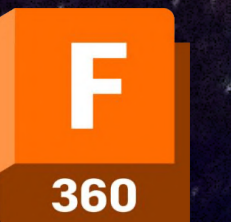
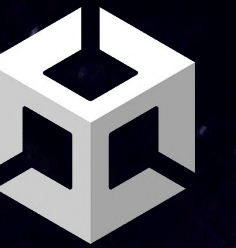


ASTRAL



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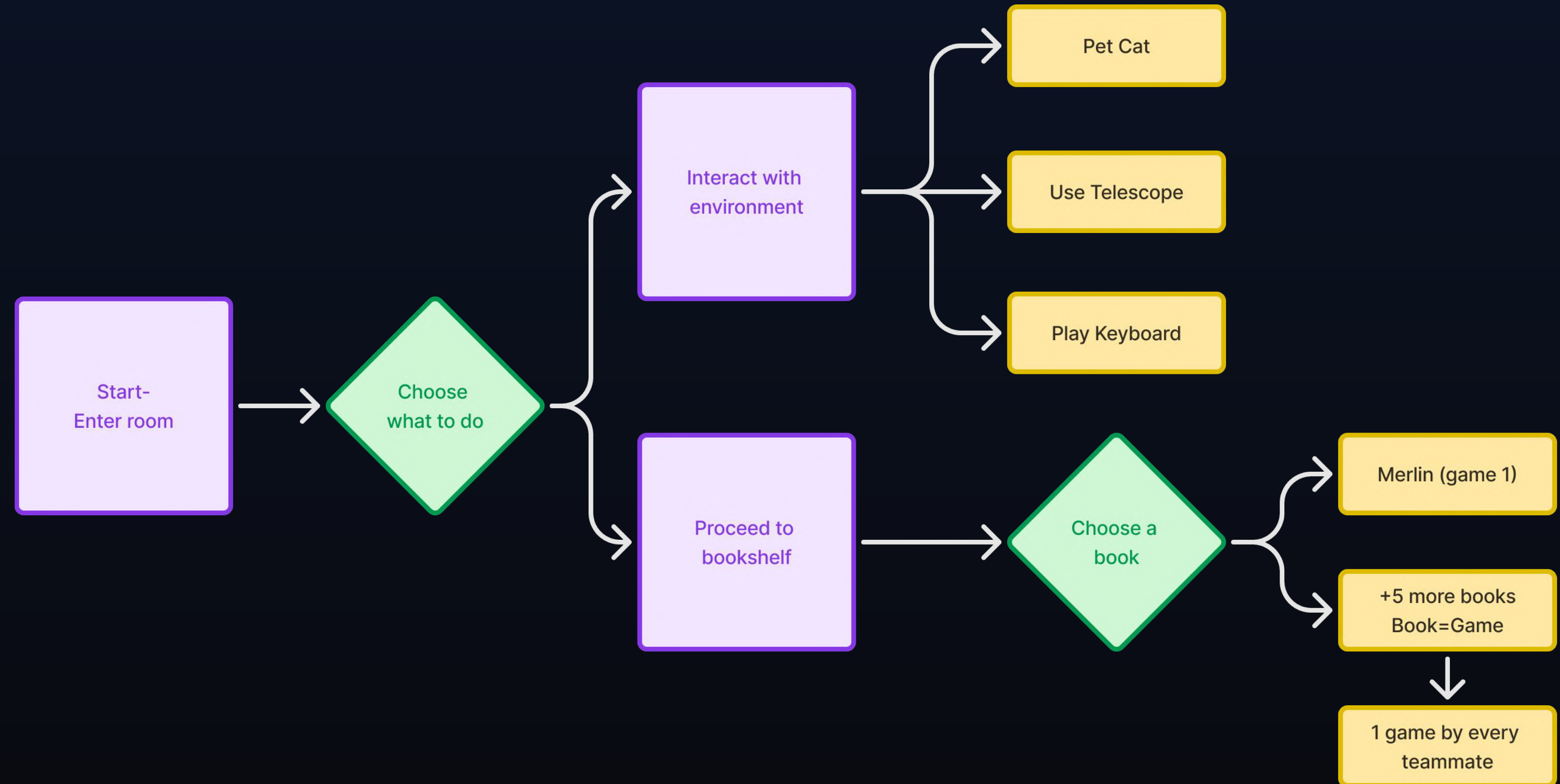
9

CONCEPT

Colours | Buttons | HUD

The game concept is simple yet offers a unique twist on the gaming experience. You play as Pako, a 10-year-old boy with a locomotor disability. Pako dreams of exploring the world but is confined indoors. His love for games and his bookshelf becomes his escape.

Each book on Pako's shelf represents a game, serving as his gateway to adventures. Every game you play is a projection of Pako's imagination, bringing the stories from his books to life.

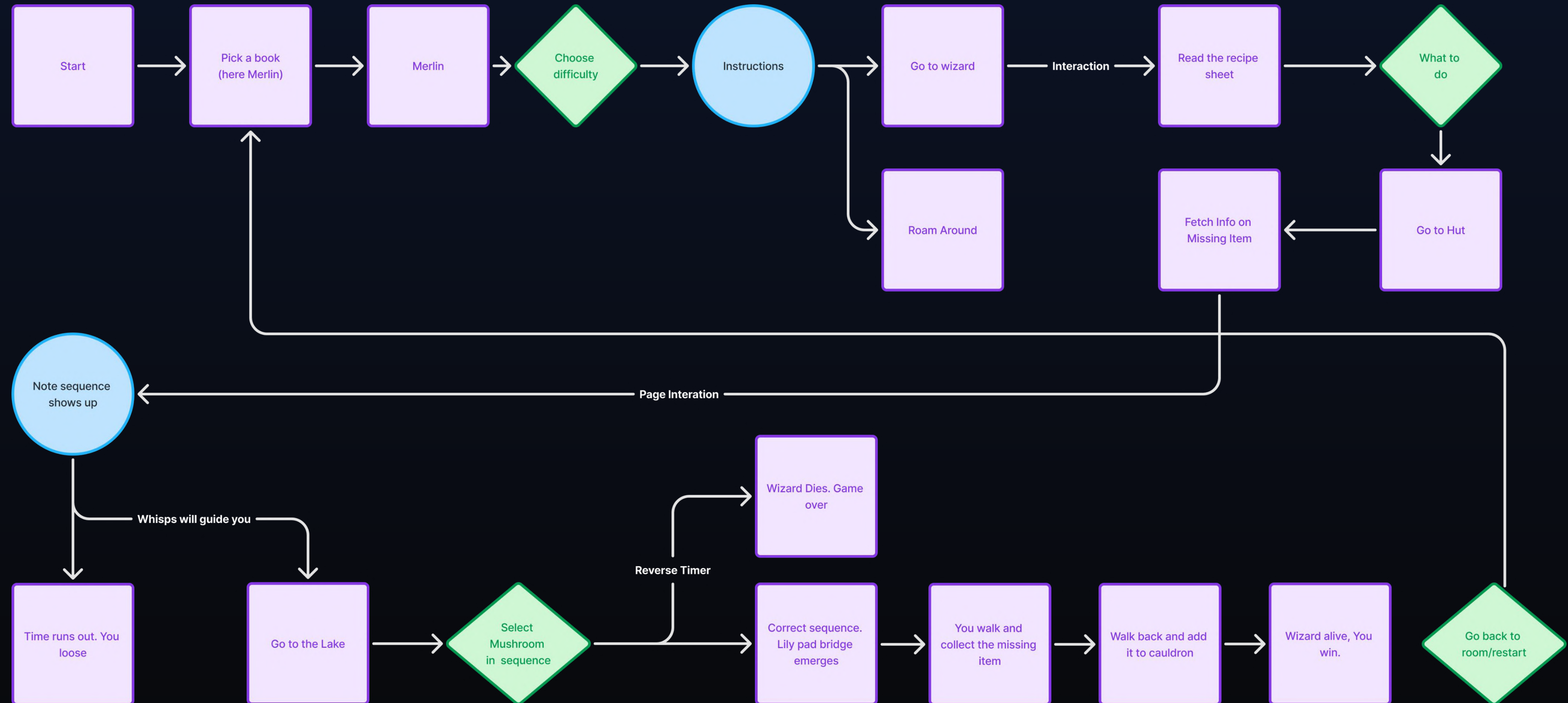


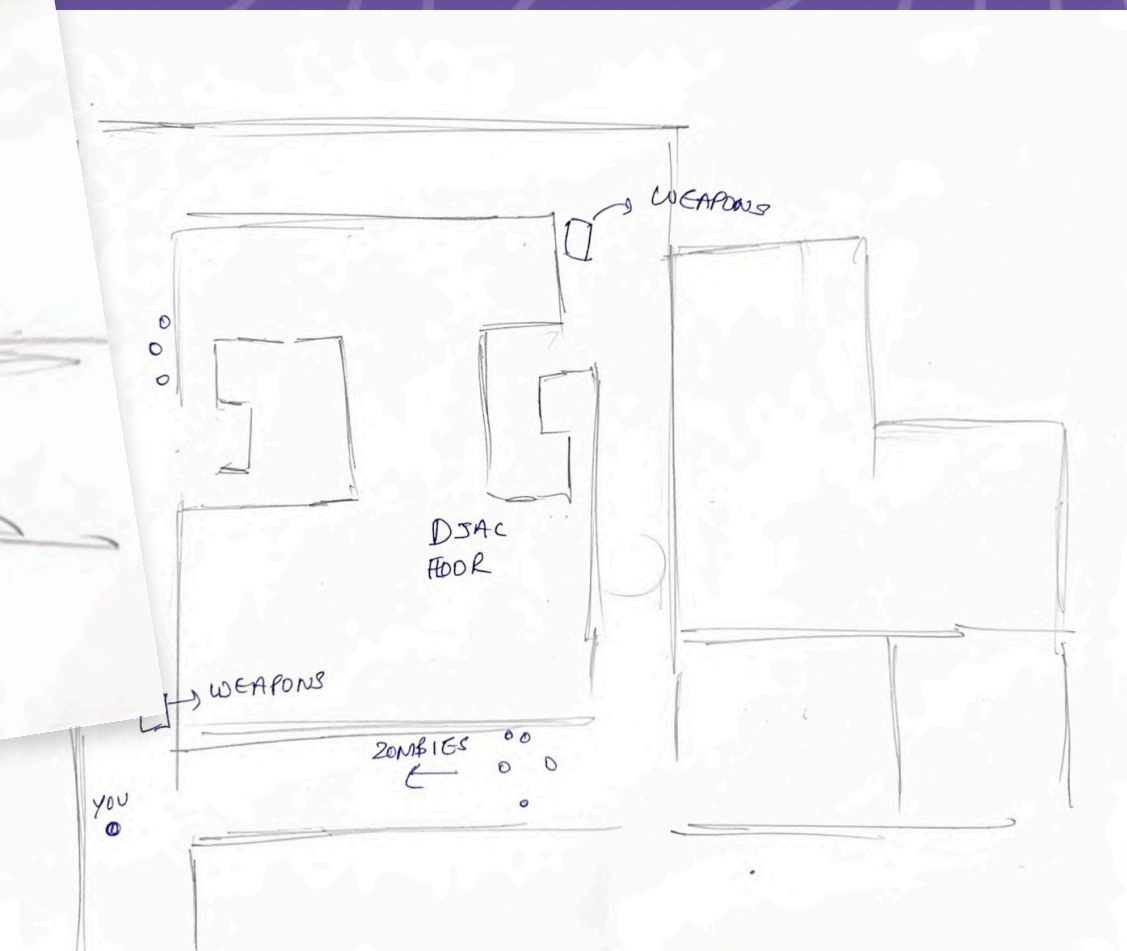
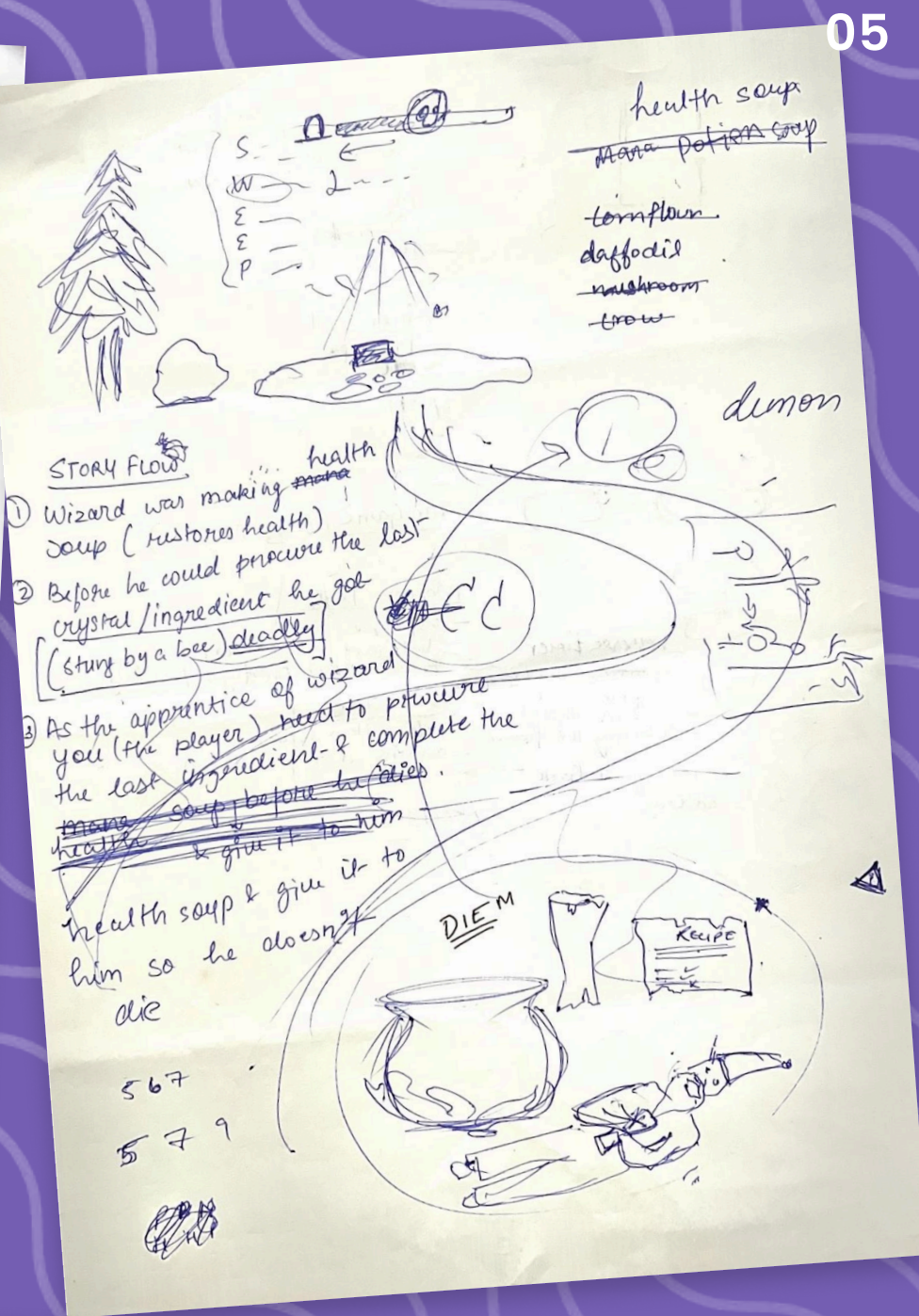
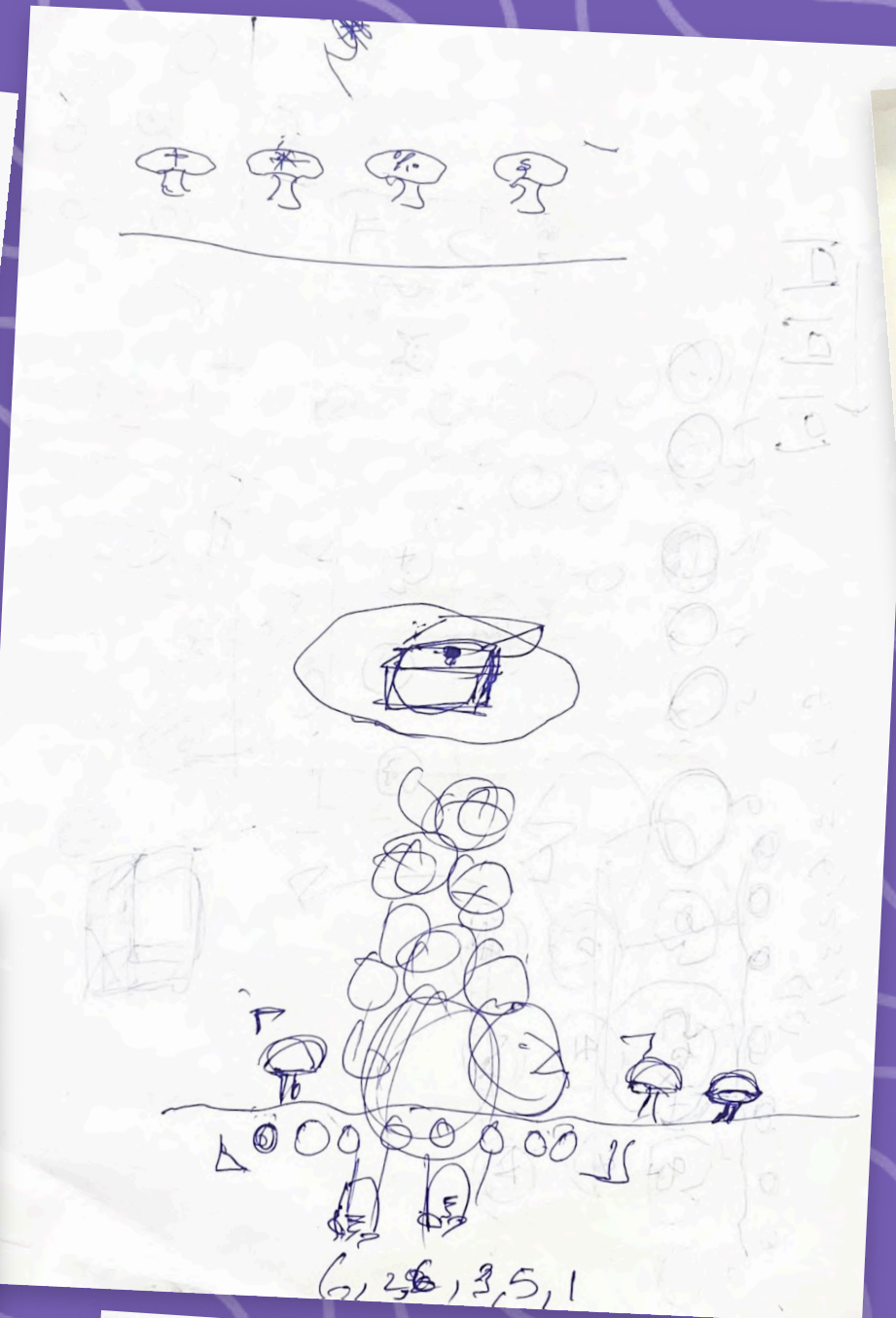
Merlin: The Return of the Archmage



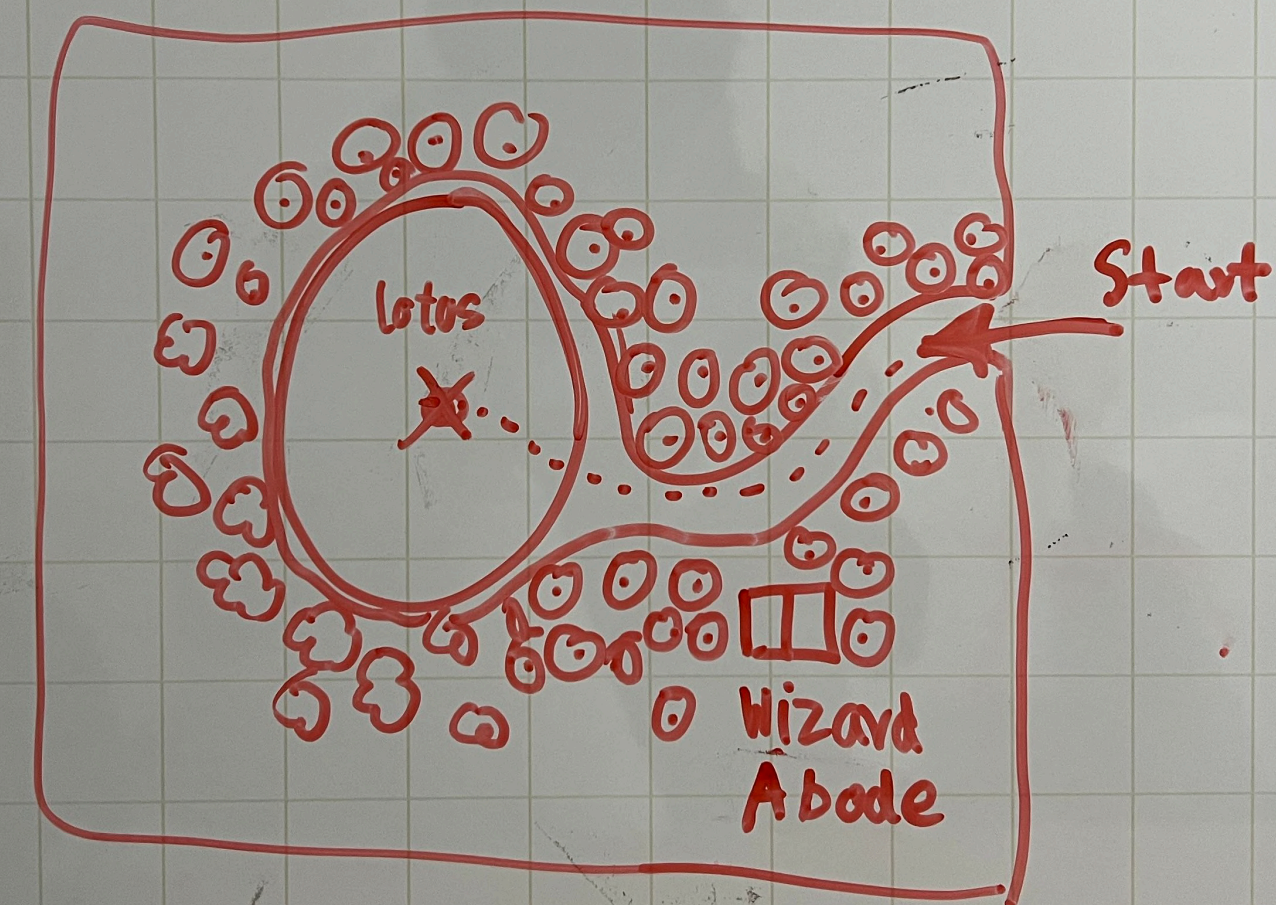
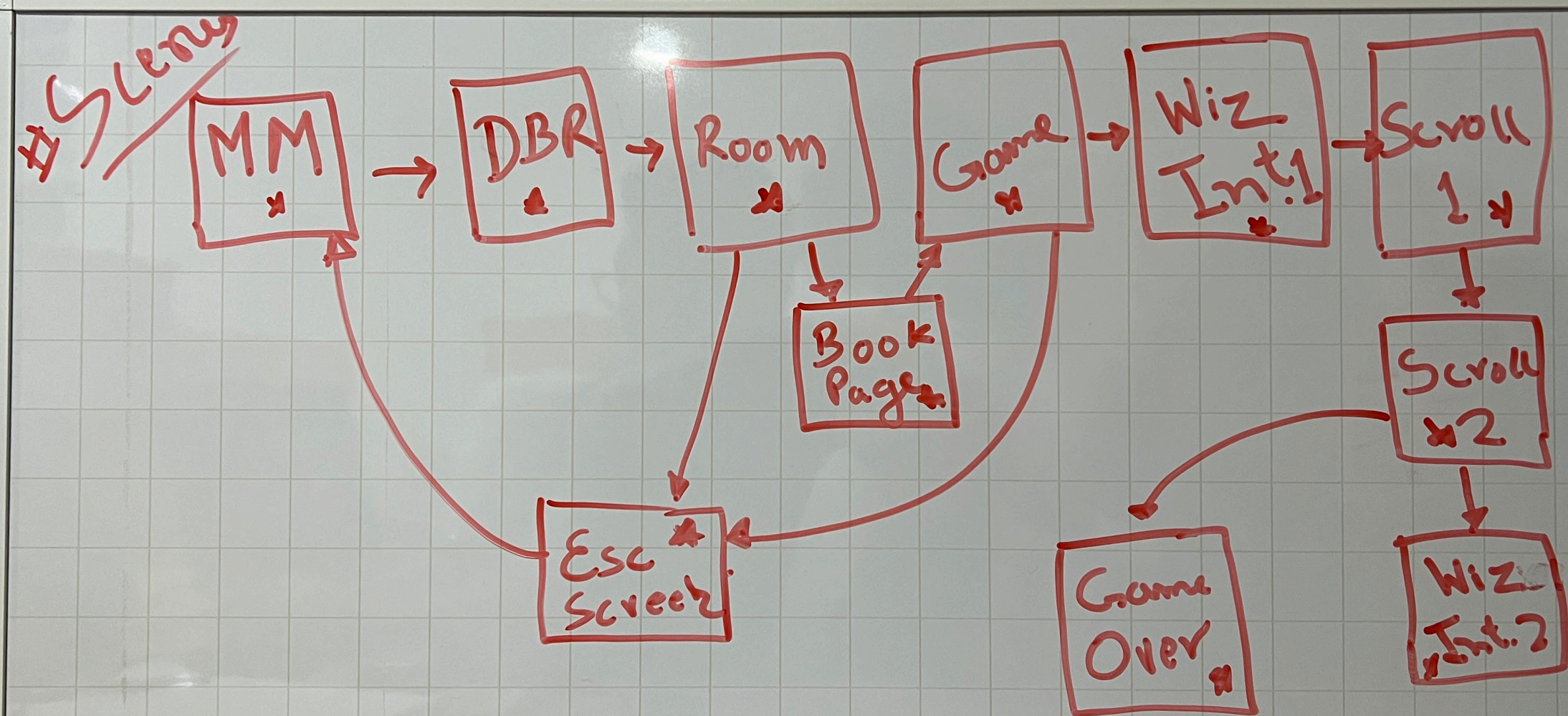
Game Library

GAME FLOW





ROLES					
<u>Presentation</u>		<u>Documentation</u>	<u>Asset Collection</u>	<u>Asset Editing</u>	<u>Character Animation</u>
↳ <u>Laxmi</u> <u>Rahul</u> ↳ <u>Visual Board</u> ↳ <u>Gameplay write up</u> <u>Rahul</u> ↳ <u>Game flow</u> <u>Rahul</u> (P) <u>Prakriti</u> (S)		↳ <u>Roshan</u> ↳ <u>Sketches</u> ↳ <u>Summary</u> ↳ <u>Timeline</u> <u>Exul</u> <u>Roshan</u> <u>Sumit</u>	↳ <u>Environment</u> ① <u>Room</u> ✓ <u>Rahul</u> (S) <u>Ishita</u> (P) ② <u>Forest</u> <u>Ishita</u> (P) <u>Rahul</u> (S)	↳ <u>Shaders</u> <u>Ishita</u> (P) <u>Laxmi</u> (S)	↳ <u>Mixamo</u> - <u>Sumit</u> (P)
		<u>ASSET DEBUG</u>	<u>CODE DEBUG</u>	<u>SCENE SETUP</u>	
		<u>Ishita</u> (P) <u>Lakshmi</u> (S)	<u>Roshan</u> (P) <u>Sumit</u> (S)	<u>Room</u> <u>Rahul</u> (S) <u>Ishita</u> (P) <u>Forest</u> <u>Lakshmi</u> (S)	
INTERACTIONS					
① <u>Character</u>	② <u>Main Room Env</u>	③ <u>Forest Env</u>	④ <u>UI screens</u>	⑤ <u>VFX</u>	⑥ <u>SFX</u>
<u>Sumit</u>	<u>Rahul</u> · <u>Sumit</u>	<u>Prakriti</u>	<u>Lakshmi</u>	<u>Prakriti</u>	<u>Ishita</u>
<u>Roshan</u>	<u>Roshan</u>	<u>Roshan</u>	<u>Roshan</u>	<u>Rahul</u>	
			<u>SUMIT</u> ✓		

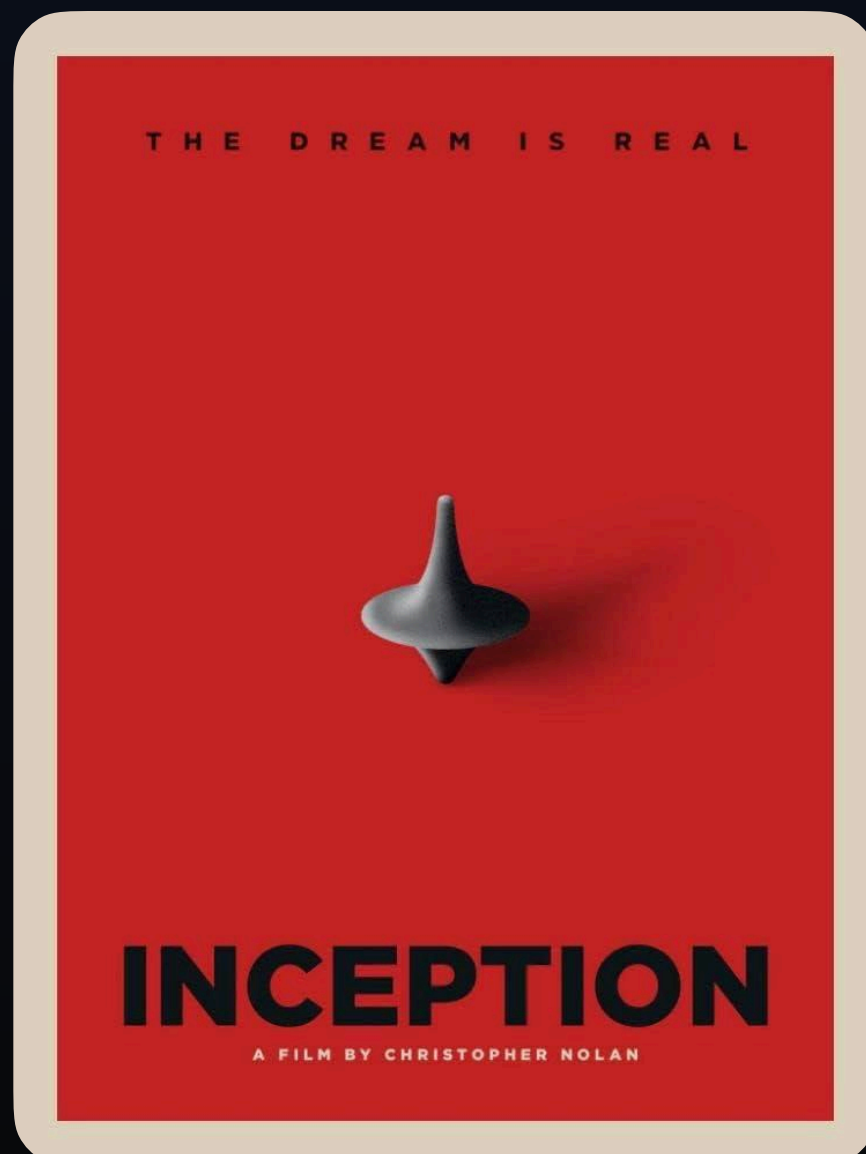


VISUAL BOARD



INSPIRATION BOARD

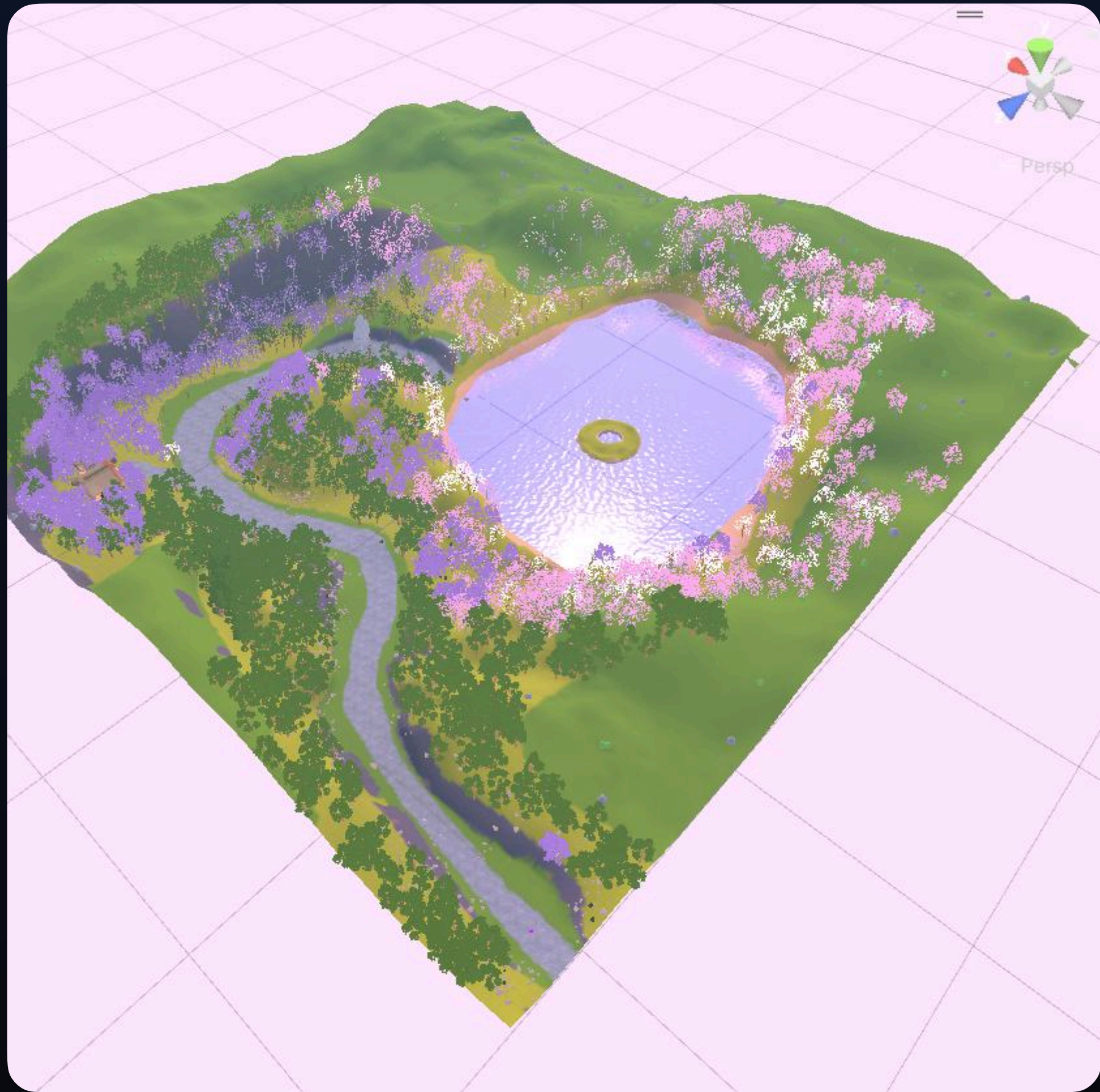
Throughout our discussions and inception of our project we drew inspiration from various sources and media we consumed in the past, a few are listed below:-

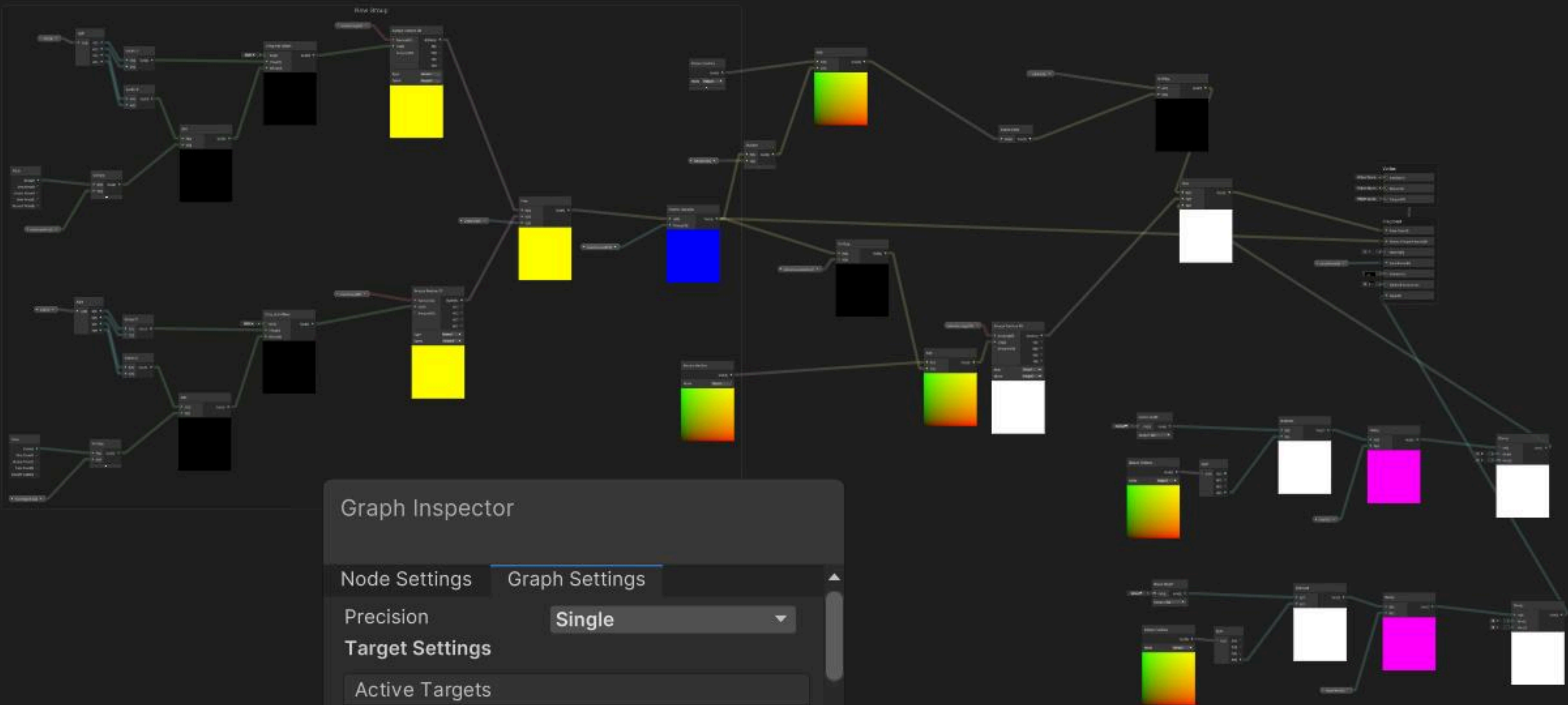


ENVIRONMENT DESIGN

Room Environment | Forest Environment







Graph Inspector

Node Settings

Graph Settings

PrecisionSingle

Target Settings

Active Targets

Universal

Universal

MaterialLit

Allow Material

water effect

Shader Graphs

albedo

Color

normal map

Texture2D

UV1

Vector4

UV2

Vector4

waterspeed 1

Vector2

waterspeed 2

Vector2

smoothness

Float

waterlerp

Float

normal strength

Float

refraction

Float

reflection map

Texture2D

reflection refraction

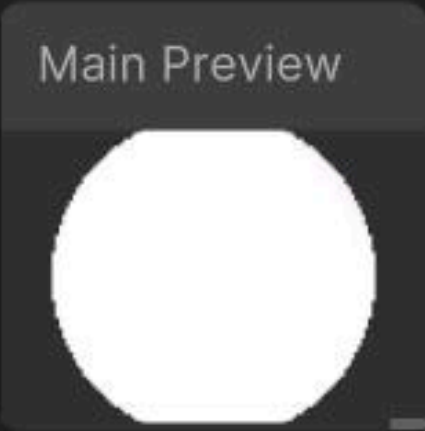
Float

Depth

Float

Depth fade

Float



CHARACTER DESIGN

Pako | Wizard



ASTRAL

New Game
Settings
Credits
Quit Game

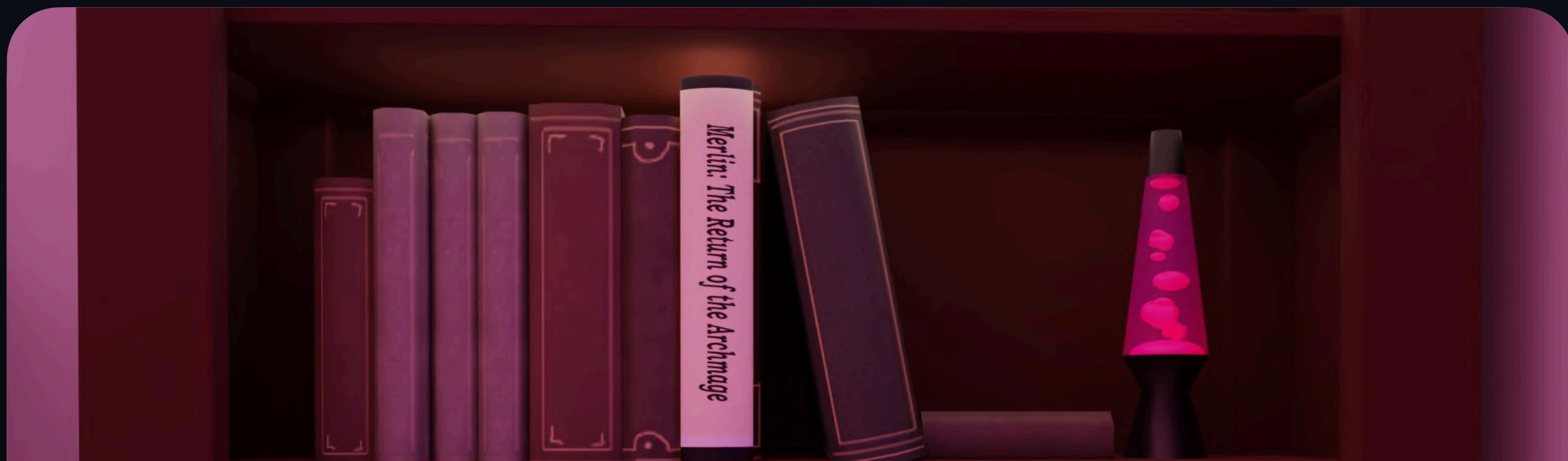


GAME EXPERIENCE

Game Walkthrough



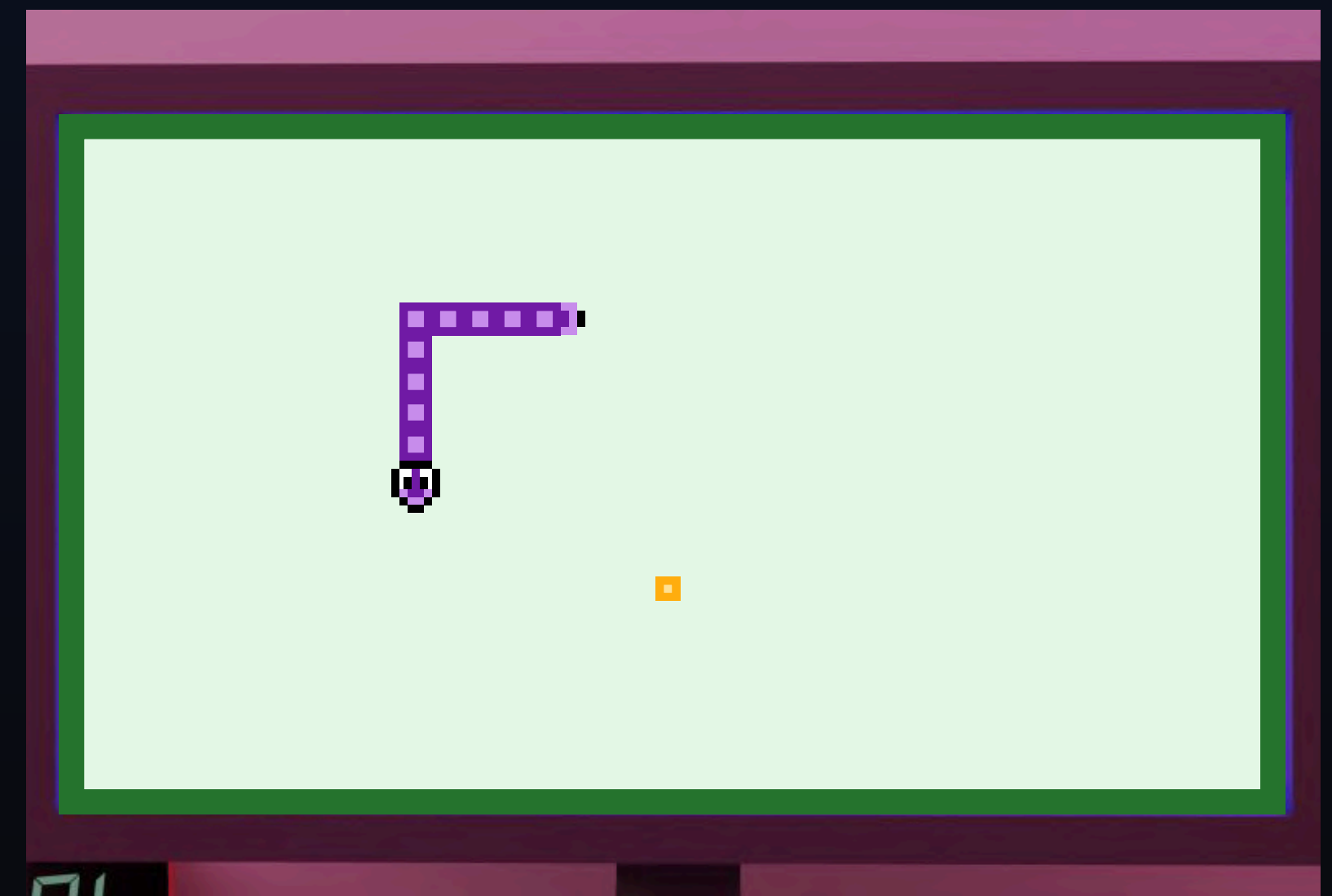
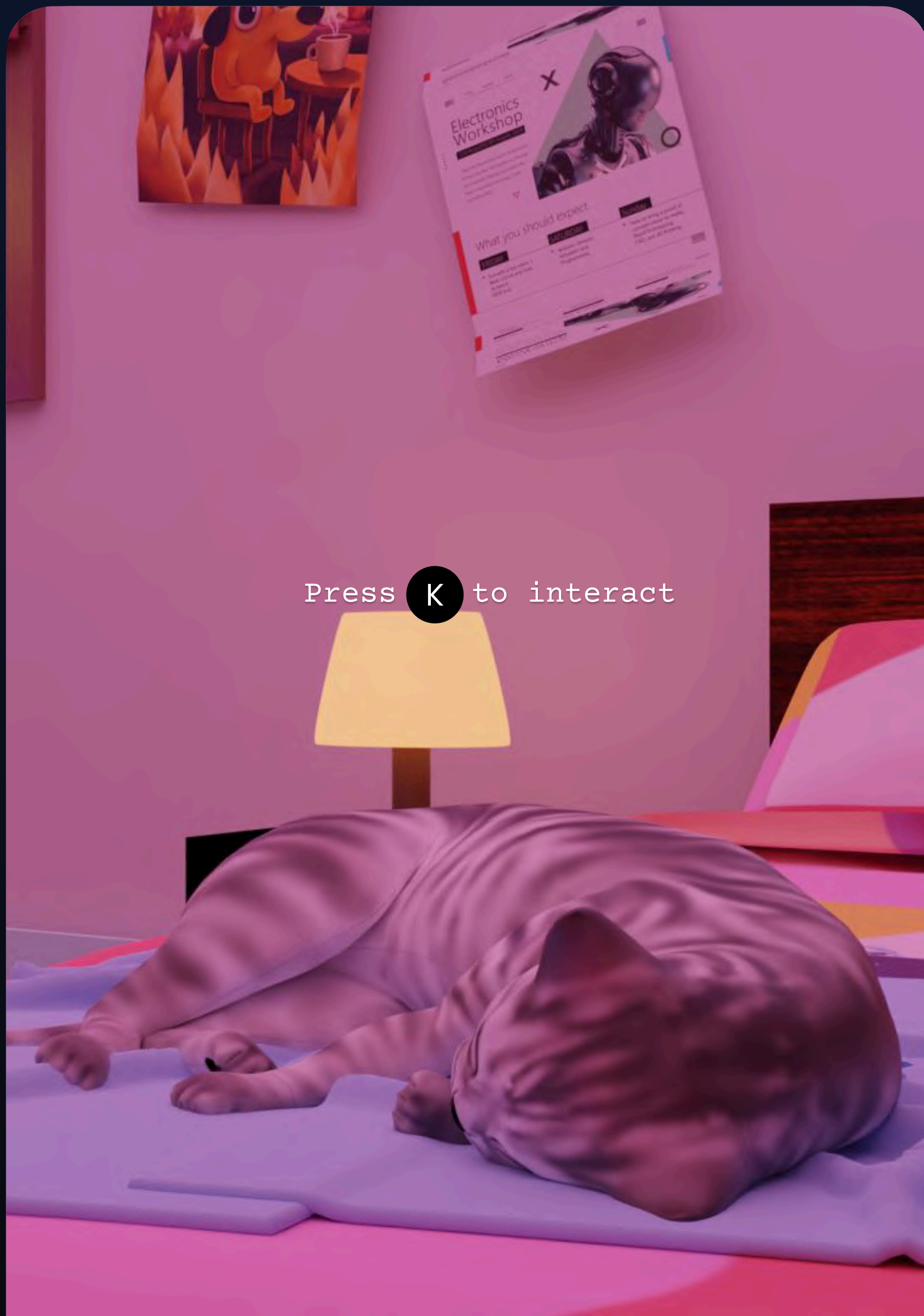
The game begins with Pako's mother gently reminding him that it's already bedtime and he should get some sleep.



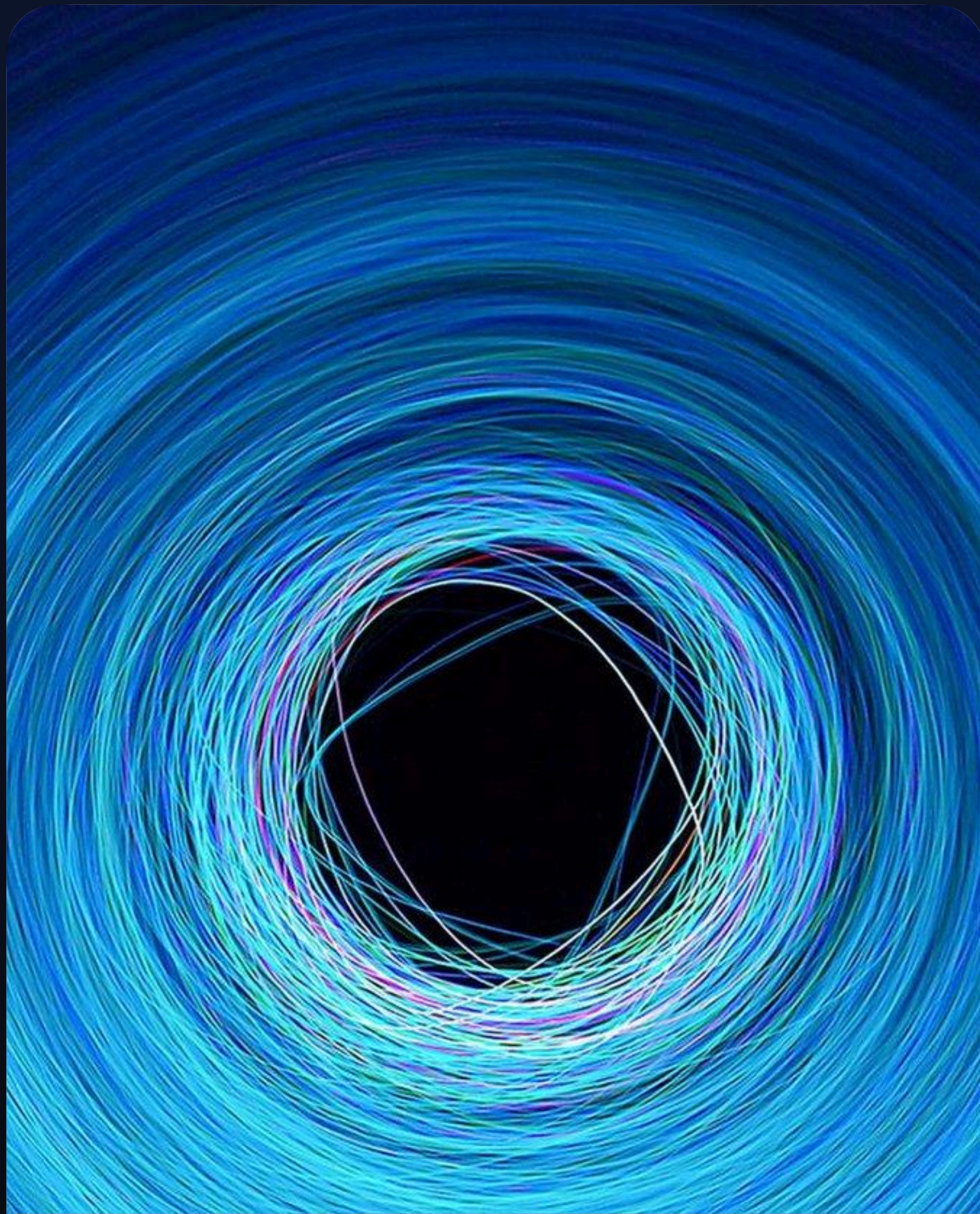
Pako goes near the book shelf to select the title Merlin



The player can browse through the titles, read the overviews and hit play if they wish to play the game.



As Poko, players can interact with the environment and enjoy playing relaxing video games on his computer.



Once a game is selected and we hit play, we travel through Pako's astral projection into the adventure within the chosen book.



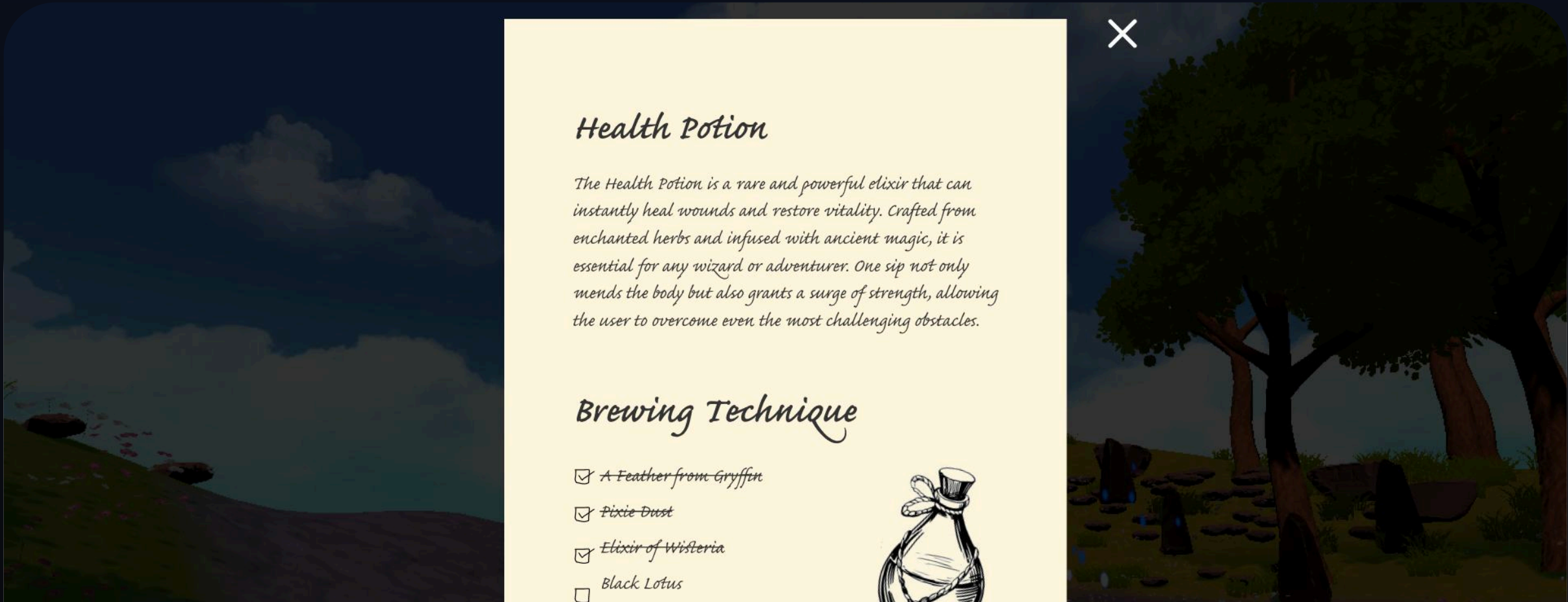
Player enters the world through the magic portal.



The player follows the wisps that spawn on the map leading him through the forest to a cauldron with a mysterious brew



On our way we find the dying wizard where the player and the wizard interacts

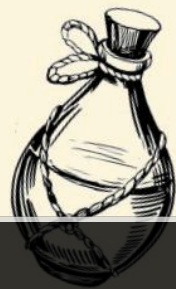


Health Potion

The Health Potion is a rare and powerful elixir that can instantly heal wounds and restore vitality. Crafted from enchanted herbs and infused with ancient magic, it is essential for any wizard or adventurer. One sip not only mends the body but also grants a surge of strength, allowing the user to overcome even the most challenging obstacles.

Brewing Technique

- ☒ A Feather from Griffin
- ☒ Pixie Dust
- ☒ Elixir of Wisteria
- ☐ Black Lotus



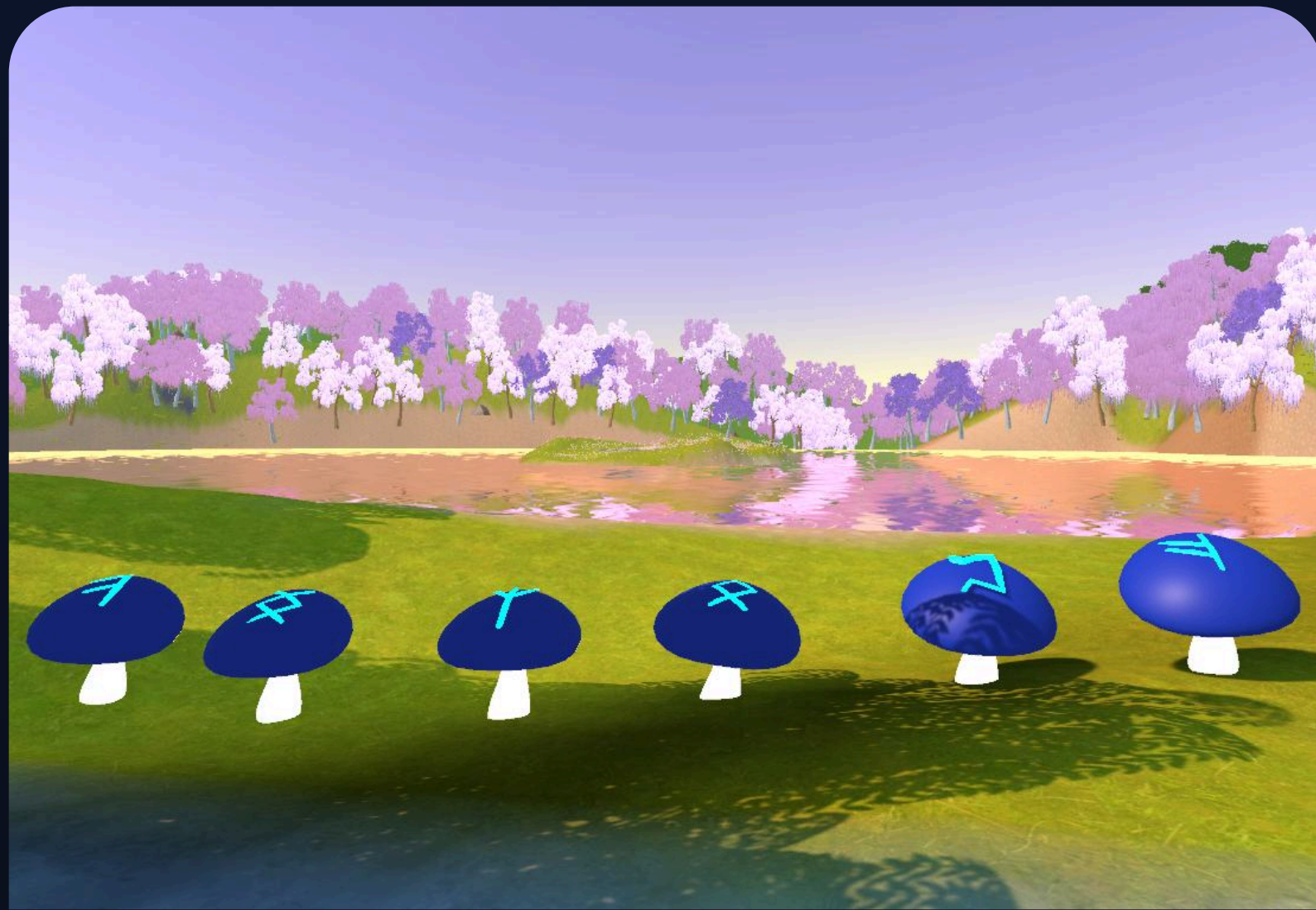
On further investigation we learn more about this item and gets redirected to find wizard's hut for more clues



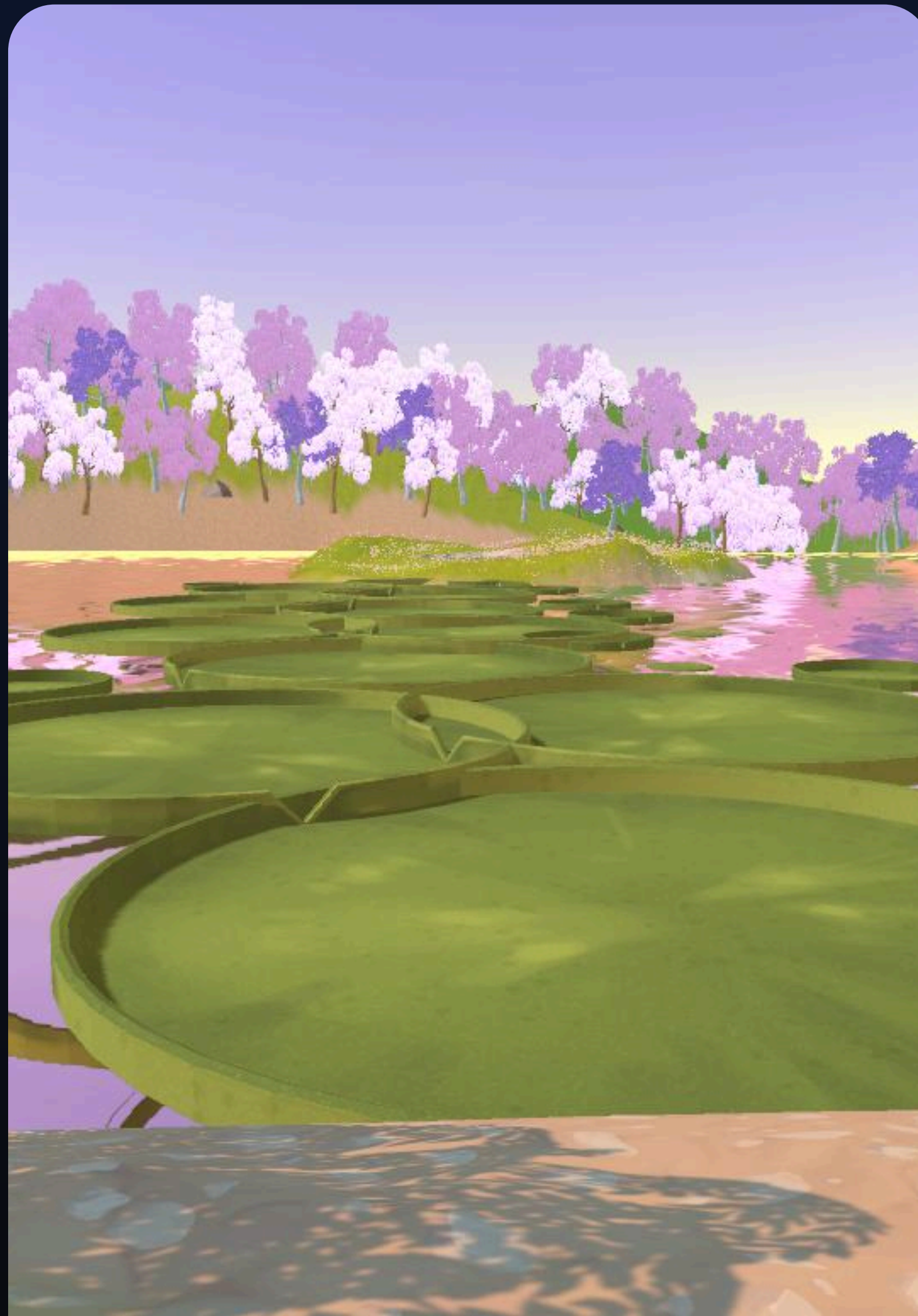
The forest trail leads to a wizard hut along with a sensory experience of moving through a mystical forest



The player finds more clues at the hut and follows the wisps and explores the entry way for the lake, where they come across the puzzle mission



The player plays the music in the same sequence as on the document in the hut



On playing the correct sequence a bridge made of lily pads emerges providing a safe passage



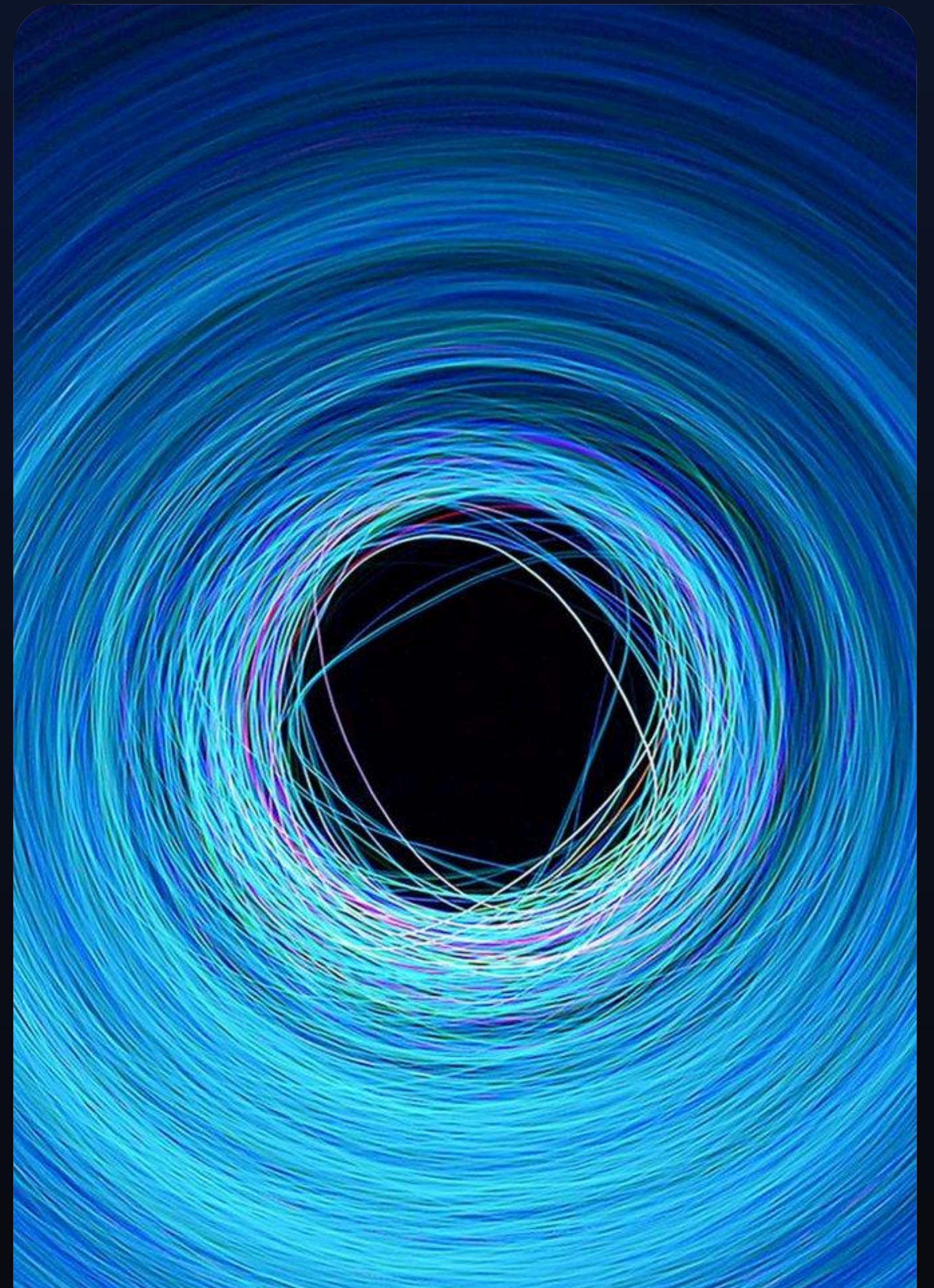
The player picks up the Black Lotus which was not accessible before



Pako finds his way back with the black lotus to the dying wizard



The Wizard wakes up after we complete his recipe for health potion



He opens up a portal for us where we come back to the room and the mission ends



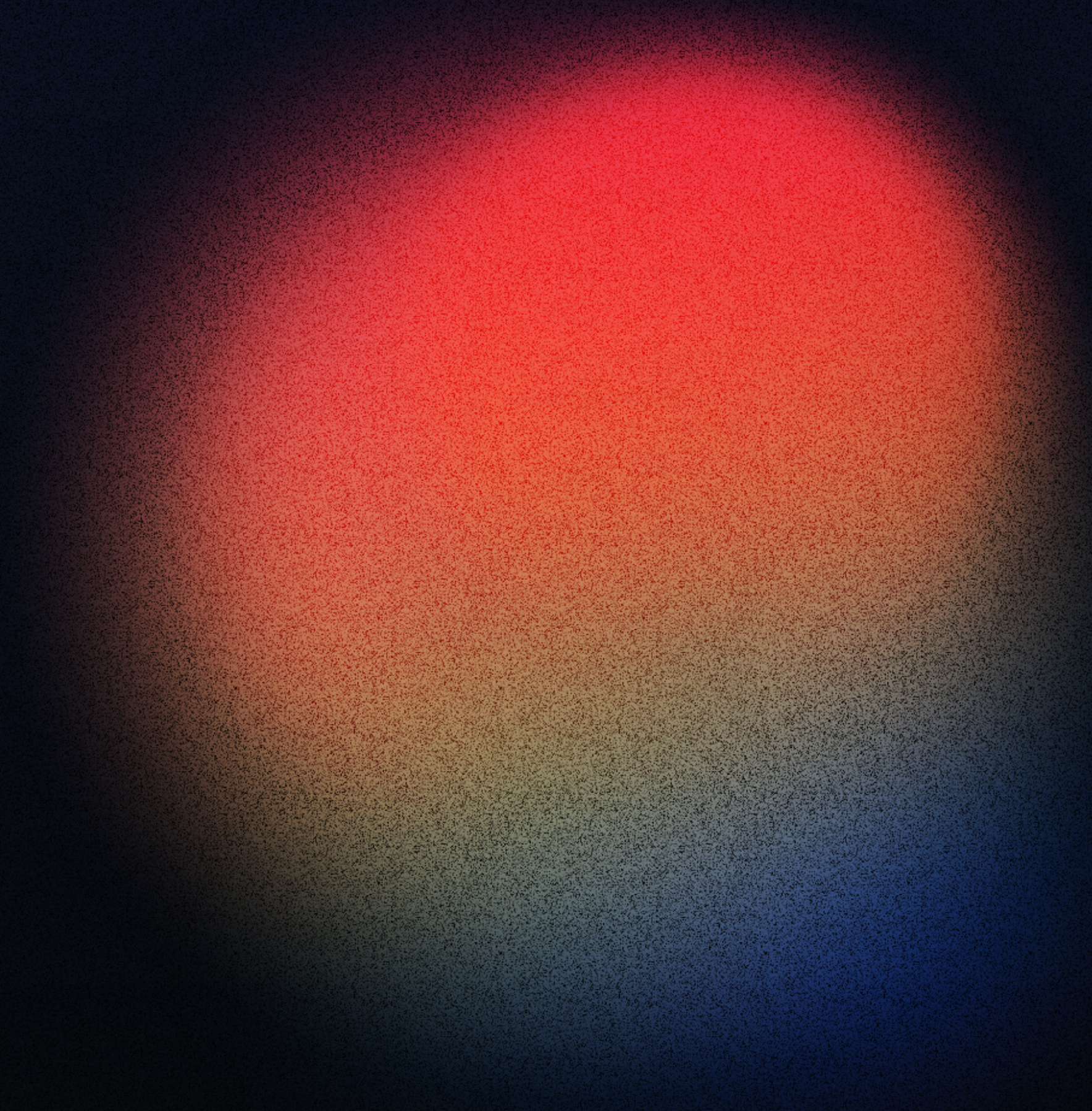
The player spawns back to their room, where they can pick more such games from their book shelf

GAME UI

Colours | Buttons | HUD

Colour psychology is carefully considered in the design of the user interface as a way of using a players emotions to indicate meaning from the UI, the most prominent used colours are the four primary psychological colours red, blue, yellow, and green.

This is because their meanings are almost universally understood and their representation can be perceived more easily by players.



GAME UI

Colours | Buttons | HUD

A video game user interface is a system of visual components that allows players to interact with the game story (narrative) and break into the game space (the fourth wall).

A modern UI should be created with accessibility functions in mind and make its use feel natural to a user. Modern UI can be created with sensors, camera tracking and virtual reality devices in mind and the purpose of a UI is to allow users to perform tasks in a virtual space.

VR Friendly | Intuitive | Functional



<

NEW GAME

<

DIFFICULTY
EASY

>

<

DIFFICULTY
MEDIUM

>

<

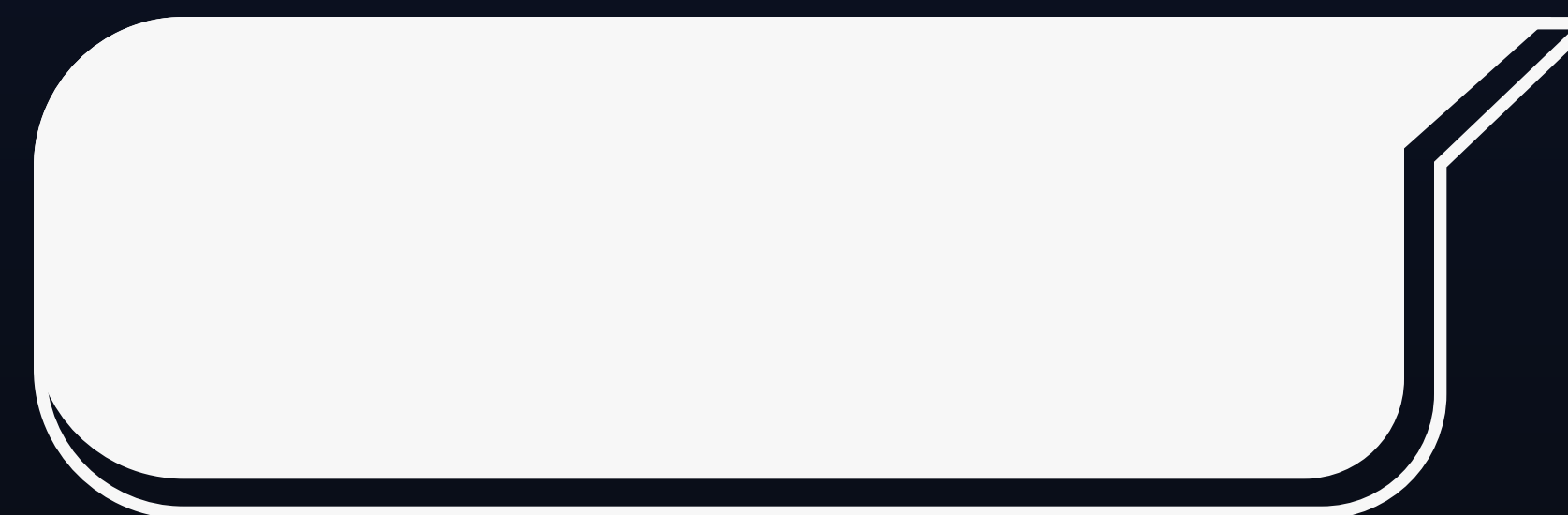
DIFFICULTY
HARD

>

Continue ■
New Game
Settings
Quit Game



HEADS-UP DISPLAY (HUD)
FOR REVERSE TIMER



NEXT

VISUAL IDENTITY

Interactive Assets | Logos



The logo for "Astral" visually represents the concept of astral projection, with a design that feels ethereal and otherworldly. It captures the essence of the term "astral" through its mystical and abstract form, evoking a sense of exploration beyond the physical realm.

In the game, the paper notes feature an art style inspired by an ancient wizard's book. They have a vintage, worn look with intricate details and mystical symbols, adding to the game's magical atmosphere.

Merlin: Merlin: The Return of the Archmage

The Apprentice’s Trial

In the magical land of Avalon, where enchantments flow through every part of nature, Merlin, the greatest wizard of all time, has mysteriously returned after centuries of absence. His reappearance is shrouded in danger, with dark forces closing in, threatening to claim his power and unravel the balance of the magical world. The ancient prophecy is unfolding, and Merlin’s fate and that of Avalon rests on a young apprentice chosen to aid him.

As Merlin’s apprentice, you must journey across enchanted forests, hidden realms, and forgotten towers, helping your master restore his strength. Along the way, you’ll face a single mystical challenge, a test of wit and courage that holds the key to Merlin’s survival and the future of Avalon.

01

Health Potion

The Health Potion is a rare and powerful elixir that can instantly heal wounds and restore vitality. Crafted from enchanted herbs and infused with ancient magic, it is essential for any wizard or adventurer. One sip not only mends the body but also grants a surge of strength, allowing the user to overcome even the most challenging obstacles.

Brewing Technique

☒ A Feather from Gryffon

☒ Pixie Dust

☒ Elixir of Wisteria

☐ Black Lotus

The Black Lotus

To obtain the black lotus, you must cross the enchanted lake. The hidden path will only reveal itself to the righteous.

⌘ 1 2 3 4 5



Health Potion

The Health Potion is a rare and powerful elixir that can instantly heal wounds and restore vitality. Crafted from enchanted herbs and infused with ancient magic, it is essential for any wizard or adventurer. One sip not only mends the body but also grants a surge of strength, allowing the user to overcome even the most challenging obstacles.

Brewing Technique

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- ☒ ~~Pixie Dust~~
- ☒ ~~Elixir of Wisteria~~
- ☐ Black Lotus

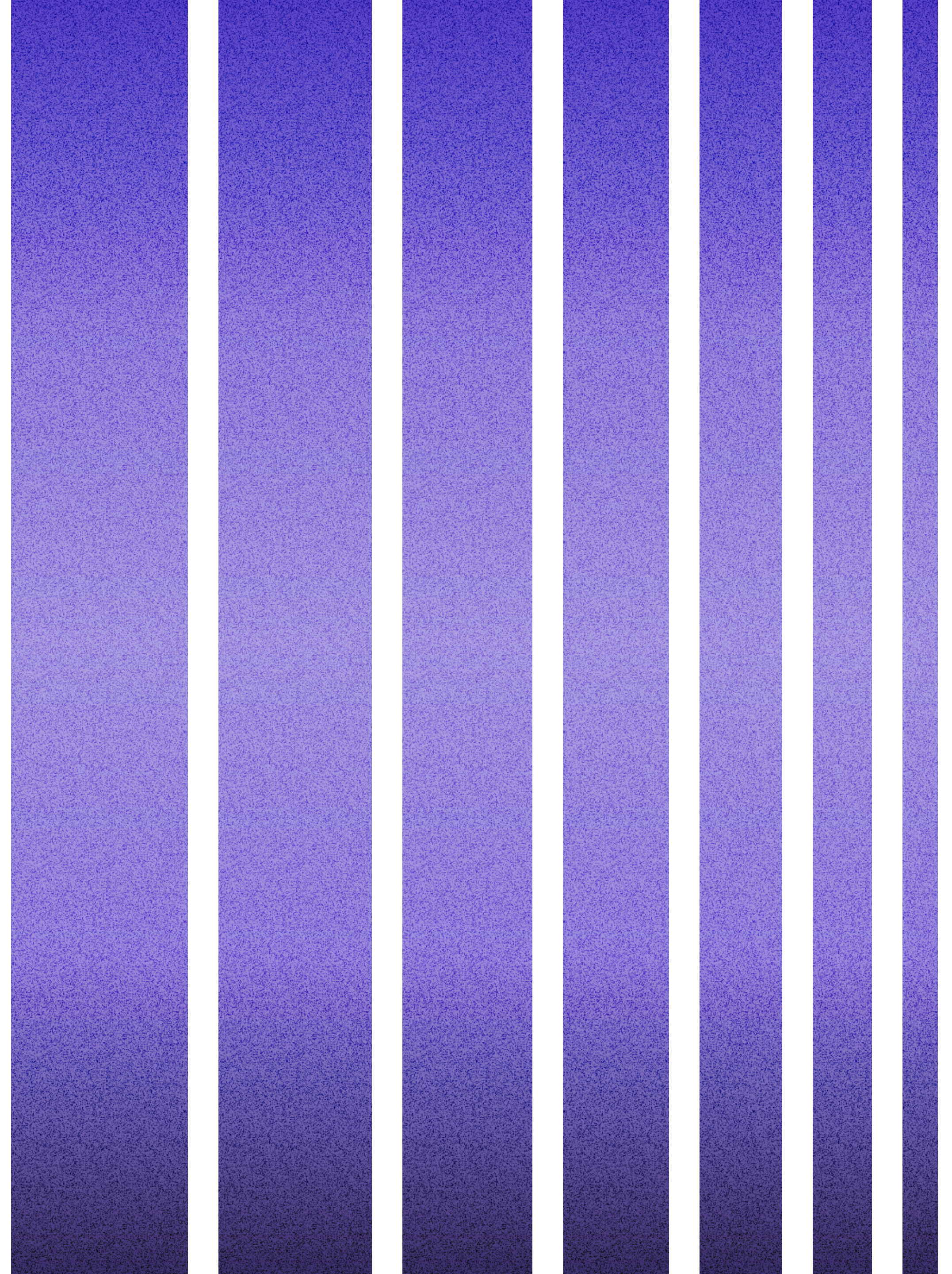


MILLER'S LAW

Human Computer Interaction

Miller's Law is a psychological principle that states that people can only hold about seven items in their working memory at a time, plus or minus two.

In our game, to solve the puzzle, players must remember a 6-pattern clue and replicate it in the correct sequence to unlock a bridge. This challenges the player's memory capacity, aligning with the principles of Miller's Law.

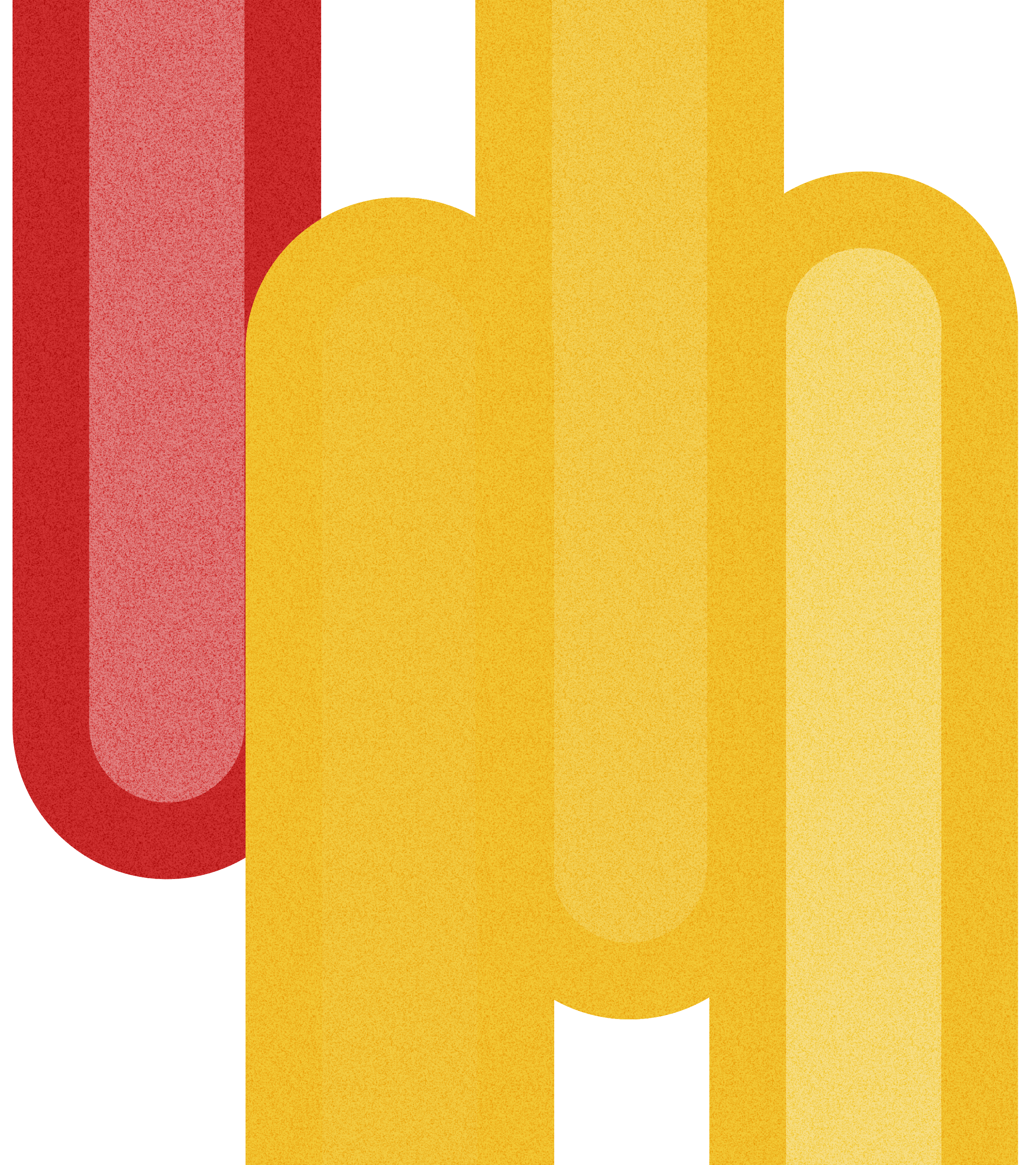


COGNITIVE LOAD

Human Computer Interaction

In our game, we challenge players to remember a sequence of patterns under a reverse timer, increasing the complexity with each difficulty level.

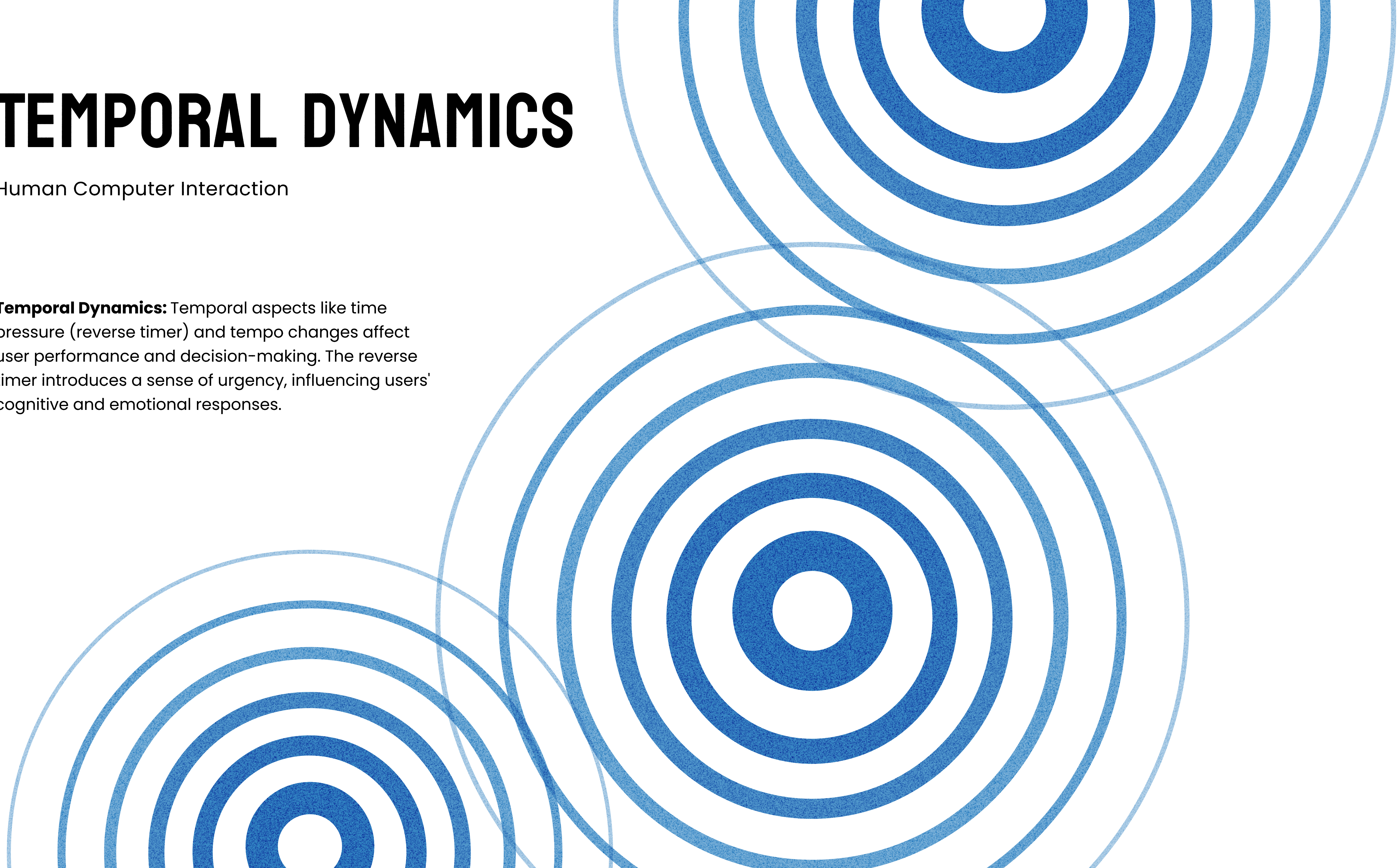
Intrinsic Cognitive Load: The design strategically engages intrinsic cognitive load by focusing on the core challenge of pattern recognition and memory recall, which are essential skills being practiced.



TEMPORAL DYNAMICS

Human Computer Interaction

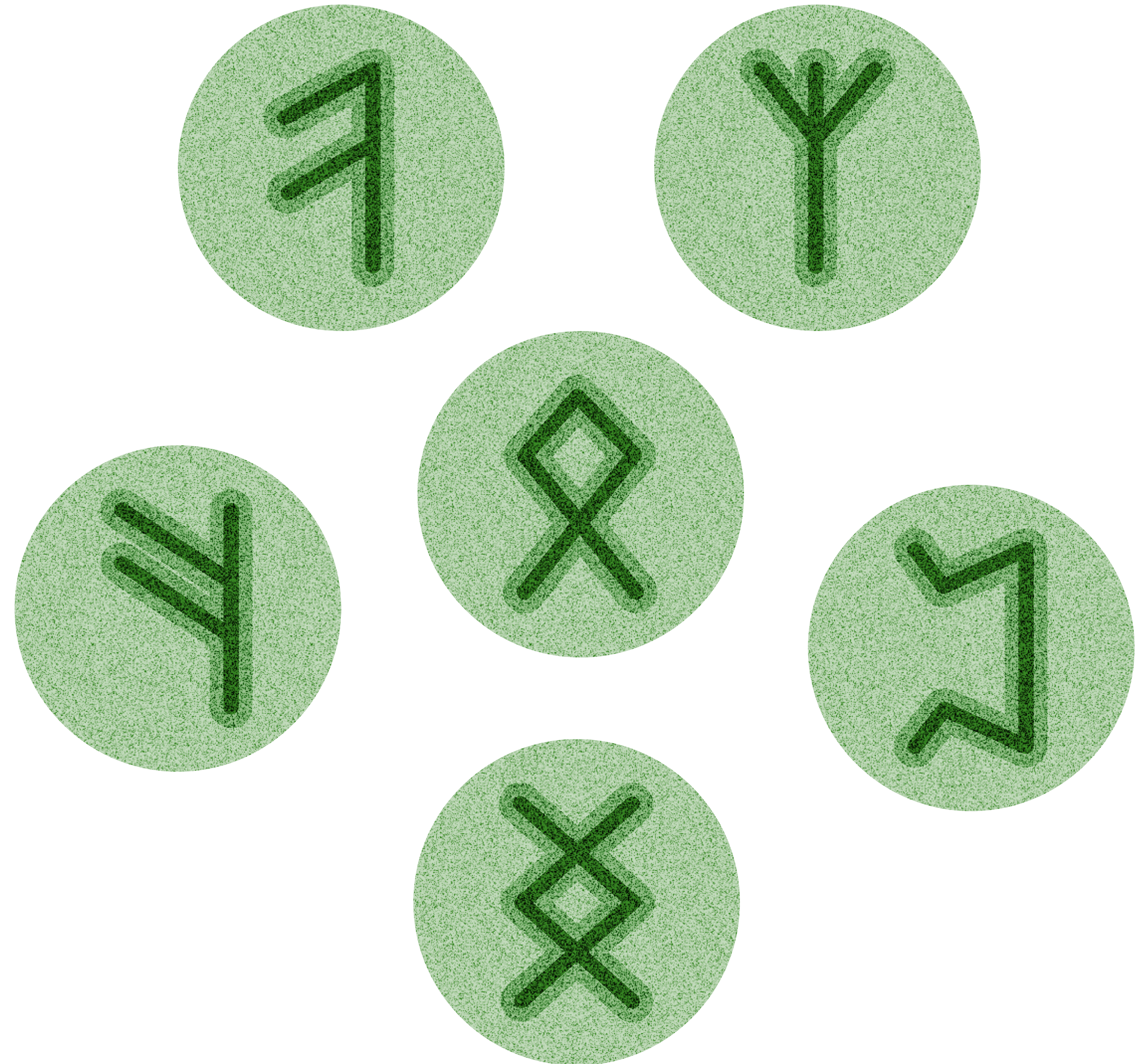
Temporal Dynamics: Temporal aspects like time pressure (reverse timer) and tempo changes affect user performance and decision-making. The reverse timer introduces a sense of urgency, influencing users' cognitive and emotional responses.



MNEMONICS

Human Computer Interaction

By associating specific patterns or sequences with memorable visual or auditory cues within the game, players can use these associations as mnemonic aids. For instance, each pattern might be linked to a unique visual symbol or sound that helps players recall the sequence more easily.



SENSORY INTERACTIONS

Game Mechanics

In our game, sensory interactions play a crucial role in creating an immersive experience. Vivid visual effects bring each scene to life, using vibrant colors and dynamic animations to engage players. Sound effects are carefully crafted to enhance the atmosphere, from the gentle rustling of pages as we enter a book's adventure to the ambient sounds that accompany each setting, adding depth and emotion to the gameplay.

[Click here to check out the game document.](#)





SOUND ENGINEERING



Game Mechanics



Game Mechanics

Wandering Voices

We crafted our own sound effects and music using GarageBand, adding a personal touch to the game's audio experience. Sound plays a crucial role in our game, particularly for the tune-based puzzle, where players must rely on audio feedback to solve challenges. This custom sound design enhances immersion and enriches the overall gameplay.



ROAD BLOCKS

We encountered significant roadblocks throughout the game development process in Unity.

- Real-Time Team Collaboration within Unity
- Advanced Texturing Techniques in Unity
- Sound Integration and Scripted Audio Triggers
- Managing Complex UI Canvas Hierarchies
- Implementing Dynamic Skybox Transitions Based on Triggers
- Searching for items in other teammate's messy codes

CONCLUSION

In our Unity lessons, we learned valuable tools to make 3D games work. Taking those lessons forward, we created an immersive game within the given time constraints. With the application of advanced scripting techniques, we enhanced the gameplay mechanics and utilizing Unity's physics engine to create a stylised mystical environment.

Leveraging the knowledge on psychological frameworks in HMI we designed levels that challenges one's memory and pattern recognition under cognitive load.

