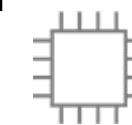


Project Goal



Create a Virtual Reality exposure therapy experience to help those suffering from social anxiety disorder face situations that may be uncomfortable, but in a safe and low-risk environment.



Problem Motivation

More than 31% adults in the U.S. suffer from social anxiety disorder (SAD) at some point in their lives.

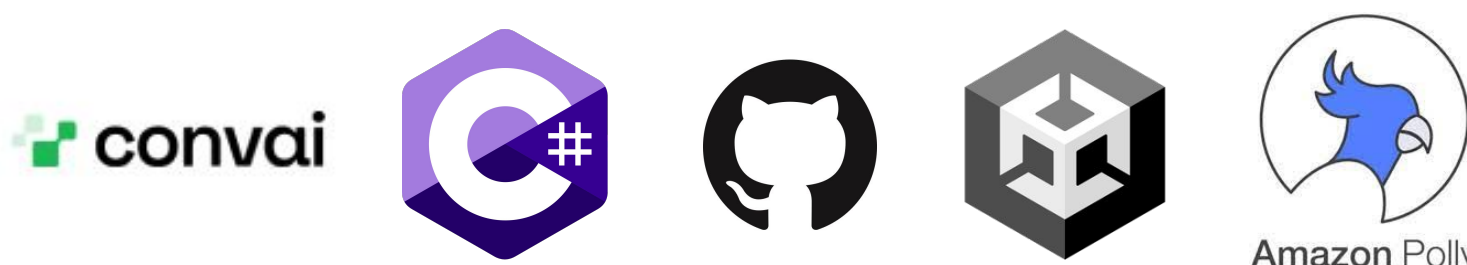
Traditional SAD treatments, while helpful for many, often come with some drawbacks.

- Inaccessible
- Expensive
- Mental healthcare provider shortage

VR Treatment

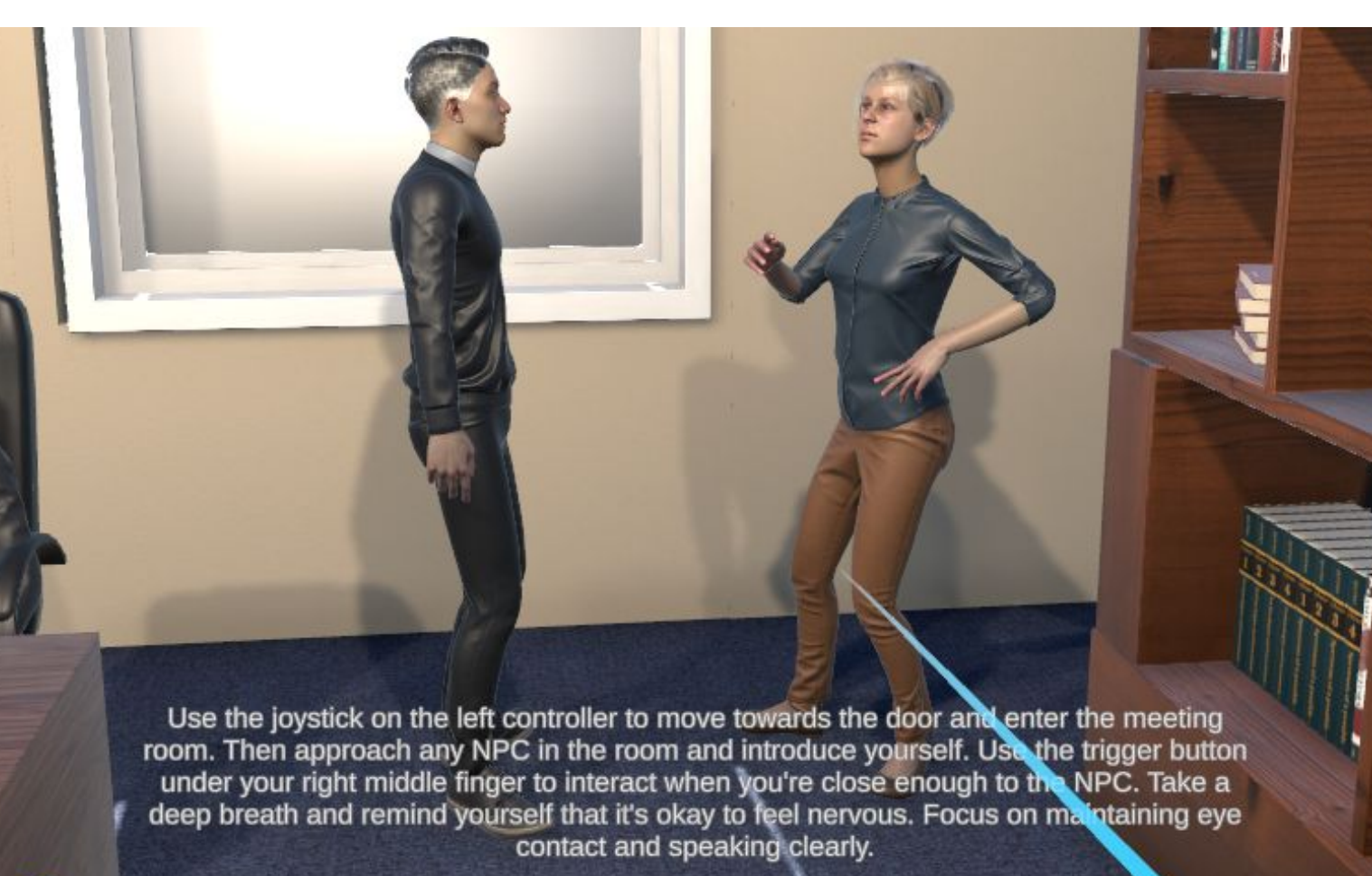
- VR exposure therapy is an effective method of mitigating SAD
- Accessible 24/7
- No need for transportation
- Can be done in a comfortable environment
- Mental healthcare provider not needed

Technologies Used



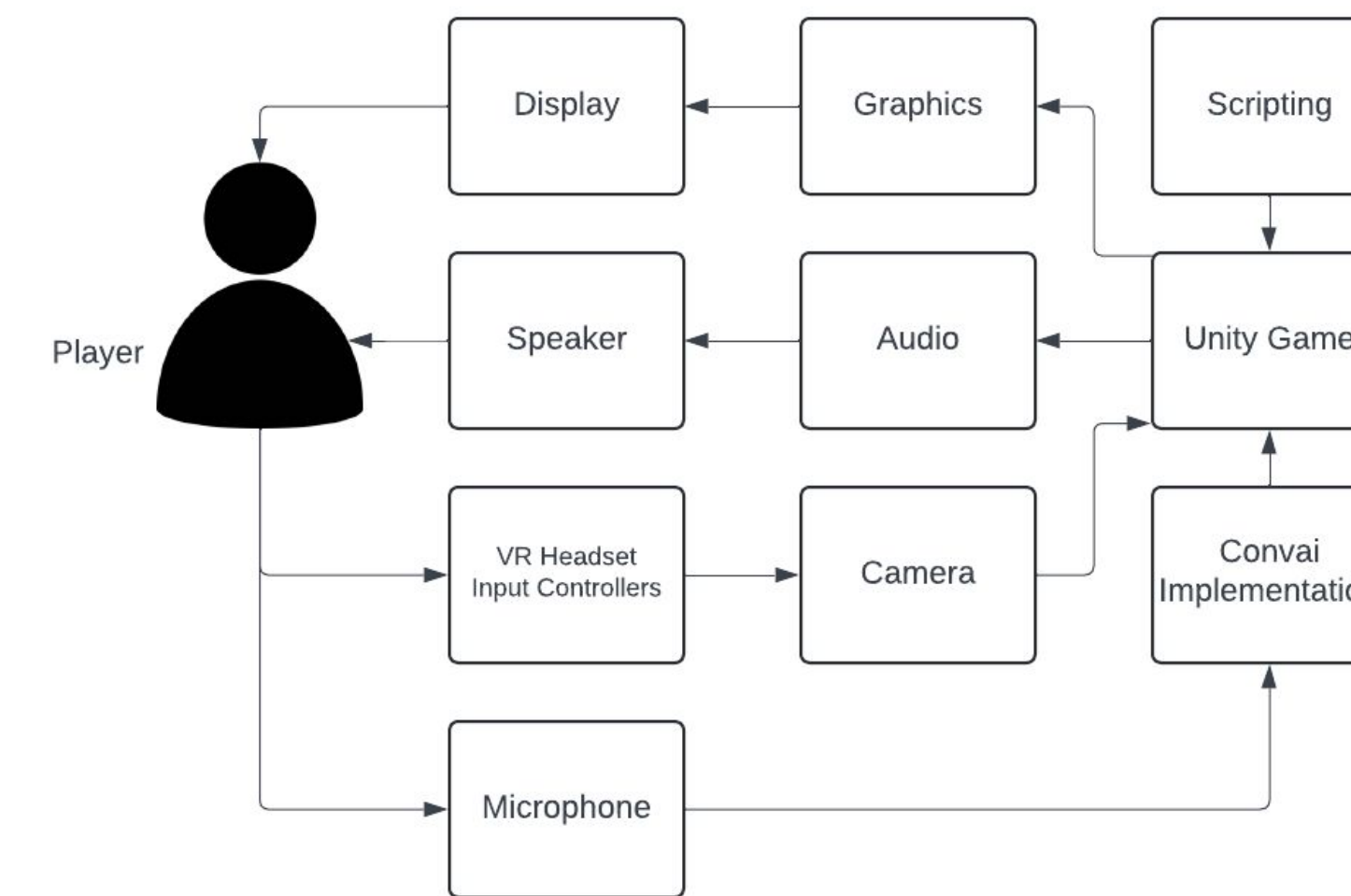
Unity

- Used to create the office environment
- Scripted in C# for character interactions



Use the joystick on the left controller to move towards the door and enter the meeting room. Then approach any NPC in the room and introduce yourself. Use the trigger button under your right middle finger to interact when you're close enough to the NPC. Take a deep breath and remind yourself that it's okay to feel nervous. Focus on maintaining eye contact and speaking clearly.

System Architecture



Challenges

- Integrating AI with Unity
- Learning unfamiliar technologies such as Unity and Convai with no prior knowledge
- Changing tech stack
- Debugging without VR headset

Conclusions

Through communication and Agile methodologies, we were able to deliver an AI-powered alternative to traditional therapy for people with social anxiety disorder.

If given more time, we would implement:

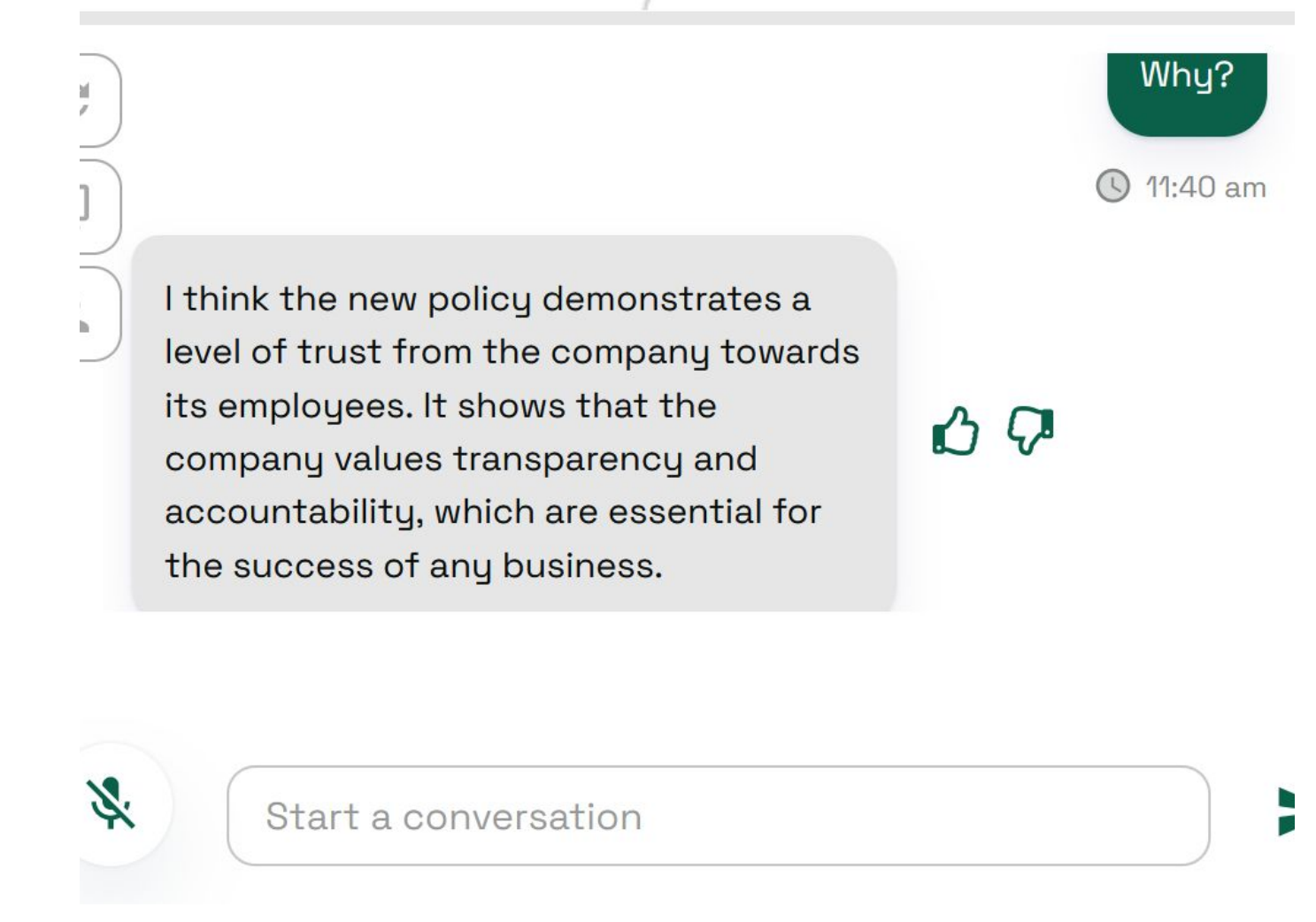
- ADA compliant font and colors
- All models being AI
- Changing difficulty
- Different exposure therapy scenarios

References

- <https://www.nimh.nih.gov/health/statistics/any-anxiety-disorder>
- <https://docs.unity.com/>
- <https://docs.convai.com/api-docs>
- <https://www.annualreviews.org/content/journals/10.1146/annurev-clinpsy-081219-115923>

Convai

- Real-time dynamic audio response to Player
- AI model is trained by inputting a backstory in the Knowledge Bank



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