Weekly Report 12

April 3rd – April 16th, 2020

Group 33 | VIRA (Virtual Insight into Real Athletics)

General Information

Advisor

Dr. Diane Rover

Team Members

Katie Perkins – Team Lead
Nate Irmiter – Stakeholder Communicator
Bailey Righi – Product Manager
Willem Paul – Standardization Manager
Caroline Rankin – Meeting Facilitator

Weekly Summary

This week we focused on figuring out what was left to do for the UI as well as working on the models. We also started to fit together the steps we need to implement the guided module and figured out the Unity functions we need to accomplish them. We ran into some issues with merging and running code that is used for VR capabilities.

Past Week Accomplishments

Katie

This week, I managed to get an APK of Cisco AnyConnect downloaded onto the Quest and tested whether we could connect to ISU's VPN via that and discovered that we won't be able to. I also tested everyone's screens on the Quest since I'm the one who has it right now. After that, I fixed the issue of the location of the target object for our IK so that it stays on the arm without messing up the movement. I also started research on how to implement the random selection of the model on the start of the scene. I am now in the middle of developing animations for the steps to the guided module.

Nate

This week I did a lot with the different modeling options. First, I figured out how to make a dismembered arm, so that we could have an example arm to move around and show prospective users how to do tests. Then I spent a lot of time trying to get a few different variations of models so we had more than one option when beginning the module. There ended up not being any options for male clothes in the plugin we were using, so I had to find examples of clothes and import them in a different way. Finally, I created roughly 3

other models to use, with some small variations in case one outfit was more practical than another.

Bailey

This week, I created the UI elements for the instructions to guide the user through our special test module. I made a template for an instruction with next and previous buttons that make the current instruction disappear and the next instruction appear. In the guided mode, for module selection, I made it so that when a special test is selected, the application changes to the corresponding scene. I also worked with Caroline to merge the code for our scenes and scripts.

Willem

This week, I spent time refining our UI design with Caroline. I was able to update one of our screens, so updating the rest shouldn't take too much time.

Caroline

I was able to get a lot of work done with the UI screens including brainstorming some design ideas with Willem. I was also able to fix a bug with the profile selection screen and then got it merged in with the rest of the code.

Pending Issues

Individual Contributions

Name	Hours This Week	Cumulative Hours
Katie	15	62
Nate	14	62
Bailey	13	59
Willem	11	60
Caroline	13	64

Plans for the Upcoming Week

Katie

I am going to continue working on animations and linking those to the user prompts for the guided module, as well as working on limb angle recognition for the user input side of the module.

Nate

I will change the models to sitting poses so they are easier to work with in Unity for our purposes, which would help us with the random selection.

Bailey

I will be working with Caroline to connect all of the UI screens together; the main task being passing a username to later scenes after a user is selected in order to pull the right data from the server. I will also edit the script that talks to the server to send user data after module completion and help Katie with calling functions to allow the next step in a module to be active.

Willem

I plan to continue to update our UI screens with Caroline. Included in that is trying to make our UI screens curved. This is a common VR UI technique, but it we may have some difficulties implementing it.

Caroline

I will be working on connecting all of the UI screens together with Bailey as well as creating a standard UI design for the app with Willem.

Summary of Our Weekly Advisor Meeting

We discussed what options were available for us to get server access through the headset without needing the VPN. Dr. Rover also recommended that we document the UI design process including steps we took in deciding on colors and with UI layouts.