

Project Milestone 3

Delta Marshallers

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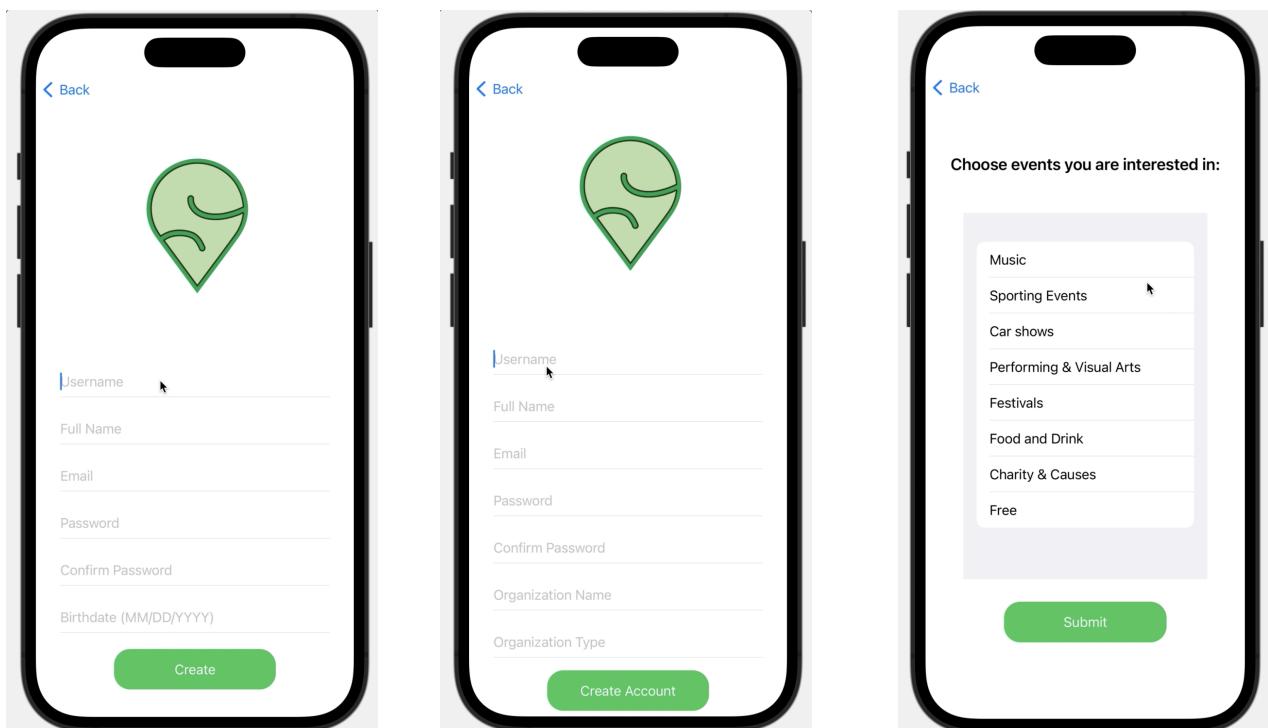
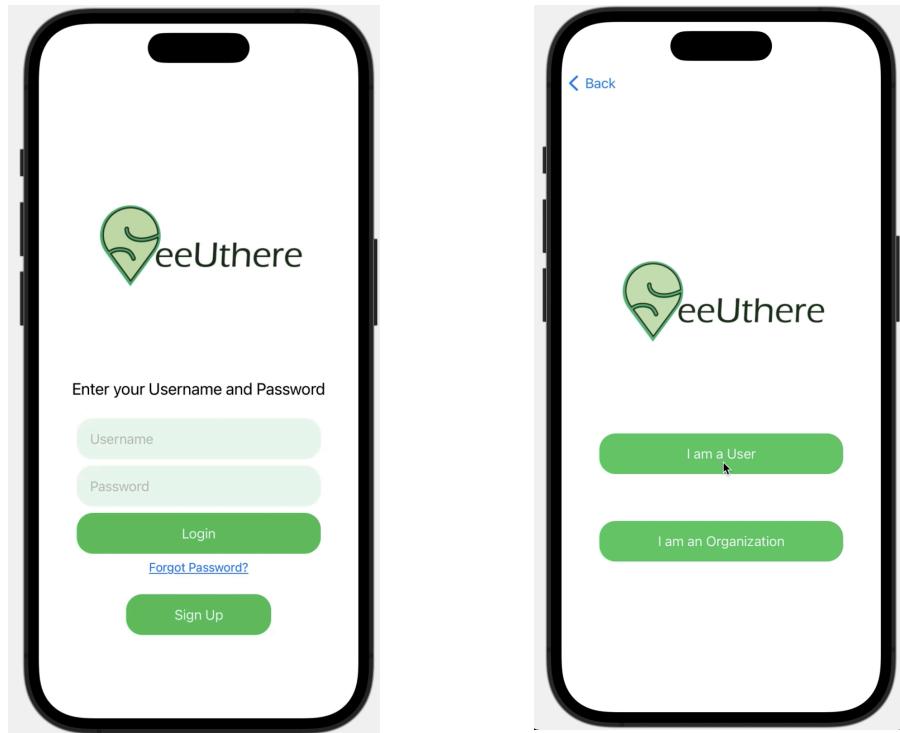
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SeeYouThere Mobile App

Description of System Prototype

Login Pages



The login page is the very first page users will interact with upon entering the application. Users can utilize this page to log in to an existing account or click “Sign Up” to go to the next page to create an account with SeeYouThere. Below, you will see an in-depth explanation of the features various users can make while on this page. This page introduces the overall color scheme of the app with its green and light green accent colors, as well as the logo which is designed to look like an Apple IOS map pin with an “S” character inside. The font chosen for the application title strives to ease the user with rounded shapes, but also maybe look like curvature of roads or paths, symbolizing the journey of the events.

Features on this Page

Login For New Users

After clicking “Sign Up”, new users are redirected to a new screen that prompts them if they want to create a new user account or an organization account.

- Organizations

The organization account is only used for those with a credible organization who want to post events for other app users. Users are prompted to enter an email, password, password confirmation, last name, first name, last name, organization name, and organization type, as shown in the screenshots. Once all this information is entered, the user can click the “Create” button to create their account. Organization users will then be taken to the home page.

- Users

The user account is for regular users to be able to view events that are posted by organization accounts. Users are prompted to enter: first name, last name, email, password, password confirmation, and their birthdate. Once all this information is entered, the user can click the “Create” button to create their account. They are then sent to a page where they can choose which type of events they prefer to see on their homepage.

Login For Existing Users

- Signing In

In the case that a user already has an existing account with the SeeUThere application, the login page provides two text fields, one for the username and one for the password, that the user can then use the soft keyboard provided to type in their existing credentials.

- Forgotten Password

If a user has forgotten their existing password, they are offered to reset it. The user will then hit “Forget Password” to reset their password, taking them to a separate page for recovery.

The Home Page



The home page is the main hub for the users. This page includes their profile picture, a progress bar showing their reward points, a button to access the QR code, a scrollable list of events, and a menu bar with options for different pages. Each of these components is described in detail in the sections below.

Features on this Page

Profile Picture

The profile picture for a user will naturally appear blank upon creating a new account with the SeeUThere app. From there, users can select the photo icon in the middle of the blank circle on the home page and select a photo from the camera roll or take a current photo. For existing users, if an image was previously

chosen, then the image will be there upon logging into the account. An example of a user with an uploaded image is shown in the screenshots below. This will aim to be added into future functionality once a structured database is implemented on the backend.

Progress Bar + QR Code Access

The QR code button in the top left corner of the homepage allows users to easily scan the QR code of another application user at an event they are both attending. When they scan each others' codes and connect at an event, they can earn points - which are tracked by the progress bar - and can be redeemed for a number of rewards: some examples include a discounted ticket price to another event, merchandise from an event, or an upgraded ticket. After this, their level bar will gain progress, highlighting it blue as it increases. After each level gained, rewards will begin to be available for unlocking/redeeming. This future functionality will be added when a database is in place for holding reward items, costs, levels, and other related fields.

Scrollable List Of Events

The scrollable list of events on the homepage will highlight the nearby events that meet the criteria entered by the user when signing up. The event will just show an image of the event, and by clicking on the event, a user is able to see general information and a short description. Additionally, a clickable icon will appear, allowing users to navigate to a page that has even more information on the selected event such as location and time. The scrollable stack was selected as it mimics the short media formats that have become increasingly popular in mobile applications. By giving the user the most up to date information on events, they are less likely to be tired of repetitive information and can potentially increase the app's usability.

Menu Bar Components

- Friends Page

Users can view their current friends, see how many mutual friends they have, search through their friends list, and can remove any current friends. They can also view suggested friends, see how many mutual friends they have, search for new friends (using the search bar or scanning their qr code), and add friends. Users can also click on their friends' names to view their profiles to see what events they are interested in attending/have attended in the past. More information on this page is provided below.

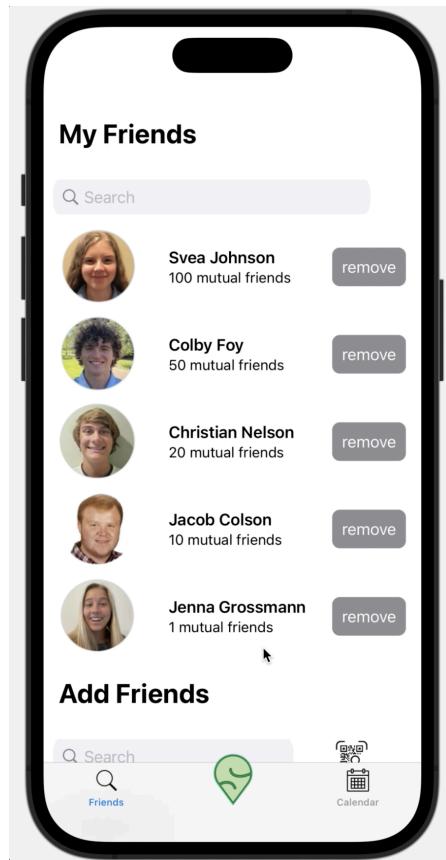
- Calendar Page

This page shows what events are happening in the area in a calendar format. Organizations can create events that will show up on the calendar for users to view. More information on this page is provided below.

- Home button

This button brings the user back to the home page where suggested events and the user's level can be found. This button can be used at any time. More information on this page is provided above.

Friends Page



The friends page allows users to view their current friends list, search through their existing friends, remove their friends, or add new friends either by adding them from the suggested friends list, search using their name, or use the QR code scanner button to scan their QR code from their profile.

Features on this Page

Viewing Existing Friends List

Lists a user's existing friends with their names and profile pictures, lists how many mutual friends you have in common with them, and gives the option of removing them from your friends list. Users can also use the search bar to search through their existing friends. In future functionality, we would like to add the ability to click on friends and see the events that they have attended.

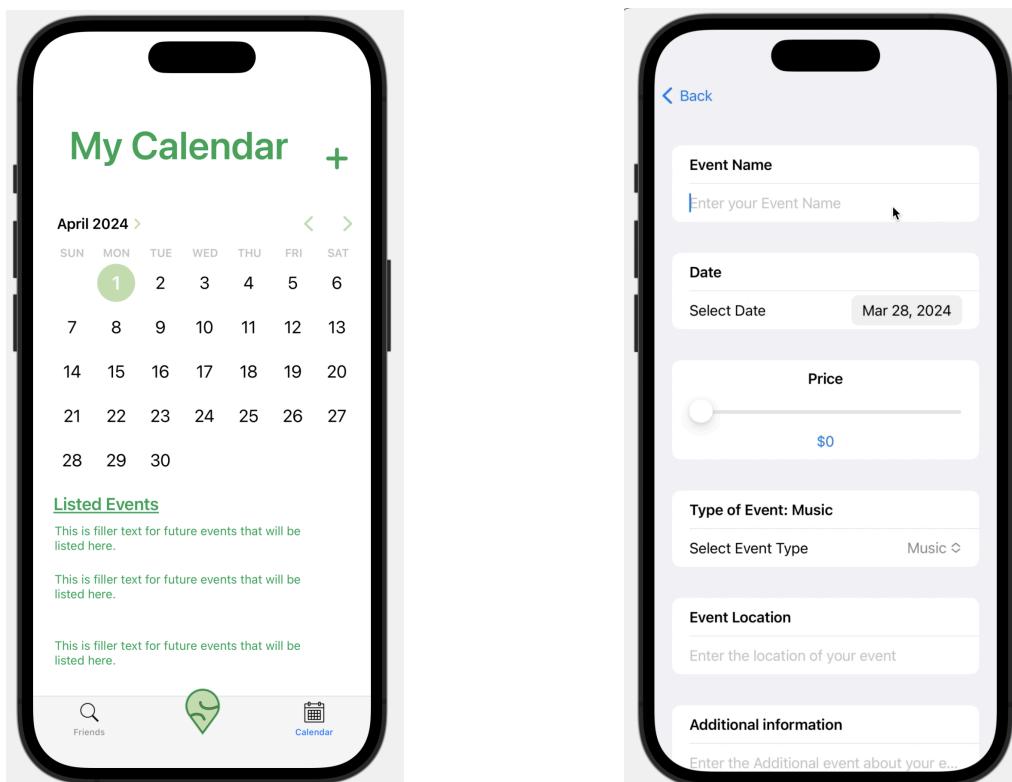
Viewing Suggested Friends List

Lists suggested friends with their names and profile pictures, lists how many mutual friends you have in common with them, and gives the option of adding them to your friends list. Users can also use the search bar to search people by name to add them to their friends list. You will only be able to see someone's past events attended once they are added as a friend.

QR Code Access

The QR code button allows for the user to add someone to their friends list by scanning their unique QR code that can be obtained from the user's homepage. This allows for an easier way to add a friend as you do not have to type out and correctly spell their name. This is used mainly with face-to-face interactions as one user has to show their QR code while the other one scans it from their phone. This feature has not yet been implemented into our prototype, as assigning a QR code to each registered user at time of signup will require a structured backend database.

Calendar Page



The calendar page is located on the right side of the main home tab page and allows users to see their scheduled events and add new events for organizations. Although the back end functionality of an event database is not in place, the goal for this side of the application is to be able to integrate the user's current IOS calendar to prevent switching back and forth from apps to see availability. By indicating you are going to an event, the event and its times would be placed under the calendar if you are on the selected date of the event.

Features on This Page

View Events on Calendar

The calendar serves as a way for users to view what events they have shown interest in or have planned to attend. As mentioned above, a future integration between IOS calendars and our app would make user experience a lot better. The design uses the green accent colors that is the main colorway of the application, letting users to easily see what date they have selected currently. Additionally, as SwiftUI is specific to Apple IOS systems, by integrating the familiar IOS calendar, the schema for usability should already be in place for many users.

Add Events To Calendar

The page to add events is used for organizations only to create new event listings that would be shown on users' feeds if applicable (type of event they want to see). This uses the familiar Apple IOS form fields with different functionalities such as sliding bars and dropdown menus to best meet the needs of each field. By allowing organizations to fill out the fields with speed and accuracy, a better user experience can potentially lead to more frequent use of the application for listings.

Evaluation Plan/Usability Specifications

Preparing our prototype for Milestone 4, we plan to lay out specific benchmarks that we will use to collect data from our users. Quantitatively, we will have users rank and scale the majority of decisions we chose to implement in our application; usability, overall design, logicalness, etc. Additionally, possible timed tests of user interactions may be interesting to see how well our design is implemented. For this, it would be important to sample a range of people, including those with and without IOS system devices. This ties back into logical data flow and overall app utility. For qualitative data, a survey following the user tests will be used to evaluate overall user experience with open-ended questions to promote free thinking from participants. Overall, our evaluation plan will aim to collect user data on every aspect of our prototype, in hopes to better our functionality and design in the future.

The reason this particular plan will work based on our prototype, is due to the architecture of the mobile application. Our app is designed to meet users' needs by filling a void in sociable event interaction, so it is important for us as developers to modify certain aspects of

the app to better meet users' demands. This may look like users wanting it to take less pages to add an event to your calendar or for the homepage to look a bit different. We believe that with the main functionality of the app already in mind, the prototype tests on users will serve as a filter screening to see what we really want users to be able to do (if this differs dramatically from our survey in the previous milestone). A part of a user's buying process for a mobile phone application is at least glancing at the stars or reviews the app has. This makes user feedback through testing that much more important.

Usability for our system, as mentioned above, will be based on (but not limited to) the following specifications:

- A user/organization is able to log into an account properly, easily, and without issue
- A new user/organization is able to sign up for an account properly, easily, and without issue
- A user is able to tab through various pages on command without question
- A user is able to navigate to any page when prompted within a reasonable time (10 Seconds)
- An organization is able to create a new event listing within a reasonable time and with full accuracy (1-2 minutes)
- A user is able to explain the purpose/actions of the application after interaction

Challenges

The majority of the challenges we faced with implementing our prototype stemmed from being unfamiliar with SwiftUI and its capabilities along with the limited access to Xcode for the team members that did not have Apple computers. None of us had created mobile applications before or used SwiftUI, so that led to us encountering many issues with figuring out the best way to implement features. We also found that Xcode is not great for collaboration so we either had to work on the project together or work on pages on our own and put them together during our meeting time – this provided even more challenges with making sure that the views were formatted correctly with each other and translating between different pages.

Additionally, there were pages and features that we wanted to create for this milestone, but ran into problems with getting everything we wanted working together in the amount of time that we had to implement the project: the QR code scanning feature to link friends, including a screen to prompt a profile picture, having the add event page and calendar page work together, and creating a database to implement working backend functionality. Having a working backend database that would allow events to be stored, filtered, and posted accordingly would be a great next step for development. Alongside this, storing users location to be a main filter of events in the database would also be something we would like to be added on in the future. Adding functionality to increase user experience is the main direction we would like to be moving towards.

Why This Design?

After Studio 2, the design that got the most positive feedback was the reward based mobile app. With the input from our peers, and the assumption that creating a prototype for this app would be easier than creating an interactive kiosk or mixed reality glasses, we decided to create the reward based mobile app as a prototype for the solution to getting people to attend local events. We found that people responded positively to rewards based incentives to attending events and decided that we wanted to focus on a social environment as per our feedback from the survey we conducted in milestone 1; the data from the survey included information that people are more willing to attend events with friends/family. With all this feedback, we decided that implementing the mobile app would provide the best, most feasible solution to our problem space.

Additionally, with the rise of short form media apps, such as TikTok, Instagram Reels, and YouTube Shorts, we thought that a scrollable homepage would be a good starting point for our design. This is why our home landing page includes a scrollable list presenting users with events in their area. In the future, allowing event organizers to upload their own media could make this app even more interactive, leading to greater user engagement and experience. Adding on to this, tab functionality is increasing in popularity with apps such as Instagram and Snapchat having a main home landing page, with other pages using a tab view at the bottom. By integrating a very similar architecture into our design, it allows for further ease of use from the user if they have interacted with similar systems in the past. However, it will be important in our milestone 4 to have people interact with our system who may not be familiar with popular mobile application functionalities.

Technology Justification

As a group, we decided to use SwiftUI through Xcode to program our reward based mobile application because it included many features that we would be able to easily implement in our prototype to provide the best user experience. By using SwiftUI, we were able to easily implement an IOS-like interface for a mobile application and we were able to customize all of the features to our liking. Through the use of pages and views, Swift allows for logical transitions with the use of buttons and navigation stacks. Although this technology ultimately led to most of our challenges faced, the forced collaboration and design led to a more coherent and fluid prototype that we are all proud of.

Studio Feedback

The mobile app prototype received overwhelmingly positive feedback, scoring 4.46 out of 5. Most of our peers had no negative comments, but some felt it lacked full functionality, suggesting the inclusion of real event information, additional color options, and the display of a soft keyboard. However, the positive feedback outweighed the negative, with many praising the app's design, finding it user-friendly, and appreciating its simplicity. Users were particularly

impressed by the use of Swift in development, and they liked the overall style and simplicity of the prototype. Overall, while there were suggestions for improvement, the prototype demonstrated significant potential and garnered strong praise for its design and usability, indicating a promising future with further development and refinement. Going forward into milestone 4, we will fill in some information on the front end, making it look more completed, as well as tweaking small things such as color accessibility and field labeling. These improvements should lend the prototype to be successful in its user testing in the next milestone. With continued integration of updates and improvements, we will strive to keep the same overall simplistic and familiar design thanks to our use of Swift.