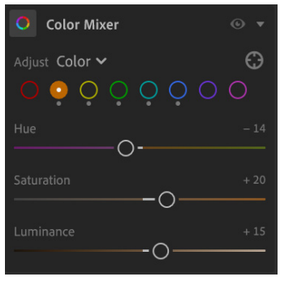
However, I had a backup filter that mimicked the vintage look very well and it perfectly fit onto this photo. Throughout my production, I may also experiment with this grade, using this neutral vintage filter for indoor shots. I think the grade I made fits better for outdoor shots. Below are the values and notches of this backup filter that is able to achieve the final image on the far right. The far left image is the raw. The middle image is the filter I made previously applied to it.

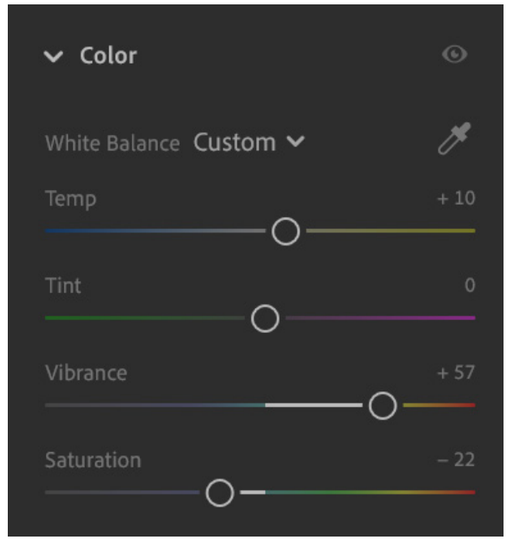


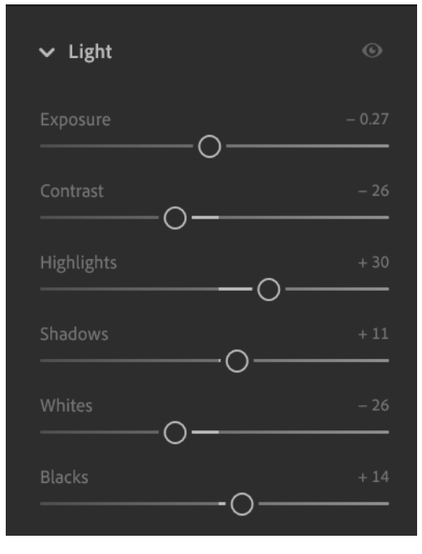












FILM | EXPERIMENT #2 - COLOR GRADING

Conclusion:

Colour Grading is not easy as various colours can evoke different emotions and feelings. Choosing the right grade to match the aesthetic I want and to at the same time convey the message I want was difficult, but I believe the grades I crafted in the end can stand as a solid foundation grade for all my shots. Whether I have to adjust certain hues for each shot, these basic grades I have made will help me edit in post production more efficiently.

Sources/Images Referenced:

https://preview.redd.it/some-heavier-post-processing-again-this-time-with-orange-v0-mroiccio6j1a1.png?auto=webp&s=e1c0bda3f90453674b6037207f22a53cef4f5fda
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https://www.presetpro.com/wp-content/uploads/2023/06/Free-Lightroom-Preset-Vintage-Grade-Before-and-After-Presetpro.com_.jpg

CHOSEN IDEA:

Ideas:

Short Film:

- A student gains the ability to create portals and causes chaos at school the next day.
  (Supernatural, Slice of Life)
- A student discovers their watch can pause time, but each use ages them slightly.
  (Supernatural, Drama)
- A student finds notes from an “apparent” future self hidden throughout the school.
  (Thriller, Psychological)

Video Games:

- A drawing mechanic based game where users draw paths to guide creatures to defeat enemies.
  (Puzzle, Adventure)
- A physics-based game where drawing bridges, ramps, and catapults helps guide a ball to the goal.
  (Puzzle, Physics)
- An autoscrolling platformer that only runs forward where the player guides it using drawn objects.
  (Platformer, Adventure)

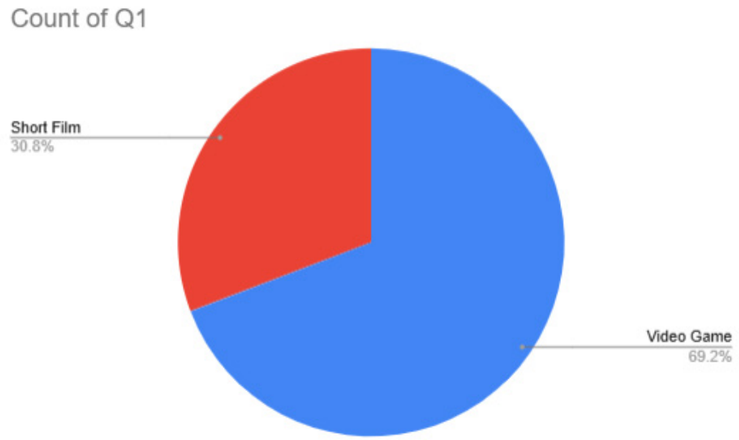
Previously in the Form and Genre section, I had listed some ideas. Below are the same ones. I asked my peers on which one would be the best in a survey. I didn’t explicity state my ideas, rather I surveyed them on the form I should produce and the genre, ultimately helping me shape my decision.

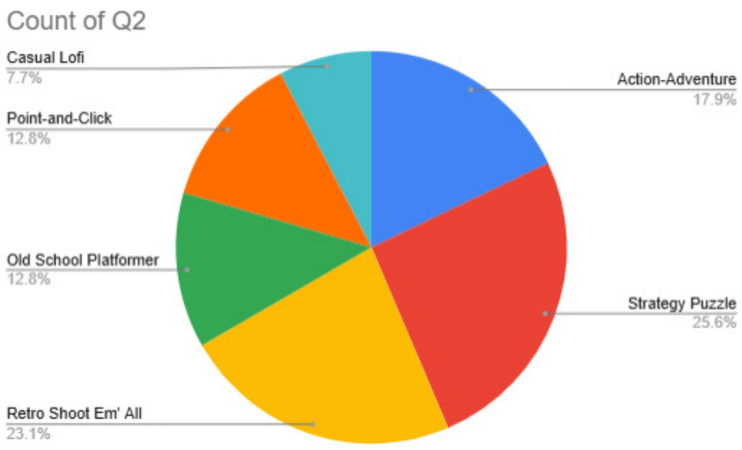
The data is presented on the far right side of this page. The data shows Video Game dominated the form choice.

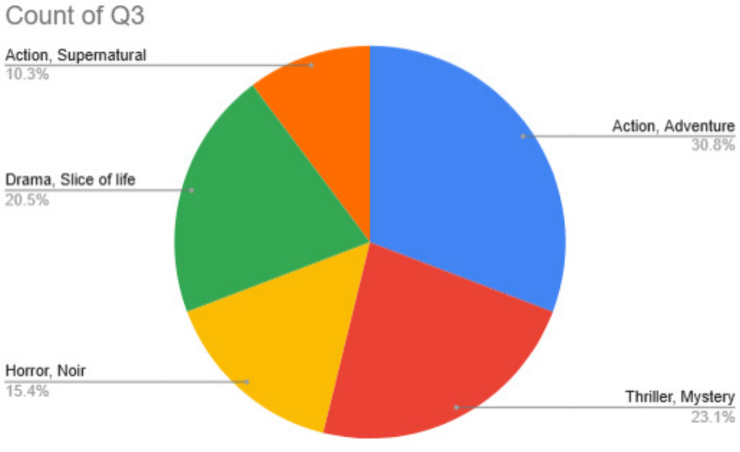
When it came to genre, audiences wanted either a Thriller, Mystery film or an Action, Adventure film. Audiences wanted either a Strategy, Puzzle game or a Retro Shoot Em’ All Game. I decided to choose Video Game, Strategy Puzzle Game.

My final idea is:

A drawing mechanic based game where users draw paths to guide creatures to defeat enemies.







PRE PRODUCTION

STATEMENTS

NARRATIVE

The overall narrative of my game will follow Elias Novem, a 19-year-old superhero. My game will begin through a series of comic panels that depict the events that had occurred and how Elias ended up powerless.

The main antagonist written for my game is Magha, a necromancer that can summon skeletons that are imbued with the four elements; fire, water, earth and air.

The narrative begins with Magha rising from the ruins of East Timor, causing chaos, destruction and fire. When Elias comes and tries to suppress Magha, he realises he is long dead and rather Magha is a living ghost.

Magha is able to suppresses Elias's powers with a spell during their fight, allowing Magha to knock Elias out easily. After waking up some time later, Elias's vision becomes hazy and begins seeing small creatures. As he regains his strength, these creatures follow him and they become sharper.

Elias soon discovers that his powers had not disappeared, rather it was converted into cosmic creatures that represented the elements of life, being: Fire, water, earth and air. As he travels with these creatures, Elias learns how to use these creatures to their full potential. He learns that these creatures can transform into powerful cosmic beasts when shot properly.

As he practices, he realises these creatures can be controlled completely freely, flying in all sorts of ways. With his newfound power, Elias begins to clear the skeleton infested areas in Timor. Elias realises Magha has summoned skeletons to destroy nearby civilization, saving multiple villages from devastating fires and other disasters the skeletons had begun.

Once Elias finally discovers Magha hiding and causing more chaos, Elias confronts Magha. Magha is finally defeated when Elias uses the cosmic creatures to overwhelm him, surging the energy in his ghost-like body, causing him to overflow and explode in energy, knocking him out instantly.

In the end, more comic panels show Magha's defeat, with Elias ultimately carrying his body off into the sunset. The game ends here and players can choose to replay levels or to restart the game, starting the narrative all over again.

The narrative structure will be fragmented, with a comic to establish the context at the very beginning as well as another at the very end to . Each level will progress the narrative in the respective locations; village to forest to temple with each level serving as an piece of the story building up towards the larger plot.

INTENTION

I am creating an adventure-strategy game titled "Space Slinger", which explores the concepts of supernatural powers, cosmic entities, and the untapped creative potential of drawing-based gameplay.

The game's core themes include adventure, action, and imagination, all presented within a magical, otherworldly setting. Through the journey of the protagonist who uses cosmic creatures to overcome various challenges, the game invites players into a heroic narrative filled with mystery, power, and exploration. One of the main ideas behind this game is to bring attention to a niche mechanic often overlooked in mainstream games: the drawing system. Unlike many games where drawing is treated as a side gimmick, Space Slinger is built entirely around it.

The purpose of this is to demonstrate how drawing mechanics can be used not just for creativity, but as a deep and meaningful way to interact with the world and solve problems. I want players to think critically, creatively, and strategically. By allowing them to draw their own solutions, I hope they will consider how freedom of expression and problem-solving can go hand-in-hand in game design. The game also makes use of strong symbolism.

The cosmic creatures that the protagonist summons each represent one of the classical elements: fire, water, earth, and air. These elements are symbolised through their colours: orange for fire, blue for water, brown for earth, and grey for air. These elements are not only used to enrich the gameplay variety but also reflect the importance of balance and harmony, both in the story and in the challenges faced by the player. The game's levels are set in environments that are inspired by real-world locations, but they are depicted in surreal and magical ways. This use of subverted motifs helps ground the world while also giving it a fantastical charm, creating an atmosphere that feels both familiar and enchantingly strange.

To fully appreciate Space Slinger, players should be familiar with the conventions of supernatural and adventure genres, such as the idea of a hero embarking on an epic journey, or magical abilities being tied to forces beyond human understanding. They should also enjoy thinking outside the box, as success in the game depends on drawing unconventional shapes or tools to overcome puzzles and obstacles. This is intended to make the game experience more immersive, interactive, and personally rewarding.

In terms of inspiration, the game draws heavily from the art style of Nightmarket Games' Slug It Out 2, particularly in its vibrant character design and whimsical aesthetic. The gameplay system is influenced by existing drawing mechanic games, although Space Slinger aims to push these mechanics much further. The narrative is inspired by Thor (2011), especially in its portrayal of powerful otherworldly beings, a protagonist with a strong sense of destiny, and the theme of personal growth through conflict and discovery.

STYLE & GENRE

My production's aesthetic choice is unique, with the dominant character art style being heavily inspired by the aesthetic choices Nightmarket Games' Slug It Out 2 employs. The art style is consistent, adopting flat designs. However, one major change that is different is the complexity of design, with my characters being more minimalistic and flat. I chose to not draw shadows to decrease the difficulty in animating the sprites which will help significantly. This means I will go for flat lighting and flat colours.

For the UI and Menus, I aim to remain consistent by also designing it to be minimalistic. I will use flat colors with minimal shadows to create visual coherence, following the general rules of game UX. Again, User Experience is a vital part when creating design choices in my production as overly complex visuals may mislead players. Complex objects make the screen feel messy and create visual clutter which is something that I do not want.

For my backgrounds, I will again remain consistent by adopting a more flat and cartoonish style. These background locations should be realistic but fantastical with vibrant colours, conveying ideals of magic and beauty which is something that the player strives for. The narrative's extrinsic motivation tells the player that they must defeat the enemy to keep the world bright and beautiful, giving them a proper purpose to keep playing through the level.

On the genre perspective, my production will follow the action and strategy style game alongside its relevant conventions. These include fast-paced gameplay with an emphasis on player reflexes, calculated decision-making, and dynamic combat scenarios that challenge the player to think quickly while adapting to changing environments and enemy behaviours.

My production can be considered a stylised RPG because of the narrative and gameplay choices, with the addition of custom gimmicks that subvert generic gameplay loops such as a simple turn-based strategy system, platformer, shooter, etc. Instead, I chose to employ a niche gameplay system that only a few games adopt, that being of the drawing mechanic.

The drawing mechanic, although it derives from the strategy genre, introduces a more tactile and interactive layer to gameplay by requiring the player to physically draw paths to guide a projectile to hit the enemy. These genre and subgenre choices allow for a more diverse and unique game, attracting new gamers to try out a different system that subverts the traditional gaming trends.

AUDIENCE

The target audience for my production will be digitally literate teenagers from either the Gen Z or Gen Alpha generations as these audiences will enjoy a more digital interactive experience. They should also be gamers who have interests in strategy and adventure games, preferring a rather slower pace compared to faster paced games shooters often employ.

My game will be presented in English, meaning that my game will appeal to a broader audience who understand the language more fluently. However, because the main narrative for my production will be mostly communicated through visual storytelling, it will allow for non-native English speakers to still enjoy and understand the game and narrative.

Given that the game will be hosted on a website, access to a stable internet connection and a compatible device is essential. The audience should come from countries that have a strong digital infrastructure and have a reasonable income, meaning lower social classes will not be able to access my media production.

MOTIVATION

My production engages players by combining a unique, tactile drawing mechanic with a rich narrative built around cosmic powers and elemental creatures. The game sustains intrinsic motivation by encouraging creative problem-solving where players physically draw paths to control the battlefield, gaining satisfaction from mastering a mechanic that rewards experimentation, originality, and personal skill. The drawing system itself is fun and engaging, making players want to improve and explore new strategies simply for the joy of playing.

At the same time, extrinsic motivation is provided through the structured progression of the story: defeating the antagonist Magha, restoring Elias's power, and purifying corrupted lands. Each victory unlocks new levels and visual environments inspired by magical versions of real-world locations, giving players constant external rewards and a clear sense of purpose. This dual-layered approach allows creative freedom supported by clear goals and rewards which ultimately keeps players invested over time, ensuring they remain engaged both emotionally and mechanically throughout the game.

TIMELINE

For my game, there are some major roles and tasks I need to do. Firstly, before coding, I need to complete all the asset creation. This includes:

- Character design
- Sprite animation (frames)
- Background art
- UI design

Then, I will begin coding. I will choose to create my game in Godot 4.4. I will code the base mechanics, then code the player and enemy. Quality of life additions will be considered and will be added depending on how the timeline progresses. During this coding process, I will need to:

- Optimise code to run smoothly
- Make sure there aren't any major bugs
- Make sure the UX of the game flows well

For post-production, I will need to polish my game and design some extra assets such as banners and proper branding if I plan to distribute my game. During my research phase of my media production, I found a website named itch.io.

itch.io is a free market for indie games alike, allowing developers of all sorts to distribute their games. I may plan to release my game Space Slinger onto this website so I can easily share it to my friends and family to playtest and try it.

05/05/25 - 09/06/25

- Code core gameplay mechanics
- Create sprites and frames

19/06/25 - 01/07/25

- Finish backgrounds
- Create branding for game

01/07/25 - 17/07/25

- Complete all level code
- Publish Game

PRE PRODUCTION

PLANNING

PLANNING

Construction

Building my game, I will use the GODOT Engine 4.0. This is because GODOT has a unique programming language which is a hybrid of Python and JavaScript, two languages that I have experience working with. Unlike industry favourite engines such as Unity or Unreal Engine that solely work upon C++ or C#, GODOT is a very versatile engine and I believe that it has a lower learning curve to the larger engines.

Music & Audio

For the audio present in my game, I will be using the two tracks I composed for my production experiment as they nicely reflect that of what the game is. My game's music should be strong as analysed before, a harmonious soundtrack can elevate the immersion factor.

Moreover, since my game has dialogue, I had considered doing voice over for my characters. However, adding voice overs means more work such as recruiting people to help record the voice of the antagonist and other possible characters. To keep things simple but still enjoyable, I will not be using voice overs.

Sound effects I will need to record and create myself, so I will record them with my own microphone.

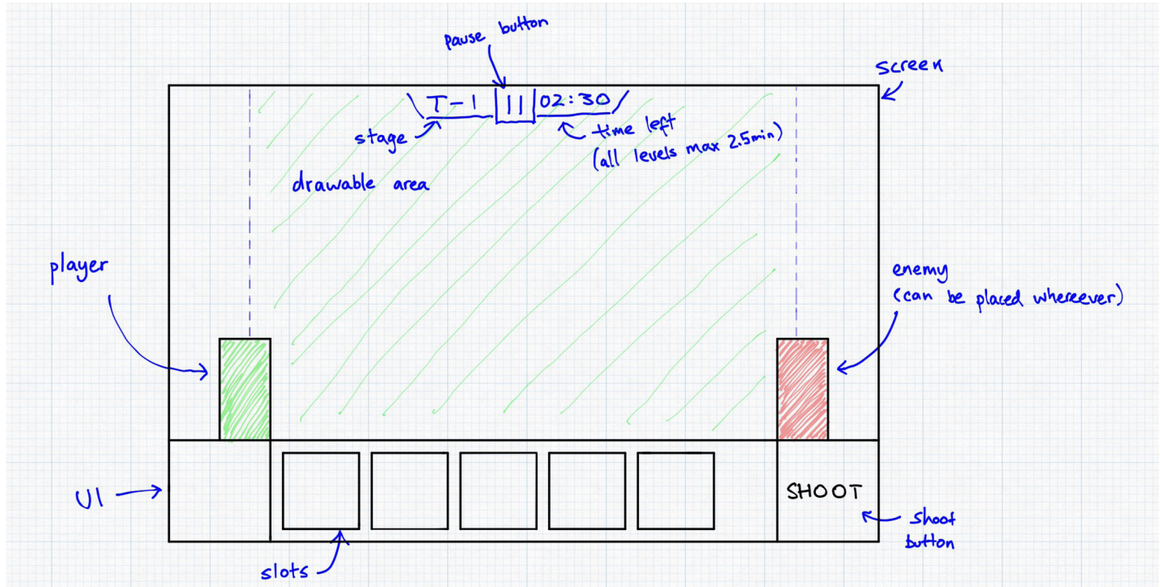
Priorities/Requirements

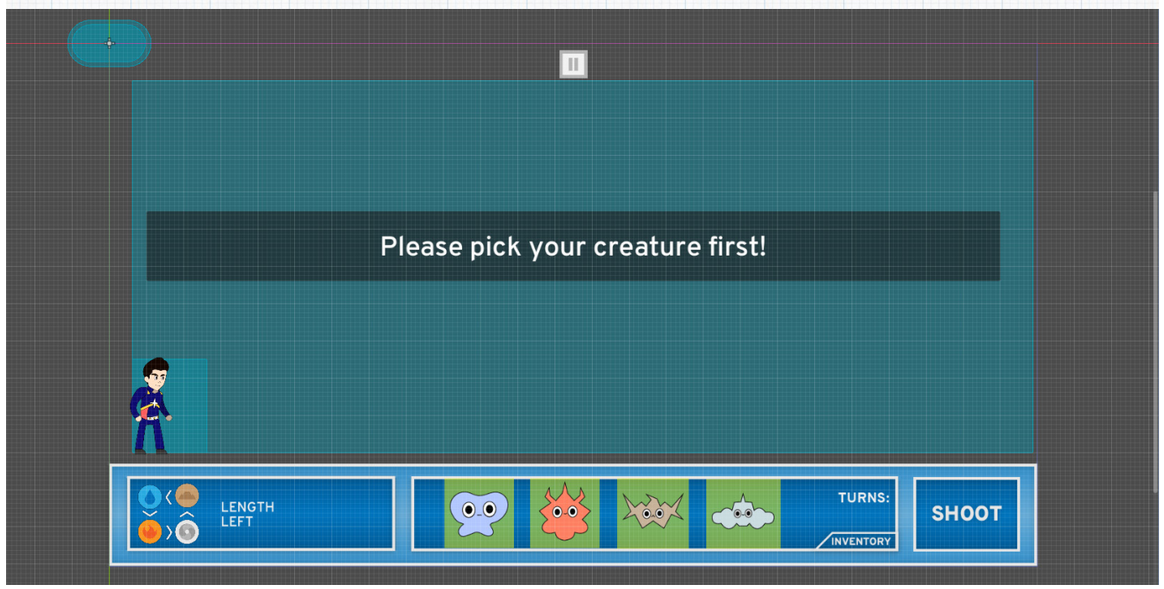
1. Gameplay and controls must be intuitive and fun
2. Narrative is rich
3. Aesthetics match the gameplay loop

CORE GAMEPLAY

Drawing Mechanics

For my game, like explained previously, I am doing a drawing mechanic. The layout is as shown, with most of the screen being the canvas where the player can draw. There will be areas where the player cannot draw to keep the game simple and the UI will be kept simple. There will also be a 3 minute timer underneath the pause button instead of it being beside the pause button unlike the sketch. Some other things that didn't make the prototype of the core mechanics was the level title, as I believe that it wouldn't fit.

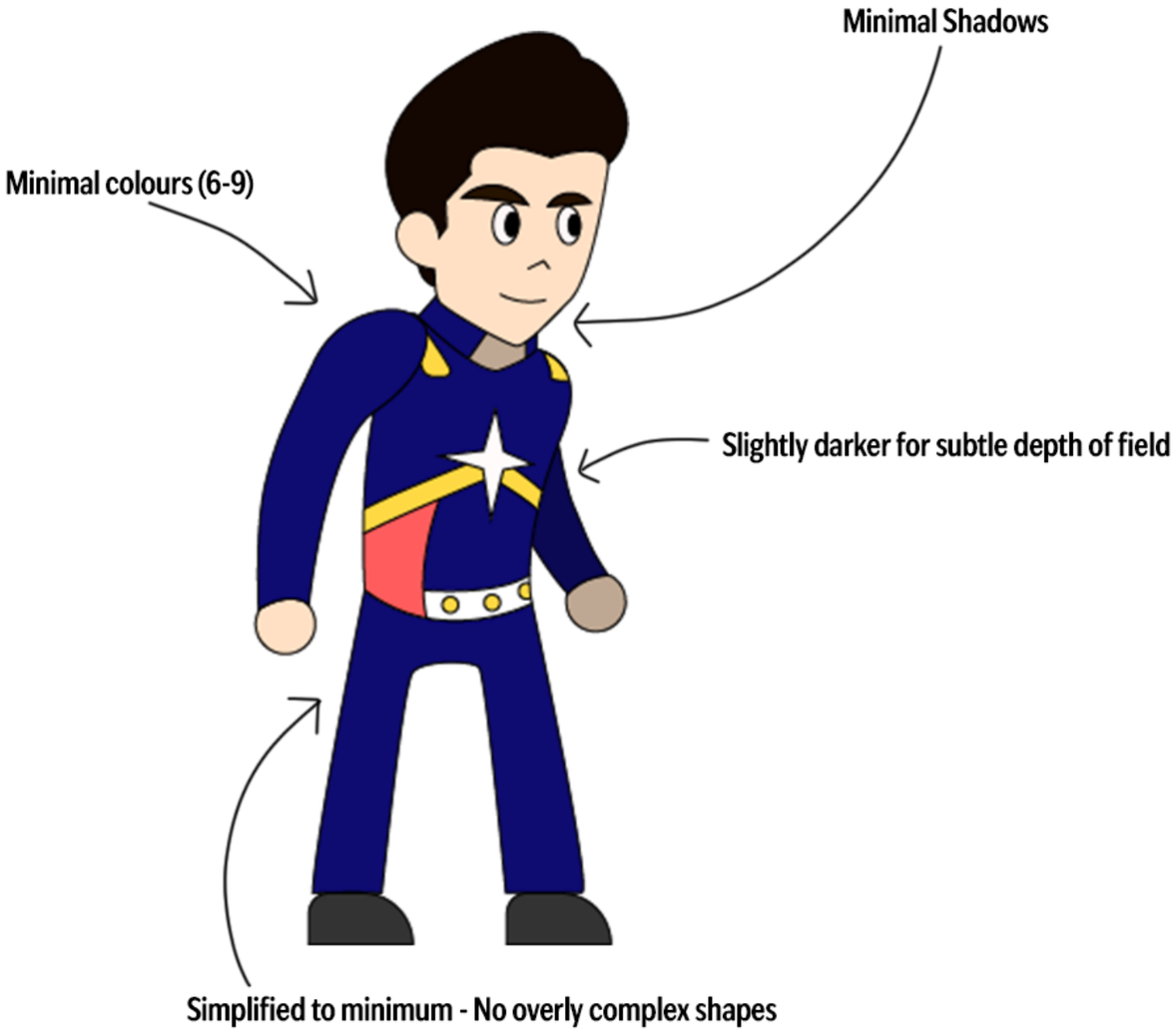




AESTHETIC PLANNING

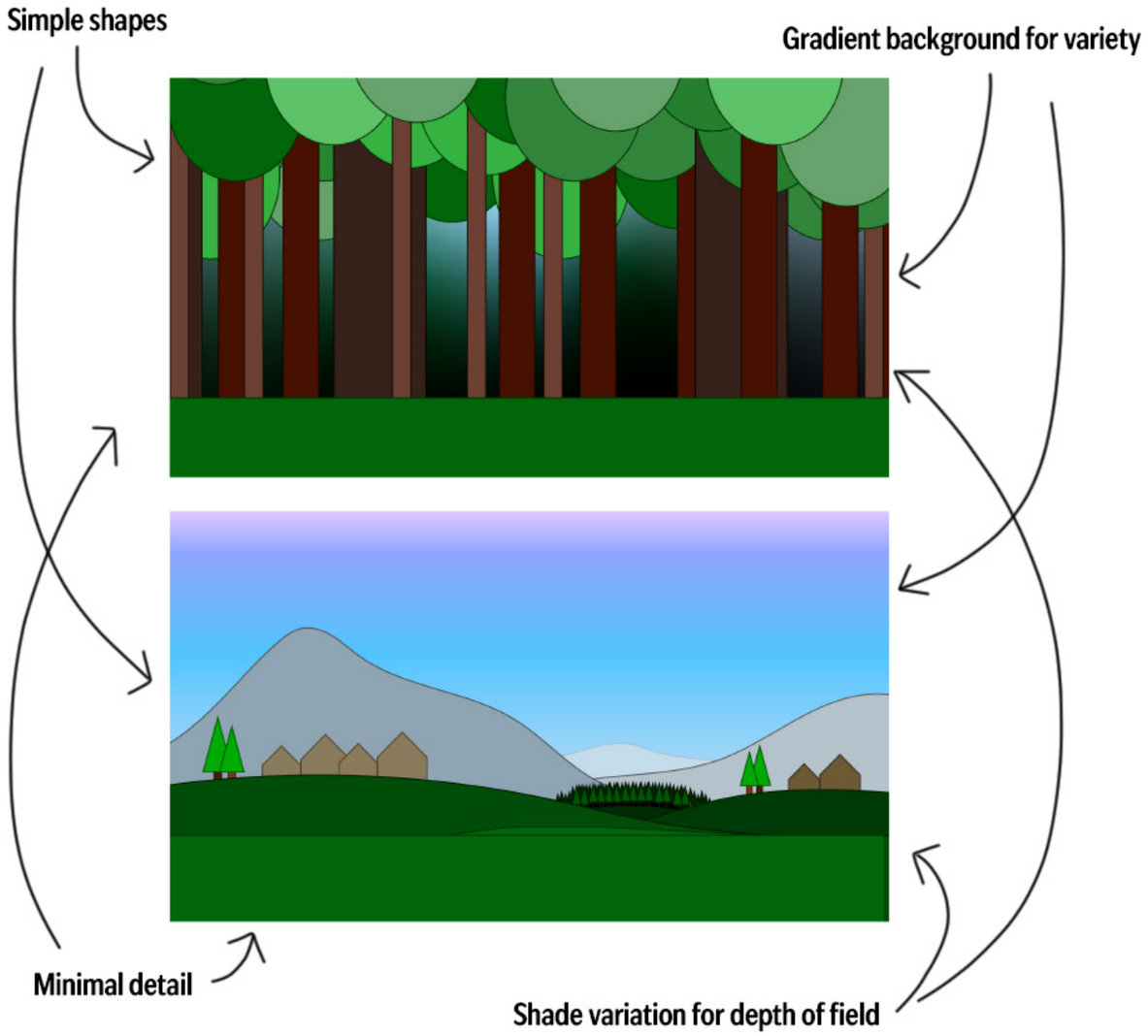
Player Character

The minimalist superhero design with clear annotations appeals to digitally literate Gen Z/Alpha gamers who appreciate clean, recognisable aesthetics. The simplified approach with minimal shadows and colours ensures the character reads clearly on various devices, while the superhero costume with its star emblem immediately communicates the adventure genre to players familiar with superheroes or supernatural convention.



Background

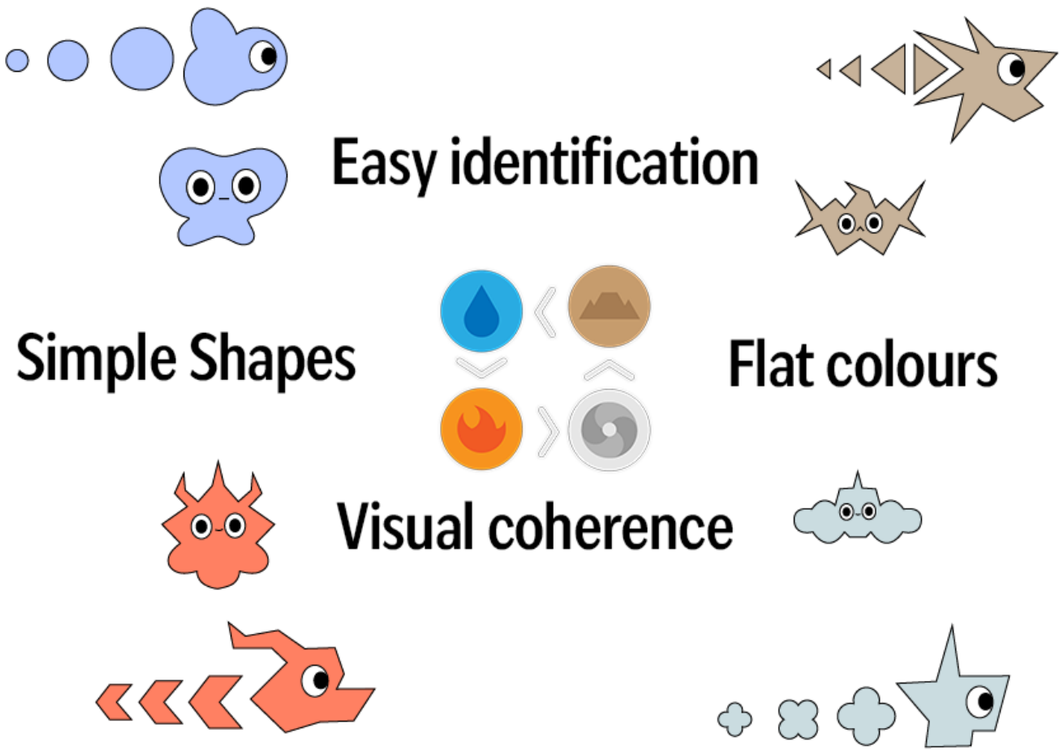
The flat, cartoonish environments with gradient backgrounds create the magical, fantastical world that motivates players to restore beauty to corrupted lands that the enemy, Magha has done. Simple shapes and minimal detail prevent visual clutter on smaller screens, while the vibrant colors and varied landscapes provide the sense of progression and exploration that keeps players engaged through different game levels.



AESTHETIC PLANNING

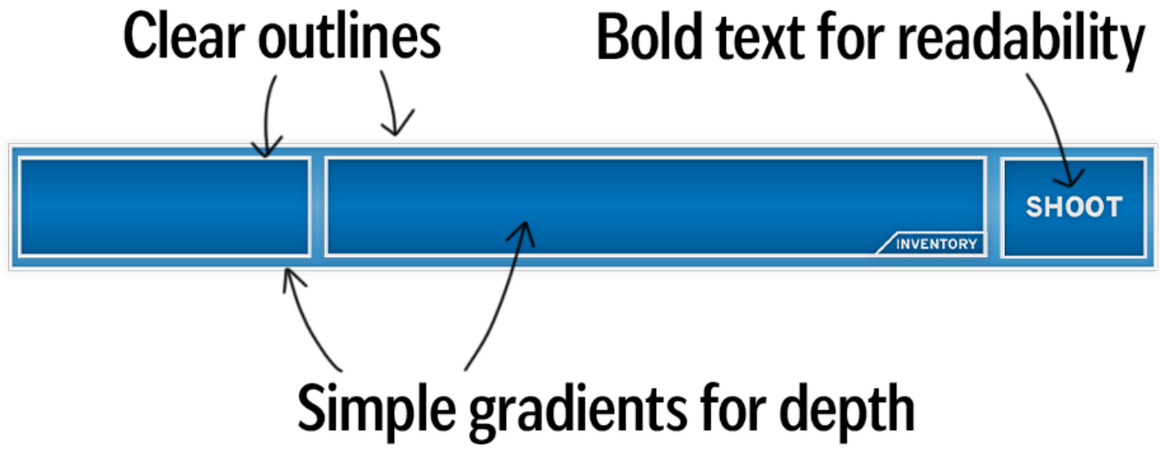
Creatures

The elemental creatures with their distinct colors (orange for fire, blue for water, brown for earth, grey for air) create visual coherence, providing immediate visual feedback that supports strategic thinking. The simple, cute designs with easy identification appeals to the slower-paced strategy preferences my audience has.



UI

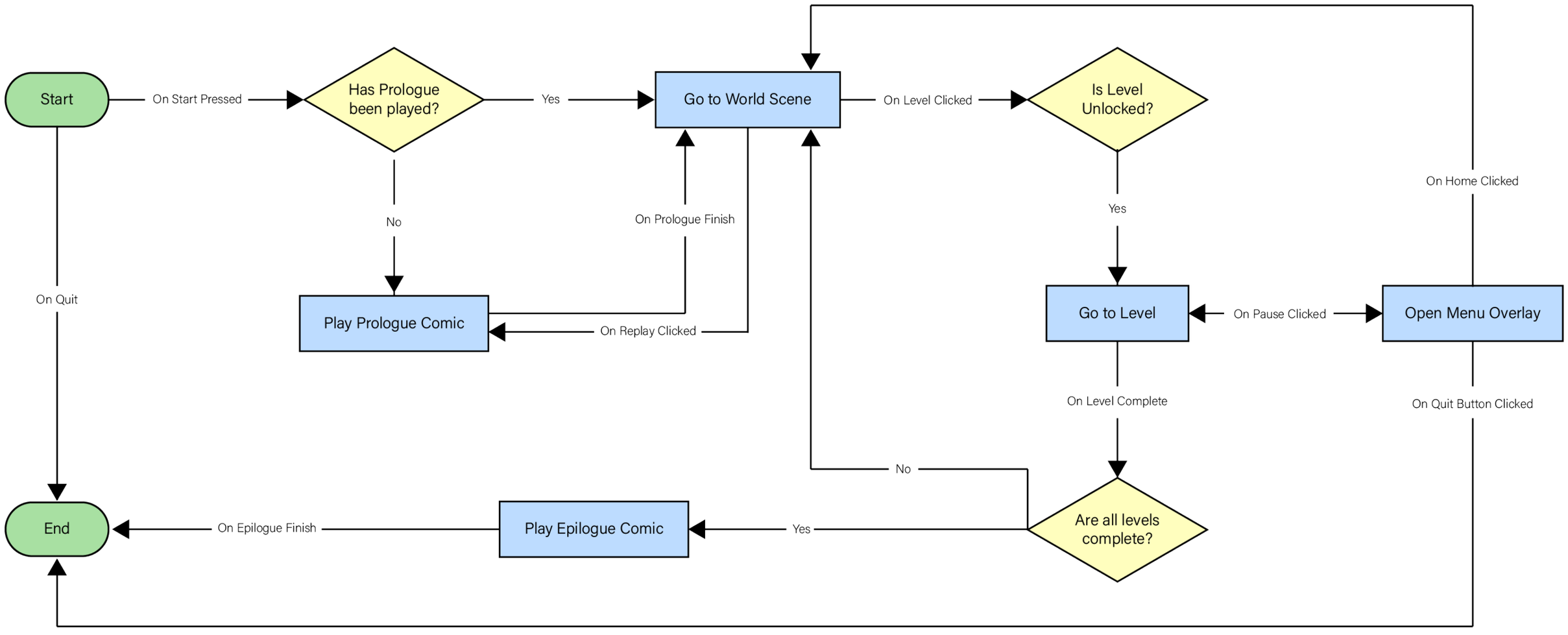
The clean interface with clear outlines and bold text ensures accessibility for an international English-speaking audience, including non-native speakers who rely on visual cues. The simple gradient adds subtle visual complexit, while the straightforward layout supports the intuitive gameplay that's essential for the game's success.



FLOW CHART & GAME LOGIC

Defining Logic

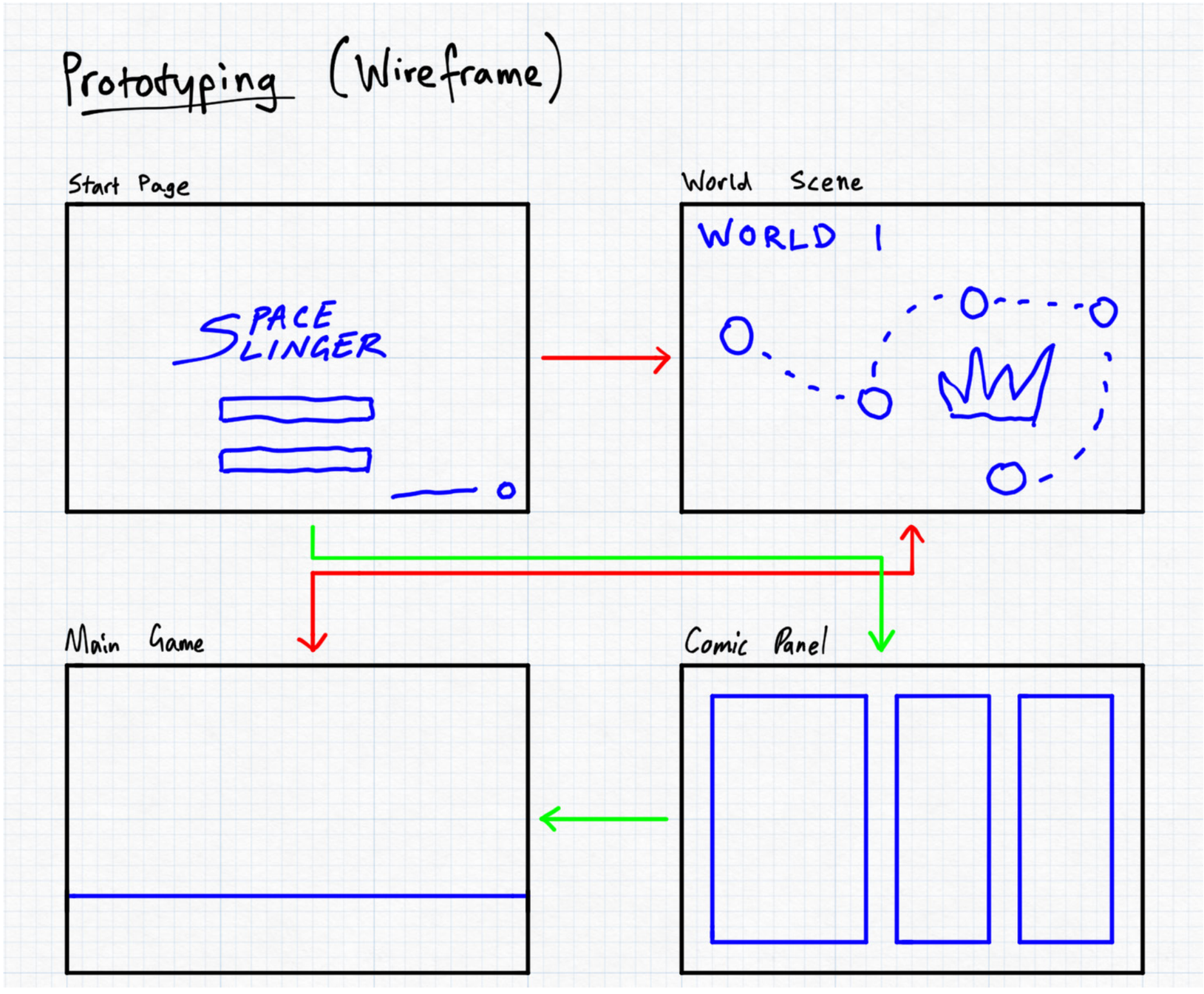
A flow chart is a visual diagram that maps out the steps or stages in a process, using shapes like arrows, boxes, and diamonds to show decision points, states and flow direction. For my game, the flow chart helps outline how the player progresses through different levels, handles inputs, and interacts with game systems such as enemies or menus. This also relates back to the game's logic, ensuring that the game behaves predictably and responds correctly to player choices or conditions.



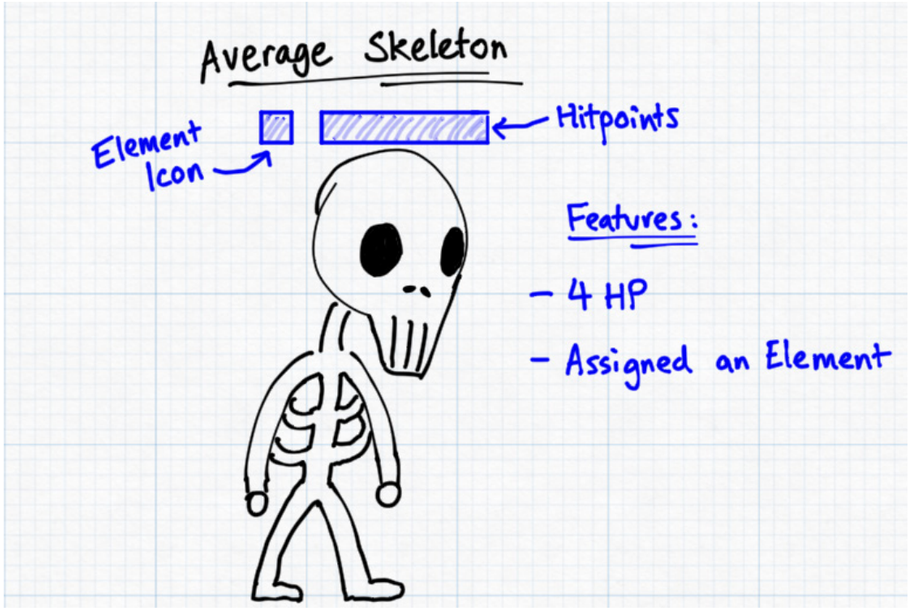
WIREFRAME & SCENE-BOARDING

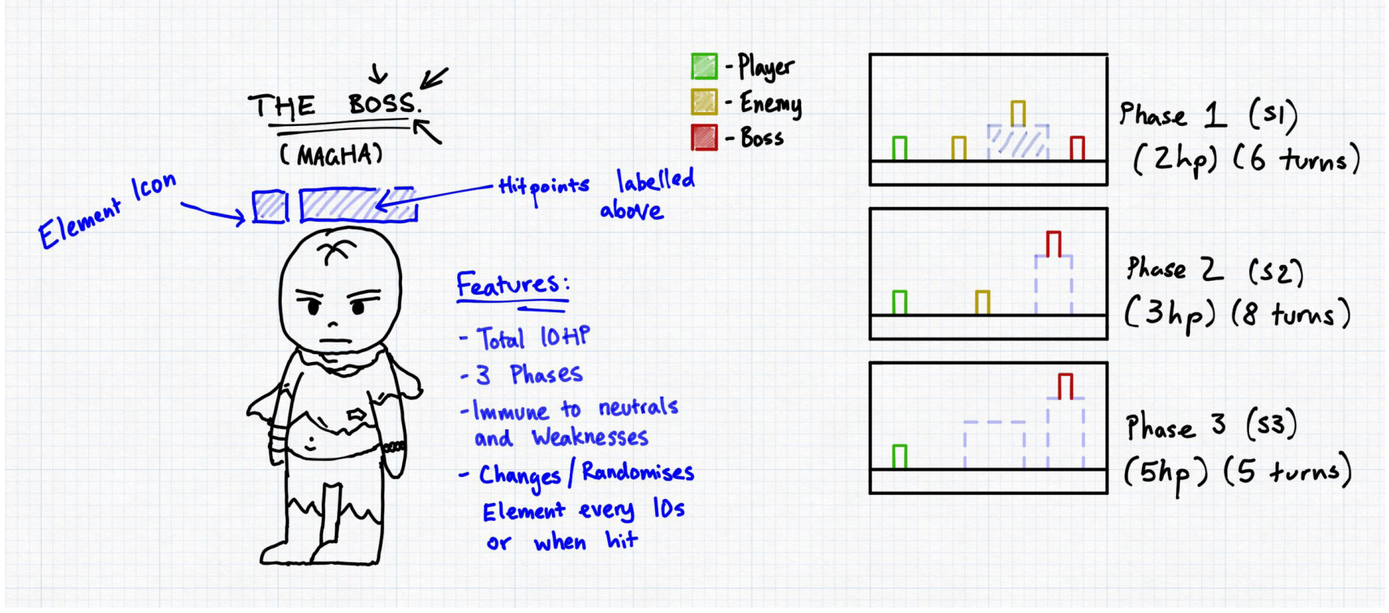
Game Flow

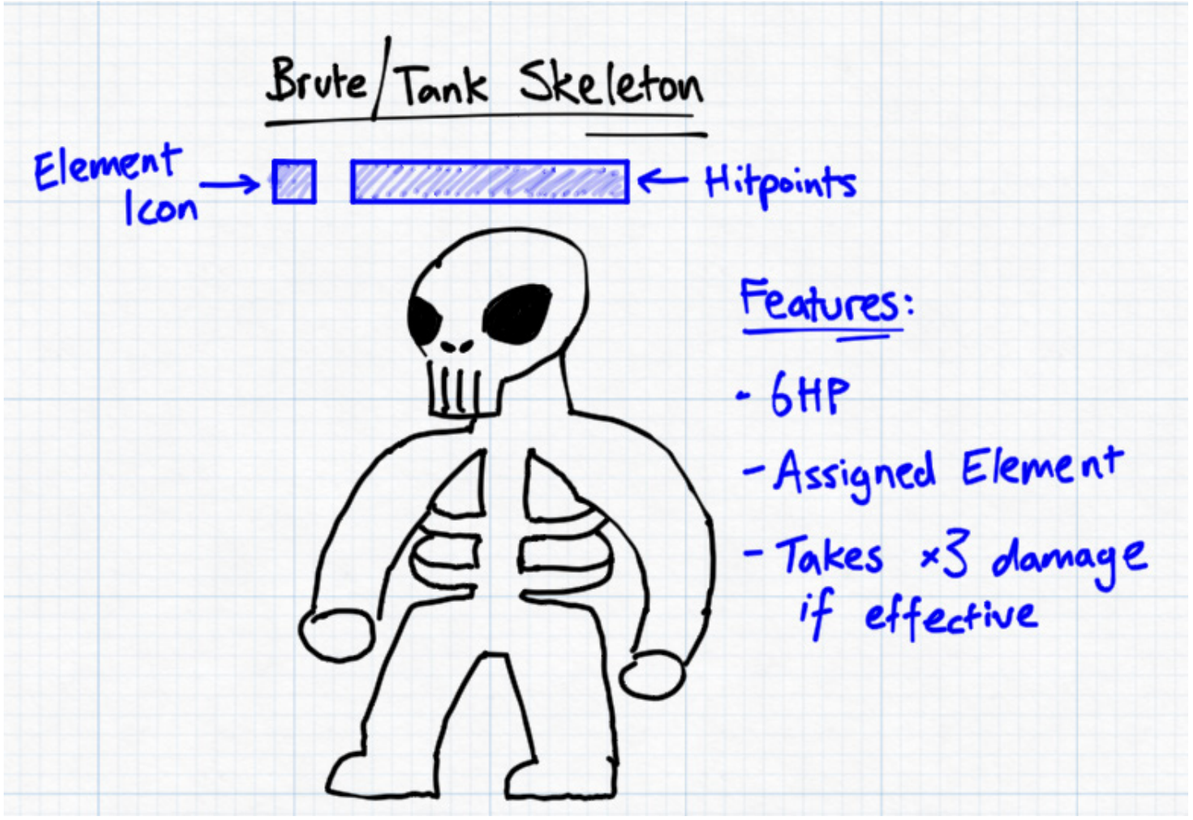
When finalising how my game will function, I decided to wireframe my game. A wireframe is a simple visual layout or blueprint that shows the structure and basic elements of a screen or interface without detailed design or graphics. By having a wireframe, it allows for a clear visualisation of how players will navigate through the game's interface, such as menus, buttons and HUD elements. This step helps ensure that the user experience is smooth and intuitive before moving into full development.

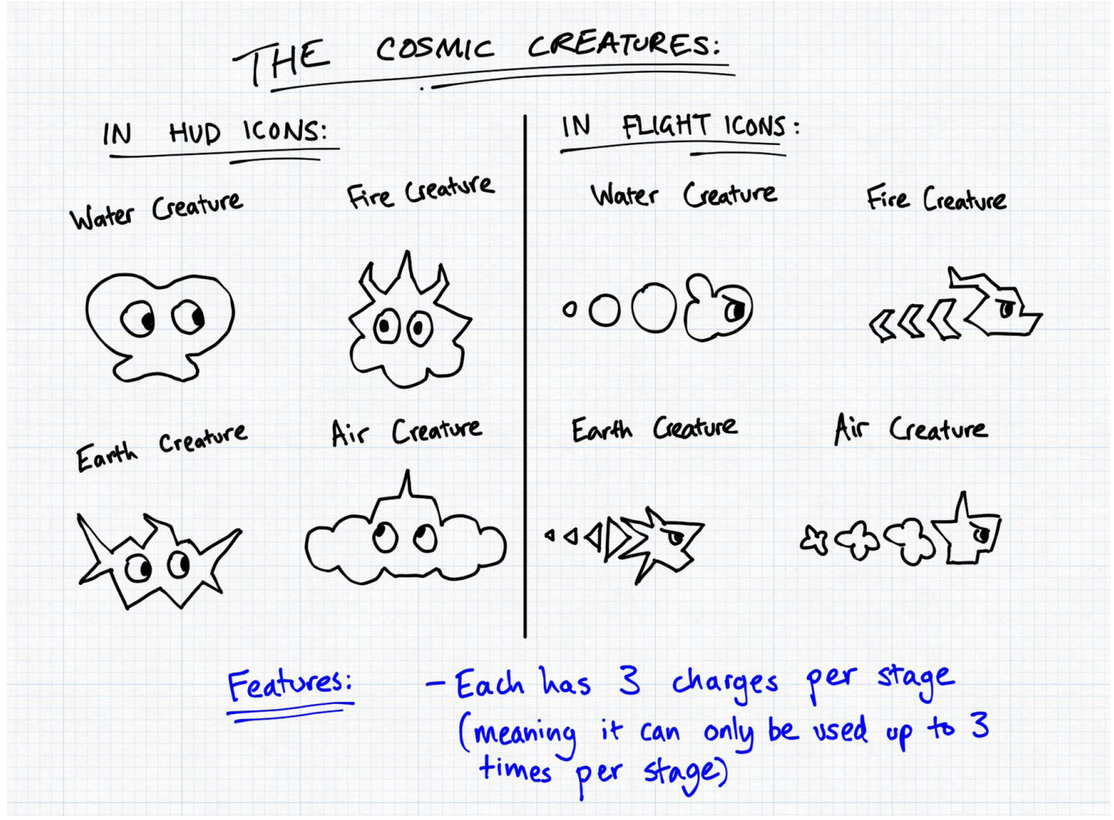


ENEMY DESIGN





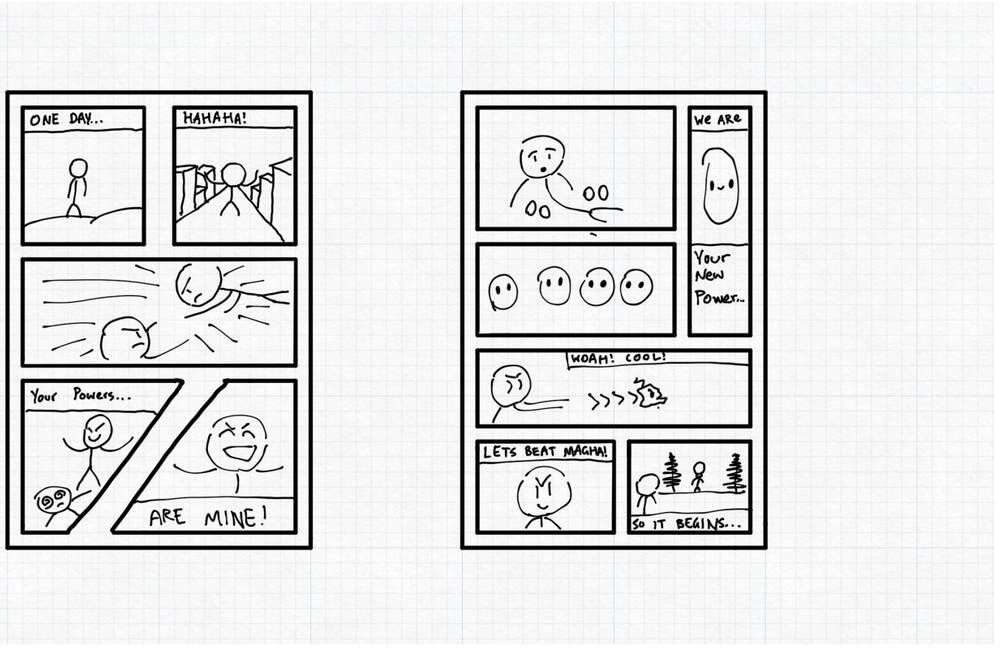


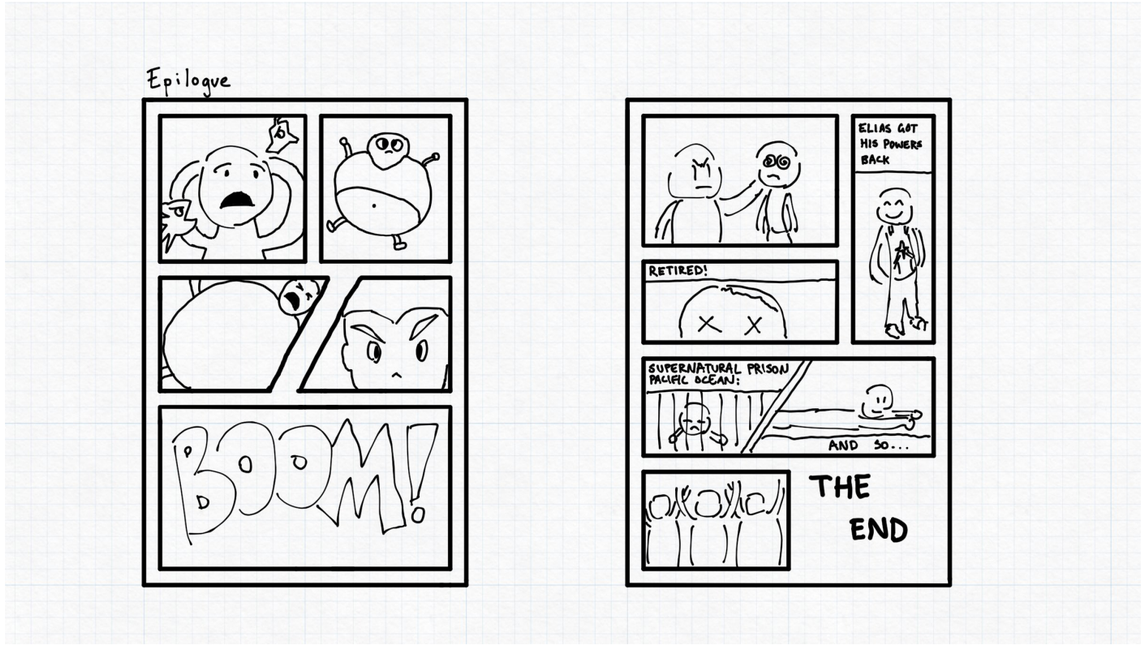


SUGGESTED NARRATIVE DESIGN

When I began designing the narrative, I sketched out some comic panels on how the narrative would unfold.

The two pages on the left combine to form the prologue, it will be presented before the game starts to establish context. The two pages on the right combine to form the epilogue, it will be presented after the final boss fight to end the narrative. These sketches are not final and are for reference only. These sketches are subject to minor changes when developing.

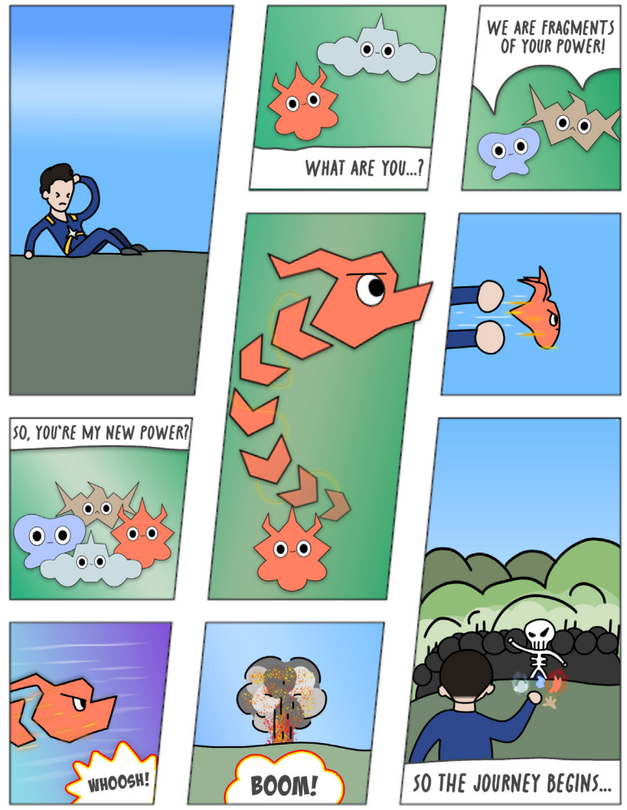




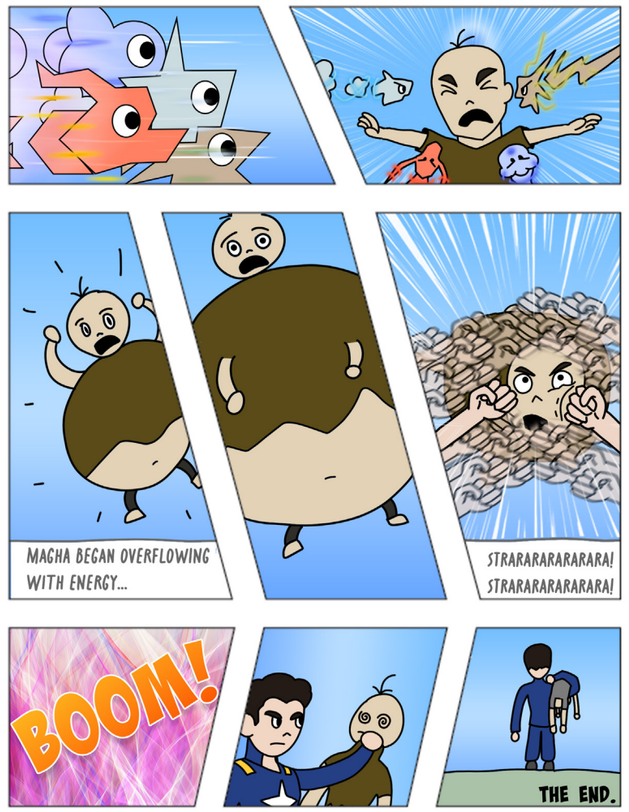
NARRATIVE DESIGN

Below are the finalised comic panels. I altered them slightly. I kept the panels simple and minimalistic, following the aesthetic and art choices I made when doing my art style production experiment. I chose to also adopt an anime style, drawing inspirations for a few panels from *JoJo's Bizarre Adventure*. I shortened some panels and made the ending more open to interpretation on where the protagonist, Elias ends up taking the enemy.

This first page explores the first part of the story as stated in the narrative statement. Magha strips away Elias's powers and faints. This introductory page as the first page of the prologue is to set the context, aligning with the plot stated in the narrative statement.

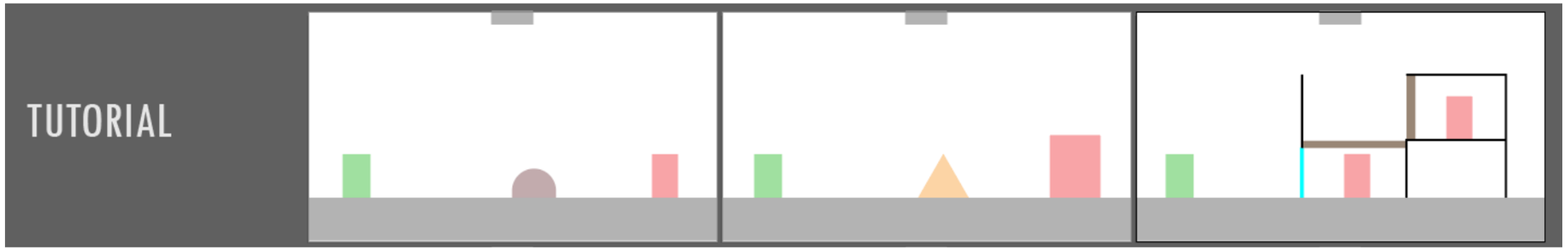


The second page, also part of the prologue that happens before the game officially begins follows that of the narrative statement. The page establishes the creatures and their powers, showing Elias what their potential is.



The last page is the only page in the epilogue. The epilogue will occur after the game has finished, serving as a conclusion. It follows the narrative statement as it finalises Magha's defeat.

LEVEL DESIGN: TUTORIAL



Dialogue

STAGE 1:
ELIAS (on_level_entered):
We have to clear the skeletons! We need to defeat the necromancer, Magha!
What's that? You forgot how to use the cosmic creatures?
Alright, I'll give you a refresher. First, draw the path you want your slug to fly along.
Then press shoot. You have a limited amount of turns per stage, and a fixed length on how long you can draw for.
Remember to check the elemental weakness chart in the bottom left to defeat the skeletons faster!
Also, you can break the rocks with the air creature.
Good luck Slinger!

STAGE 2:
ELIAS (on_level_entered):
Looks like there's more skeletons!
That guy looks tougher than the previous skeleton we fought.
Let's hurry! The flames are engulfing the village!
The fire will affect your length, so you must put it out!
You have to put the fire out with the water creature!
Defeat the enemy strategically so we can move on!

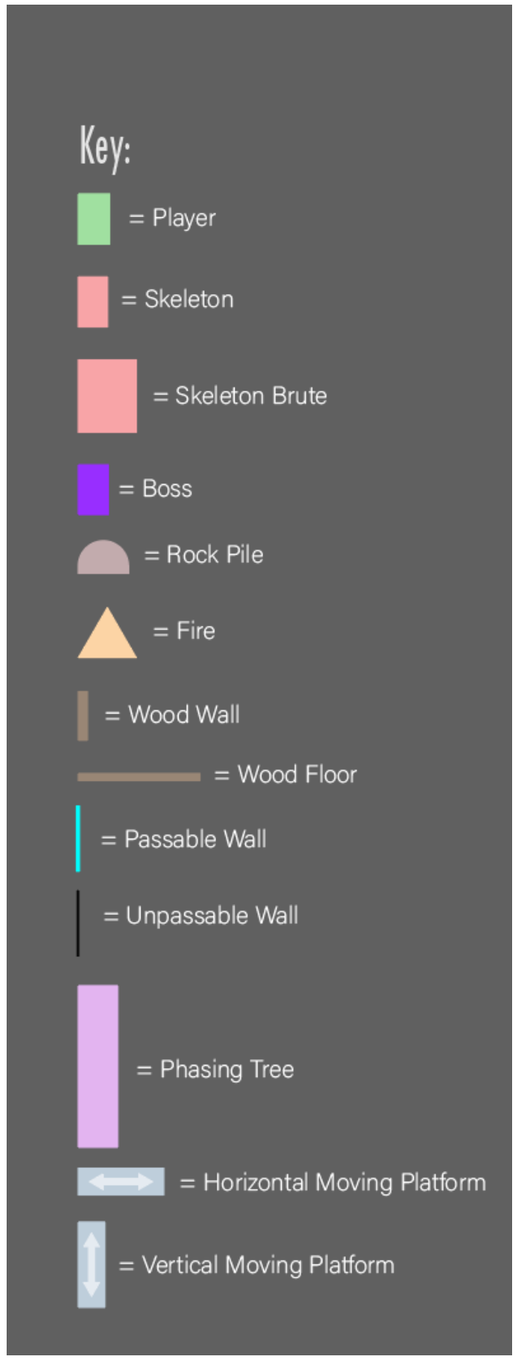
STAGE 3:
ELIAS (on_level_entered):
So this is what remains of the village…
We have to find and defeat Magha quickly!
Let's defeat these enemies for now, use the fire creature to burn the planks!
ELIAS (on level complete):
Great! Let's move! We have to beat Magha!

Narrative

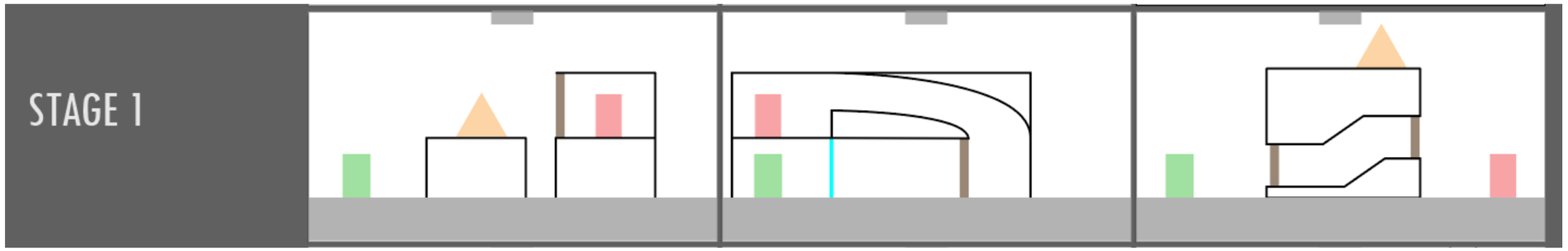
Stage 1: The stage begins with a singular skeleton. It introduces the protagonist Elias, and the main antagonist, Magha. This stage will establish the core mechanics.

Stage 2: This stage will introduce a brute skeleton, a different type of enemy that takes damage differently than the normal skeletons.

Stage 3: This stage combine all mechanics introduced thus far. The narrative now begins to show how the plot is shifting, and how Elias must save the villages Magha has destroyed.



LEVEL DESIGN: 1-1



Dialogue

STAGE 1:
ELIAS (on_level_entered):
The debris of the village is really messy…
The residents are safe, but there's still a lot of skeletons lurking around…
Let's hurry and clean this mess up!

STAGE 2:
None

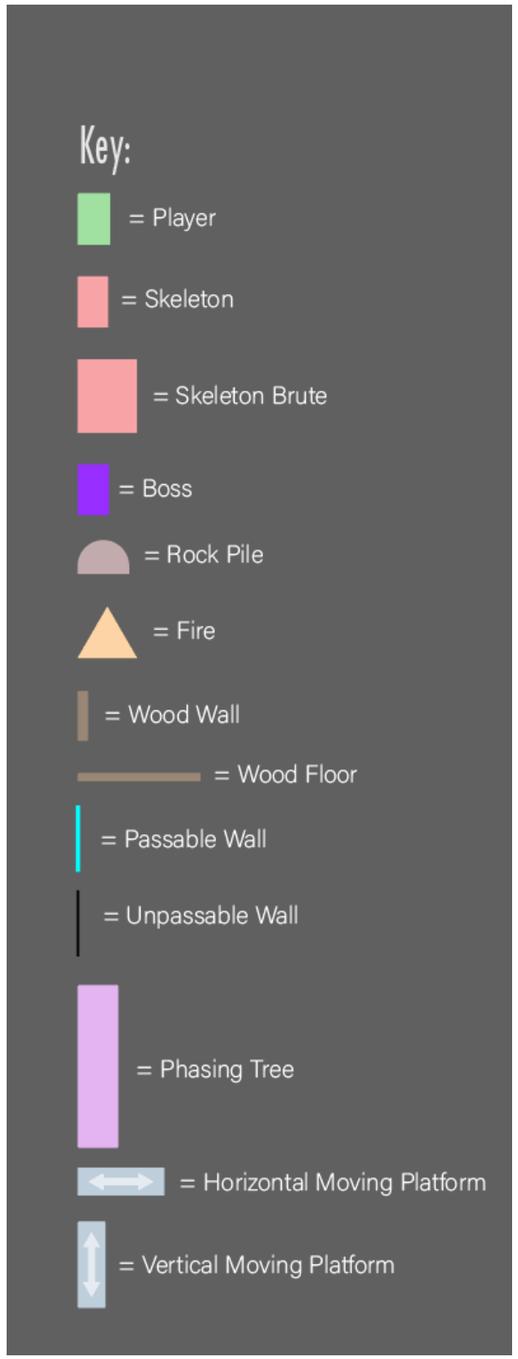
STAGE 3:
ELIAS (on_level_complete):
Great! I'm certain that was the last one.
Maybe Magha is hiding in the forest?
Let's go in!

Narrative

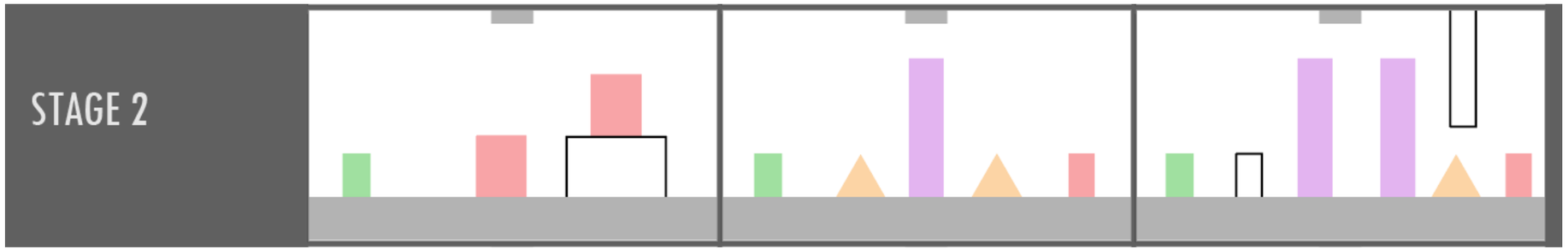
Stage 1: The level is set in the ruins village with a skeleton trapped in a house.

Stage 2: The buildings has collapsed and skeletons have taken the highground, positioned directly above the player.

Stage 3: Elias travels to the outskirts of the village towards the forest where he finds skeletons guarding the entrance.



LEVEL DESIGN: 1-2



Dialogue

STAGE 1:
ELIAS (on_level_entered):
! I didn't expect some brutes to be guarding the forest…
I guess it can only mean one thing…
Magha definitely went this way!

STAGE 2:
ELIAS (on_level_entered):
What's this? These trees are moving!
One second I can move forward, the next I run head first into one!
And the fact skeletons are hiding behind them makes me want to destroy them even more!
Let's go put those piles of bones back where they belong!

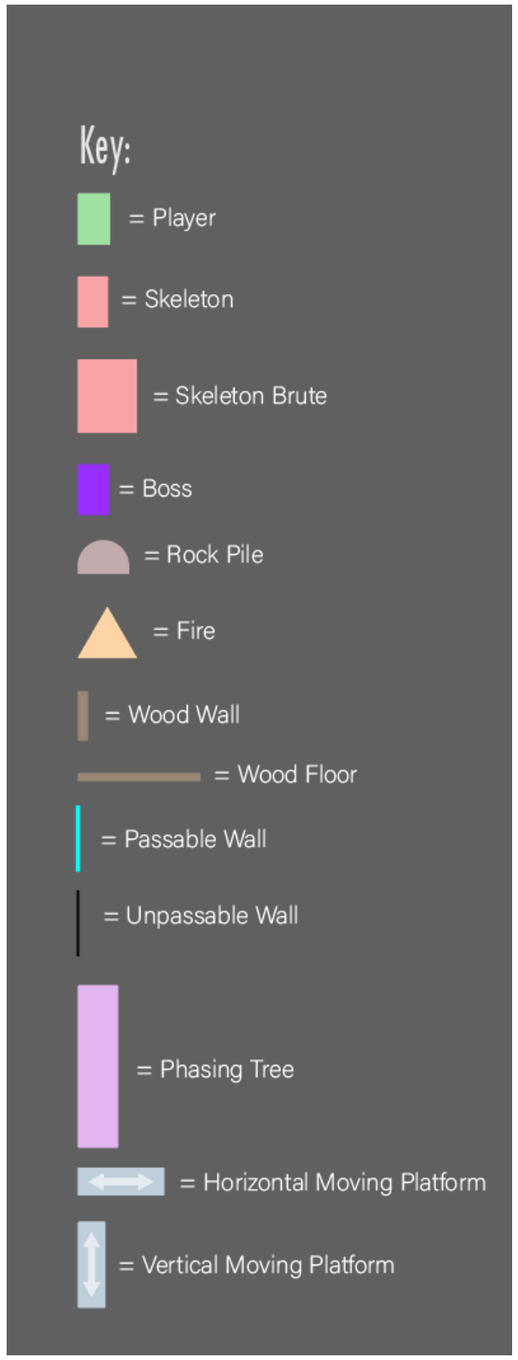
STAGE 3:
ELIAS (on_level_entered):
These trees are annoying, I can't even catch my breath!
I think I can see an opening up ahead!
Let's clear these two skeletons and head forwards.
ELIAS (on_level_complete):
Is that…
A temple? Is Magha hiding in there?

Narrative

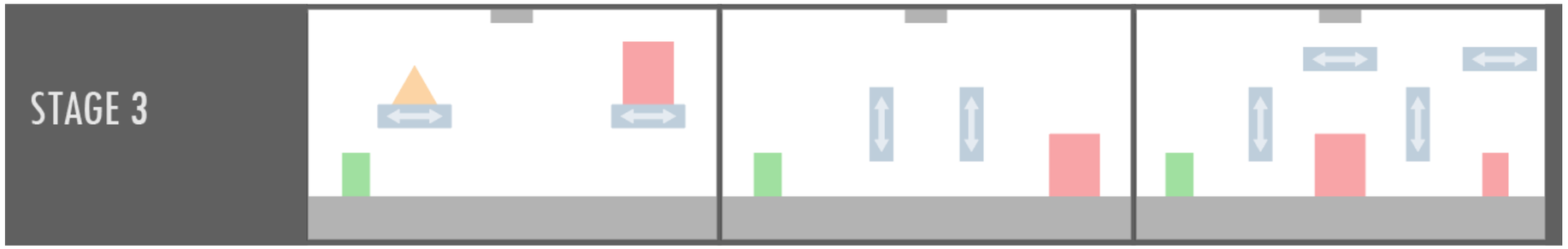
Stage 1: The level is set in the forest. Elias is greeted with a group of brute skeletons.

Stage 2: This stage introduces the tree object that switches collision state periodically, adding a new layer of difficulty.

Stage 3: Elias meets more skeletons that guard a temple in a glade.



LEVEL DESIGN: 1-3



Dialogue

STAGE 1:
ELIAS (on_level_entered):
This temple…It's really fascinating…
These moving platforms sure look magical!
Let's defeat that skeleton and explore deeper.

STAGE 2:
ELIAS (on_level_entered):
Moving walls now?
This is crazy!
We need to find where Magha is hiding, so let's clear more skeletons!

STAGE 3:
ELIAS (on_level_entered):
I see a gate!
It's blocked by these last few skeletons, so let's clear them and storm that room!
ELIAS (on_level_complete):
Magha…!
I see you!

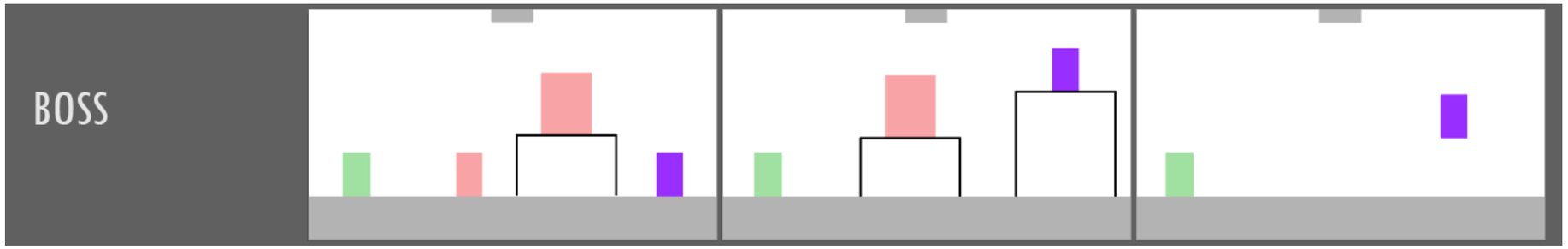
Narrative

Stage 1: The level is set in the temple. The stage introduced curved tunnels for creatures to fly through

Stage 2: This stage introduces the moving platforms adding an extra layer of complexity.

Stage 3: Elias meets more skeletons inside the temple that guard Magha away.

LEVEL DESIGN: Boss



Dialogue

STAGE 1:
ELIAS (on_level_entered):
Magha!
MAGHA (on_level_entered):
Well, well, well, look who we have here!
I doubt you can beat me!
I stripped your powers and I feel even more powerful than before!

STAGE 2:
MAGHA (on_level_entered):
I feel even better! The more you hit me…The more energy I feel flowing through my body!
ELIAS (on_level_entered):
Your powers…They are growing?

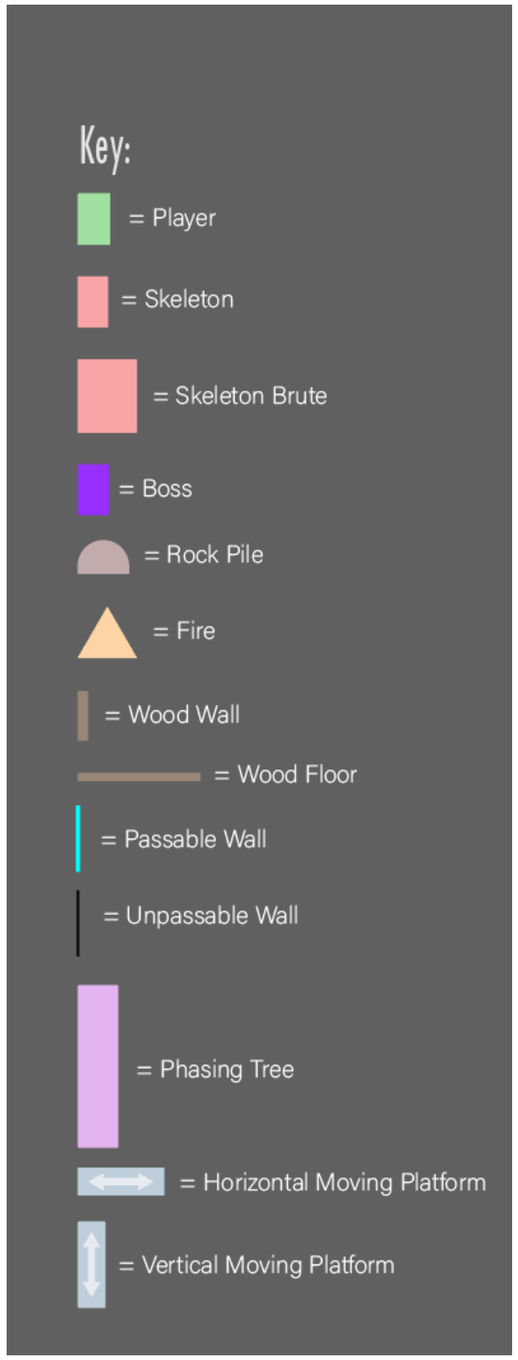
STAGE 3:
ELIAS (on_level_entered):
You're done, Magha!
I see your fatal weakness!
MAGHA (on_level_complete):
WHAT?!
IMPOSSIBLE! THIS ENERGY IN MY BODY…
I CAN'T CONTAIN IT ANYMORE!
I'M GOING TO EXPLODE!

Narrative

Stage 1: The player faces Magha where he sits in his temple guarded by more skeletons.

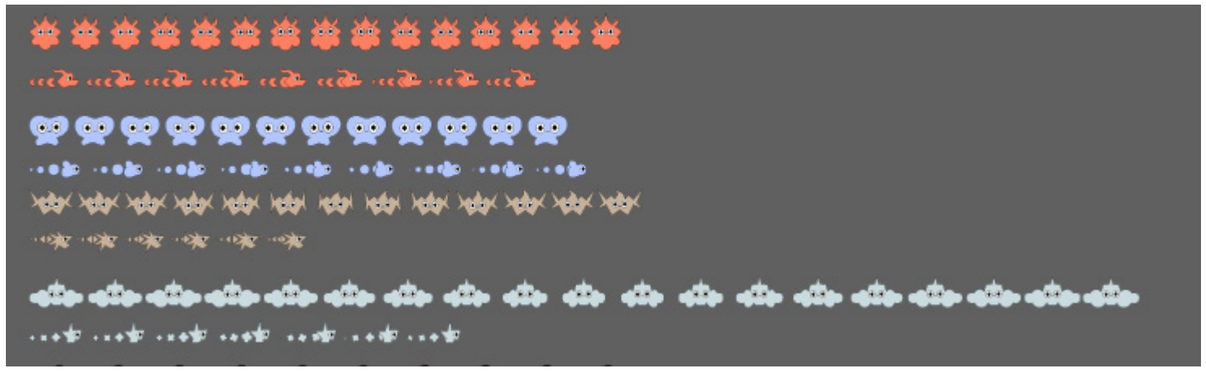
Stage 2: The battle escalates and Magha and the player take it outside. The temple roof is broken.

Stage 3: The player enters the boss's final phase. As he defeats Magha, the player has completed the game.



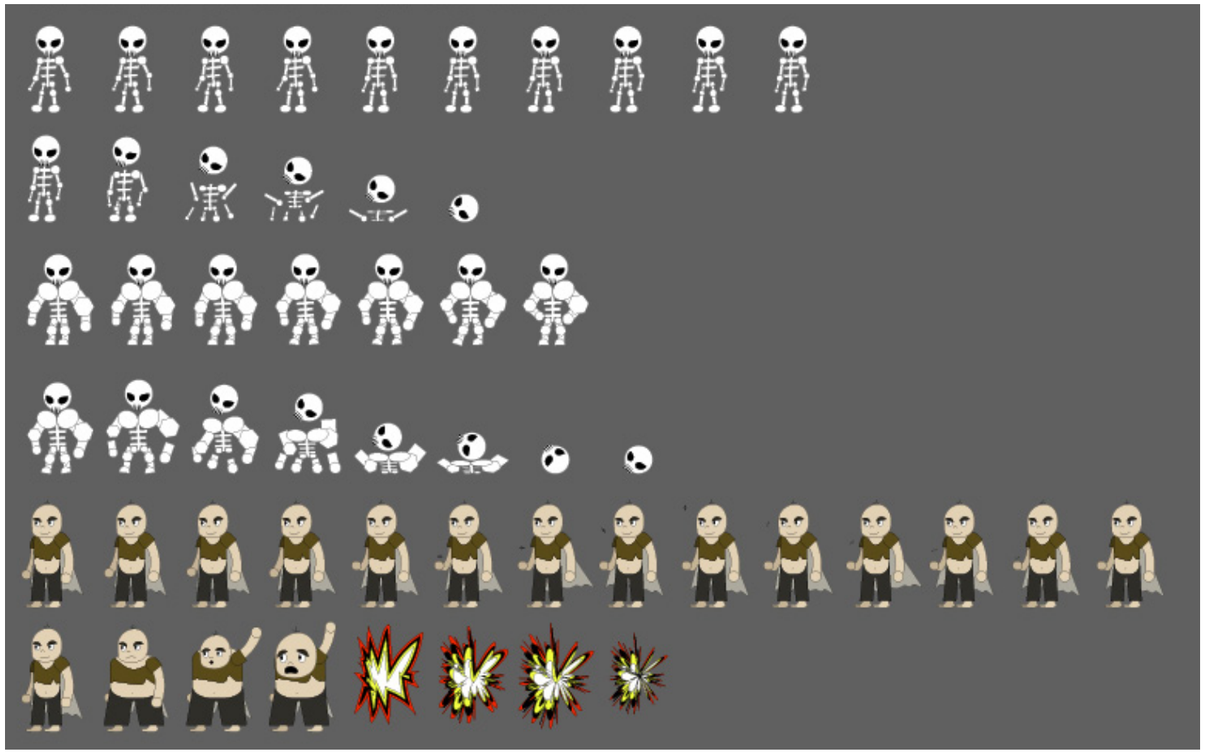
SPRITE FRAMES

Sprite frames are animation frames for all my objects that will move in my game. By laying out and drawing each frame, I can simply place it into my editor to generate me an animation for my desired character. Each entity that needs to move is drawn and pasted with slight movements. Below are all the frames for the creatures. Each creature will have a flying animation and an animation when it is in the inventory. This adds an extra layer of depth to the game,



The following are the frames for the player. It will have an idle animation and a shooting animation to make the game more dynamic.

The sprites below are all the enemy frames. Each enemy will have a default idle animation alongside a death animation.



PRODUCTION

PROTOTYPING

CODE CHALLENGES

Collision Logic (3/6)

One of the first challenges I faced when beginning to code my game was collision logic. Because my creature is flying along a path, it needs to recognise if it hits something. The issue I came to was that the body would pass through the objects no matter what, but still print out the statements like usual, making the debugging very difficult.

The way I solved this ridiculous bug was to ultimately change the if statements into a match statement, making it easier to work with.

The “destroy body” and “hit entity” variables also majorly helped with debugging this issue as these two variables can track the state on whether if the creature had interacted with a solid object, destructible object or an enemy.

The logic goes is that if the creature does hit an enemy, the last “hit entity” if condition is not triggered which defaults to completing the creature’s flight path. Instead, the enemy actually has a function of its own to tell the creature to go back and calculate the damage it is supposed to deal.

The “destroy body” condition is used for destructible objects, just removing the object from the scene.

```
23  func _on_area_2d_body_entered(body: Node2D) -> void:
24      print(body.name)
25      var hit_entity = false
26      var destroy_body = false
27      if parent.is_flying and body.name != "Body":
28          match body.name:
29              "fire body":
30                  print("Found Fire: ", body.name)
31                  destroy_body = (self.element_type == 0 or self.element_type == 3)
32              "wood body":
33                  print("Found Wood: ", body.name)
34                  destroy_body = (self.element_type == 1)  # Fire weakness
35              "rock body":
36                  print("Found Rock: ", body.name)
37                  destroy_body = (self.element_type == 3)  # Air weakness
38              "barrier body":
39                  print("Found Barrier: ", body.name)
40              "normal body", "brute body", "boss body":
41                  print("Found Enemy: ", body.name)
42                  hit_entity = true
43              _:
44                  print("Found entity: ", body.name)
45
46      if destroy_body:
47          body.queue_free()
48
49      if not hit_entity:
50          print("Hit object, attempting to finish path...")
51          parent.finish_path()
52          $"SFX/Clash".play()
```

CODE CHALLENGES

Menu Visibility (8/6)

When coding the menu, I encountered various challenges, especially the logic of it appearing and hiding. The game functions on 3 different scenes predominantly, the level selection scene named “World”, the game with the core mechanics named “main” and each individual level scene named appropriately.

The “menu” scene logic to hide and show upon entering a stage and the interact-ability was the main issue, and when I first began coding it, the functions couldn’t find the correct “menu” node. The script I placed these functions in were a global script, or an auto-load singleton script that is able to be called from anywhere. The problem was how the global script finds nodes as it does not look for child nodes like normal root node.

Global scripts are not part of the current scene tree, rather they exist above it and are always loaded, regardless of which scene is currently running. Therefore, I had to first get the scene then search for the node in that scene. I wrote many lines of print statements to help with debugging and the menu finally worked. More over, I had to make sure that while the menu was open, some elements of gameplay need to be disabled so that the game wouldn’t mess up.

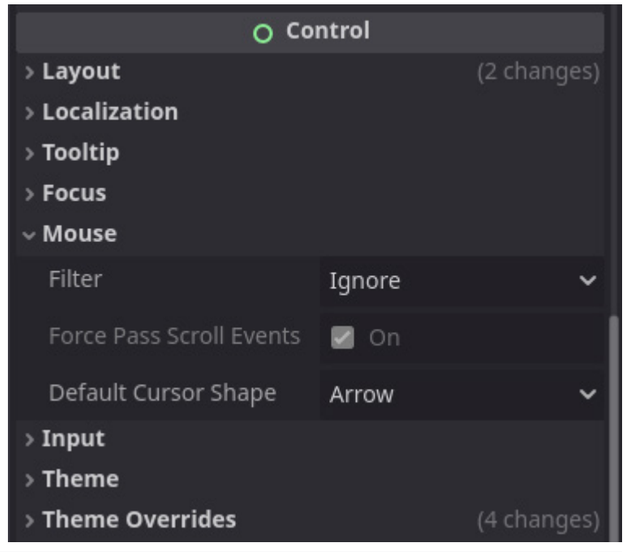
```gdscript
func _find_node_references():
    var scene_root = get_tree().current_scene
    nodes.game = scene_root.find_child("Game", true, false)
    if not nodes.game:
        print("\nNot in game! \n")
        return
    nodes.game = scene_root.get_node_or_null("Game")

    if nodes.menu:
        print("Menu node found:", nodes.menu)
    else:
        print("Menu node not found.")

    if nodes.game:
        print("Game node found:", nodes.game)

        # Child nodes under Game
        nodes.slug = nodes.game.get_node_or_null("Slug")
        nodes.board = nodes.game.get_node_or_null("board")
        nodes.ui = nodes.game.get_node_or_null("UI")
        nodes.menu = nodes.game.get_node_or_null("Menu")
```

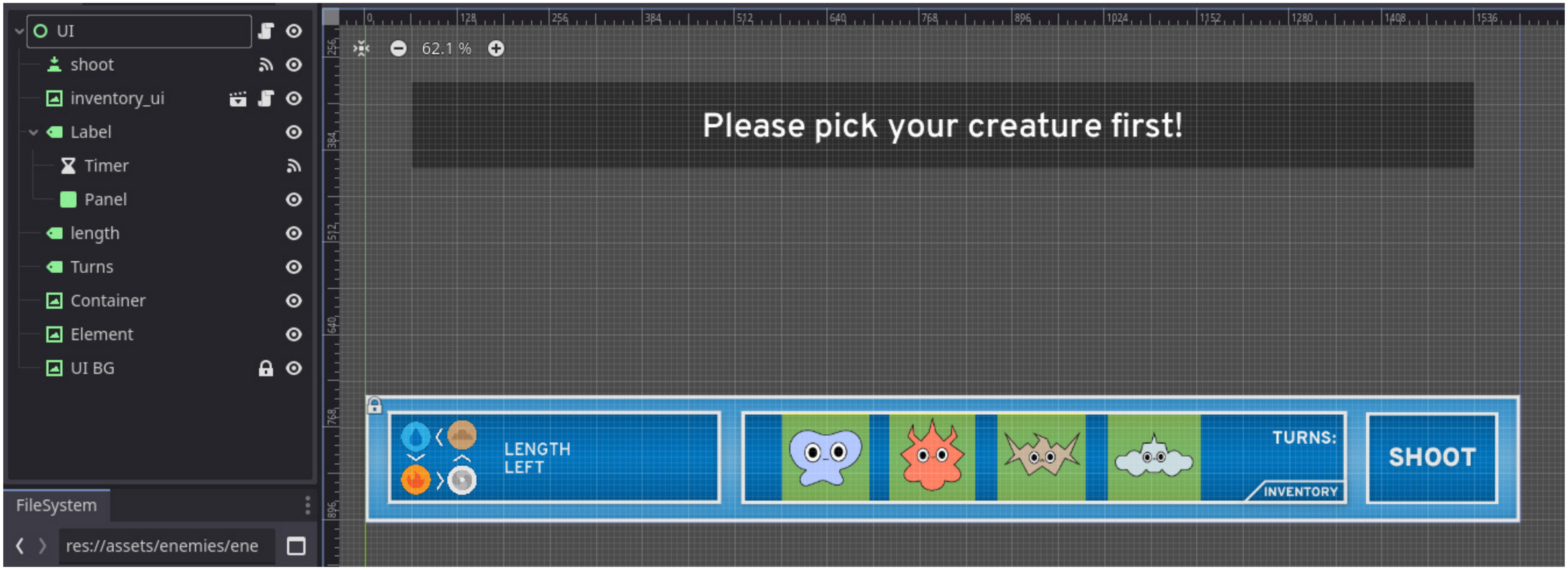
```gdscript

func show_menu():
    refresh_node_references()
    var button = nodes.get("menu").get_node("Menu")
    button.visible = true

    for key in ["slug", "board", "ui"]:
        var node = nodes.get(key)
        if node:
            node.process_mode = Node.PROCESS_MODE_DISABLED
        else:
            print("Warning: %s node is null; cannot set process mode." % key.capitalize())

func hide_menu() -> void:
    refresh_node_references()
    var button = nodes.get("menu").get_node("Menu")
    button.visible = false

    print(nodes.get("menu"))
    for key in ["slug", "board", "ui"]:
        var node = nodes.get(key)
        if node:
            node.process_mode = Node.PROCESS_MODE_INHERIT
        else:
            print("Warning: %s node is null; cannot set process mode." % key.capitalize())

```

CODE CHALLENGES

Interface Inputs (10/6)

The main issue the interface or UI had was that elements were clickable. Elements such as the creatures and the shoot button didn't work and I didn't know what was happening. Turns out, the problem was that there were other elements receiving inputs rather than the elements I wanted and so nothing was happening. I had to change the mouse filter to ignore, meaning elements couldn't be interacted with and the elements I had to apply this to were all the children of UI except the shoot button and inventory UI. Moreover, other nodes such as the background image was also affecting this so I also set the mouse filter to ignore.





PROTOTYPING CORE - THE DRAWING MECHANIC

This script in the drawing scene manages a creature's behaviour using a path-based movement system. The creature can be launched, fly along a path, detect when it hits an enemy or reaches the end, and reset when necessary. The code includes logic for setting animations, handling collisions, and communicating with other game systems. The input of touchscreen and mouse inputs makes the game versatile and simple, allowing for smooth and easy to understand gameplay.

```
function inputEvent(event):
     if the creature is not visible:
          set the path color to red

     var is_pressing = false
     var is_releasing = false
     var is_moving = false
     var event_pos = (0,0)

     if the input is touchscreen input or left mouse button:
          event_pos = the location on where the mouse clicked
          if the input is press down:
               set is_pressing to true
          else:
               set is_releasing to true

     else if input is the cursor and is being dragged along the screen:
          set event_pos to location of mouse
          set is_moving to true

     # Begin drawing
     if is_pressing is true and user can draw:
          set drawing to true
          reset_path()
          set start_point to event_pos
          add start point to path

     # End drawing
     elif is_releasing is true and user is drawing:
          set drawing to false
          tell other nodes that path has been drawn
```

```
     # Continue drawing
     else if the creature is flying and path exists:
          do nothing

          set previous_point to the last point in the current path
          set new_point to the current position of the input event
          set length to distance between previous_point and new_point

          if total path length + length ≤ maximum allowed length
               add new_point to the main path
               increase the current_length by length
               update the path length display text

          else:  # the new segment would exceed the max path length
               calculate how much length is remaining
               if remaining > 0:
                    create a point at where remaining = 0
                    trim any path that extends beyond this point

     signal to other nodes that the path has been created
```

PROTOTYPING CORE - THE FLYING MECHANIC

This family of functions under the node slug within its script manages a flying creature's behaviour using a path-based movement system. The creature can be launched, fly along a path, detect when it hits an enemy or reaches the end, and reset when necessary. The code includes logic for setting animations, handling collisions, and communicating with other game systems. The button, or the function on shoot pressed just tells the creature to fly along the path, the simplest function of them all. It connects the creature and the drawing board and its function is very simple and all it does is shows warnings if some conditions are not true.

```
function _complete_path():
     finish_path()

function set_creature(creature_data):
     set current creature data to creature_data

     if creature_data is a valid resource file
          read creature_data
          set sprite as the variable “animation” from creature_data
          play the animation

function _hit_enemy(hit):
     set enemy_hit as hit # hit is a bool: either true or false

function frame_process(delta): # delta is a constant that increases by
a small amount every frame
     if the creature is currently flying:
          var path_length = get length of drawn path
          flying progress = flying progress * acceleration
          tell other nodes that creature is flying
          if flying progress is larger than the path_length
               finish_path()
     if creature is flying and hits enemy:
          finish_path()

function finish_path():
     if creature is flying:
          set creature state to not flying
          hide the creature’s sprite
          tell other nodes that the creature’s state has changed
```

```
function reset_state():
     set creature state to not flying
     set flying progress to 0
     if a path currently exists:
          clear the path

function set_path(curve: Curve2D):
     var path = curve
     start_point = curve.starting_position
     reset_state()  # Reset state when a new path is created

function start_flying():
     if a path exists and creature is not flying:
          play shooting sound effect
          set the flying progress to 0
          set creature state to flying
          show the creature’s sprite
          tell other nodes that creature’s state has changed

function _on_shoot_pressed():
     if a path doesn’t exist:
          show a warning that there is no path
     else if a creature isn’t selected:
          show a warning that a creature isn’t selected
     else:
          shoot selected creature to follow existing path
```

PROTOTYPING CORE - COLLISION AND DAMAGE

The pseudo-code on the left explains how the creature interacts with different objects it collides with. Since there are also interactable objects, I needed to create logic to check for which objects the creature hit. On the right, the enemy script is attached with its collision logic. It needs to check for the elements since the creature and the enemy both have elements, and the weakness and strengths affect the resulting damage returned.

```
function _on_collision(body):
     var hit = false
     var destroy = false
     if the creature is flying:
          match the body's name:
               case body name = "fire body":
                    set destroy to true if creature element is water
               case body name = "wood body":
                    set destroy to true if creature element is fire
               case body name = "rock body":
                    set destroy to true if creature element is air
               case body name = any type of enemy:
                    set hit to false
               case body name = "barrier body":
                    do nothing
               for all other cases:
                    do nothing

          if destroy is true:
               remove the body from the scene

          if hit is false:
               finish the creature's path # Either hit enemy or barrier
```

```
create a matrix = [
     [1.0, 2.0, 0.5, 1.0, ], # WATER, FIRE, EARTH, AIR
     [0.5, 1.0, 1.0, 2.0, ], # FIRE
     [2.0, 1.0, 1.0, 0.5, ], # EARTH
     [1.0, 0.5, 2.0, 1.0, ], # AIR
] # 2.0 means strong against, 0.5 means weak against

function _on_collision(body):
     if this body is the creature's body:
          set element to the creature's element
          signal to other nodes enemy has been hit
          reduce health by calculate_damage()
          if health is equal to 0:
               remove enemy from scene

function calculate_damage(creature, enemy itself) -> int:
     set multiplier to matrix[creature element][self element]
     var base_damage = 1
     if multiplier is 2.0:
          multiply base_damage by 2
     else if multiplier is 0.5:
          set base_damage to 0
     return base_damage
```

PROTOTYPING LEVELS - HANDLING LEVELS

The pseudo-code below shows how the game level logic flows. There is a global dictionary that stores the completion of the level as a boolean; either true or false to accurately track each level's state. The update logic follows through so that the level is replayable after completing, and levels only unlock once a previous level is complete with the exception of the first level. Each state, whether the level is locked, uncompleted or completed has a unique sprite to allow for easy distinguishing.

```
function get_state():
     if the level button does not have a level assigned to it:
          return
     check the level's completion:
          return completion as either true or false

function on_level_pressed():
     # Check if the level is locked
     if the level is locked:
          tell player level is locked

     # Check if a level scene is assigned
     if the level button does have a level assigned to it:
          change to the selected level scene
```

```
function _update_button_state():
     get_state()

     # 1. Always handle first level first
     if a first level exists:
          make the first level unlocked
          if the level's assigned value in dict is true:
               set the level icon to the completed sprite
          else:
               set the level icon to the unlocked sprite

     # 2. Check current level completion FIRST
     if the level is completed:
          keep level unlocked
          set level icon to the completed sprite

     # 3. Then check previous level completion
     if the previous level is complete:
          unlock the current level
          set the level icon to the unlocked sprite

     else:  # 4. Default locked state
          disabled = true
          if locked_sprite:
               self.icon = locked_sprite
```

PROTOTYPING FEEDBACK

Gameplay Feedback

For the gameplay, I wanted my peers to play around in the tutorial to see if it was well designed to teach them how the core mechanics worked. The drawing mechanic paired with the turns and length are all significant parts of the game I must get right, and if my peers cannot understand it, the mechanic will ruin a lot of the immersion of the game.

Pat

The tutorial was well executed and engaging! Given common video game tropes, I used arrow keys and WASD to try and go forward in dialogue which didn't work. It wasn't clear that I had to click the screen. The game is fun, but it doesn't tell me about the length system. Overall, it was pretty good.

Jack

The "draw a line" prompt appeared before the end of the instructions. This made me attempt repeatedly to draw the line, meaning I accidentally skipped all the instructions. The elements information in the bottom left confused me, and I thought that because the water had a arrow pointing towards the earth, the water would be stronger. This could have been because I missed the instructions however. The gameplay was intuitive and I understood how to draw and shoot the enemy even without the instructions.

Mike

The gameplay is simple and repetitive with little variation. However, that is to be expected in the early stages of development. During the tutorial, I did not realise I had to click to screen to advance the dialogue. It doesn't go in depth on the other abilities or even the length involved. Other than that, the art style is fine, some of the animations are great like the skeleton crumbling.

Overall

The overall feedback targeted the usability of the game. My peers critiqued how they didn't understand the gameplay, but it was intuitive enough to figure out. The biggest issue is the dialogue UI, players commenting that it is easily missed. To fix these issues, I might increase the size of the dialogue so it isn't missed and is clearer.

Object Functionality

For object functionality, I had created a tree that would periodically change state to be either a solid or passable object. This obstacle as a challenge in the levels introduced some variety and challenge, but I wanted to make sure the obstacle was designed well and was easy to understand. I asked my peers to review and playtest it.

Tom

At first, it was a little bit confusing but once I noticed the tree changing colour / growing darker, I knew the tree was doing something. Having some extra turns helps get the function of the tree which is nice, and overall it is easily understandable.

Zac

I couldn't tell how it worked, since both sprites seem solid. I feel like the two sprites should have a variance in opacity to show that it can pass through. At first, I thought the fire or air creature could destroy the tree.

Overall

The overall feedback targeted the cohesiveness of the tree. It wasn't clear and needs some kind of symbol or variance in the sprite to make the function a bit clearer. I think if I place some indicators such as arrows or a cross icon on the trees it could significantly increase the understanding of the object as an obstacle.

PRODUCTION

REFINING

ADDITIONS

Gameplay Alterations

When developing the final boss battle, I discovered that there are better ways to make the boss more engaging to fight against. Instead of it standing in certain positions, I gave the boss abilities to jump and double jump, adding a slight layer of complexity similar to the vertical moving platforms.

Some basic logic and randomness was applied to allow the boss to jump, creating a much better feel, giving the level more depth. This also helps further engage my specific audience since players will enjoy a challenge. Adding extra difficulty this way gets players to think more, diverting the repetitive gameplay on stationary targets.

Rock and Fire

When receiving feedback, the biggest piece of advice was:

"Why do I need to extinguish the fire and hit the rock if it doesn't serve any purpose?"

This got me thinking on how to add some features to these objects since they didn't serve much functionality. I decided to make the fire deplete the player's draw length since it ties in with the idea of burning. However, adding this length depletion made levels extremely hard if players didn't understand the concept. I had to balance it which was arduous, but ultimately came to the number 2% as the depletion multiplier.

For the rock, at first I didn't know how to add functionality into it. But later on, I realised that the functionality should tie back into the core gameplay, so I decided the rock object would have a good function if it simply just gave players an extra turn or two. This way if players are struggling and there was a rock in place, it could give them a second chance without the need to retry the whole level.

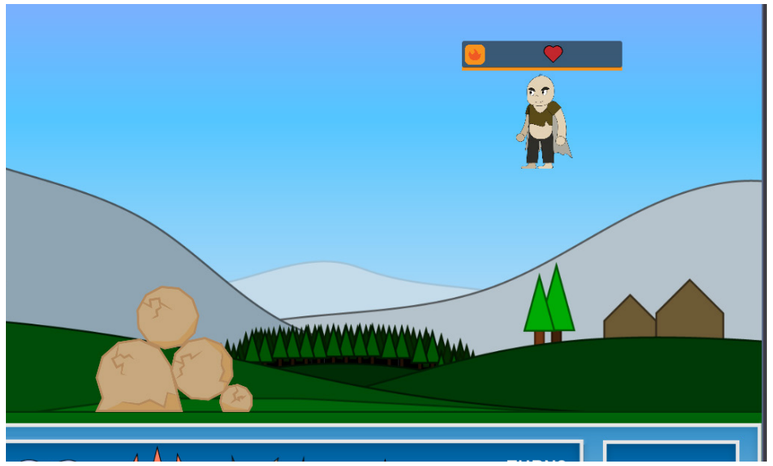
The addition of these objects also help engage my specific audience since players will enjoy a challenge. Again, in adding extra difficulty this way gets players to think more, diverting the repetitive gameplay on stationary targets.

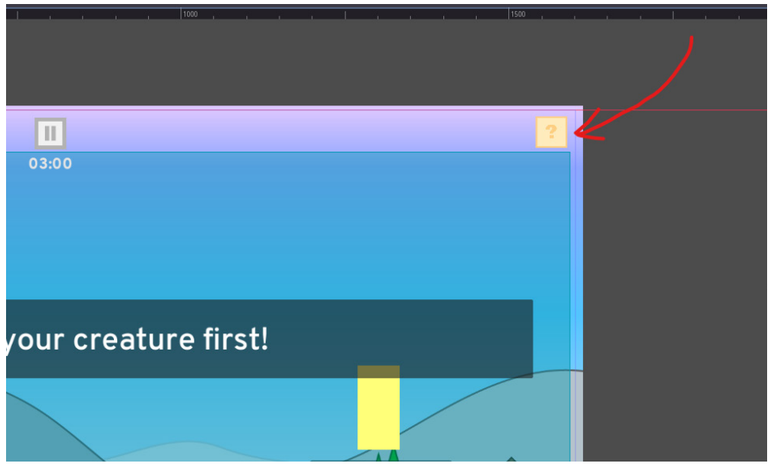
Understanding Mechanics

Because of these late additions, I decided to add a "Help" button. The purpose of this addition was from feedback where players would skip dialogue and go straight into the action. Some dialogue explains crucial information about obstacles, so players might not understand what objects do when they skip the dialogue. Adding a "Help" button helps foolproof any misunderstandings.

The design choice was for a yellow button with a question mark to emphasise clarity, error and warning. Placed in the top right, the button serves as a last ditch effort to help players understand how to work the level properly.

This helps players, specifically those who are inexperienced with games to understand how some objects work if they cannot figure it out intuitively. It foolproofs all stages, but also acts as a hint tool especially for the earlier stages.





ALTERATIONS

Debug Sessions

23/07

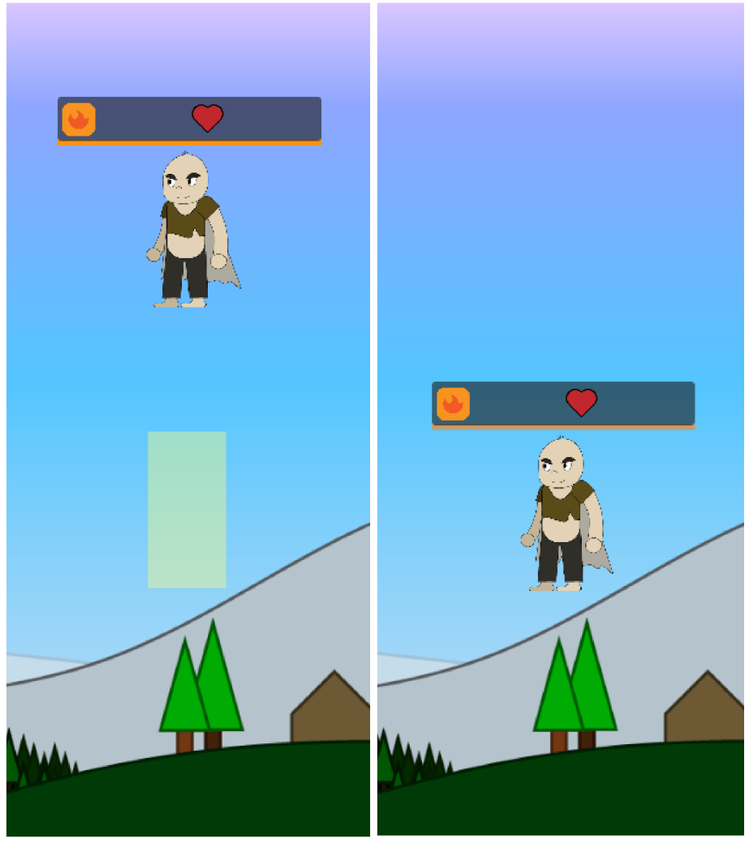
- Moving platforms kept their velocity/position after reloading, causing strange behaviour (e.g., insane velocity on carried objects).
- Level transitions were broken due to objects incorrectly being placed in the entities group.

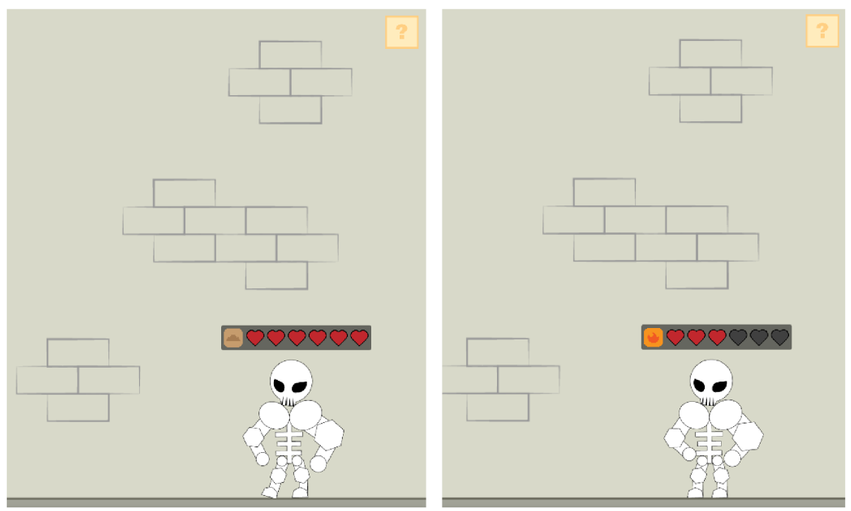
Quality of Life Changes

23/07

Boss Indicators
Added a light yellow rectangle to show where the boss will jump.
Added a small elemental bar under the boss's health to show upcoming element.
Reason: Reduces luck factor due to players often being frustrated by boss's randomness. Reduces something called "RNG" (random number generator) that gamers despise, thus allowing the game to feel more engaging without causing too much frustration.

Brute Variation
Brute enemies now change their element after the initial hit.
Reason: Adds variety, as the Brute previously lacked variation compared to Skeleton enemies. In adding some extra variation, it helps engage my specific audience since traditional puzzle games are repetitive and this change helps increase re-playability and a bit of randomness.





ALTERATIONS

Gameplay Alterations

09/07

Level 2-1
Change: Added Rock
Reason: Gives players a second chance if they mess up.

Level 3-1
Change: Added Tree, Moved Skeleton Brute
Reason: Introduces the Tree object earlier to prepare players for more complex stages later.

16/07

Boss Stage 2
Change: Added Fire and Tree; Removed Platforms and Brute
Reason: Shifts focus onto the boss. Final stage should challenge everything the player has learned.

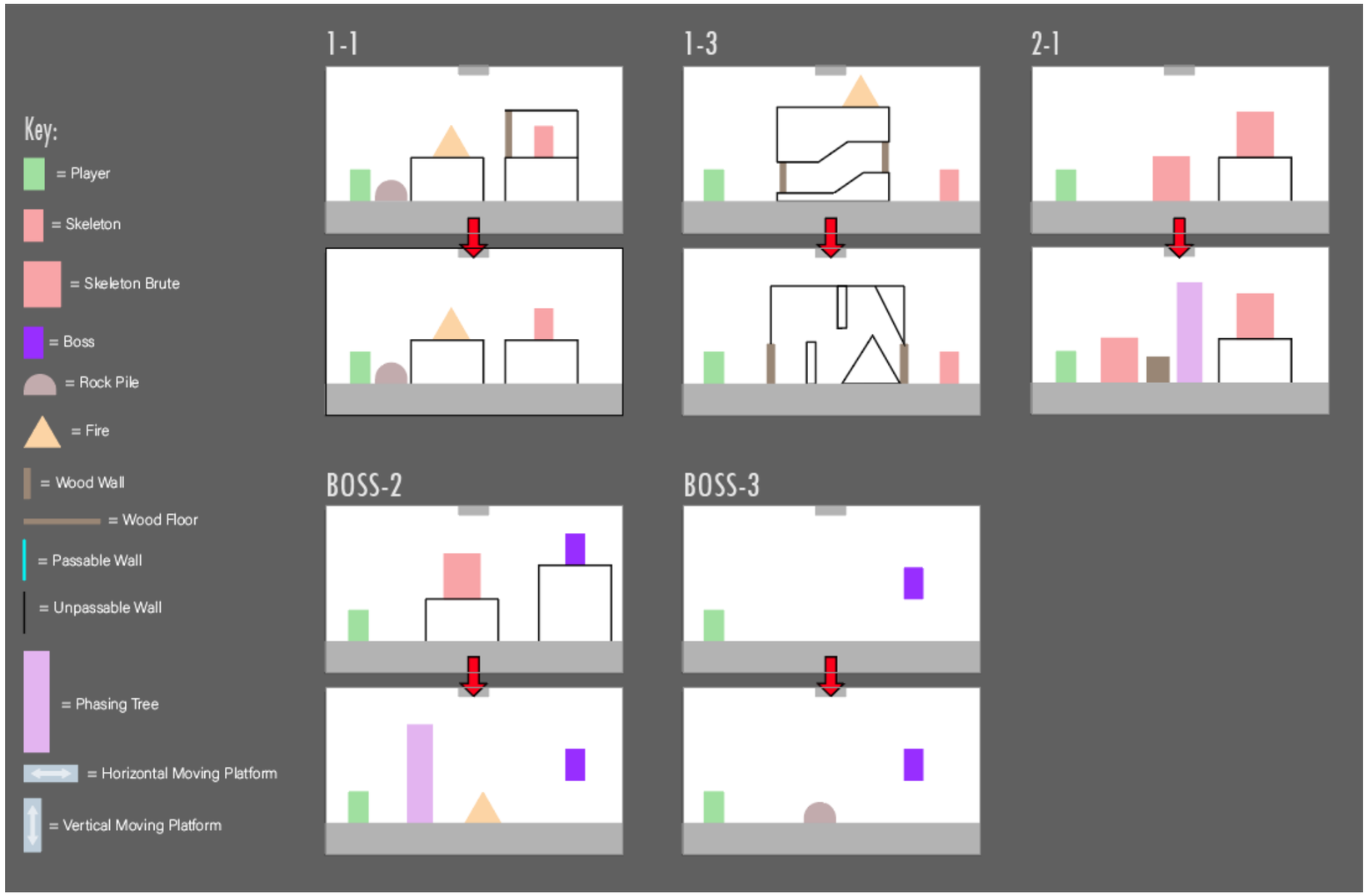
Level 1-2
Change: Added dialogue: "I think it's resistant to everything but the elemental weakness of it..."
Reason: Helps clarify that Brute enemies can only be damaged via elemental weaknesses, reducing confusion.

23/07

Boss Stage 3
Change: Added Rock
Increased level length by 150 units
Reason: Gives players a second chance. Also improves level fairness due to diagonal movement being longer than horizontal.

General Overview

The overall experience of changing multiple stages all relates to reducing frustration some levels caused, making the gameplay loop feel kinder in certain parts. It was also meant to increase difficulty to those stages that lacked depth. Having varied and balanced stages helps keeps my audience engaged in playing through levels, not needing to stress out too much if they make a minor mistake.



POST-PRODUCTION

MARKETING

LOGO

DESIGN

When I designed the main typography and logo of my game, I wanted to create a futuristic yet retro style to fit my audience. In designing this way, it allows for consistency and continuity throughout my game, giving it the much needed flow factor. The purple and pinks I chose with the subtle gradient allows for a more dynamic feel and the 3D alongside the bevel and emboss adds extra depth which follows the retro 80's design style. Overall, the final logo aesthetic I created met my expectations.

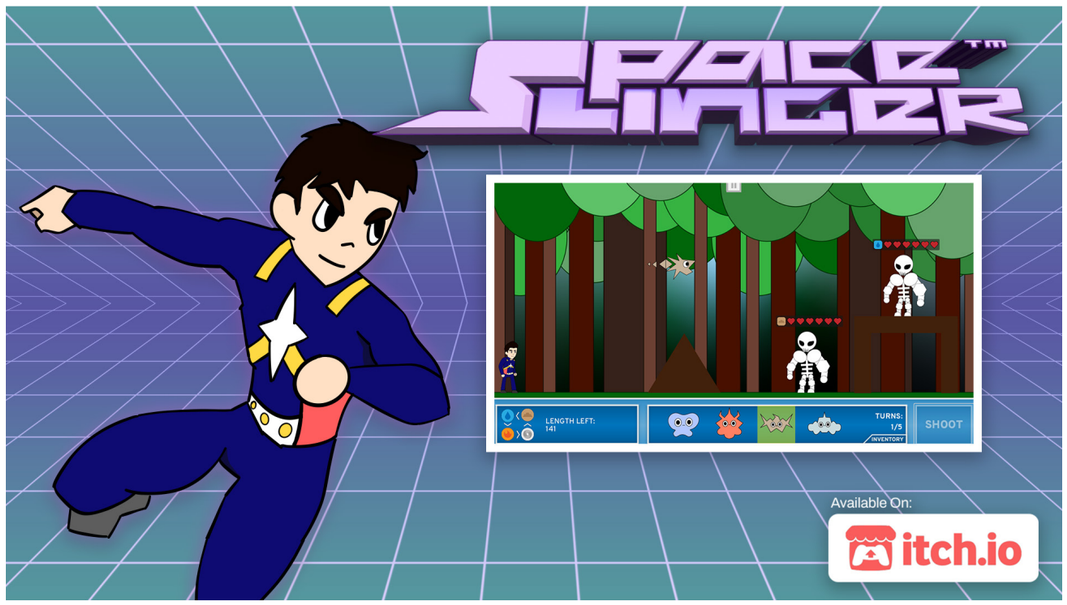
MARKETING

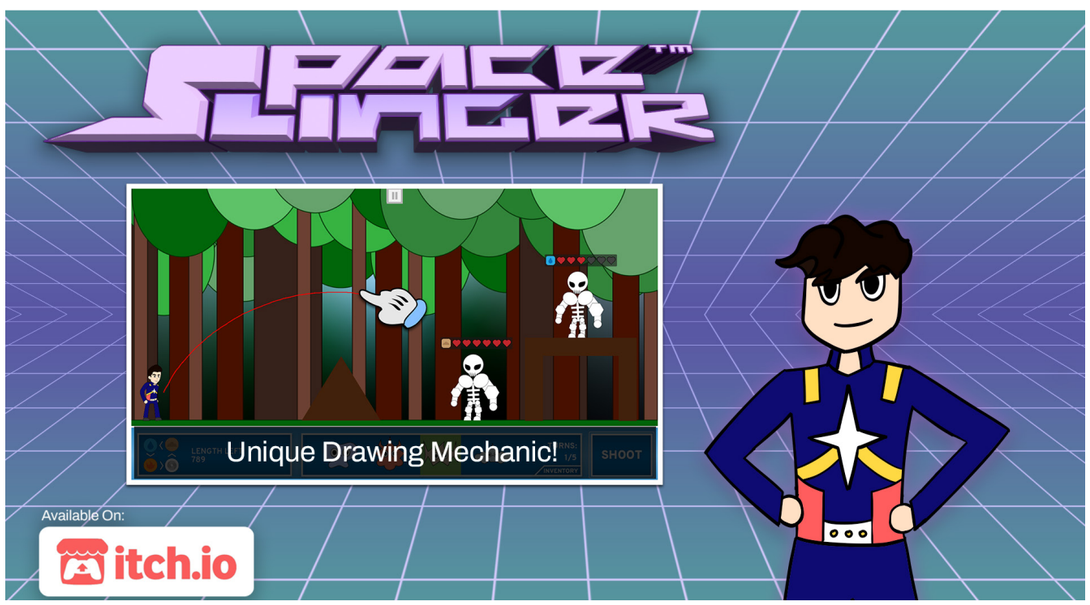
When it came to marketing, I placed my logo down and drew some variations of the main character in different poses. Adding extra gameplay screenshots to showcase the game itself follows the form conventions video games often adopt when promoting their game. Another convention I closely followed was the store availability, highlighting that it is available to download on itch.io.

I also made a game trailer that follows the appropriate form conventions, including the availability of the product. Scan the QR code beside to watch the video. Alternatively, visit this YouTube link:

https://youtu.be/og95-Yx43I0

PROMOTIONAL CONTENT





EXPORTING

When exporting my game, I encountered an issue. Initially, I wanted by game to be a browser game, however itch.io has a limit for what can be a browser game. A browser game means the game is small enough to run on the browser and mine wasn't small enough. My raw file size was 153mb and my compressed zip size was 86mb, over the 60mb threshold itch.io allows. Moreover, I had too many files. As a result, I ended up exporting my game as an .exe file. This executable approach is the next safest option as users can download it directly to their device. However, this means less support for Mac and mobile devices.

However, Godot 4.4 allows for exporting to Android and iOS. Due to iOS needing a developer license that costs $100, I decided to not export my game to iOS devices which might limit my player base. Android distribution is much simpler as .apk files exist. So my game has now been uploaded to itch.io allowing for Android and computer users to download.

AUDIENCE SURVEY

1. From 1 to 10, how intuitive was the gameplay? *

0	1	2	3	4	5	6	7	8	9	10

Not Intuitive — Intuitive

2. Did the levels offer variation? *

0	1	2	3	4	5	6	7	8	9	10

Too Repetitive — Extremely Varied

3. Were obstacles easy to understand? *

0	1	2	3	4	5	6	7	8	9	10

Hard time understanding — Easily understandable

4. Did the levels challenge you? *

0	1	2	3	4	5	6	7	8	9	10

Luck Based — Skill Based

5. Were the element system, turn and length mechanics easy to understand? *

0	1	2	3	4	5	6	7	8	9	10

I didn't see it initially — Very clear

6. Overall Music Score *

1	2	3	4	5	6	7	8	9	10

7. Overall Aesthetics Score *

1	2	3	4	5	6	7	8	9	10

FEEDBACK

Post Audience Survey: Results

Overall Balance

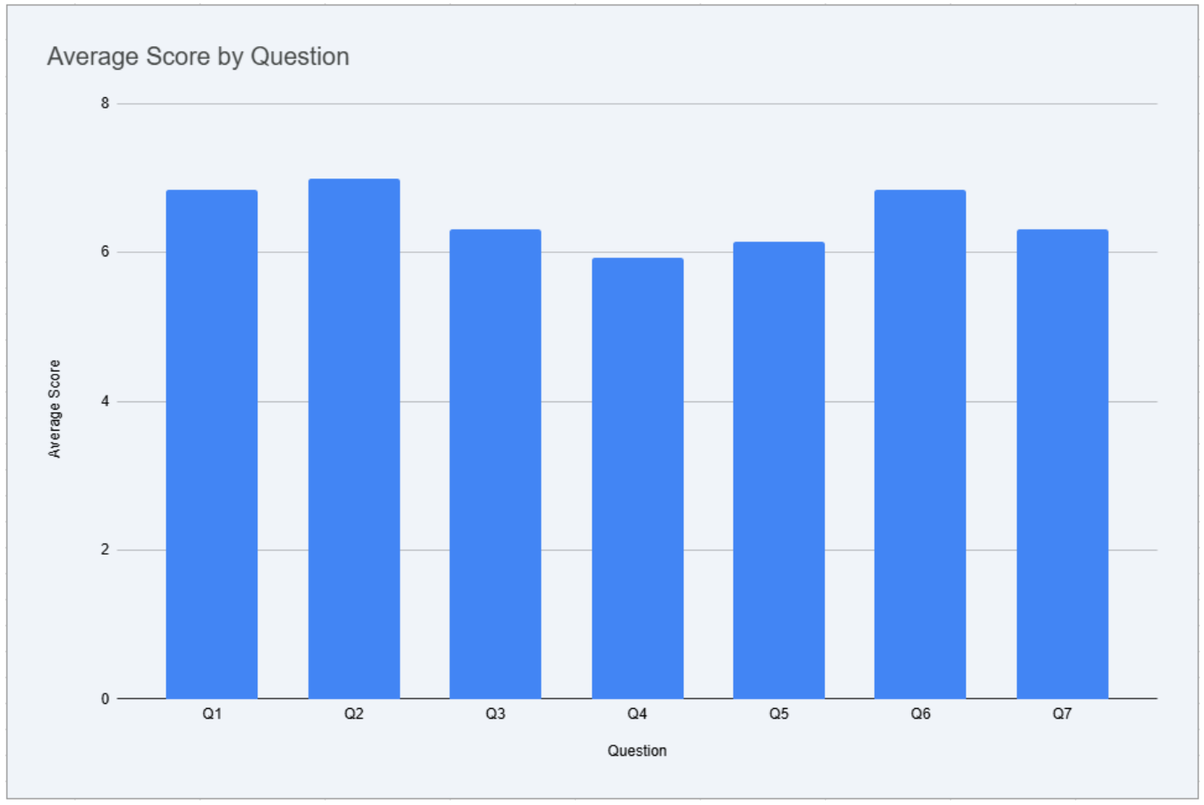
After reviewing the responses to the survey, I came to some conclusions. The scores suggest a moderately positive reception, but with room for improvement. The highest average score is 7.00 for 'Q2', indicating that users generally found the levels to offer good variety. Conversely, the lowest average score is 5.92 for 'Q4', which suggests that users might not have found the levels sufficiently challenging. Of course, the game was developed with the intention to not only appeal to my target audience, but to general users as well. The data may be skewed due to a low sample, requiring a larger number of responses to create proper unbiased statistics.

Audience Suggested Improvements

The lower score for 'Q4' could indicate that my game is not perceived as overly difficult, and perhaps could benefit from increased challenge to engage users more. This suggests that the experience is not too difficult, but rather potentially on the easier side for some users. Of course, as stated before, because the responders are in a sample of gamers and not the general public, it is assumed that they expect harder challenges within levels and games they play.

Strengths And Weaknesses

The consistent scores across most questions, ranging from 5.92 to 7.00, suggest a relatively balanced experience without extreme highs or lows in specific areas. While 'Q2' is a strong point, 'Q4' is an area that could be enhanced to improve the overall user experience. In summary,the audience reception and response to my game appears to be generally well-received and balanced. Of course, there is opportunity to enhance the game further but the deadline says otherwise.



Question [Score out of 10]
1. From 1 to 10, how intuitive was the gameplay?
2. Did the levels offer variation?
3. Were obstacles easy to understand?
4. Did the levels challenge you?
5. Were the element system, turn and length mechanics easy to understand?
6. Overall Music Score
7. Overall Aesthetics Score

REFLECTION

Throughout the development of my game, “Spaceslinger”, I encountered numerous challenges and learning opportunities that significantly helped me improve my understanding of game design and development.

Design

Drawing heavy inspiration from Slugterra, I crafted an adventure-strategy game which incorporates cosmic creatures that can transform into majestical beasts. By referencing something I was familiar with, I was able to create assets and mechanics that harmonise well together. I had to make sure all the design choices I made were consistent and relevant to my audience and relevant to the appropriate form and genre conventions while sometimes subverting them. Overall, following Gestalt principles of continuity and other good design principles helped me design graphics for my game that complemented each other, creating a seamless, flowing experience.

Production Process

In terms of production, the designing phase was the most tedious. I experimented with different art styles and ultimately chose a minimalist toon hybrid style for both character and background design. Static objects used minimalist vector art to maintain simplicity. These choices also allowed for easier animation. I came to these styles from feedback my peers and my own self assessment.

The coding and developing phase was definitely the most challenging phase, particularly with collision logic, menu visibility, and interface inputs. Debugging these issues required patience and iterative problem-solving, sometimes needing to ask AI on how to approach some scenarios. These challenges enhanced my understanding of game logic and reinforced the importance of meticulous testing and code optimisation.

Overall

Overall, producing my game helped me understand what it feels like to be a solo game dev. While there remain areas for improvement, I am proud of my game and the journey I have gone through to achieve this masterpiece. Developing “Spaceslinger” has rewarded me an amazing game that I can look back upon in the future.