Digital Game Prototype

Cyxus

Version 1.0 | 2026

A third-person puzzle game set in a labyrinth

Image 6: Character render

Gameplay Video:
https://drive.google.com/file/d/1SKVY9ec0DsfHyTont6pfHa4JhZFvZpmb/view?usp=sharing
Game ZIP:
https://drive.google.com/file/d/1fhLX3mIlH1c7Q07dnsylt2PsUQYMy1zF/view?usp=sharing

1. Game Overview

Cyxus is a third-person puzzle game developed in Unity. The player takes on the role of Kaelyn, a royal knight tasked with recovering a stolen artifact. Guided by Cyxus — a mystical crystal cat — Kaelyn must navigate a magical labyrinth, break the curse afflicting its guardians, and confront the sorceress behind the corruption.

Title	Cyxus
Genre	Third-Person Puzzle
Platform	PC Desktop
Engine	Unity 6 (URP)
Target Audience	Fantasy RPG fans, ages 13+
Number of Levels	1–2 Levels
Player Character	Kaelyn
Companion & The Enemy	Cyxus (Crystal Cat)

Initial Concept

The starting point for Cyxus was a desire to build something grounded in a fantasy world with a strong visual identity. Rather than beginning with mechanics, the design process began with character — specifically, with the question of who the player would inhabit and what the world around them would feel like.

Two characters were developed as the creative foundation: Kaelyn, an elf-like, and a fantastical cat creature with distinctive proportions that would later evolve into the Cyxus. The decision to model these characters first was intentional — the visual and emotional tone of the game emerged from the characters.

2. Concept & Vision

Core Theme

A lone royal knight enters a labyrinth, armed only with crystal magic gifted by a dying companion. To escape, she must purify the corrupted guardians. Enemies in Cyxus — the corrupted Cyxus cats — are not villains but victims, driven mad by a sorceress draining their power. The player's goal is not to defeat them but to restore them. This distinction is the emotional and mechanical spine of the entire design.

This aligns with the MDA framework in the following way:

Layer	Application in Cyxus
Mechanics	Crystal taming system — hold charge, release, and purify. Resource management via crystal pickups.
Dynamics	Players feel the tension of approaching a dangerous creature whilst choosing not to fight it. Resource scarcity creates pressure.
Aesthetics	Empathy, tension, and relief. The moment a corrupted cat is restored communicates the game's emotional message without words.

Core Pillars

- Empathy over Combat — enemies are victims, not villains. Players tame rather than destroy.
- Crystal Magic — a unique power system tied to the lore of the Cyxus cats.
- Atmospheric Exploration — a labyrinthine world drenched in mystery.

Characters

Kaelyn — The Player Character

A royal knight assigned to recover what was stolen from the queen's palace. Determined, resourceful, and loyal. She does not know what awaits her inside the labyrinth.

Role	Royal Knight
Ability	Crystal taming, crystal beam
Movement	Walk, run, dodge
Camera	Third-person (Cinemachine)
Health	5 HP
Crystal Power	1 unit

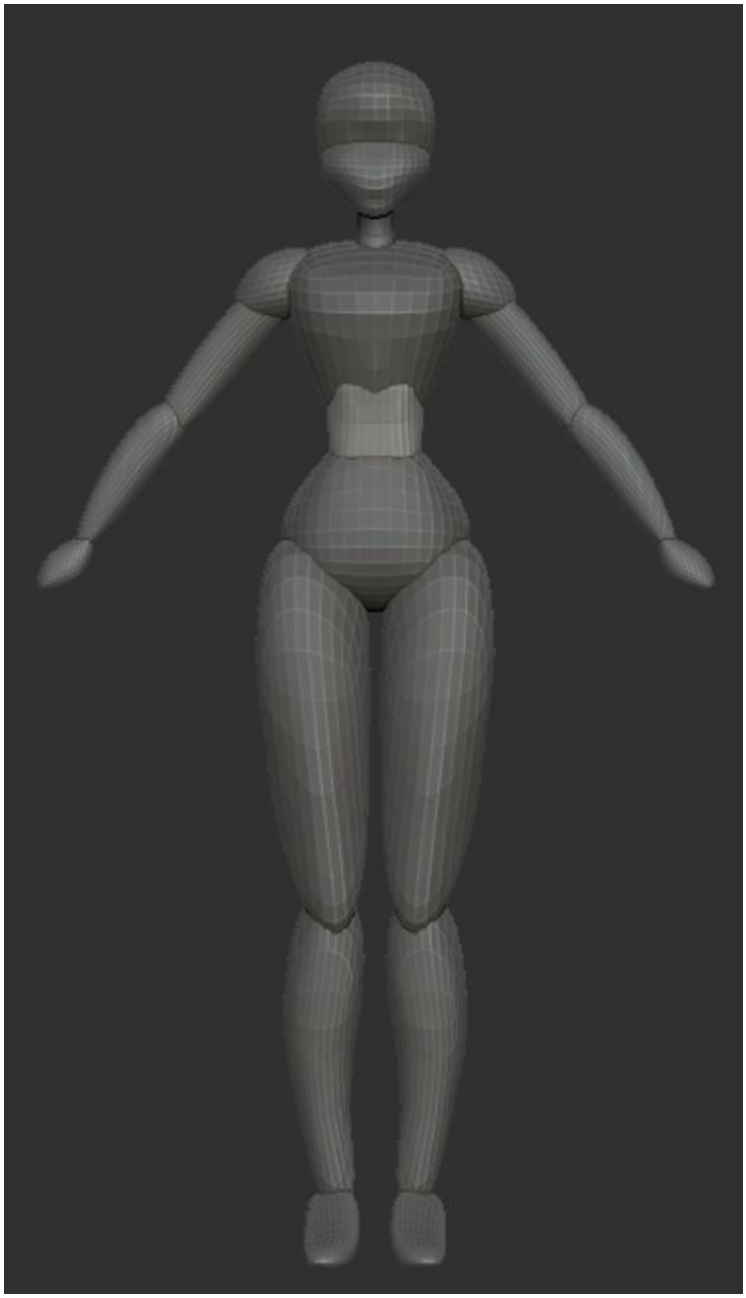

Image 7: Character blockout

Image 8: Character sketch idea

Image 9: Character detailed sculpture

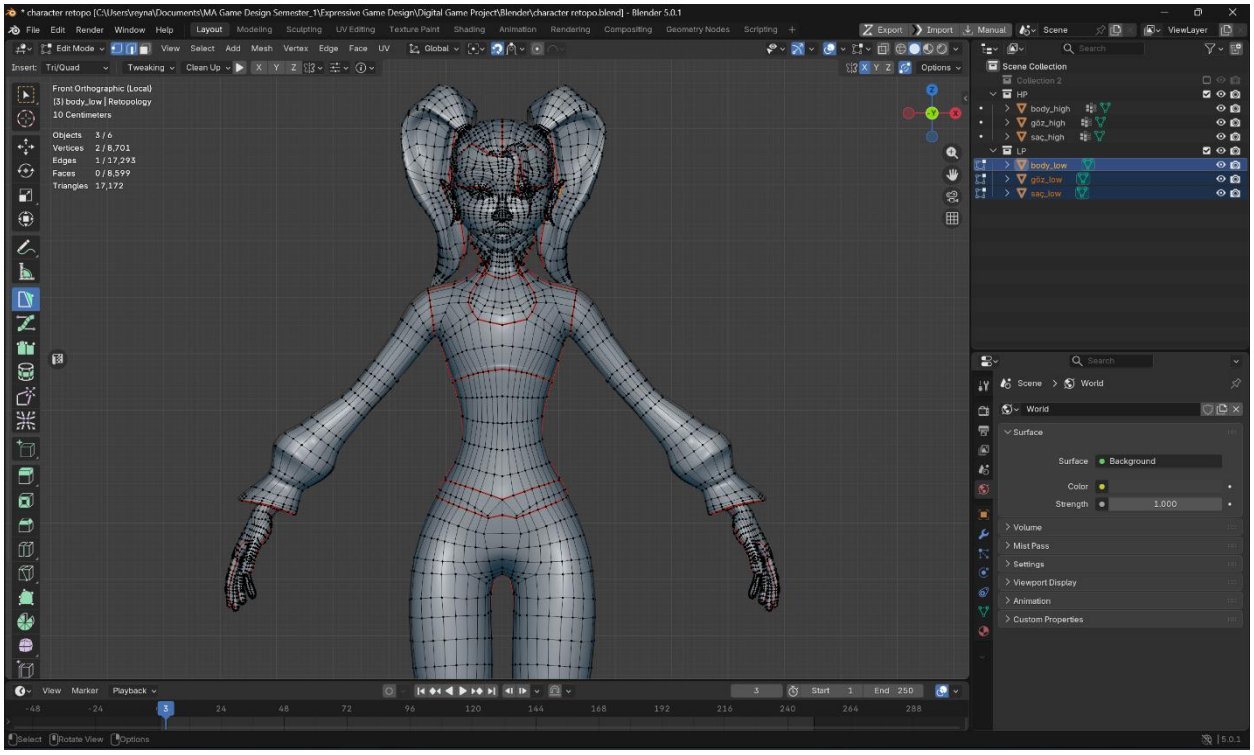

Image 10: Character retopology process

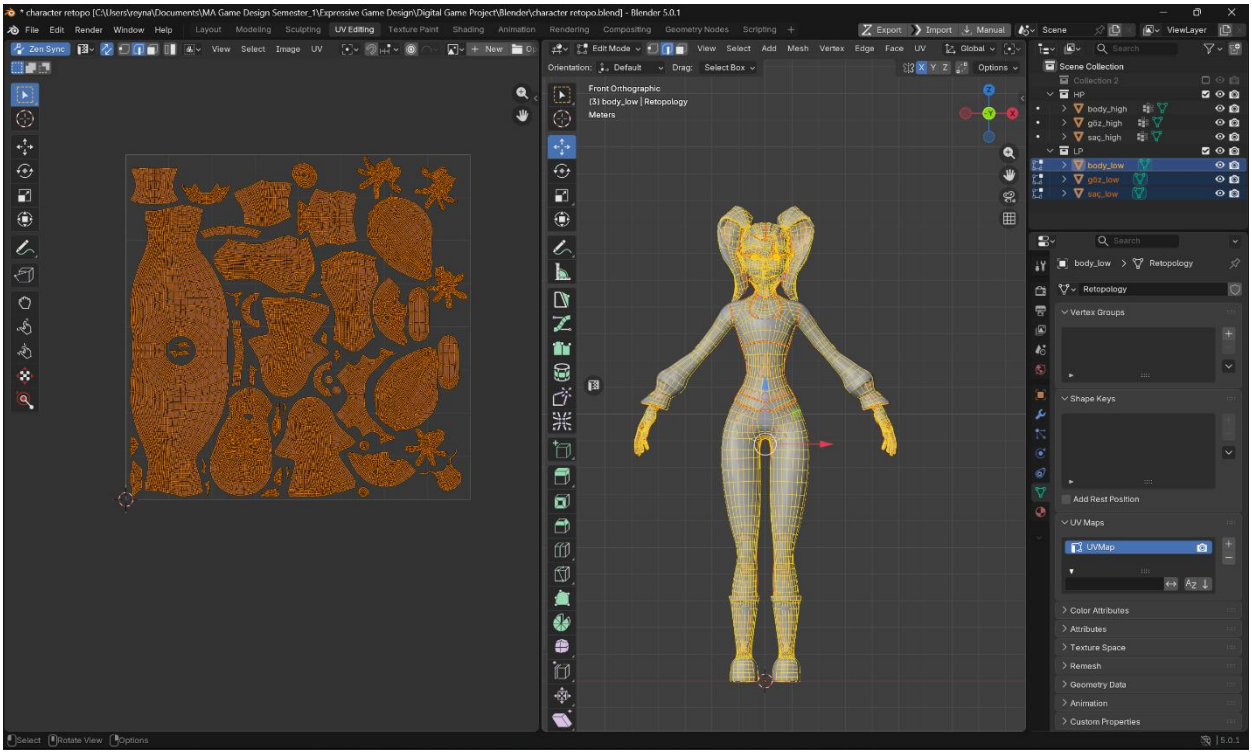

Image 11: Character blender process

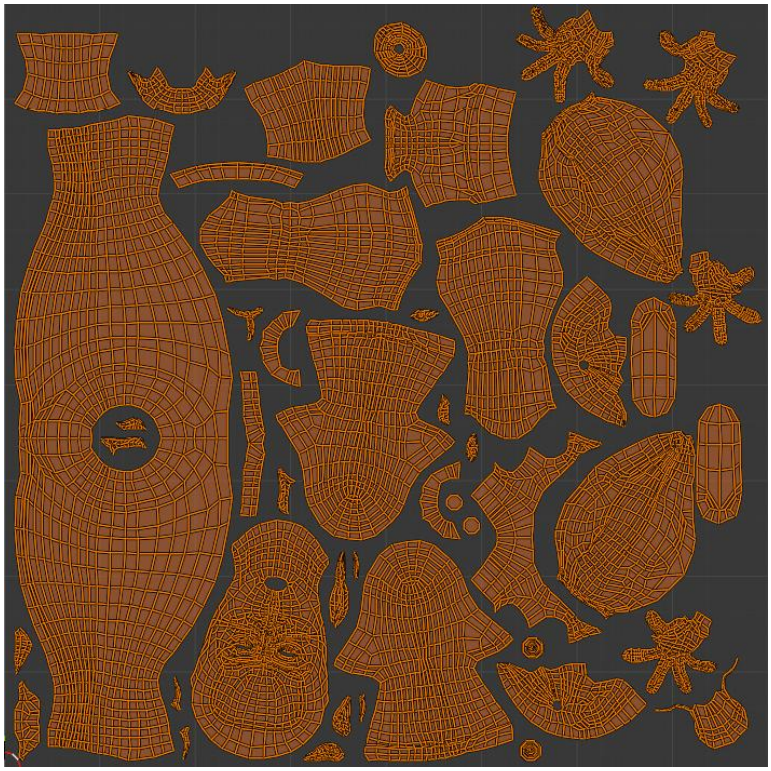

Image 12: Character UV map

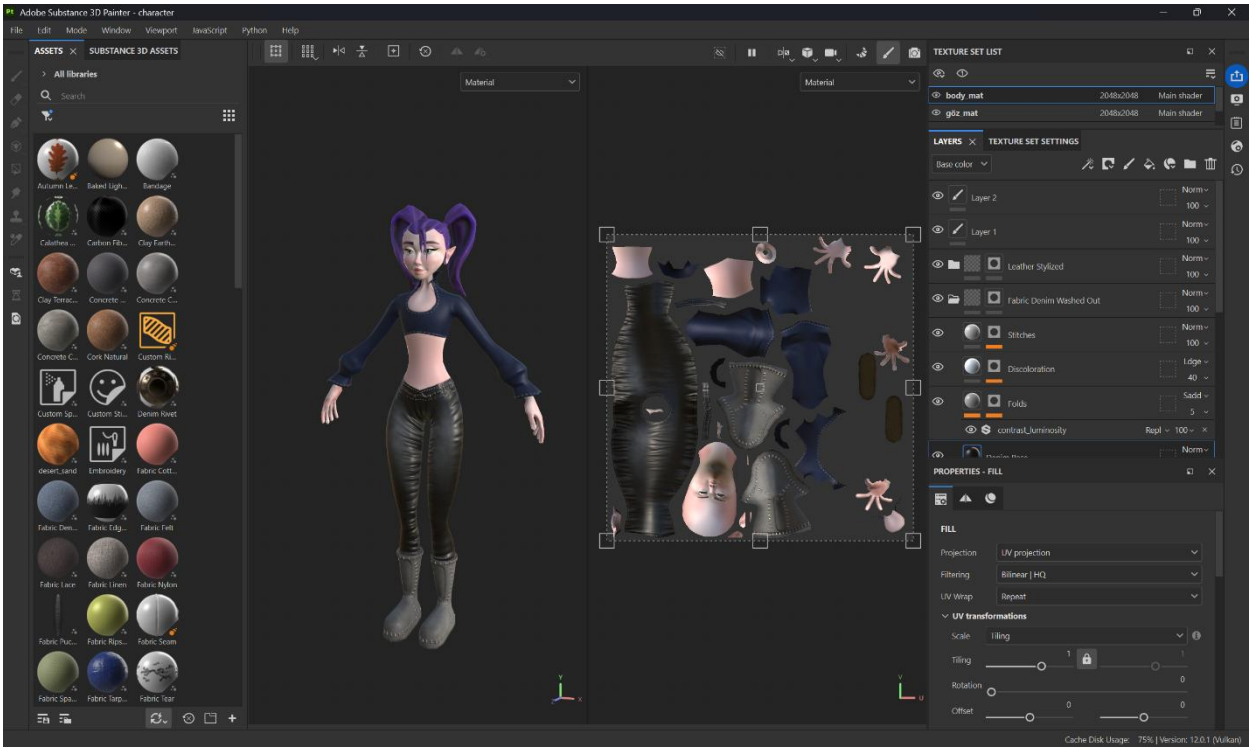

Image 13: Character texturing in substance painter

Cyxus — The Companion & The Enemy

One of the crystal cats, barely holding onto his sanity. He is the last uncorrupted Cyxus. He gifts Kaelyn his remaining crystal power before succumbing to the poison — trusting her to save the others. All enemies in the game are corrupted Cyxus cats. They are not truly evil — they are victims of the sorceress. Defeating them is not the goal; taming them is.

Appearance	Red glowing eyes, dark aura
Behavior	Patrol > Detect > Chase > Attack
Detection Range	10 Unity units
Attack Range	1.8 Unity units
Attack Damage	10 HP per hit
After Taming	Guides player

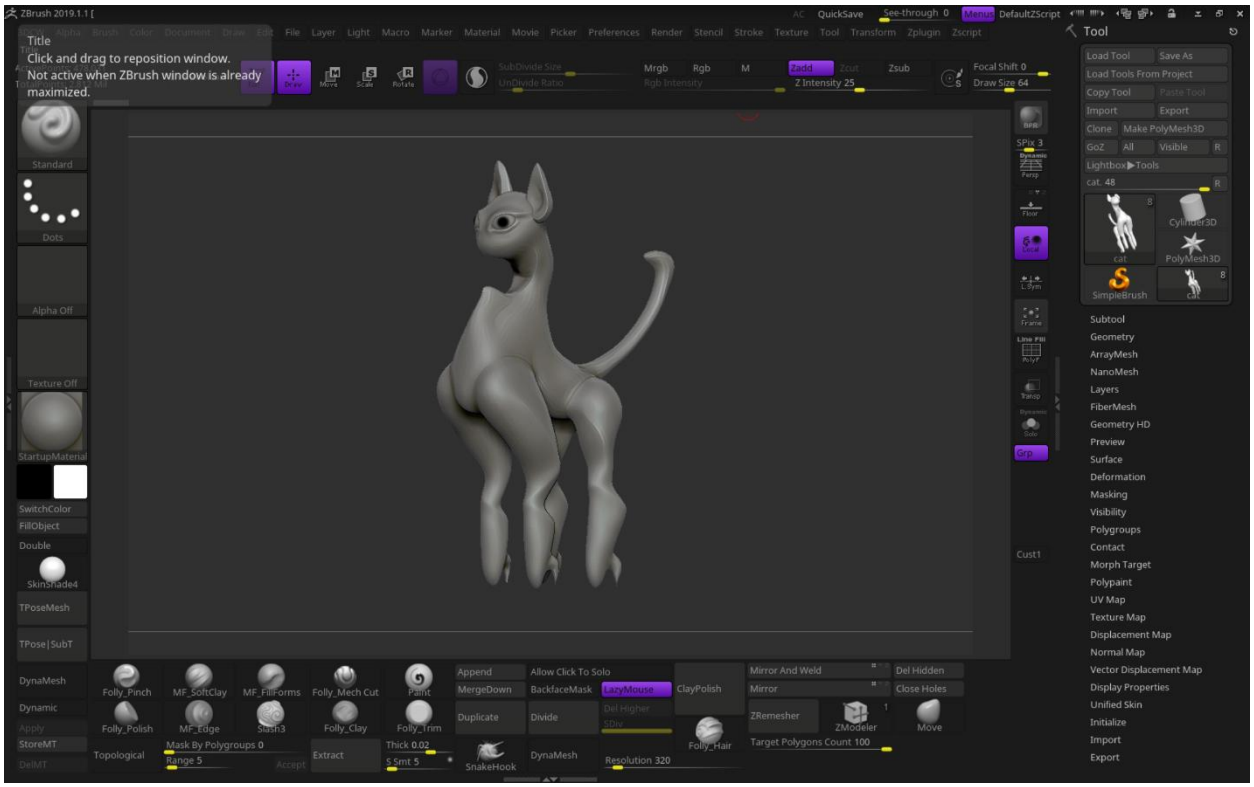

Image 14: Creature sculpture

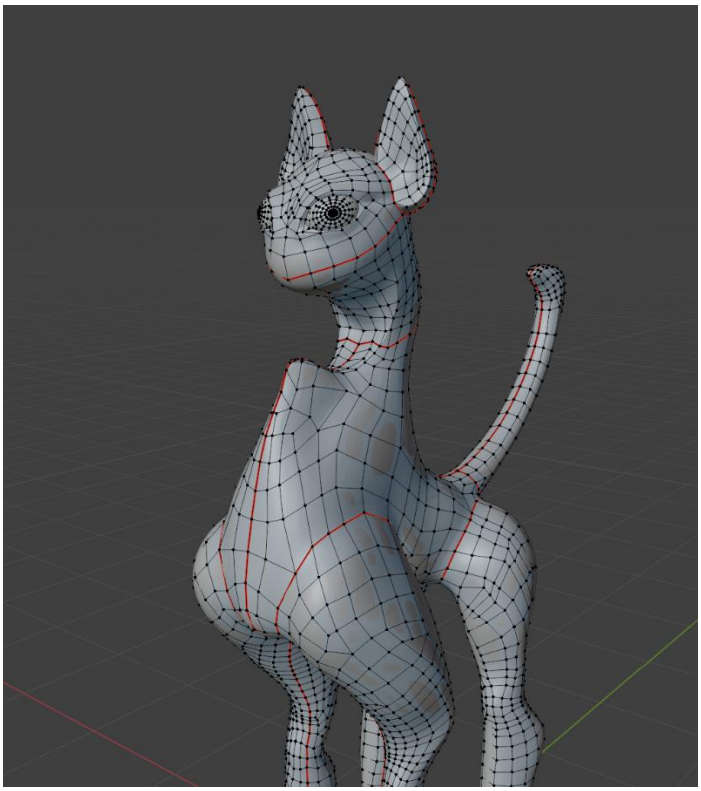

Image 15: Creature retopology

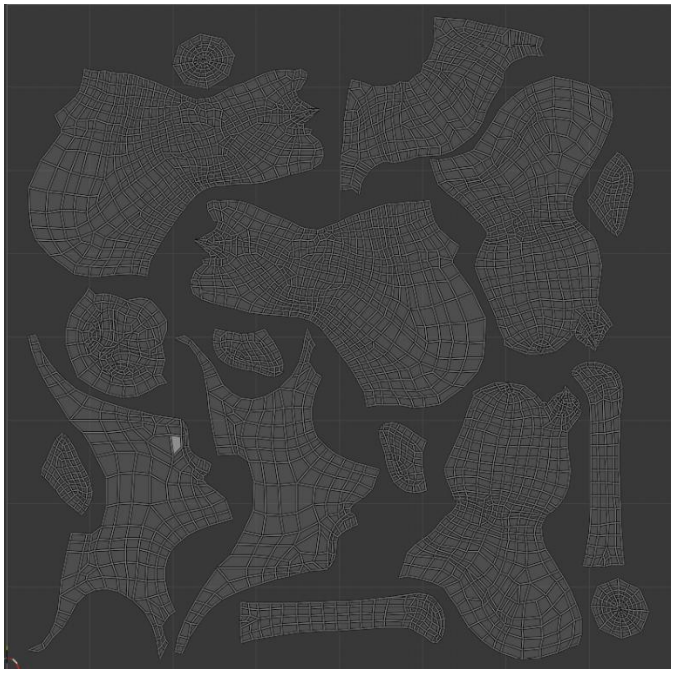

Image 16: Creature UV map

Image 17: Creature sculpture

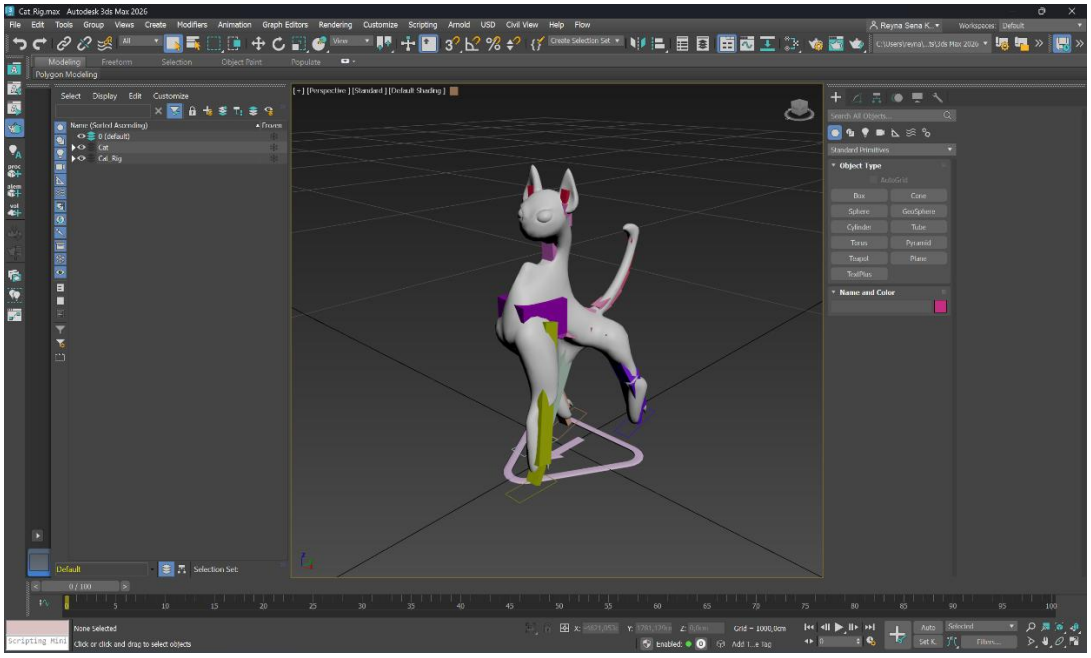

Image 18: Creature sculpture

The rig for the creature model was created by the lecturer during the class (Tudor Stanescu).

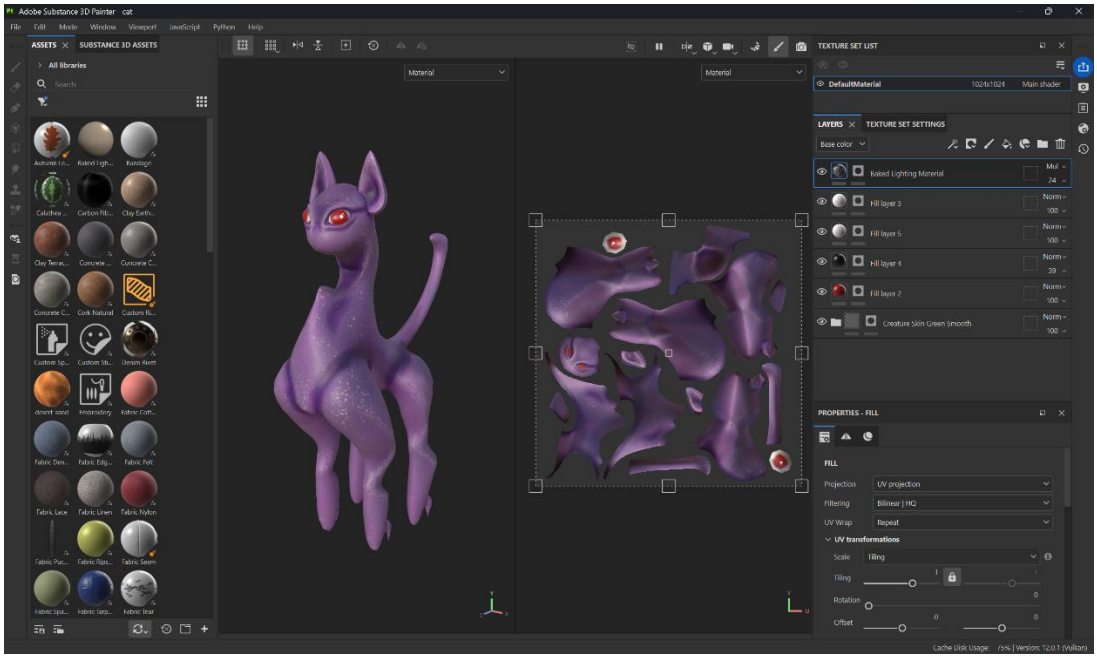

Image 19: Creature sculpture

4. Gameplay

Core Loop

The player explores the labyrinth, encounters corrupted Cyxus cats, uses crystal power to tame them, and in return receives guidance toward the next area. Collecting crystals along the way replenishes power.

Explore	Encounter	Tame	Progress
Navigate the labyrinth, find crystals	Corrupted Cyxus blocks your path	Use crystal magic to break the curse	Tamed cat reveals the next route

Taming Mechanic

The taming mechanic is the core of the game. When Kaelyn encounters a corrupted Cyxus, she must hold a crystal charge and release it toward the cat. This purifies the cat's bond to its crystal, restoring its sanity.

- Tame the cat and let it guide you
- When you see a crystal hold tame button to charge crystal power
- Tame the next Cyxus
- Tamed cats reveal exit paths

Crystal Power System

Crystal power is Kaelyn's only resource. It is used for taming and abilities. It depletes with use and is replenished by breaking crystals found in the labyrinth walls.

Starting Power	Given by Cyxus at the intro
Max Capacity	1 unit
Tame Cost	1 unit
Crystal Pickup	+1 unit per crystal

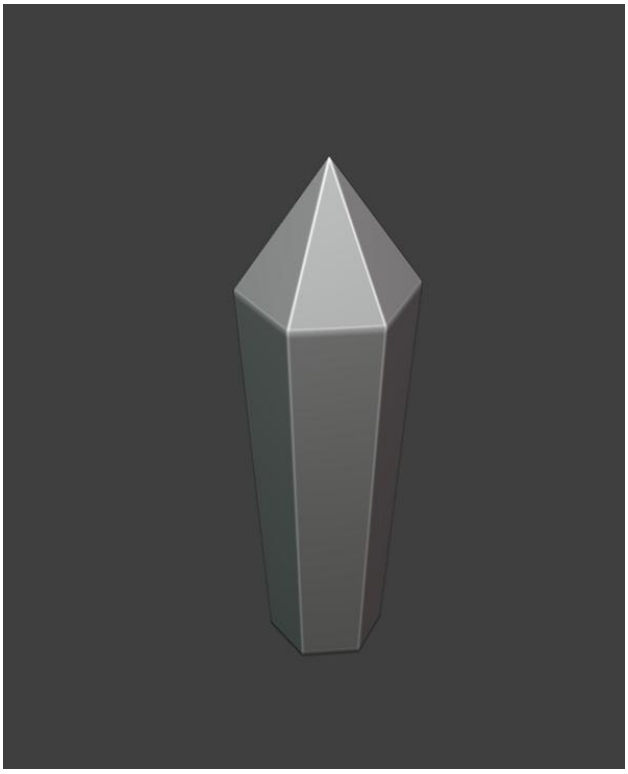

Image 20: Gem model in blender

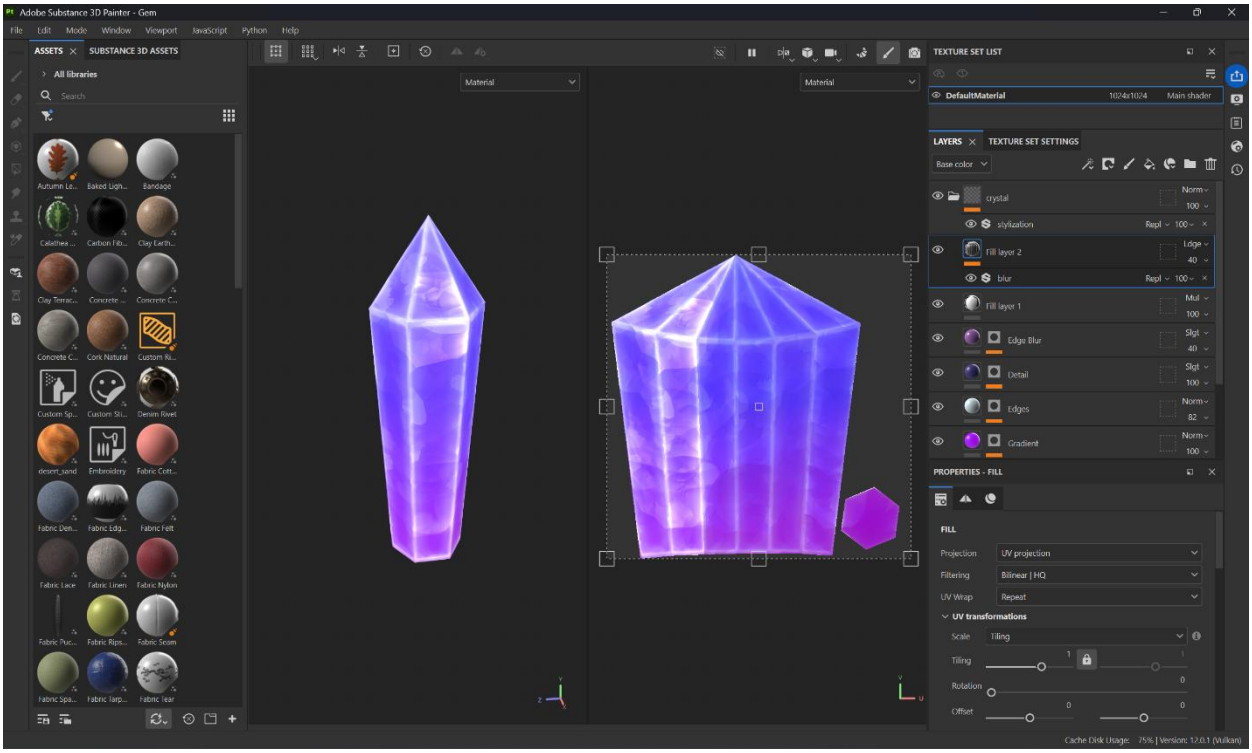

Image 21: Gem model texturing

6. Level Design

Level Structure

The game consists of 1 level sets in the labyrinth. The player must tame each guardian to find the exit.

Level Flow

- Intro Scene — Kaelyn meets Cyxus
- Level 1 — first corrupted cat, taming and following Cyxus

Environment

Setting	Labyrinth
Visual Style	Stylized
Key Assets	Crystal formations, labyrinth walls
Lighting	Dusk/sunset palette — deep purples, warm oranges
Skybox	Custom 6-sided cubemap (sunset)

Initial Environment Design

The initial vision for the level design was a vast canyon environment, where the player would navigate through winding paths in search of an exit. However, as the art direction of the game developed, it became clear that the canyon aesthetic (with its brown, earthy tones) did not complement the stylized assets and color palette that had emerged through the design process.

The decision was made to shift toward a labyrinth setting, modelled and built to reflect the game's fantastical tone more accurately. The enclosed, maze-like structure, a character lost and searching for a way out, guided only by the creatures she must restore. The labyrinth was modelled as a dedicated asset to serve as the primary environment for the current prototype.

A low-poly tree model was also created during the early environment exploration phase, emerging from an initial idea of a forest setting in which the player would be lost among dense woodland. As the labyrinth concept took precedence, the forest environment was not developed further. The tree model was repurposed in the game as an exit marker element instead.

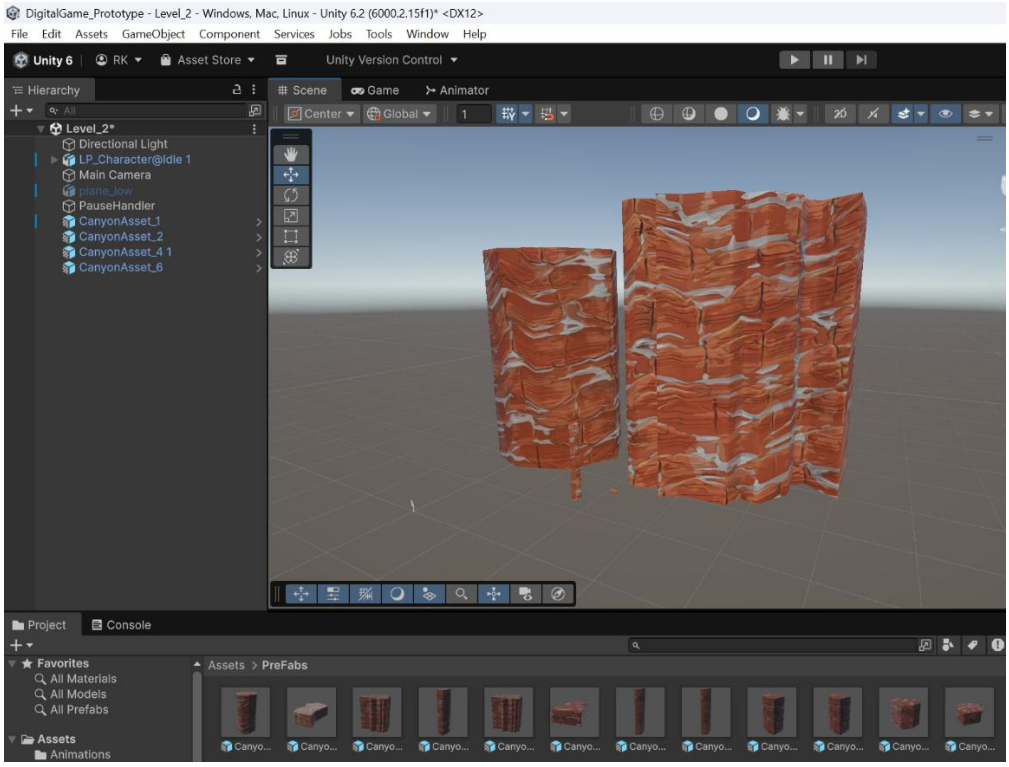

Image 22: Old image of the canyon idea

The canyon concept has not been abandoned entirely. Future levels could reintroduce canyon-style environments as distinct sections of the game world.

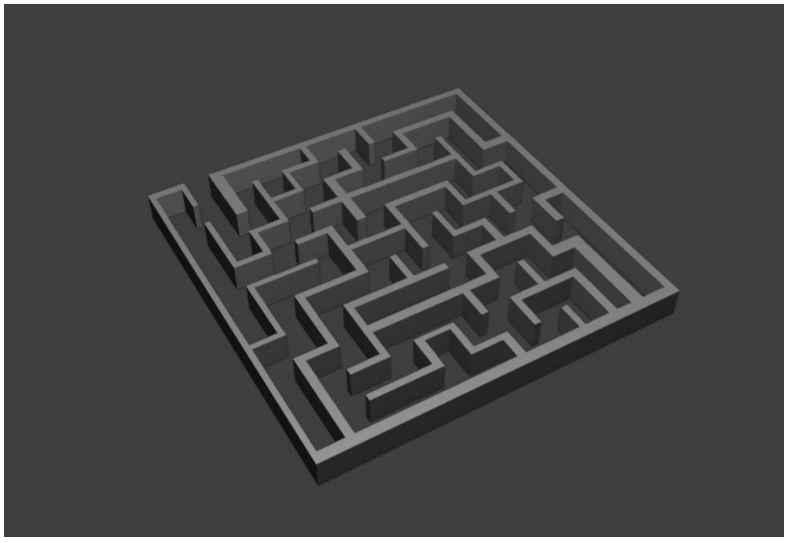

Image 23: Maze model in blender

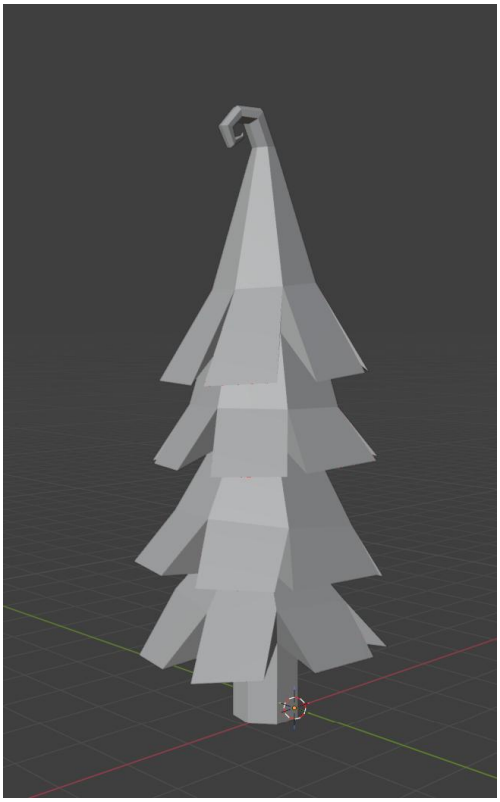

Image 24: Low poly tree modelling

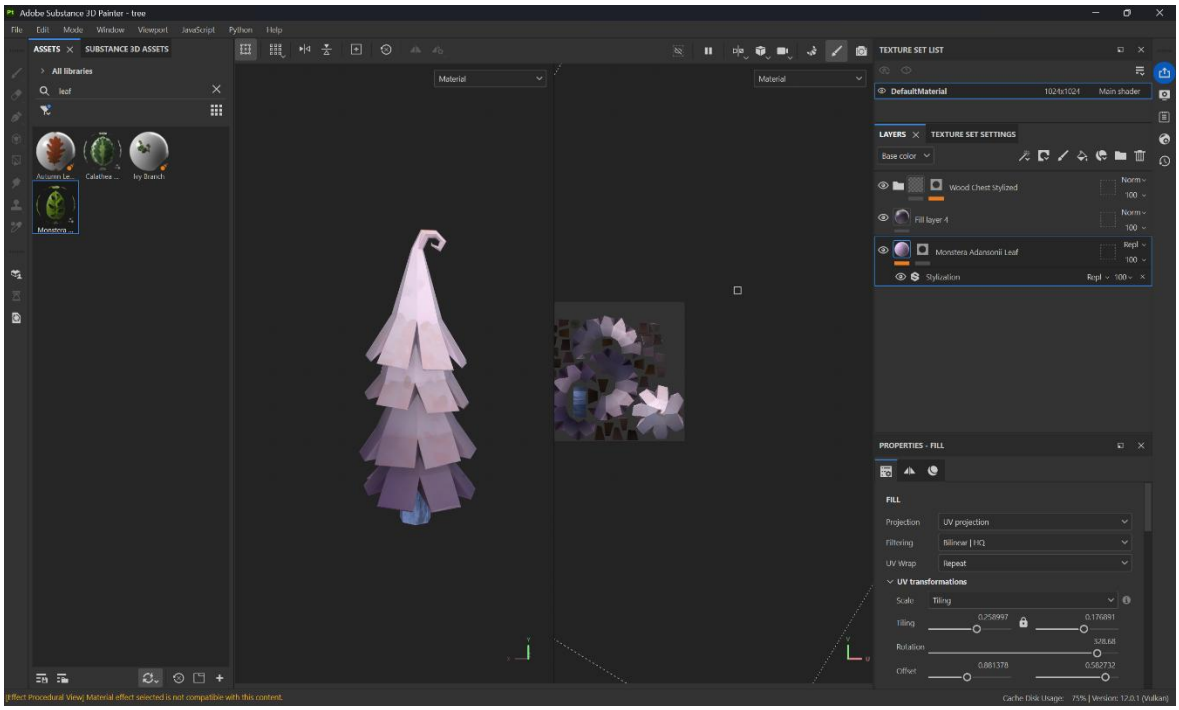

Image 25: Tree texturing in substance painter

7. User Interface

HUD Elements

Health Bar	Top left — red bar with heart icon
Crystal Power	Top right — purple bar
Taming Indicator	Centre screen — appears during taming interaction
Crystal Indicator	Centre screen — appears during crystal interaction
Dialogue Box	Bottom centre — for intro and post-tame dialogue

Menus

- Main Menu — animated cloud background, game logo, Start / Settings / Quit
- Death Screen — flame animation overlay, Respawn
- Pause Menu — simple overlay, Resume / Settings / Quit

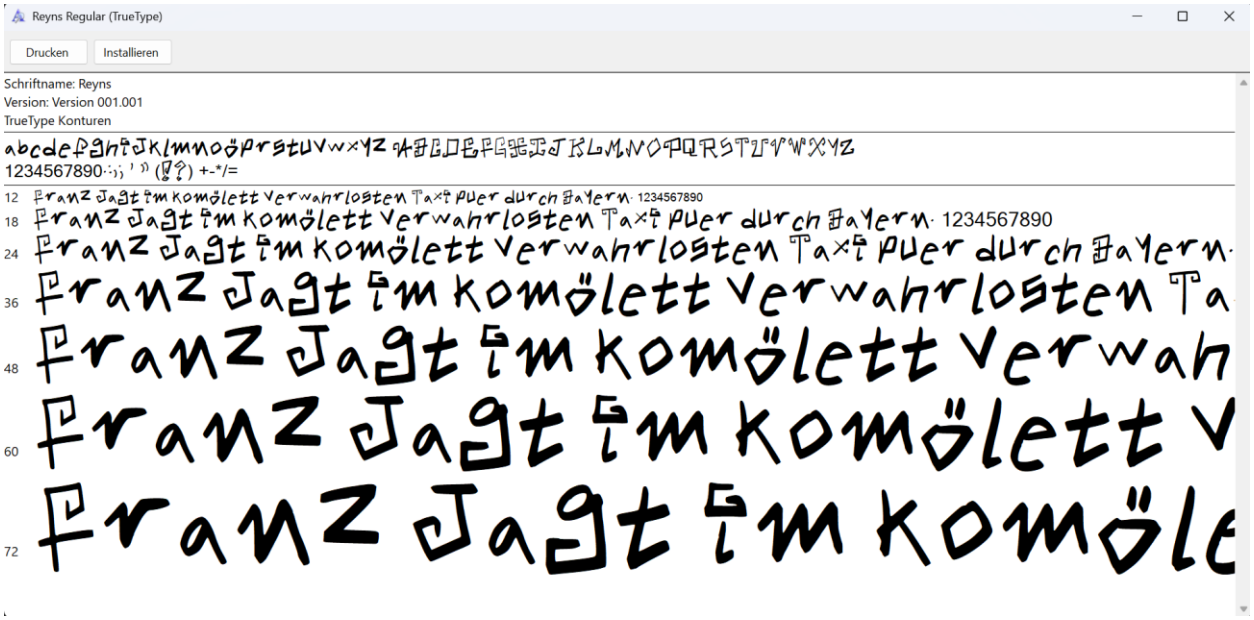

Image: Custom font

A custom font and all visual assets used in this project were created by the developer. Vectorial assets (UI elements, icons) were designed in Figma. Pixel art assets were created in Procreate.

Image 26: Character splash art

Image 27: Creature splash art

Image 28: Gem 2D UI design

Image 29: Heart 2D UI design

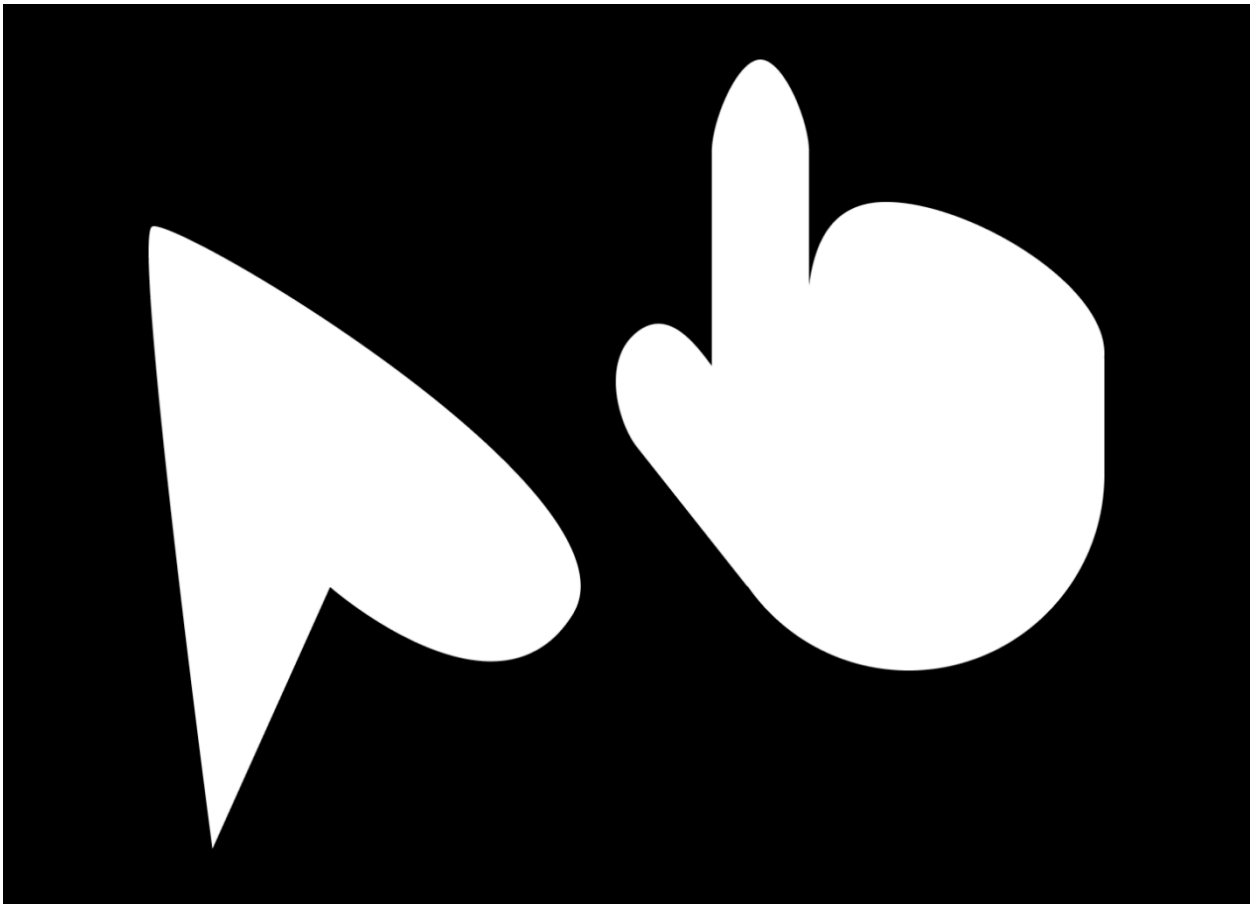

Image 30: Custom designed cursor

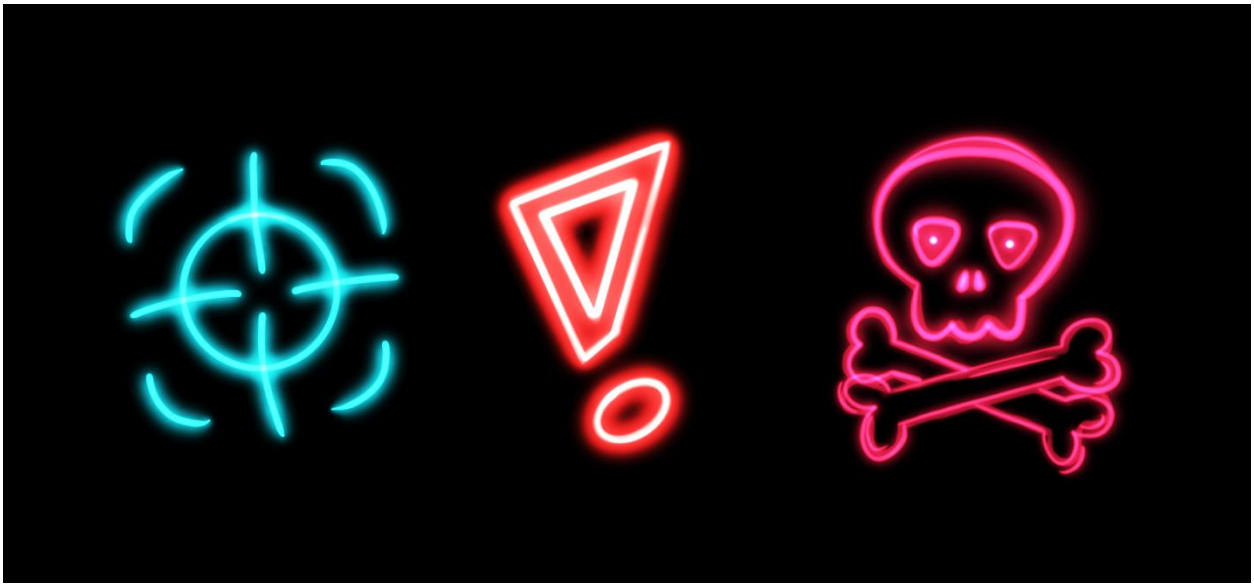

Image 31: 2D UI assets

8. Audio

Music

Right now, there is no music in the game but will be added in the future changes.

Sound Effects

Taming	Magic power
Crystal charge	Crystal shimmer
Enemy passes through walls	Magical portal
Footsteps	Grass surface

9. Technical Specifications

Engine	**Unity 6 (URP)**
Target Platform	PC Desktop (Windows)
Input System	Unity New Input System
Camera	Cinemachine — third-person over-the-shoulder
Physics	Unity CharacterController + Rigidbody for enemies
Animation	Mixamo FBX animations + Unity Animator Controller
3D Assets	Custom Blender models
Textures	Substance Painter — exported for URP (Metallic Standard)
UI Framework	Unity UI (Canvas system)
Version Control	Git

Iteration 0 — Pre-Production

Character & Asset Development

Before any Unity work began, the two primary characters were developed and brought to game-ready state. Kaelyn was modelled with an elf-like silhouette to reinforce the fantasy setting and the sense of being an outsider navigating an unfamiliar world. The Cyxus cat was designed with exaggerated proportions — a deliberately non-realistic creature — to signal that it belongs to a different category of being.

Texturing was handled in Substance Painter using the Unity Universal Render Pipeline (Metallic Standard) export preset, ensuring the assets would integrate correctly with the URP pipeline in Unity 6. Stylized shading was prioritized over photorealism, consistent with the game's visual tone.

First Unity Implementation

Once the characters were game-ready, a Unity project was created using the URP template. The first implementation placed both characters on a basic plane — a deliberate minimalism to test fundamental systems before committing to environment design.

An initial attempt was made using Unity's Terrain system. This was quickly discarded. The Terrain tool produces naturalistic landscapes that conflicted with the stylized, contained quality the labyrinth aesthetic required. The decision was made to build environments using modular Blender-created assets — rock formations and architectural pieces that could be tiled and arranged by hand.

> *The Terrain system was abandoned early. It produced something geographically plausible but tonally wrong — too open, too naturalistic. The labyrinth needed to feel closed and deliberate.*

Technical Challenges Encountered

The following issues were identified and resolved during pre-production:

Issue	Resolution
Jump animation played but character did not move vertically.	Animator was overriding the CharacterController. Root motion was disabled and vertical velocity handled entirely in script.
Camera locked to incorrect positions during aim.	Cinemachine virtual camera targets were reconfigured. Aim offset adjusted in the third-person camera rig.
Imported asset texture maps appeared distorted.	UV maps were corrected in Blender prior to re-export. Substance Painter textures were re-exported using the correct URP preset.
Enemy cat animated in place without moving.	NavMeshAgent and Animator were conflicting. Root motion was disabled on the enemy; NavMeshAgent handled all movement.

Player character floated above ground.	Collider dimensions exceeded the character mesh. CharacterController height and radius were reduced to match the model.
UI buttons triggered incorrect actions.	Event System references were broken across scenes. Buttons were reassigned and scene load methods corrected.
Damage animation played without enemy contact.	Hitbox detection was firing on scene load. Trigger conditions were corrected to require physical overlap.
Pause menu resumed from the beginning of the scene.	SceneManager.LoadScene was incorrectly called instead of Time.timeScale = 1. Fixed to properly unpause without reloading.

Iteration 1 — First Playtest

Prototype State at Playtest 1

By the first playtest, the prototype included the following functional elements: a player character with movement and basic animation, an enemy Cyxus cat with detection, chase, and attack behavior, a taming mechanic with a crystal power resource, a basic UI showing health and crystal power, and a level exit triggered by a successful tame.

Playtest Findings

Objective Clarity

The majority of players did not understand the goal of the game without being told. The connection between taming the cat and escaping the labyrinth was not communicated clearly enough through the game itself. Players understood the cat was an antagonist but did not intuit that it could be tamed rather than fought or avoided.

Positive Response: The Cat Interaction

Despite the confusion, players responded positively to the idea of interacting with the cat creature. The novelty of a taming interaction — rather than a combat one — was described as interesting. This validated the core design decision and confirmed that the emotional premise of the game had potential.

Resource System Invisibility

Players did not understand that their taming power was a finite resource, or that crystals in the environment could be broken to restore it. This was a UI and onboarding failure — the mechanic existed but was not communicated.

Changes Made After Iteration 1

- Intro scene added — dialogue between Kaelyn and Cyxus establishing world context and taming mechanic.
- Skip button added to intro scene.

- In-world text prompts added near crystals to explain the resource refill mechanic.
- UI indicators reviewed and adjusted for visibility.

> *The first playtest confirmed the emotional premise but exposed a gap between what the game communicated and what it intended. Players were interested in the cat — they just did not know what to do with it.*

Iteration 2 — Second Playtest

Prototype State at Playtest 2

The second playtest build included the updated intro scene, text prompts for the crystal mechanic, revised UI, and improved enemy AI. The environment remained a single level — a contained space designed to introduce all mechanics before the player reached the exit.

Playtest Findings

Improved Comprehension

Players in the second session understood the objective more readily, largely due to the intro dialogue and the in-world prompts. The connection between taming the cat and progressing toward the exit was clearer. Players still occasionally missed the crystal mechanic, but far less frequently than in the first session.

Shadow Rendering Issue

A persistent shadow rendering bug was identified — shadows were appearing in incorrect positions relative to geometry. This was a known issue in Unity 6 URP related to shadow cascade settings and remains unresolved at the time of writing.

Enemy Spatial Awareness

Players noted that the enemy cat passed through walls in certain areas without audio or visual feedback. This broke the sense of the world as a coherent space. A sound response on wall collision is identified as a required fix.

Audio Gaps

The prototype lacked sufficient audio feedback. Players noted the absence of sound cues for key moments — particularly the taming interaction and enemy contact. Audio implementation is identified as a primary task for the next development phase.

Intro Scene Skipping

After adding an introductory cutscene following the first session, players immediately looked for a way to skip it. This suggested that the intro was either too slow or that players were not yet invested enough in the world to sit through it. A skip button was added.

Changes Made After Iteration 2

- In-world text prompts refined based on player eye-tracking observations.
- Enemy detection range tuned to reduce instances of unexpected aggression.
- Audio implementation begun — placeholder sounds added for taming and UI interactions.
- Shadow cascade settings reviewed — partial improvement, issue ongoing.

> *The second playtest showed that mechanics can be taught through the world itself if the cues are visible and legible. The remaining problems are largely sensory — what the player hears and what they see when something goes wrong.*

Current State & Outstanding Work

What Is Working

- Player movement — walk, run, camera-relative direction, rotation.
- Third-person camera with Cinemachine — smooth follow, shoulder offset.
- Enemy AI — patrol, detect, chase, attack state machine.
- Taming mechanic — crystal charge, release, purification.
- Crystal resource system — pickup and depletion.
- Health system — player and enemy HP.
- Level exit trigger — activated on successful tame.
- Intro dialogue scene — Kaelyn and Cyxus conversation.
- Stylised skybox — custom 6-sided cubemap, sunset palette.
- Pause system — correct time scale management.

Outstanding Issues

Issue	Priority	Status
Shadow rendering incorrect in URP	**Medium**	Ongoing
Enemy passes through walls without audio feedback	**High**	In Progress
Cat stops walking while player charges its crystal power	**High**	In Progress
Main menu — animated cloud background	**High**	In Progress
Gem health doesn't work	**High**	In Progress

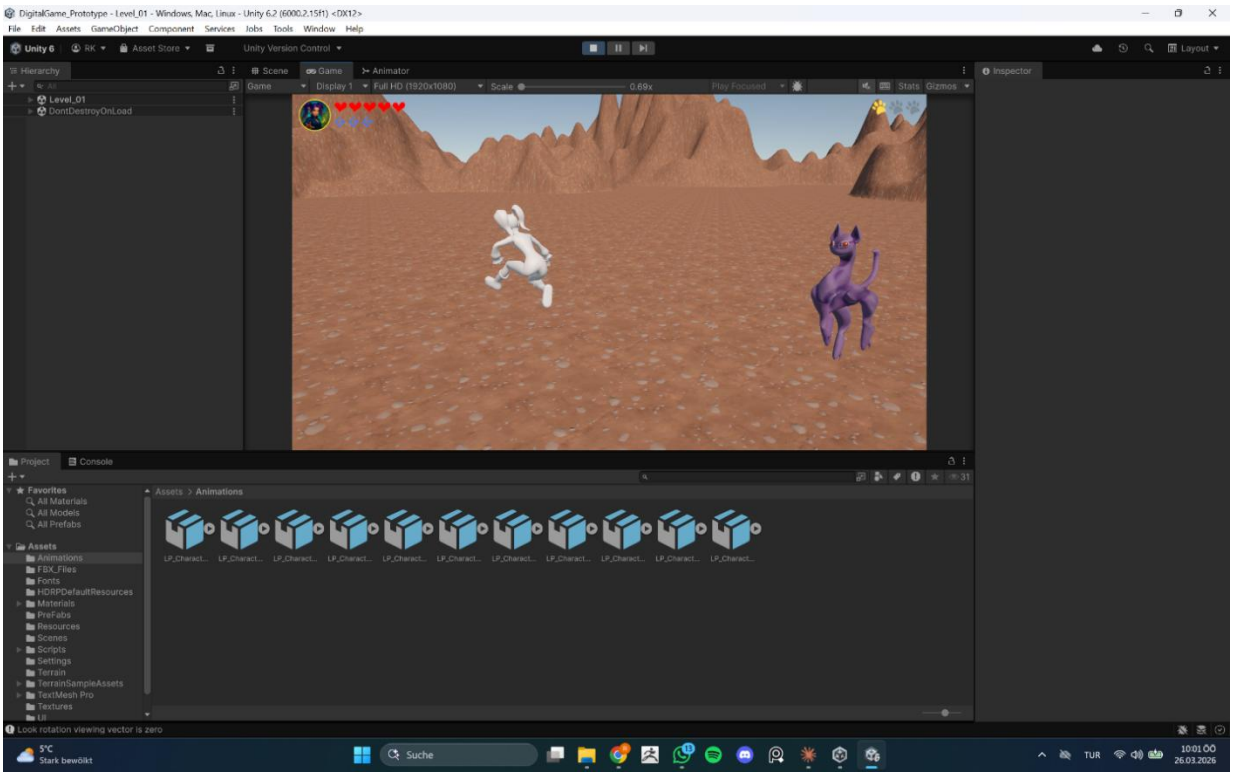

Image 32: First screenshot of the game

Image 33: Last screenshot of the game