

Propel Pals

DJ Yuhn, Yuxi Mao, Stephanie Retzke

University of Missouri - Kansas City

Department of Computer Science Electrical Engineering

CS5551: Advanced Software Engineering

Spring 2018

Propel Pals

User Manual

Table of Contents

Introduction	~~~~~	Page 3
How To Use	~~~~~	Page 4
Error Recognition and Handling	~~~~~	Page 6
Tutorial	~~~~~	Page 7
Known Bugs	~~~~~	Page
10		

Introduction

Primary motivation in undertaking Propel Pals is to produce an application that will benefit fellow UMKC students participating in the Propel Program. We wish for the application to foster further positive relations between a student and their mentor by allowing the student a means to communicate through the application. We want to give the student the ability to provide feedback on their progress and share their thoughts on the Propel Program itself through answering surveys. Our aim is to provide a means of enhancing their student experience here at UMKC by connecting them with their fellow students in the Propel Program through private/group chats and profiles.

How to Use

Introduction

The following sections will describe how to use Propel Pals. The 'Login and Registration' section will explain how to register your account and how to login. The 'Profile' section will discuss setting up your profile. The 'Chat' section will explain how to connect with others. The 'Survey' section will discuss surveys and how to complete them.

Login and Registration

This section will cover how to register an account and login. To register, you will need an email address and a password of at least 8 characters.

- Start the application.
- Once it is loaded tap on the Register button.
- Enter in your information and then click the Register button.
- Click the back arrow to navigate back to the Welcome page.
- Tap the Sign In button.
- Sign in using the email and password used to register.
- Tap the sign in button.

You have now successfully registered your account and signed in!

Profile

This section covers your profile. As of right now, your profile is for your own use. In the future, we hope to expand this feature to allow others to view your profile. To edit any of the items in your profile, click the Edit button.

While editing your profile, leave any of the fields blank to keep it as default. Change any of these fields to edit your profile. For profile pictures, navigate to the precise image link, copy the URL, and paste it into the Picture field. When complete, click the Create button at the bottom of the page.

Chat

- This section covers chatting in Propel Pals. You may send a friend request, chat one-on-one with another pal, or participate in group chats! Just click the Chat icon on the bottom to start.
- To add another user, click the Add button and then scroll until you find the user. You can also search for the user using the search box at the top if you know their name. Once you find someone, drag on their name to the left to reveal the Add button. Tap the Add button to send a request.
- To start or continue a conversation with a user, tap on their name on the main page of chat.
- To start a group chat, click the Groups button on the upper left. Click the + icon on the upper right to create a new group to chat with, or tap on one of the groups you are currently a part of.
- To remove yourself from a group, tap on the group you wish to leave. In the upper right corner tap the menu icon. Tap the leave menu item to leave the group.

- To add or remove members from a group that you created, tap on the group. In the upper right corner tap the menu icon. Tap Add Member or Remove Member to change who is in your group.
- To delete a group you created, tap on the group. In the upper right corner tap the menu icon. Tap Delete Group.

Surveys

This section covers filling out surveys in Propel Pals. To start, tap the Surveys icon on the bottom. Here a list of surveys will be displayed that you can provide feedback on.

To complete a survey tap on the Respond Via Text button next to the survey. Go through the pages in the survey to complete it. Once you hit

Error Recognition and Handling

With the release of Propel Pals there may be a few hiccups along the way. Hopefully with the following section that any errors you encounter can be overcome.

Registering

If you find yourself entering in your email and receive a prompt saying the email is already in use, please contact one of us using your intended email so we may address this issue.

Login

At this time we do not have password recovery. If you have forgotten your password please contact us so we may reset the password for you until we work on validation so you may be able to reset it yourself.

Profile

If you find an error regarding updating your profile, try to quit out of the application and reopening it. This step may solve the display issue. If not though, please take a screenshot and contact us and explain the issue you are having.

Chat

Chat functionality is a large feature for Propel Pals and if you encounter issues regarding displaying messages from your friends or from your groups, try exiting the application and reopening it. This will hopefully solve the issue. If your problem is something different, such as not being able to send messages or send or accept requests, please contact us and explain the issue you are having.

Surveys

Surveys allows for the Propel Program to check in to see how you are doing and to receive valuable feedback from you. There may be some errors that pop up when attempting to complete a survey. If you are unable to complete a survey, please exit the application and reopen it. After doing so, try attempting the survey again. If there are still issues, please contact us and explain the issue you are having.

Tutorial

Getting Started

To get started in Propel Pals, you must create an account. At the Welcome page, click the Register button and fill in your information. Once completed click the Register button at the bottom. Return back to the Welcome Page and login with the credentials you used to register.

← Create an Account

Email

First Name

Last Name

Password

Confirm Password

Hobby

Like

About

Role

- Teacher ☐
- Student ☐
- Mentor ☐

REGISTER

Profile

Role	Teacher
ID	uiuiuiui
First Name	yuxi
Last Name	mao
Email	2802860441@qq.com
Hobby	hobby11
Like	like11
About	about11

EDIT

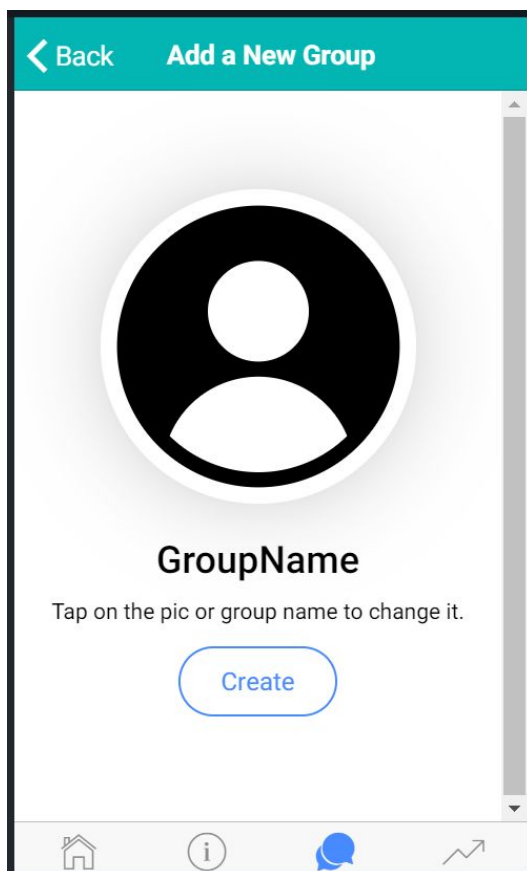
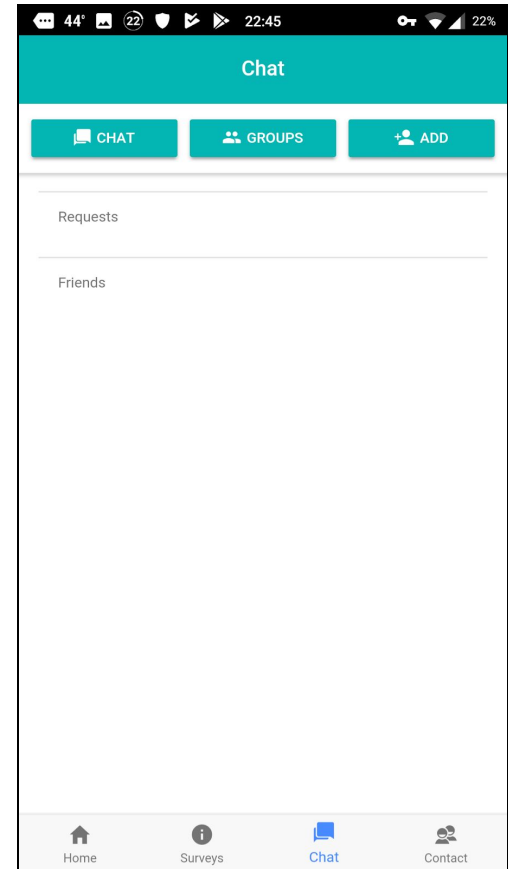
Hello! Teacher

Profile

Once logged in you'll land on your profile page. Here you may edit the information you have for your profile. You are also able to navigate to chat or surveys using the tabs running along the bottom. Tap the Chat tab to navigate to Chat.

Chat and Friends

The chat page is where you are able to connect with your mentor or your friends. Right now it looks empty, but tap on the Add button on the upper right to begin searching for other users. Once you found your mentor or friend, swipe left on their name and the Add button will appear. Tap on the Add button and a request will be sent to the user. The next time that user visits the Chat page, your request will be waiting for them to respond to.

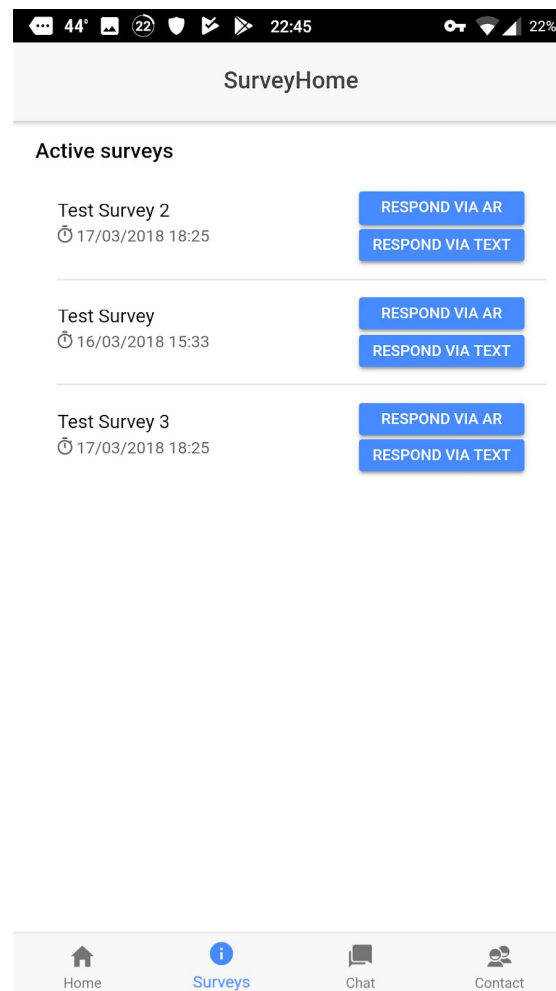


Group Chat

From the chat page, tap on the Groups button and you'll be sent to the group management page. If you would like to create a new group, tap on the + in the upper right corner. You'll be sent to a new page where you may edit the picture of the group as well as the group's name. Once finished, click create. You can now see the group that you created under My Groups! Tap the created group and then tap the menu icon in the upper right to be able to add new members, remove members, or delete the group.

Surveys

Tapping on the Surveys tab on the bottom will take you to the surveys page, where you may select surveys to answer and provide feedback on. To do so, tap on the button to the right of the survey you wish to complete. You'll be navigated to a new page displaying the survey. Depending on what is being asked, you may answer on a scale of 1 to 5, or answer true or false, or type out a response. When completed, the surveys page will be updated to remove the survey you just finished.



Wrapping Up

Now that we covered the basics, we hope you enjoy using Propel Pals. Connect with other Propel students, talk with your mentor, and provide feedback to the Propel Program.

Thank you!
DJ Yuhn, Yuxi Mao, Stephanie Retzke

Known Bugs

Login and Registration

- (No known bugs at this time)

Profile

- The user's profile picture, upon updating, may not actually change.

Chat

- When communicating with another user, your own profile picture does not display.
- When deleting a member from a group, the chat may disappear. Reappears when the user sends a response.
- When adding a user to send a request, the user may add themselves or users they have already in their list of friends.

Surveys

- Some of the surveys may display incorrectly. For example, a survey asks to rate something between 1 and 5. The buttons for the numbers 1 through 5 may not indicate if the user selected them.

Project Management

Project Management Report:

Project Planning Overview:

For this project, we planned out the three months to do the three parts: Profile, Chat, and Surveys.

There were three increments.

In the first increment:

Wireframe and Architecture Diagram.

Login and Registration through Firebase

Begin working on chat.

In the second increment:

Chat allows for communicating with one other individual.

Create an AR model for app.

Profile is at the home page.

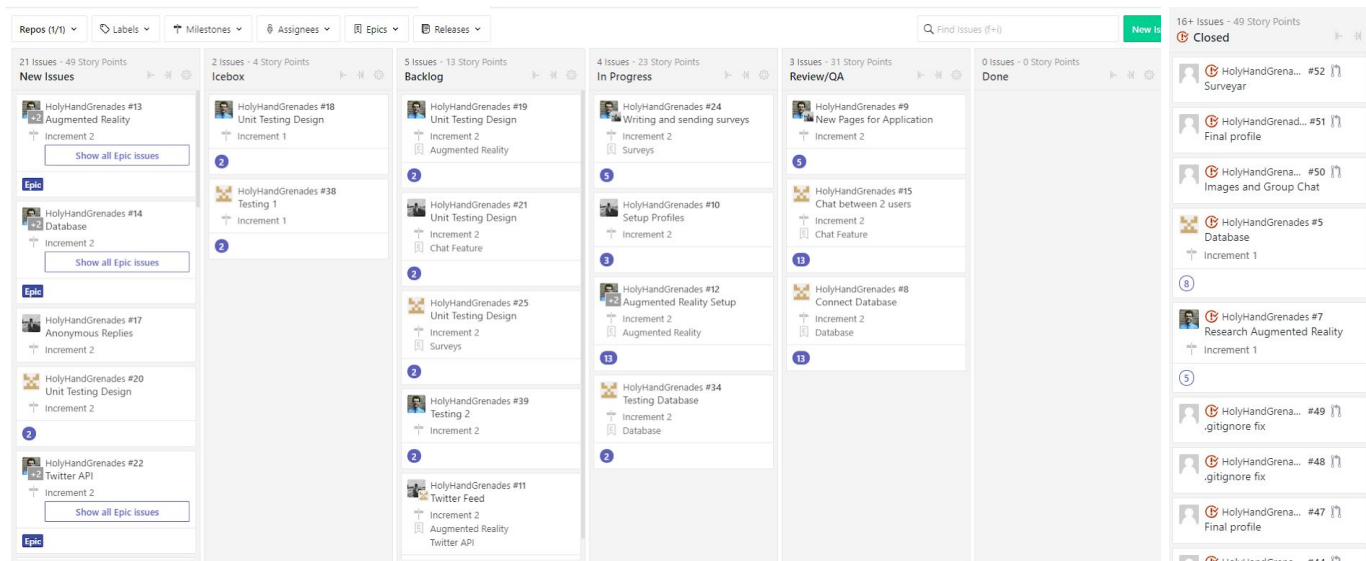
In the third increment:

Chat functionality extended to allow for group chats

Surveys are completed but not yet connected with the database

Profile feature is connected with firebase.

ZenHub Screenshots:



Task Management:

The task management was separated into features.

Yuxi: Profile,

Stephanie: Chat,

DJ Yuhn: Surveys

Member Evaluation:

Contributions:

DJ Yuhn: Surveys - 33 points

Stephanie Retzke: Chat - 34 points

Yuxi Mao: Profile - 33 points

Effort Points:

The Profile: Needed to be connected to the database and allow for editing. The challenge with the profile feature was to prevent editing of fields that didn't have any user input. That is, if the user didn't change their name, then their name should remain the way it is and to not be set to an empty string.

The Chat: The image related code was the most difficult part. This feature was removed due to received feedback. Getting the user's name in the message bubble was also challenging.

The Surveys: The most challenging aspect of adding surveys was integrating them with Firebase, keeping track of a user's completed surveys.

Final Project Evaluation:

How well your project satisfies your original requirement specifications:

The Project satisfies a few of the original requirement specifications. Users may send and accept or reject friend requests. Then they are able to privately chat with their friends, their mentors, and create group chats. Users may also complete surveys using the application. But there are no gamification elements in the application, so it's not as fun and engaging as it is meant to be. This is the major requirement we failed to fulfill.

Were you satisfied with your design process?

Yes, at first it was a rocky start but eventually we figured it out. Everyone had difficulty learning how each other works, their methods when coding and working on assignments. A member also chose to leave the team so we had to adjust to that. But overall we figured out what each other excelled at and we each focused on that. We also made sure we were always communicating with one another. We used Slack for communication and would message each other on our progress and send reminders on due dates and what needed completion.

How helpful was the agile process?

It was helpful but also a hinderance at times. We tried at first to follow the agile process, assign tasks on ZenHub, complete said tasks. Work on the project a little bit at a time and give progress updates. But in the end sometimes we ended up doing a bulk of the work three days before the iteration report was due.

How would you do the agile process next time?

I would not create the entire project plan schedule at the beginning. It is difficult to know at first what tasks to create past the first iteration because it is unknown what you will complete that iteration. The second iteration is practically impossible to assign tasks for because you have just met your group members and don't know their strengths. In the end the plan was useless. Next time, I would continue with the twice a week progress meetings. They allowed us to look at each other's work and possibly help.

Did you stick to your project plan schedule?

Not at all. We attempted to follow it at the beginning but as we worked on the project, the plans changed. For example at first we were going to set up a MySQL database but changed our minds and went with Firebase. Instead of following the schedule we would plan our for the iteration during the first meeting after the previous iteration has ended. We based the tasks on what had not been completed in the previous iteration, and what we thought could possibly be completed.

What was the real management structure within your group?

DJ was the Team Leader, Yuxi and Stephanie were members.

Does it bear any resemblance to structure that you had planned?

Yes, as leader DJ submitted all of the assignments on behalf of the team. He also created the documents on google drive and gave the members access. Then would send out reminders. When it came to assigning tasks, for the most part everyone chose the tasks for themselves.

Did you have any problems getting each member to do his/her share of the work?

None at all, we all really cared about this course and our grade. We all did our work and were understanding if someone was having difficulty or had other commitments. Other commitments being work for other courses or a job. We all did our work, and only on the rare occasion missed a meeting.

Do you have any suggestion on how this could have been handled better?

We did not have any problems getting each member to do their share of the work. I suppose communicating with the team members and informing the TA's is one way to handle that type of situation.

Discuss what you might have done differently if this were a real world project?

If this were a real world project we were being funded for and not part of a class assignment. We would have put more focus on validation and security. Currently there is no way to verify that users are who they claim to be, report bugs, or report issues with other students. Keeping students safe and their information safe should be a top priority that is fulfilled before the product is released.

Any recommendations for next year?

Planning the entire project and creating the tasks for all of the iterations at the very beginning was not very helpful. Perhaps instead only plan the first iteration. Then once that iteration is over, plan the next one based on what was completed during the previous iteration. For example, maybe not all of the tasks were completed so those tasks need to be completed in the next iteration. Or someone had extra time so they completed the tasks for that iteration and then began to work on other parts of the project.

Final Presentation

Propel Pals

DJ Yuhn, Yuxi Mao, Stephanie Retzke

Acknowledgement Statement

"The work has been completed under the guidance of Dr. Yugi Lee and TAs (Rohith Nagulapati, Sidrah Junaid, Nageswara Nandigam) in CS5551 Advanced Software Engineering, University of Missouri - Kansas City), Spring 2018."

Overview of Requirements

- A mobile application that works on both android and ios devices
 - A way for students to message their mentor and receive messages
 - And possibly message each other
 - Students may see daily surveys to complete and complete them through the app
 - Gamification to make the app fun to use
-

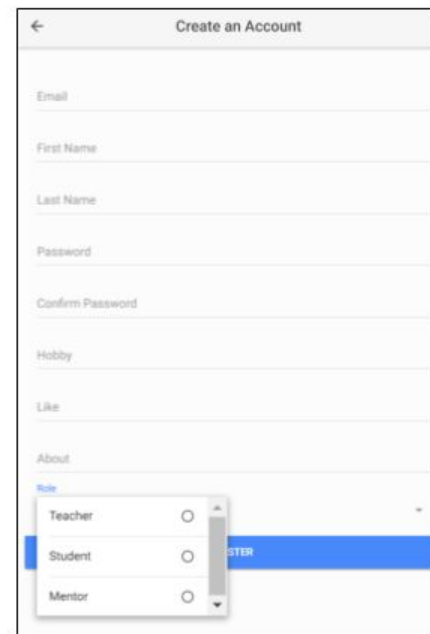
Technologies Used

- Ionic Framework
 - Android
 - iOS
 - Web
- Firebase
 - Authentication
 - Database
- [SurveyJS](#)



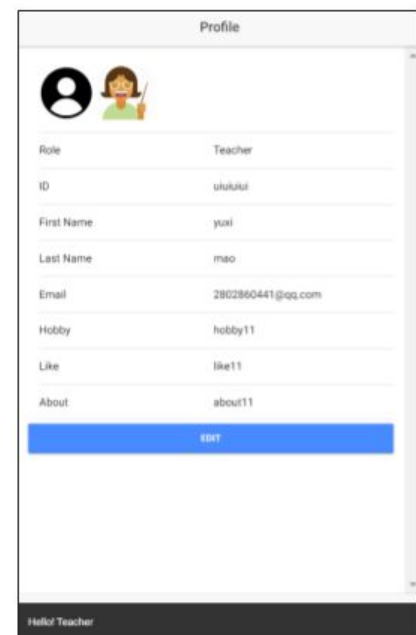
Login and Registration

- Firebase was used to authenticate a user
 - Further validation required
- Users may register as a Teacher, Mentor, or Student
 - No validation yet
- Currently they may or may not fill out their profile when registering



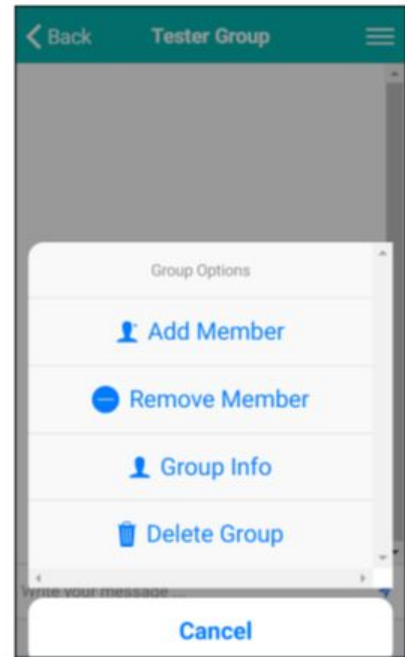
User Profiles

- A user's profile image is displayed
- An icon representing whether or not they are a Mentor, Teacher, or Student is displayed
- Users may change their profile at any time
- Currently users can not view each other's profiles



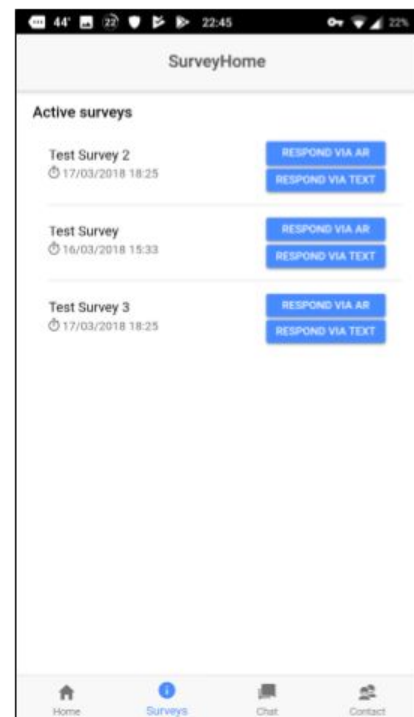
Chat

- Users may send and accept friend requests
- Users can privately chat with friends
- A user may create a group chat amongst friends
 - The creator is the owner and can add or remove members at any time
 - Members may leave at any time.



Surveys

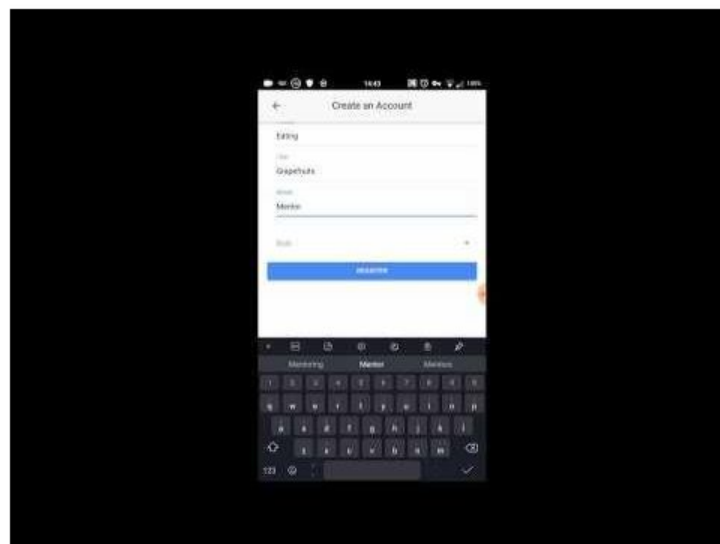
- Surveys are displayed using SurveyJS
 - Can export results as CSV, XLS, XLSX, and JSON
- Currently can respond to surveys through the text based interface
- Firebase is used to keep track of what Surveys the user has answered
- Response through AR is not implemented yet



Future Improvements

- Aframe was not compatible with SurveyJS
 - We would like to find another Augmented Reality Technology that will be compatible both with the Ionic Framework and the SurveyJS api
- A way for users to create goals and track their progress
- Users may view each other's profiles
- Gamification is a huge element we were unable to implement
 - A ranking system that will give users points based on surveys and goals
 - Users may also receive achievements

Demonstration



Video Link: <https://www.youtube.com/watch?v=A2IJwZIEit0>

Project Title: Propel Pals

Team #: 5

Team Members: Darrin Yuhn, Yuxi Mao, Stephanie Retzke, Akhila Atluri

GitHub: <https://github.com/stefanista/HolyHandGrenades>

Project Goal and Objectives:

- **Motivation**

Primary motivation in undertaking this project is to produce an application that will benefit fellow UMKC students participating in the Propel Program. We wish to participate in fostering further positive relations between a student and their mentor by allowing the student a means to communicate through the application and the ability to provide feedback on their progress. Our aim is to provide a means of enhancing their student experience here at UMKC.

- **Significance**

The Propel Program would like to receive feedback on each Propel student's progress and allow a means of communication for the student. The ability to observe how a student is doing throughout the program and to hear from them about their experience day to day will allow for adjusting the program to meet new needs that may or may not be currently apparent. The program would like for the application to provide a means for a Propel student to monitor their progress, have a channel of communication that may reduce a shy student's hesitation to share their experience, and to communicate with their mentor.

- **Objectives**

Objectives we would like to complete include creating a working chat feature that will allow communication between the Propel student and their mentor. The chat will be like an instant message system that conveys text between the two users. We also would like to expand this to encompass multiple users.

Part of the requirements for the application is to present a Propel Student with survey like questions every day to check in on the student's well being as well as have overall feedback regarding the program. The objective we would like to achieve is to allow an anonymity feature to express feedback to the Propel Program, alleviating some shy students' hesitation to provide feedback.

We would like to have a UI presented to the student's phone to access the different features, with the objective being creating a UI similar to the application Pacifica.

Allow the users to build a profile to display a little information about themselves and provide the option to have the students display their accumulated points.

We need to create a working database to hold the information.

Create a calendar application that allows the student to present their tasks for organization.

Allow augmented reality of the student's tasks and survey questions.

Inquire with the Propel Program about incorporating a news section into the application to display UMKC related tweets to display to the students.

- **System Features**

We will feature augmented reality to present a student's progress of their tasks.

One-on-one chat ability with mentor and the student

Chatroom like functionality to have students communicate with one another

Push surveys to students' phones to answer questions.

Anonymous functionality to have students communicate concerns they do not want associated with them.

A scheduler for students to monitor their tasks.

Ability to retrieve notifications of events at UMKC.

Anonymously reply to program evaluations.

- **Prioritized Features and Technologies**

Priority features for this project include the survey functionality and the chat functionality. The document about the project from the Propel Program prioritizes the ability to communicate with the students and the ability to check in on their status. This is accomplished by means of sending program evaluation questions through notifications and through inquiring about their status periodically through the course of the program.

The student should be able to message their mentor quickly. By having an easily accessible element to the student, he or she can message their mentor without having to go through too much of the interface.

Technologies used for this project will be Ionic, MySQL, Backand, Twitter API, CloudSight, and ARToolKit.

Related Work:

- <http://www.thinkpacific.com/>
- <https://www.whatsapp.com/>
- <https://camfindapp.com/>

Bibliography:

- <https://blog.ionicframework.com/built-with-ionic-pacifica/>
- <https://multi-os-engine.org/>
- <https://www.artoolkit.org/>
- <https://cloudsight.ai/api>
- <https://ionicframework.com/docs/v1/guide/preface.html>
- <https://blog.ionicframework.com/creating-an-ionic-app-with-mysql-and-backand/>

Schedule for Increment 1:

stefanista / HolyHandGrenades

Unwatch 1
Unstar 1
Fork 0

Code
Issues 40
Pull requests 0
Boards
Reports
Projects 0
Wiki
Insights

Increment 1

Edit milestone
New issue

Due by February 23, 2018 0% complete

Lay the foundations of the project out by building up a framework: Create architecture, class, and sequence diagrams. Create an application wire frame. From the class diagram, setup a database. Create a login page for the users. Decide on Augmented Reality and draft a plan on utilizing it with the application.

☐ 9 Open 0 Closed

☐ 1 Testing 1 2

#38 opened 10 minutes ago by djiyuhn

New Issues

☐ 1 Unit Testing Design 2

#18 opened an hour ago by djiyuhn

New Issues

☐ 1 Research Augmented Reality 5

#7 opened 2 hours ago by djiyuhn

New Issues

☐ 1 Login Page 8

#6 opened 2 hours ago by djiyuhn

New Issues

☐ 1 Database 6

#5 opened 2 hours ago by djiyuhn

New Issues

☐ 1 App Wireframe 13

#4 opened 2 hours ago by djiyuhn

New Issues

☐ 1 Sequence Diagram 5

#3 opened 2 hours ago by djiyuhn

New Issues

☐ 1 Class Diagram 5

#2 opened 2 hours ago by djiyuhn

New Issues

☐ 1 Architecture Diagram 5

#1 opened 2 hours ago by djiyuhn

New Issues

Schedule for Increment 2:

stefanista / HolyHandGrenades

Unwatch

1

Unstar

1

Fork

0

<> Code

Issues 40

Pull requests 0

Boards

Reports

Projects 0

Wiki

Insights

Increment 2

Due by March 19, 2018

0% complete

Connect the application with the MySQL database. Expand the application to allow for accessing different pages such as sending a message to their mentor, pulling the activity feed. Setup the Augmented Reality to recognize an element from the camera to display the user's tasks and priorities.

See this milestone on the board

<input type="checkbox"/>	19 Open	0 Closed	
<input type="checkbox"/>	Testing 2	#39 opened 7 minutes ago by djiyuhn	New Issues
<input type="checkbox"/>	Testing Database	#34 opened 15 minutes ago by djiyuhn	New Issues
<input type="checkbox"/>	Unit Testing Design	#25 opened an hour ago by djiyuhn	New Issues
<input type="checkbox"/>	Unit Testing Design	#20 opened an hour ago by djiyuhn	New Issues
<input type="checkbox"/>	Unit Testing Design	#21 opened an hour ago by djiyuhn	New Issues
<input type="checkbox"/>	Writing and sending surveys	#24 opened an hour ago by djiyuhn	New Issues
<input type="checkbox"/>	Surveys	#23 opened an hour ago by djiyuhn	New Issues
<input type="checkbox"/>	Twitter API	#22 opened an hour ago by djiyuhn	New Issues
<input type="checkbox"/>	Unit Testing Design	#19 opened an hour ago by djiyuhn	New Issues
<input type="checkbox"/>	Database		
<input type="checkbox"/>	Database	#14 opened an hour ago by djiyuhn	New Issues
<input type="checkbox"/>	Anonymous Replies	#17 opened an hour ago by djiyuhn	New Issues
<input type="checkbox"/>	Chat Feature	#16 opened an hour ago by djiyuhn	New Issues
<input type="checkbox"/>	Chat between 2 users	#15 opened an hour ago by djiyuhn	New Issues
<input type="checkbox"/>	Augmented Reality	#13 opened an hour ago by djiyuhn	New Issues
<input type="checkbox"/>	Augmented Reality Setup	#12 opened an hour ago by djiyuhn	New Issues
<input type="checkbox"/>	Twitter Feed	#11 opened an hour ago by djiyuhn	New Issues
<input type="checkbox"/>	Setup Profiles	#10 opened an hour ago by djiyuhn	New Issues
<input type="checkbox"/>	New Pages for Application	#9 opened an hour ago by djiyuhn	New Issues
<input type="checkbox"/>	Connect Database	#8 opened an hour ago by djiyuhn	New Issues

Tip! You can use `shift + j` or `shift + k` to move items with your keyboard.

Schedule for Increment 3:

stefanista / HolyHandGrenades

Unwatch 1 Unstar 1 Fork 0

[Code](#) [Issues 40](#) [Pull requests 0](#) [Boards](#) [Reports](#) [Projects 0](#) [Wiki](#) [Insights](#)

Increment 3

Edit milestone New issue

Due by April 23, 2018 0% complete

This is the last Iteration before the Project Video and Powerpoint Presentation. Priority is fixing any existing bugs with the current functionality. No major new additions to be added from scratch. A little expansion of current functions at the beginning of the increment is allowed, but the priority is to have a complete and working product.

[See this milestone on the board](#)

☐ 12 Open 0 Closed

☐ Testing 3 2

#40 opened 8 minutes ago by djyuhn

☐ Testing Surveys Feature 2

#37 opened 15 minutes ago by djyuhn

☐ Testing Twitter API 2

#36 opened 15 minutes ago by djyuhn

☐ Testing Chat Feature 2

#35 opened 16 minutes ago by djyuhn

☐ Testing Augmented Reality 2

#33 opened 16 minutes ago by djyuhn

☐ UI Appearance 5

#32 opened 23 minutes ago by djyuhn 0 of 3

☐ Pretty UI Epic

#31 opened 25 minutes ago by djyuhn

☐ Find Survey Bugs 5

#30 opened 27 minutes ago by djyuhn

☐ Find Twitter Bugs 5

#29 opened 28 minutes ago by djyuhn

☐ Find Survey Bugs 5

#30 opened 28 minutes ago by djyuhn

☐ Find Twitter Bugs 5

#29 opened 29 minutes ago by djyuhn

☐ Find Chat Bugs 5

#28 opened 30 minutes ago by djyuhn

☐ Find Database Bugs 5

#27 opened 31 minutes ago by djyuhn

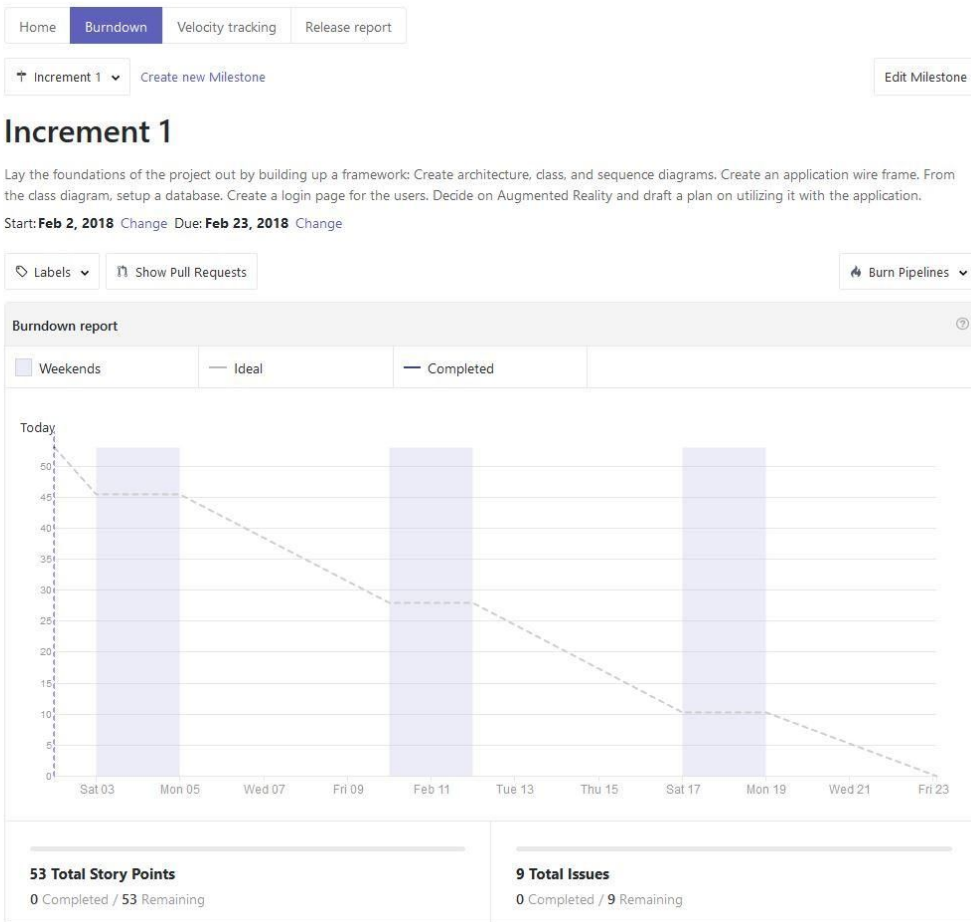
☐ Find Augmented Reality Bugs 5

#26 opened 33 minutes ago by djyuhn

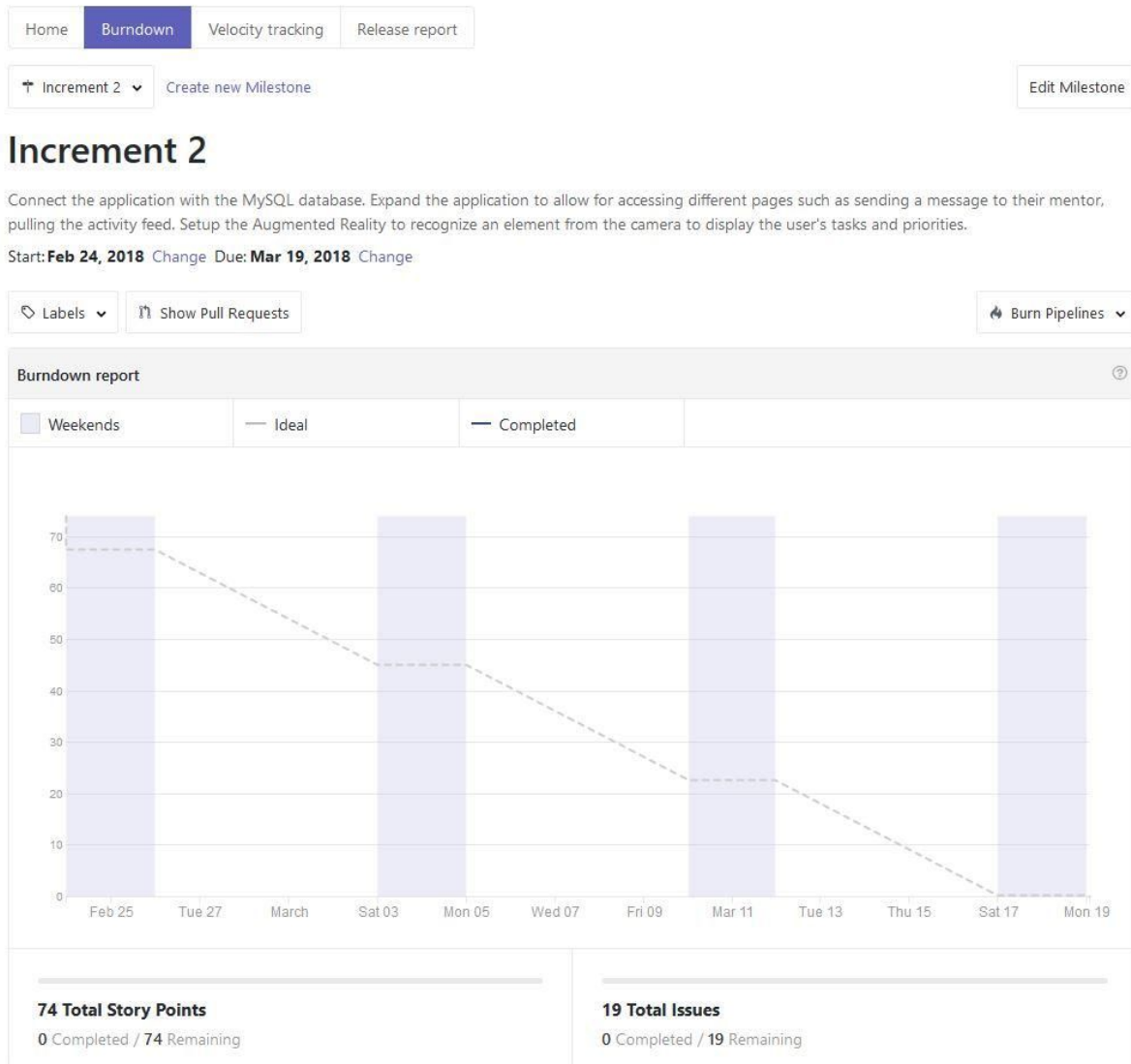
Tip! You can use `shift + j` or `shift + k` to move items with your keyboard.

23

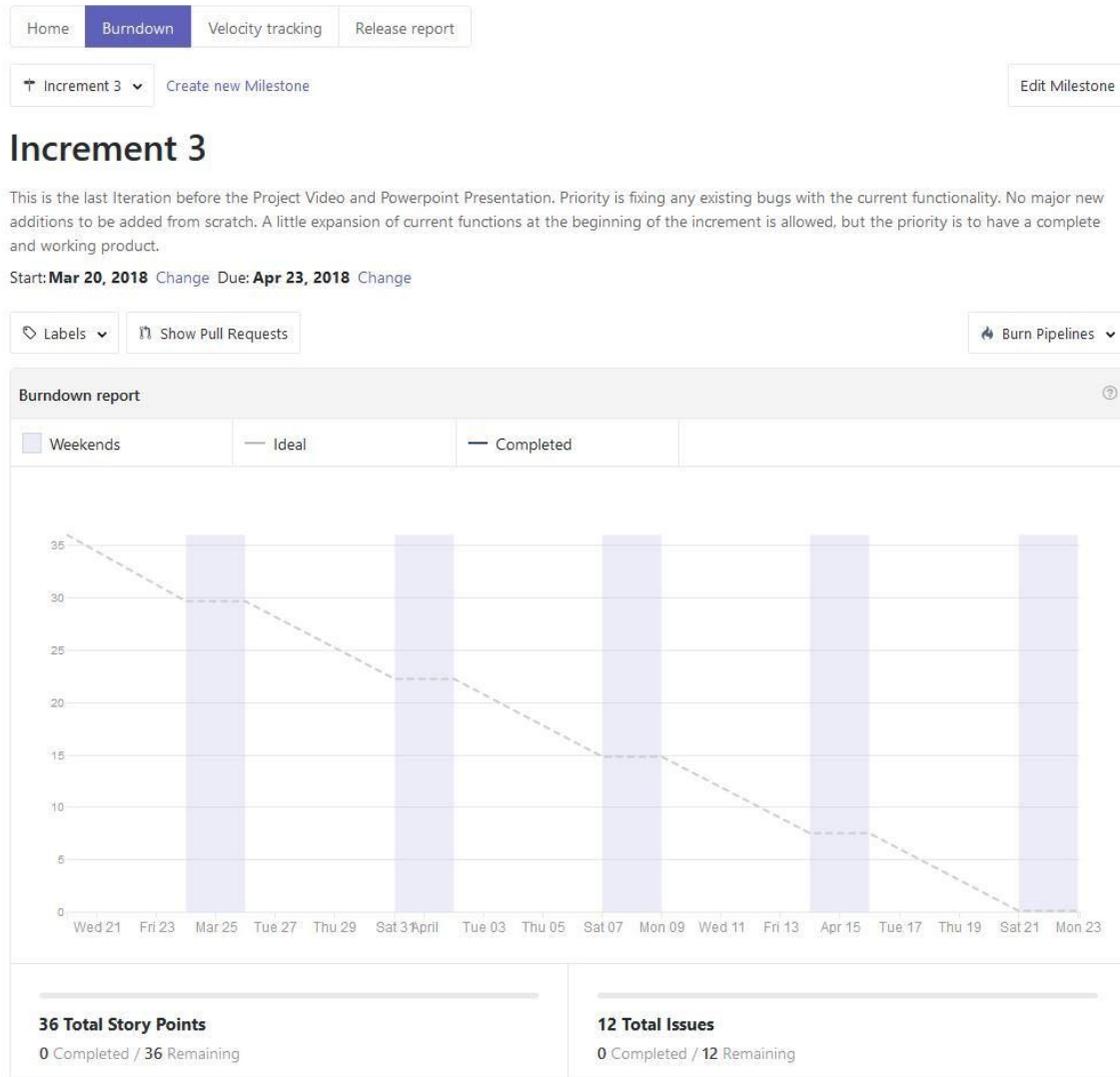
Burndown for Increment 1:





















Burndown for Increment 2:



Burndown for Increment 3:



Task Responsibility for Darrin Yuhn:

<input type="checkbox"/>	18 Open	0 Closed	Author	Labels	Projects	Milestones	Assignee	Sort
<input type="checkbox"/>	1	2	Testing 2	#39 opened 12 minutes ago by dyyuhn	Increment 2	New Issues		
<input type="checkbox"/>	1	2	Testing Surveys Feature	#37 opened 18 minutes ago by dyyuhn	Increment 3	New Issues		
<input type="checkbox"/>	1	2	Testing Database	#34 opened 20 minutes ago by dyyuhn	Increment 2	New Issues		
<input type="checkbox"/>	1	Epic	Pretty UI	#31 opened 29 minutes ago by dyyuhn	Increment 3	New Issues		
<input type="checkbox"/>	1	3	Find Survey Bugs	#30 opened 31 minutes ago by dyyuhn	Increment 3	New Issues		
<input type="checkbox"/>	1	5	Find Chat Bugs	#28 opened 33 minutes ago by dyyuhn	Increment 3	New Issues		
<input type="checkbox"/>	1	Epic 5	Surveys	#23 opened an hour ago by dyyuhn	Increment 2	New Issues		
<input type="checkbox"/>	1	Epic	Twitter API	#22 opened an hour ago by dyyuhn	Increment 2	New Issues		
<input type="checkbox"/>	1	2	Unit Testing Design	#19 opened an hour ago by dyyuhn	Increment 2	New Issues		
<input type="checkbox"/>	1	2	Unit Testing Design	#18 opened an hour ago by dyyuhn	Increment 1	New Issues		
<input type="checkbox"/>	1	Epic	Chat Feature	#16 opened an hour ago by dyyuhn	Increment 2	New Issues		
<input type="checkbox"/>	1	Epic	Database	#14 opened an hour ago by dyyuhn	Increment 2	New Issues		
<input type="checkbox"/>	1	Epic	Augmented Reality	#13 opened an hour ago by dyyuhn	Increment 2	New Issues		
<input type="checkbox"/>	1	13	Augmented Reality Setup	#12 opened an hour ago by dyyuhn	Increment 2	New Issues		
<input type="checkbox"/>	1	13	Connect Database	#8 opened an hour ago by dyyuhn	Increment 2	New Issues		
<input type="checkbox"/>	1	5	Research Augmented Reality	#7 opened 2 hours ago by dyyuhn	Increment 1	New Issues		
<input type="checkbox"/>	1	5	Sequence Diagram	#3 opened 2 hours ago by dyyuhn	Increment 1	New Issues		
<input type="checkbox"/>	1	5	Class Diagram	#2 opened 2 hours ago by dyyuhn	Increment 1	New Issues		

Task Responsibility for Stephanie Retzke:

<input type="checkbox"/>	18 Open	0 Closed	Author	Labels	Projects	Milestones	Assignee	Sort
<input type="checkbox"/>	Testing 1 ²							
	#38 opened 16 minutes ago by djyuhn		Increment 1	New Issues				
<input type="checkbox"/>	Testing Chat Feature ²							
	#35 opened 20 minutes ago by djyuhn		Increment 3	New Issues				
<input type="checkbox"/>	UI Appearance ⁵							
	#32 opened 27 minutes ago by djyuhn	0 of 3	Increment 3	New Issues				
<input type="checkbox"/>	Pretty UI ^{Epic}							
	#31 opened 30 minutes ago by djyuhn		Increment 3	New Issues				
<input type="checkbox"/>	Find Augmented Reality Bugs ⁵							
	#26 opened 37 minutes ago by djyuhn		Increment 3	New Issues				
<input type="checkbox"/>	Unit Testing Design ²							
	#25 opened an hour ago by djyuhn		Increment 2	New Issues				
<input type="checkbox"/>	Surveys ^{Epic} ⁵							
	#23 opened an hour ago by djyuhn		Increment 2	New Issues				
<input type="checkbox"/>	Twitter API ^{Epic}							
	#22 opened an hour ago by djyuhn		Increment 2	New Issues				
<input type="checkbox"/>	Unit Testing Design ²							
	#20 opened an hour ago by djyuhn		Increment 2	New Issues				
<input type="checkbox"/>	Chat Feature ^{Epic}							
	#16 opened an hour ago by djyuhn		Increment 2	New Issues				
<input type="checkbox"/>	Chat between 2 users ¹³							
	#15 opened an hour ago by djyuhn		Increment 2	New Issues				
<input type="checkbox"/>	Database ^{Epic}							
	#14 opened an hour ago by djyuhn		Increment 2	New Issues				
<input type="checkbox"/>	Augmented Reality ^{Epic}							
	#13 opened an hour ago by djyuhn		Increment 2	New Issues				
<input type="checkbox"/>	Augmented Reality Setup ¹³							
	#12 opened an hour ago by djyuhn		Increment 2	New Issues				
<input type="checkbox"/>	Twitter Feed ⁵							
	#11 opened an hour ago by djyuhn		Increment 2	New Issues				
<input type="checkbox"/>	Setup Profiles ³							
	#10 opened an hour ago by djyuhn		Increment 2	New Issues				
<input type="checkbox"/>	Login Page ³							
	#6 opened 2 hours ago by djyuhn		Increment 1	New Issues				
<input type="checkbox"/>	Database ⁵							
	#5 opened 2 hours ago by djyuhn		Increment 1	New Issues				

Task Responsibility for Yuxi Mao:

<input type="checkbox"/>	🔔 20 Open	✅ 0 Closed	Author	Labels	Projects	Milestones	Assignee	Sort
<input type="checkbox"/>	🔔		Testing 3	2				
			#40 opened 13 minutes ago by dgyuhn	✦ Increment 3	New Issues			
<input type="checkbox"/>	🔔		Testing Surveys Feature	2				
			#37 opened 20 minutes ago by dgyuhn	✦ Increment 3	New Issues			
<input type="checkbox"/>	🔔		Testing Twitter API	2				
			#36 opened 20 minutes ago by dgyuhn	✦ Increment 3	New Issues			
<input type="checkbox"/>	🔔		Testing Augmented Reality	2				
			#33 opened 22 minutes ago by dgyuhn	✦ Increment 3	New Issues			
<input type="checkbox"/>	🔔		Pretty UI	Epic				
			#31 opened 31 minutes ago by dgyuhn	✦ Increment 3	New Issues			
<input type="checkbox"/>	🔔		Find Twitter Bugs	3				
			#29 opened 34 minutes ago by dgyuhn	✦ Increment 3	New Issues			
<input type="checkbox"/>	🔔		Find Database Bugs	5				
			#27 opened 36 minutes ago by dgyuhn	✦ Increment 3	New Issues			
<input type="checkbox"/>	🔔		Writing and sending surveys	5				
			#24 opened an hour ago by dgyuhn	✦ Increment 2	New Issues			
<input type="checkbox"/>	🔔		Surveys	Epic	5			
			#23 opened an hour ago by dgyuhn	✦ Increment 2	New Issues			
<input type="checkbox"/>	🔔		Twitter API	Epic				
			#22 opened an hour ago by dgyuhn	✦ Increment 2	New Issues			
<input type="checkbox"/>	🔔		Unit Testing Design	2				
			#21 opened an hour ago by dgyuhn	✦ Increment 2	New Issues			
<input type="checkbox"/>	🔔		Anonymous Replies					
			#17 opened an hour ago by dgyuhn	✦ Increment 2	New Issues			
<input type="checkbox"/>	🔔		Chat Feature	Epic				
			#16 opened an hour ago by dgyuhn	✦ Increment 2	New Issues			
<input type="checkbox"/>	🔔		Database	Epic				
			#14 opened an hour ago by dgyuhn	✦ Increment 2	New Issues			
<input type="checkbox"/>	🔔		Augmented Reality	Epic				
			#13 opened an hour ago by dgyuhn	✦ Increment 2	New Issues			
<input type="checkbox"/>	🔔		Augmented Reality Setup	13				
			#12 opened an hour ago by dgyuhn	✦ Increment 2	New Issues			
<input type="checkbox"/>	🔔		Twitter Feed	5				
			#11 opened an hour ago by dgyuhn	✦ Increment 2	New Issues			
<input type="checkbox"/>	🔔		New Pages for Application	5				
			#9 opened an hour ago by dgyuhn	✦ Increment 2	New Issues			
<input type="checkbox"/>	🔔		App Wireframe	13				
			#4 opened 2 hours ago by dgyuhn	✦ Increment 1	New Issues			
<input type="checkbox"/>	🔔		Architecture Diagram	5				
			#1 opened 2 hours ago by dgyuhn	✦ Increment 1	New Issues			

💡 ProTip! Click a checkbox on the left to edit multiple issues at once.



Propel Pals

DJ Yuhn, Stephanie Retzke, Yuxi Mao




Project Need

- Propel Program at UMKC
 - Receive feedback on students' progress
 - Connect each student with their mentor
 - Provide survey questions daily to the students



Objective - Chat Feature

- Student profiles
- Provide communication between a student and their Mentor
- Communication between students



Objective - Surveys

- Surveys become available daily
 - Propel may assign points based on importance
- Optional Augmented reality displays survey questions
- Students are notified when a new survey is available



Stretch Goals

- Agenda for students to create and manage tasks
- Calendar application to track tasks and UMKC events
- UMKC news section
- Make it fun



Tools and Technologies

- Ionic framework
- MySQL
- Backand
- Cloudsight
- ARToolKit
- Google Calendar API

Increment 1

Team #: 5

Team Members: Darrin Yuhn, Yuxi Mao, Stephanie Retzke

GitHub: <https://github.com/stefanista/HolyHandGrenades>

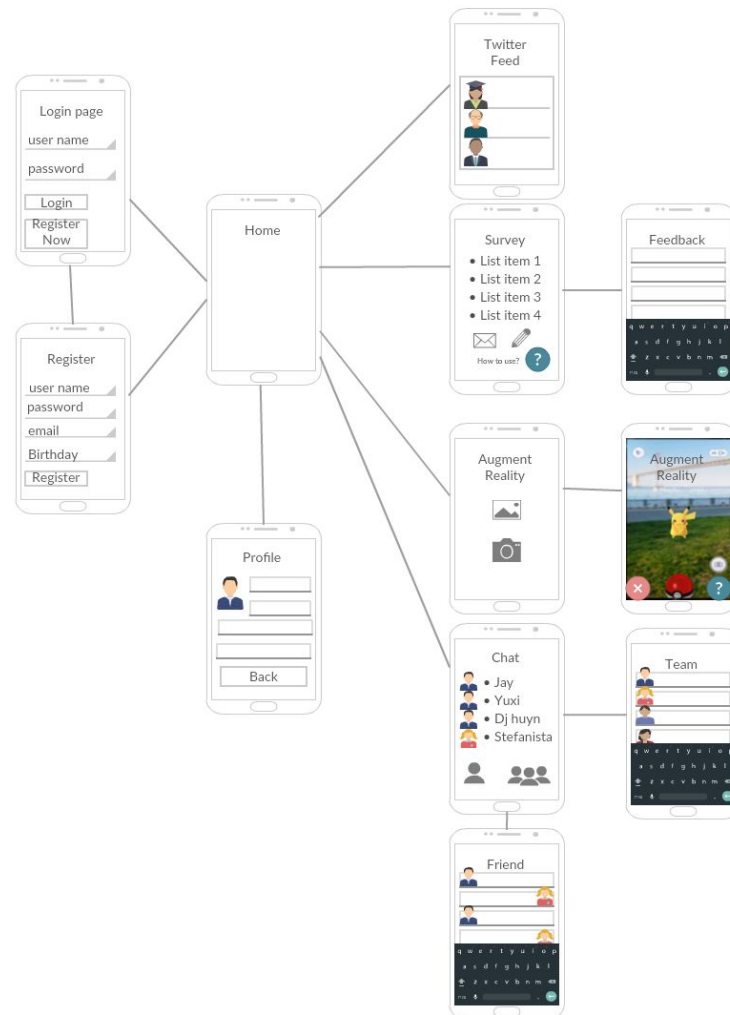
Existing Services/REST API

- Report all existing services, widget, API or source code you used in your project.

We used Firebase for Authentication and storage through the use of their database.

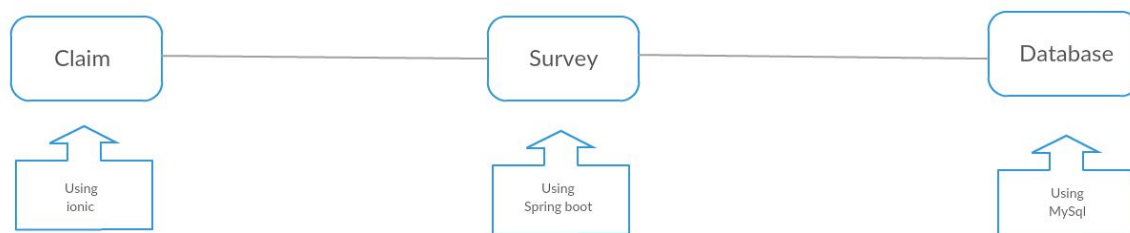
Detail Design of Features (using tools)

- WireFrames and Mockups



- Architecture diagram

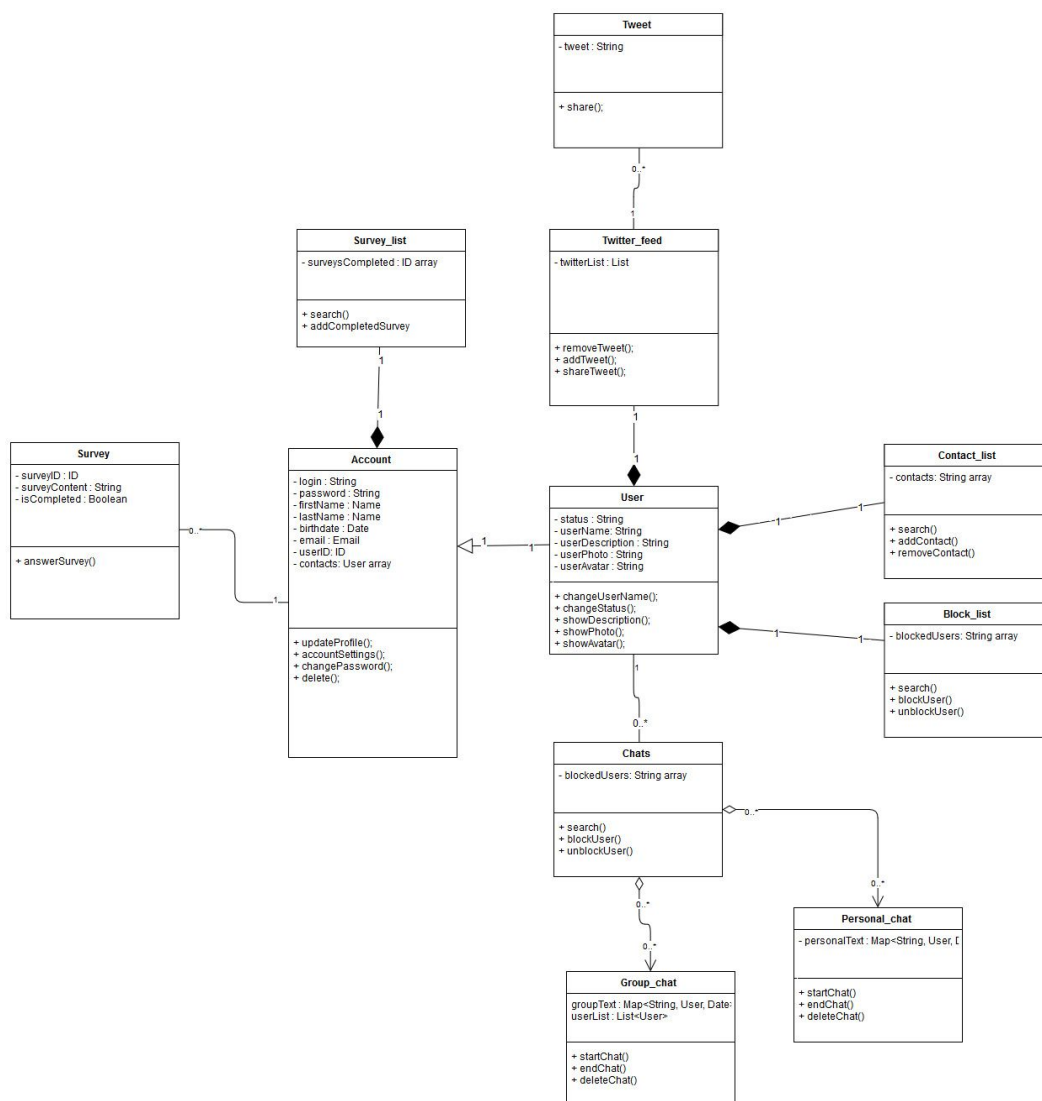
Architecture Diagram



- Sequence diagram

None

- Class diagram



- Write User Stories /Use Case/Service description

None

Testing

- Unit testing

None

Implementation (using Android/Angular.js/Bootstrap)

- Mobile Client Implementation: Implementation of Mobile Apps

Using Ionic 3, typescript, and Angular.Js the cross

Project Management: describe it in terms of the first increment (with ZenHub)

- Implementation status report

Work completed:

- Login and register pages.
 - Allows user to register via email and login. Utilizes Firebase to authenticate and store user information. Not specific to our project.
 - (Stephanie Retzke) 3 hours
- Construct class diagram.
 - (DJ Yuhn) 1 hour
- Construct application wireframe to model application navigation.
 - (Yuxi Mao) 1 hour
- Construct architecture diagram
 - (Yuxi Mao)
 - 10 minutes

Work to be completed

- RESTful API
 - ~ 13 hours
- Chat functionality
 - 10 hours
- Database
 - 11 hours
- Augmented Reality
 - 6 hours
- Sequence Diagram
 - 1 hour

Bibliography

Ionic Login and Register App Tutorial

https://www.youtube.com/watch?v=vPOF_DJJeF0&index=9&list=PLYxzS__5yYQng-XnJhB21Jc7NW1Olaqct

Firebase Database Set up <https://javebratt.com/firebase-objects-ionic-2-app/>

How to display list items <https://javebratt.com/firebase-list-ionic-2/>

How to Split a String in Typescript

<https://forum.ionicframework.com/t/how-to-split-string-in-typescript-ionic/74525>

Ionic Frame

<https://ionicframework.com/docs/v1/guide/preface.html>

Codedamn Ionic Tutorial

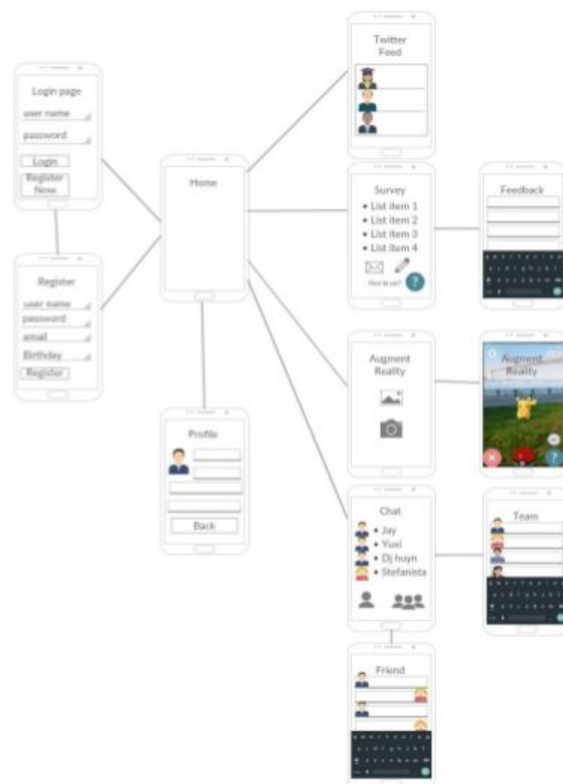
https://www.youtube.com/watch?v=vPOF_DJJeF0&index=9&list=PLYxzS__5yYQng-XnJhB21Jc7NW1Olaqct

Increment 1

Team 5 - DJ Yuhn, Stephanie Retzke, Yuxi Mao

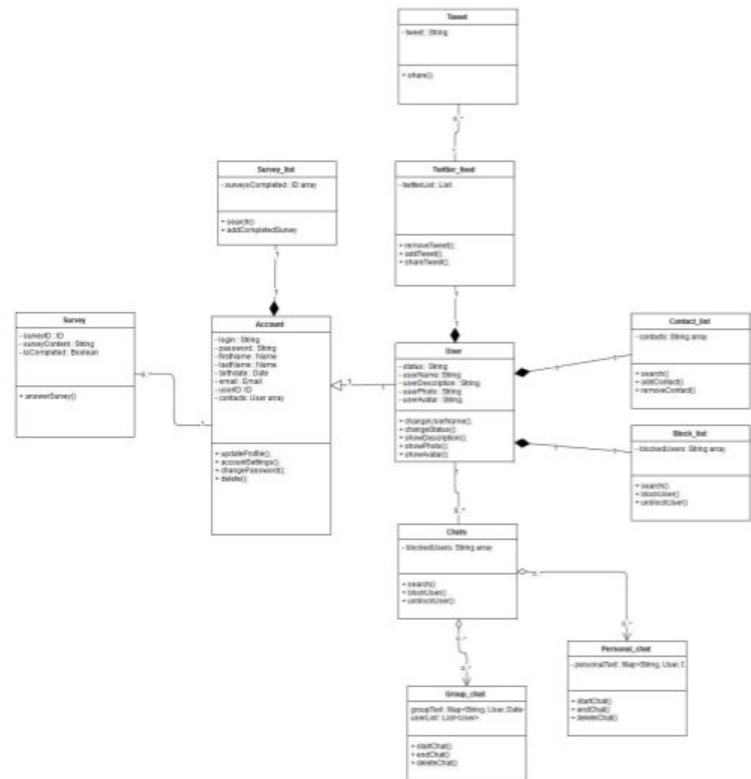
Wireframe

- Users login/register
 - Will implement UMKC associated email
- Directed to home page
 - Links to various pages



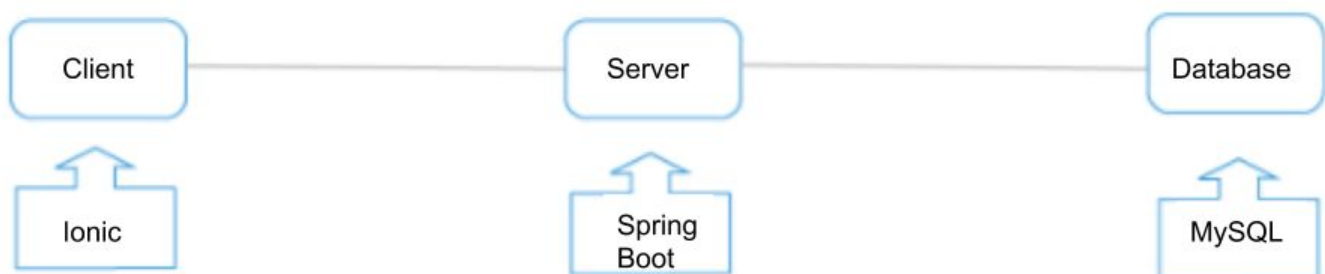
Class Diagram

- Want Account separate from User
 - Track completed surveys on Account
- Contacts, chat, and twitter specific to the User

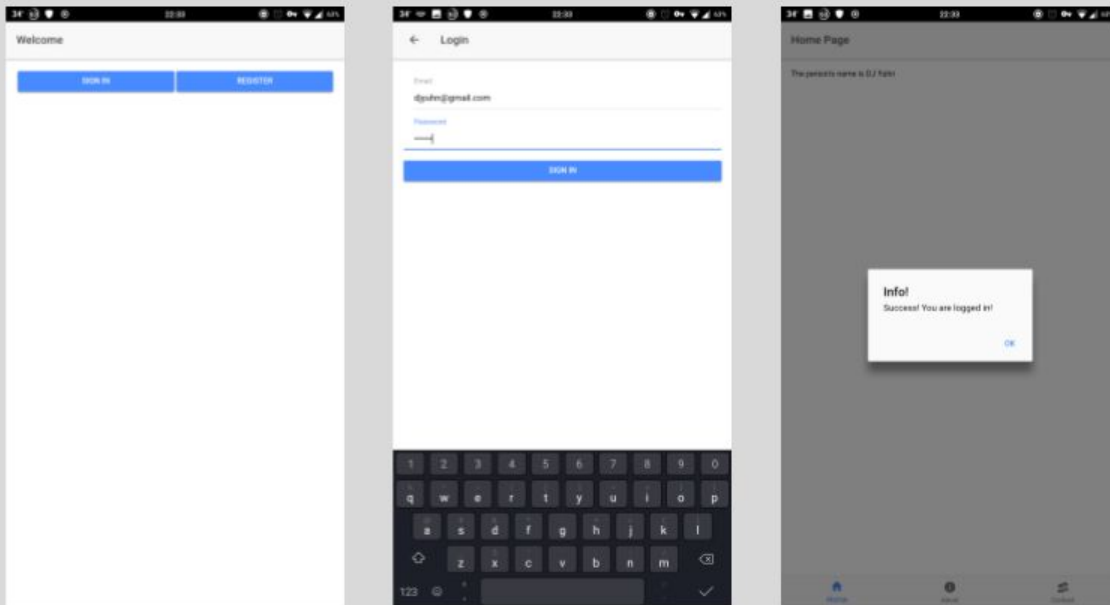


Architecture Diagram

- Client uses Ionic
 - Cross-platform
 - Plugins
- Server uses Spring Boot
 - Better Data Control
- Database is MySQL
 - Scalable
 - Quicker Search



Screenshots



Resources

[Ionic Login and Register App Tutorial](#)

[Firebase Database Set Up](#)

[How to display list items](#)

[How to Split a String in Typescript](#)

Increment 2

Team #: 5

Team Members: Darrin Yuhn, Yuxi Mao, Stephanie Retzke

GitHub: <https://github.com/stefanista/HolyHandGrenades>

Existing Services/REST API

We used the following services for this increment:

- Firebase - <https://firebase.google.com/>
- SurveyJS - <https://surveyjs.io/Overview/Library/>
- AFrame - <https://aframe.io/>
- Cordova plugin filepath
- Cordova plugin filechooser
- Cordova plugin file

Implementation:

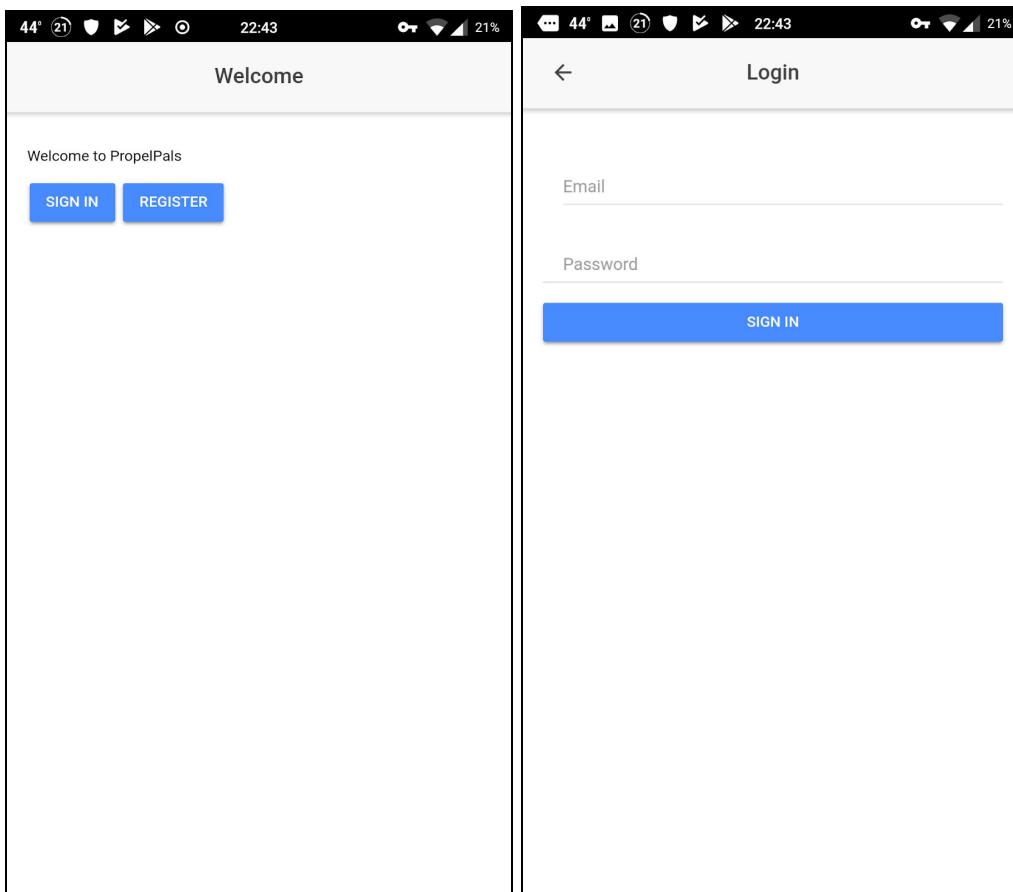
- Ionic 3 Framework
- Aframe for Augmented Reality

Project Management:

- **ZenHub**
 - Many of the tasks for this iteration were completed. The firebase database was set up and works well. The Profiles, private chat, and surveys have been implemented. The two major tasks that were not completed were the Augmented Reality and the twitter api connection. The Augmented Reality is in its early stages and no progress has been made with twitter. Testing for everything was not done either.
- **Implementation Status Report**
 - **Description**
 - After a user logs in they are taken to their profile. They may edit the profile and change their photo. The survey tab can be clicked and the user can see their surveys and fill them out using the AR interface or the text based interface. Only the text based interface is implemented right now. AR functionality is present but not tailored to application specification. Clicking the chat tab takes the user to the chat. They may send friend requests, accept them, and privately chat with friends.
 - **Tasks**
 - Profile - Yuxi Mao
 - Surveys & Basic AR - DJ Yuhn
 - Private Chat - Stephanie Retzke
 - **Time Taken:**
 - Yuxi Mao 10 Hours
 - DJ Yuhn 14.5 Hours
 - Stephanie Retzke 16 Hours
 - **Contributions**
 - Yuxi Mao 1/3
 - DJ Yuhn 1/3
 - Stephanie Retzke 1/3
- **Work To Be Completed**
 - **Description**

- Need to implement AR into surveys, add group chat, work on 'beautifying' the app, UMKC twitter feed, and fixing the inconsistency issue.
- **Tasks**
 - AR Surveys - DJ Yuhn
 - Text to Speech for AR Surveys - DJ Yuhn
 - Database Inconsistency -Stephanie Retzke
 - Group Chat - Stephanie Retzke
 - Application UI Appearance - Yuxi Mao
 - UMKC Twitter Feed - Yuxi Mao
- **Estimate Time**
 - Yuxi Mao 10 Hours
 - DJ Yuhn 12 Hours
 - Stephanie Retzke 10 Hours
- **Issues/ Concerns**
 - Small bugs in the code. For example a user may send themselves a friend request.
- **Bibliography**
 - <https://www.npmjs.com/package/aframe>
 - <https://github.com/abritopach/ionic-surveyjs>
 - <https://www.youtube.com/watch?v=BdXaFK9ryq4&list=PLgGjX33Qsw-Hl3xgtqeg4pwlRozPAAA0L&index=1>
 - <https://github.com/lobo-tuerto/a-frame-ionic2-hello-world>
 - <https://www.youtube.com/watch?v=uESqBwFVf1Q>
 - <https://angularfirebase.com/lessons/angular-firebase-authentication-tutorial-oauth/>

- **Screenshots**



44° 21% 22:43

Create an Account

Email

First Name

Last Name


Password

Confirm Password

REGISTER

44° 21% 22:43

Profile



First Name DJ

Last Name Yuhn

Email djyuhn@gmail.com

Hobbies

Likes

About

EDIT

Home Surveys Chat Contact

44° 22% 22:45

SurveyHome

Active surveys

Test Survey 2
🕒 17/03/2018 18:25

RESPOND VIA AR

RESPOND VIA TEXT

Test Survey
🕒 16/03/2018 15:33

RESPOND VIA AR

RESPOND VIA TEXT

Test Survey 3
🕒 17/03/2018 18:25

RESPOND VIA AR

RESPOND VIA TEXT

Home Surveys Chat Contact

44° 22% 22:45

Surveys by Text

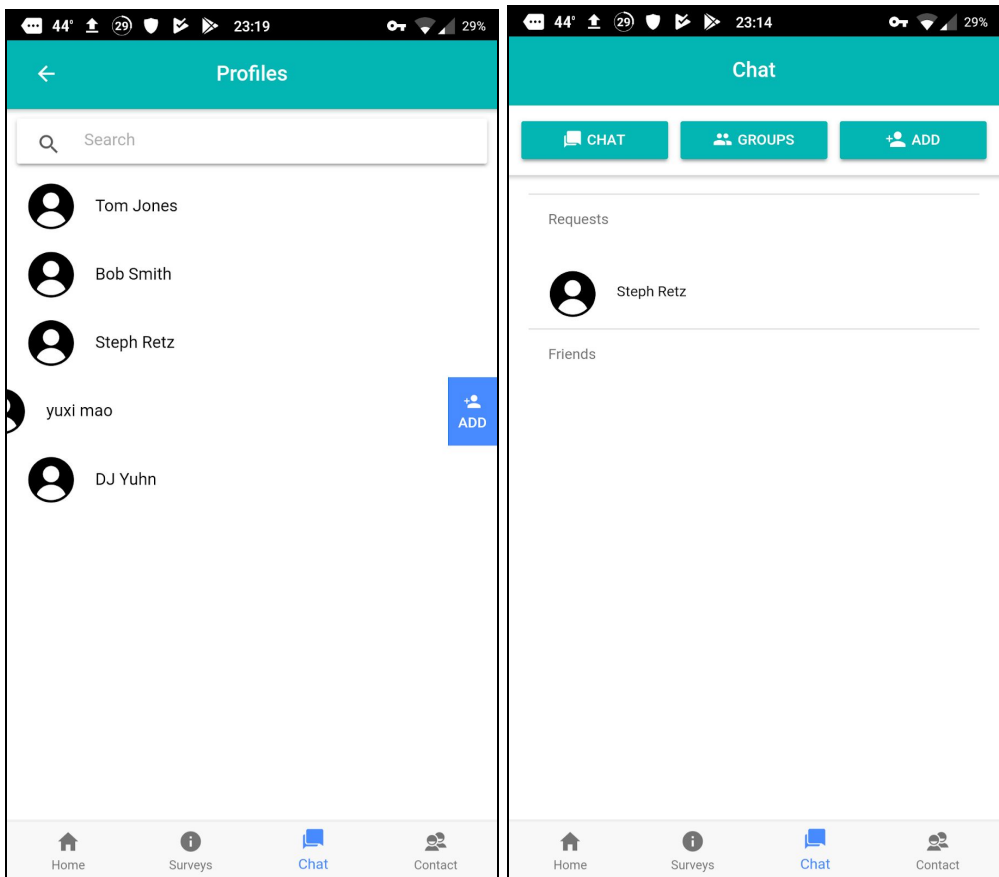
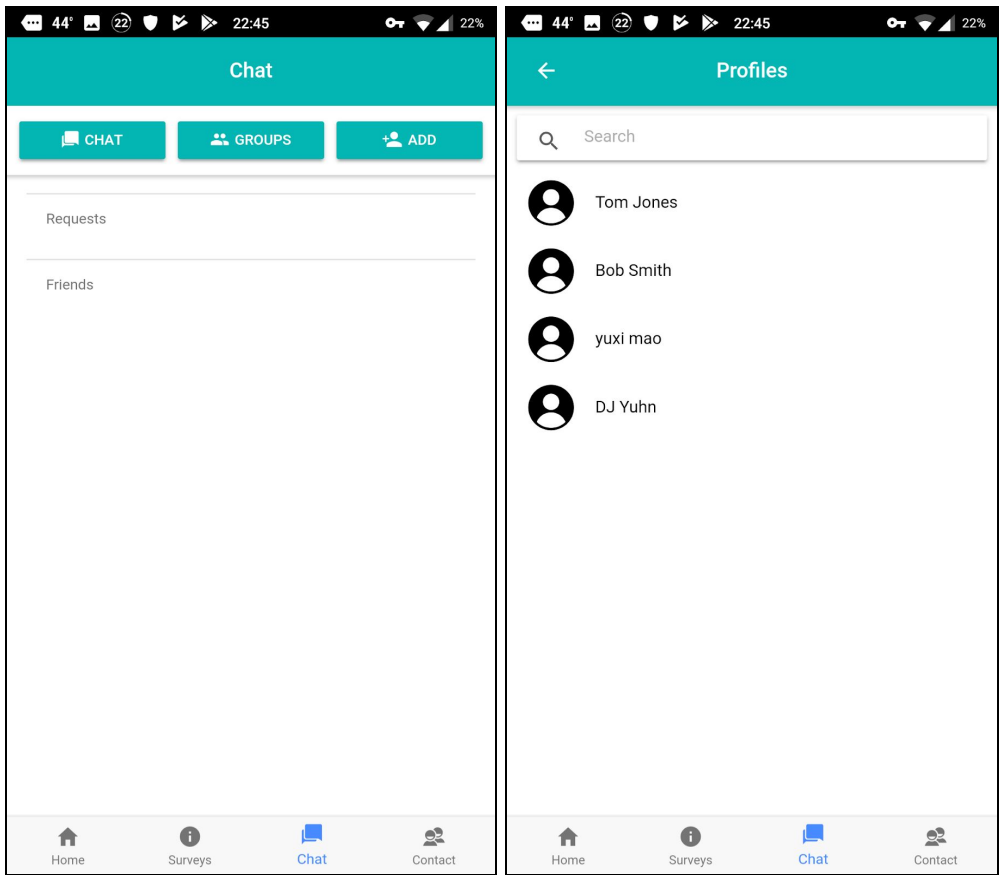
1. * How do you like this app?

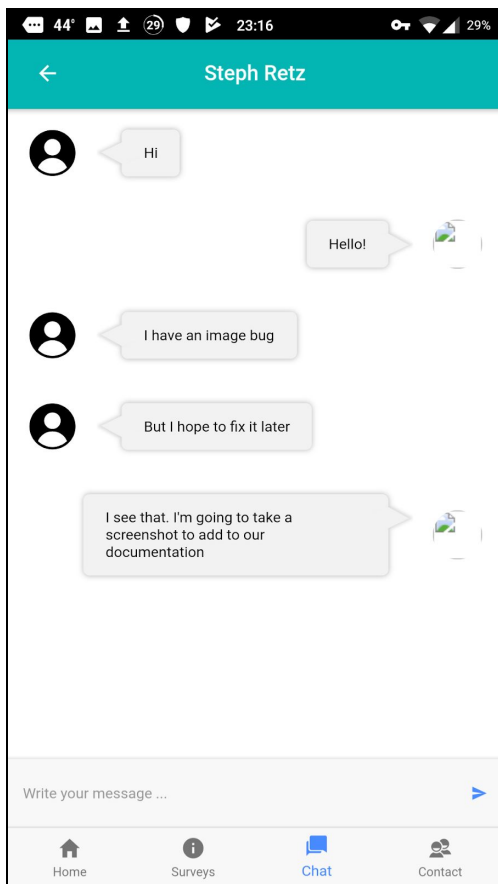
(Hate It) 1 2 3 4 5 (Love It)

Page 1 of 1

Complete

Home Surveys Chat Contact



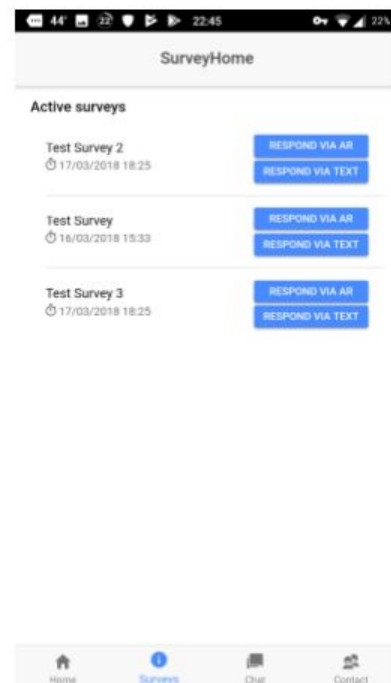


Propel Pals

DJ Yuhn, Yuxi Mao, Stephanie Retzke

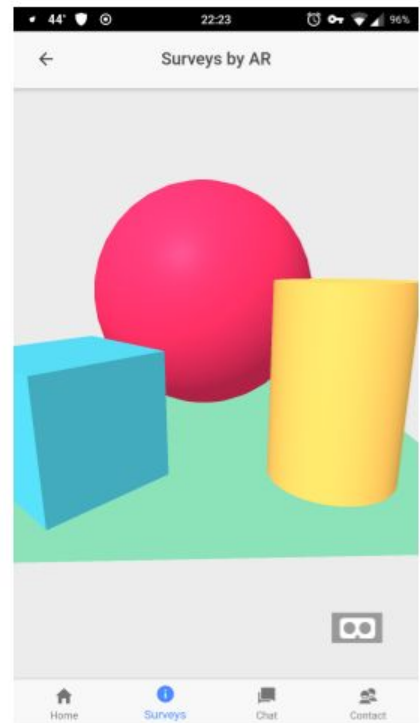
Survey Functionality

- Used SurveyJS Library
- Completed:
 - Pages with survey responses via text or AR
 - Can complete surveys
- Needs Work:
 - Augmented Reality functionality not application specific
 - Surveys not removed on completion
 - Gaming element



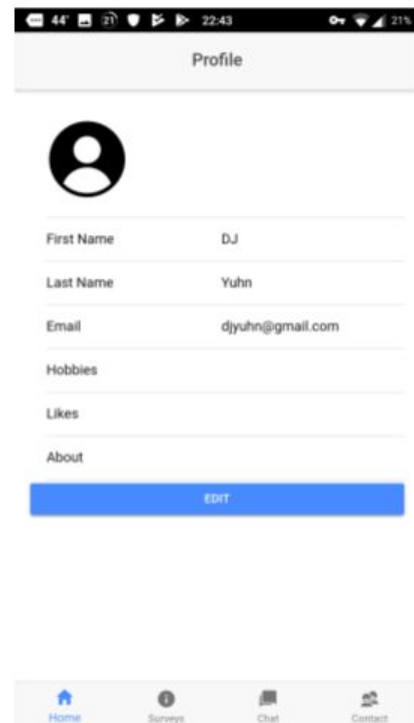
Augmented Reality Functionality

- Used A-Frame framework
- Completed:
 - Functionality works, not tailored to application specification
 - Can manipulate the view
- Needs Work:
 - Implementing with survey functionality
 - Adding avatar to the view



Profile Functionality

- Completed:
 - Profiles incorporated into Firebase database
 - Can edit hobbies, likes, and give a summary
 - Profile image linked with chat
- Needs Work:
 - Implementing gaming element (such as points) to the profile



Chat Functionality

- Completed:
 - Private chat with friends
 - Send and accept friend requests
- Needs Work:
 - Group chat functionality
 - Send Images



Work To Be Completed

- Implement AR in surveys
 - (Text to speech for avatar to ask surveys)
- Add group chat
- 'Beautifying' the application
- UMKC Twitter Feed
- Gamification
- Database Consistency

Third Increment

Team #: 5

Team Members: Darrin Yuhn, Yuxi Mao, Stephanie Retzke

GitHub: <https://github.com/stefanista/HolyHandGrenades>

Existing Services/REST API

We used the following services for this increment:

- Firebase - <https://firebase.google.com/>
- SurveyJS - <https://surveyjs.io/Overview/Library/>
- AFrame - <https://aframe.io/>

Implementation:

- Ionic 3 Framework

Project Management:

- **ZenHub**
 - Several tasks were completed: group chat and profile badges. Based on the feedback from Dr. Petri, images are used as a way to distinguish mentors, instructors, and students. Group chat and private chat did not implement media sharing based on feedback from Dr. Petri. The firebase database was altered to accommodate the profile changes.
Major tasks not completed: Augmented Reality and survey interaction. Testing for everything was not done either.
- **Implementation Status Report**
 - **Description**
 - This iteration was focused on finishing implementing features related to what already existed and not creating any completely new functionality.
 - **Tasks**
 - Profile Badges - Yuxi Mao
 - AR and Survey Interactivity - DJ Yuhn
 - Group Chat - Stephanie Retzke
 - Database Inconsistency - Yuxi Mao
 - **Time Taken:**
 - Yuxi Mao 27 Hours
 - DJ Yuhn 22 Hours
 - Stephanie Retzke 20 Hours
 - **Contributions**
 - Yuxi Mao - 38%
 - DJ Yuhn - 24%
 - Stephanie Retzke 38%
- **Work To Be Completed**
 - **Description**
 - Need to implement AR into surveys, work on 'beautifying' the app, UMKC twitter feed.
 - **Tasks**
 - AR and Survey Interactivity - DJ Yuhn
 - Create Presentation
 - Create Video
 - **Estimate Time**

- DJ Yuhn 26 Hours
- **Issues/ Concerns**
 - Having the augmented reality incorporate surveys. Had a plan of using A-Frame to have the user to select their responses, but is proving to be difficult to implement. A-Frame uses DOM and is not possible to interact with a webview of the surveys.
- **Bibliography**
<https://www.youtube.com/watch?v=8ShGJf1GGkU&index=10&list=PLgGjX33Qsw-HI3xgtqeg4pwlRozPAAA0L>

Augmented Reality

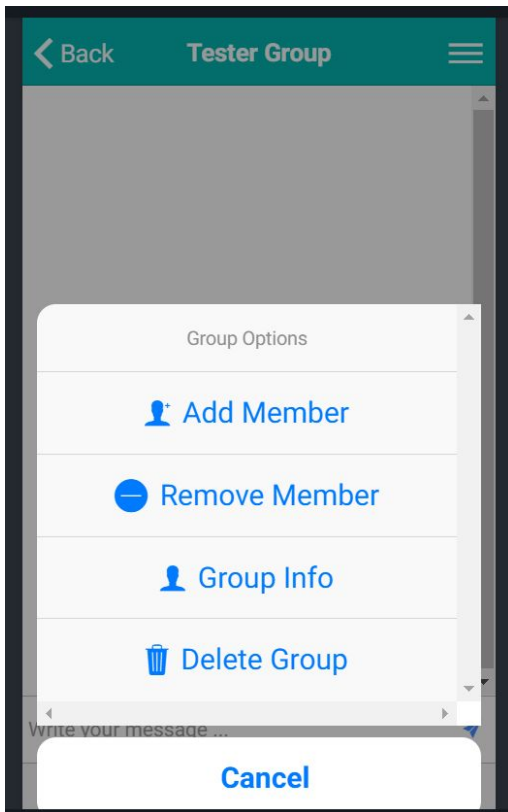
<https://github.com/cordova-plugin-camera-preview/cordova-plugin-camera-preview/issues/279>

<https://medium.com/@pitipon/a-frame-with-angular-setup-project-5797b2f2a03b>

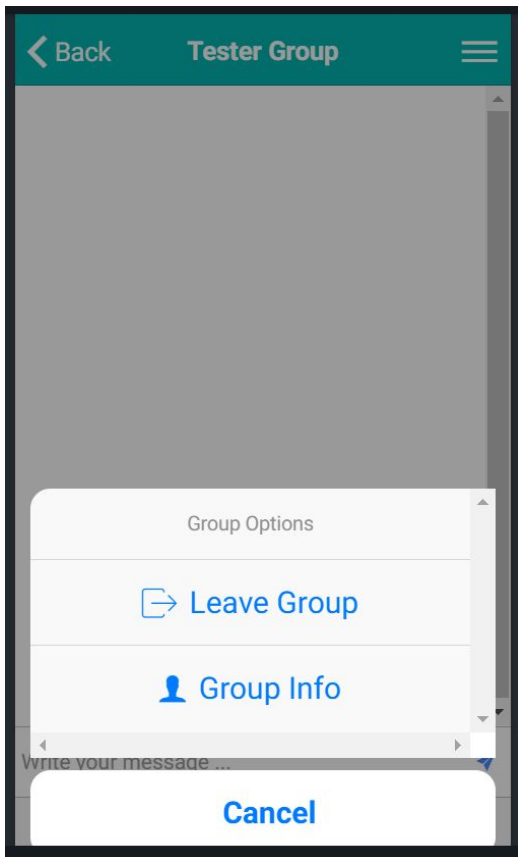
<https://www.npmjs.com/~ngoKevin>

https://stackoverflow.com/questions/17351016/set-up-python-simplehttpserver-on-windows?utm_medium=organic&utm_source=google_rich_qa&utm_campaign=google_rich_qa

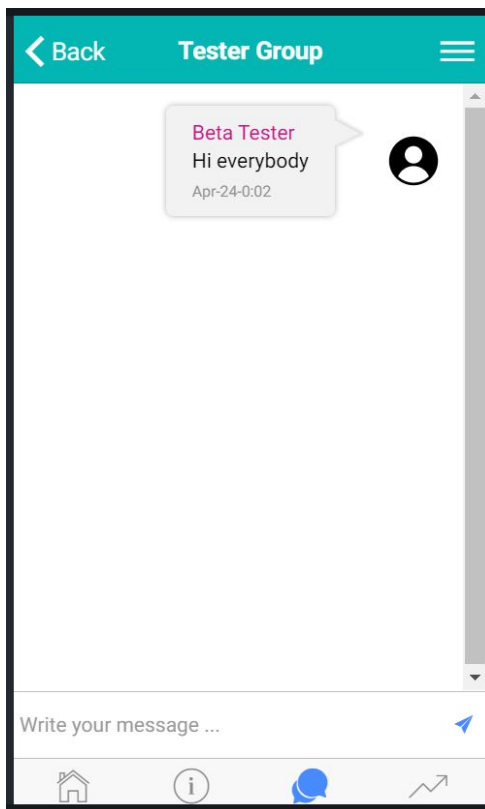
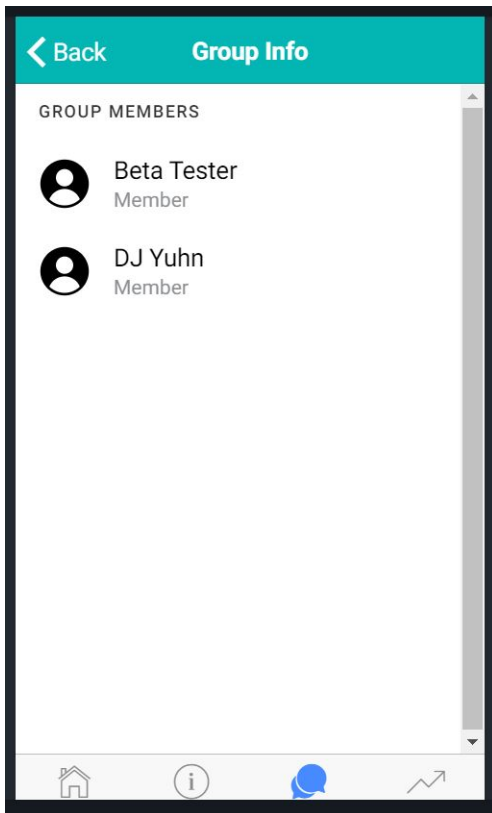
- **Screenshots**

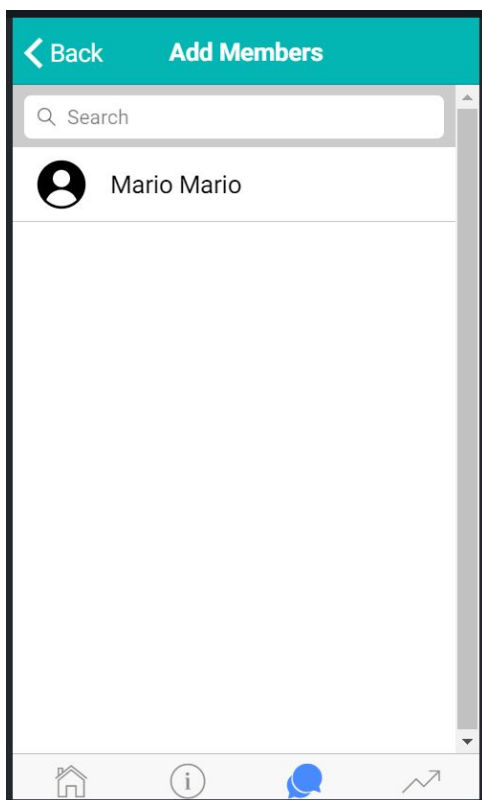


Menu for Group Owner

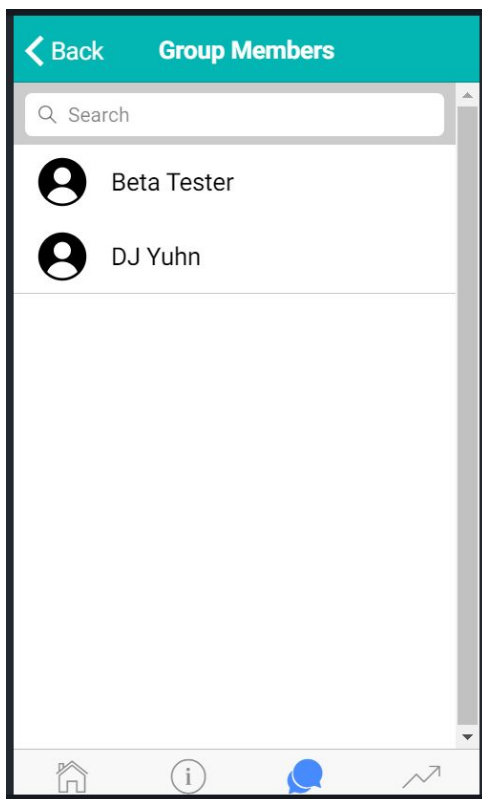


Menu For Group Member

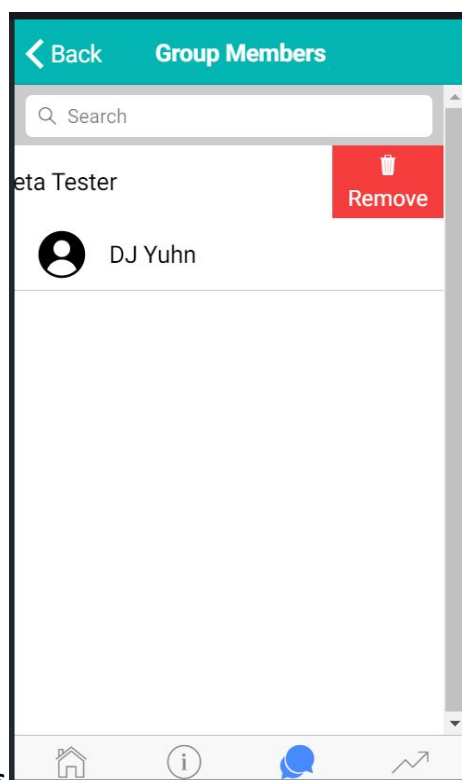


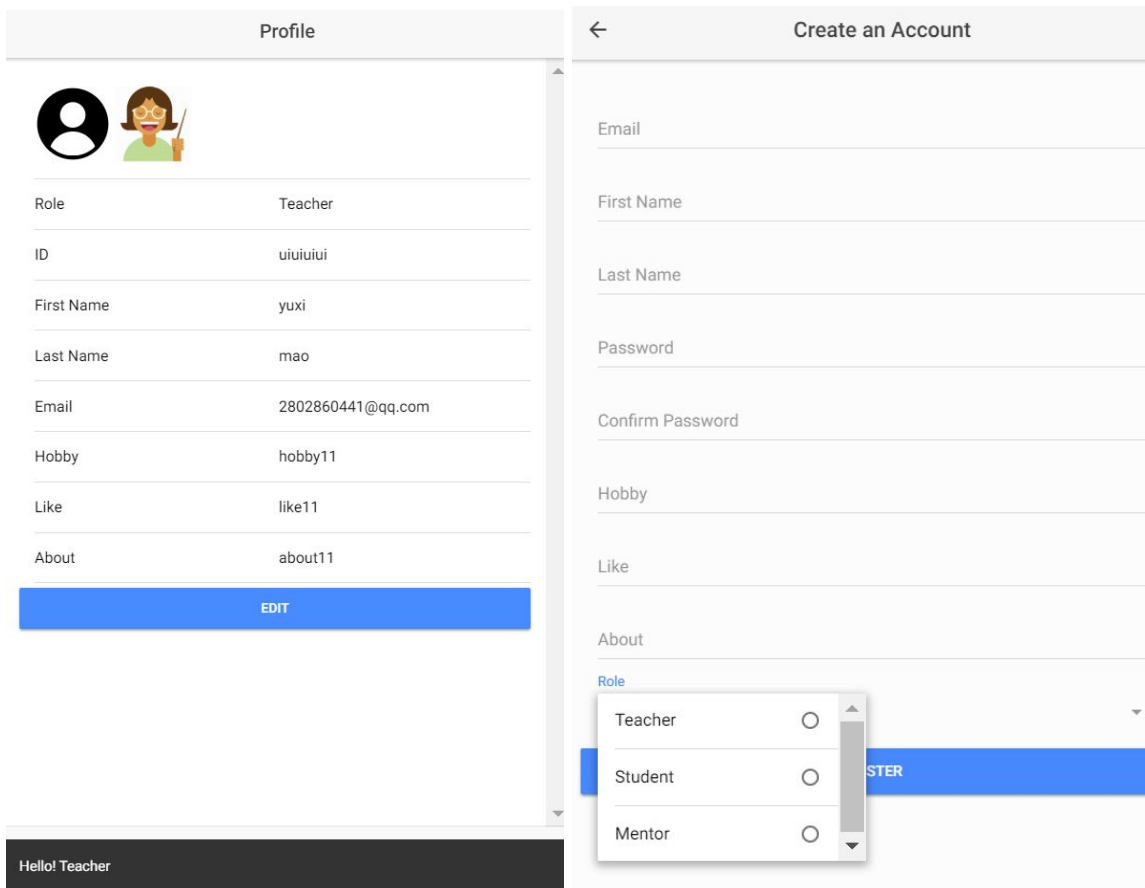
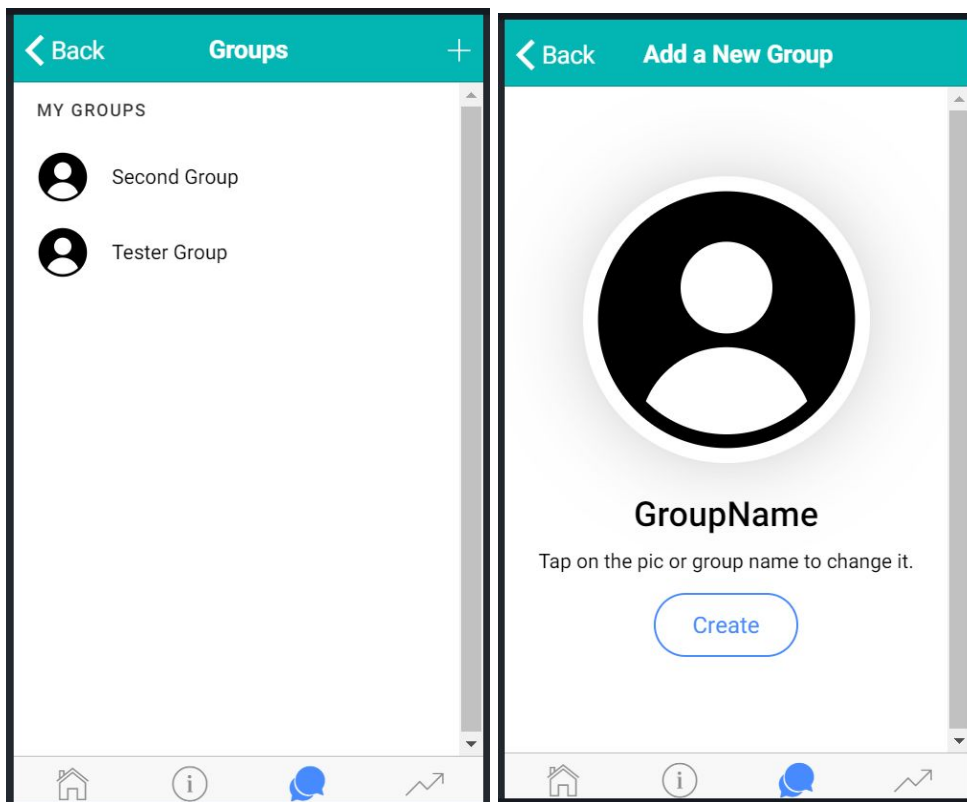


Add Using Friends List



Remove Members





Acknowledgement Statement:

"The work has been completed under the guidance of Dr. Yugi Lee and TAs (Rohith Nagulapati, Sidrah Junaid, Nageswara Nandigam) in CS5551 Advanced Software Engineering, University of Missouri -Kansas City), Spring 2018."