Free Sky

The sky is not the limit, but your playground

Autism Virtual Reality Project

Milestone Evaluation

Members

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Faculty Sponsor

Dr. Keith Gallagher

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Client name

Affiliation: The Scott Center for Autism Treatment

Task Matrix

Task	Completion %	Gavin	Alanah	Jiaqi	What's left
Consider changing platform from oculus to samsung as technical challenges with both database and images showing up	100%	33.3%	33.3%	33.3%	Continue to Adjust but the deadline met
Get the buttons that are placed in the 360 environment to show up whether it be on unity oculus or samsung vr set	100%	33.3%	33.3%	33.3%	Continue to Adjust but it is finished
Talk to the scott center about the changes	0%	0%	0%	0%	Schedule a meeting with the Scott Center representative and talk about the updates and current progress.
Create desktop application	10%	0%	10%	0%	Continue working on the desktop application.
Put questionnaires in the video	60%	0%	15%	45%	Finish up all the functionalities that are required for the questionnaires.
Continue to work on the application of Database	100%	100%	0%	0%	Continue to Adjust but the deadline met

Discussion of each Milestone

Consider changing platform from oculus to samsung as technical challenges with both database and images showing up

So after our last meeting the team did research into different platforms specifically the samsung. After our senior design advisor had decided to leave FIT we lost the option to use the samsung that he had to test if it was a better platform. After working more on the database we had found a solution. This was our main reason for switching the platform. We decided after working out the previous bugs that we will stick with this platform, along with the desktop version of the application.

Get the buttons to show up in the 360 environment

As a team we successfully added buttons into the 360 environment on the Oculus Go. This was not an easy task to achieve, especially with our lack of Unity knowledge. We spent weeks looking on forums and youtube for the solution to our issue. While looking up a solution to a different issue we found a youtube video with exact solution to our problem. The video explained step by step how to import items into a 360 environment. After following the video and loading the update into the Oculus Go, we were finally able to a button when looking around in the VR set.

Talk to the scott center about the changes

We have emailed the Scott center, however the scott center has not responded to any of our emails. We plan to email them again and if they do not respond move forward with the project with a different sponsor a company in Rockledge Florida who does similar work with patients with autism and dementia. This seems like the best course of action and would provide us a good test group to see if the project was a success

Create desktop application

So far for the desktop portion of the application has a login page. The login page will take the user to either the trainee or trainer page. The trainee page will have their overall progress and feedback from their trainer. They will also be able to respond to the trainer and ask them questions. The trainer page will have the names of all the trainees that they are in charge of. They will also be able to see the trainees' progress, weak points, strengths, and any questions they have.

Put questionnaires in the video

For the one minute video that was provided by the Scott Center, we have put in the two questionnaires in the video and made them appear at a certain time. There is a multiple choice question and a True or False question. After the questionnaires show up, the trainee should choose an answer from the choices. An animation should show up to tell the trainee if they got it right or wrong and the questionnaire should disappear.

Continue to work on the application of Database

We had decided to use an online server using Mamp to store the answers from the questions using one of our laptops as the host server. After multiple attempts this had failed and we decided to try and store it on the oculus using a file storing code that we had found on github. The script seemed to work on the desktop but not on the oculus. After that the We decided to go on github and look up ways other developers decided to deal with databases for the oculus that could work for us on both the desktop and the oculus. We found an individual who had the same issues as us and explained that while firebase sdk was not supported we could use the rest API to still make it work. We decided to try it and stored our data in a JSON format and after multiple test , the database was now online for our first dummy user.

Discussion for each member contribution

Alanah

Alanah helped to find the solution to the button issue the team was having. Once the question was implemented Alanah began coding the pointer. After finding a youtube video as guidance she was able to code a pointer into the 360 environment. The pointer was coded using C# and is successfully working within the VR headset. She is now currently working on the login page for the VR and desktop portions of the project. She also assisted her team members whenever they asked for assistance. Whenever she needed assistance, she made sure to ask her team members or research a solution.

Jiaqi

Jiaqi was focusing on working on putting the questionnaires in the video. After putting the questionnaires in as a set of buttons, she coded the timer for each questionnaire in C# to make sure they appear at the right time. Currently she is working on finishing up all the

functionalities that are required for the questionnaire. She is also working with alanah to create the desktop application for the trainee and the trainer.

Gavin Smith

Gavin was responsible for assisting in debugging of the issues with the oculus and assisted in getting the updated version onto the oculus. He also assisted in ensuring that emails and communication had been sent out to the Scott center. He ensured that the information for the showcase had been sent out and was responsible for the database being completed. Using the Rest API .

<u>Task Matrix for next Deadline</u>

Task	Gavin	Alanah	Jiaqi
Work on the trainee aspect and have a demo ready	Work on the database component of it. (33.3%)	Work on the VR side of it. (33.3%)	Work on the unity side of it. (33.3%)
Work on putting notes on account	Work on the database component. (33.3%)	Work of gaining all resources for testing. (33.3%)	Working on coding the platform for the testing. (33.3%)
Work on the desktop application for the trainee and the trainer.	Review and give adjustment (33.3%)	Work on the trainee platform (33.3%)	Work on the trainer platform (33.3%)
Talk to the Scott Center about the update and current progress and ask feedback.	Talk about the changes that have been made. (33.3%)	Talk about the progress made and ask for feedback. (33.3%)	Talk about the progress made and ask for feedback. (33.3%)

Connect Database to new feature	Work on connecting the database (33.3%)	Test the trainer features (33.3%)	Test the trainee features (33.3%)
Data Analysis Functionality test	Try to answer question in the video and generate data (33.3%)	From the data generated, do data analysis. (33.3%)	From the data generated, do data analysis. (33.3%)
Start working on the poster and the final presentation.	Work on the poster and presentation. (33.3%)	Work on the poster and presentation. (33.3%)	Work on the poster and presentation. (33.3%)

Date(s) of meeting(s) with Client

Date(s) of meeting(s) with Faculty Sponsor during the current milestone: …

February 07, 2020

February 12, 2020

February 14, 2020

Sponsor feedback on each task for the current Milestone

Notes

Faculty Sponsor Signature: _____ Date: _____