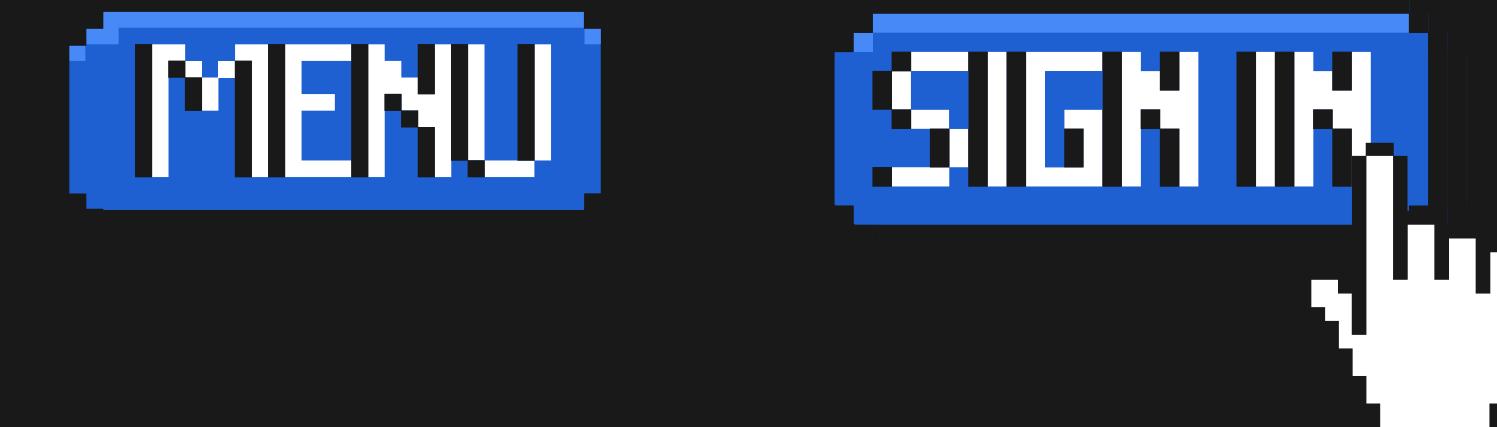


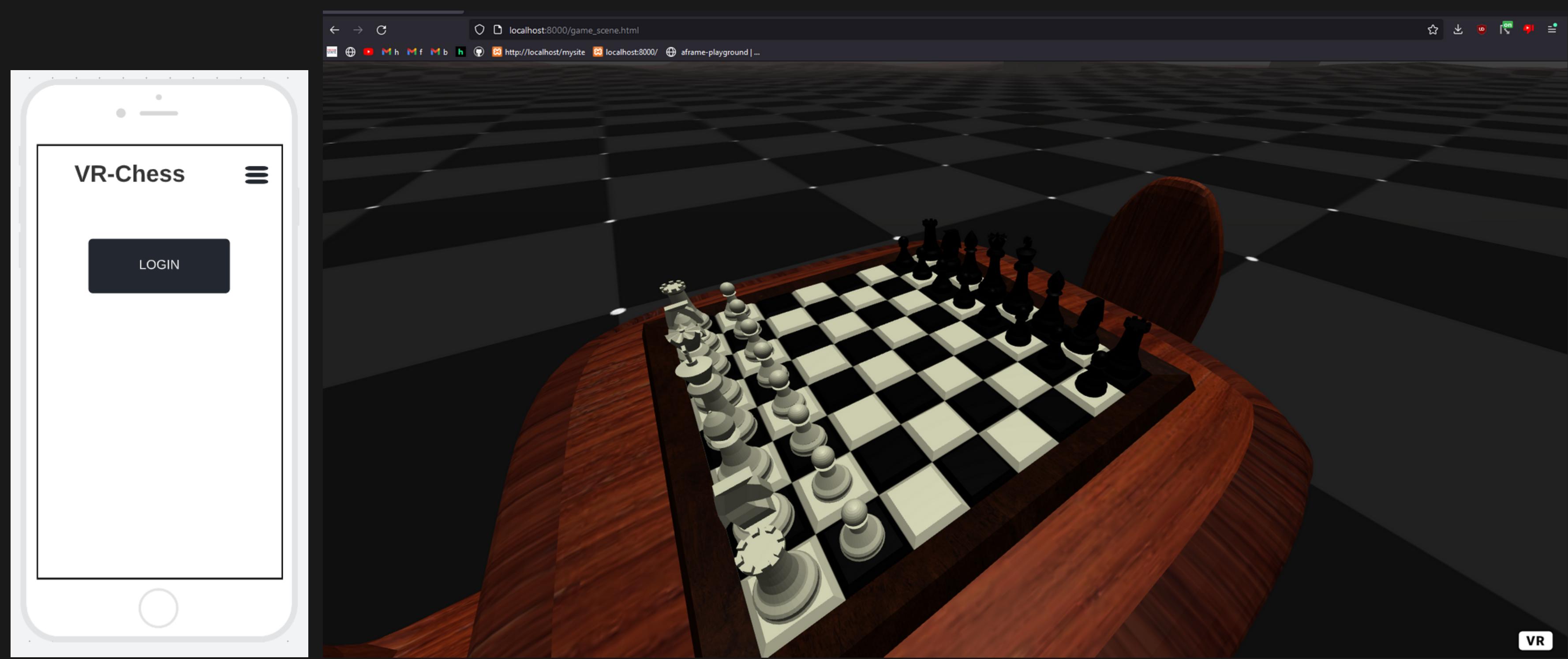
SCORE
00

HIGH-SCORE
4000



VR-CHESS





1.2 Product Scope

This product aims to bring a fully functional chess game to a virtual setting for use by one or two players. VR Chess will benefit anyone who wants to experience a game of Chess in fully immersive virtual reality. VR_Chess will provide an outlet to practice Chess skills and communicate with Chess friends. The user experience will be of utmost importance when designing the look and feel of the VR Chess experience. The software development team for VR Chess will strive to create an experience that could be transitioned over to the upcoming Metaverse, providing competition for the first Chess experience on the platform. This look to the future value of Chess in the Metaverse brings the most value to potential investors.

Milestone one: Create a scene in VR with a table, chess board and pieces that can be moved. No collision functionality. Able to move freely in the VR space.

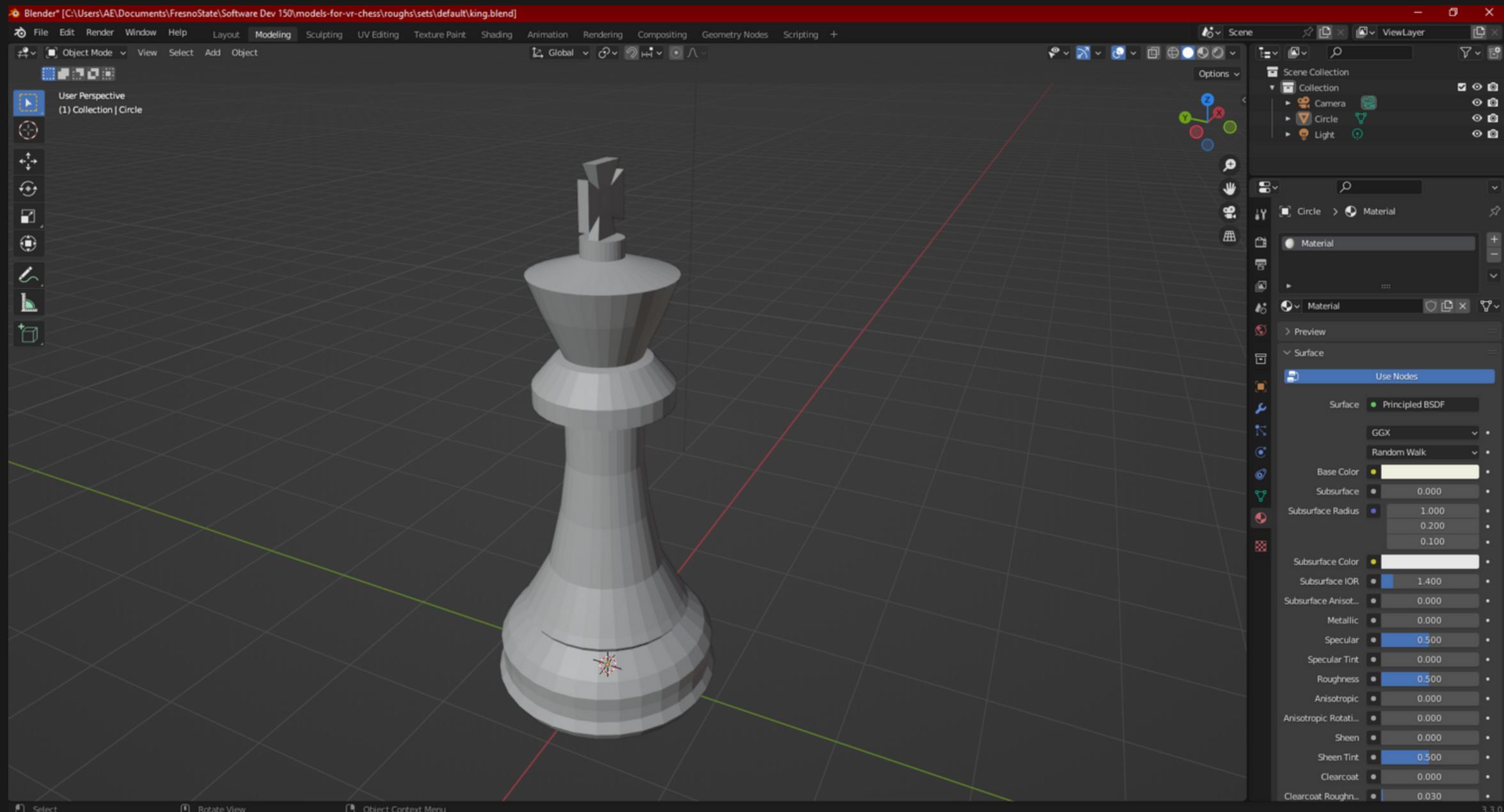
Milestone One Video

Milestone one: Create a scene in VR with a table, chess board and pieces that can be moved. No collision functionality. Able to move freely in the VR space.

Glitch Prototype

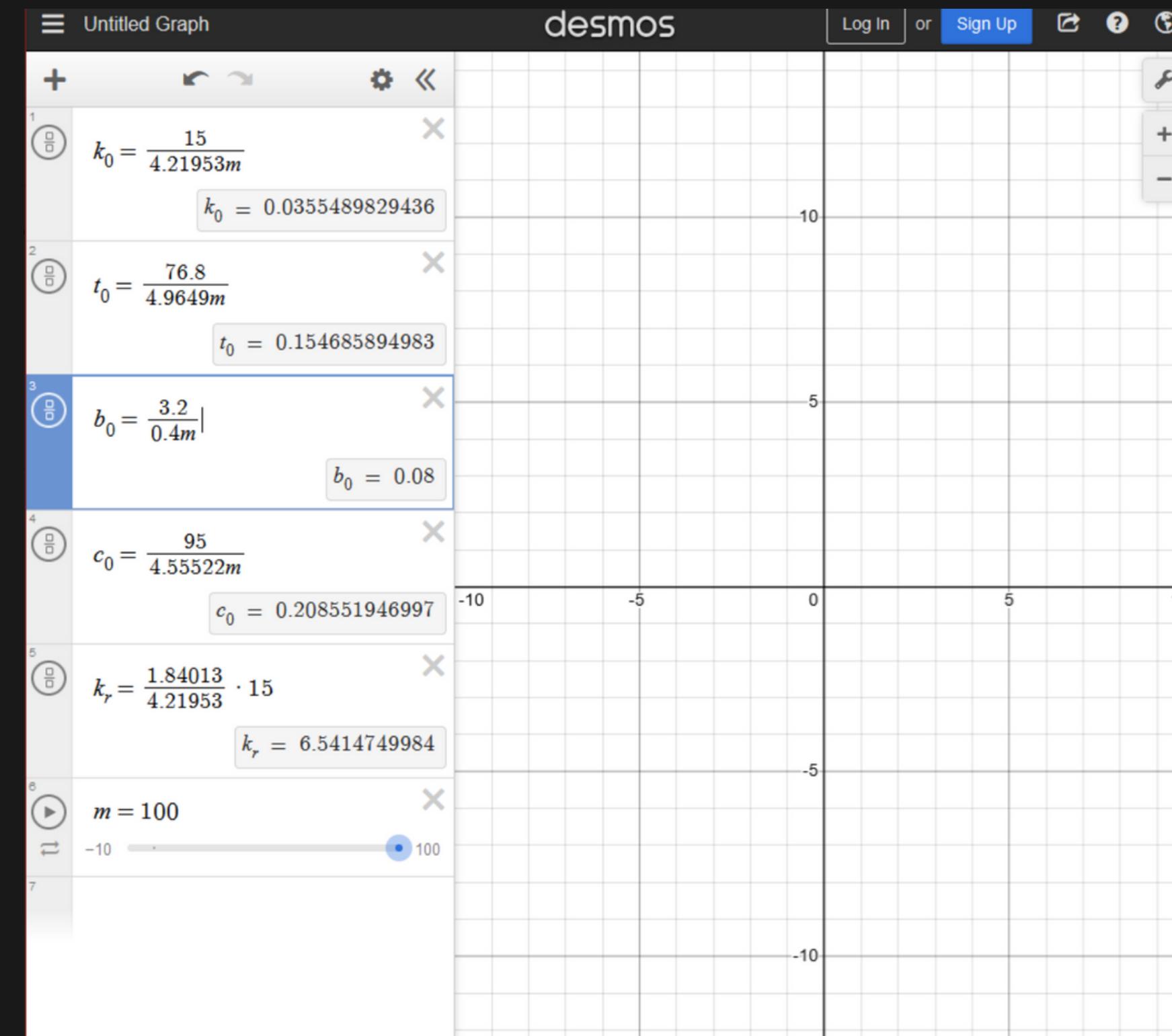
Completed Features

- Ability to move in the VR World
- Pieces designed from scratch



Completed Features

- Ability to move in the VR World
- Pieces designed from scratch



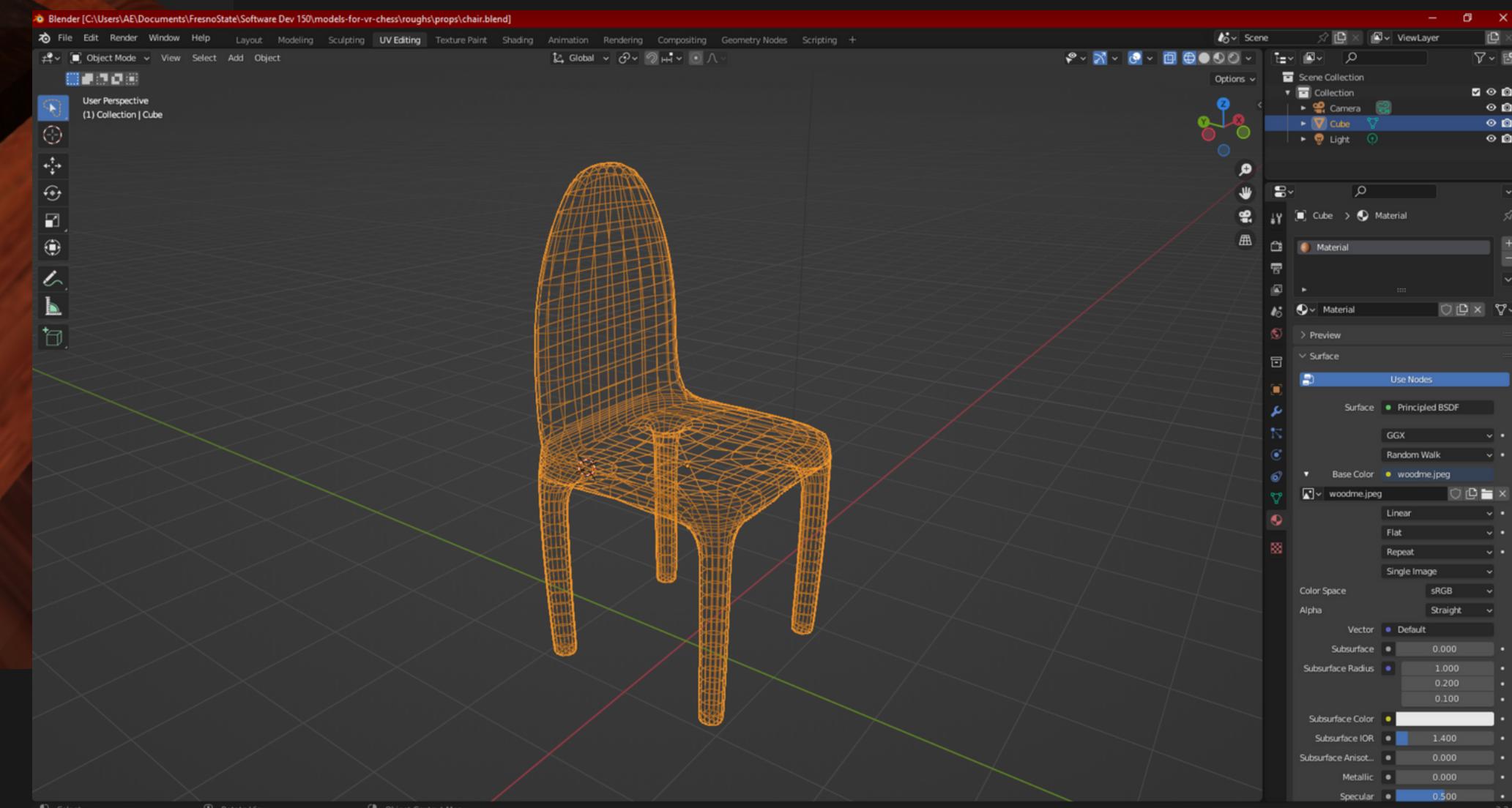
The figure shows a screenshot of a Notepad window titled "*heights.txt - Notepad". The file contains the following text:

```
*heights.txt - Notepad
File Edit Format View Help
chair 4.55522m
table 4.9649m
king 4.21953m
board 0.4m

width of board is 8m, one square scaled 1m
width of king is 1.84013
```

Completed Features

- Ability to move in the VR World
- Pieces designed from scratch
- Board designed from scratch



Completed Features

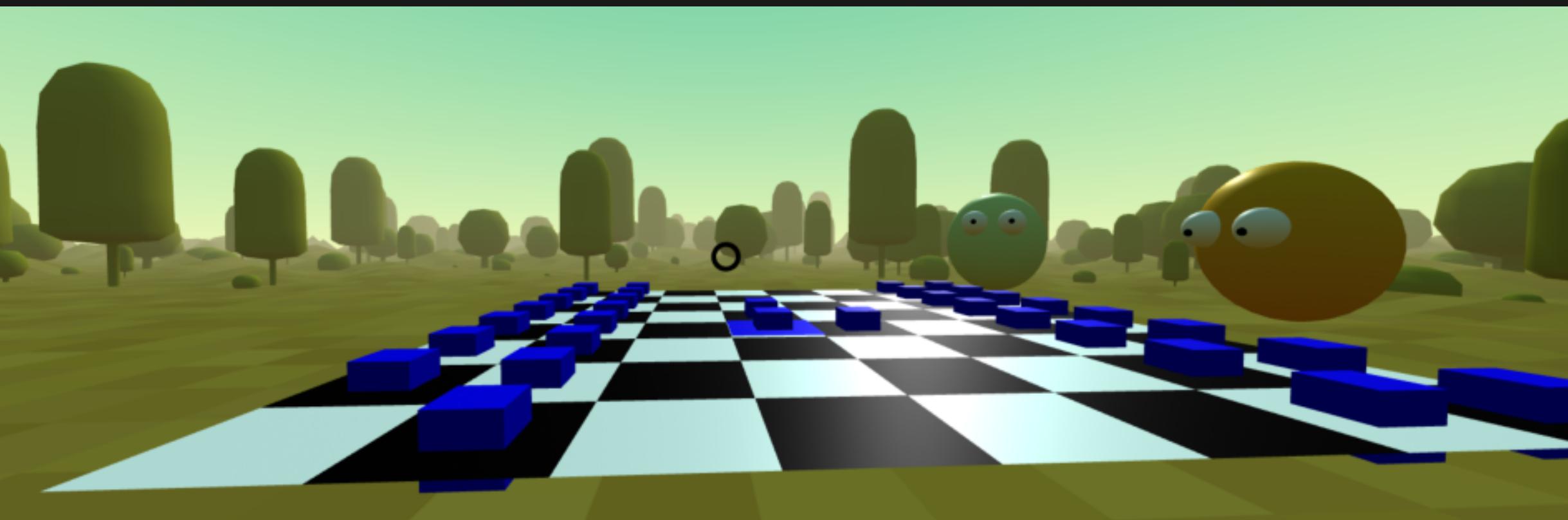
Milestone one: Create a scene in VR with a table, chess board and pieces that can be moved. No collision functionality. Able to move freely in the VR space.



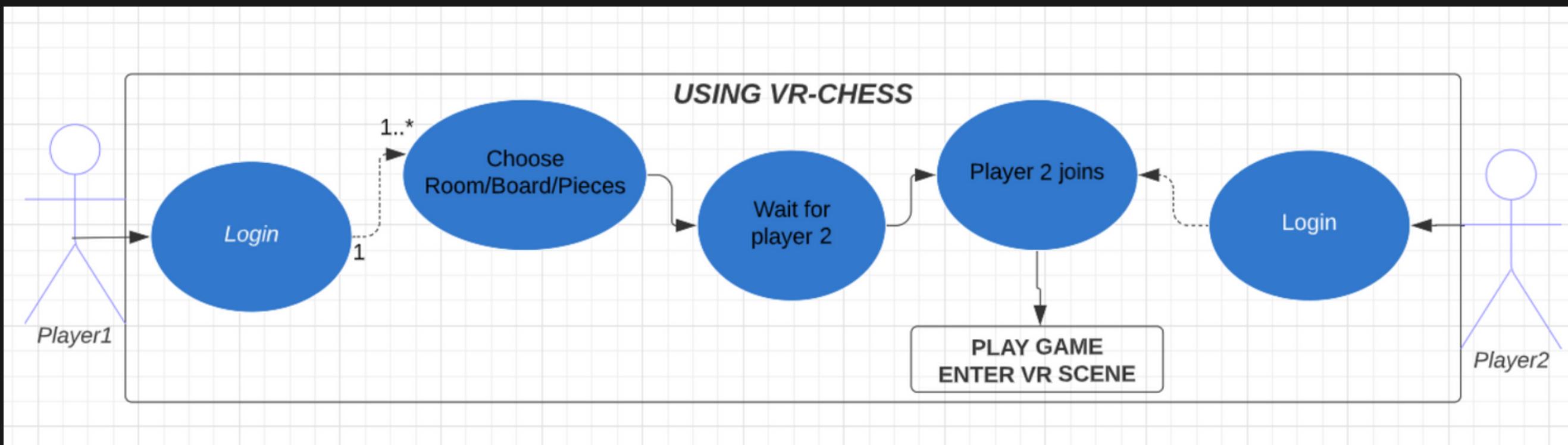
- Ability to move in the VR World
- Pieces designed from scratch
- Board designed from scratch
- Move a piece on the board
- Highlight square when moving
- Works on phone and computer

Completed Features

- Ability to move in the VR World
- Pieces designed from scratch
- Board designed from scratch
- Move a piece on the board
- Highlight square when moving
- Works on phone and computer
- Some success with networking



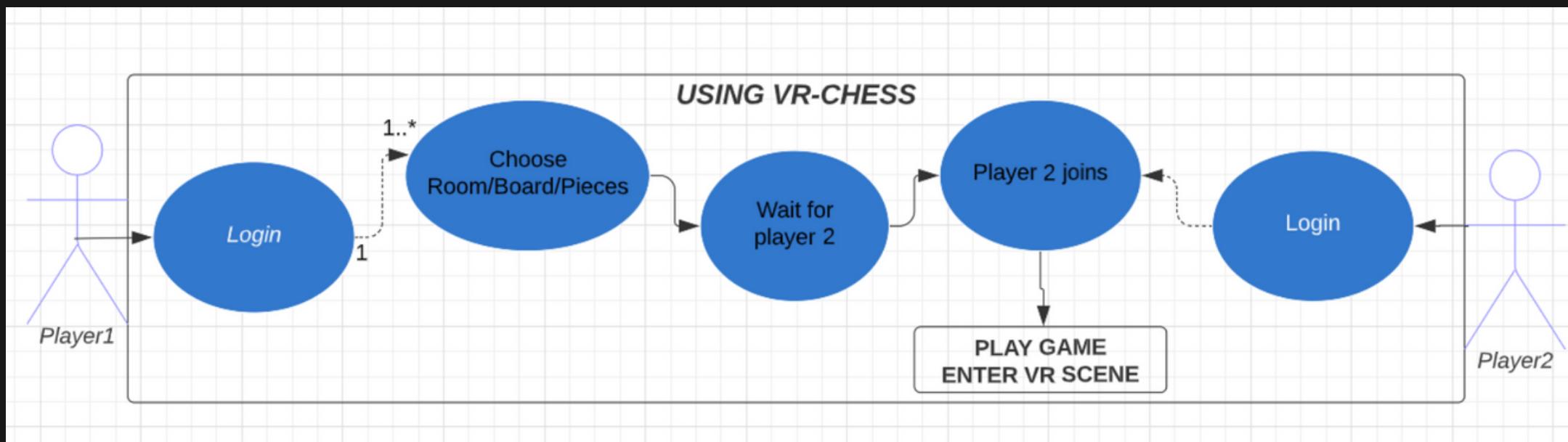
Milestone two: User interface for choosing environment, board and pieces. Chess board is fully functional with logic for each piece. Networking is available for online multiplayer.



Milestone two: User interface for choosing environment, board and pieces. Chess board is fully functional with logic for each piece. Networking is available for online multiplayer.

Features for Milestone Two

- Networked A-Frame
- Google Authentication
- Piece movement logic
- Main menu
- Ability to chose environment



↗ VR-Chess Team Members

Team Member	Role
Eric Smrkovsky	Project Manager
Christian Leon	Back End Developer
Brett Harris	Graphics Design and Visuals
Jose Fernando Jimenez Chavez	Lead Technical Designer
Jacob Miller	Front End Developer



@VR Chess

Workflow

Project Board

+ New view

Filter by keyword or by field

Todo 3

VR-Chess #16



Milestone 2

VR-Chess #62



test test

VR-Chess #77

Networking for 32 pieces

In Progress 6

VR-Chess #54



"Fixing duplication/NonSpawning remotely instantiated entity"

VR-Chess #55



Item holding issue

VR-Chess #66



SRS

VR-Chess #67



Wiki

VR-Chess #68



Nice readme

VR-Chess #73



Networked A-Frame Implementation

Done 45

VR-Chess #53



Optimizing piece_interaction code and patching loader conflict

VR-Chess #10



Update w/ placeholder files for menu system

VR-Chess #26



added table and fixed paths

VR-Chess #27



Separate scene for movement tests

VR-Chess #28



Implementing Piece Movement, part 1

VR-Chess #14



Updated with Glitch

VR-Chess #11



Add item

+

Add item

Add item

Add item

Challenges: Eric

VR-Chess Team Members



Team Member	Role
Eric Smrkovsky	Project Manager
Christian Leon	Back End Developer
Brett Harris	Graphics Design and Visuals
Jose Fernando Jimenez Chavez	Lead Technical Designer
Jacob Miller	Front End Developer

Working with a team while learning is challenging in leadership roles. While I am learning how to manage a team I am also learning about all of the different parts that are necessary for VR software and software development. I feel that I needed a whole month to prepare for leading this team and writing the necessary documents that would come with designing software for clients and providing the tools for the development team members.

Challenges: Brett

VR-Chess Team Members

Team Member	Role
Eric Smrkovsky	Project Manager
Christian Leon	Back End Developer
Brett Harris	Graphics Design and Visuals
Jose Fernando Jimenez Chavez	Lead Technical Designer
Jacob Miller	Front End Developer



This project required learning Blender and learning to properly place models within the scene. Integrating my work into everyone else's was more involved than expected. It ended up being more javascript work than modeling. Learning A-Frame specifically was also a challenge.

Challenges: Chris

VR-Chess Team Members

Team Member	Role
Eric Smrkovsky	Project Manager
Christian Leon	Back End Developer
Brett Harris	Graphics Design and Visuals
Jose Fernando Jimenez Chavez	Lead Technical Designer
Jacob Miller	Front End Developer



Working on both glitch and VSC was difficult. Glitch is very strict in it's formatting and is very difficult to work with when you have multiple files to be managed in different folders. I also had to work in VSC to more easily work with multiple files and commit changes to GitHub.

Challenges: Jacob

VR-Chess Team Members

Team Member	Role
Eric Smrkovsky	Project Manager
Christian Leon	Back End Developer
Brett Harris	Graphics Design and Visuals
Jose Fernando Jimenez Chavez	Lead Technical Designer
Jacob Miller	Front End Developer



Learning JavaScript and A-Frame framework was not the easiest task. Difficult to learn DOM as well as eventListener methods. Very simple lines of code allowed huge progress to be made.

Challenges: Jose

VR-Chess Team Members



Team Member	Role
Eric Smrkovsky	Project Manager
Christian Leon	Back End Developer
Brett Harris	Graphics Design and Visuals
Jose Fernando Jimenez Chavez	Lead Technical Designer
Jacob Miller	Front End Developer

Main challenges include:

- Learning how to implement networking framework with older existing codebase
- Learning how to format project and prepare it to be hosted on a Node.js server
- Trying to create a VR GUI was less intuitive than I had originally believed it would be for A-Frame

★ https://github.com/Ericsmrk/VR-Chess ★

★
THANK YOU FOR
PLAYING!
★

PLAY AGAIN?

YES

NO



★ https://github.com/Ericsmrk/VR-Chess ★

★
THANK YOU FOR
PLAYING!
★

PLAY AGAIN?

YES

NO



★ https://github.com/Ericsmrk/VR-Chess ★

★
THANK YOU FOR
PLAYING!
★

PLAY AGAIN?

YES

NO

