

Final Draft - Documentation of Process

Team: Alpha Beta Hci

Members: Tim Cockerham, Jeremy Huff, Jeff Mayhall, Ryan Mobley, Jacob Palisch

Aggie Aid

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Planning

Team Overview

This is Tim Cockerham, Jeremy Huff, Jeff Mayhall, Ryan Mobley, and Jacob Palisch, and we are 5 Texas A&M grad students that are part of the team called “Alpha Beta Hci.” We have experienced life in the Brazos Valley, as well as on the West Coast, East Coast, and even across the globe. Despite our experiences ranging from consultant to DBA to professional baseball player, our collective goal remains the same. Our mission is to empower our fellow Aggie students to have the ability to reach within themselves to find their Aggie Spirit and engage in selfless service with AND for the members of the Bryan/College Station community.

Tim Cockerham is a proud triple-Aggie. He graduated from Texas A&M with a BBA in Management of Information Systems in 2000, has worked at Texas A&M for the last 18 years as a database administrator, and is midway through his master’s degree there as well. Before he was a DBA though, he made money as a waiter, a bartender, a radio DJ, a burger flipper, a butcher, a parking lot valet, a software developer, a teacher, a test driver, a lawn mower, and a paperboy. He’s always willing to do any job that helps out his family, friends, or colleagues.

Jeremy Huff is a Software Application Developer working for Texas A&M Technology Services - Libraries. He has been developing software for the Libraries at Texas A&M for the past ten years. Before joining A&M as a software developer Jeremy had a diverse set of educational and vocational experiences. His undergraduate degree was a dual bachelor's in Philosophy and Criminal Justice. After graduation, Jeremy taught Classics, Logic, and Ballroom Dancing for 4 years at the secondary level, as well as pastoring a small congregation. Jeremy is

currently pursuing a Master of Science in Management Information Systems and is eagerly anticipating whatever future developments may be in store in his career.

Jeff Mayhall was born in Alabama and unconscionably raised as an Auburn fan while growing up in Texas. He eventually earned his Bachelor of Computer Science degree from Auburn University before pursuing his MS-MIS from Texas A&M. He has worked in IT for nearly 20 years and has always felt drawn toward “helping people”. Being a very introverted person with a drive to help people, he enjoys finding ways to use technology to help others who help people as his way to contribute to the community. He has a lot of pride in helping 100s of doctors and police officers with their technological needs to assist them with providing invaluable services to society and is always looking for more ways to help others do the same.

Ryan Mobley is the loudest and proudest member of the Fightin’ Texas Aggie Class of 2019 (Whoop)! Ryan was born in 1996 and grew up in Lake Jackson, Texas. After graduating from Texas A&M in 2019 with a BBA in Management Information Systems, Ryan chose to pursue a career in technology consulting with the public consulting firm Grant Thornton in Dallas, TX. At the end of the day, Ryan’s main goal is to let the human element of each project shine through the code and architecture so that everyday people can benefit from advancements in technology.

Although a Texas native, Jacob Palisch traveled out to California for his undergraduate degree and collegiate baseball, where he graduated with a B.S. in Computer Science from Stanford University in 2021. After graduating, he returned to Texas, where he began a graduate program in the Mays Business School at Texas A&M and played his final year of baseball. He is continuing to pursue baseball, signing a contract with the Chicago White Sox. Jacob’s ultimate

motivation is to use the work ethic and teamwork skills he has developed through years of athletics to help those around him succeed and thrive in their own impactful way.

Problem/Solution

Our app will encourage students to engage in selfless service by quickly showing them places in our community where people need help that matches their abilities and availability. The app will attempt to provide a “matching” service between the volunteer and events to better enable Aggies to identify when and how they can help rather than relying on organizations to coordinate volunteer activities or for individuals to research volunteer opportunities. The exact matching logic and features will be determined as the project progresses, but the ultimate goal is to follow queues from social media platforms to help make volunteer events easy to find, easy to participate in, and trendy.

Not only will Aggies be able to volunteer and help each other out, but they’ll be able to add their own events to the platform and encourage more Aggies to join in with events or causes that may not be sponsored by well-known organizations and would benefit from additional attention. By taking care of the needs of the community, each student then earns another core value of Texas A&M; the respect of their fellow students and the other members of their community.

Understanding Context

User Research Summary

Participant Demographics

The user research our team performed was intentionally diversified but ultimately performed on a singular demographic. We questioned 5 lower-level undergraduate students, all between the ages of 18 and 20. Having limited time to personally interview students on campus, our team canvassed in and around the Texas A&M Memorial Student Center (MSC) to survey potential users which, unfortunately, limited the scope of demographics we were able to include.

Within the 18-20 year old undergraduate demographic, we sought individuals with presumed diversity in gender, personality, cultural styles, degree plans, and social traits. In particular, we engaged with students that covered both sides of various spectrums as much as possible.

After interviewing a young female that was involved with a social organization, we interviewed a young male that was sitting alone inside the MSC and presumably antisocial. Likewise, we interviewed another young male that was sitting with a large group of people, curiously observing his surroundings. After him, we interviewed a young female sitting in the MSC, distanced from all crowds and focused on her phone. We also interviewed an additional young male that we believed to be socially disengaged because he was walking alone with headphones in his ears, a prospect we thought would be the least likely to use our app and offer good insight on how to get reluctant users more engaged.

Having the intention to seek out varying characteristics in participants paid off well.

While it was our goal to find diversity, we were in fact surprised at the amount of variance in personalities, hobbies, and tastes between the people we spoke with. Our participants covered users that are involved with organizations, both religious and non-religious, users that clearly seek to be involved with the school community, some that were engaged with communities outside the school, as well as a user who was merely focused on completing his education. Additionally, some feedback was from “techie” users and some from outdoorsy types, some from social loners, and some from social butterflies. In all, we felt generalizations about multiple personalities and types of users could be derived from the user feedback we received, which is reflective of the range of personalities and characteristics of our target audience of students at Texas A&M University.

Questions

Our team developed the following questions to discuss in our interviews (the first 2 are basic demographic questions). However, we also engaged in conversational dialogue about their answers when we felt there was more information that would be helpful for our research. We noticed that some participants felt reluctant to open up with details of their answers until we established a more personal approach beyond using a structured questionnaire. This approach ultimately limited the number of participants we could engage with but provided much richer data from those that we did.

1. What is your major?
2. What is your Class (example: Class of 2025 means sophomore)?
3. What are your favorite applications?
4. What are your favorite brands?

5. Are you part of an organization (examples: professional org or fraternity/sorority) that requires volunteer hours?
6. What does selfless service mean to you?
7. Have you ever attended The Big Event or any other volunteer events?
8. Are there any needs or causes in the community that are not being addressed or could benefit from more attention?
9. Have you experienced any obstacles to volunteering? (If so, what were they?)
10. Do you have any personal goals for yourself regarding selfless service?
11. How do you become aware of opportunities for selfless service?
12. What role do you think technology could play in helping you with selfless service?
13. What do you think would get you more involved in volunteering?

Discovery

During our user research, we received several pieces of feedback that were expected as well as identified some that were surprising. For the expected pieces, every student we interviewed indicated they “want to do more volunteering.” However, this is unlikely to be an absolute truth. In hindsight, we realized the way we asked our questions forced the respondent to answer that they are not (at all) interested in volunteering or they are interested in volunteering. Given the presumed judgment someone would feel for stating they have no interest in volunteer work, the format of our question is likely to have heavily influenced the answer.

The participant’s answers did, however, clearly indicate that none of them were opposed to volunteering and were open to learning about opportunities. Based on their demeanor and the conversations we had about their feelings toward volunteering, it appeared they were all open to

considering options to get involved but didn't have a clear idea of what would be required to participate in volunteer events or how to learn about opportunities.

The research also indicated students that are interested in volunteering don't typically put effort into researching and identifying volunteer opportunities themselves. Some alluded that time to research and find activities is an obstacle, but the tone of their answers also indicated they may not have spent a lot of time on seeking information. Multiple students also indicated that having time to complete the volunteer work inhibited them from participating more and they seemed to believe that volunteering would require a significant amount of time. One participant directly stated his biggest obstacle to volunteering is "just finding time when [he's] not busy with classes."

The feedback from multiple participants about time constraints, both in finding opportunities and participating in volunteer work confirmed some of our expectations. This assured us that having an easy process for identifying events is crucial to the success of our goals. Similarly, having event details that indicate the amount of time required to participate could reduce assumptions about time requirements that may not be true. We also felt that the effect of social influencing from our "social" feature, allowing users to see popular and trending events, would encourage other users to join those events as well and relieve the research often required to volunteer. Showing users trending and popular events that others have already agreed to participate in will likely elicit impulsive participation from users wanting to also engage socially with other volunteers.

Additionally, some participants that genuinely seemed interested in volunteer work and have previously volunteered also stated they are required to fulfill certain volunteer requirements for their membership in organizations, such as sororities. One particular person that had

participated in the Big Event and clearly felt a strong sense of pride and enjoyment from volunteering surprised us when she said “I show up for volunteer events that my sorority tells me to show up for.” This further contributed to the feedback that students don’t put much effort into finding opportunities directly, even when they are required to volunteer.

Additionally, as expected, all users indicated they use technology frequently and have favorite applications or games they use on mobile devices. Some user feedback directly stated technology companies such as Samsung and Apple as favorite brands. Similarly, most interviewees acknowledged that having technology that would help them find and sign up for volunteer opportunities would likely encourage them to participate more frequently.

Despite our above thoughts being confirmed by our user research, we did receive some surprising feedback as well! Among our interviewees, we found that multiple participants indicated that they would like to volunteer but don’t have transportation to go to events. This feedback proved to be very valuable in identifying a common obstacle we had not predicted. Transportation aspects of volunteer events will be carefully considered as a pain point for users when developing the application in the future.

Personas

Primary Persona



Aggie Jack
Freshman

“ I still feel new to A&M and want to experience as much as I can about Aggie culture. A&M is such a big community I can't keep up with everything happening on top of my classes. I'd love to feel more involved, but don't know where to start ”

ABOUT

- Age - 18 to 20
- Major - Economics
- Frequent Technology User

AFFILIATIONS

- Fraternity
- Church
- Fish Camp

APPS

- TikTok, Netflix, Spotify

MOTIVATIONS

- Selfless Service
- Causes
- Making Friends

OBSTACLES TO SERVICE

- Transportation
- Community Awareness
- Time

BRANDS

- Apple, Nike

Secondary Persona



Gig'em Gail
Senior

“ I have loved my time here at Texas A&M and all that I have learned through my experiences while in school. I feel ready to start giving back and leading by example. ”

ABOUT

- Age - 21 to 23
- Major - English
- Frequent Technology User

AFFILIATIONS

- Sorority
- Hiking Club
- Humane Society

APPS

- Spotify, Netflix

MOTIVATIONS

- Selfless Service
- Causes
- Leading Peers

OBSTACLES TO SERVICE

- Transportation
- Volunteers
- Time

BRANDS

- Gatorade, Old Navy

Scenarios

Primary Persona Scenarios

1. Volunteer signs up

Jack is from a small town in west Texas and is a new undergrad student at Texas A&M. He liked to volunteer at his church before he moved to College Station and wants to get more plugged into the campus by joining a Freshman Leadership Organization (FLO) and finding local opportunities to volunteer. While walking past the Memorial Student Center, he noticed the wide variety of volunteer opportunities available but was too shy to talk with anyone since he is new on campus.

To solve this issue, Jack will sign up for Aggie Aid, which was recommended to him while he was searching the web for ways to volunteer locally. He uses his email as the username and creates a new password to secure his account. He then receives a confirmation email in his email client that his account has been successfully created. Jack looks forward to getting plugged in and branching out! He would love to be able to make new friends and potentially get some church recommendations in his area.

2. Volunteer searches for an event

Now that Jack has an account on Aggie Aid, he is looking around on the website to find some opportunities since he has a free weekend coming up. He's very comfortable with apps on his phone so he pulls it out and opens Aggie Aid. He logs in and goes to the Find an Event page where he has a list of available events. Jack has a full load of classes, a part-time job, and plans

to attend church, but he still wants to volunteer. He uses the filters on the Find an Event page to narrow down his search results to just the few that fit his limited time availability.

3. Volunteer registers for an event based on transportation

Jack found a bunch of great options, but they are all off-campus. Jack is frustrated since he does not have a car and is not able to help with any of these opportunities. Suddenly Jack finds that there is a “transportation available” filter in the filter options and he immediately activates this filter to further refine his search. He now sees that the local SPCA is wanting volunteers to help walk dogs and they would provide transportation! He immediately registers for the event and is elated at the thought of getting outside while helping animals. The event is now registered in Jack’s Aggie Aid profile as one of his upcoming events.

4. Volunteer arranges transportation

After Jack registers for the event, he receives a confirmation email from Aggie Aid. In the confirmation email is a list of other Aggie Aid users that indicated they would provide transportation. Jack can either select a specific user from the list or select “Contact All” to send a message using the in-application messaging function, which can also forward messages to the user's personal email address if they have elected to use this feature. Jack selects “Gig’em Gail” from the list which is a hyperlink that opens the Aggie Aid messaging page in the application. Jack composes a message to Gail to introduce himself and let Gail know that he would like to ride with her to the upcoming event. The message is delivered to Gail through the application messaging which also sends a notification email to Gail’s personal email address. Jack later receives a notification email that a reply was received from Gig’em Gail. Jack reads Gail’s

response message in the email and sends a reply, which sends through Aggie Aid messaging back to Gail. Jack confirms the transportation plans Gail suggested for the event. Jack is excited he will be able to participate in the event and relieved to have found a ride!

5. Volunteer reviews his or her volunteer profile

After Jack has completed the volunteer work he registered for using Aggie Aid, he revisits Aggie Aid to review his profile. Jack can see that he has 5 confirmed volunteer hours registered to his account after the volunteer organization validated his participation. Jack has received his first volunteer badge and is proud and excited he helped serve his new community. Jack is eager to find future opportunities and see where some of his new volunteer friends are volunteering next.

Secondary Persona Scenarios

1. Organizer signs up

Gail is a senior at Texas A&M University and is set to graduate with a degree in English this upcoming May. She is a passionate activist, a chapter member in the Aggieland Humane Society, and involved in a service sorority. As the most technologically savvy person at the Humane Society, the board members elected Gail to be the head marketer for on-campus volunteer recruiting at Texas A&M University. The board hopes to reach out to Aggie students in the hopes that they volunteer at their upcoming pet adoption drives.

While Gail was brainstorming ideas, one of her sorority sisters mentioned how convenient “Aggie Aid” is, and encouraged her to give it a shot. Gail checked out the application on her phone and was intrigued with a new platform to connect with volunteers, so

she created an account. She uses her email as the username and creates a new password to secure her account. She also makes sure to note that she is an “organizer” so that she obtains the ability to create events. Gail then receives a confirmation email in her email client that her account has been successfully created. Gail is a bit stressed at the thought of not getting enough volunteers in time for the adoption drive next week, but is looking forward to seeing how Aggie Aid can help her find animals a loving home!

2. Organizer creates an event

Now that Gail has an account, she proceeds to create an event on her phone. She knows that the event for Aggieland Humane Society will be outside Petsmart next Saturday from 9 am to 3 pm, so she adds the event information, the requested number of volunteers, and then summarizes the event and volunteer descriptions. She notes that the event will be 7 hours long with a lunch break and water breaks spread throughout the day. She is also able to add in the branded banner for the event so that potential volunteers know that this is an official event sponsored by the Aggieland Humane Society. She checks out the preview of the event and being satisfied with the finished product, publishes the event! She then logs off once she is done, excited to see how many volunteers will sign up now that the event is posted.

3. Organizer modifies an event

Gail uses her email client on her phone to send the Aggie Aid web page link for the event so the Aggieland Humane Society board members can review her posting. To her surprise, Gail’s phone starts buzzing a few minutes after she sends the email, and it’s Mark, the Vice President of Marketing for the Aggieland Humane Society! Mark commends Gail on her quick

work but wanted to mention that Aggieland Humane Society needed to postpone the event one week due to scheduling conflicts. Gail thanks the VP of Marketing for the update, and lets him know that she will update the page immediately.

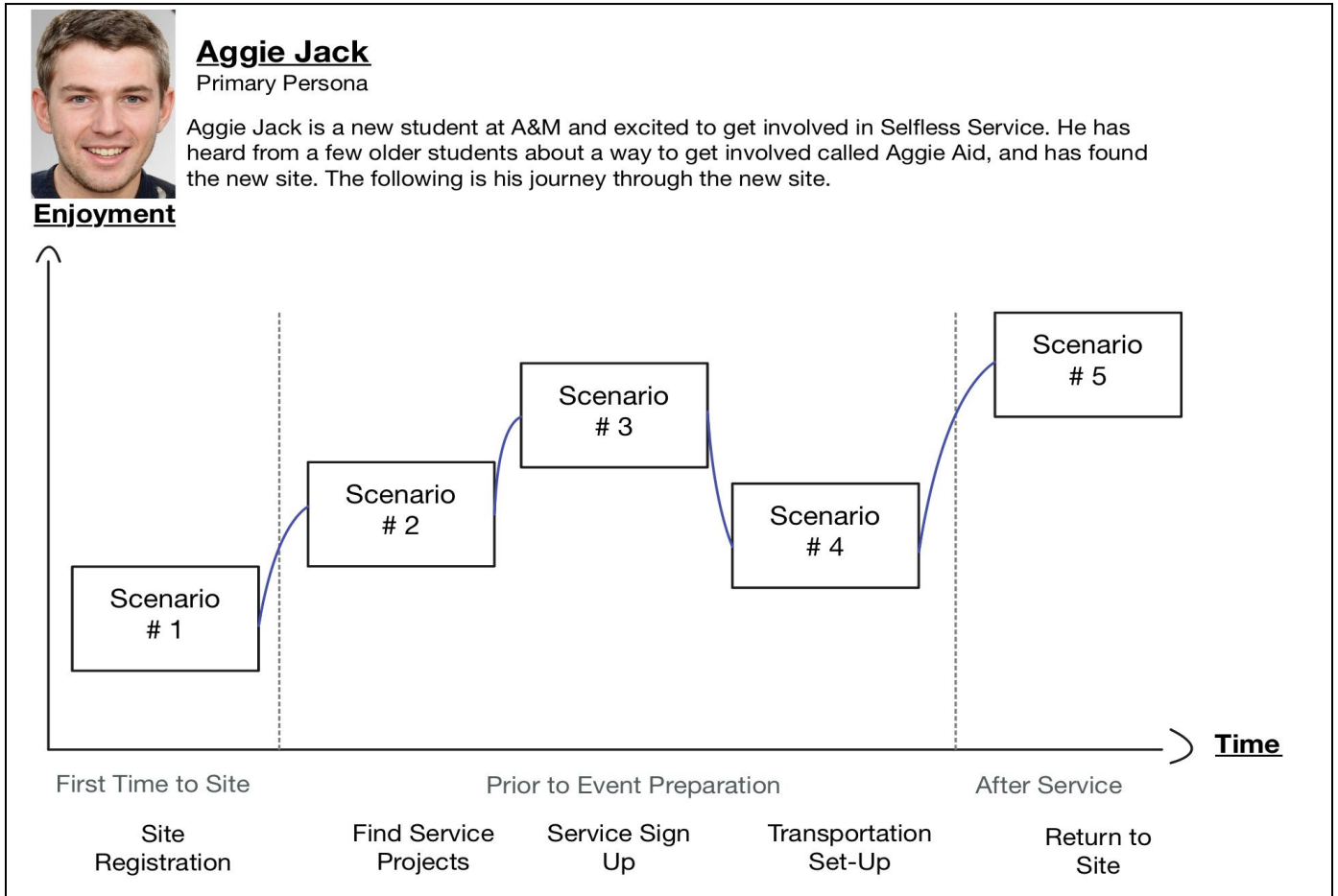
Gail, after disconnecting from her phone call, logs back into her account with her credentials and navigates to the event page. From there, she can edit the event dates and postpone the event one week from the current date. Gail reviews the information on the page and notes that no one has signed up for the event yet. She is relieved that no one signed up for the event before she postponed it by a week! Happy with the new updates, Gail signs back off from Aggie Aid and heads to her next class.

4. Organizer reviews a finished event

Gail is ecstatic with the results of the event she organized. She met several new volunteers and wants to show her gratitude for their help. Gail visits Aggie Aid, logs in, and opens the details for the event she hosted. She can see all the volunteers that were registered to help with the event and their expected hours that were registered for the event. Gail has the option to adjust the hours, if necessary, but largely trusts the volunteers contributed as expected. Gail then marks “Confirmed” for each of the volunteers that she confirmed were at the event. The confirmed volunteer hours are updated to the user’s profiles, so they can now see their confirmed hours and accumulated award badges for their participation in events. Gail feels wonderful for not only helping the organization she cares so much about but also paying back to the students who volunteered, knowing that they may use their volunteer experience to help with job searches and future opportunities.

Journey Maps

Primary Persona Journey Map



Secondary Persona Journey Map

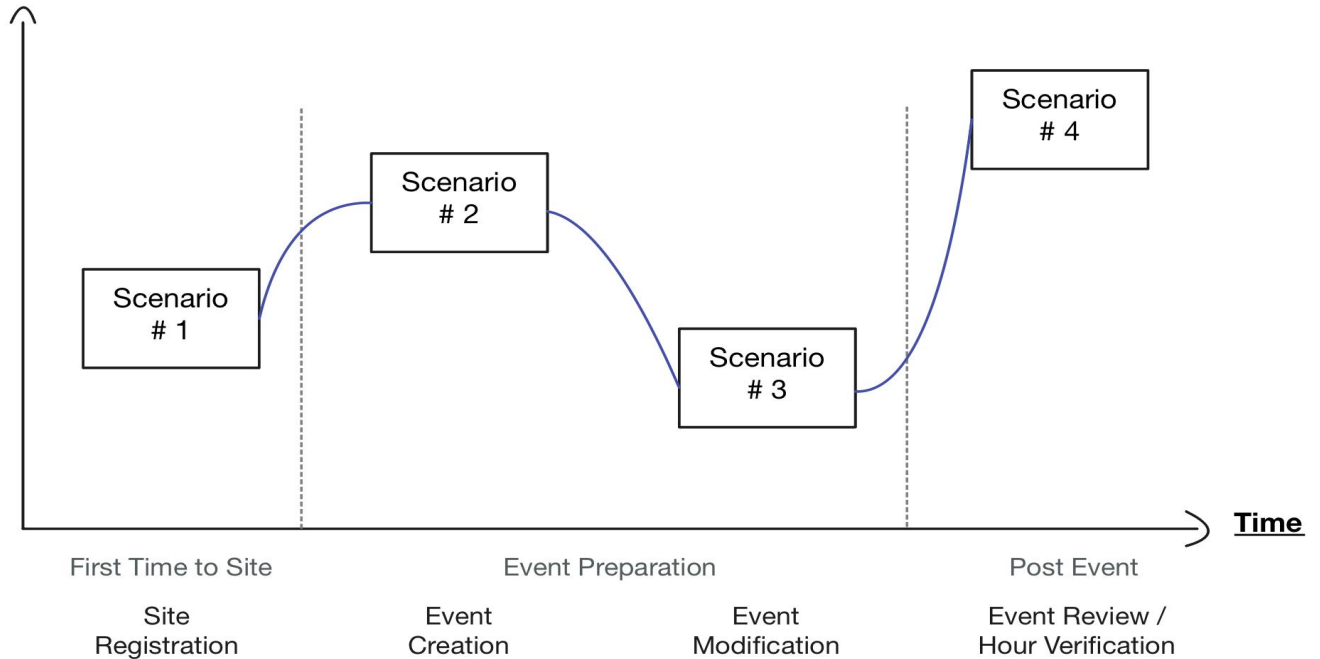


Gig'em Gail

Secondary Persona

Gig'em Gail is a senior at Texas A&M who grown from tentative volunteer to event organizer for service events; and she now helps to organize most service events for her sorority. The following is her journey through the Aggie Aid site for organizers.

Gratification



Documenting Requirements

User Stories

- As a person interested in volunteering, I want to use a single application to easily and conveniently find volunteer opportunities in my community, so that I can help other people and organizations without having to spend hours searching the web to find service opportunities.
- As a potential user with a social media account, I want to be able to create an account using my social media credentials so that I can use the application and easily post my volunteer event registrations to my social media page to encourage my friends to sign up as well.
- As a potential user who does not use social media, I want to create an account using an email address and password, so that I can use the application without also connecting it to a social media account.
- As a newly registered user, I want to confirm my email address, so that I can verify my identity and ensure I provided the correct email address at signup.
- As a registered user, I want to log in to Aggie Aid using the credentials I provided during registration, so that I can see personalized information on Aggie Aid and register for events.
- As a registered user, I want to be able to see volunteer events filtered and sorted by event locations, so that I can find events I can walk or bike to because I don't have a car.

- As a registered user, I want to see events filtered and sorted by date and time, so that I can find events that fit my busy schedule as a student with limited free time.
- As a registered user, I want to be able to find events that provide transportation, so that I can get a ride to an event because I don't own a car.
- As a registered user, I want to see events filtered and sorted by the type of volunteer work needed, so that I can find an event that fits my skills.
- As a registered user, I want to be able to view event details, so that I can get a better understanding of the cause or purpose of the event to make sure an event matches the causes I want to support.
- As a registered user, I want to sign up for an event through the application, so that I can easily coordinate and participate in opportunities that match my interests, availability, and skills.
- As a user who signed up for an event, I want to see confirmation in my profile that I successfully registered for an event, so that I don't have to wonder if the process worked.
- As a user signing up for an event, I want to publish that I can provide transportation to and from the event, so that users who do not own a car can also participate.
- As a user in need of transportation who signed up for an event, I want to receive the contact information of the user that I am going to be riding with to the service event, so that I can coordinate and confirm my transportation to the event.
- As a user connected with a user who will be providing transportation, I would like to be able to view a profile of the person providing the transportation, so that I can recognize the person giving me a ride and safely make it to the service event.

- As a user that has agreed to provide transportation for other volunteers, I would like to be able to view the profiles of the people I'm providing transportation for, so that I can recognize the people and safely make it to the service event.
- As a user who recently volunteered for an event, I want to check my volunteer profile, so that I can see if my volunteer work was confirmed by the hosting organization/organizer.
- As a user who has signed up for an event, I want to receive an email if an event's details change after I have signed up, so that I can plan accordingly for the changes or remove myself if I can no longer make it to the event.
- As a user who has registered for an event, I want to be able to remove myself from an event's registration, so that I can open up a volunteer spot and let the event organizer know if I will no longer be able to attend.
- As a user who has completed volunteer activities, I want to see what volunteer achievement badges I've earned, so I can use them on social media apps and resumes.
- As a new user who wants to help organize service events and advertise via social media, I want to be able to create an organizer profile with my social media profile, so that I can easily help prepare events on the site and encourage others to sign up via social media platforms.
- As a new user who wants to help organize service events without social media, I want to be able to create an organizer profile with my email, so that I can easily help prepare and post events on the site for others to participate in.
- As an event organizer on the site, I want to be able to create a new volunteer event that has information about the project details, number of volunteers needed, any skills or

requirements, and transportation availability, so that volunteers can easily find and have a clear understanding of the volunteer event.

- As an event organizer on the site, I want to be able to publish volunteer events I have created for volunteer registration, so that volunteers will be able to sign up on the site.
- As an event organizer on the site, I want to be able to set the deadline for sign-ups, so that events no longer appear to volunteer users after the deadline has passed.
- As an event organizer on the site, I want to be able to edit events I have published, so that I can update information about the event that may have changed.
- As an event organizer who has updated information about an event opportunity, I want to be able to send out an email to all those who have already signed up, so that I can keep them informed of the changes to eliminate frustrations or bad surprises for the volunteers.
- As an event organizer on the site, I want to be able to delete opportunities if necessary, so that the event will no longer be visible to volunteers on the site and ensure opportunities are accurate and up-to-date so volunteers don't waste time looking at canceled events.
- As an event organizer on the site, after an event has passed I want to be able to confirm or deny volunteer participation and hours, so that we can properly accredit those who participated and those who did not.
- As an event organizer on the site, I want to be able to view all service events, past or upcoming, in which I am listed as the event organizer, so that I can have quick access to a list of all the events to make edits or confirm registration information for any event.

Documenting Interaction Design

Cognitive Design

The Aggie Aid application will be developed to have a high cognitive fit for users by focusing on the primary needs and goals of users and providing a simple interface that is convenient and intuitive to use to accomplish those goals.

Elements on the Home page such as the scrolling “Top Events” icons sandwiched between arrows utilize affordances and mapping so that users can quickly scroll, observe, and select events intuitively. The close proximity of the arrows to the icons uses mapping to clearly indicate the ability to scroll left and right through the options. The common format of the event icons with hyperlink text is an affordance most users will be very familiar with. These aspects contribute to the convenient functions of the application, allowing users to quickly complete their tasks.

The site will also feature a navigation bar on every page with a list of actionable buttons to quickly navigate the site. This navigation bar will be present across all pages on the site, allowing for a consistent means of navigation from any page on the site. All actionable links will take the same format of being underlined, so that all the links will be consistent across the application. Similarly, the buttons will have a consistent color and shape to indicate their action to press the box. This affordance utilizes the common mental model most computer users have created of boxes being clickable buttons.

Additional cognitive fit aspects of Aggie Aid include the constraints used on the Event Creation page. When creating an event, a date picker will be provided so that users can only

select dates. Likewise, text boxes will validate input and ensure accurate times are entered. The use of these features also guarantees a reduction of errors for date information that is very often input incorrectly. The Event Creation page also provides feedback in the Preview pane for the event being created, showing the user exactly how the event listing will appear and further reducing errors before an event is created and published.

The Login/Signup page utilizes a login and signup process that is consistent across many other websites and applications that users are familiar with. The button to signup or login is also in the top right of the screen, which is mapped in a similar location across nearly every other website or application. To aid in user memory, the usage of an email is requested instead of a username to cut down on the amount of information that users must recall. Additionally, when a user is typing information into the textboxes, the user will receive feedback based on what type of information they enter. Some examples include the best practices such as: “Password incorrect, please try again,” “Password is missing a special character/number/capital letter,” “The email provided does not exist in our records, would you like to create an account,” etc.

The Event Discovery page also utilizes constraints for the filters available on the left side of the screen. These filter options rely on mapping, since most users have a mental model of filters being on the left side of a screen, to identify the input text boxes that are associated with each type of filter available.

Affective Design

The goal for our team is to encourage volunteer participation and engage Aggies’ value for civic engagement, and as such we have chosen to heavily utilize an “Aggie Theme” for our

application. Through the intentional selection of colors that relate to Aggie Maroon and a tongue-in-cheek tagline that feels like an inside joke, we are playing on the “spirit can ne’er be told” to elicit a sense of Aggie community.

While many people feel drawn to help others in need, people are often dissuaded from providing help when doing so proves to be too inconvenient or troublesome. To build trust and a sense of comfort in participating in volunteer activities, Aggie Aid specifically focuses on providing feedback regarding registrations, changes for events that users are registered to attend, communication between users, and volunteer event validation from event organizers. Receiving confirmation for these types of application events reduces surprises and establishes the trust for reliable and predictable service from the application. Each of these confirmations also act to remind users of each additional step they’ve completed in helping to serve others and acts to keep them engaged and reminded of the good they are contributing to their community.

To ensure our users ultimately feel a great sense of pride and accomplishment from volunteer activities, we have taken into careful consideration the obstacles and conveniences that will most affect users and the functionality of the application. By completing user research focused on discovering the common obstacles and potential conveniences users look for, we have mapped out the common actions and expected reactions when researching and registering for volunteer events so we can provide a seamless and simple interface that allows all users to quickly find and complete the tasks they are using the website to perform. We have also planned to provide feedback through email notifications and user activity pages so users can feel confident of the intended results of their actions, such as registering for an event. This feedback will provide a strong sense of reliability for the application.

Further, to ensure that both volunteers and organizers feel a sense of connection with

each other, and establish a level of trust between users, we plan to incorporate feedback ratings that directly determine participants' online reputations, as well as social features such as showing trending and popular events. These features will not only contribute to the lasting emotional state users feel after using the application, but they will also make the application “emotionally usable” rather than simply “technically usable”. With the ultimate goal of increasing volunteerism and community outreach, the technical task of “registering for an event” accomplishes the emotional goal of “serving a cause”, for which the social, feedback, and award system our app provides will directly relate. The feedback and validation users receive from event organizers and the accumulation of badges will validate that their emotional goals have been achieved.

Our focus is to deliver an application that has simple and effective functionality with a high level of cognitive fit for users, providing feedback and confirmations for the tasks users will engage with to establish a sense of reliability, and designing a system that will allow volunteers and organizers to accumulate and observe their accomplishments will have lasting emotional effects on the users and ultimately make our application very pleasurable to use.

Physical Design

While designing Aggie Aid, our team made an intentional effort to not only design our interface for a certain group of Aggie users, but instead for *all* Aggie users!

The maroon, gray, and white color scheme, looking at our Home page, plays into our strategy to appeal to Aggie students, but our team ensured that none of our interactive design components revolve around identifying a color. This decision is to account for certain users that are color blind.

Buttons and textboxes, such as on the Login/Sign-up page, have clickable areas designed large enough to be forgiving when users want to click or tap a certain button. In addition, these same elements are spaced out enough to prevent a user slip caused by “fat-fingering” and clicking or tapping one element instead of another.

When navigating through a page, such as our Event Discovery page, our team has also built out the events modules and filter elements so a user does not have to physically strain to find their ideal event. Instead of searching for hours and scrolling through dozens of events, a user can use a filter and find their perfect event for them in minutes!

If an organizer wants to create an event, the user is able to see a preview of the event by filling out information on the module on the left and seeing the live updates on the module on the right. This prevents the user from having to publish and edit an event multiple times to just “see what the event looks like to a potential volunteer,” which helps relieve the organizer from some physical effort while creating the event.

Our team also built our content on all of our pages (minus our event creation page, which incorporates a “split-page” design to allow an organizer preview their event before publishing) to have the most important information in the center of the page to reduce physical effort needed to find information.

Lastly, while not able to be seen visually by any screenshot, the HTML that we use to build out our pages will incorporate organized language throughout. For example, this will allow users that have a motor impairment to navigate pages using only a keyboard, or allow a blind user to use a screen reader to help gather information from a page easily.

Context and Culture

Overall, our team has considered the context of use for Aggie Aid by the user's location and environment, the application's tilt towards lean media, and the likelihood of our target audience being, almost exclusively, English-speaking students of different backgrounds at Texas A&M University.

To start, it is important to note that Aggie Aid will be developed to work for desktop, tablet, and mobile devices, but the average user will likely be accessing the application via a mobile device. Whether at home studying, riding the bus between classes, or waiting in a noisy coffee shop for their order, students spend a tremendous amount of "screen time" or time spent looking at a digital screen of some sort (especially smartphones), each day. Our design for Aggie Aid will keep this context in mind when designing for likely screen glare, proper spacing between buttons, forgiving element sizes, selection range for buttons, etc.

Next, while all volunteer opportunities will be in a rich medium of face-to-face interaction with peers, it is crucial to note that Aggie Aid, which specializes in connecting volunteers with opportunities, will be strictly lean in nature. Emails, texts, and other text-only communication won't allow for high degrees of customization or communication within our application. This is not a downside, however, since our application is targeted towards "the busy student" archetype, who does not have time for moments of high media richness while searching for an event and may be more comfortable with not talking with anyone directly until they arrive at their volunteer event. Additionally, the lack of communication options for users will disincentivize or prevent most or all forms of deregulated behavior such as flaming or trolling. This is important to note, as our team takes great care in spreading Selfless Service and Respect throughout the Bryan/College Station community.

Lastly, our team has concluded that an English-speaking audience of Texas A&M students will be the sole segment we are marketing to. While our user research concluded that every student is diverse in background, experiences, and behaviors, we did note one commonality: each student is able to speak English and is a Texas Aggie. Because each student speaks English, albeit at differing levels, and is part of the Aggie community, our application will help them tap into this unique culture and create a sense of connection with their fellow students. Having a cultural context evocative of Texas A&M University is also a strong choice when our team's goal is improving the sense of selfless service amongst all students at Texas A&M. The branding, color scheme, and content will go into aligning with the similar culture that is radiated on Texas A&M websites, such as the Texas A&M Library website (Texas A&M University, 2022).

Ethical Design

There are several features we have incorporated into our application to address ethical concerns and agendas that serve additional purposes as well. Namely, the feedback system in which organizers can validate volunteer participation helps to ensure that users are not taking advantage of the system to only receive badges or claim they volunteer, as well as allowing organizers some ability to hold potential volunteers accountable if they don't participate when they have registered for an event. While there is no intention to "punish" a potential volunteer, this function discourages registered volunteers from abandoning the event and allows organizers to have a better sense of who will likely show up so as not to waste resources or fail to provide a promised service.

Additionally, since we are facilitating transportation to and from events between possible strangers, the feedback about participants and profile access becomes crucial for helping users identify and feel comfortable with accepting a ride from strangers.

Similarly, providing an in-application messaging system that forwards messages to users' email accounts allows some level of protection from users accessing personal information about each other, yet allows a convenient and trustworthy method of communication.

Likewise, the feedback system will help to draw attention to, and dissuade users from, incidents where people may otherwise take advantage of a situation or someone's willingness to help. For example, giving volunteers the ability to view the profiles and event history for organizers, check the total number of past participants, and view feedback from volunteers will help to ensure that organizers are legitimate and serving a valid cause.

Appendices

Contract (Version 2 - Signed September 12, 2022)

Team Name: Alpha Beta Hci

Project Team Members' Names and Sign-off:

Name	Sign-off on Team Contract
Tim Cockerham	<i>Tim Cockerham</i>
Jeremy Huff	<i>JHuff</i>
Jeffery Mayhall	<i>Jeff Mayhall</i>
Ryan Mobley	<i>James Mobley</i>
Jacob Palisch	<i>Jacob Palisch</i>

Our team plans to meet regularly according to the following guidelines:

1. Who:

- a. All group members must attend each meeting, barring certain exceptions.
Exceptions include the inability for them to meet at the time that works for everyone else (and there isn't a better time for the rest of the group) or an unexpected family, work, or health emergency.
- b. In the event that one or more members cannot attend a previously agreed upon meeting time that proceeds as scheduled, a list of action items with deliverables assigned to each member and a quick debrief of the meeting will be delivered via Discord in our group chat.
- c. The task of updating and delivering the material to any missing group members will be discussed and agreed upon at the start of meetings following the Decision-making and issue resolution policy (below).
- d. Present members have the ability to vote on and assign deliverables to absent members in a manner that is fair and reasonable (group work should be, by design, split up evenly based on anticipated time commitment for each group member). In the event of non-unanimous votes, the Decision-making and issue resolution policy (below) will apply.
- e. Members agree to accept deliverables assigned to them by present members in the event they are not able to attend team meetings.

2. What:

- a. Meetings will be held to discuss each deliverable assignment, work breakdown and assignments, expected milestones and corresponding completion dates, and all concerns or issues about work assignments.
- b. Meetings will be held to discuss final approval of a deliverable, if needed, based on previous collaboration and asynchronous communication via the defined Primary methods for communication (below).
- c. Status updates, comments, and votes will use the defined Primary methods for communication (below).

3. When:

- a. The kick-off meeting will be scheduled at the earliest availability for all team members after the deliverable is assigned, but no later than 1 week before the deliverable is due.
- b. Subsequent meetings will be proposed and scheduled using the defined Primary methods for communication and performed at agreed-upon times and methods by participating members.
- c. All members will make reasonable efforts to be available after work hours (5:00 pm) on weekdays and/or waking hours on weekends, as needed for meetings.
- d. Meetings will not be held during holidays observed by Texas A&M University.
- e. Group members may vote to postpone or reschedule a meeting if a unanimous consensus is given.
- f. If a group member will be unavailable to participate in group activities or communication for more than 24 hours, the member is expected to notify the team

as soon as possible and group decisions will be made following the previously described guidelines.

4. Where:

- a. All meetings and working sessions will use the Defined primary methods for communication (below).
- b. Due to the course's asynchronous nature, members will be expected to additionally work on their own time on documents shared collaboratively on Google Drive.

5. Why:

- a. As stated in the Class Syllabus: "*All team members are expected to contribute equally to the academic content produced by the team.*" Regular meetings must be held to assure alignment and equal participation amongst team members.

Our primary methods/tools for communication amongst team members, in order of priority (and use case), will be:

1. Discord (asynchronous messages)
2. Zoom (synchronous virtual meetings)
3. Google Drive (document comments and suggestions)
4. Text/Phone Calls (last resort or urgent notifications)

Our team will ensure every member has an equal and regular opportunity to contribute to each deliverable (and does not get left out intentionally or accidentally) by:

Deliverable kick-off meetings will be held to discuss the work involved in our deliverables and determine, through group consensus, which individual will be responsible for each task involved.

Task delegation will first go to members who volunteer for certain segments of the work. In the situation in which group members have volunteered for work and there are still segments left to be designated, the group will agree on which group member is responsible for the tasks. If any group member is absent, the present group members will fairly and reasonably assign work to the absent members, as defined in the previous section of this contract regarding absent members.

Tasks will either be broken into sub-tasks that can be performed individually and then aggregated into a single deliverable or tasks will be collaboratively worked on during scheduled meetings and/or asynchronously via shared documents in Google Drive. Work distribution will be discussed and determined based on anticipated difficulty and time requirements of tasks.

The group will make reasonable efforts to perform tasks collaboratively through scheduled working sessions, when possible, or utilizing the comments and suggestion features of Google Drive documents rather than relying on dividing them into individual work that is aggregated for submission. At a minimum, each member is expected to review and provide feedback on all other members' work if work is completed individually.

In the event task delegation cannot be determined through group consensus, the group will follow the Decision-making and issue resolution process (below).

Our members will work together to ensure the quality of our deliverables by:

Each document will be created in Google Drive and shared with each team member. Each member will notify other members when they've achieved their assigned milestone. Initial milestone completion dates will be determined during the kick-off meeting and will be no less

than 72 hours before the deliverable due date. Other members will be required to review and comment on each other's work within 48 hours of milestone completion and no less than 24 hours before deliverable submission. Members will review and address all feedback on their assigned work before the approval meeting. This will allow the group and each member to make the suggested changes that may be needed.

Additionally, all members will commit to informing other team members of any issues or obstructions to completing their milestone as soon as possible and no less than 48 hours before their milestone is due.

Further, approval meetings will be scheduled to discuss any outstanding issues or incomplete work before the deliverable is submitted. The approval meeting will be a working meeting intended to review and resolve all outstanding issues. These meetings will be scheduled using the meeting policies previously outlined.

Decision-making and issue resolution:

Our primary mode of decision-making will be conducted through open discussions using the Primary methods for communication and informal voting, if necessary, to reach a consensus, when possible. All members have the ability and are encouraged to present questions and topics for discussions, as well as propose changes to existing plans using the appropriate communication method defined in the Primary methods for communication. All other members are expected to review and respond within 24 hours to other members' topics.

Each group member commits to reasonably considering all proposals, alternatives, and compromises that may result in a unanimous agreement from the group.

Group members agree that the defining objectives of the deliverable are those provided by Dr. Mike, first and foremost, and all members will act in good faith to ideate and achieve the prescribed objectives. Any objectives that are intended to be unique to the group and require creative or novel efforts are expected to be developed in a manner capable of achieving an 'A' grade from a graduate-level program.

If any group member feels a situation requires a more formal group approval, or a consensus cannot be reached through informal discussions, they can propose a vote. Votes will be held using the defined Primary communication methods. Voting sessions will conclude when all members have voted or after a 24 hour period, whichever occurs first. Any members who don't vote within 24 hours, unless otherwise agreed upon by the group, will forfeit their vote and agree to accept the vote results. Votes will be determined by a simple majority.

In the event that there is a significant disagreement, a lack of participation (real or perceived) on the part of one or more members, any exclusion (real or perceived) of members at any time; our group commits to taking the following steps to resolve these, and other issues related to group conflict:

1. Upon the first perceived infraction of this contract by any team member, any other team member is encouraged to privately notify the offending member of the observed infraction professionally with the expectation the offending member will commit to correcting the infraction.
2. If the conduct continues or has not been corrected after 24 hours, the topic will be broached with the rest of the group to determine a corrective action plan using the

Decision-making and issue resolution process. The plan will be shared with the offending member with the expectation of achieving an agreement for behavior change.

3. If an agreement cannot be reached, or if a majority of the group does not feel that the above agreement is being adhered to, we will escalate the discussion to include our professor. Furthermore, the rest of the group must faithfully record the lack of participation in their end-of-term evaluations for this group member.

Other strategies our team has resolved to employ over the term are as follows:

1. Our group will formally meet in College Station on September 8th-10th. Once the scope and breadth of our project have been discussed with us by Professor Scialdone, the group will agree upon the date and time for our first virtual team meeting to discuss the semester assignment.
2. If a group member must leave the group for any reason, including but not limited to the need to transfer out of or leave the Online MS-MIS Program, a good faith effort will be made by the departing team member to inform the other team members at the earliest possible time frame of their departure.
3. Each group member has a busy life, so care will be taken to respect each person's schedule while ensuring each group member participates in group assignments.
4. This group will follow the Aggie Honor Code, will be academically honest, and will adhere to Texas A&M University's core values of Excellence, Integrity, Leadership, Loyalty, Respect, and Selfless Service.

Works Cited

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Bootstrap, from Twitter. Twitter Bootstrap. (n.d.). Retrieved October 2, 2022, from <https://getbootstrap.com/2.0.2/>

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