

sddec18-09: Hidden Guardian

Week 4 Report

February 10 - February 16

Team MembersJennifer Frank — *Team Lead*Thomas Kirby — *Backend Development.*Matthew Pedretti — *Hardware Engineer*Jacob Stilwell — *Computer Programmer*Keng-Yik Ho — *Chief Engineer***Summary of Progress this Report**

At the beginning of this week (Friday - Sunday) we focused on our project plan. We then uploaded that to the website and updated all of our bios. This week we also were in contact with ETG and received a development license and at the very end put in our order for an Xbox One so that we could begin developing as soon as possible. We researched contextual facts behind our product like how much video game usage a child experiences a week. The average was 9 hours so we assumed we would try to capture around 15 for the upper bound. Then we researched how we could store that much data, how much we could compress it, and what possible forms of storage would work. With the forums that became available from receiving the development license we started to read about what was feasible with our development. We learned about a "speech to text" capability that we could use to convert our audio data to text and start with that for our mobile app's chat data first. We shared our audio storage research with our adviser and came to the conclusion that only storing text and later putting "tags" on the text for emotional context or adding the audio files would be a good starting point. Other things that were researched is c++ sql interoperability.

Pending Issues

One of our pending issues is that now that we have forums available we have a lot to weed through to figure out what the best first approach is. We also have the pending issue of figuring out how to stop the child user from closing out of the app that can be ran in the background.

Plans for Upcoming Reporting Period

Our goal for next week is to have all of us get Visual Studios with C++ up and working. Now that development is starting, we will need to more strictly assign roles for who are mainly focusing on mobile app vs. console application. We also will hopefully be receiving our Xbox One in the middle/end of next week so figuring out where to store that and how we plan to share it for the development phase. Mostly, our upcoming report should be getting comfortable with Visual Studios, C++ and continuing to research roadblocks we may have with our console application.

Individual Contributions

Team Member	Contribution	Weekly Hours	Total Hours
Jennifer Frank	This week I spent a lot of time on the Project Plan, even after it was due because we decided we should continue to add things as	8	22

	<p>the project is ongoing and it should be up to date. I also was in contact with ETG, confirming the type of license and version of Xbox One we will need. I assisted in researching the audio storage capabilities, but mostly researched the speech to text features that we will use with our console development.</p>		
Thomas Kirby	<p>This week i predominantly worked on c++ sql interop. i found one library (sqlapi++) that supports basic sql connection and queries. (will continue to look for better ones). I also attempted to find ways to store audio and the best i could find at the moment is storing it physically and then storing a reference on the sql server. I've only done this on locally hosted sql servers and will look into storing it on a VM or remote server for proof of concept.</p>	6	8
Matthew Pedretti	<p>I researched into audio file sizes and the typical amount of time a child could be expected to play video games in a week. Using this information I came up with an estimate for a max time we could expect to have to store of audio recordings in a week, which amounted to about 5.5 GB of data. We decided this was an excessive amount of data to have to transfer and store, especially with a phone as the intended platform, and found a c++ library that allows us to convert the audio into text data, which will be a much more reasonable size. I also researched into if/how the various requirements of this project can be implemented on the xbox one such as running an application in the background and having our app connect with a non-xbox live database. I found a set of instructions for being able to connect to an outside database and found that it is possible to run apps in the background but couldn't find specifics on what was possible while it ran in the background.</p>	6	21
Jacob Stilwell	<p>I worked to understand android development and how to use it's development software. I also worked to find some examples for xbox development with our newly released forums.</p>	4	21

