Pics Or It Didn't Happen

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1. Executive Summary

1.1 Context

Pics Or It Didn't happen is an application that is meant to help people with overcoming social barriers/anxieties by giving them challenges/daily activities that get them more involved with things they most likely wouldn't do on their own.

1.2 Problem

There are many popular social media applications out there such as Instagram, Facebook, Snapchat and Twitter that allows for sharing ideas and pictures making the market stagnant and boring. Many of these apps intend to keep you browsing other people's uploaded content and doesn't motivate you to go and achieve goals for yourself. This leaves users often doing the same thing and stuck in a cycle. These social media applications can directly affect people's mental health. According to research, these social media applications platforms can impact health issues, including anxiety, depression, sleep deprivation, and body-image for many people.

1.3 Solution

The engineers of Pics Or It Didn't Happen wanted to create an application that would allow users to step outside their comfort zone and do things they would normally not do in their lives by working on challenges. These challenges are intended to make users experience new adventures and locations in which would help people be more open to their environment. Users are able to add friends to interact online and discuss on how they completed each challenges by posting their photos to their profiles. A users profile is built on challenges they complete and it is to help users start a profile not from scratch.

This application is not only helping people overcome social barriers/anxieties in real life, but it is helping users live a healthier life. The idea of this application is influenced by the combination of popular social media applications with an aspect of fitness applications.

Rankings will help push users to stay consistent and to not lose focus on what they want to achieve for themselves. The goal of this application is to spread positivity and motivation. Once you see your fellow peers not doing well on their challenges, the user can make sure they finish their challenges by motivating them.

1.4 Impact

The overall impact that the engineers hope to affect people of all ages. Everyone has a point in their life where they want to make a change. Sometimes a change is not present and they never had the motivation from the right people. That is why the creation of this application is developed to help users fully immersive themselves into this application if they truly desire to make a change in their life.

Once a user decides to take a chance on this application, the company hopes to provide a positive outcome. The popularity of the app can impact people's lives by building a community of support. With the integration of adding friends, this platform is used to interact with others on a different level.

Social media impacts society as a whole because it a trend. People will use these applications because their friends are on it. Which as a result, these social media applications can directly influence people to be like others. This application is intended for people to not be like other people, but to have their own self-identity.

2. Vision

2.1 Purpose

The purpose of creating this software application is to help people get out of their comfort zone. The idea of challenging the user to complete real life activities not only helps them in their social aspect, but will lead them into a healthier life. From looking at the current social media market right now, we want to make something different.

Popular applications like Instagram, Facebook, and Twitter are social media platforms are meant to create an environment for people to engage in conversations with their peers. The creation of our application is to connect a similar implementation on how the popular application on how they work and include our twist that not only help users connect with other users, but solely help them construct a profile of themselves with challenges. It is similar to applications that people utilize for fitness when they want to set a challenge for themselves when working out, but combining the social media aspect.

Based on research on looking at what users deemed as popular on social media, we believe this application to be successful in many age groups. The challenges are not intended to be created as eccentric, but rewarding to help users identify things in their life they have not seen before. As social media platforms continue to grow, so does the immersive experience. And as a result, creates a livelihood fixated in the online world. Through our application which focuses on traits such as being adventurous, outgoing, spontaneity, confident, and health-conscious, we will not only develop a platform to let users duel in the online world they know, but let them experience our own world in a new aspect.

2.2 Business Opportunity

In the beginning of this social media application, the creators want users to enjoy the platform with all features enability before add ons are implemented to attract potential partnerships. Creating a platform with an incredible amount of users can generate popularity and that is the primary goal that will eventually lead to multiple sources of profit.

Once the application is popular and we will begin to accept Ad Revenue to be included in the application. Ad revenues will be placed throughout various sections of the application where it will not irritate the user from quitting the application by seeing spam, but find ways to include Ad Revenue where it runs smoothly within the application. We could also begin to take away features such as viewing challenges days at a time and only offer it to premium members. This leaves free users with the ability to only see challenges they have completed as well as the one assigned to them for the day.

Based on the outcome for Ad Revenue on how much profit it was able to generate for the company, we will begin to work on partnerships with popular companies around the world to be another source of profit. We believe in working with companies such as restaurants, music concerts, and public events to generate a contract to attract users to go to these places to create revenue on both sides of the partnership. We want users to enjoy optional challenges that require them to spend money at specific places, but with partnerships, it will include a generous discount for users to attend.

2.3 Market Demographic

In the world, there are a recorded 5.1 billion social media users around the world. The future popularity can’t be determined, but we do hope to generate the same users as popular social media applications such as Instagram, Facebook, Snapchat, and Twitter.

Age groups is divided into different values depending on users preference. The idea of the application is to attract many users at any mature age range. We want our users to start changing their fixated livelihoods as soon as they start utilizing our application.

All challenges that are utilized in our application is free, and you are able to complete these challenges without any use of money. The addition of Ad Revenue and partnerships will implement optional challenges that will further enhance a user to be more interactive which does require the user to spend money.

For a social media application that requires users to explore new activities, this would show users new locations as well. Location is immensely important due to the various activities and will affect a user because they might not be able to complete the challenge of the day. Luckily the creators of the application are able to create challenges that people are able to complete even when their are constraints regarding the location.

2.4 User Summary

The completion of this software application will allow users to download the application from your provided brand App Store. For iOS, they are able to download it strictly from the “App Store”. For Android, they are able to download it from “Google Play Store”.

Once the application is available in the following app stores, we believe that customer support is important and we will make sure that the application is updated with free of bugs and errors. This is to ensure that the product provided to the user is perfect because the engineers do not want to ruin the functionality of the application.

The engineers want the application to be top both app store and attract many new users to join the community. They believe that the popularity of the application will drive more new features to be integrated into the app and will constantly drive a new change to people's lives.

Users experience is strictly enforced by every engineer and their desire to make sure the usability is perfect. Ensuring that users are able to utilize each features with no error.

If the users experience and customer support are the primary goals of the engineer, the user is able to start their challenges with ease. This will cause the popularity to sky-rocket and many users will begin to self advertise the application to their friends.

2.5 Product Features

Our application will include many features that utilize the same platform as any other social media applications as well as include challenges that will help users be more immersive in their daily lives.

The first feature of the application is revolving around the “Challenges Tab”. This tab will showcase the functionality of stories of fellow friends that completed the challenges of the day. As well as feature the various challenges that are upcoming so that the user can prepare for it. The highlight of the Challenge Tab will appear the “Challenge of the Day”.

The second feature of the application is revolving around the “Take Picture Tab”. This tab will showcase the user utilizing the camera to take pictures to show proof of completion of the “Challenge of the Day”. We included the integration of utilizing flash in case where the photos were taken at night and a button to switch back and forth for the front and back camera.

The third feature of the application is revolving around the “Profile Tab”. This tab will showcase the user profile picture. The user is able to add friends and add new photos to their profile to show their challenges that they have done. The tab will show various information about them as well as the amount of challenges they have completed.

2.6 Constraints

As software engineers creating this application, they believe the constraint of creating this software application has many factors. The engineers are students at CSULB, and they have many constraints a general student in Computer Science would have in a University.

The main constraint that the engineers are dealing with is the lack of knowledge and experience creating a software application. In order to create a social media application that is up to the caliber of Instagram, Facebook, Twitter, and Snapchat, they would need to gather up a lot of resources. In some sense, they would need to pick a specific language that help them utilize the capabilities and functionality of that language to fit their specific desires on what our application does in each feature. As well as understanding how to code for IOS and Android devices will be difficult to implement because it is their first time diving into their concept.

Another constraint that the engineers are dealing with is time management. Due to being students, they are unable to prioritize the application as their primary goal because many of the engineers are taking multiple classes. As the group was formed, they did form a consensus on how much work they will put into developing this software application and it showed for the outcome of the application.

3. Sprint 3

3.1 Process

3.1.1 Project Meeting/Management Hours

For this sprint, we planned to meet for one hour, twice a week, for four weeks. With a four person team, this comes out to 1 x 2 x 3 x 4 to make a total of 24 in person working hours throughout this sprint. The other 60 hours were done among the four members individually. This tallies up to a total of 84 working hours this sprint.

3.1.2 Product Backlog Hours

Backlog Story	Estimate Priority	Sprint	Status
Add friends/followers	High	7	DONE
Upload Profile photo	High	7	DONE

Show user profile	High	7	DONE
Edit user profile	Medium	7	DONE
Show user rank	Medium	7	DONE
Friend story feed	Medium	4	WORK IN PROGRESS
Challenges tab	Low	5	WORK IN PROGRESS
Show challenges	Low	5	WORK IN PROGRESS
Select a challenge	Low	5	WORK IN PROGRESS

3.1.3 Sprint Backlog Hours

Backlog Task	Hours
Add friends/followers	2
Upload photos/videos	4
Show user profile	4
Edit user profile	7
Friend story feed	7
Sprint 3 documents	6

3.1.4 User Stories to Complete for Sprint #3

1) As a user, I want to be able to have the ability to add my friends or other people who seem interesting to follow.
2) As a user, I want to be able to upload photos/videos of the challenges I complete daily to prove that I have accomplished the challenged assigned to me for the day.

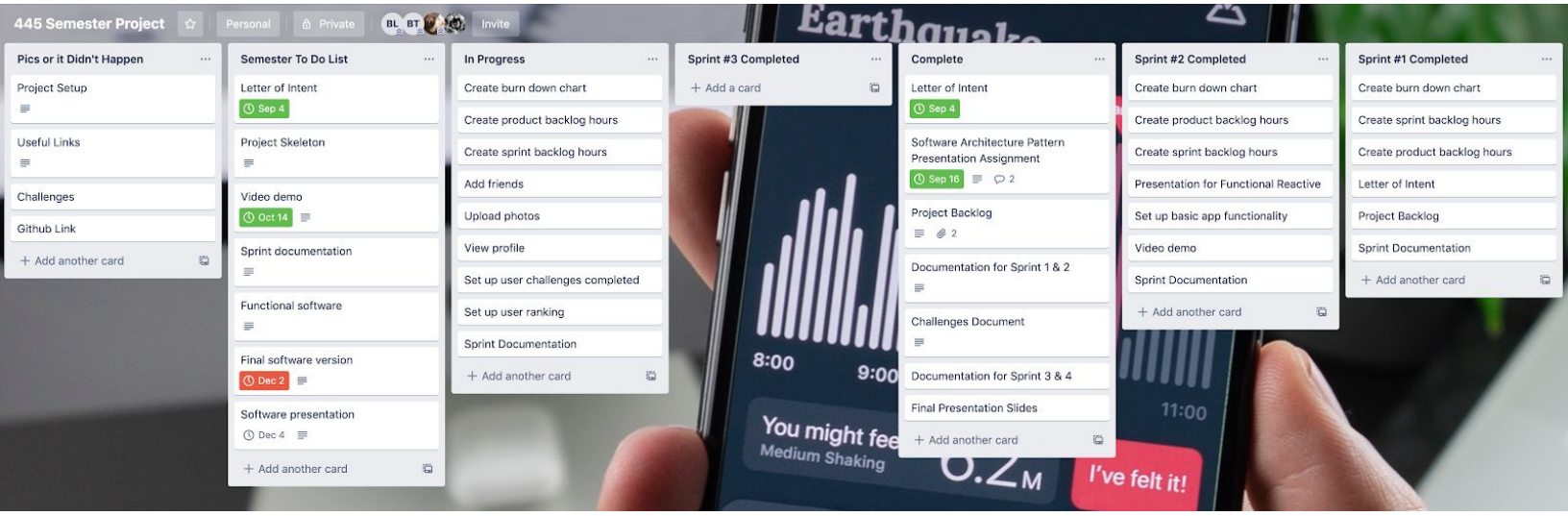
3) As a user, I want to be able to view my profile to see my rank, the number of challenges I have completed, as well as photos/videos of my past challenges.

This will help me keep track of things that I have done and allow me to possibly try more of the activities that I liked.

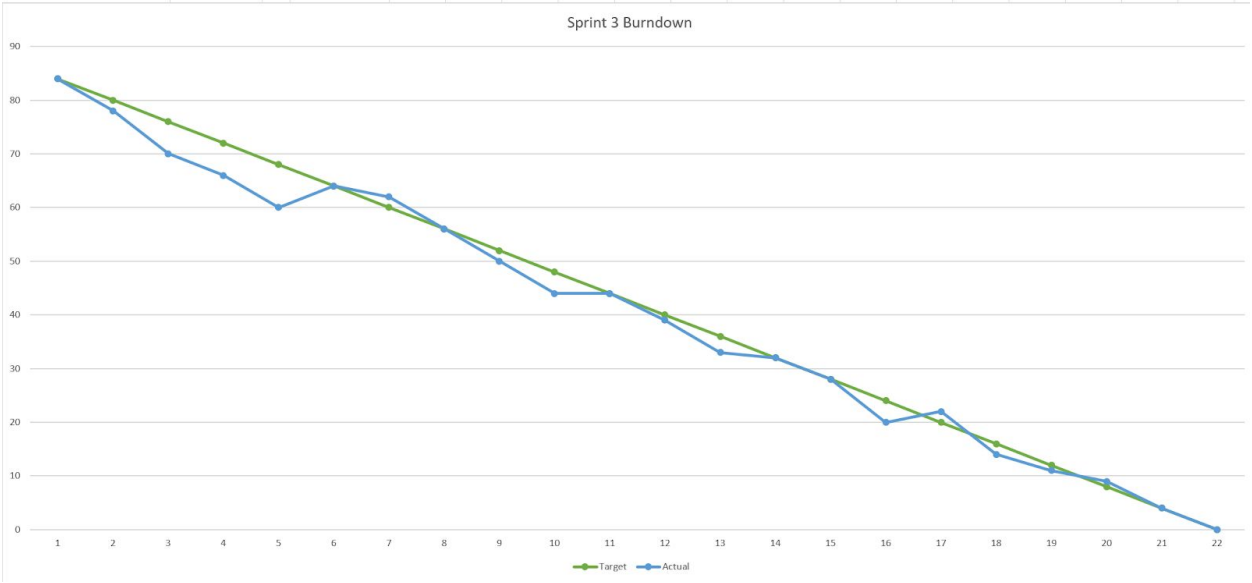
4) As a user, I would like the ability to edit my profile so that others can see the most up to date information about me.

5) As a user, I would like a way to view the challenges that my friends have completed.

3.1.5 Sprint Board at the Start of Sprint #3



3.2 Sprint Burndown Chart

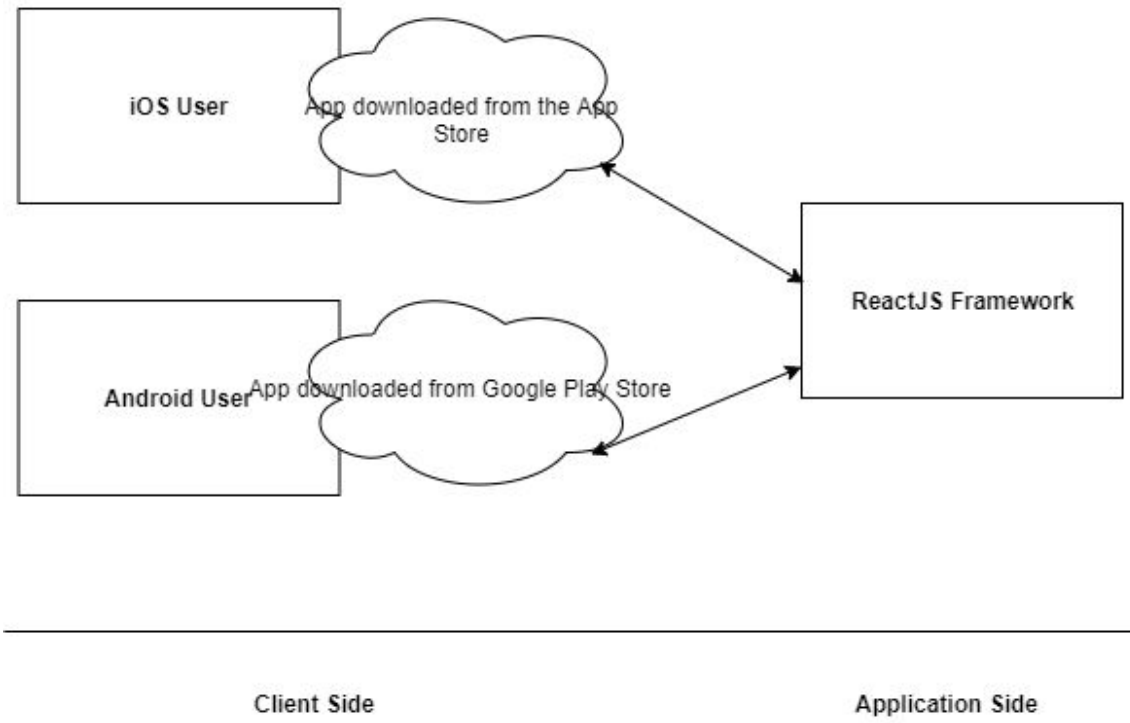


3.3 Software Architecture

We plan to continue using the React Native frameworks for JavaScript to develop our application for both the iOS and Android platforms. In this sprint we will be adding usable features to the application. To add these features, we will be using some API's.

3.3.1 Component Diagram

Below is our component diagram describing the first-class connectors that goes from our components to the external API and the first class connector between our high level component.



3.4 Software Development

In the last sprint, we have the backbones set up for our application. This allowed users to do basic functions such as create an account, login to an account, and start a new challenge. In this sprint, we plan to implement features that help the user interact with the application. Some features we plan for this sprint are allowing the user to follow their friends, add photos of their challenges, view personal profile, and see challenges that their friends are taking on.

The first feature of this sprint is the set up of a profile picture. As any social media application, a profile picture is the image that represents a social media account in all its interaction across any platform. A profile picture is displayed as an avatar next to the account profile. According to our research, React Native is able to handle components and all the hassles with dealing with photos. Refer to addendum 1 for the specific package that is added into the software application. The purpose of using this package is to take an image component and when you're about to click on the profile picture, the user will get a profile picture prompt that gets that base64 strings of the image and what happens is that the image source changes to whatever image the user will pick to set as their profile picture. Components listed to set up a profile picture in React Native is the following:

react-native link react-native-image-picker
react-native link react-native-image-resizer
react-native link react-native-fs
react-native link react-native-photo-upload

The second feature of this sprint is to add photos of their challenges to their profiles. The idea of this part is majorly influenced by the Instagram layout for the profile tab. Our twist is for users to upload photos of their challenges rather Instagram is more focused on uploading whatever pictures.The amount of photos that were uploaded to their profile is about the same as the number of challenges that were completed. According to our research, in order to design a profile tab, we utilized Youtube Videos to help us design a layout. Also, we added a button to the profile tab to “upload a photo”. This features requires the same package as the same as the first feature.

The third feature of this sprint is to add a button for “adding friends”. The concept of adding friends is for the user to share their experiences with the app by showing the challenges they have completed so far. When they add their friends, eventually they will be able to see their “Stories” in the challenges tab of their peers finishing their challenges of the day. The engineers believe that the addition of having a network of friends can directly influence each other to complete the “challenge of the day”. As the same as the second feature, the feature was implemented by learning from scratch by watching Youtube Videos.

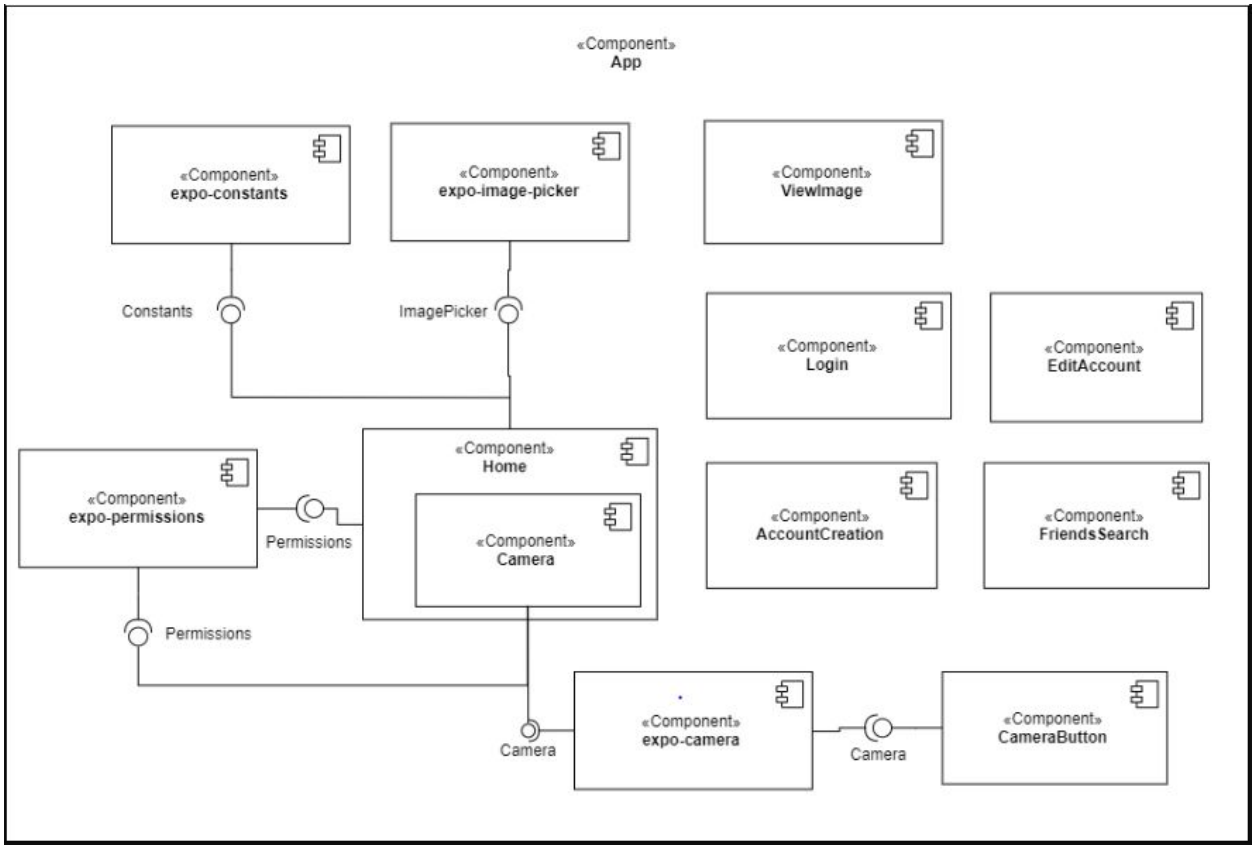
The fourth feature that was added in the profile tab is the “ranking border” that is highlighted with the number of challenges completed by the user. This social media application wants people to be connected to this immersive experience. If users have a desire to change their life, they must invest their time into this application. Ranking borders is created for the users to track their invested time into the application. From looking at their current rank, a user can see how they are compared to their fellow peers. The ranking system was broken up into tiers. Each percentage is based on challenges completed. The rankings is listed below:

	Bronze	0% - 20%
	Silver	21% - 40%
	Gold	41% - 60%

	Platinum	61% - 80%
	Diamond	81% - 99%
	Challenger	100%

3.4.1 Component Diagram

Below is our component diagram of Sprint 3 showcasing our application using third party components.



3.4.2 Quantitative Metrics

Component	Total Number of Bugs	Average Time to Fix Bug	Hours Spent Fix Bugs/ Testing Over Total Hours Spent
expo-constants	**1**	**10 min**	**30 Minute Total for Testing**
expo-permissions	**1**	**10 min**	**30 Minute Total for Testing**

expo-image-picker	**6**	**1 hour**	**2 Hour Total for Testing**
expo-camera	**5**	**1 hour**	**2 Hour Total for Testing**
view-image	**7**	**1 hour**	**2 Hour Total for Testing**
login	**3**	**30 min**	**1 Hour Total for Testing**
account-creation	**5**	**30 min**	**1 Hour Total for Testing**
camera	**8**	**1 hour**	**2 Hour Total for Testing**
EditAccount	**4**	**30 min**	**1 Hour Total for Testing**
FriendsSearch	**2**	**30 min**	**1 Hour Total for Testing**
CameraButton	**7**	**1 hour**	**2 Hour Total for Testing**

3.5 Software Quality

We believe that the application is good only if it is something that engages the user and makes them want to come back day-after-day. We had already planned challenges for the users that will hopefully get the users excited to open the app everyday and see what their task is for the day. To achieve our goal of having users coming back everyday, we thought that we should have a way to keep track of how the user is doing. In order to make that possible, we need to make sure that this application is hitting all areas of security, modularity, and efficiency.

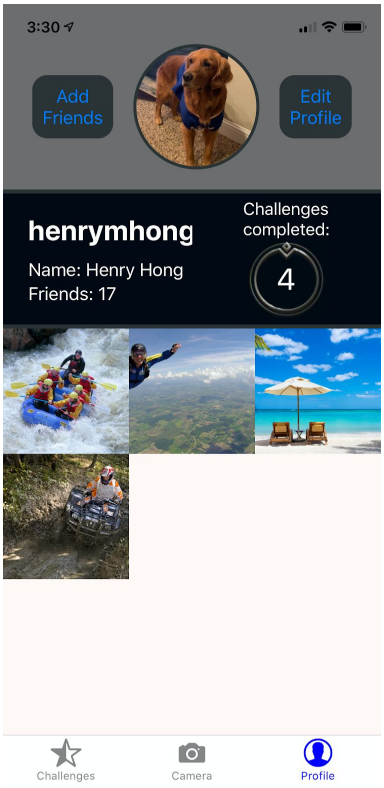
In the field of security, we want the user to have control of their own account. Once a account is created, the user has the capability to change whatever information or content they want from their profile. It is their own privacy to showcase what they want to the public. Other users are not able to control other people's account. This application is considered a social media platform and they would need protect their information securely. The engineers will make sure the backend of the application is not easily hackable but secure enough to hold user's personal information in a secure way. The quantitative metrics that is measured to fix a bug from Sprint 2 to Sprint 3 shows that we didn't need to put much more effort because the engineers are able to implement the

account creation from Sprint 2 while Sprint 3 is more focused on updating the implementation.

The aspect of modularity, the engineers started off with the account creation that leads into smaller components such as the login process and the functionality of editing the account. When then engineers divide up the components into sub-components, they are able to efficiently work their way through the application. Also, the engineers started off with the main component of the camera integration. They needed to make sub-components to divide up the parts into the camera button, view-image, and utilizing the image picker package. The camera has many parts to make sure that the functionality of the application is working.

Efficiency in the application is important because that will decide if the user's experience is right for them or not. In Sprint 3, the engineers wanted to make sure that the implementation is their before they start to update their implementation to make it more efficient. The account creation was implemented in sprint 2 and then the fixing of bugs was done in Sprint 3 to focus more on the efficiency side. To make the user experience much more convienent, we will implement a Firebase Database for Google Authentication to help the user create an account easier and their login process much more faster. Lastly, the camera integration needed to efficiently work. The engineers wanted to make sure that the buttons work such as the flash and the camera flip. As well as being able to take pictures and videos. Due to conflict, the implementation of the camera is only in Sprint 3 and will be further touched in Sprint 4 to be much more efficient.

3.6 Prototype/Products



This is a user's profile. For the completion of the application, the engineers had considered this profile tab as a beta. If the engineers had more time, they will be able to make it look nicer. There are options to add friends, edit profile, view user name and information, pictures of challenges they have completed, number of challenges they have completed, and their rank.

3.7 Video Clip

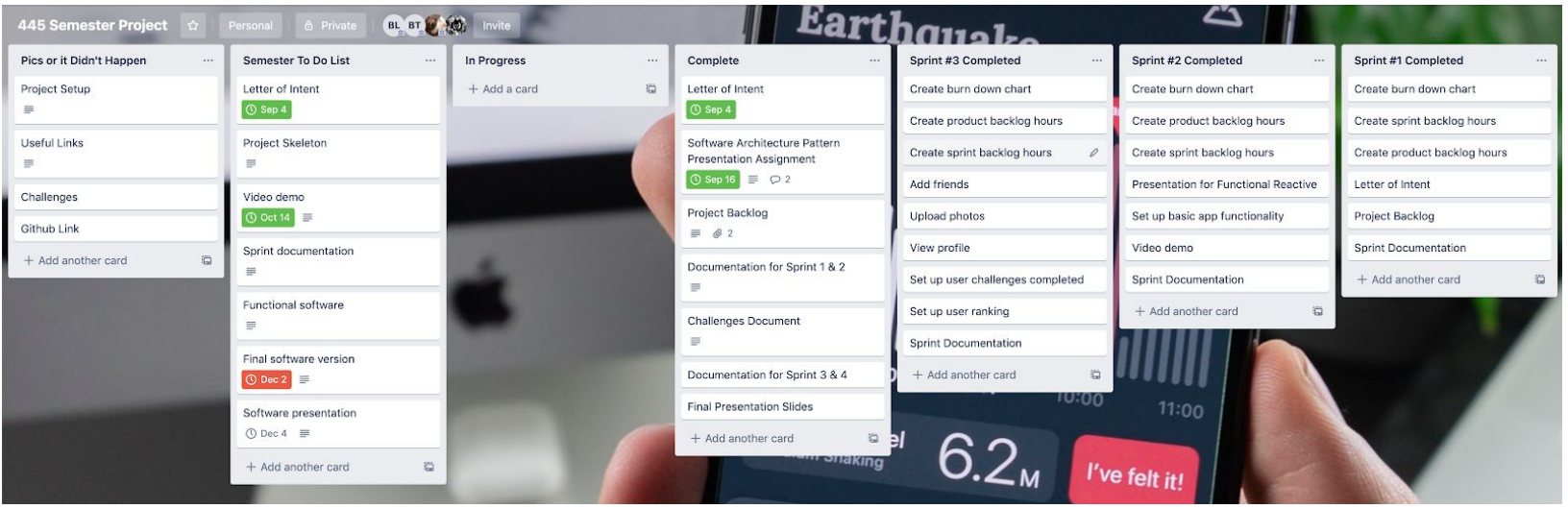
- Setting up a profile picture
  - https://drive.google.com/file/d/1LyTT_uzRI_wCHwjRhLwgITbZEe_3c1jf/view?usp=sharing
- Add Photos of their challenges
  - https://drive.google.com/file/d/1BtxtpuYCS0SR2ecMhpefu0nKRk4ohWxa/view?usp=sharing

- Add Friends
    - https://drive.google.com/file/d/1yRbWLzHBmiHh7rt0CxMgbHCbqdtkERCd/view?usp=sharing

3.8 Sprint Retrospective

Throughout this sprint, we were able to achieve our goal of 84 hours without any setbacks. Our team dynamic was good with all members putting in the amount of work needed to complete all tasks in the sprint. For the next sprint, we will keep the same sprint goal to hopefully deliver a finished product.

3.9 Sprint Board at the End of Sprint #3



4. Sprint 4

4.1 Process

4.1.2 Project Meeting/Management Hours

In the last sprint, 84 hours was ideal for our group. So for this sprint, we planned to keep the same sprint plan of meet for one hour, twice a week, for four weeks. With a four person team, this comes out to 1 x 2 x 3 x 4 to make a total of 24 in person working hours throughout this sprint. The other 60 hours were done among the four members individually. This tallies up to a total of 84 working hours this sprint.

4.1.2 Product Backlog Hours

Backlog Story	Estimate Priority	Sprint	Status
Challenges tab	High	8	DONE
Select a challenge	High	6	DONE
View multiple challenges	medium	6	DONE

Send a challenge	medium	6	DONE
Upload photo/video for challenge	High	6	DONE
View friend's challenge story	High	8	Done
Set up Google log-in	Low	4	

4.1.3 Sprint Backlog Hours

Backlog Task	Hours
Challenges tab	8
Select a challenge	4

View multiple challenges	4
Send a challenge	6
Upload photo/video for challenge	8
Sprint 4 documents	6
Final presentation Slides	4

4.1.4 User Stories to Complete for Sprint #4

1) As a user, I would like a centralized place where I can access my upcoming challenges as well as how my friends are doing with their challenges.

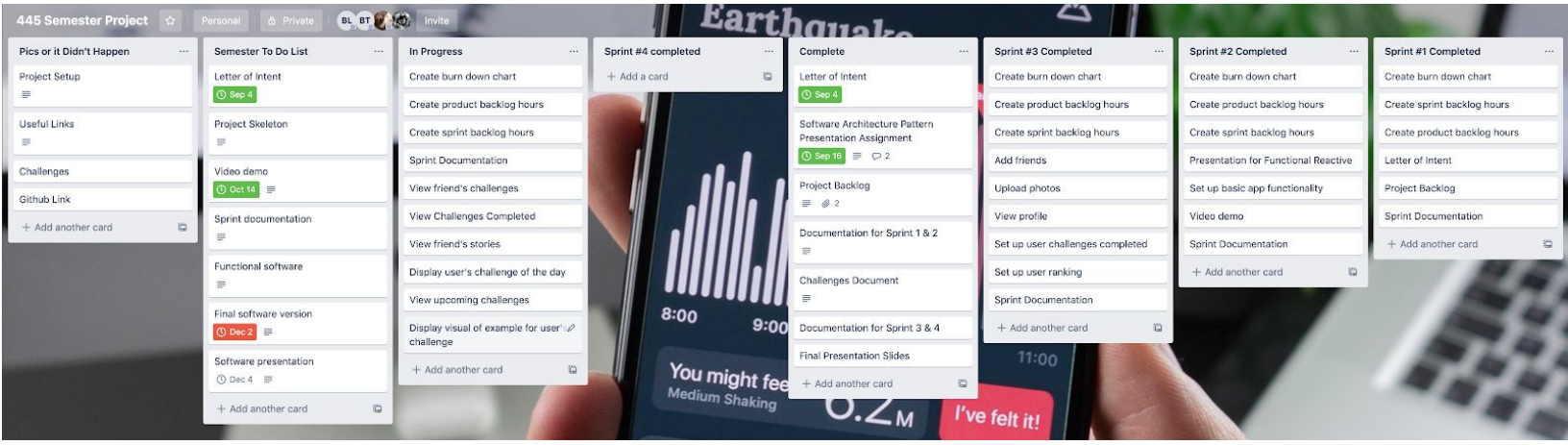
2) As a user, I would like to select my challenge for the day.

3) As a user, I would like to see the challenge given to me today as well as challenges that are coming up for the next few days.

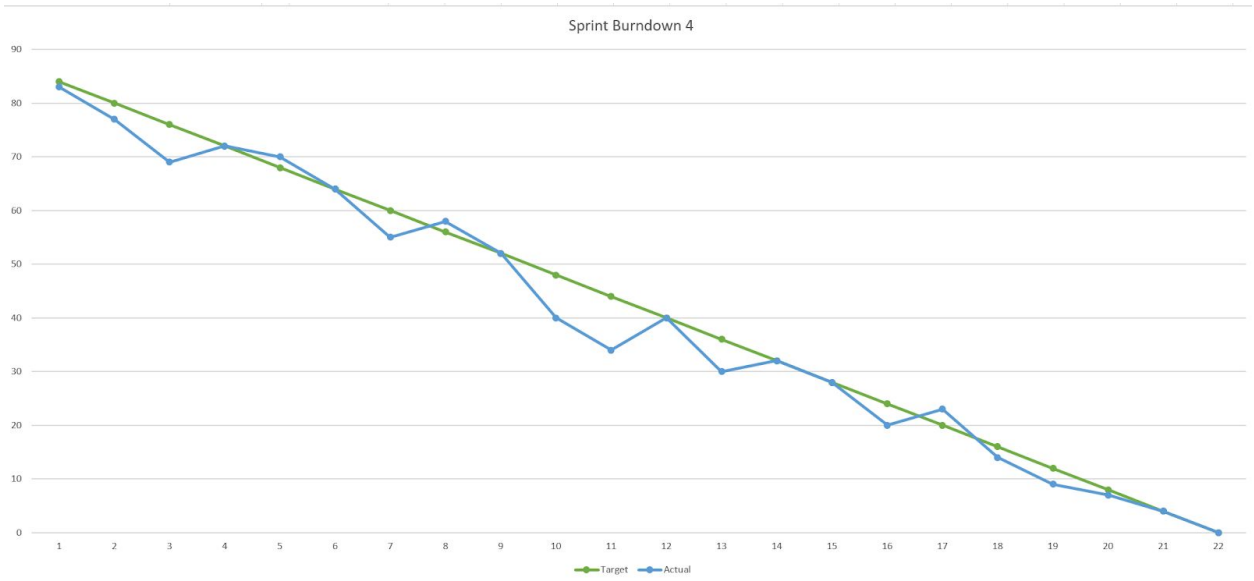
4) As a user, I would like to send a challenge for my friends to complete.

5) As a user, I would like to upload a picture/video to be verified by other users.

4.1.5 Sprint Board at the Beginning of Sprint #4



4.2 Sprint Burndown Chart

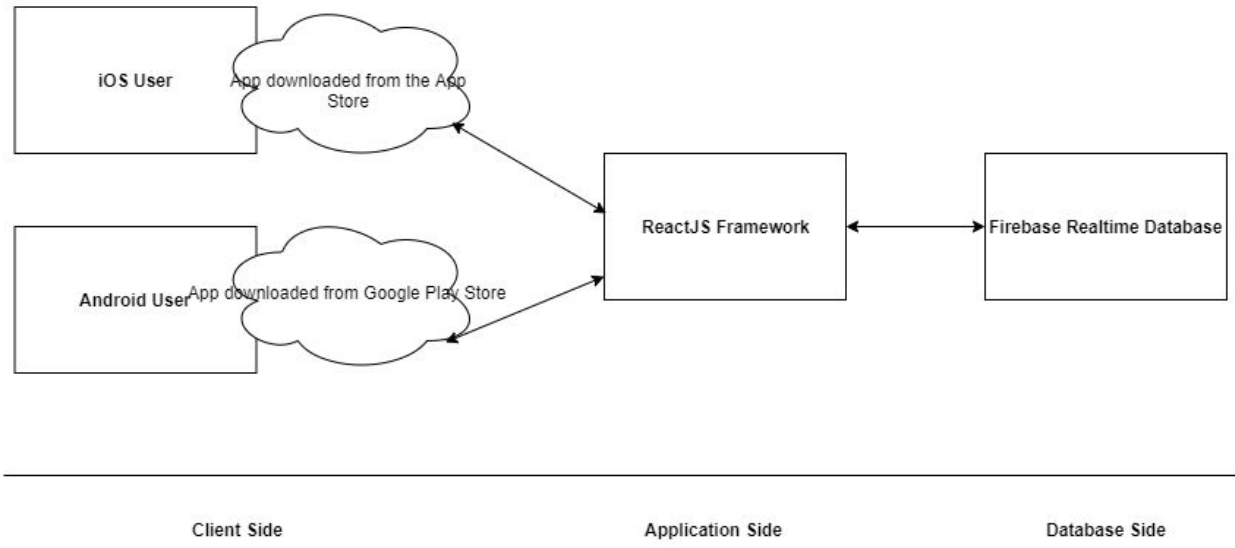


4.3 Software Architecture

React Native has allowed us to include APIs that made implementing our features possible. A feature that we really wanted to include was friend stories. Besides that, our application is still based on the React Native Frameworks. As well as utilize the Firebase integration database to access Google Authentication to allow users to sign in and link their accounts with the application.

4.3.1 Component Diagram:

Below is our component diagram describing the first-class connectors that goes from our components to the external API and the first class connector between our high level component.



4.4 Software Development

In this sprint, we planned to go beyond the basic features of the app and create unique features. The “Challenge Tab” is the main page of the application. The engineers needed to make this tab the mainly highlight where users can check their challenges and see how their friends are doing as well.

The first feature that was implemented into the Challenge Tab is the “Stories”. The stories were directed influenced with the commonality of what each popular social media application has integrated into their system. Snapchat was the first application to start with stories which lead to Facebook and Instagram integrated this functionality. The engineers believe that when users are able to check their friends stories to see the challenges they completed, it will directly influence them to complete their own challenge of the day. When users have a group of friends form a community, they can hold each other accountable. Based on research, the engineers were able to figure out the stories by watching Youtube Videos to learn how to implement this feature.

The second feature of the application is to showcase the upcoming challenges. Since this tab will showcase the challenge of the day, they needed to find inspiration on how

to structure their tab to express loudly to the user. The layout was designed by the engineers and they figured that they would set up a scroll view of the upcoming challenges for upcoming days. These challenges would be in small icons to prepare the users to plan ahead. Then, we would showcase the “Challenge of the Day”. The icon picture that shows the Challenge of the Day will be displayed as a huge picture to show the users what they need to complete for the day.

The third feature of this software application during this sprint is the main purpose of the application which is to take pictures. This feature is mainly influenced from popular social media applications that allow the functionality of taking pictures/videos to upload onto their profile. Based on research, the engineers are able to develop an understanding on using certain packages to import from React Native to allow us to use a camera to take photos. The packages that were used were the same from Sprint 3.

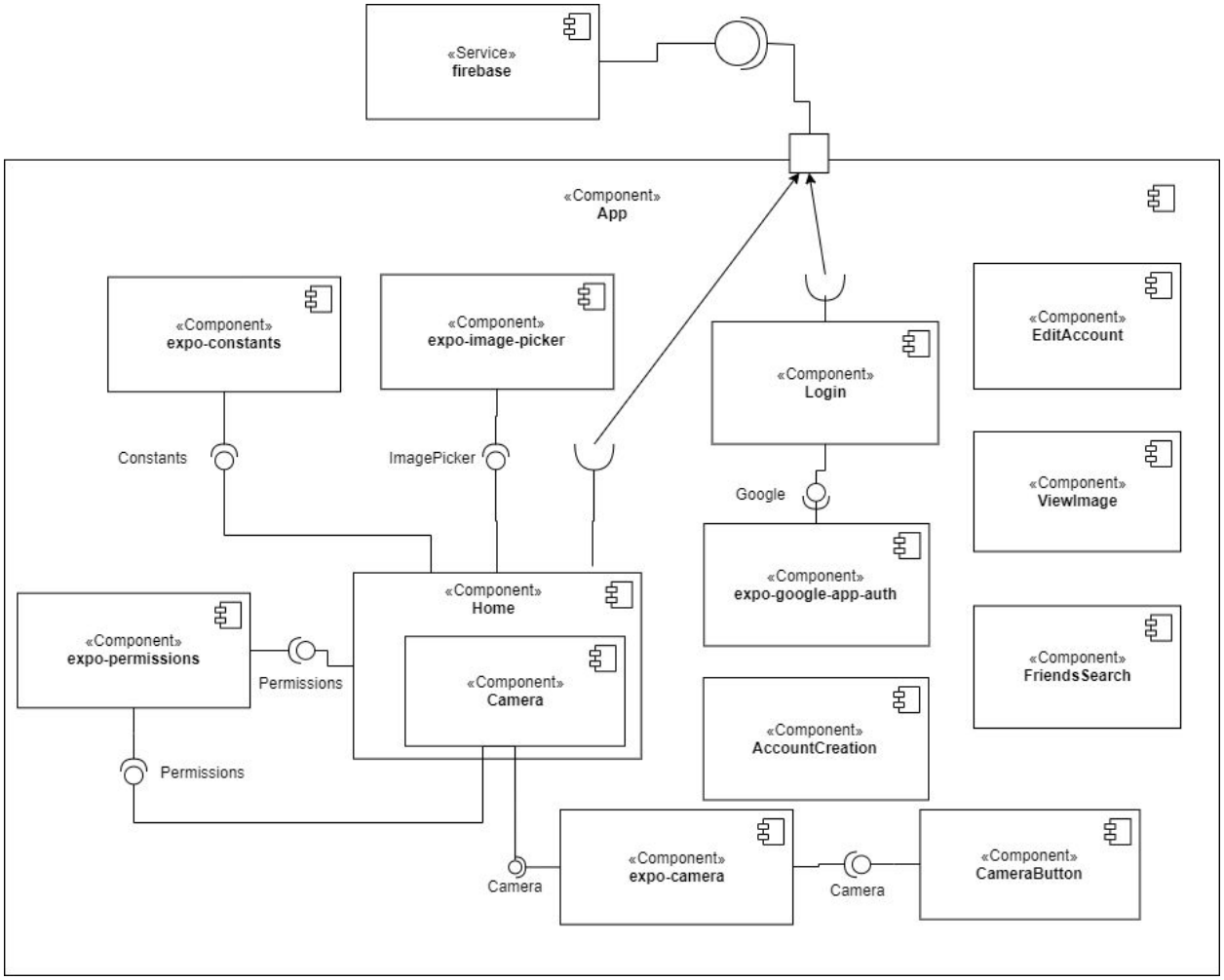
The fourth feature of this software application during this sprint is the addition of “Google Authentication”. This feature is influenced by many applications in the world that makes it easier to sign up for specific websites/applications without going through the registration process. Google Authentication makes it simpler for users to simply log in to their Google account and their account will be linked to the new website/application they are using. Based on research, the API that was used was included in the React Native packages. The following link is what helped us understand the implementation of connecting the Google Sign in:

react-native link react-native-google-signin

Refer to addendum 2 to understand how we implemented this idea for our application.

4.4.1 Component Diagram

Below is our component diagram of Sprint 4 showcasing our application using third party components.



4.4.2 Quantitative Metrics

Component	Total Number of Bugs	Average Time to Fix Bug	Hours Spent Fix Bugs/ Testing Over Total Hours Spent
expo-constants	**1**	**10 min**	**1 Hour Total for Testing**
expo-permissions	**1**	**10 min**	**1 Hour Total for Testing**
expo-image-pick	**6**	**1 hour**	**3 Hour Total for Testing**

er			
expo-camera	**5**	**1 hour**	**3 Hour Total for Testing**
view-image	**7**	**1 hour**	**3 Hour Total for Testing**
login	**3**	**30 min**	**2 Hour Total for Testing**
account-creation	**5**	**30 min**	**2 Hour Total for Testing**
camera	**8**	**1 hour**	**3 Hour Total for Testing**
EditAccount	**4**	**30 min**	**2 Hour Total for Testing**
FriendsSearch	**2**	**30 min**	**2 Hour Total for Testing**
CameraButton	**7**	**1 hour**	**3 Hour Total for Testing**
Fire-Base	**15**	**5-6 Hours**	**8 Hour Total For Testing**

The quantitative metrics have been doubled from Sprint 3 to Sprint 4 because the engineers wanted to make sure to emphasize on the efficiency. Sprint 4 is the final product so the functionaility is important. Testing is important to diagnose the faults and fix the application at whatever is needed in the application.

4.5 Software Quality

For Sprint 4, many of the components that were implemented in Sprint 3 were utilized again as well as implementing the home page with the inclusion of Google Authentication for optimal efficiency. The components were further tested at a comprehensive level due to showcasing our final product. The engineers wanted to make sure that the functionality of the application is working as intended for the user.

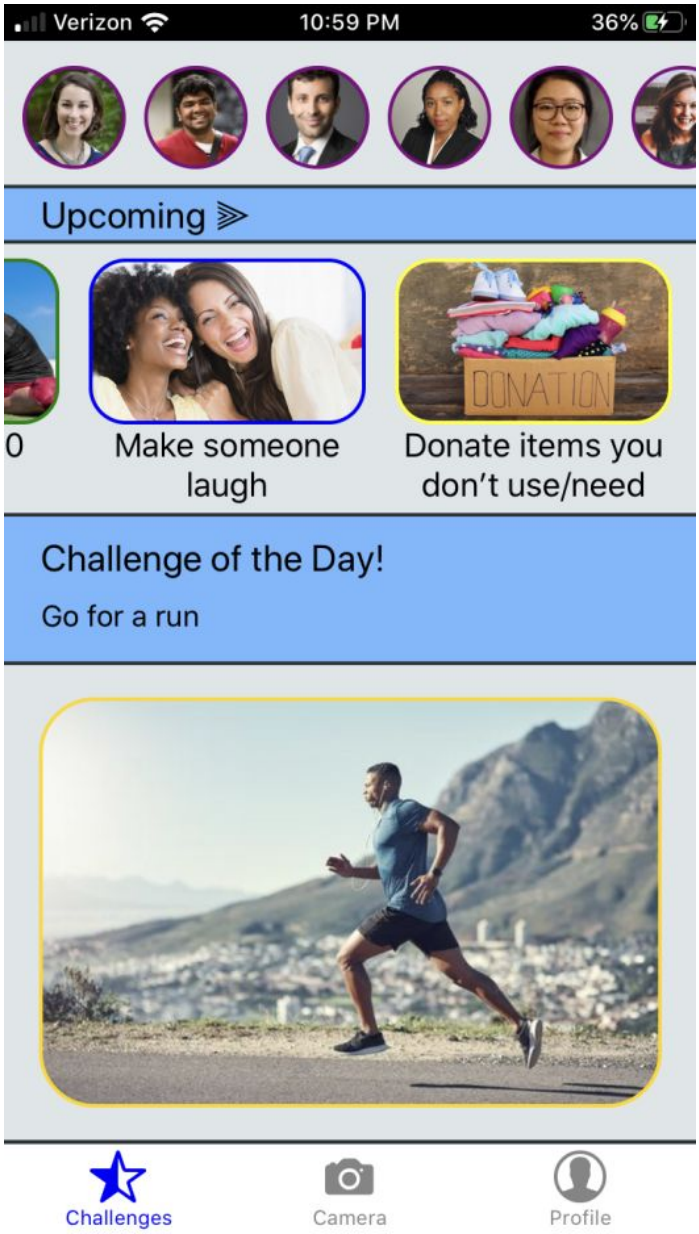
The security of the application is further looked into to make sure that the information of the user is only hidden to only the user and not to any of their friends or anyone that would want to get a hold of their information. The homepage show cases their “challenge of the day” as well as their friends stories. The challenge of the day should be hidden to the user because it is as a specific challenge for them only. Their friends stories should be shown to any other friends and is only showned to themselves only if they have them added in the database. When dealing with the quantitive measures from

Sprint 3 and Sprint 4, the bug fixes were not as much since it was dealt more in Sprint 3. It was important to make it more effiecient and testing was done at a extremely level to make sure every part of the security of application is good enough for the user to use at ease.

The modularity of the application in Sprint 4 has gotten much more complex. The camera integration shows the sub-components being divided up into more components such as the connection of the homepage. The homepage is what connects the image picker to the profile page. As well as utilizing the camera from the camera tab as well. The stories will show the stories of their friends that they have added in their database. The login process connects with the Firebase Database. This required allowed of connections to adding friends and such. For the quantative measure of the application, the modularity of the application is being divided up in many parts which did cause connections to appear. The engineers had to spend more time finding ways to connect everything. This situation did cause more bugs and required double of the time tested from Sprint 3 to Sprint 4.

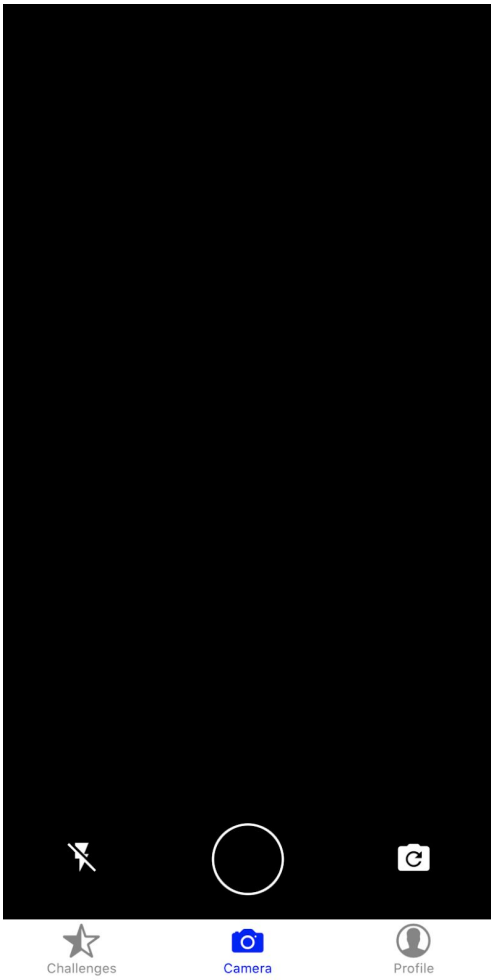
The efficiency of this application is prioritized in Sprint 4. This is the final product of our beta of an application. The importance of user experience is needed to make sure that the product is good enough for people to utilize every day. Starting from the homepage to showcase the stories and challenge of the day. The camera tab to make sure that the camera is working properly as well as the buttons. The profile tab allowing the user to customize their profile the way they want. The engineers adding Firebase database to help the user not create an account but simply login with their google accounts helps the user experience be much more easier. This implementation show cases the optimial efficiency for any application. The quantitative measures of Sprint 4 dealing with efficiency falls under the modularity part as well. The amount time to fix bugs were relevant with each other and the engineers had to double their time for testing to make sure that the functionality is working properly.

4.6 Prototype/Products

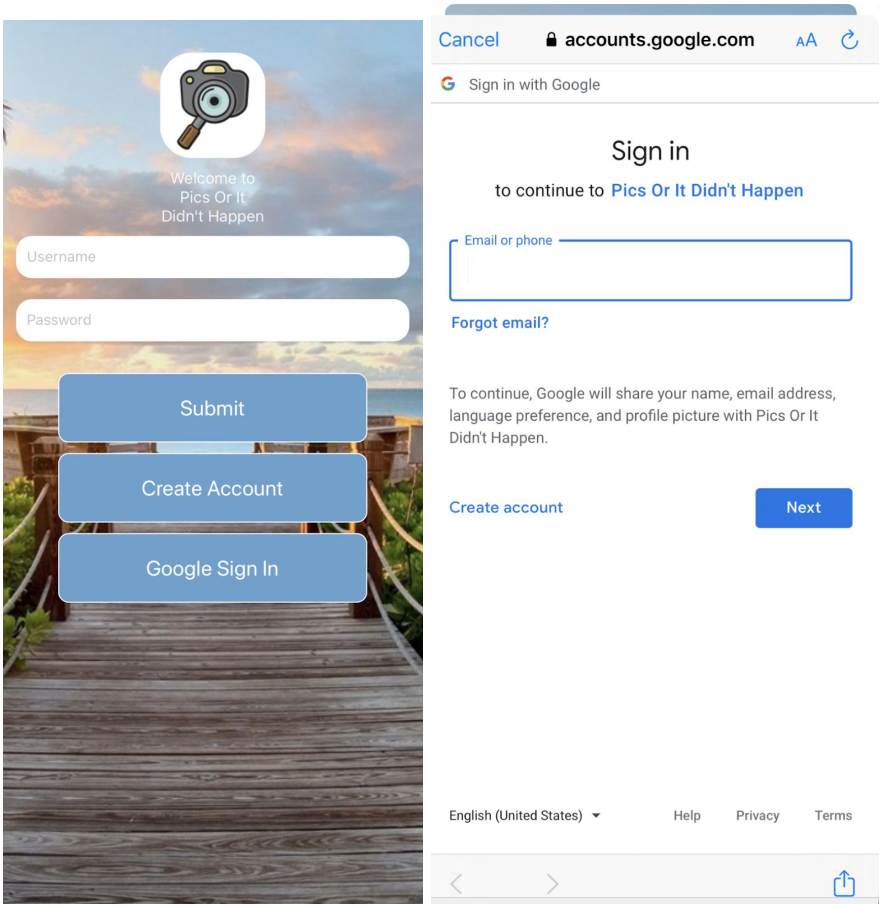


The “Challenges” tab was developed to showcase the main page of the application. Starting from the top of the page, the stories of friends is shown. Friends are able to

share what challenges they completed for the day. Then, the page shows the upcoming challenges that will help prepare the user to be ready for the next challenges. Lastly, the “Challenge of the Day” is shown to highlight the page.



The “Camera” tab was developed to allow the integration of taking a picture. Starting from the left, the user is able to utilize flash for dark pictures. In the middle, the circle button is able to provide the same concept for popular social media application like Instagram, Snapchat, and Facebook to take pictures or videos. The button on the right shows the functionality of utilizing the forward or reverse camera.

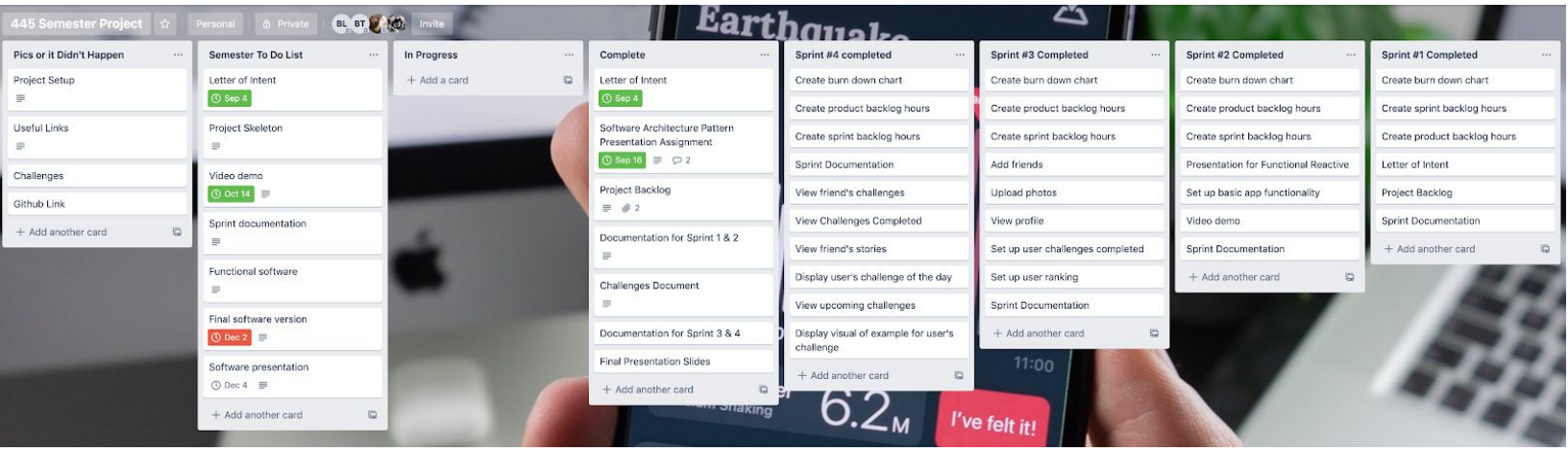


The login page allows the option to either create an account or sign in through their Google account. By using their Google account users can skip the registration option and simply log in which links a new account to the application for us.

4.7 Sprint Retrospective

In the last sprint, we were able to complete all of our tasks planned early. This gave us some extra time to explore extra features that are nice but not necessary.

4.8 Sprint Board at the End of Sprint #4



4.9 Video Demo

Final product demonstration

- https://drive.google.com/open?id=1evrqW7Z0VSLeUdygCjk2lZh_gQjLXP9H
- In this video we show all of the features of our application. First we show how a user can sign in or sign up for a Pics Or It Didn't Happen account. They can either create an account with our application or with their Google account. We show an account that has already been set up with a Google account. Then, we display the upcoming challenges that the user has coming up within the next few days. Next, the user goes through their friend's stories to see what challenges their friends are currently completing. Furthermore, we show the camera functionality. Within the camera feature, the user can user either the rear camera or the selfie camera. The user can also change their profile picture and add any camera from their camera roll. Other basic features like searching for friends or editing their profile are shown. The last feature is that if a user had already recording their challenge for the day using the built in phone camera, then the photo/video can be uploaded to their profile instead of having to use the application's camera feature.

5. Documents

5.1 Letter of Intent

- https://docs.google.com/document/d/1kAYtKOOMj6DCcHKrbvR10qcvGPmTi2CaKNEv49eD5No/edit?usp=sharing

5.2 Features (Rough Draft)

- https://docs.google.com/document/d/1xpfew8b85gWf8MhlLn4W6T69hSDoitfsP7ls5VGOpmg/edit

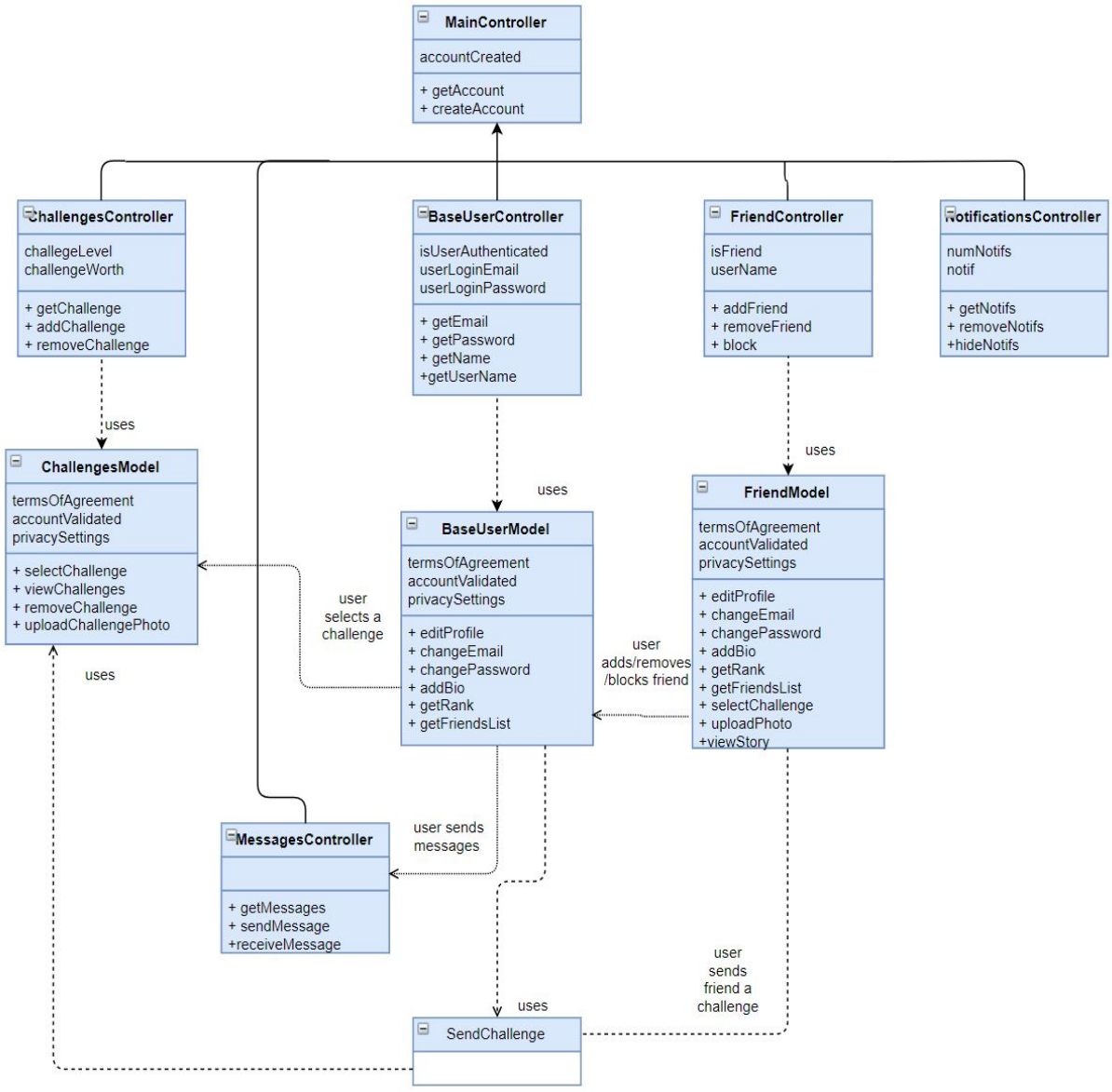
5.3 Challenges Document

- https://docs.google.com/document/d/1VSQ_CkK4vWt8IsCHWe9lr3GfgaUosd1mQ7V57-Qgr48/edit?usp=sharing

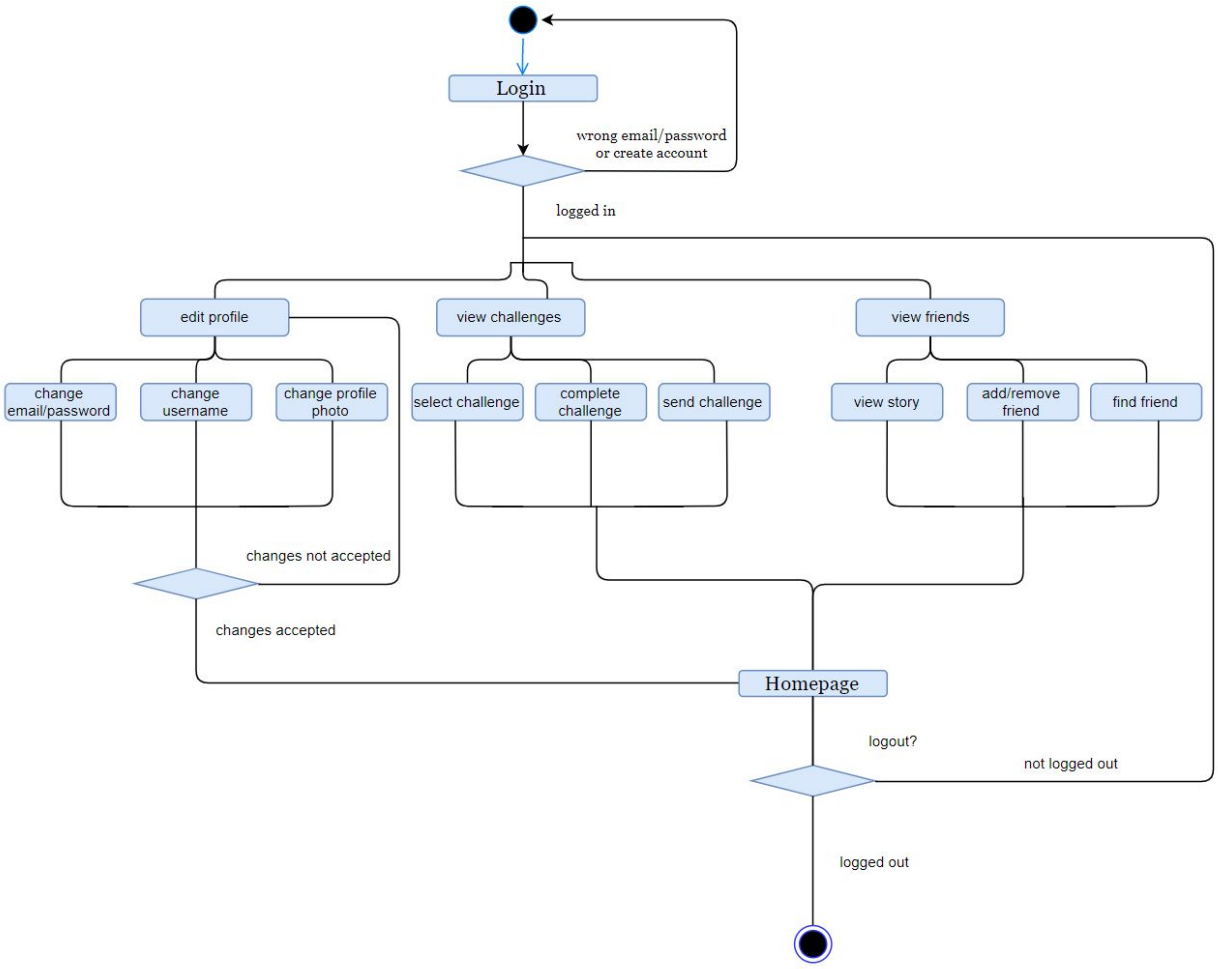
6. Architecture diagrams

6.1 Class Diagram

The class diagram is based on the MVC(Model-View-Controller) software design pattern.. The model classes serve as a template for the Schemas we will implement while the Controller models will be code that manipulates instances of the Model classes.


MainController
accountCreated
+ getAccount
+ createAccount
ChallengesController
challegeLevel
challengeWorth
+ getChallenge
+ addChallenge
+ removeChallenge
BaseUserController
isUserAuthenticated
userLoginEmail
userLoginPassword
+ getEmail
+ getPassword
+ getName
+getUserName
FriendController
isFriend
userName
+ addFriend
+ removeFriend
+ block
NotificationsController
numNotifs
notif
+ getNotifs
+ removeNotifs
+hideNotifs
uses
uses
uses
ChallengesModel
termsOfAgreement
accountValidated
privacySettings
+ selectChallenge
+ viewChallenges
+ removeChallenge
+ uploadChallengePhoto
BaseUserModel
termsOfAgreement
accountValidated
privacySettings
+ editProfile
+ changeEmail
+ changePassword
+ addBio
+ getRank
+ getFriendsList
FriendModel
termsOfAgreement
accountValidated
privacySettings
+ editProfile
+ changeEmail
+ changePassword
+ addBio
+ getRank
+ getFriendsList
+ selectChallenge
+ uploadPhoto
+viewStory
user selects a challenge
user adds/removes /blocks friend
uses
MessagesController
+ getMessages
+ sendMessage
+receiveMessage
user sends messages
user sends friend a challenge
uses
SendChallenge

6.2 Activity Diagram



7. Addendum

7.1 Photo Upload

(a) https://www.npmjs.com/package/react-native-photo-upload

7.2 Google sign in

(b) https://medium.com/fullstack-with-react-native-aws-serverless-and/google-sign-in-for-react-native-ios-c7197add640b

7.3 Expo

(c) Application to compile and run React Native code on mobile devices.

7.4 Visual Studio Code

(d) IDE to write the JavaScript code.

7.5 Firebase

(e) Takes care of backend and Google login service.

7.6 Trello

(f) Track and manage tasks throughout the project development