

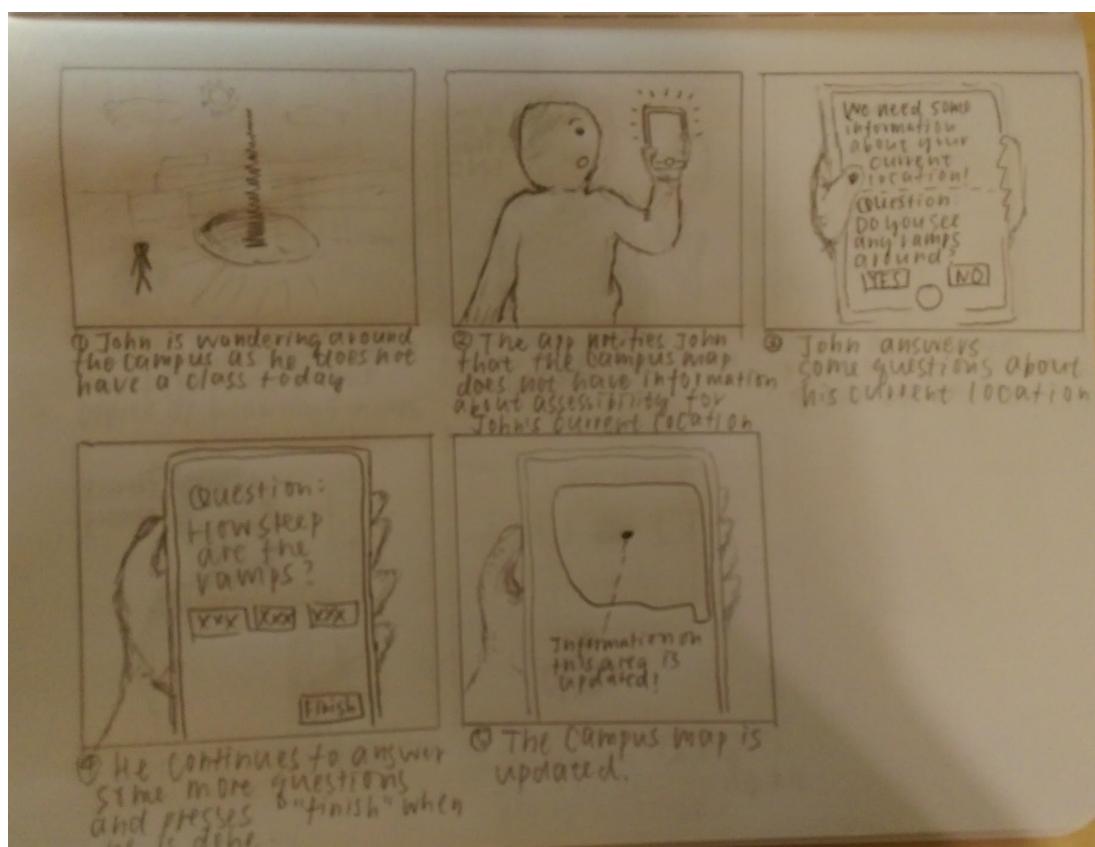
P3.1

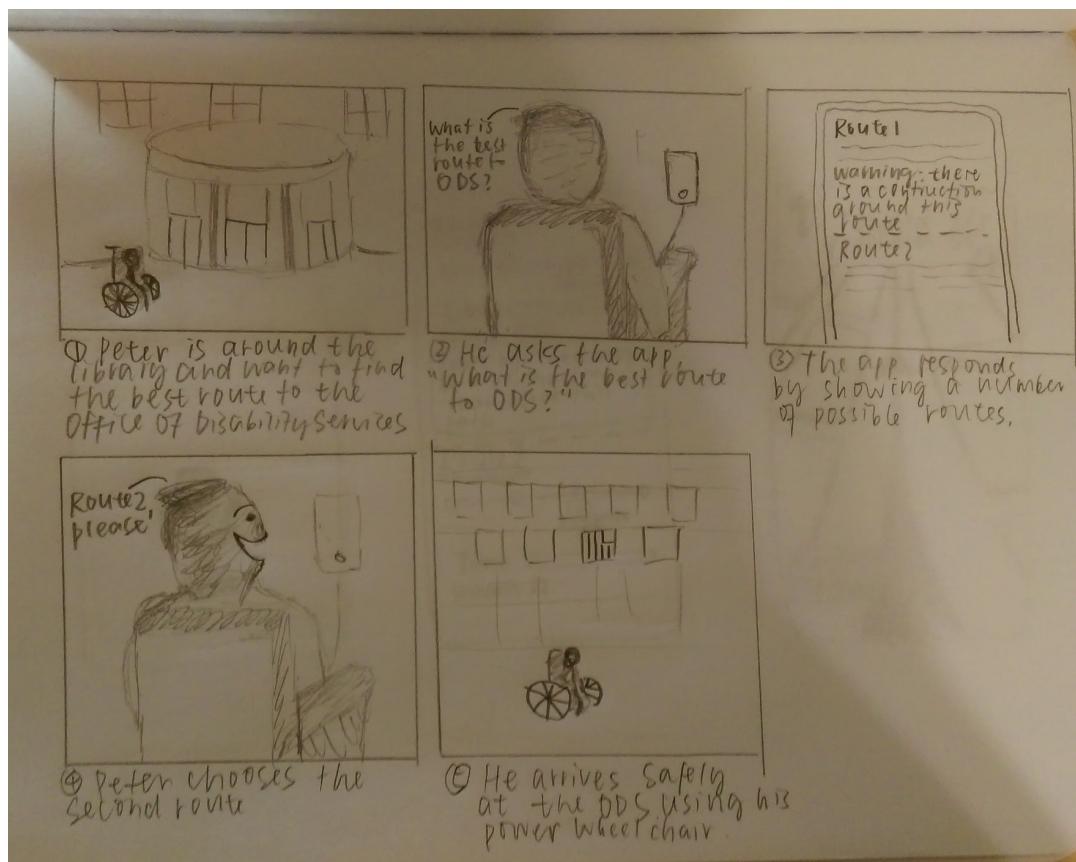
First solution: Mobile Application

a. A paragraph description of the basic idea of this solution

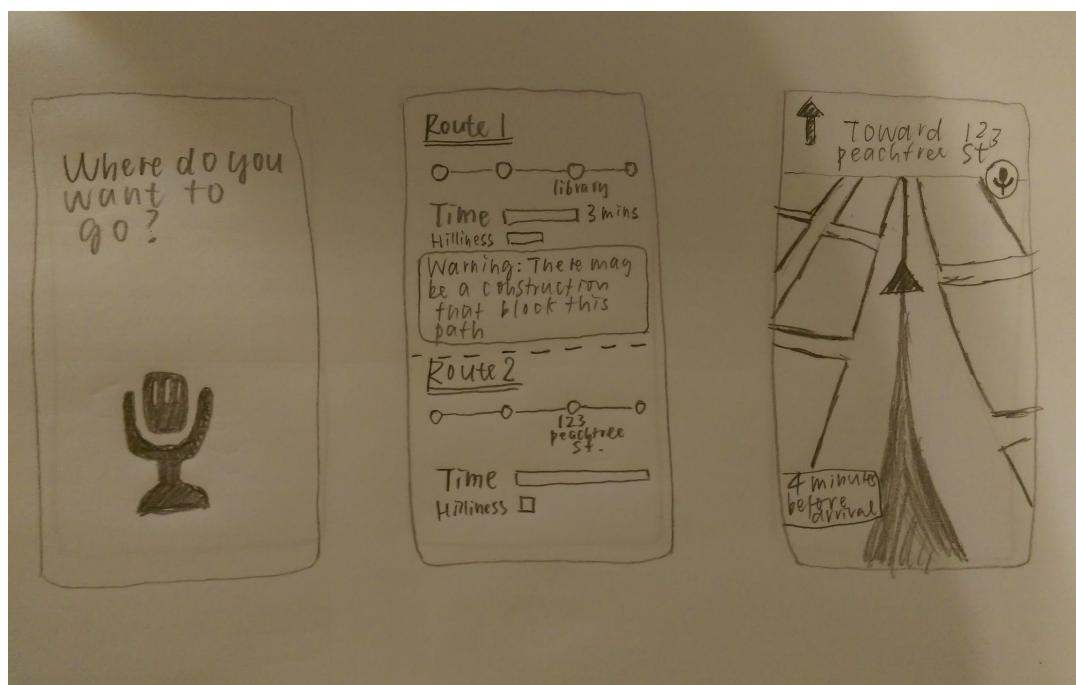
Two important criteria for our solution is 1) being able to provide up-to-date and complete information and 2) allowing users not to use their hands while navigating. To tackle 1), our mobile app allows people to update information on campus through crowdsourcing. For instance, when students find that a path is blocked because of a new construction, they can tell the app about this and the app will update the campus map accordingly. To address 2), our app offers voice navigation to students with mobile disabilities. The major feature of the app is route suggestion based on the most updated map. The app is also designed to be context-aware. For example, if it knows that a user has a class tomorrow at 4:30pm and that there will be a heavy rain around that time, it will prompt the user to schedule Stingerette head of time so that s/he does not have to wheel around the campus and get drenched.

b. Storyboard and UI design





The system is a mobile application. Users are expected to interact with the application (attached to the wheelchair) using speech. Besides screen output, the app provides voice feedback to users.

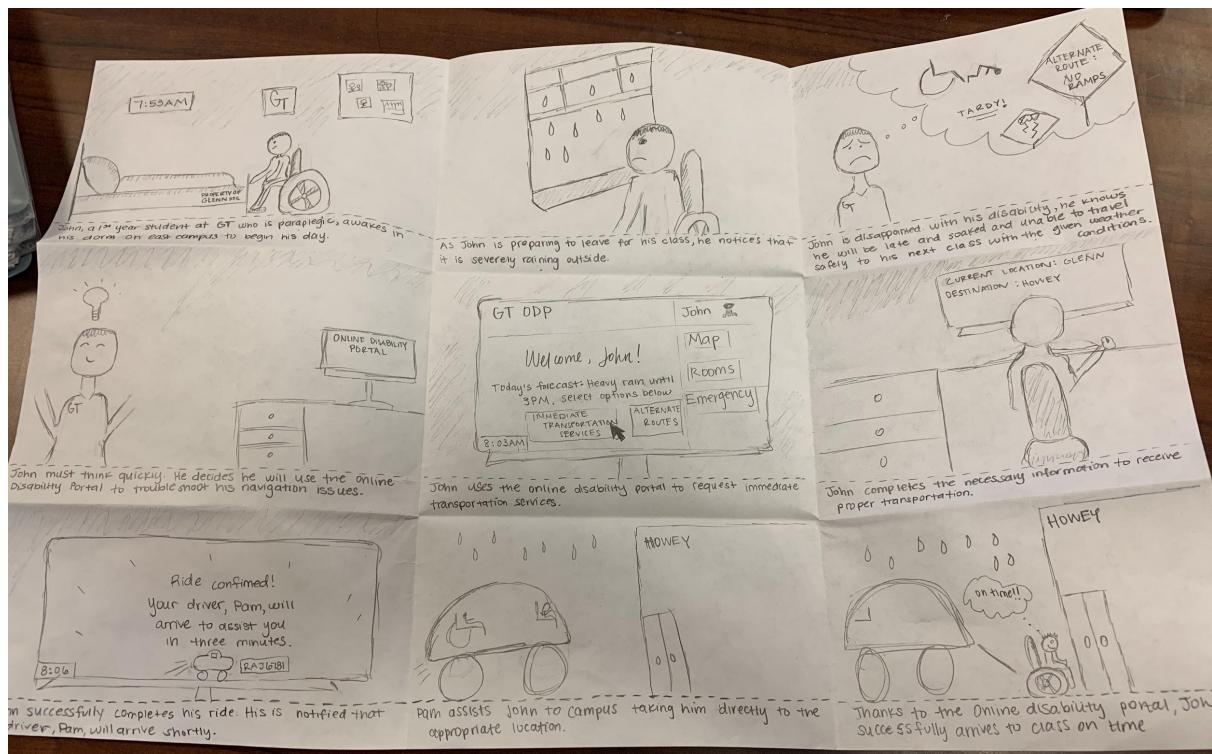


Second solution: Online Portal

a. A paragraph description of the basic idea of this solution

The solution is a comprehensive website containing information for disabled students to properly function and navigate campus. This portal would have weekly video updates about information that students with mobile disabilities need (for example: the new construction that is occurring on campus that may impede access to certain travel routes). Additional functionality will include helping students request transportation across campus in bad weather conditions, emergency class excuse note request systems and an interactive map of some of the study spaces on campus that are accessible to everyone. Lastly, the website would contain enhanced transportation assistance to allow students to access escorts and stingerettes that are exclusively reserved for disabled students only.

b. Storyboard and UI design



GT ODP

Search Anything

Home Office of DS Transportation Weather updates

Sign in

Register

Welcome

To the Georgia Tech Office
of disability services
ODP (Online Disability Portal)

Map

Rooms

Emergency

(1)

Enter Username

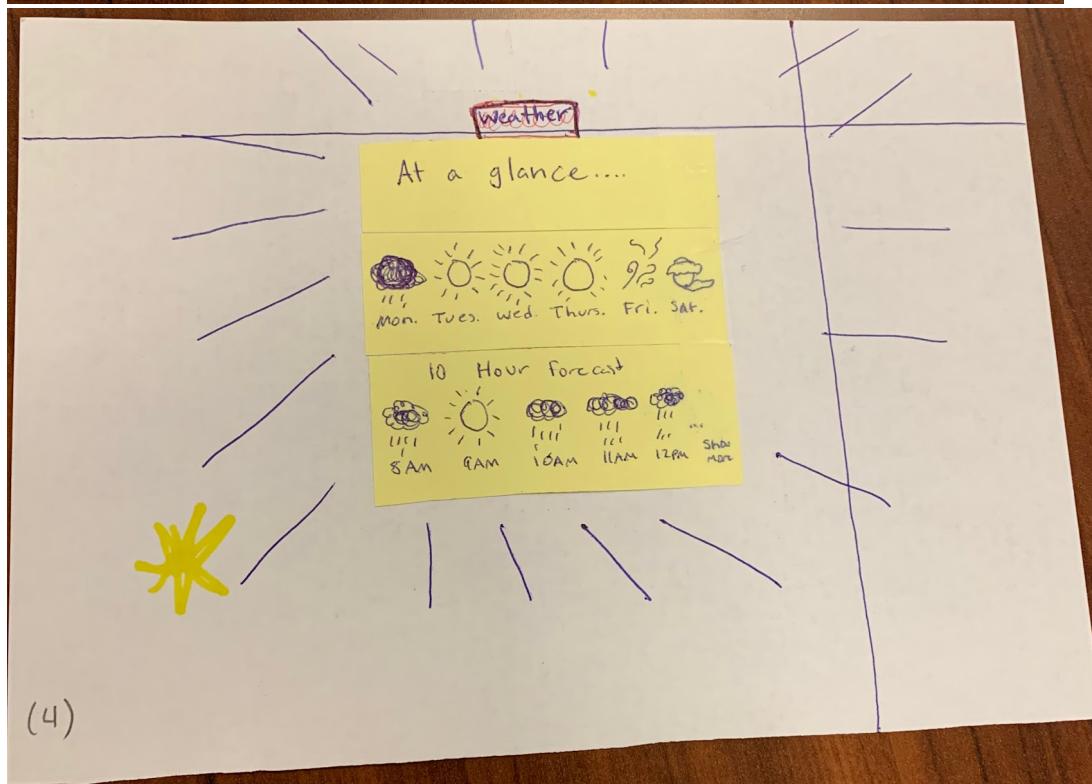
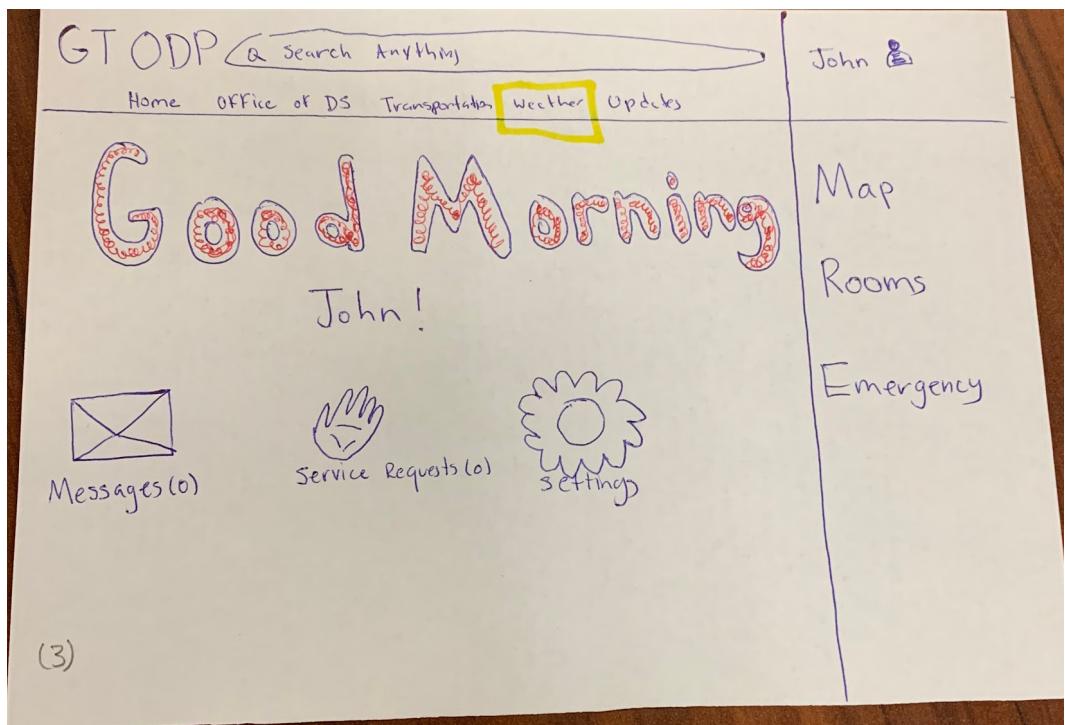
John12

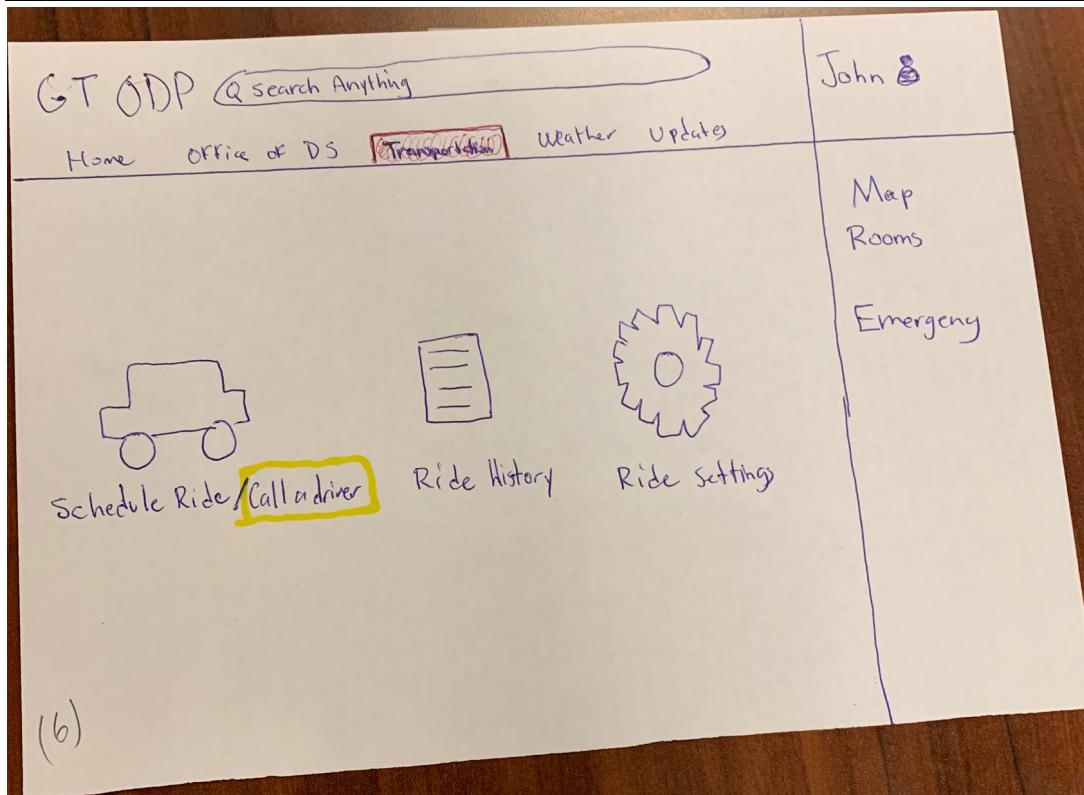
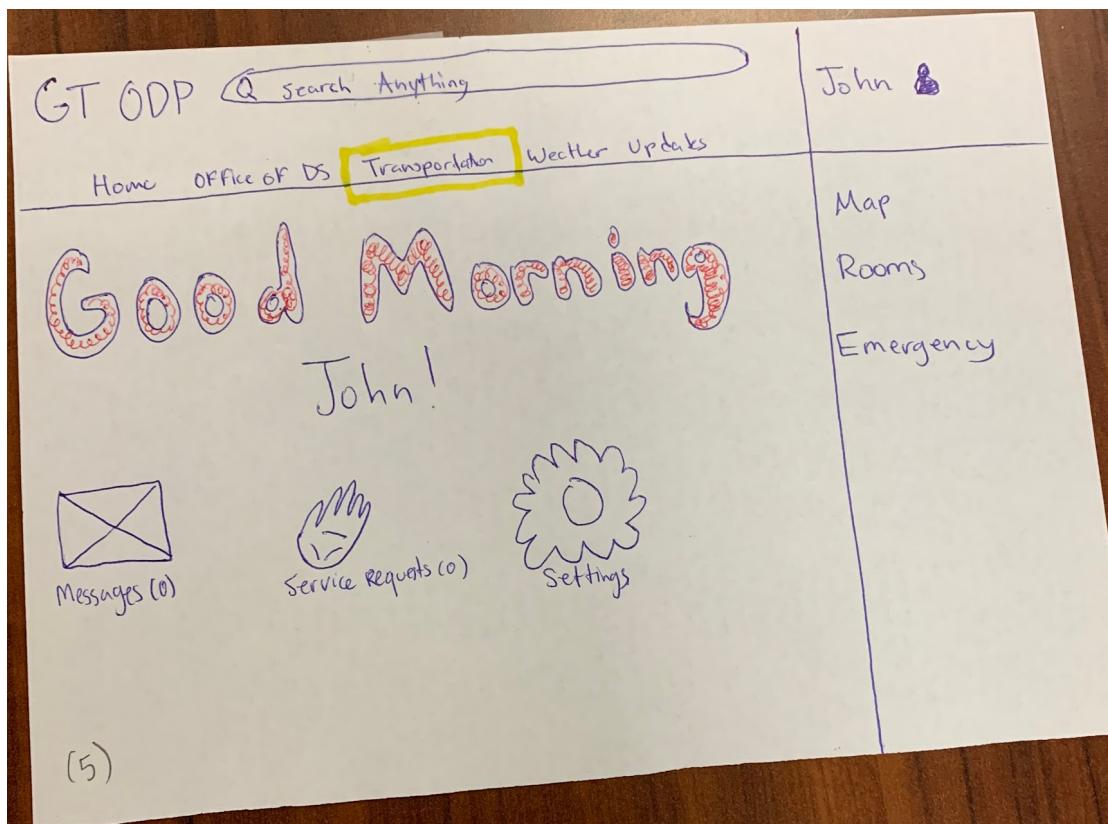
Enter password

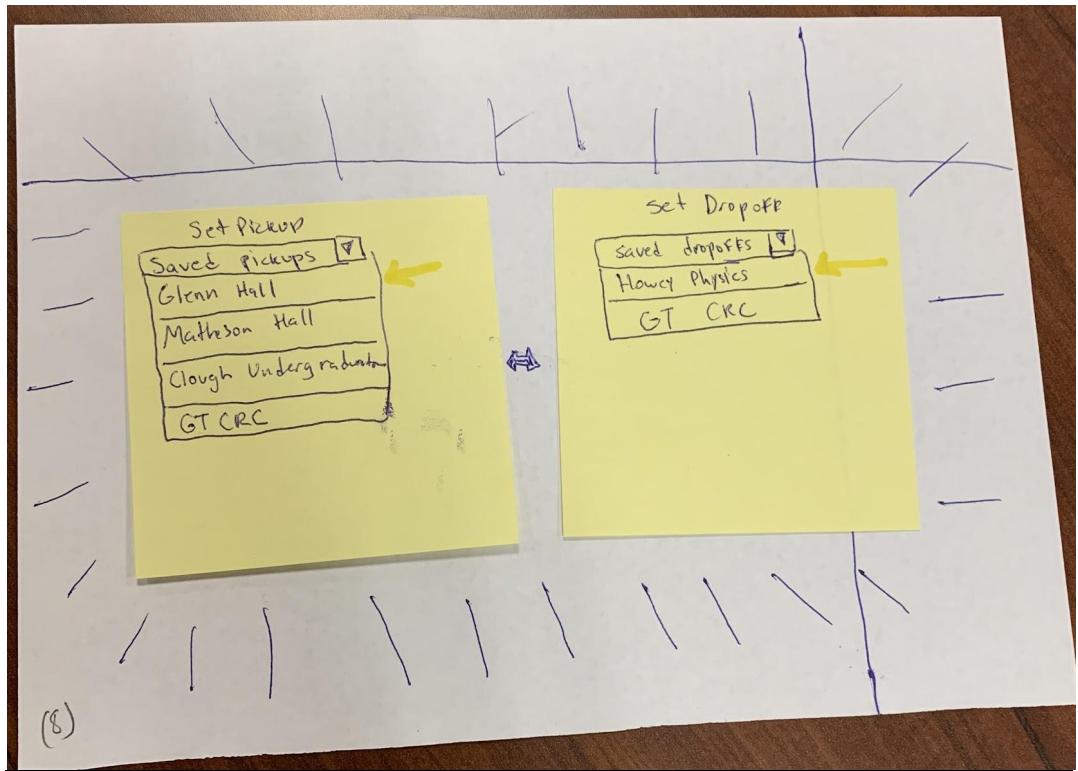
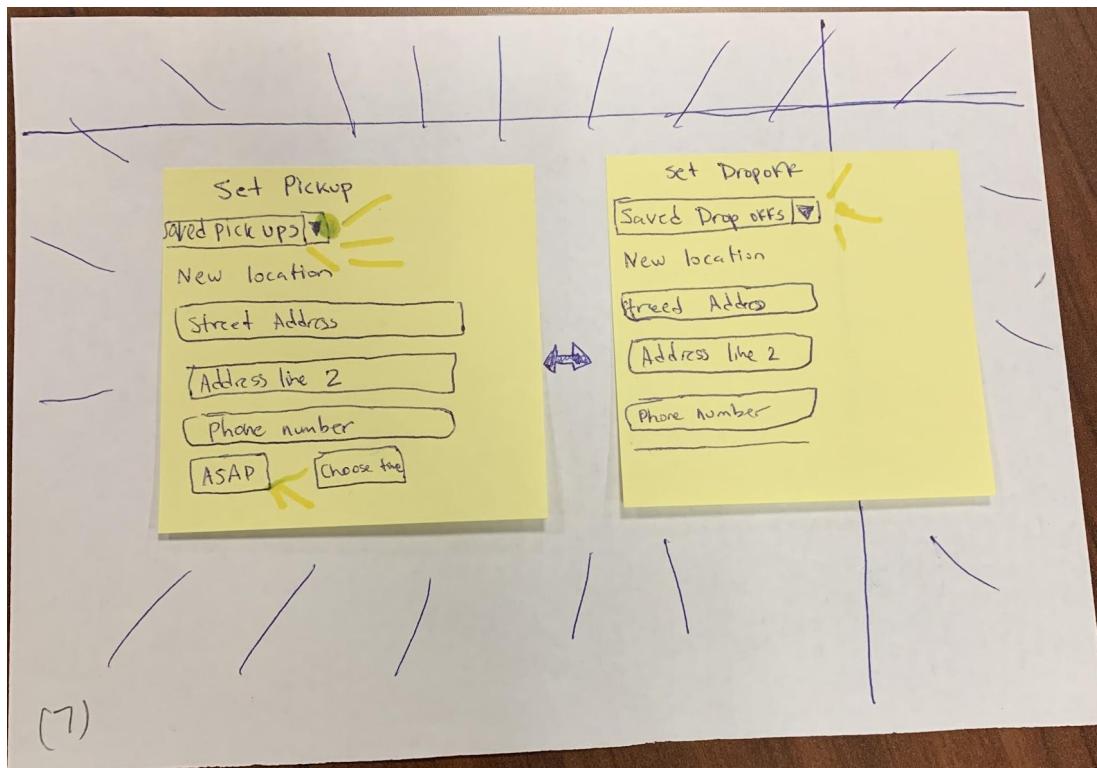
Sign in

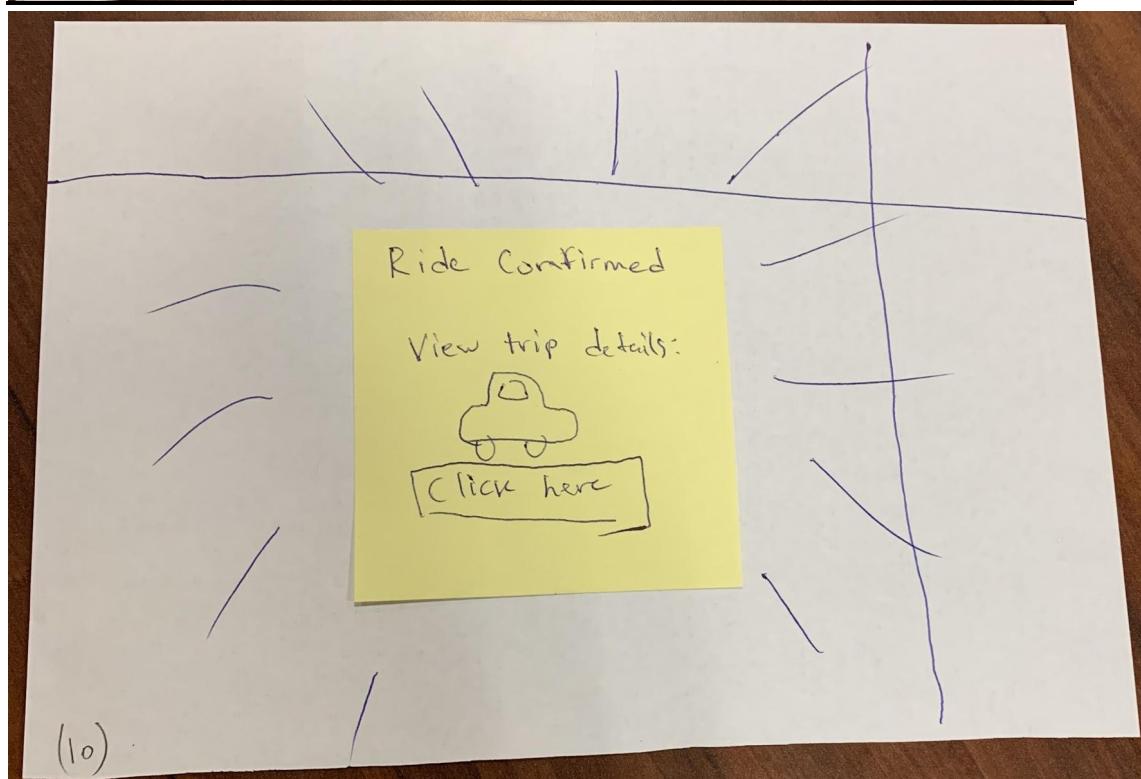
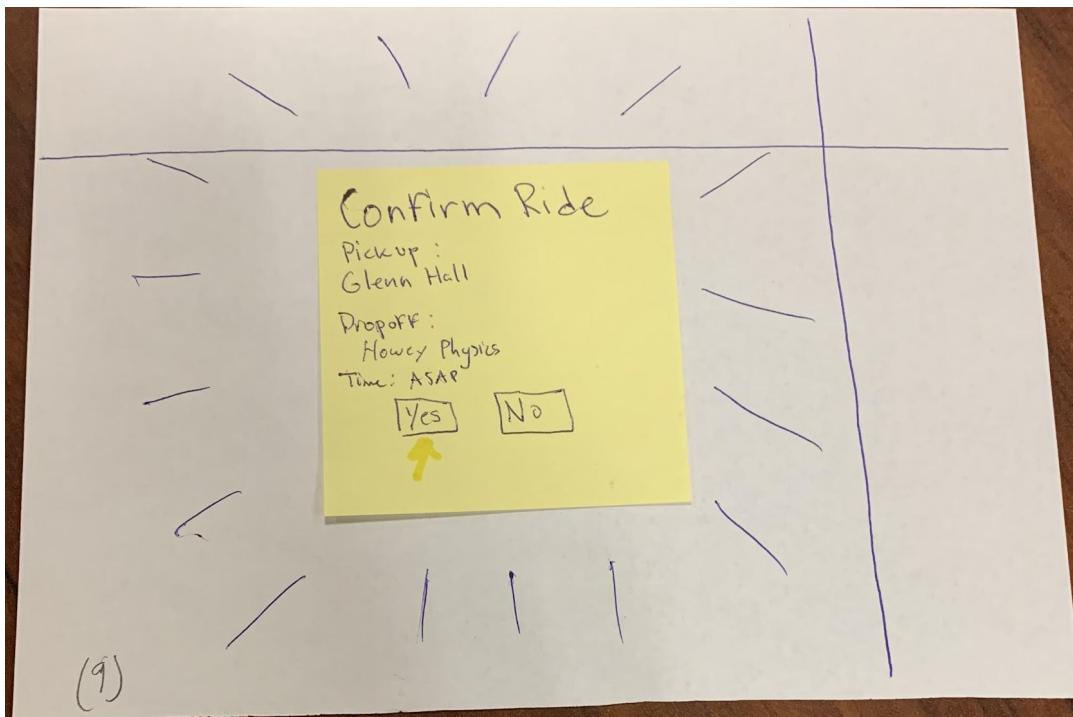
Forgot username or password?
Click here

(2)







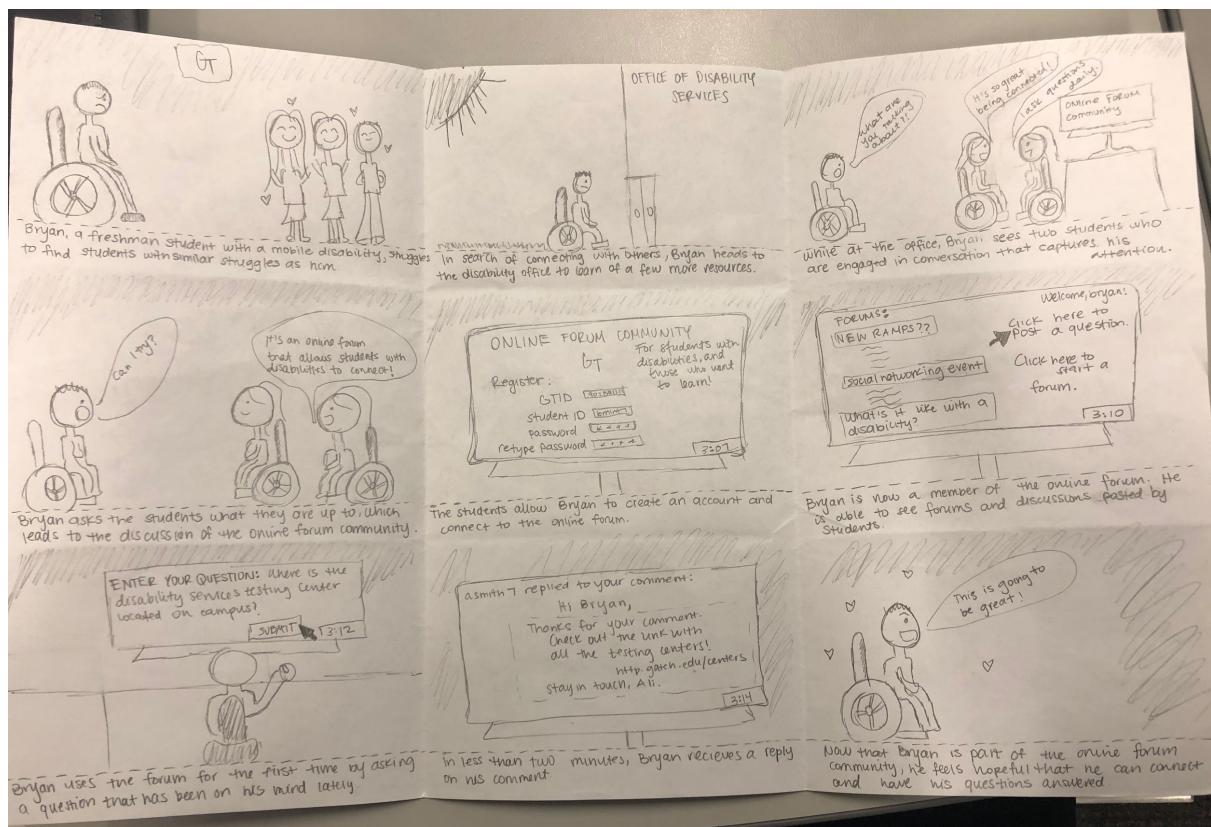


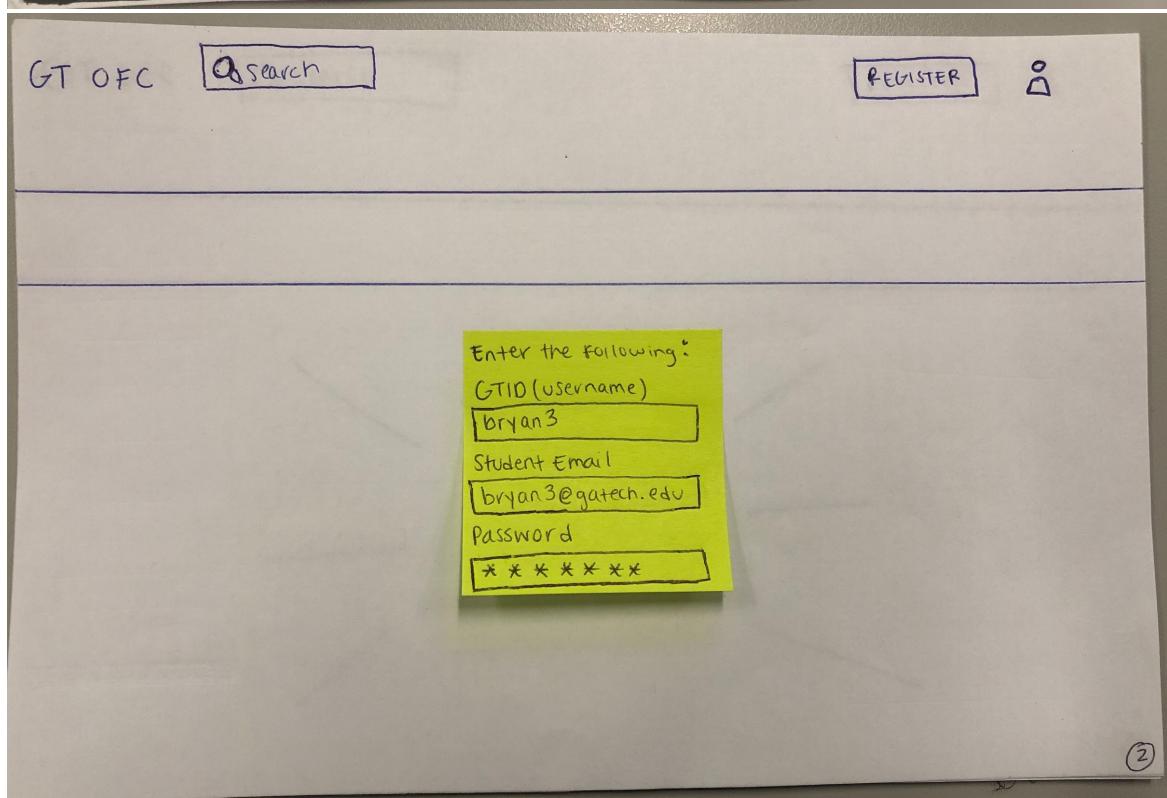
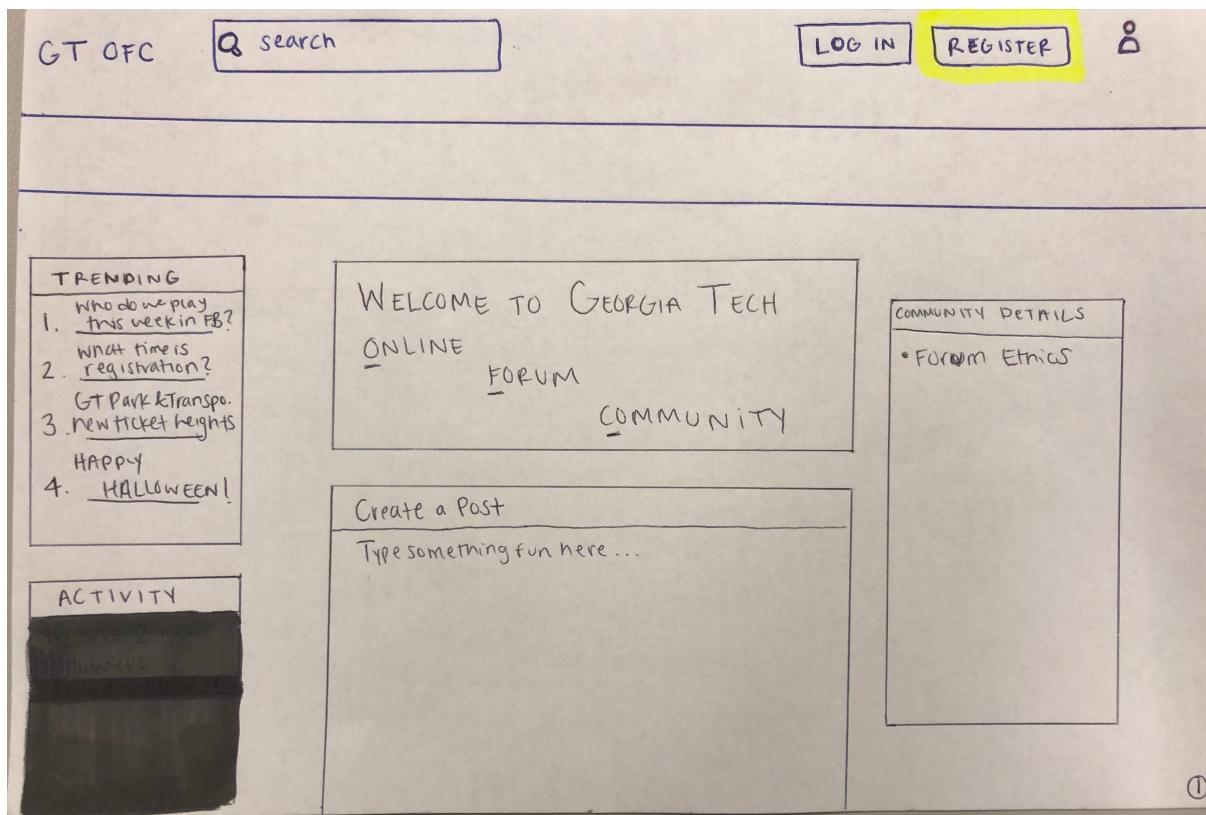
Third solution: Online Forum Community

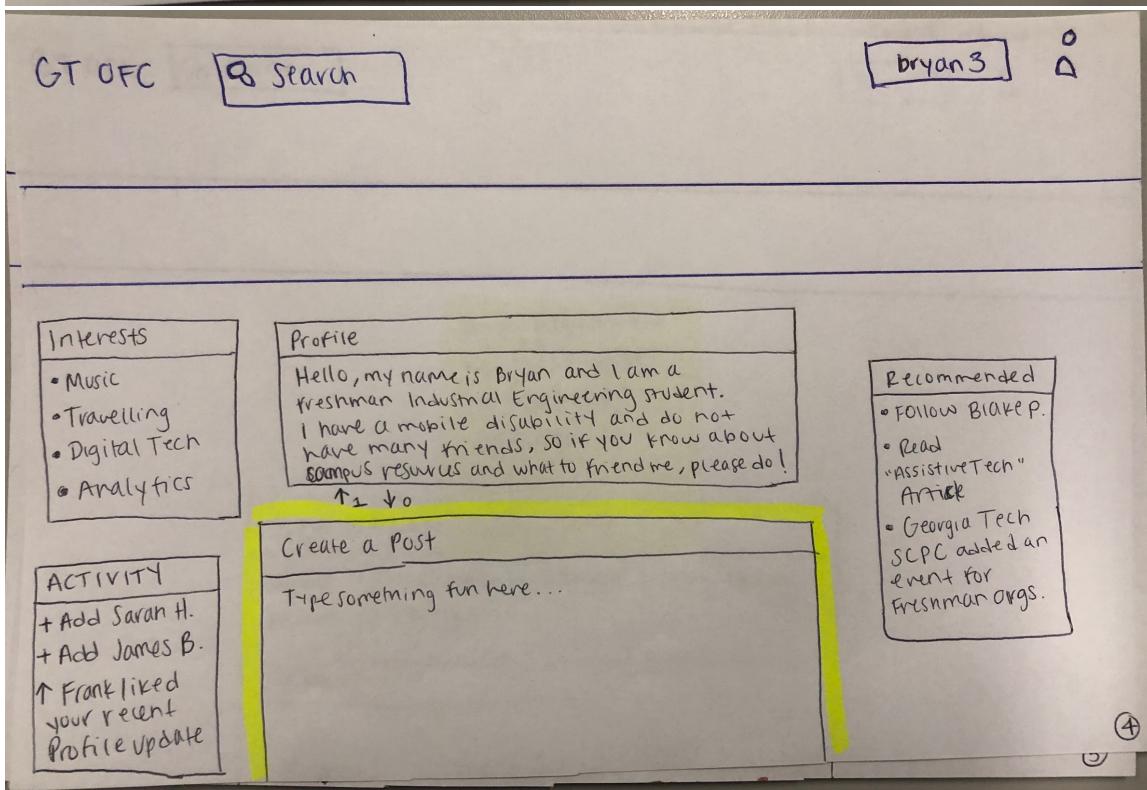
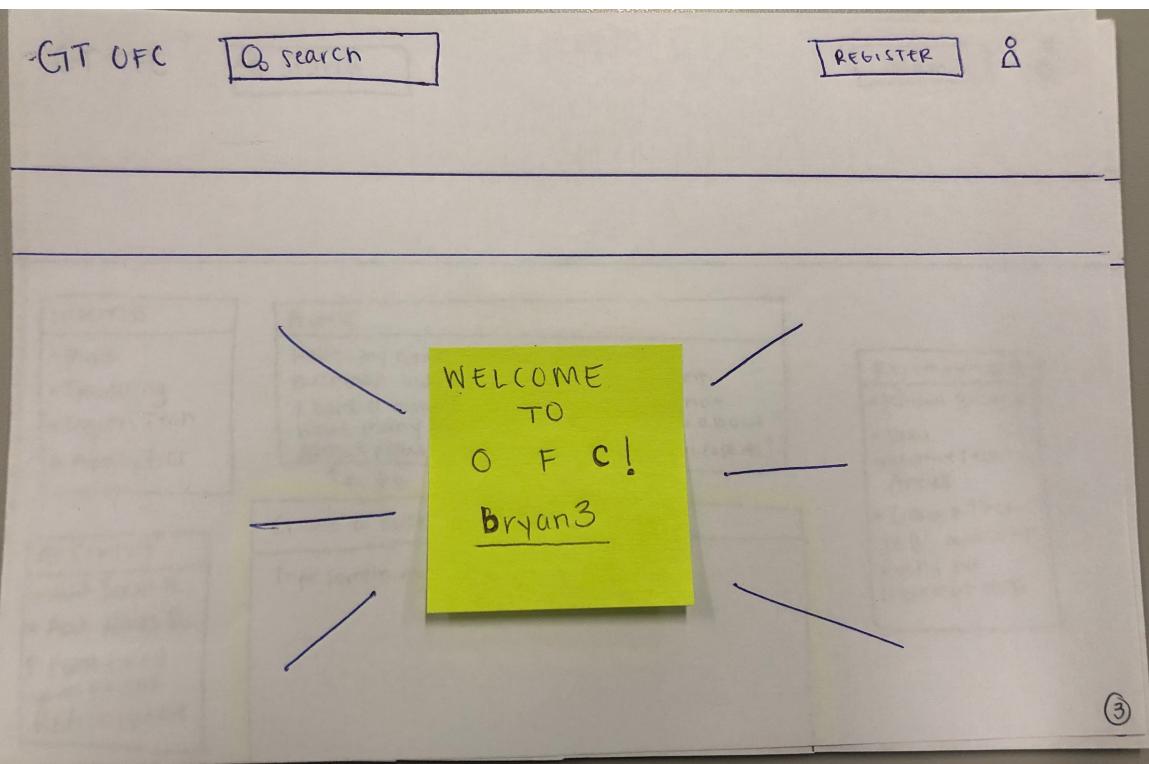
a. A paragraph description of the basic idea of this solution

Since students with mobile disabilities make up a small proportion of the general student body, there is often a lack of community for those who face similar struggles. This online community forum serves as a social support group where students can all be connected. Most students with mobile disabilities have challenges to easily get to social spaces where students usually congregate. To solve the problem of feeling excluded from the general student population, the online forum community provides a network for students to bridge the gap. For example, it can be difficult for students with disabilities to be knowledgeable about social spaces that many other students attend for student organizations, athletic events, etc. The forum will allow for students to ask questions, comment, on each others posts and spread the word about social events, academic resources, career opportunities, or simply just to ask a friend how their day was.

b. Storyboard and UI design







GT OFC

[Q search]

bryan3

A

Bryan has created
his first post
in hopes of an
answer.

Help Needed

"Where is the Disability Services testing center
located on campus?

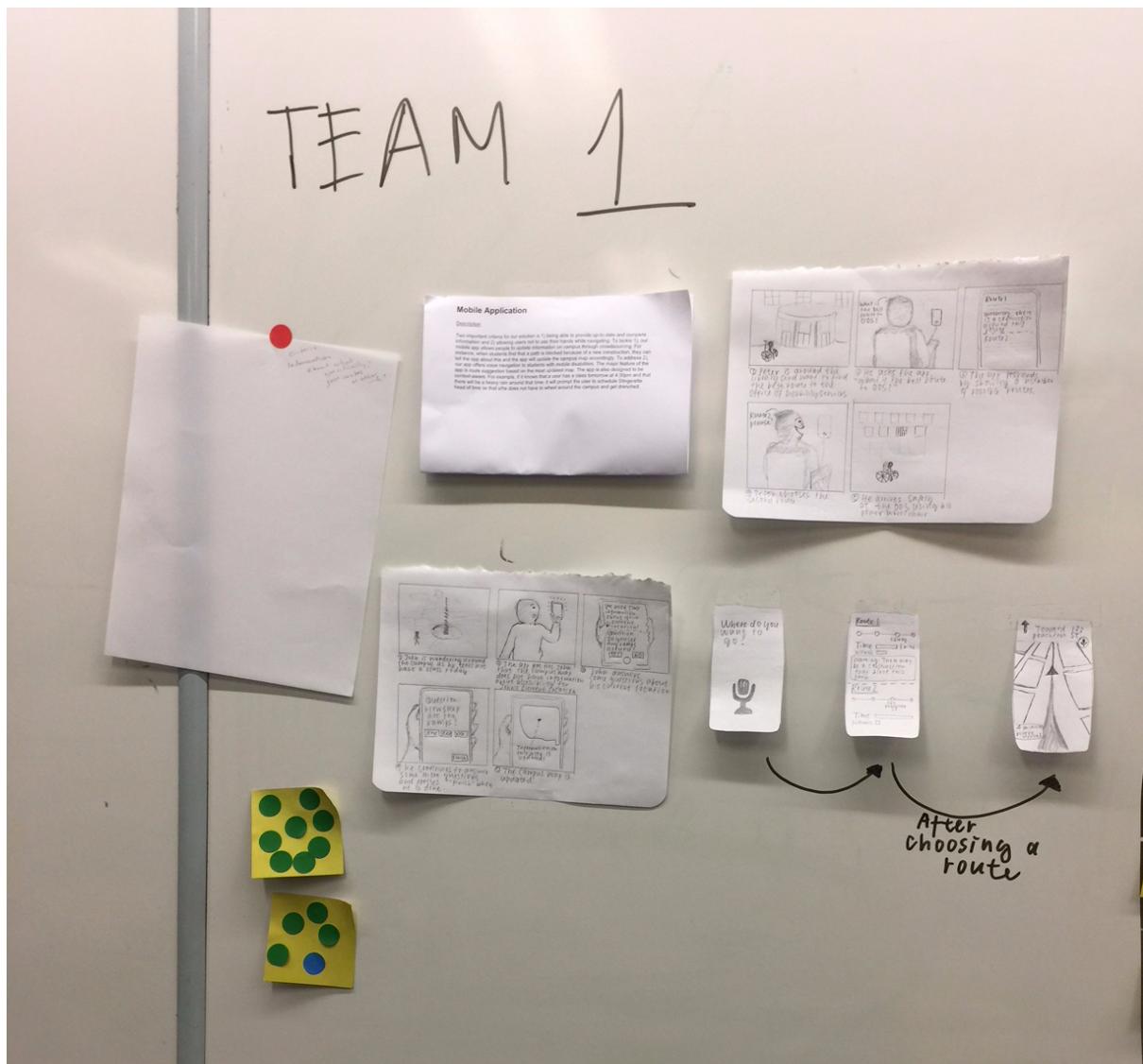
[REPLY]

↑ ↓

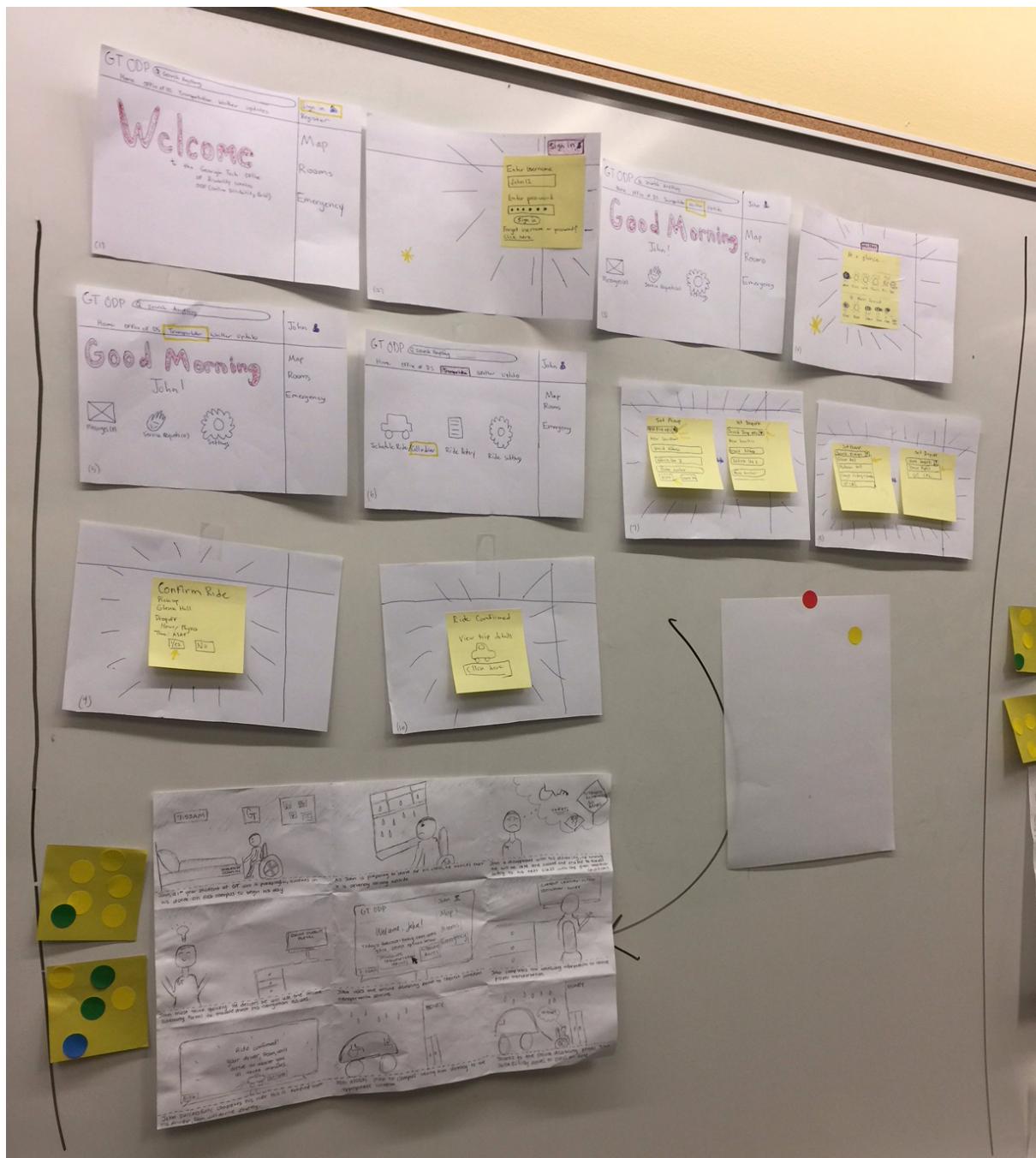
(5)

c. In-class “sprint” feedback

Feedback for the first solution: Overall, the comments were positive. For instance, people thought that hands-free was a great idea. However, Prof. Wilcox raised concerns about the form factor of the device that the mobile app runs on (is it going to be a mobile phone or is it going to be an iPad?) In the original prototype, the app only provides information about routes to a destination. Some people commented that we should consider including other types of information that facilitates navigation.



Feedback for the second solution: People commented that the functionality of the website is limited and it can only be used when you have computer and network access. However, they think that there were some useful features (e.g., scheduling a Stingerette) in the website that are not included in the first idea. They suggested us to incorporate these features to the mobile app.



Feedback for the third solution: Again, they feel that the online community can be limiting because it only be used when there is network access. Furthermore, the online community fails to offer on-demand services to students with mobile disabilities. If there is something a student desperately needs help with, it takes time for other people in the online community to respond.

