

Weekly Report 11

March 13th – April 2nd, 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

With the new unexpected switch to online classes due to COVID-19, the team has worked on re-evaluating our project goals and testing plans and worked among ourselves and with our advisor to come up with a plan for going forward. We have switched to a new program for creating our human models, worked on converting our scenes to be VR compatible, and worked on server-side code and UI design

Past Week Accomplishments

Katie

In the past two weeks I have integrated the new model that Nate made in MB Lab into the current Unity project I have set up to work on inverse kinematics, and also worked with him to figure out what we needed to change on the mesh for that. I also worked with the team on re-evaluating our goals for the end product with the new switch to online classes for the rest of the semester and coming up with a new communication plan for our advisor to look at.

Nate

Throughout this duration, I recreated our model using different software. Instead of using MakeHuman we decided to try another sort of model because it wasn't performing in the way we wanted it to with clothes on. So I learned how to use a different modeling software which was a plugin through Blender that ended up being easier to use than our previous option. I spent most of my time learning how to use this software and apply clothes/fix meshes so that we couldn't see all the way through our models.

Bailey

Since the last report I have worked on transitioning our created scenes in Unity to be usable on the Quest. I am also working on coding the narration of the guided mode, where we need instructions to pop up for the user as well as buttons for navigation.

Willem

In the past few weeks, I wrote some more code for our server to allow us to save special test completion data in the database. I've also spent some time looking at ways we could improve the UI appearance.

Caroline

After break, I have been looking up cool UI designs that could be made in Unity that are also very user-friendly. I am also finishing up some older screens and am working on fixing a bug in the user profile selection screen.

Pending Issues

Individual Contributions

Name	Hours This Week	Cumulative Hours
Katie	10	47
Nate	12	48
Bailey	11	46
Willem	10	49
Caroline	14	51

Plans for the Upcoming Week

Katie

In the next week I'm planning to merge my code into the UI branch so that Bailey and I can start working on creating the guided module scene. I'm also going to work on making the "target" sphere the IK script uses invisible and limit its range of possible positions. Then I'm going to work on limiting the range of motion of the model's arm and starting animation of the "ghost limb" for the guided module.

Nate

I'm going to work on making new models so that we have more options than just the one that Katie is currently working on for our modules.

Bailey

I will continue to work on making our Unity scenes navigable on the Quest and work with Katie on allowing the user to go through our special test module in the guided mode. I will also make a script that can send user progress data to the server.

Willem

At this point, most of the server code has been written, so I will dedicate my time to working on the UI look with Caroline. We have a color scheme already, but we need to decide on fonts, layouts, and element styles (Buttons, scrolling lists, etc.).

Caroline

My plan is to work on making the UI look more professional and making it easier to navigate for all users. I will collaborate with Willem on this.

Summary of Our Weekly Advisor Meeting

We discussed what the project would look like now that we are unable to work in-person as a team. We went over our project requirements that would need to change such as testing and reducing project goals, and discussed our plans for safely sharing the hardware we're using for the project.