NoGo - ProjectDocumentation

**Introduction:**

This simulation is similar to the application “FindMyFriends”, in which users will be able to locate their friends on a map. The user’s location will be updated as they move, and will be broadcasted on the map to users whom are their friends as well. However, there is a key difference that sets it apart from any existing application -- the user is also able to select users that they would like to avoid. The application will notify the user of when friends come in close proximity to them, so that they can choose to meet up if they would like to. Similarly, the user can be notified when someone not of interest to them is nearby, so that they may leave in time before seeing them.

Another feature of the simulation shows the user how busy their destination is. The user is able to enter a location where they would like to visit, and see how popular the place is at this time. The user is then able to decide whether they want to go there or not.

As creating a server with really high functioning capabilities did not seem reasonable within the time constraints of the project, a UserData file was created which the app is able to extract data from. This UserData file mimics a server, which would be updated as the user’s location is updated. In this way, this project is a simulation of the desired application.

**Meeting Notes + Objectives : The Development Process**

**First Meeting 11/22/2019**

Meeting Goal: determine project roles, finalize specifications of the project concept

**Project Roles:**

Izzy: Documentation Lead

Stephanie: Specification Lead

Delaney: Project Lead

Emma: Interface Lead

Will: Technical Lead

Izzy created the github repository.

Github link: <https://github.com/igoode9/NoGo>

Project Concept:

Use the application similar to “Find Your Friends”, but use it to interact with people you want to and avoid those you don’t. The application will notify you when you are close to your friends, and will notify you if someone you want to avoid is within your area. The app can also be used to check if your favorite locations, such as Stabucks or Chipotle, is busy currently and if so, how busy.

\*\* By next meeting, everyone should have downloaded flutter, a useful interface for developing applications in android and Mac OS. We will also determine whether we will use android or MacOS by next meeting. \*\*

Useful links for getting started:

1. Google Maps API

<https://api.flutter.dev/flutter/material/material-library.html#classes>

1. Integrating google maps API into flutter

<https://medium.com/flutter/google-maps-and-flutter-cfb330f9a245>

<https://codelabs.developers.google.com/codelabs/google-maps-in-flutter/#3>

1. From research on how Google Maps API can be manipulated in flutter:

* Add widgets on top of maps
* Change map’s appearance
* Add marker

Useful links for IOS code builder:

<https://flutter.dev/>

<https://flutter.dev/docs/get-started/install/macos>

<https://flutter.dev/docs/get-started/install/windows>

<https://techyuri.com/flutter-installation/>

<https://www.youtube.com/watch?v=47keBFllFvQ>

<https://www.youtube.com/watch?v=enUdOLgl4Jk> ← mainly for Emma (~6), tour of android studio, shows how to create widgets on screen and access to all features

**Meeting Sunday 12/1/19**

Goal of this meeting: to finalize the functionalities of this application.

\*\*Are we using android or MacOS? \*\*

1. When the user enters the app for the first time , needs to ask for their information(name, permission to use location either all the time or when they’re in the app)
2. Need a layout of map
   1. Need to mark other users location and places the user chooses to
3. Need a sections for updates, place to put directions, favorite spots, user’s mode

IDEAL Features:

* Updates to notify user about people around them
* Ask user for the people they want to want updates for
* Need to specify the type of person near them
  + Someone they don’t want to be near
    - 1. Someone they would like to hang out with
* How long ago someone was seen
* Number of times they get an alert is decided by the user
* Options should be 1-3 times
* Choose mode to be notified
  + Busy (updates off):  it should not give any alerts to user
  + Free (updates on): can alert user
  + Or rather work/play mode
* User can input a place they would like to go
  + Directions

1. Distance between them and their destination
2. Time it takes to get there
3. Can tell the user if the place is busy or not
   * + Average number of people usually there at that time

* Option to add favorite spots
  + Should have mark for these spots on the map
* Option for a Ghost mode (stop sharing location with others)
  + Another user will not be able to see where they are
* List the popular places around when the user is in the app
  + Suggestions if they want to explore the area they are in
* Can select how often you want the app to update
  + You will be able to turn off notifications about people nearby, for example when at work or in class
* Safety feature: alert selected friends or circles if you are going somewhere, and allowing you to check and check out of a location for your friends to see you have arrived at a destination safely.

**Schedule for Week of Sunday, December 1 - Sat, December 7**

WhenIsGood Results: <http://whenisgood.net/hackerman327/results/i8ne4p2>

**Sunday:**

Independent. Everyone should have flutter downloaded and should try to look into getting something to work with flutter. Be prepared to discuss on Monday.

**Monday:**

**Available OH: Miguel/Barak Lab 4:30pm-6:15pm**

**Stephen         11am-1pm**

**Ben L.         3pm - 5pm**

Daily Objective: Get Started!!

All group meeting, if possible.

Specification Lead determines which features will be incorporated into the project (if our original features need to be modified.

Collaborate with interface lead to determine how these will correspond to user functionality/interaction.

Technical lead needs to collaborate as well to determine the feasibility of these features with the chosen software.

Reach out to project lead with any questions, project lead can go to OH to ask project questions that may arise.

Everyone should begin to heavily familiarize themselves further with iOS and the flutter platform. Interface lead should begin to work on the google maps API and making it interactive in an app setting, while technical lead should begin to work on any necessary header files/ general outline and structure of the program. Specification lead, documentation lead, and project lead will be assisting other leads when assigned/where necessary during this process.

UPDATES:

* Now using android studio in flutter

**Tuesday:**

**Available OH: Miguel 3:15pm-5:15pm**

Daily Objective: Divide into needed groups for collaboration. Have 1-2 features working in each respective areas, with ideas on how the remaining features will be developed.

All: attend OH if applicable to your part of the project. Check-in w/ project lead w/ any questions, concerns, etc. Continue to develop your respective areas, with plans for one member of each time to go to OH w/ any questions by mid-week check-in (late wednesday night/early Thursday morning)

Specification Lead: collaborate w/ interface lead to determine what each features will look like in terms of user interactivity, work on code w/ one another to make these features accessible to the user.

Technical Lead: will be assisted by documentation lead and project lead in the further development of back-end code.

Documentation Lead: record any meetings you are a part of, continue to organize documents.

**Wednesday:**

**Available OH: Barak 4pm-6pm**

Daily Objective: Next 1-2 features developed/in development process. Prepare for mid-week check-in w/ project lead to discuss what is working, what the problems are, etc.

All: prepare to have gone to OH w/ any questions by weekend check-in. Mid-week check-in w/ project lead at some point after meetings on Wednesday (will likely be individual, quick phone call/facetime/text follow ups!!)

Interface/Technical Lead: Meet to ensure that user interactivity aligns with desired back-end features of the application. Project Lead may also be present if needed.

Specification Lead/Documentation Lead: Go through code developed so far to see if any errors in code can be debugged, testing of code, etc. Look into issues interface/technical leads are running into, see if any features can be adapted.

Project Lead: running check-ins, will be available to assist with either meeting/process.

**Thursday:**

**Available OH: Neha 3:30pm-5:30pm**

**John W. 3:15pm-5:15 pm**

All: prepare to have gone to OH w/ any questions by weekend check-in.

Specific team assignments will be determined after mid-week check-in

**Friday:**

**Available OH: Densmore 10am-11am**

**John M.     3pm - 5pm**

All group meeting (mandatory). If you cannot make the assigned meeting time, meet with the project lead at some point on Friday (or Thursday night) to check-in on project progress.

**Saturday:**

TBD after weekend check-in

**Group Meeting w/ Mentor Notes:**

* Functionality of connectivity between users
  + How can this be implemented? constraints/restrictions within android studio?
* Easiest way to go about learning a new programming language -- tips
* Machine learning? (one of our features is displaying wait times, could we make this work to predict what times will be busy hours at certain locations/how would that be implemented?)
  + Analyzing metadata from users as well (tracking how long users have been at a particular location)
* You can either set up an XML file for buttons, or you can programmatically insert them. Depends on what’s easier → can look up how to do this on youtube
* **Decide to cut down on some features due to our time constraints**
  + We could split up all the features, but then we may have issues with the compatibility of our code when we go to put it all together
* Getting data from other users (like communicating between user preferences on different apps, different phones) → set up a server, app communicates with the database about your location, and then you pull from the data base information.
  + This might be hard
  + Decide to hard code the stuff about a friend you want to avoid or want to see and explain how we might set this up but we couldn’t because of time.
* Try to get it to look good → it all comes down to the presentation, make the demo video look good and try our best to execute a few of our features

For the week of 12/9:

Objectives:

* Continue to work on developing sign in page, main home page
* Create UserData file to pull data from within the application, since setting up servers with large capabilities needed for the application will take a long time
* The external user data file is where we can store and input data about a user’s location, just like a server could be updated with someone’s location information
* Every group member should practice extracting data from this file within the application
* Stephanie should finish the ProjectArchitecture.ppt
* Stephanie, Emma, and Izzy should begin filming video

As the week progresses, more back end develop will be completed in order to keep the API and GUIs from crashing from any type of user triggers. Delaney and Will will continue to develop and debug the application. Izzy and Emma will focus on developing the interface of the application so that it is more user friendly.