



# Greek Life Member Management System

09.28.2018

Software Engineering 1 - Group 9 - Report 1

Jason Pulis, Christopher Whetsel, Mike Winkelmann

File Repository - <https://github.com/mawinkelmann/databaseUpgradeSEGroup9>

Development Server - <http://glmms.online>

Client Server - <http://spdmizzou.com>

Development Blog - <https://glmms.home.blog>



**All team members contributed equally.**

## Table of Contents

<b>1 Project Description</b>	<b>3</b>
1.1 Problem Diagnosis	3
1.2 Solution	4
1.3 Glossary of Terms	5
<b>2 System Requirements</b>	<b>6</b>
2.1 Enumerated Functional Requirements	6
2.2 Enumerated Nonfunctional Requirements	7
2.3 On-Screen Appearance Requirements	8

# 1 Project Description

## 1.1 Problem Diagnosis

One of the problems that the engineering fraternity Sigma Phi Delta is facing is the inability to effectively communicate events, knowledge and other pertinent information to the members of the group. This is brought about by the extensive list of applications that are designed to bring groups to a common line of communication. Sigma Phi Delta is currently using a hybrid of communication networks such as Slack, GroupMe, email and OrgSync. As a result, the members and officers in our organization are frustrated by the constant application hopping, inconsistent notifications for events and the lack of carry-over from each application. The Executive Board of the fraternity has also found out that many of the members have turned off the notifications from the chat because of the spam that comes from the communication overload. Thus, the Executive Board of Sigma Phi Delta has decided to seek a centralized location for member information and communication.

Another issue that the fraternity is facing is a jumbled mess of documents, by-laws and bills that stream through emails and get put into a cluttered Google Drive. Unless a member of the fraternity plays a large role in the upkeep and development of the documents that are used every week, there is no reason for them to look at them. That being said, when a member does need to reference a by-law or lookup formatting for a bill, the Google Drive becomes a maze of folders - leading to dead-ends, out of date files and duplicates. Because of this, some variety of search function and organization needs to be implemented to help the less tech-savvy people in the fraternity.

For the executive board and other decision makers in the fraternity to be successful they need to be able to access information about the members they are leading. Currently, when we need information, the member seeking it needs to search through the fraternity Google Drive for it, if it even exists. This process is time consuming and often fruitless. If that information cannot be found, they resort to polling the group message and hoping all necessary members will respond with their information. This is inefficient and often inaccurate, costing time and delaying meaningful work that requires these answers.

Last year, an attempt was made by members of the Sigma Phi Delta fraternity to implement a member information system. While the design of the database itself was good, the implementation of the web interface and the small set of features offered made sure that it quickly failed. It has since fallen out of use and never fulfilled its goals. Its interface was confusing and difficult to navigate, providing little instruction on how to use the system. The database also never held information for all members, so using it did not provide valuable information. We need a way to provide the functionality this system tried to achieve, but in a way that will be used by the fraternity for years to come.

Clearly, Sigma Phi Delta is facing many issues regarding management of information, documents, and communication that frustrates our members, costs fraternity leaders time, and could lead to inaccurate action to be taken. These issues need to be addressed.

## 1.2 Solution

To solve the problems described in the above section, we propose a Greek Life Member Management System, which will build upon the existing member information database that Sigma Phi Delta previously attempted to implement. Lack of interest because of unfinished features and an unpolished user experience were major drawbacks of the previous solution. So much so, that it has been abandoned as a solution to our problems. The new solution must be more user friendly and provide new features which will make it more appealing for general members and decision makers in our organization alike. The main benefit of the system to users will be a centralized and searchable location accessible to all members for information regarding organization personnel, announcements, events, and documents. We also want this solution to be useable and maintainable for many years, so that we have a continuity of member information.

Our desired solution has several goals to improve fraternity communication and information management. One goal in creating this system is to provide valuable and accurate information for the leaders of the fraternity as they make decisions impacting all members. The solution must also be easy to use and should save members time and hassle when they are trying to compile information. The information must be gatherable by the members without having to reach out to each member individually or through a group message. The system should also provide a way to coordinate members for events and will provide an organized archive for past chapter documents. Events should also be synchronized with the fraternity google calendar as most members already have it on their phones. Our solution will also make it simple to find important announcements for the chapter and will allow urgent messages to be sent out by text to all members. Another desirable feature would be to randomly pick members to clean up after events and to keep track of who has already been chosen in the past. Finally, the solution must be secure and only accessible to members of the hosting organization.

This project hopes to satisfy the requirements for what a Greek Life chapter needs to function as one cohesive unit. If the implemented features are easy to learn and maintain, the better the organization will survive in the long run because we will be able to manage and learn from our information. Each member must be able to pick-up the programs that are created and intuitively solve whatever they seek to accomplish. It should also be expandable so that in the future, the fraternity can add features as new needs arise. As an end goal, this could be used for any Greek Life organization. One of the things that we realize this relies on is member participation in the system, because if we do not consistently use this as our form of communication and keep the information up to date, we will not be able to benefit from this system.

### 1.3 Glossary of Terms

**Database** - a usually large collection of data organized especially for rapid search and retrieval (as by a computer).

**Fraternity** - a student organization for scholastic, professional, or extracurricular activities.

**Greek Life** - Fraternities and sororities, or Greek letter organizations (GLOs) (collectively referred to as "Greek life") are social organizations at colleges and universities.

**Fraternity Father/Son** - In fraternities, during the new member education process, a new member to the organisation is given a "father" to help mentor them in the fraternity.

**Chapter** - a local branch of an organization (fraternity).

**Greek Life Member** - a member of a Greek Life organization.

**Fraternity Member** - an initiated member of a fraternity.

**Member Information** - information about a member of an organization that could be useful for the organisation to keep track off. E.g. major, phone number, graduation date, email etc.

**Sigma Phi Delta** - an international professional-social fraternity of engineers.

**Executive Board** - the group of elected individuals who oversee the activities of the organization. In Sigma Phi Delta, the Executive Board consists of the President, Vice President, Internal Operations Engineer, Secretary, Treasurer, Social Chair, Recruitment Chair, Philanthropy Chair, and New Member Educator.

**Slack** - a cloud-based set of proprietary team collaboration tools and services. The name is an acronym for "Searchable Log of All Conversation and Knowledge".

**GroupMe** - a mobile group messaging app.

**OrgSync** - an online community management system to higher education institutions in the United States and Canada. OrgSync enables colleges and universities to communicate with students and staff, track student involvement, and manage campus organizations and programs.

**Google Drive** - a file storage and synchronization service developed by Google.

**Decision Makers** - members of the organisation who have to make decisions that will impact the entire organisation.

## 2 System Requirements

Based upon the needs of Sigma Phi Delta, we developed a list of requirements for the system to possess. For each requirement, we assign an identifier in the form of REQ-(1,2,3...x), as well as a priority weight from 1 to 5. A lower priority weight indicates that the corresponding requirement is more essential to the success of the project, and more critical to fulfilling the customer's needs.

### 2.1 Enumerated Functional Requirements

ID	Priority	Description
REQ-1	1	Searchable Member information database with the ability to generate spreadsheets from a query
REQ-2	1	Secure login over https
REQ-3	1	Administrators can change member information and add new members
REQ-4	1	Send urgent announcements via text message to all active members
REQ-5	2	Different levels of access for certain users (i.e. admin or executive member)
REQ-6	2	Ability for each member to update and view their information on the system
REQ-7	2	Be able to display member and alumni employment information and position history
REQ-8	2	The system will be able to send initial and periodic reminders for users to update their information
REQ-9	2	Filterable announcements feed with topics
REQ-10	3	Members who have a position will be able to access transition material and the description of their position responsibilities
REQ-11	3	Ability to recover account after forgotten password
REQ-12	3	Ability to randomly choose members from the database for extra duties

<b>REQ-13</b>	<b>3</b>	Link events from database to fraternity Google Calendar
<b>REQ-14</b>	<b>4</b>	Ability to create an event that users can RSVP to and the event creator can send email reminders to the RSVP-ed users
<b>REQ-15</b>	<b>4</b>	Organised File archive
<b>REQ-16</b>	<b>5</b>	Generate a graphical fraternity family tree
<b>REQ-17</b>	<b>5</b>	Fraternity election voting polls

## 2.2 Enumerated Nonfunctional Requirements

<b>ID</b>	<b>Priority</b>	<b>Description</b>
<b>REQ-18</b>	<b>1</b>	UI should be intuitive
<b>REQ-19</b>	<b>1</b>	Mobile friendly
<b>REQ-20</b>	<b>2</b>	System will remain stable under heavy traffic
<b>REQ-21</b>	<b>2</b>	Response will be quick for users. Loading times should be minimal



## 2.3 On-Screen Appearance Requirements

Our website will serve as a starting point for the members of the fraternity. Important links should be easy to find, toolbars should be used in the header and/or footer. Our website must be intuitive and functional while remaining aesthetically pleasing. Many of the design elements will be taken from the central colors and themes of the fraternity. These images are mock-ups, and might change in the future based on needs/requirements.



fig. 1 (Crest of Sigma Phi Delta) Will be included in the design of the UI.

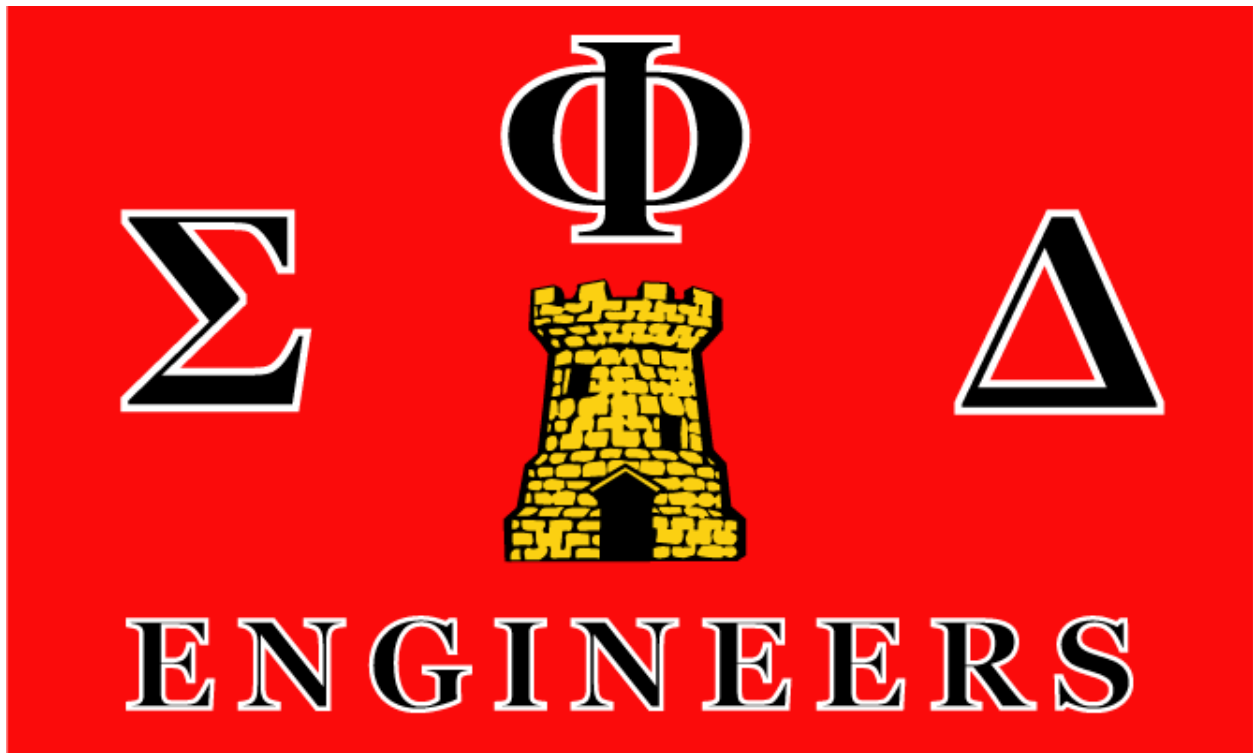


fig. 2 (Flag of Sigma Phi Delta) Will be included in the design of the UI.

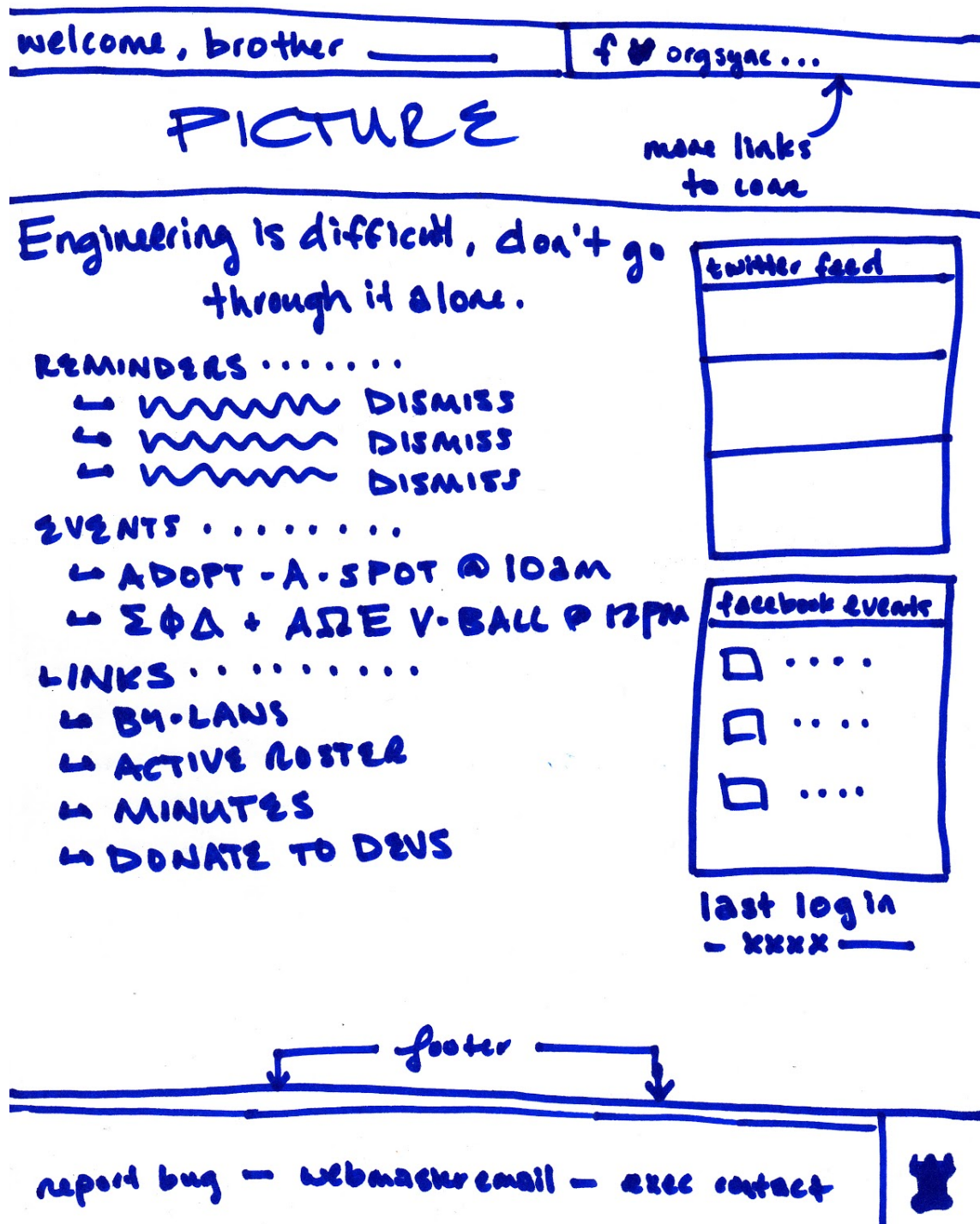


fig. 3 (Member desktop homepage)

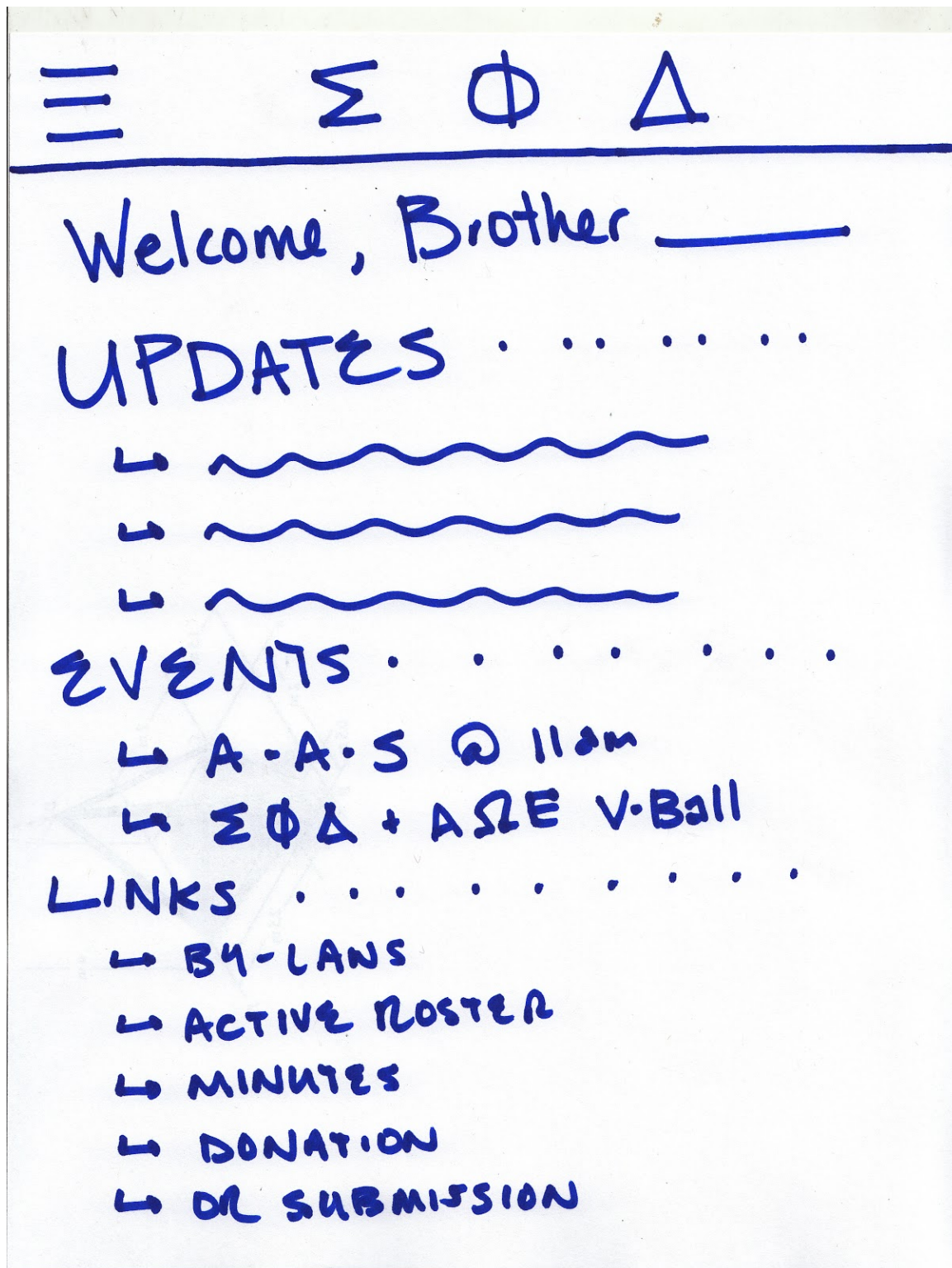


fig. 4 (Member mobile homepage)



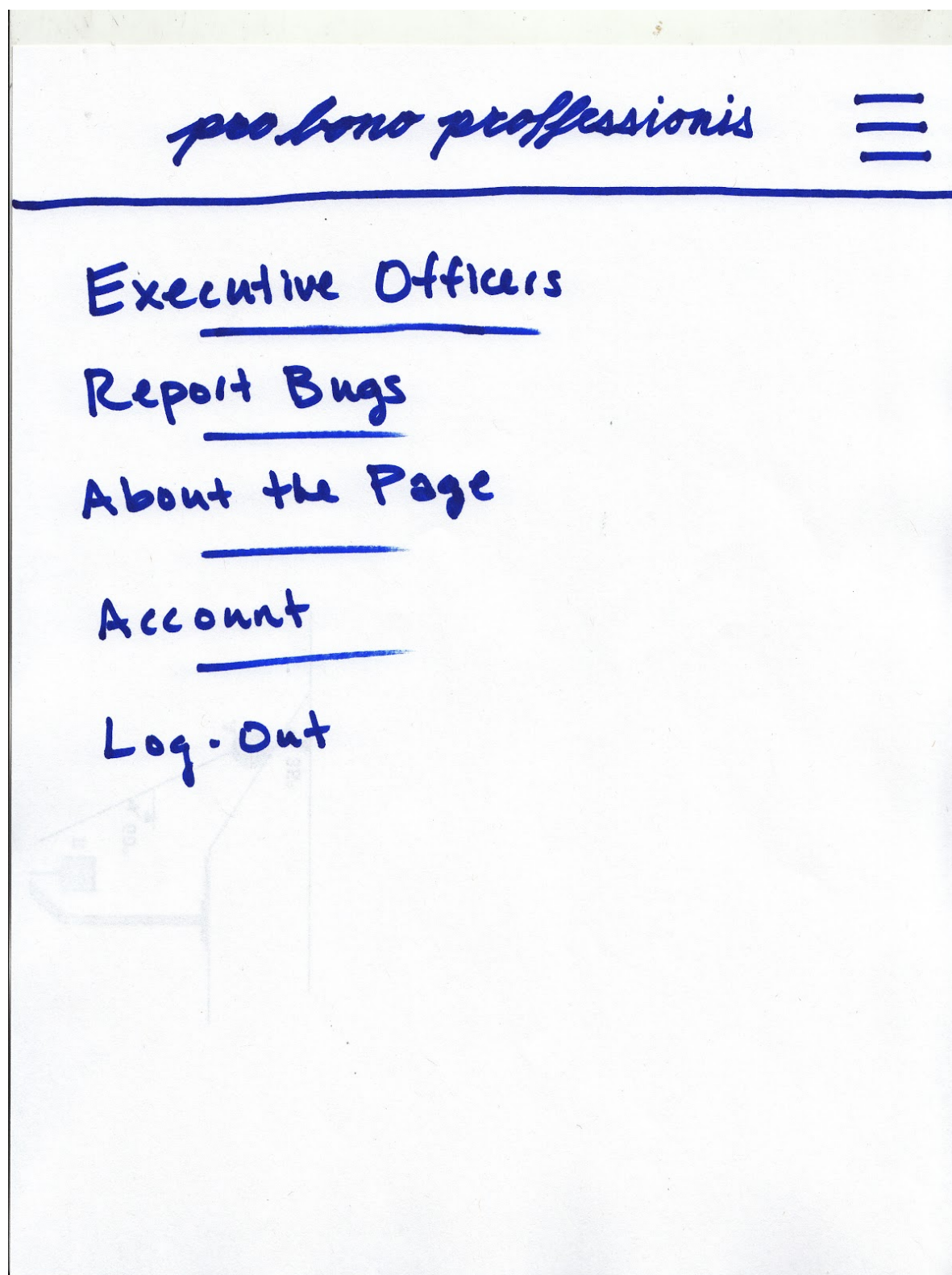


fig. 5 (Member hamburger menu)