

SE 492 – sdmay20-48

Hear Together

Biweekly Report 3

2/13 – 2/27

Client and Adviser: Mat Wymore

Team Members

Jessie Rutledge - Communicator/Full Stack Developer

Andrew Peterson - Backend Developer

Paul Licata - Full Stack/QA Developer

Richard Smith - Frontend Developer

Roger Ferguson - Test Engineer

Status for 2/13 - 2/27 (2 weeks):

Weekly Summary

FFT was added to the main project. WiFi Direct touch ups. General adjustments to application features.

Past two week accomplishments

Jessie Rutledge: Research with FFT, looked into and dabbled into usage of JTransforms library via TarsosDSP. Worked on fixing audio class but with issues having to multithread it. WiFi direct data receiver research and early work.

Andrew Peterson: Cleaned up issues related to sign in UI, to make it more clear when you are signed in and when you are not. Researched Firebase storage options to establish what would be best for our application. Integrated Paul's Pitch Detection code into the normal application.

Paul Licata: More research with FFT, getting to know the TarsosDSP library better so that we can do further frequency manipulations with recorded sound. Starting to combine FFT stuff with wifi direct so that audio can be sent between phones.

Richard Smith: Lots of continued research on implementing firebase methods specific to our project and debugging certain functions along with fixing dependencies and importing helpful libraries

Roger Ferguson: Continued debugging in relation to WiFi Direct. Assisted with research for FFT. Procured a new device for further testing of new functionalities. Worked on layout of application.

Added refresh functionality to the Session List Fragment. Collaborated with other WiFi Direct team member Jesse Rutledge.

Plans for the upcoming weeks:

(WiFi Team) Roger Ferguson and Jessie Rutledge: Be able to send data via a socket from one device to another. Hide devices not within an app session. Jessie will be spending extra time and implementing a data receiver and accommodating for some work on reverse FFT to make up for a slower second week.

Richard Smith and Andrew Peterson: In the next two weeks, we want to see a fully-functioning demo of the application. That is, we want to be able to send sound over Wifi-Direct to another phone, and to modify the sound as we wish. Andrew will familiarize himself with the sound related code, and help implement the communications (reading, writing, sending, receiving) code. Richard will continue to work on Firebase storage options, and reading and writing to Firebase storage.

Paul Licata: Find a way to break down audio into more than just the main frequency, if TarsosDSP supports it. Also, I will look into the built-in filters that Tarsos has to see if they're useful.

<u>Name</u>	<u>Individual Contributions</u>	<u>Hours this Cycle</u>	<u>Hours Cumulative</u>
Jessie	Prototype for receiving audio from foreign sources going into FFT.	9	27
Andrew	Firestore Storage research, integrated FFT research into main application.	11	26
Paul	FFT research, worked with TarsosDSP library to manipulate audio frequencies	8	25
Richard	Debugged firebase issues along with further implementation of data usage for the app.	9	24
Roger	Worked on WiFi direct,	11	29

	worked on app functionality and debugging, assisted with FFT		
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