

Team members:
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Description

I am designing an iOS/Android app for youths with busy schedules who find it difficult to make time for their friends given their academic, employment, club, or other responsibilities. Although the main purpose of the app would be for young people to know what times their friends are available and activities they would like to do, this app will also double as a personal calendar or planner for users to plan out their days and be able to see their schedules in one place. This app would basically serve as a calendar in which young people could schedule different events, but each user's calendar would be viewable to that user's friends. Users would also be able to set their unavailable hours by adding their events to their calendars and their preferred hangout activities to make hangouts easily schedulable. Because of their busy schedules, young people may find it hard to meet up with friends and may lose connections. This app would help young people to be more socially active on their own terms, causing less frustration and more convenience for all. Young people would be able to schedule hangouts with others more easily without communication issues, feeling like they are being annoying, or feeling like they are being ignored.

Functions

Scheduler App

1. Add an event to the calendar
 - a. Can set an event as private (details only viewable to user but time period is viewable to friends)
2. Repeat an event (or an week of events) for a certain amount of weeks or indefinitely
3. Send friend requests and accept friend requests
4. View friends list
5. View friends calendars

Marvel App: <https://marvelapp.com/prototype/h9d5e5h>

Methods

I performed two usability tests at different times with two users, my roommate and a friend, both in person in my apartment close to the UC Irvine campus. The first test was done with my roommate on Thursday, November 18th in the evening. The second test was done with my friend on Friday, November 19th in the evening. In both cases, I allowed them to test my Marvel prototype on my laptop while I sat to the side taking notes on paper, explaining to them the usability tasks and asking them questions about the app. At the beginning, I explained to them the purpose of the application, its expected use, the expected audience, and any other assumptions they should make about the prototype (for example, text fields cannot be typed in). I then explained each usability task and scenario to them and instructed each participant to perform the tasks, asking them to explain their thought process audibly throughout. During this process, I timed the amount of time they took to perform the tasks and took notes on paper while observing. Following each task, I asked each participant clarifying questions about how they flowed through the app and why they performed certain actions or were unsure of certain actions. After the usability tasks, I then inquired about qualitative and quantitative measures of the app, analyzing their response and opinion to the intuitiveness, usefulness, design, and overall essence of the app.

Usability Tasks

1. Log In and Modify Calendar

From the Sign In Page

Log In and Create an event in the Calendar

Instructions: First, the user should (fill out the fields and) click Log In from the Login page which will lead them to the My Calendar page. From there, they should click one of the day slots on the Calendar to get to the Add Event Page, (fill out the fields) then click the Add Event button.

Scenario: You have just scheduled an important doctor's appointment by phone call next week (can be anytime) and need to update your Calendar, as some of your friends have been talking about going drinking next week, however, they haven't planned a set time (Assume it is the first week of February, you have an account, and username and password text boxes are filled).

2. View a Friend's Calendar

From the Home Page

Go to Friends Page and View First Friends Calendar

Instructions: First, the user should click the Friends button on the navigation bar to get to the friend's Page. Then they should click the top user's profile to reveal his calendar.

Scenario: You remember that you want to plan a hang out with your close friend John, as he is leaving soon for a month-long trip to Japan, however, you have an especially busy week with few gaps and are unsure of John's availability (Still assume it is the first week of February, assume event fields are filled, and assume John is the first and top friend on your friends list).

3. Return to Home Page

From Friends Calendar

Go back to Friends Page, then Home Page

Instructions: First, the user should click the back button to return to their Friends page. From there, the navigation bar will be available with the home button to take the user back to their own Calendar.

Scenario: You notice a gap in John's schedule that is open. You think that you are also available within that sliver of time, but you are unsure due to the demands of your career, personal, and familial responsibilities. However, John is a long time loyal friend and given the opportunity, you wish to give him a send off. You need to check your schedule again to see any openings you may have that coincides with John's schedule.

Usability Report

First Task: Log In and View Calendar

From the Sign In Page

Log In and Create an event in the Calendar

Instructions: First, the user should (fill out the fields and) click Log In from the Login page which will lead them to the My Calendar page. From there, they should click one of the day slots on the Calendar to get to the Add Event Page, (fill out the fields) then click the Add Event button.

Scenario: You have just scheduled an important doctor's appointment by phone call next week (can be anytime) and need to update your Calendar, as some of your friends have been talking about going drinking next week, however, they haven't planned a set time (Assume it is the first week of February, you have an account, and username and password text boxes are filled).

First User - 1 minutes 44 seconds

Second User - 37.23 seconds

Second Task: View a Friend's Calendar

From the Home Page

Go to Friends Page and View First Friends Calendar

Instructions: First, the user should click the Friends button on the navigation bar to get to the friend's Page. Then they should click the top user's profile to reveal his calendar.

Scenario: You remember that you want to plan a hang out with your close friend John, as he is leaving soon for a month-long trip to Japan, however, you have an especially busy week with few gaps and are unsure of John's availability (Still assume it is the first week of February, assume event fields are filled, and assume John is the first and top friend on your friends list).

First User - 22.86 seconds

Second User - 13.78 seconds

Third Task: Return to Home Page

From Friends Calendar

Go back to Friends Page, then Home Page

Instructions: First, the user should click the back button to return to their Friends page. From there, the navigation bar will be available with the home button to take the user back to their own Calendar.

Scenario: You notice a gap in John's schedule that is open. You think that you are also available within that sliver of time, but you are unsure due to the demands of your career, personal, and familial responsibilities. However, John is a long time loyal friend and given the opportunity, you wish to give him a send off. You need to check your schedule again to see any openings you may have that coincides with John's schedule.

First User - 27.26 seconds

Second User - 11.25 seconds

Measures of Usability (1 to 5)

Ease of use

- First User
 - 4
- Second User
 - 5

Usefulness

- First User
 - 4
- Second User
 - 4

Design

- First User
 - 2
- Second User
 - 3

Accessibility

- First User
 - 4
- Second User
 - 5

Usability Issues

Critical: User cannot proceed or complete the task

Calendar only has 6 days per week

Evidence: When asking if there was anything difficult or confusing about the app to both users, they mentioned noticing the Calendar only had 6 days in every row

Serious: User will be frustrated and might give up on task

Minor: User might be annoyed but can still complete task

Process of navigating between User's Calendar and Friend's Calendars is inconvenient and inconsistent

Evidence: When using the prototype, User 1 was confused by how to get to the User's home page and calendar from a friend's page. They spammed the back button, mentioning that they have a habit of spamming it to get back to a page they want.

Users did not notice the pattern of background colors differentiating User main pages and other pages

Evidence: When asking both users if they noticed a pattern with background colors, both mentioned noticing changing or alternating colors, but neither mentioned the organization of User main pages and other pages.

Preferred activities section is not needed as friends probably know each other well enough to know what they like

Evidence: When asking User 2 whether there was anything they would add or remove from the app, they mentioned removing the preferred activities sections due to the expectation that friends will already know what kind of activities and hobbies like.

Confusion between Friend's Calendars and User Calendar as they are too similar

Evidence: When asking User 2 if there was anything difficult or confusing about the App, the user mentions that they had trouble differentiating between the user's and friend's Calendars due to the pages looking too similar with not enough differences or differences that were not noticeable enough.

No easy way to check for coinciding free hours with friends

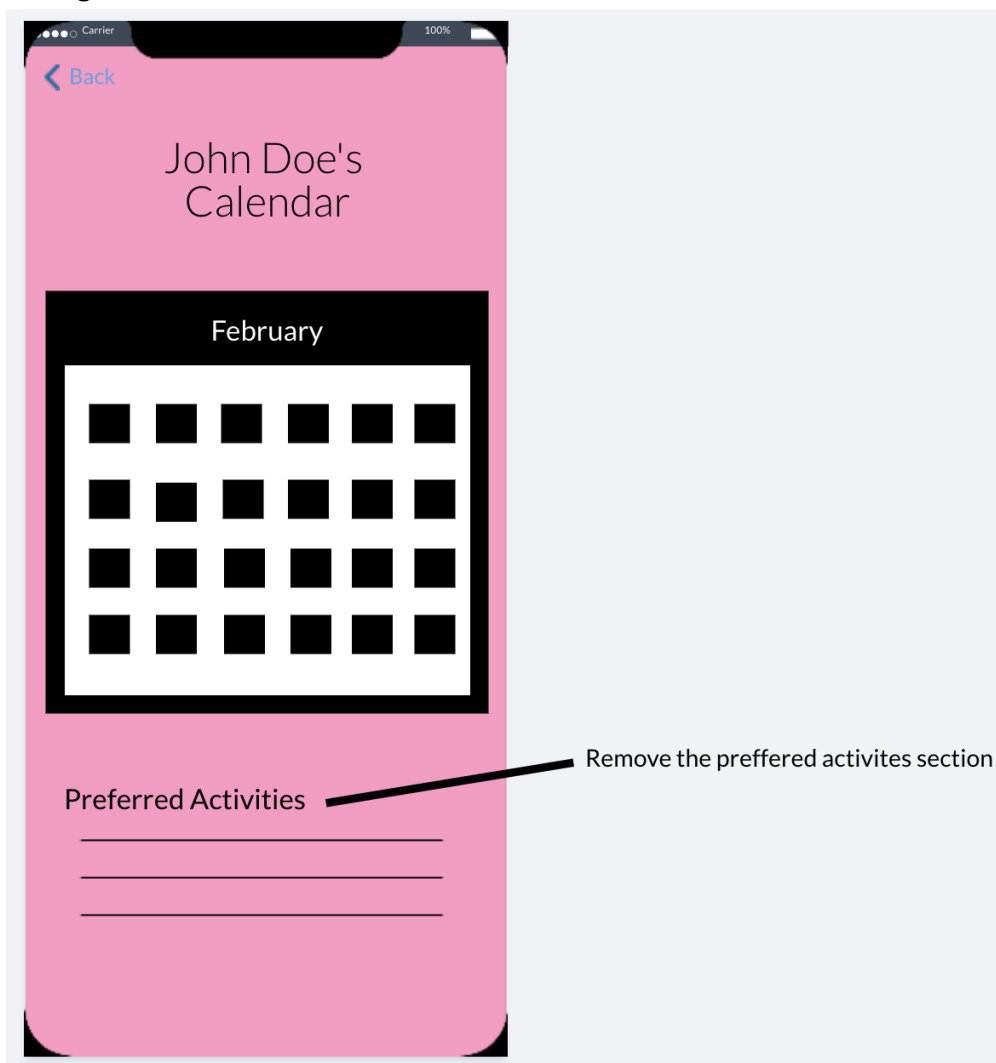
Evidence: When asking User 1 whether there was anything they would add or remove from the app, they mentioned potentially adding a list somewhere where the user could access recently viewed friend's Calendar. User 2 mentioned that adding a certain color event on a friend's Calendar where both the user and friend have free hours would be a quick and easy way to show shared free hours

Proposed Changes

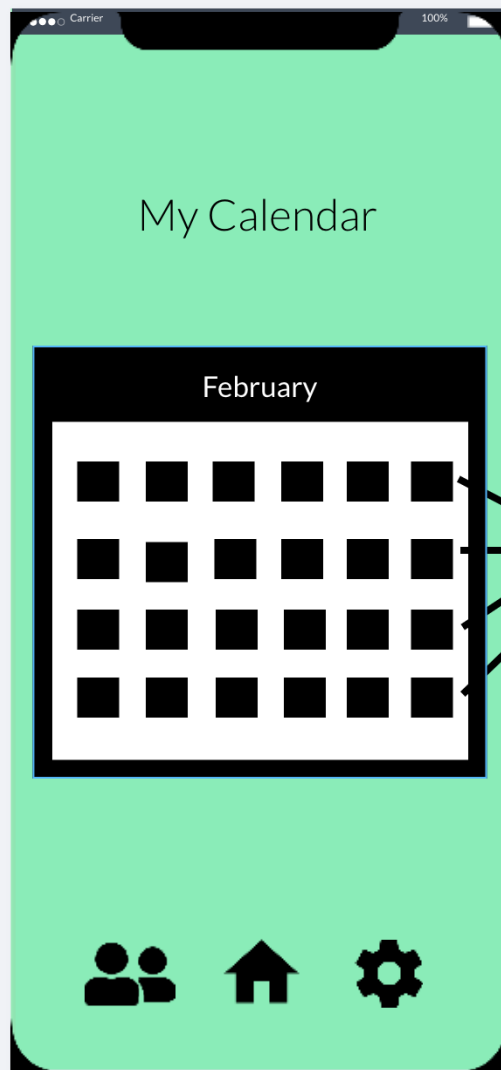
One change I would make to the App is that I would remove the preferred activities section on friend's Calendars. The original purpose of this feature was to prevent friends from wasting time discussing what to do during hangouts. However, friends will already know hobbies and activities that they like to do and probably already have similar hobbies and interests. Removing this section could allow for a cleaner App design or for another feature to be added in the same section that could serve a better purpose for the user. One example could be adding something that indicates coinciding free hours between the user and the friend.

Another change I would make to the App is to have seven days per week on the Calendar. Without seven days on each row of the Calendar in the user's and friend's Calendars, the user is unable to properly add and view their events for all days of the week throughout the month. The user also cannot see all events on all days for a friend's Calendar, making the App unviable.

Change 1



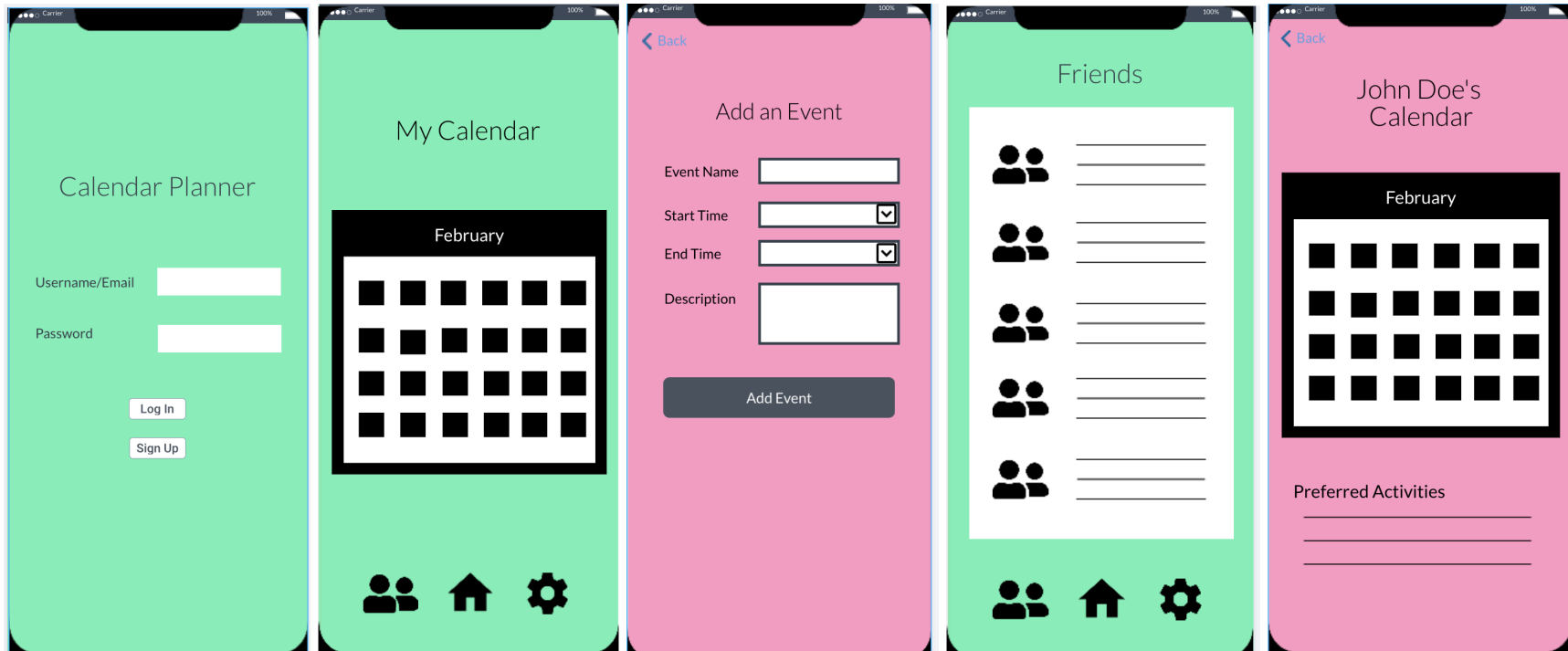
Change 2



Add a new column of days so there is seven days for every row

Appendix 1

App Screenshots



1. Sign In Page

This page serves as a login and sign up page for the app. I followed the general format used for most app sign in/welcome pages by having a title, a text box for username and a text box for password right below, then two buttons, one for login and one for sign up, at the bottom.

2. My Calendar/Home Page

This page shows the schedule of the user for the month, including a title "My Calendar" which informs the user they are viewing their own calendar. Below this is the actual Calendar of the user, showing the month as a title for the calendar, day numbers for each day slot, and titles for events for and starting and ending times for events within day slots. For this calendar, I took inspiration from Apple's Calendar app and implemented a similar format. Below the calendar is the navigation bar for the app, including a friends, home, and settings button. With these button icons, I conformed to other icons across different softwares with similar designs so the user would be able to use it easily.

3. Add an Event Page

For this page, I included a back button for the user to be able to return to their calendar given they changed their mind about adding an event. This back button has the same design as back buttons Apple use in their setting and are often used in other iphone apps (sometimes with just the arrow in the upper left corner). I also included text boxes for the necessary event fields and drop down menus to implement picking times, which is often used in mobile apps and websites to simplify these fields for the user and make sure they don't enter an invalid field in that text box. Finally, I added a large Add Event button at the bottom.

4. Friends Page

This page lists all the user's friends. Within the panel showing friends, friends pictures are all on the left, while their names and other important info are on the right, as is the format in any other social media app. I believe this is because people associate friends with their pictures more than names and most people are right handed, so they will not be covering the left hand side of the screen at all. Giving one friend one horizontal section keeps the user from accidentally clicking another user or being confused at which pictures correspond to which names and where to click to get to a certain friend's calendar. This panel also has a scrollbar if the user has more friends than can be shown, keeping the app from needing to show all friends at once, sacrificing content on one page for ease of use.

5. Friends Calendar

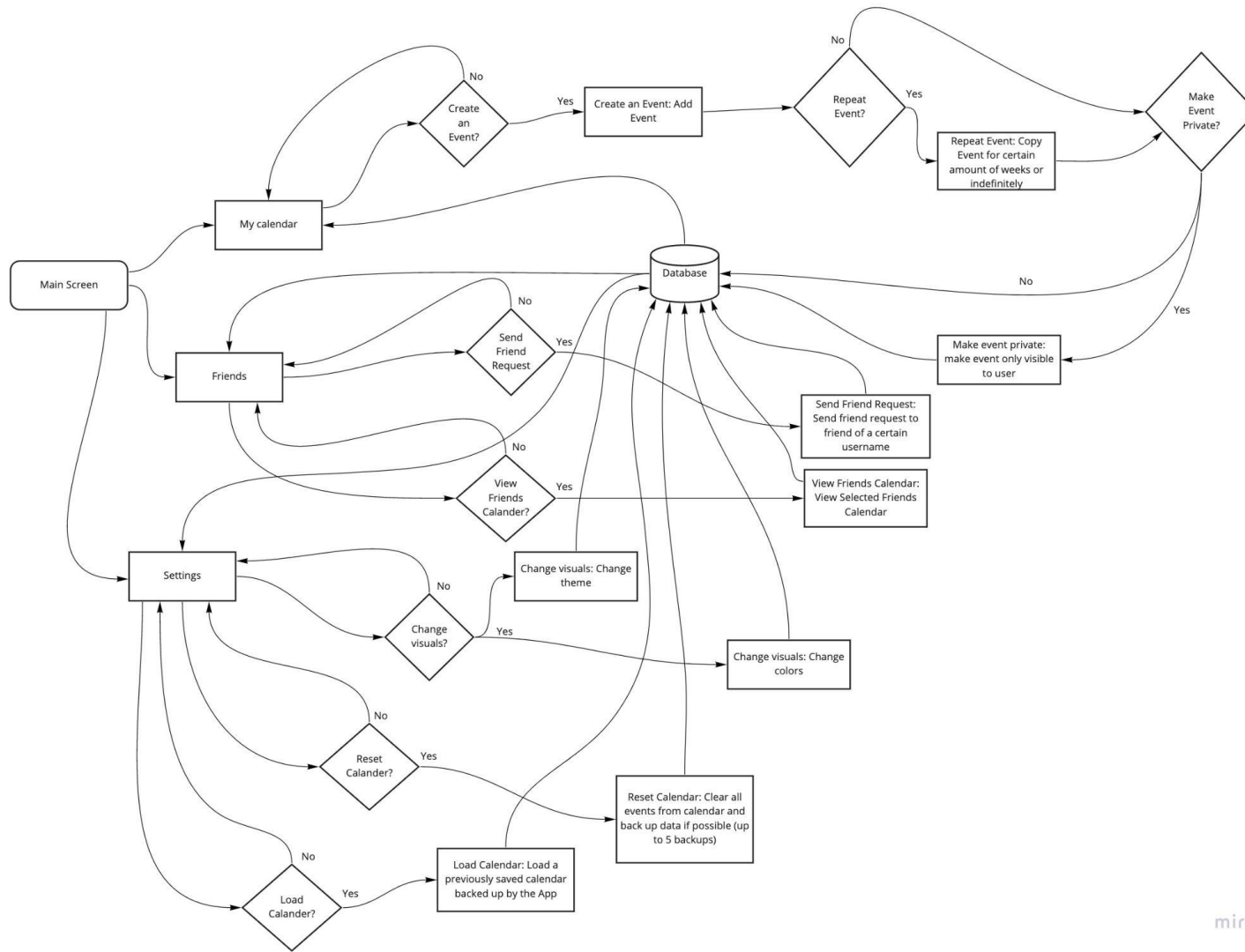
This page follows the format of the My Calendar page similarly in terms of the Calendar object, so it is intuitive to the user how to read the calendar. Below the Calendar is the user's preferred activities when hanging out. The Calendar is closer to the center, as it has the main visual importance for the user to follow - finding appropriate times that align with both the user and the friend. This is more important, as activities can be varied and flexible, but if the user and the friend's schedules do not align, then the activities part has no importance to the user. The user's first priority is or should be to find an appropriate time to hang out.

6. Etc

"Main" pages, or one's that are relevant to the user, such as the sign in, home, and friends page are green and other pages pink so it is evidently clear to the user where they are in the app flow.

Appendix 2

Interaction Flow Diagram



Appendix 3

Usability Testing Notes

First participant - 21 year old Asian Male

First Task - 1 minute 44 seconds

- User assumed pressing log in with username and password fields filled would allow them access into their account and calendar
- User noticed through the similar format of the calendar to other calendar apps (black squares in columns and rows) and the name of the month (February)
 - Reinforced idea that the object was a Calendar
- User traced to a black square in second row
 - Clicked a day square, following expected usability of other calendar apps
- User went through text fields, going through the motions of analyzing and explaining their flow throughout the add event page (although text fields are not changeable)
- User clicked Add Event to add doctor's appointment on calendar

Second Task - 22.86 seconds

- User selected leftmost icon because of the link they made with the icon and people
 - User mentions similarity of icon to other social media app friends icons
- User clicks on friend symbol of John on the top of the friends list
 - User mentions that they usually click on friend icons or profile pics when on social media due to them being more eye catching than names

Third Task - 27.26 seconds

- User notices back button with similar format to phone softwares and realizes they need to return to home page with user's own Calendar
- User presses back button
- User mentions that they at first did not notice the Home button due to them tapping the area of the back button repeatedly
 - User mentions being used to the action spamming the back button

1. Would you use this app in your daily life? Why or why not

No, the user would forget about it. The user has used other apps for planning before, and always forgets about using them. However, the user mentions involving others socially and being able to see all your friend's Calendars in one place could help with app engagement. Finally, the user mentions that they prefer Google Calendar to other planning apps due to automatic event adding when interacting with other phone apps and software.

2. Was anything difficult or confusing about using the app?

The user mentions the User Interface and App Flow of having to navigate back and forth from the user's Calendar and other friends' Calendar is inconsistent and inconvenient. The user recommends a better, more efficient and more intuitive flow between Calendars. The user also mentions there only being six days for every row on User's and Friend's Calendars.

3. Would you add or remove anything from the app?

The user would not remove anything. The user would add a more direct way to navigate from user's Calendar to other friends Calendar, such as a recently viewed friends list, available either on a section of the Friends page, Home page, or possibly on it's own separate page.

4. What worked well?

The user mentions that the App design, especially the Calendar, was simple and user-friendly.

5. Did you notice anything or any patterns regarding the background colors of the pages?

The user noticed that the background color changed when navigating to a friend's Calendar. However, the user had no idea of the purpose of the colors differentiating the user's main pages and other pages and the user assumed the background colors were customisable.

Other Measures

- Ease of use - 4
- Usefulness - 4
- Design - 2
- Accessibility - 4

Second Participant - 23 year old Hispanic Male

First Task - 37.23 seconds

- User notices Login button and assumes it will take them to the Calendar of their account
 - User clicks Login button
- User notices the Calendar and counts two rows of black squares to find the appropriate place to schedule their doctor appointment
- User decides to schedule the appointment on a Wednesday and clicks on the black square on the second row most closely coinciding with Wednesday (somewhere in the middle)
- User goes through reading add event text fields although they are unchangeable
- User clicks add event to add doctor's appointment

Second Task - 13.78 seconds

- User notices friends icon due to similarity with other friends icons in other apps and social media and clicks on it
- User tracks down from the title "Friends Page" down from the top of the list and finds the first user
- User clicks on icon
 - But mentions that they would usually click on a person's name on social media
 - In this case, user clicked the icon due to it standing out, as the prototype has lines representing user names but no actual names

Third Task - 11.25 seconds

- User quickly notices back button and clicks it to return to friends page

- User notices homepage and clicks it, mentioning it is a common symbol across many apps and software

1. Would you use this app in daily life? Why or why not?

Yes, the user thinks the app would be convenient in daily life since it would contain all their friends availabilities in one app and would make planning hangouts more convenient

2. Was anything difficult or confusing about using the app?

The user mentions being confused by the similarity of the user's and friend's Calendars. The user also mentions there only being six days for every row on the user's and friend's Calendars.

3. Would you add or remove anything from the app?

The user mentions having a feature where availability overlap is visible on a friends Calendar would be convenient. For example, having a certain color on a friends calendar that represents both you and your friends available times, which would be visually similar to events. The user also mentions that they feel the preferred activities section on friend's Calendars are not that useful since friends would implicitly know each other and what hobbies or activities they enjoy. However, used in a professional capacity, they mention that the preferred activities section could be useful since people would not know each other that much.

4. What worked well?

User mentions that the process for adding events is short, concise and intuitive. User also mentions that adding events by clicking on the day boxes is intuitive.

5. Did you notice anything or any patterns regarding the background colors of the pages?

The user noticed that the background colors were bright and colorful and reminded them of Cosmo and Wanda from the show Fairly Odd Parents. The user also noticed that pages alternated between green and pink colors, but did not notice that the background colors were meant to differentiate the user's main pages and other pages.

Other Measures

- Ease of use - 5
- Usefulness - 4
- Design - 3
- Accessibility - 5

Summary of Usability Notes

Users found the app simple and the icons intuitive, such as the process of logging in , friends and home icons, and the format of the calendar. Adding events was also simple. However, users were confused about some app flow and format issues such as there being no friends names in the friends list, and the inconvenience of navigating between different friends Calendar and the users own calendar. The relevance of the preferred activities sections of different friend's Calendars was also put into question as it could be an unneeded field due to

friends already knowing each other very well. The different app measures such as ease of use, usefulness and accessibility all had high ratings with the exception of design having a low rating for both users. Both users mentioned the inconsistency of the calendar only having six days per row while one user mentioned confusion between the friends and their own Calendar, insinuating that more noticeable signs of contrast between both would be useful.

