sddec18-09: Hidden Guardian

Week 6 Report
March 3 - March 23

Team Members

Jennifer Frank — *Team Lead*
Thomas Kirby — *Backend Developer*
Matthew Pedretti — *Hardware Engineer*
Jacob Stillwell — *Computer Programmer*
Keng-Yik Ho — *Chief Engineer*

Summary of Progress this Report

This progress report covers a two week span (the week of 3/3 before Spring Break and the week of 3/19). The first week we met to technically collaborate with each other on the console application and to refine our schedule so that we have a structured plan for the last month. We then assigned specific tasks - Jenn to work on the front end of the mobile application and Jacob on the backend. Keng-Yik will focus on extracting the text data with our console application as well as the hardware. Matthew focusing on converting the audio data to text in the console application as well as the hardware and Thomas to focus on the backend of the console application. Jacob and Jenn focused on getting used to Android Studios and Jacob pushed a starting application and began to get the database set up. Thomas was able to connect the console application to the database and worked on getting it running in the background. Keng-Yik did thorough hardware research and some research on gathering the audio data and Matthew researched the speech to text component.

Pending Issues

We ran into an issue about having our console application run in the background. We decided to write one line of code that allows it to run in the background, however it makes our application unable to be sold on the Windows platform. Due to this, a pending issue will be able to research and implement the more complicated way of having the app run in the background and still be able to be sold via the Windows platform. Matthew also realized from his research that the library we wanted to use for speech to text (Game Chat 2) is not quite compatible for what we want to do so we will need to utilize a new library which adds to our time expenses and we still have not found a way to extract the audio data from the console, which is our most serious pending issue for the time being.

Plans for Upcoming Reporting Period

Our first priority is to find a way to extract the audio data from the console application. We also will get the console application running in the background now that we've decided to do it the simple way, work on updating our project plan, and make more progress on simple functionality in our mobile application. Similarly, we will finish getting the mobile application connected to the database and able to send a receive very simple data using sqlite.

Individual Contributions

Team Member	Contribution	Weekly Hours	Total Hours
Jennifer Frank	For this time period I researched how to	14	42

	extract game chat data and collaborated with some people to figure out if the chat is coming from the game or the console. Instinct tells us it is coming from the console, but sadly the research came short of any clear signs on how to get started with that. I downloaded android studio and started to work on the mobile application development. I worked on the design document and continuously updated the project plan as well as communicated with and updated our client with our current status.		
Thomas Kirby	The week before spring break was physically coding uwp applications in order to better understand how they work with each other and outside code/io. I also made a lightweight UWP app that connects with a database this code will be copied and edited for use in the hidden guardian application. Spring break was spent predominantly working on getting the app to run in the background using the incredibly verbose series of libraries on the Microsoft forums. This is because a standard UWP restricts itself to not use too many resources. In it's current state the proof of concept will be using a forced capability addition which will allow it to run in background but prevent selling on the Windows store. This will be changed before the final device is shipped. The week of 3/19 I worked on sqlite UWP integration. I will be pushing to git once i have a solid grasp on how to do it efficiently.	24	40
Matthew Pedretti	I started prototyping aspects of the console application, so far this is a dummy hello world app with an interactable button. I determined that the library we planned on using to accomplish voice to text wasn't going to work the way we needed it to and found an alternate library. I have begun to dig through the new library to figure out how it needs to be implemented. I have also been looking into possibilities for hardware solutions for the speaker/mic.	16	45
Jacob Stillwell	I worked on looking for documentation or sources for accessing the party chat functions or private messages. After not finding	10	34

	anything, I set up the initial android app and di research on the chosen database connection software SqlLite		
Keng-Yik Ho	I conducted further research on Bluetooth connectivity. I explored the possibility of using Bluetooth dongles to communicate to the Bluetooth speaker. I researched on the possibility of getting the audio from the micro USB port on the controller. I installed visual basic and git lab extension. I realized that to access development mode Windows 10 is needed but my computer is running on 8.1 so I installed Windows 10 and Visual Basic. I explored around Visual Basic, tested with a hello world program on UWP. I've been trying to find how to extract text chat using UWP program but not much luck in finding it. Been playing around with a Bluetooth module that is able to receive audio signal and have a audio output to any kind of speaker. I am working on making a pause/play switch, currently the switch only pause but unable to resume. I will direct all work to the extraction of text chat next week since it is the priority.	10	28