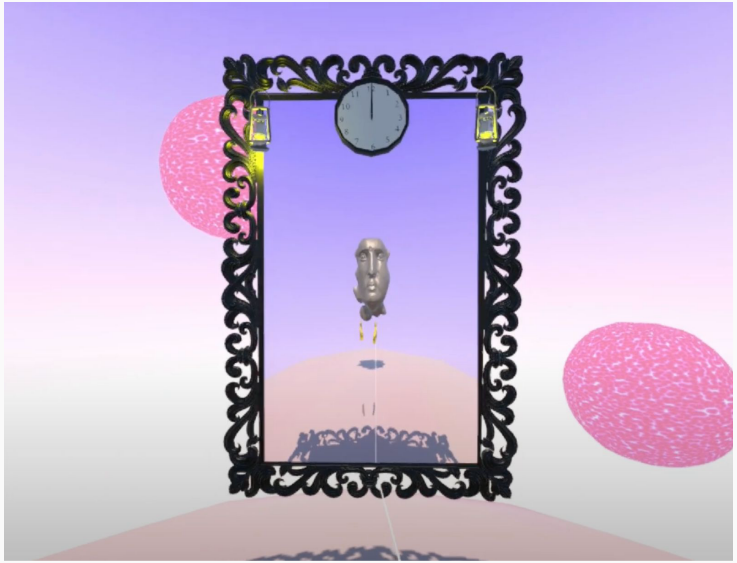
Concept Overview ↘



Set on an abstract planet after an accident, this VR experience follows a user with amnesia who must complete tasks to recover memory and identity. As they navigate through their forgotten world, each task brings them closer to reconstructing who they once were and what they have lost.

Goals

The project aims to create an immersive, narrative-driven experience that merges storytelling with exploration and achievement, engaging players through discovery and character progression.

Timeline

Week 1

Ideating

Conceptualizing visuals and creating a story to follow. Setting goals for what the user should gain from the experience.

Bringing in Annie's Blender scene to create the base planets

Week 2

First Phase

Creating design elements in Blender and bringing them into Xcode

Creating the entire visual scene and adding text popups/directions in Unity

Week 3

Testing

Using the headset to refine UI/UX elements and adding detail to improve user navigation and flow

Week 4

Final Phase

Adding audio

Final testing of the entire experience

Team Task Distribution

01

Katie: Narrative & Audio

02

Cici: Blender

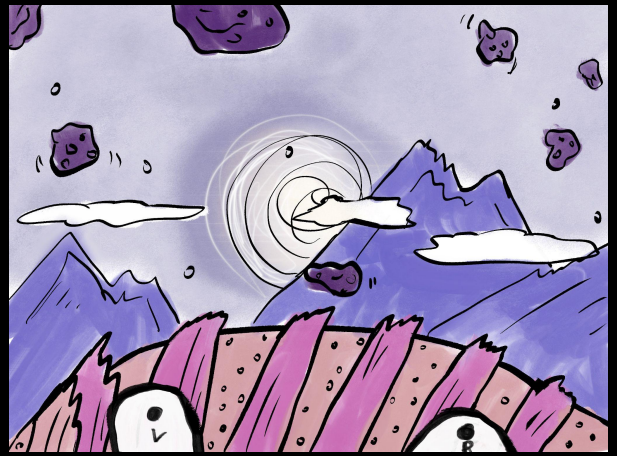
03

Annie: Blender

04

Olivia: Unity

Project phase:
Ideation

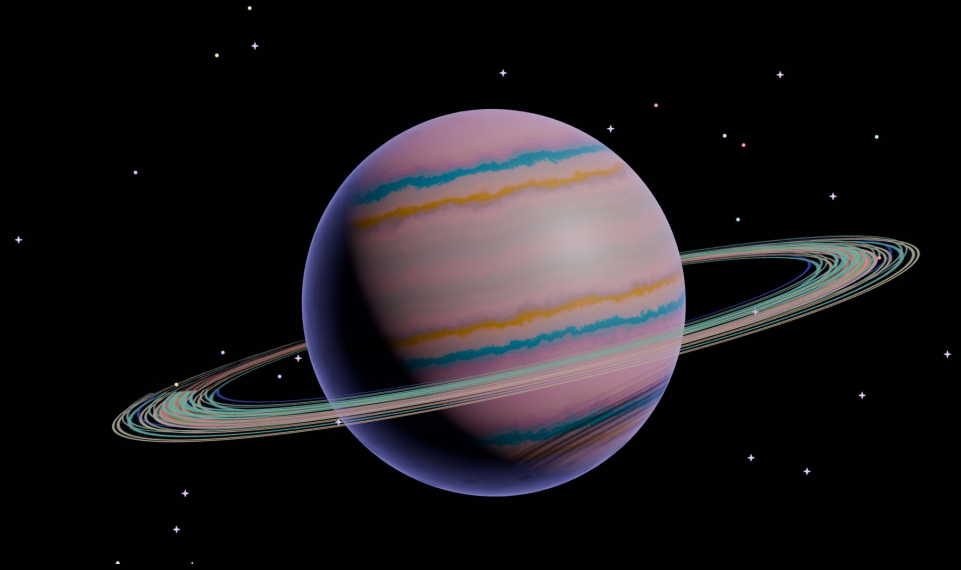


Deciding on color scheme and setting

Narrative writing

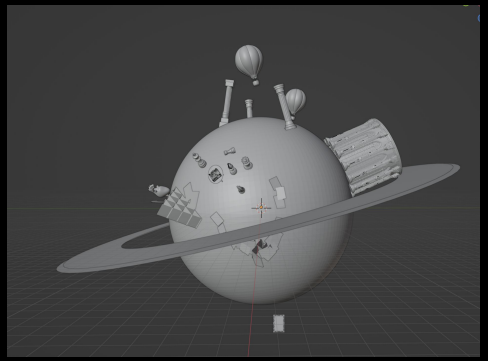
Scene sketching and marking down key interactions such as grabbing, pointing, or pop-up interactions

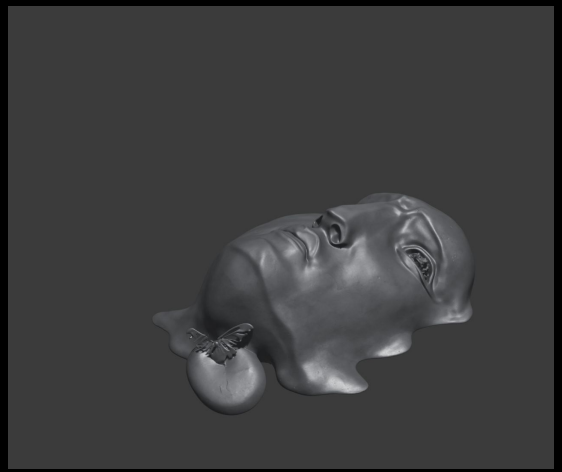
Project phase:
Design Elements

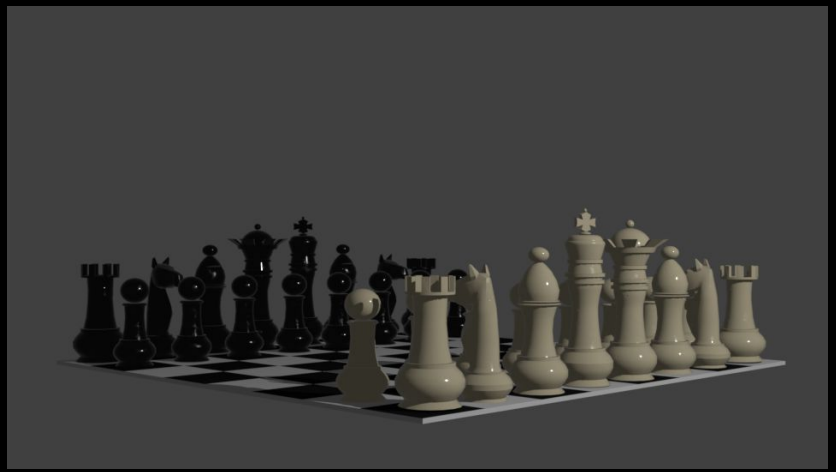


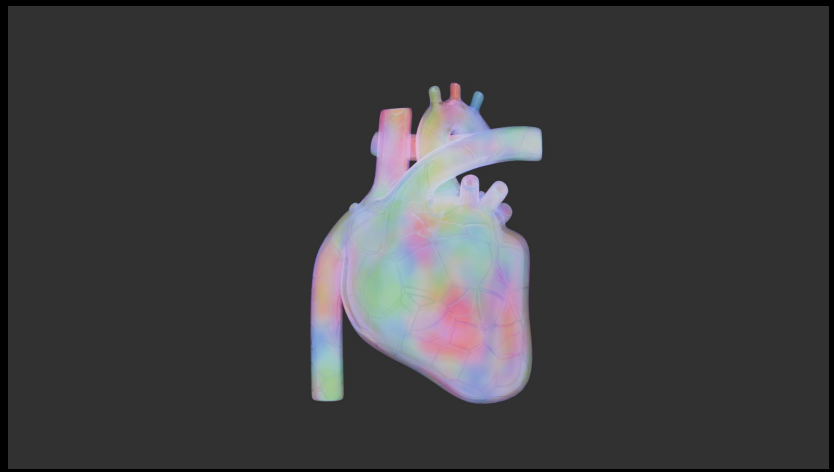
Technical tasks: modelling the environmental scene & objects

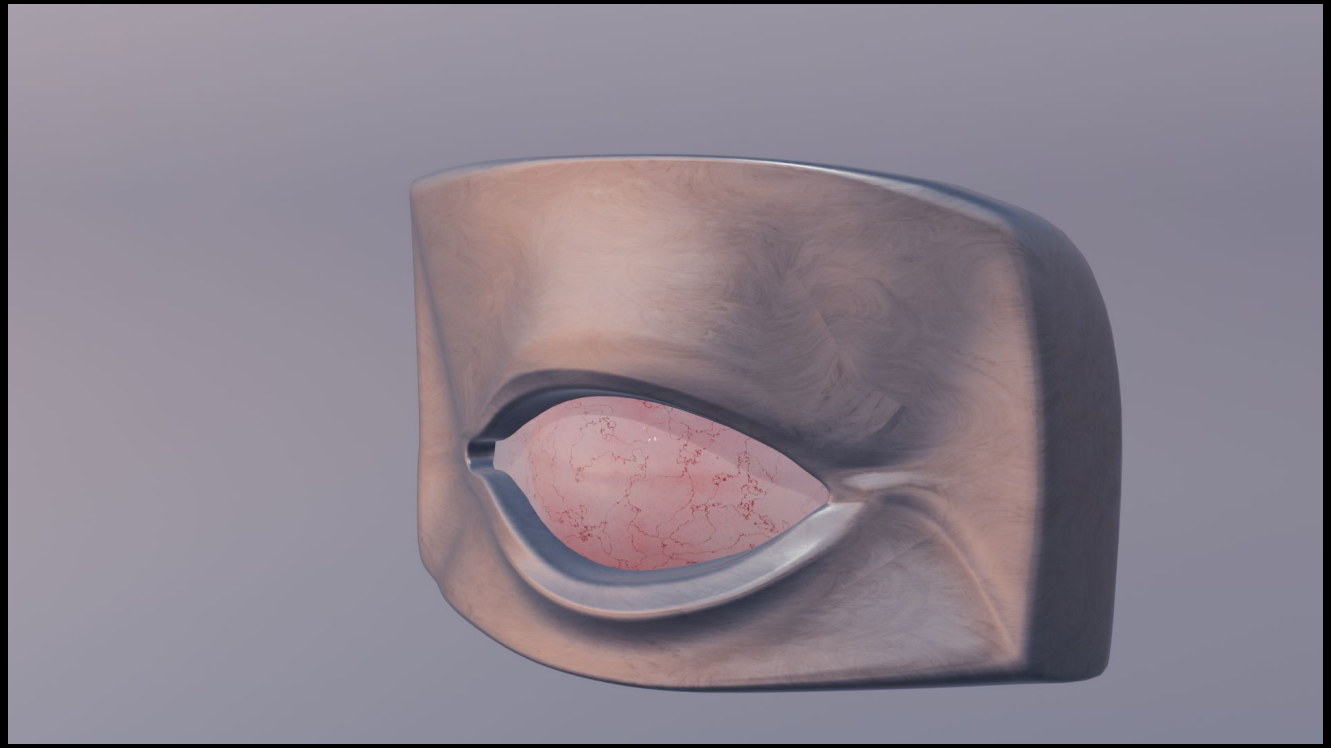
Process & Software: Blender











Project phase:
Build with OpenXR in Unity

Process & Software:

- Unity and Meta Quest 3S
- Learning to cast from editor to headset

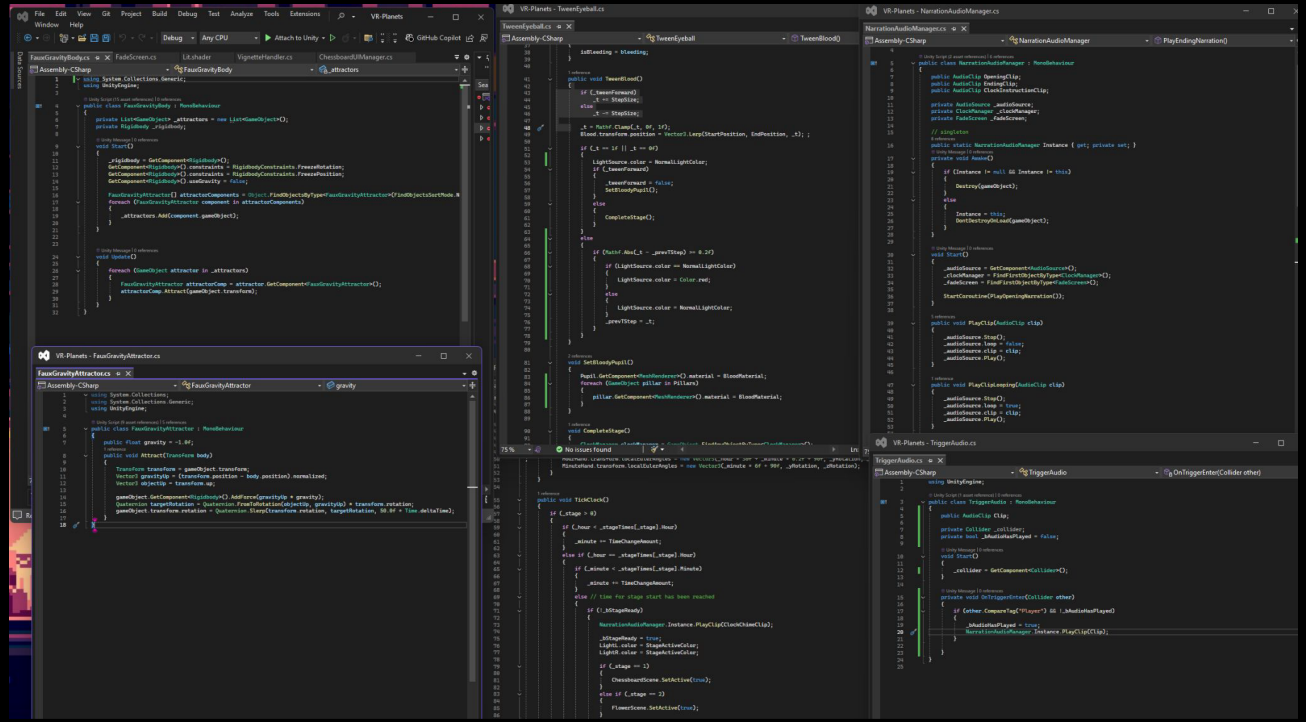
Technical tasks:

- Gameplay features
  - Faux planetary gravity, game state manager, animations, post-processing/shaders, SFX/trigger volume audio
- XR features
  - Near-far interactors
  - Locomotion with Vignette
  - Grabbable objects
  - Sockets

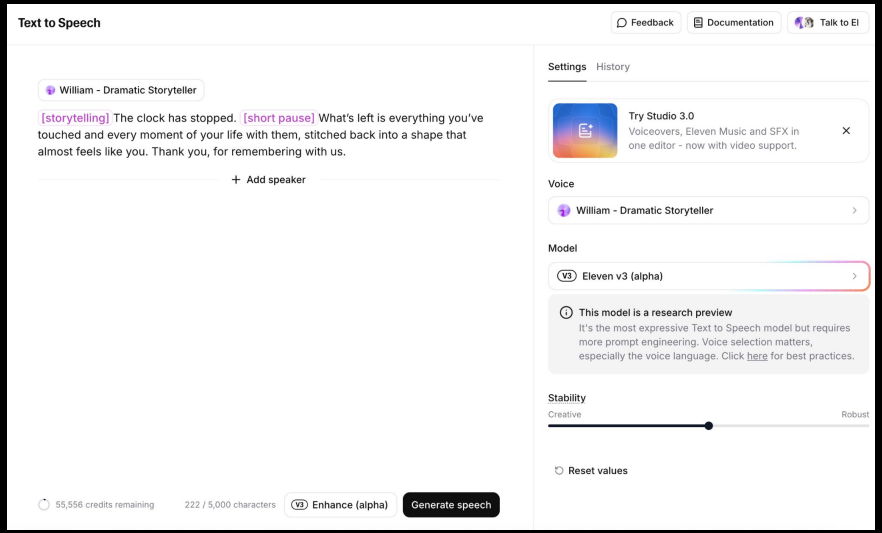
Script

13 custom MonoBehaviors
(on top of OpenXR's scripts)

- Game state + sequencing
- Audio planning
- Tweening positions/colors for animations
- Billboarding UI elements
- Custom inputs



Project phase:
Audio

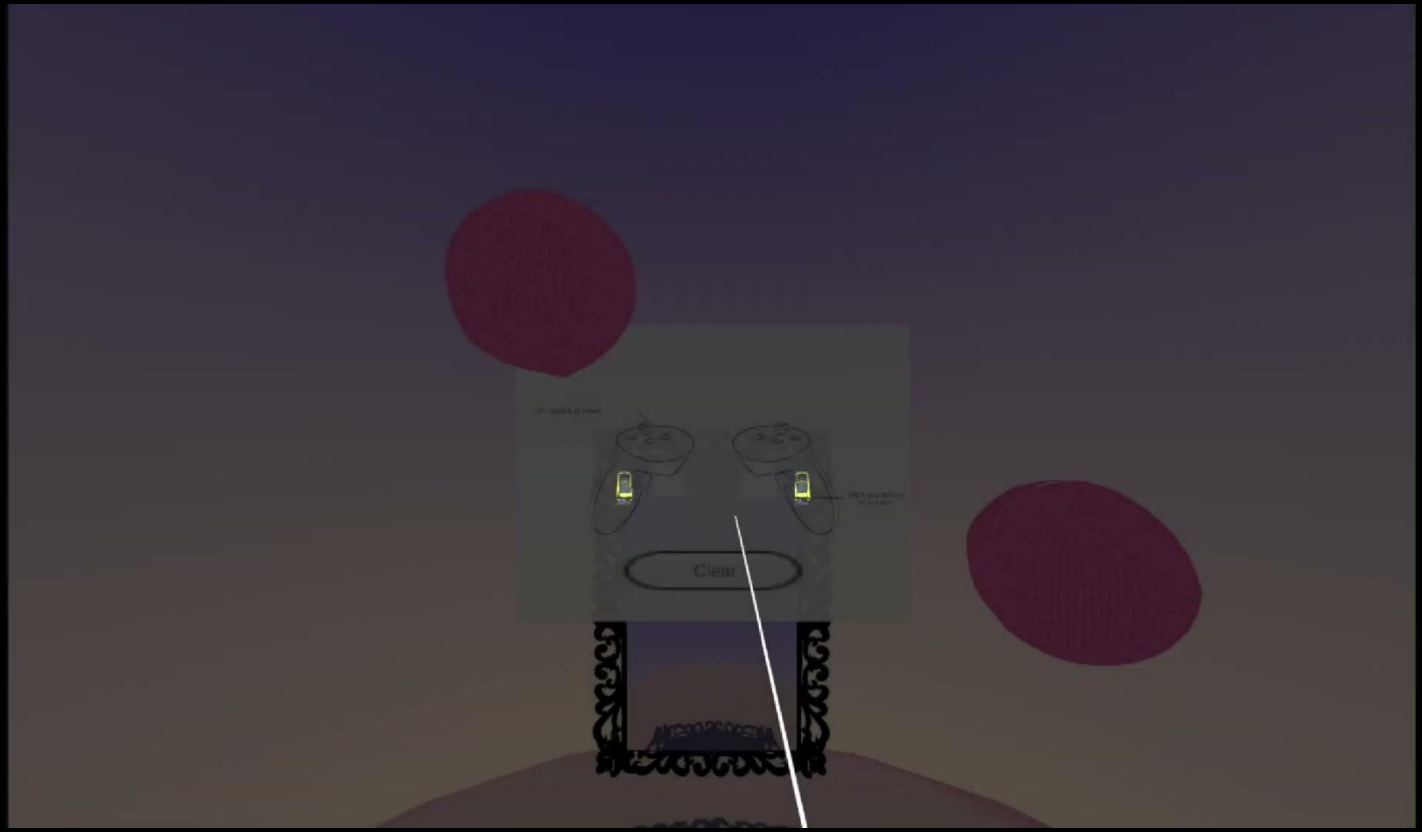


Process & Software:

- Elevenlabs.io
  - Narration AI generated
- Sourced sounds from online sound libraries

Project phase: OnBoard

Final Experience



Challenges

01

A lot of the objects either looked weird or different or the texture wasn't right when imported to Unity from Blender. I had to bake the texture or make the model less complex to make sure everything looked right in Unity before handing off to Olivia.

02

We developed our narrative as the project progressed. In the beginning, we imagined an adventure-themed journey that simply guide audience through planets and objects. But then we realized that constructing an experience needs a strong anchor to resonate with users, so we found the idea of tracing back memories and assigning meanings and timelines to those objects. This also helped us to give each object a clearer function and build up a hierarchy of storytelling.
For example, the clock iterated from only being purely aesthetic to a button of reset and move on, helping us to explore more interactivity with the environment such as tuning the ambient from bright to dark to showcase a day – a life of a person. This makes this experience more understandable and fun to play with rather than just wandering around aimlessly.

Takeaways

01

A lot of time was spent figuring out how to customize Unity's OpenXR inputs to our specific mechanics. We also had to tune values to the time step of the headset, which runs at a slower frame rate than the computer.

02

When Professor Becker tested the headset, we saw how crucial guidance and audio cues are in shaping the user's experience.

Thank you!