

Find A Room

Sprint 2 Retrospective

CS 307

Team 13(Snoxy)

November 17, 2014

Members: Nathan Chang
Xiaojing Ji
Zilun Mai(Owen)
Saranyu Phusit(Team Leader)
Yao Xiao

Instructor: Professor Buster Dunsmore

Project Coordinator: Miguel Villarreal-Vasquez

1 What went well

Out of 24 tasks of 8 user stories, we have completed 23 tasks (see last page) with a major improvement in the quality of the app including the new UI. The assignments on this sprint mainly concentrate on enabling QR code scanner to determine user's location on the map, adding geolocation feature to the back end, and improving user interface and database of our system (see last page).

External Library

We have included two open source libraries: the QR code scanner and the geolocation. The QR code scanner was the task postponed from sprint one and we managed to finish it with the manual camera capturing instead of webcam recording. The capturing works 90% of the time with the clear QR code. The app can also recognize which building the user is located in with the newly-implemented geolocation, which will be running once the user opens the application.

Main Application

We decided to utilize MeteorJS, which allows the UI to update instantly after the data is modified. We spent some time learning it and it helped reducing the implementation time greatly. The current location and destination can be displayed instantly after the user input from either the QR code scanner or the input text box. The public facilities locations were added and could be shown in the map along with the current location. We also successfully deployed an app on the real iPhone, ensuring the usability of the QR code and geolocation.

Database

We successfully change from the basic database to MongoDB, allowing us to handle the database task more efficiently. Since everyone of us are new to this technology, it took us some time to learn. The MongoDB isn't perfectly compatible with MeteorJS, so there were bugs after we tested in MongoDB. Nonetheless, the database query functions necessary for all the user stories in this sprint were successfully implemented and are working properly. Two databases were created to handle the public facility data and the room data separately. Comparing to previous room data on sprint 1, we corrected coordinates of rooms to ensure its accuracy on the map. We also created a new database to store the geolocation data.

2 What didn't go well

We had some problem distributing the tasks due to the lack of background knowledge. Some of the tasks required the learning of new technologies. Also, some member(s) of the group did far less work than the other members, delaying the development process. To keep the

development continues, some members had to do the work outside their responsibilities. Despite all the problems, the only task we weren't able to finish is listed below.

User Story: As a user, I would like to see the suggestions while inputting the destination Task: Application shows the possible destination as an autocomplete list for the textbox

Though the app can generate the list of suggestions while the user is typing, the corresponding UI is not fully implemented. This was due to the critical problem in the QR code scanner part. The developer responsible for this task had to postpone it to fix the QR code scanner, which is our foremost priority. Since UI is the only thing that is not ready, this shouldn't delay the development process for other user stories much.

3 Improvements

- **Estimated hours of working.**

After our first sprint, we figured we need more time than we estimated due to the QRcode scanner issue. The fail in sprint 1 helps us getting more accurate in estimating the workload we have for the next sprint, and we shall finish all the tasks in a timely manner. We should keep track of the work done by each team member to make sure everyone is working their own parts properly.

- **Team communication.**

We need to commute more during the sprint. During sprint two, we have some misunderstanding with the platform problem. We should estimate the hours for this task more accurately, especially the task that requires a learning of some new technology which anything could go wrong.

- **Planning.**

We were not super coordinated for plans. When we did meet up and worked we had to spend time regrouping and figuring out more about what each person needs to do. This slowed down production and caused some bumps during our meetings. We should know what we are doing well before meetings and be prepared to talk about how our part links with other people's parts.

4 Sprint Details

User Stories: As a user, I would like to have a QRcode Scanner (Focus on size, nonfunctional)		
Tasks	Estimate time	Owner
Create UI for QRcode Scanner	3 hours	Gott
Open the Camera for taking photos of QRcode	5 hours each	Xiaojing Nathan
Application receive the QR code photo	5 hours each	Xiaojing Nathan
User Story: As a user, I would like to use the QRcode scanner to determine the location from the map data (size)		
Tasks	Estimate time	Owner
Application resizes and adjusts the QRcode for later QR code recognition.	6 hours each	Xiaojing Nathan
Read QRcode and find the corresponding ID to the QR code.	4 hours each	Xiaojing Nathan
Use the QR code to find the corresponding map from the database.	3 hours	Yao
User Story: As a user, I would like to input my current location (room) manually		
Tasks	Estimate time	Owner
Application nicely shows the input text box for this purpose	2 hours	Gott
Application receives user input and send it to be processed	4 hours	Gott
Have a solid database for the room data	10 hours	Zilun
The database process the query and return the current location data	4 hours	Zilun
User Story: As a user, I would like to have the application know which building I am currently in without inputting the building name		
Tasks	Estimate time	Owner
Application obtains the user's geolocation	6 hours each	Xiaojing Nathan
Application uses the user's geolocation to find the corresponding building	4 hours each	Xiaojing Nathan
Application have a solid database for the geolocation data	5 hours	Zilun
The database process the query and return the current building data	3 hours	Zilun

User Story: As a user, I would like to see the building map and the current location according to the map		
Tasks	Estimate time	Owner
Application shows the map corresponding to user input	4 hours	Gott
Application obtains the coordinate that represents the location of the user	9 hours	Yao
Application displays the point that represents the user location on the map.	2 hours	Gott
User Story: As a user, I would like to see nearby public facilities on the map right away		
Tasks	Estimate time	Owner
Application has the database separated for the public facilities	11 hours	Yao
Application obtains the list of close public facilities from the database	5 hours	Zilun
Application shows the corresponding public facilities on the map	4 hours	Gott
User Story: As a user, I would like to have an interface to input the destination(Focus on size, nonfunctional)		
Tasks	Estimate time	Owner
Application elegantly shows the input box on the map screen for ease of input	4 hours	Gott
Application receives user input and send it to be processed	1 hours	Gott
The database processes the input and return the destination	7 hours	Yao
The final destination will be shown on map with the right scale and position	3 hours	Gott
User Story: As a user, I would like to see the suggestions while inputting the destination		
Tasks	Estimate time	Owner
Application has the method for querying the list of possible destinations from the database	3 hours	Zilun,Yao
Application shows the possible destination as an autocomplete list for the textbox	2 hours	Gott
Application updates the list while user types	1 hours	Gott