## Intro

When I started working on my portfolio, I decided to take on a new challenge by creating a 3D gamified experience using React Three Fiber. After setting up the basic scene, I began building the layout floor by floor, but I quickly realized that wasn't a very efficient method. So, I started experimenting with formulas to generate grids (like 3x3 or 5x5), which helped me cut down a lot of unnecessary code and made things much more modular.
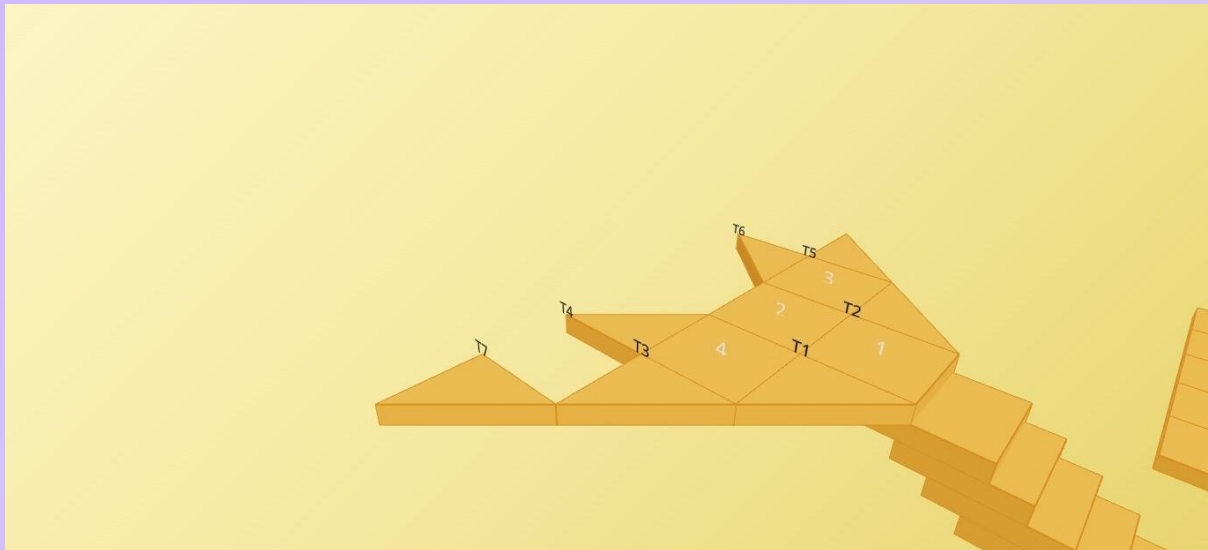
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Process and Feedback

When it came to the learning outcomes platform, which originally had an octagon shape with a hole inside, I thought the only way to make it was manually, building it piece by piece with triangles. After finishing it, though, I realized I could generate it using calculations too, just like I did with the grids. That discovery saved me a lot of time and kept the code cleaner.
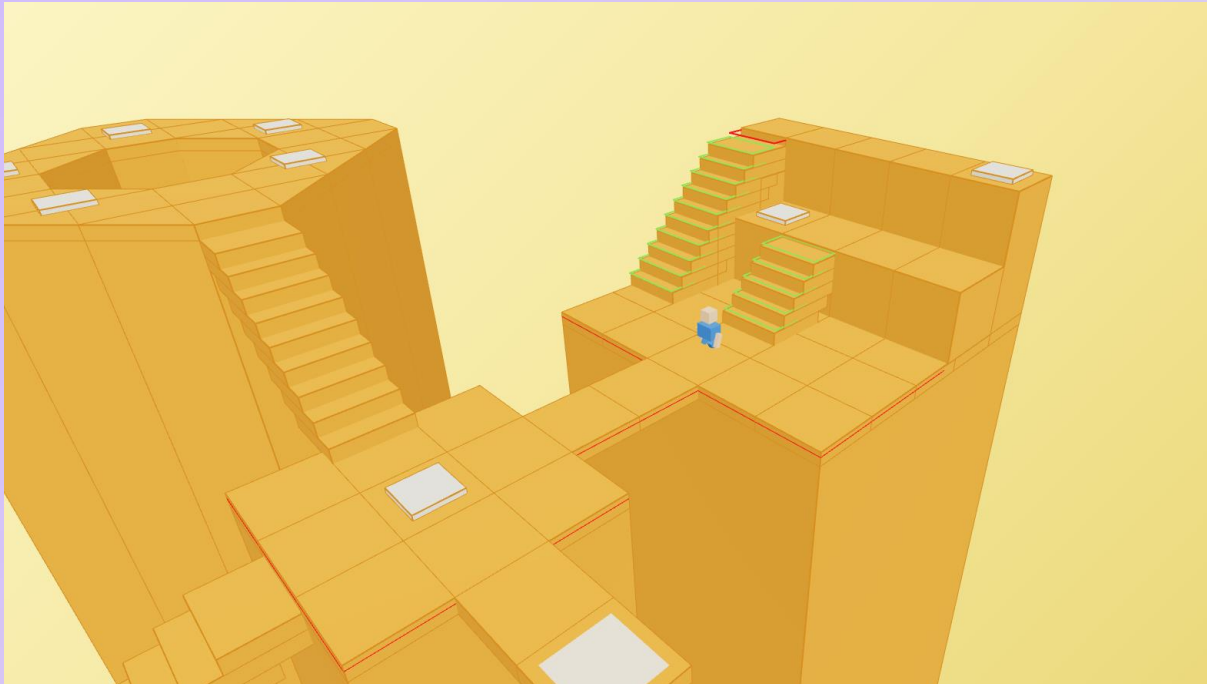
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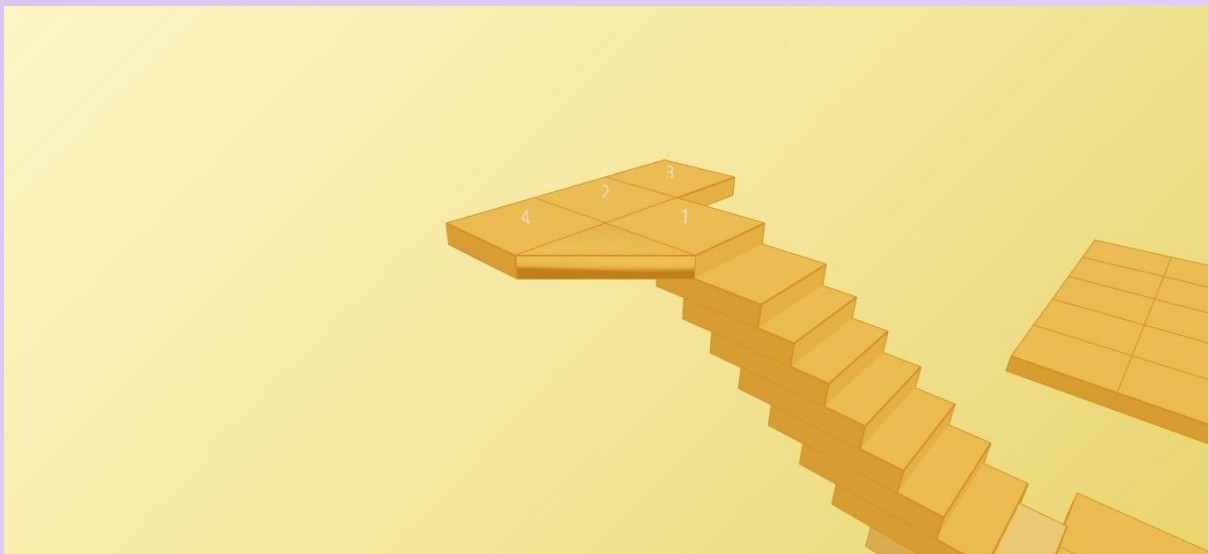
Later, inspired by Bruno Simon's portfolio, I decided to give the user full freedom to walk around and explore while keeping the point-and-click navigation for UX purposes. After setting the limits, I started user testing.

During the first test, the user tried to use the elevator with the spacebar, even though I had set shift for that action and mention shift is the interaction key at the beginning of the test, which made sense, since spacebar is more intuitive. So, I changed the interaction key to spacebar.

Another issue came up when users tried to navigate the learning outcomes platform because of the X and Z axis movement, going straight up was nearly impossible, especially since the layout was isometric. The triangular structure also made movement feel restricted. In the end, I completely scrapped the old platform and replaced it with a new ramp-shaped foundation that made navigation much smoother.

Commit Link:

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The follow-up user test confirmed that it was way easier and more enjoyable to use. Other rooms like the artwork and project/studio areas were already working fine and received positive feedback.
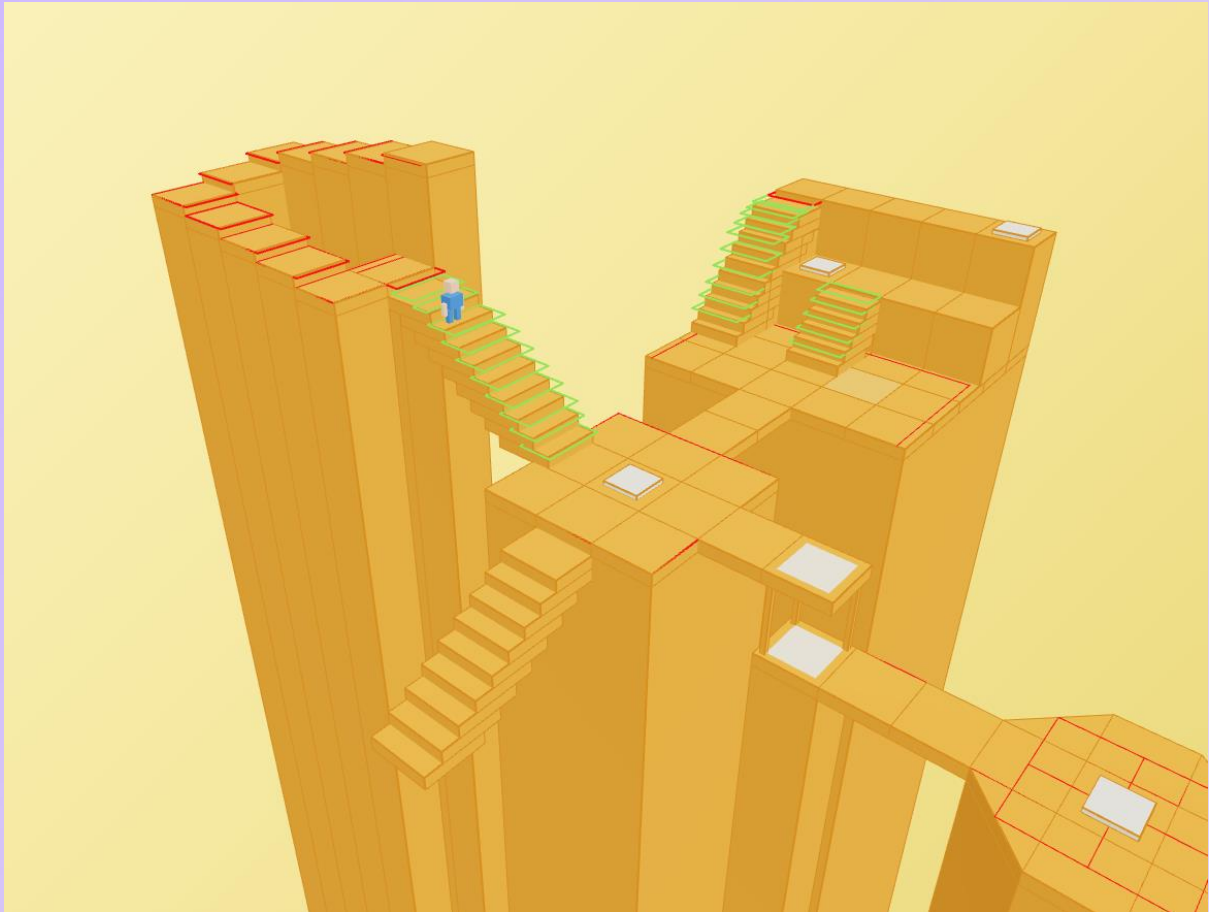
Reflection

Using React Three Fiber made the final experience way more immersive and fun to interact with, but it also came with a steeper learning curve. Setting everything up and figuring out the right structure took more time than if I'd just used plain HTML, CSS, and JavaScript. Still, it pushed me to think more outside the box finding smarter, reusable ways to generate shapes and build components instead of manually coding everything.

Git link:

https://git.fhict.nl/I503826/isometricportfolio