CprE 492 - sdmay19-40
Bi-Weekly Report 2
1/28/2019 - 2/11/2019
Client: IBM Call For Code
Faculty Advisor: Diane Rover

Team Members:
David Boschwitz - Team Lead
Caleb Nash - Lead Frontend, Maps Guy
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 - Development work utilizing Xamarin.Forms for maps

Started diving into heavy use of Xamarin.Forms, which is a complete cross-platform UI (User Interface) toolkit for building fully native Android and iOS apps using C# in Visual Studio. We have split up development on maps into two main sections: custom pins and traffic.

Custom pins will be utilizing Xamarin.Forms to help render custom maps and map pins on different platforms. The following diagram illustrates the relationship between the map created by Xamarin.Forms.Maps and the corresponding native controls that implement it:
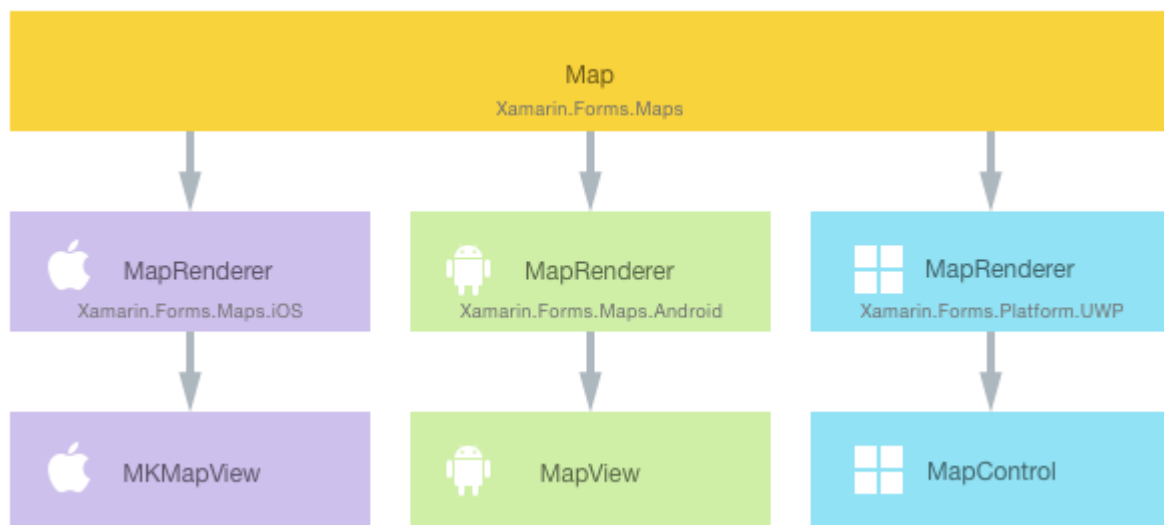

Traffic will be a task that will be solved using the Google Routes API, and will be completed after doing work with custom pins, as this will build off the maps we use for the above section.

David Boschwitz -

Robert Schedler - Worked on chat functionality.

This week I set up a client, server and database, and set up a public IP to allow us to test our app in a live setting as well as to allow my team members to have access to a SQL database for them to use how they please. Currently my chat application can send messages over LTE to the server, where It is stored on a database. I need to think about how the user will get notified if a message has been received.

The Image is a screen shot of the the chat application I made so far (work in progress). As of right now only messages can be sent from the phone, and not received. So the message from "Jake from State Farm" is an example of what a received message would look like.
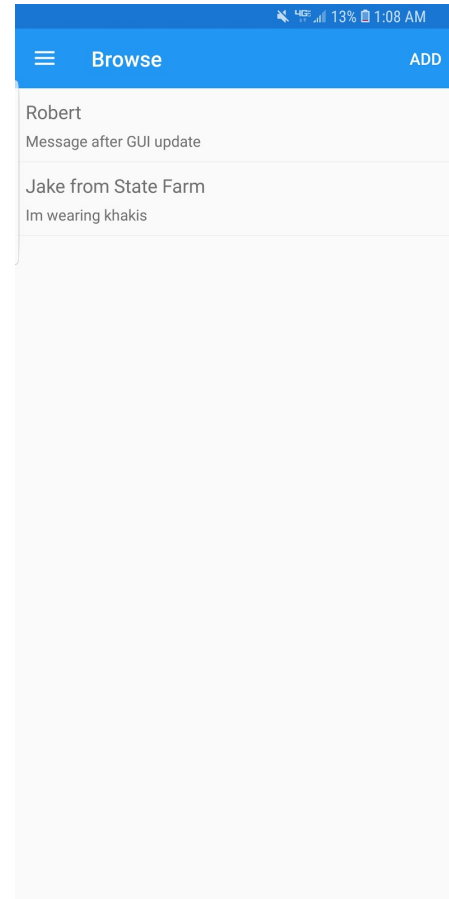

Austin Keen - Overhaul UI Mockup and Research Implementation

For this sprint, I updated the UI to be a much more fluid, and aesthetically-pleasing. With this update, the application UI is prepared for focus group testing. With the help of David, we have found a way to easily transport the UI mockup into our application. With our backend coming together, we plan to test the mockup with focus groups and then implement it into our application upon the completion of the backend.

The overhaul was a much needed addition, after research and personal critiquing lead to our original UI being too blocky and uncoordinated. This UI will be a very solid base for the focus group testing that will be spearheaded in the future.

Original UI: Updated UI:
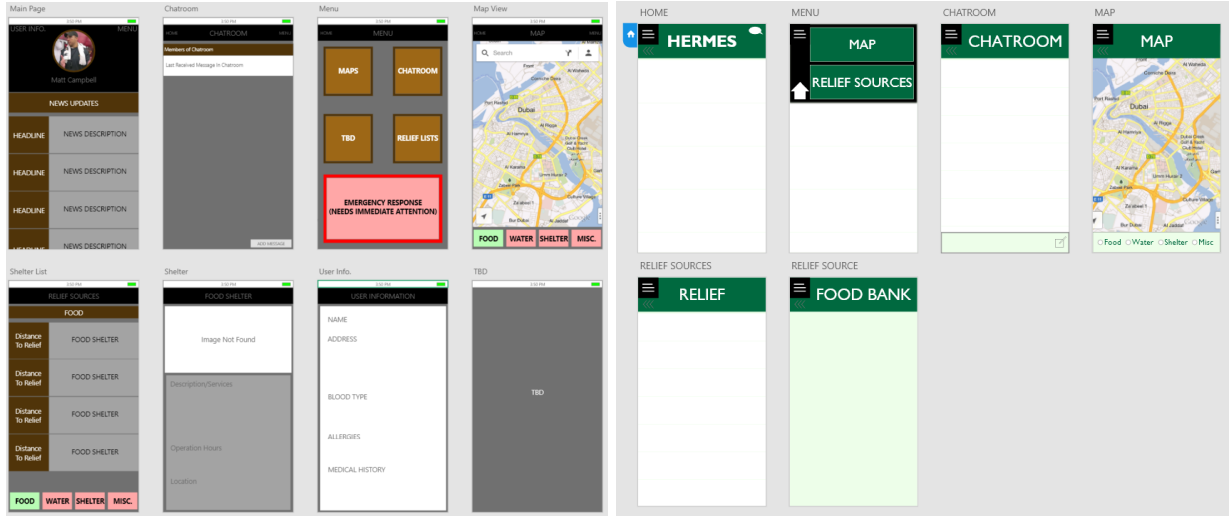
Logan Fladung - News Section Implementation

This week I began work on creating the News section. This will be a dynamic page that reads data from the local SQLlite database. This required making functions to create XAML classes such as the StackLayout, Grid, and Labels. The labels are made of the strings/data from the database. During my work, I wrote functions to construct the labels made from database strings.

Justin Kaufer - Maps implementation

This week Caleb and myself focused on creating a minimum viable product for the maps capability. It turned out to be much tougher than we expected to implement google maps into our project. After following a couple tutorials we were able to load the api into our projects. We were able to construct two different views of minimum functionality for what we want in our project. There is much more to improve though.

Along with getting the api to work, I started constructing our data structures we are going to use within our maps. Specifically I built the different pins that will contain information on the location of crucial supplies during disasters. The data structures will need improvement, but I completed them for our minimum requirements.

Pending Issues
There are no pending issues

Individual Contributions

Team Member	Contribution	Weekly Hours	Total Hours

Caleb Nash	Location App	8	12
Justin Kaufer	Maps implementation	8	13
David Boschwitz	Finalizing Documentation		
Logan Fladung	Finish presentation and documents	6	12
Austin Keen	Overhaul UI Research Implementation From XD to Xamarin	10	20
Robert Schedler	Chat	12	16

Plans for Coming Week

David Boschwitz -

Caleb Nash -

Robert Schedler - Continuing chat

By next report I want to have full back and forth communication in the chat application. I would also like to be able to set chat parameters, like location so a user can only talk to red cross employees nearest them.

Austin Keen - Meet with Nick and begin focus group testing

I plan on meeting with Nick to start this sprint, which will gather a variety of inquiries to gain the most information from UI testers to better improve the user's experience. I will be sending the UI to some friends of mine in the design department who will give me a much more professional view on the aesthetics of the UI.

Logan Fladung- News Section Development

The next phase of development will be inserting the constructed classes into the XAML view. I need to research how this is done I plan to refactor as I go along for readability. Once this is done, I can begin working on the specifics on the News report table.

Justin Kaufer - Improve maps functionality

Our biggest goal for the upcoming week is figuring out a way to directly interact with the map displayed on the screen. We would like to be able to drop pins from an admin's perspective on where supply locations are. An initial idea is creating a custom renderer.