ECPrE 491 - sdmay19-40
Weekly Report 4
10/18/2018 - 10/28/2018
Client: IBM Call For Code
Faculty Advisor: Diane Rover

Team Members:
David Boschwitz - Team Lead
Caleb Nash - Lead Frontend
Justin Kaufer - Research & QA
Austin Keen - Designer & User Experience Lead
Bobby Schedler - Lead Backend
Logan Fladung - Subject Matter Expert & Graphics

Past Week Accomplishments:

Caleb Nash - Xamarin app testing and prototyping
Went through tutorials on the Xamarin Forms -
https://docs.microsoft.com/en-us/xamarin/android/get-started/hello-android/hello-android-quickstart?pivots=windows
Made a weather app that will spit out the weather if you put in your zip code using a free weather API. Used Xamarin to code in both C# and Java to help boot up an Android Application and test it using an emulator.

This initial application testing and prototyping is to ensure that I know my way around using Xamarin with Visual Studio so that when I move onto the Map integration, it will run smoothly.

David Boschwitz - Database Prototyping
Did research on finding the best method on implementing a lightweight database in Xamarin, and found that sqlite is the most common choice. Did some minor prototyping to get famaliar with this.
https://docs.microsoft.com/en-us/xamarin/android/data-cloud/data-access/using-sqlite-orm

Was present at a user research meeting where Justin, Dr. Fila and I dove further into how our user research can be expanded.

Completed a CR and merged for a full rename of the project to "Hermes" marking our divergence from CallForCode and adoption of our Code Name based on the Greek God Hermes. Hermes is a messenger, guide, and healer: exactly what our app aims to do.

Robert Schedler - Peer to Peer Communication
*IPhones are not offered for use by ISU
http://underdark.io/

This demo app seems interesting. Fire chat uses a proprietary framework. If we can't find a method to get IPhone and Android to work together, we could consider making 2 networks. Each of the two networks will sync once they connect to wifi.

We need to continue research. David was able to find a promising library that we plan to look into. This week I was unable to find an implementation of the network we wish to create with the exception of fire chat. But with API we just found we may be able to get a prototype soon.

Austin Keen - UX/UI Research and Prototyping
https://www.smashingmagazine.com/2015/02/designing-digital-technology-for-the-elderly/

https://medium.freecodecamp.org/5-principles-for-designing-delightful-digital-experiences-for-seniors-8ece28229653

This research is based on our desire to target the less technologically savvy users of our application. We decided that we should target our UI/UX for the elderly, because all other age groups are much more familiar with technology and can adapt to applications much easier than the elderly. This research can be summed up by two main objectives for our UI/UX design:
1. Have Large Text/Icon Sizes
   a. ~32 point fonts
2. Be Simple
   a. Universally understood icons w/ words underneath
   b. Sacrifice aesthetics for ease of use
   c. Use terms everyone knows, no jargon
Of course, we will make this application beautiful through clean transitions and consistent views, but it will not be flashy by any means. This is also beneficial, because a survival app should be easy to use and not be something flashy like social media applications usually are.

My accomplishments were made by beginning the prototyping and figuring out the design objectives for our application. I have a few sample laid out for my meeting with Nick next Monday and will set the design standards in the following week.

Logan Fladung - Connect with relief associations
I've emailed organizations such as the Red Cross and FEMA. I emailed several regional offices for the Red Cross asking to be put in touch with experts in disaster relief. I explained our project and the goals we hope to accomplish. The goal of my efforts here are to learn what their processes for disaster relief are and to receive suggestions for user requirements.

Justin Kaufer - User needs research and diagramming
Met with our co-advisor Nick to get feedback on established user research and advice for moving forward.
- Go even a level or 2 deeper with abstract laddering

- Ask why to diverge branches until convergence on a new idea
- Hows become more of the underlying variation of a need
- Push to expand lotus blossoms even one step further

We also received advice on design oriented user interviews to use when getting talking to industry professionals or people with first hand accounts.

Link to abstract laddering method:

https://git.ece.iastate.edu/sd/sdmay19-40/uploads/08a4631f8e9a4509c892c541d88aeaca/why-how-laddering.pdf

My accomplishments were mainly focused on directing the current research we have towards user needs by getting feedback from our mentor, and translating that into a direction for the team. We are hoping to evolve these needs into our projects user stories/ feature statements. I evaluated and transformed our diagrams based on feedback and research to bring the team one step closer to our design goal.

Pending Issues
There are no pending issues

Individual Contributions

Team Member	Contribution	Weekly Hours	Total Hours
Caleb Nash	Evacuation Analysis Research	4	16
Justin Kaufer	User Needs Research User Needs Diagram Lotus Blossom	4	14
David Boschwitz	Database research and prototyping User Needs research Change Name from CallToCode to Hermes	5	17
Logan Fladung	Reach out to various natural disaster relief associations (Red Cross/FEMA)	3	11
Austin Keen	UX/UI Design Research & Prototyping	3	16
Robert Schedler	Peer to Peer Communication	3	13

Plans for Coming Week

David Boschwitz - Database library and Component Design

Create database project that will work with our database for us, creating an abstraction layer between any future code and sqlite.

Create component design to better look at next steps for the core project and how it works with our capabilities.

Caleb Nash - Xamarin with maps
Research different map API's that will work with Xamarin and that we will be able to afford with our current financial compensation (zero).
Try to get a map demo done that will be easy to navigate that will work on iOS and Android.
Try to get an iOS emulator that will be easy to deploy and use, as well as test.

Robert Schedler - Component Design
To avoid losing a week of work. We feel that our requirement phase is coming to and end and it would be beneficial if we had a clear design path to follow so we don't waste week getting the design hammered out. I plan to work closely with david to design the stack.

Austin Keen - UX/UI design standards
I will be researching specific fonts to use in our application, as well as universal icons that will be easy to understand and easy to navigate designs for all ages. I will be meeting with Nick this coming Monday to discuss my research and future plans.

Logan Fladung - Continue reaching out to experts in field
I've sent several emails out to Red Cross employees and I've gotten a response back from the interim Regional Disaster Officer. I intend to interview him and others about user requirements we may have overlooked and get professional opinions about our project.

Justin Kaufer - Continue with user needs design and prototype research maps
I will be working on integrating the feedback we received from Nick on our current user research and diagrams to further our progress. We will be meeting again to look at the revisions as well as the UI/UX research Austin has been doing. Along with that I will be joining caleb on research and implementation of map api into our application on Xamarin.