Challenges

Good Evening everyone, tonight I will go over with you the challenges that we faced during our project. The first challenge we faced was the challenge of working with new languages and frameworks. Even though we have all worked with javascript in our previous classes there are many differences in it and React Native. We also had challenges relating to the navigation functionality within React Native and actually began the project using two navigation methods before making our final decision. We also faced challenges with our backend process. Learning Kumulos was a new experience for us all, but I will say that I think the learning curve with Kumulos was quite a bit smaller than React Native.

Speaking of our backend process that brings up another challenge we faced. Last semester we researched and selected Kinvey as our MBaaS backend. It wasn't until just before the beginning of this semester that we learned that Kinvey does not support React Native. After a little bit of scrambling, we were able to get Kumulos up and running, and it became a very useful tool.

Another challenge we faced was minimizing merge conflicts. At any one time we had between 3 and 5 developers creating branches from the same code base which made it difficult to control merge conflicts. We overcame this challenge by having one main person who did the merges usually with one other person "looking over their shoulder" and helping resolve conflicts.

The final challenge we faced was sponsor meetings. On a team made up of 5 IT professionals/full time graduate students and 2 medical doctors, time is in very short supply. We faced some difficulties in being able to get the whole team together to collaborate. In the end we changed some of our methods to overcome the issue. We have switched from having full group meetings to having smaller group meetings and we have also started using videos as a way to communicate demos of the application. Both of these changes helped us become more productive.

Lessons Learned

Communication (Target Environment, Wireframes, Use Cases, Prototype Definition, Sponsors Immediate Goals)

For Prototype Definition and Sponsor's Immediate Goals, overall we think we could have used these better to prioritize our work by finding out what the sponsor meant by prototype and what their plans were once the prototype was complete. We also feel that we could have used wireframes, and use Cases to0 help us with this as well.

Development Framework (Time Estimation, Learning Curve, Choice Timeliness)

Looking at the development that we did and the framework that we used we feel like we could have done a better job estimating the time it would take to complete our tasks. As I mentioned

in challenges we under estimated the learning curve we faced using the development tools. We also think that we could have made better decisions on the tools that we selected and possibly could have saved some time if we had made quicker/better choices like the decision with the Kinvey and Kumulos backends.

Minimizing Scope(Utilizing Project Charter, Identifying MVP, Building Leadtime)

I think my whole team would agree that we probably took on more than we could probably get accomplished in the timeframe we had for our project. Looking back on the project and trying to come up with ideas of how this could have been done better we think that we could have used more definition in the project charter of what would be delivered. We also think we could have done a better job of identifying truly what the minimum viable product was. Finally, we think we could have built in more lead time for the development work that we did, and that we possibly could have delivered more of the application if we had started on it sooner.

Handoff Plan

Finally I'd like to walk you through our hand off plan. As part of our hand off plan we will be creating documentation giving an overview of full make-up of the application.

- We will begin by sharing with our project sponsors the github repository in which our code and documentation is located, making sure they have access for any future development needs.
- Similarly we will share our Kumulos access with them as well, making sure they have access and the ability to grant access to any future developers.
- We will include an overview of some of the development tools we used on our application including React Native, NPM, and Android SDK.
- We will also document any outstanding defects, and any features that we were unable to deliver so they can be addressed by future developers.
- We will also share our test approach that we used in testing the functionality within the application.
- Finally we will share an overview of the code.

And Now I'd would like to turn the presentation over to Ben Pitts to demo our application so he can show you all of the things that we did accomplish this semester, and maybe we'll see if Amanda our Anesthesiology resident is going to get the tool she needs to care for her patients.