

Microsoft Spot Market 2 | 24/03/17

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Progress

What have we done?

In the first week, we continued working on the mobile app. We spent the first few days to go through the Xamarin book given by Yun Fu in an attempt to get more insights into the development process. We then went on to improve the front-end whose prototype can be found in the project's website. We updated the website contents as usual and added extra information for the Tuesday's lab assessment of the website.

The beacons arrived in the second week. After collecting them, we read through the documentation sent from the company to try and gain a better understanding of the devices. We were able to implement simple functionality like sending and receiving signals between beacons and a phone. We included all of these into a separate companion app through which we can read the beacon ids. The next stage would be to integrate this with our working app.

Meeting summary

Team meetings: During the period, our team gathered to experiment more with the beacons and try to integrate the main functionality into the client app. We finished adding other small functionalities into the retailer app and we improved the algorithm to detect zones, making it able to also detect zones of different shapes other than rectangles.

Client meeting: During the client meeting we demoed the retailer and client apps. For the retailer app we demonstrated how to draw a map and upload it on the server and for the client app we showed the front end that we had. The client liked everything about the project and added a few small improvements that we could make only if we have time. We also demoed the companion app to read beacon ids and he said we could provide the code for that as well. He also mentioned that the beacons we chose were really good and not that expensive. We also confirmed a date to give our client access to the code that we are building and he said we should document the work properly and explain how to deploy the app.

Evaluation

We made a quite satisfying progress on the development. We already started working on the beacons in which we managed to successfully implement some functions. The web app is

almost 100% complete and there is now only the backend left on the mobile app. We should be able to reach all our goals as stated on the website within the coming few weeks.

List of activities we achieved:

- Collaboration with other Microsoft Spot Market teams
- Study about Xamarin and beacons
- Development of the mobile app
- Further improvements to the web app
- Updating website contents

What's next?

Given that this is the last bi-week of the term, it will be very difficult for the team to work together on the project. In response, we dedicated some meeting time to assign work in each individual to work on during the break. We will regularly have Skype calls to ensure progress as well as effective team communications. We plan to complete the project before the beginning of the summer term on the 24th April.

Over the holiday, we will be finishing the backend for the mobile app and mostly we will be making minor improvements the retailer app and the website to properly fit our client's expectations. If we have enough time after finishing all the deliverables, we might implement additional functionalities that our client mentioned (though he said not to worry too much about it). For example, we could integrate the Estimote API into the retailer app so that the user can get a list of the beacon ids in the dashboard and set their positions inside the store more easily.

Individual paragraphs

Cosmin Nicolae Bresug

My main responsibility in the last two weeks was to update the website and work on the frontend of the client app. I added new sections on the website regarding what software engineering methodologies we used and what type of testing we are conducting. Moreover, based on the paper prototype, I integrated an interactive version into the website. Finally, after finishing the front end for the mobile app, I worked on scale for different phone versions, as this is a common issue with Android apps. Each display size can act differently, so I had to make sure that our app was compatible with every screen.

Tudor Nica

During the previous 2 weeks, my responsibility was to implement some of the changes that the client required for the retailer app (i.e. the app now detects zones of any kind of shape, not just rectangles). I was also responsible for starting the work on the backend of the customers' app. I

started to work with the beacons after we received them on Tuesday, managing to calculate the distance between a beacon and the user and to send the beacon's id to the user's device.

Phoom (Thomas) Yenbamroong

I was responsible of setting up meetings among the team members. I also ensured that the project did not run behind the schedule and assisted in both web and mobile apps improvements. Moreover, I worked on the team's roadmap during the holidays in order to make sure that we have a concrete plan of completing the project during holidays. The report was mainly my responsibility.