

# COSC368 Assignment 2

## Final Design

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# Executive Summary

As software engineering and computer science students we have almost exclusively focused on technical implementation; concerning ourselves with maintainability, efficiency, and extensibility. We have therefore neglected to contemplate the other side of the product: user needs. This assignment allowed us to build empathy for users and practise user-centered design. This report details the results from completed usability testing, the revised conceptual model and the final design prototype.

# Introduction

Making friends can be difficult without allowing people to create connections around a common interest. It is also difficult to organize and manage events within and outside of a person's friend circle. After thorough investigation of this problem space and extensive user research we created three wireframes to cater to this problem space. Each of these design proposals implemented a different design decisions, such as hamburger menus and navigation bars. These proposals were turned into low-fidelity prototypes for usability tests.

Usability tests were conducted based on the research goals to identify and gain insight to the issues with the prototypes. Three testers were recruited to match the persona of a 'local student'. The insights gained from the tests were incorporated within a final interactable prototype.

The live interactable prototype can be accessed at: <https://pr.to/IDEUA1/>

# Usability Testing

## Research Goals

The main goal is to discover which prototype has the most intuitive design through user testing. In addition, a research goal was to discover the positives and negatives of each design. This was so the positives of each design can be incorporated into the final design. Out of the three prototypes, the most intuitive design was used as the foundation for the final design. In addition, since various applications already exist within the problem space of event finding and social interaction. Hence, another goal was to determine if the application followed the conventions and expectations set by these other systems.

## Usability Test Script

☐ Home display of smartphone should be open.

Hi, \_\_\_\_\_. My name is \_\_\_\_\_, and I'm going to be walking you through this session today.

Before we begin, I have some information for you, and I'm going to read it to make sure that I cover everything.

You probably already have a good idea of why we asked you here, but let me go over it again briefly. We're asking people to try using an application that we're working on so we can see whether it works as intended. The session should take about an hour.

The first thing I want to make clear right away is that we're testing the application, not you. You can't do anything wrong here.

As you use the application, I'm going to ask you as much as possible to try to think out loud: to say what you're looking at, what you're trying to do, and what you're thinking. This will be a big help to us.

Also, please don't worry that you're going to hurt our feelings. We're doing this to improve the application, so we need to hear your honest reactions.

If you have any questions as we go along, just ask them. I may not be able to answer them right away, since we're interested in how people do when they don't have someone sitting next to them to help. But if you still have any questions when we're done I'll try to answer them then. And if you need to take a break at any point, just let me know.

With your permission, we're going to record what happens on the screen and our conversation. The recording will only be used to help us figure out how to improve the application, and it won't be seen by anyone except the people working on this project. And it helps me, because I don't have to take as many notes.

If you would, I'm going to ask you to sign a simple permission form for us. It just says that we have your permission to record you, and that the recording will only be seen by the people working on the project.

- ☐ Give them a recording permission form and a pen
  - ☐ After they sign it, START the SCREEN RECORDER

Do you have any questions so far?

OK. Before we look at the application, I'd like to ask you just a few quick questions.

- Which tertiary are you studying at?
- Are you an international or exchange student?
- What are your hobbies?
- What is your age?
- Where are you from?
- What do you use to find and create events?
- Have you attended any events that relate to your hobbies?
- Do you use iOS or Android?
- When was the last event you attended and what was it?
- How often do you plan or attend group events with your friends?

OK, great. We're done with the questions, and we can start looking at some designs.

*Repeat the following steps for each design:*

- ☐ Tap to begin the app.

First, I'm going to ask you to look at this screen and tell me what you make of it: what strikes you about it, what you can do here, and what it's for. Just look around and do a little narrative.

- ☐ Allow this to continue for two or three minutes, at most.

Thanks. Now I'm going to ask you to try completing some tasks. I'm also going to ask you to do these tasks without using Search. We'll learn a lot more about how well the app works that way.

And again, as much as possible, it will help us if you can try to think out loud as you go along.

- ☐ Ask the user to create an event.
- ☐ Allow the user to proceed until you don't feel like it's producing any value or the user becomes very frustrated.

- ☐ Ask the user to edit their profile.
- ☐ Allow the user to proceed until you don't feel like it's producing any value or the user becomes very frustrated.

- ☐ Ask the user to tell us about the HALO event that is upcoming.
- ☐ Allow the user to proceed until you don't feel like it's producing any value or the user becomes very frustrated.

- ☐ Ask the user to read the names of the current groups.
- ☐ Allow the user to proceed until you don't feel like it's producing any value or the user becomes very frustrated.

- ☐ Ask the user to see what events are upcoming in their calendar.
- ☐ Allow the user to proceed until you don't feel like it's producing any value or the user becomes very frustrated.

Okay, thanks for that. We'll move on to the next design.

### *Repeat steps for other designs*

To finish off it would be excellent if we could ask you a few final questions

- Which application was your favorite and why?
- Which application did you think looked the best?
- Which application did you find easiest to use?
- What was your favorite feature overall and why?

Thanks, that was very helpful.

If you'll excuse me for a minute, I'm just going to see if the people on the team have any follow-up questions they'd like me to ask you.



- ☐ Check to see if the observers have any questions.
  - ☐ Ask the observers' question, then ask anything you want to follow up on.

Do you have any questions for me, now that we're done?

- ☐ Stop the screen recorder and save the file.
  - ☐ Thank them and escort them out.

## Changes Made to Prototypes for Testing

The previous low-fidelity prototypes were made using Proto.io and Balsamiq. They were created to be visual aids to demonstrate the navigation between the application's pages as well as the general layout for each individual page. For the user usability testing the fidelity were increased to include images, realistic data and realistic information. In addition, these prototypes were all converted to Proto.io so that they could be interactable. Since the usability testing would be conducted on an iPhone X, the prototypes made on Proto.io used Apple styled templates and components where possible. These changes were made so that we could gather as much information as possible from our user tests.

## Recruiting Plan & Screening

Three participants were recruited to partake in the usability testing. Each participant was observed during their interaction with three separate designs. The participants were recruited to match the 'local student' target user and had to meet the following criteria:

- Is between 20 and 25 years old.
- They are currently studying at a University or Polytechnic in their home city.
- They have a large social circle of close friends.
- They want to find events based on interests that are not shared in their friend group.

Local students were able to be scouted from the researcher's acquaintances; as they are also tertiary students that studied at the same university. Since fellow associates were involved, there were no issues of imposters.

## Screening Questions

How old are you?

*Answer must be valid between 20 and 25 years of age, inclusive.*

Which university are you studying at?

*They must be studying in an university or polytechnic within Christchurch.*

Are you an international or exchange student?

*Must answer no to match the target user.*

What are your hobbies?

*They must be able to say at least one hobby, otherwise they can not search for events which relate to their hobby.*

Have you attended any events that relate to your hobbies?

*They should be able to answer this question by listing some hobbies, it shows that they are aware of events that relate to their hobbies.*

How often do you plan or attend group events with your friends?

*Their response needs to imply that they do make plans that involve their friends.*

## Participant A

How old are you?	21
Which tertiary are you studying at?	University of Canterbury
Are you an international or exchange student?	No
What are your hobbies?	<ul style="list-style-type: none"><li>• Video games</li><li>• Board games</li><li>• Sleeping</li><li>• Hanging out with friends</li><li>• Baking</li></ul>
Have you attended any events that relate to your hobbies?	<ul style="list-style-type: none"><li>• LAN parties</li><li>• Board game events</li></ul>
How often do you plan or attend group events with your friends?	"[I] plan events about once a month, attend about three times a month depending on the month."

## Participant B

How old are you?	20
Which tertiary are you studying at?	University of Canterbury
Are you an international or exchange student?	No
What are your hobbies?	<ul style="list-style-type: none"> <li>• Video games</li> <li>• Yoga</li> <li>• Gym</li> </ul>
Have you attended any events that relate to your hobbies?	<ul style="list-style-type: none"> <li>• Yoga</li> </ul>
How often do you plan or attend group events with your friends?	"Around monthly. Most of the of the events I have been attending recently have been for yoga and I do that alone."

## Participant C

How old are you?	21
Which tertiary are you studying at?	University of Canterbury
Are you an international or exchange student?	No
What are your hobbies?	<ul style="list-style-type: none"> <li>• Board games</li> <li>• Reading books</li> <li>• Programming</li> <li>• Sewing</li> <li>• Crafts</li> </ul>
Have you attended any events that relate to your hobbies?	<ul style="list-style-type: none"> <li>• Armageddon</li> <li>• Craft fairs</li> </ul>
How often do you plan or attend group events with your friends?	"All of the events I attend are with friends. I attend events at least once a month, don't generally plan events."

## Interview Schedule

The testing site was located at Erskine 240, University of Canterbury, and was equipped with a projector. Due to limitations in resources, a test with an observation room and recording equipment was not able to be procured. Unfortunately, the tester, moderator and observers had to be located within the same room.

Proto.io has an iOS and Android companion application which allows the users to interact with the prototypes on a mobile device. The participants interacted with the prototypes on an iPhone X, using the Apple Proto.io application. The screen was also recorded using the phone's built in recording software for future reference. The testers were asked to sign a consent form prior to the start of the tests. The observers viewed a projection of the mobile device screen and took notes.

**Mediator:** Andrew Spearman

**Observers:** Braden Alsford, Matt Belworthy, Patrick Ma, Eoghan Roberts

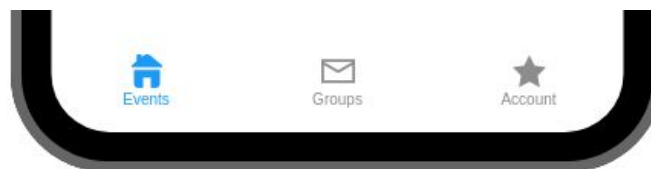
**Testers:** Jack Hay, Maree Palmer, Alanna Reid

	Monday, 8/10/2018	Tuesday, 9/10/2018
10:00 - 11:00		
11:00 - 12:00	Dry Run	Usability Test: Maree Palmer
12:00 - 13:00		Usability Test: Jack Hay
13:00 - 14:00	Pilot Test	Usability Test: Alanna Reid
14:00 - 15:00		Debrief
15:00 - 16:00		

# Research Findings

## General Findings

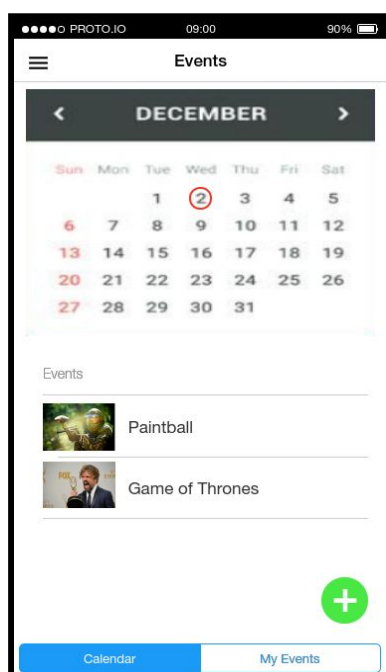
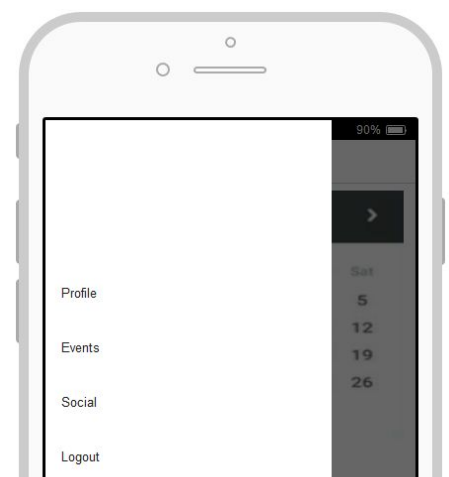
- In two of the prototypes, a navigation pane at the bottom of the application was the primary means for users to navigate their way around the application. It was discovered that the navigation bar, as shown in the figure below, was an intuitive component to use within the application. This could have been due to the all our test users primarily being Android users and the navigation bar is the recommended navigational tool to use within Android applications.



- The term 'subscribe' within our application was meant to indicate a user showing interest with in event. After having shown their interest, they would have easily been able to navigate to the event and be notified of changes to the event description. Two users found the terminology to be confusing and distracted them from the completion of their task. It incorrectly conveyed the impression the user would receive email notifications. This feature was dropped in the final prototype. Users can either be "Attending" or "Not Attending" an event.

## Specific Findings for Design A

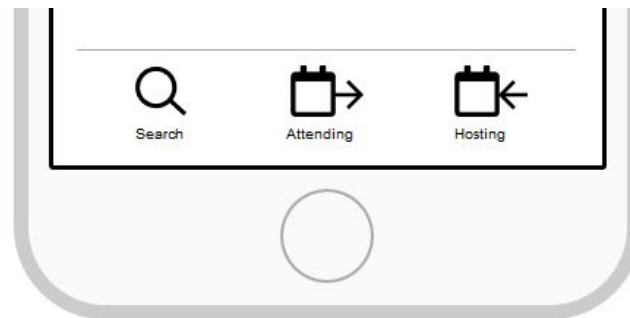
- The menus shown in the navigation bar failed to provide the information 'scent' that would have directed users to the group page. This was because the tab was called "Social" instead of "Groups".



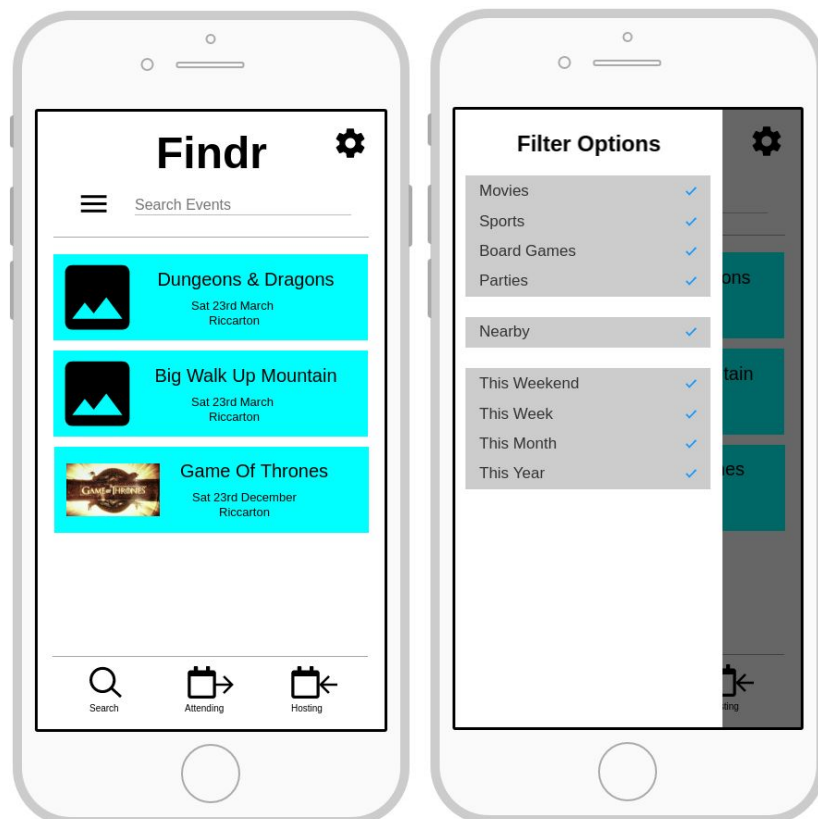
- The calendar was ambiguous as to how the shown events were associated with the user. Users were unsure if these were recommended events or events they have previously shown interest in. This was most likely due to a second page explicitly being titled "My Events" despite both pages showing the user's events in different formats. However, it was clear that these events were associated with the circled date on the calendar.

## Specific Findings for Design B

- This design had a much better indication and differentiation between the upcoming events a user is attending and the events they are hosting. This was because there were separate pages shown in the navigation bar that were constantly visible.



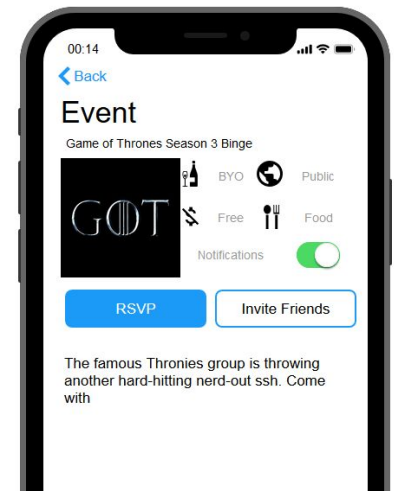
- Multiple users clicked the filter icon instead of the settings icon when attempting to edit their profile. This was potentially due to the hamburger icon used. It typically signifies a side-menu, not filtering options. However, once understood users found the filtering functionality to be very useful. With a more appropriate icon, this filtering menu was included in the final design. This can be seen below.



- Users also found it difficult to find their current groups as it was hidden beneath many layers of navigation.

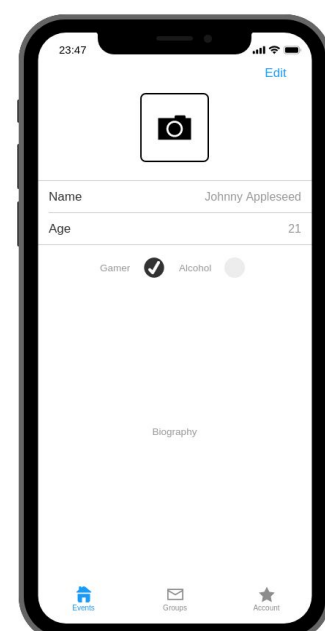
## Specific Findings for Design C

- The inconsistency of font size for the event title was found to be distracting to users. Users expected that the font size for an event title should have been larger. This can be seen in the image to the left.



- Users found the events page did not provide enough information about individual events. Users were unsure whether the displayed events were recommended events or those they have already marked as interested.
- There was no time or date information when viewing an event. All users felt that this information should be provided.

- All users, when editing their profile, attempted to tap each profile attribute to edit them, and took a significant amount of time to find the "Edit" button at the top of the screen. This was likely due to the fact that the attributes were displayed in a way that made them appear editable. To correct this, when in read-only mode we changed the components to avoid signifying editable text. For example, text fields were replaced with labels.



# Conceptual Model

## Overall Purpose and High Level Functionality






The overall purpose of the application was to provide a platform for event hosts and attendees to:

- Search for events based on categories and searching by keywords in the event title and event description.
- Organize, create, and edit events.
- Create and edit a personal profile.
- Create and manage a friend group.
- Share calendar availability on a group timetable.

## Major Concepts and Vocabulary

- **Friend:** A friend is any registered user within the system. The intention was to be coy with the terminology and encourage social interaction.
- **Event:** A planned social occasion that has been registered into the system. This is used to spread information about a gathering consistently and efficiently.
- **Public Event:** An event which does not restrict who can register interest in attending. Anyone can view the public event's information.
- **Private Event:** An event which is only accessible to specific users of the system. These users are chosen by the host or can be invited by those already attending. Only these users of the system can view the event and its information.
- **Host:** The creator of the event is the event host. This host is associated with a singular profile within the system.
- **Attendee:** A person who has registered their attendance to an event.
- **Profile:** An overview of an attendee's details including name, profile picture, date of birth and biography.
- **Discover Feed:** A scrollable list of public events that have not reached maximum attendee capacity. These are specifically chosen as events that may interest the attendee viewing it which are available for them to attend. These recommended events are displayed by default. When the user searches, the displayed events in the "Discover Feed" are the search results.
- **Group:** A collection of users of the system that have mutually agreed to form a connection. This allows private events to be created where all individuals of the group will be invited as well as the comparison of each member's timetable.
- **Group Timetable:** A timetable showing the days when every member in a group is free. A group member is defined as free on a day if their synced calendar has no events on the given day.
- **Event Types:** Commonly used filters to help with identifying and searching of events. These include BYO, Free, Food, Public, and Private. Each of these must either be true or false for an event. An event cannot be both public and private.



- **BYO event:** A 'bring your own bottle' event. It is expressed by the  icon.
- **Free event:** An event that is free admission. It is expressed by the  icon.
- **Food event:** An event that provides food. It is expressed by the  icon.
- **Public event:** An event that open to public. It is expressed using the  icon.
- **Private event:** An event that is visible only to the people who are invited. It is expressed by the  icon. An event is assumed to be private if public is not checked on creation.

## Objects and Operations Analysis

Object	Attributes	Operations
Event	Category, event date, start time, end time, location, title, description, max attendees, event types, category	Create, update, delete, view details, mark attending, mark not interested, invite friends
Profile	Name, date of birth, third party timetable, profile picture, third party calendar	Edit details, view, sync with third party timetables, browse events
- Host		Create event, invite attendees
- Attendee		Invite friends to join an event
- Friend		Be invited to an event
Group	Members, title, description, upcoming events, group timetable	Manage group members, create event, update group information, see upcoming events
Discover feed	Recommended events, search results	Filter by category, filter by event type, search using keywords
Group Timetable	Common free days, current date, date, month, year	View days where everyone is available, view current date

# Conceptual Scenarios

## Edit Profile

Change my profile details

- Provide new name
- Provide new date of birth
- Provide new biography
- Provide new profile picture

Sync personal calendar

- Provide access to third party calendar

## Find an Event

Choose categories to filter by

- Choose 'Gaming' as a category
- Choose 'Movies' as a category
- Choose 'Sports' as a category
- Choose 'Outdoors' as a category
- Choose 'Other' as a category

Choose event type to filter by

- Choose 'BYO' as an event type
- Choose 'Food' as an event type
- Choose 'Free' as an event type

Provide input to search

- Provide input keywords for the search

Start search

Review search results

- Navigate through the events resulting from search

View detailed information about event

- View Event Types
- View event photo
- View event time
- View event date
- View event description
- View event location

## View Events I will Attend

Review previous events that I have marked as attending

- Navigate through the events

View detailed information about an event

- View Event Types
- View event photo
- View event time
- View event date
- View event description
- View event location

## Attend an Event

Navigate to event details

Register attendance

- Mark yourself as attending

## Invite a Friend

Navigate to event details

Invite friends

- Select friends to be invited
- Send invite

## Create an Event

Provide event details

- Provide event picture
- Type in event title
- Type in location
- Type in start and end time
- Select date
- Set max number of participants
- Set the category
- Set the event types
- Type in the description

Create the event

## Respond to an Event Invite

Review current pending event invitations

- Navigate through current invitations

Act on pending invitation

- View event associated with invitation
- Mark attendance

## Create a Group

Provide group information

- Input the group name
- Input the group description

Add members to the group

- Select friends to be invited

Create the group

## Create Group Event

Create event for group

- Provide event picture
- Type in event title
- Type in location
- Type in start and end time
- Select date
- Set max number of participants
- Set the category
- Set the event types
- Type in the description

Create an event

## Respond to a Group Invite

Review current pending group invitations

- Navigate through group invitations

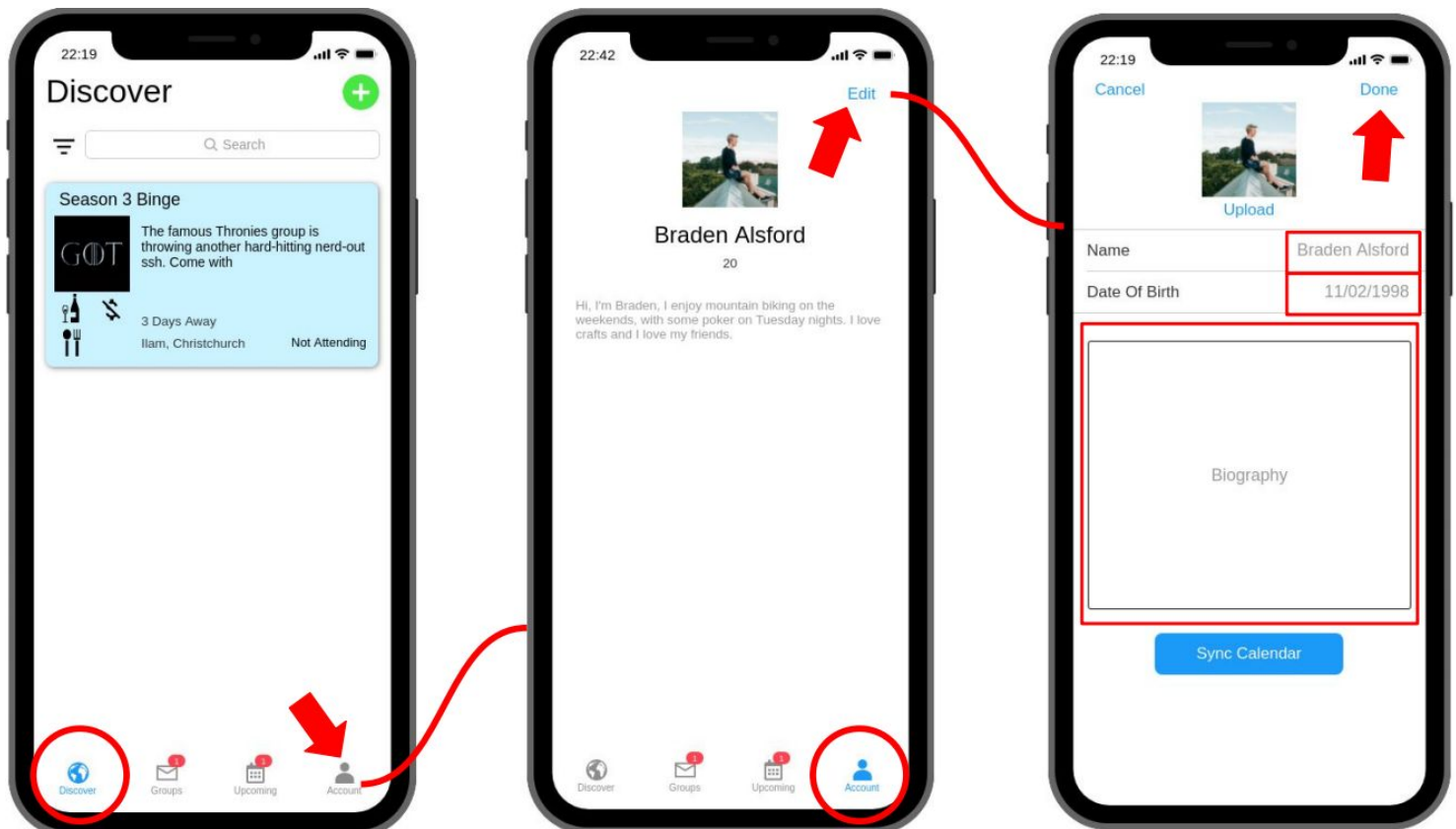
Act on pending invitation

- Accept invitation
- Decline invitation

# Final Design

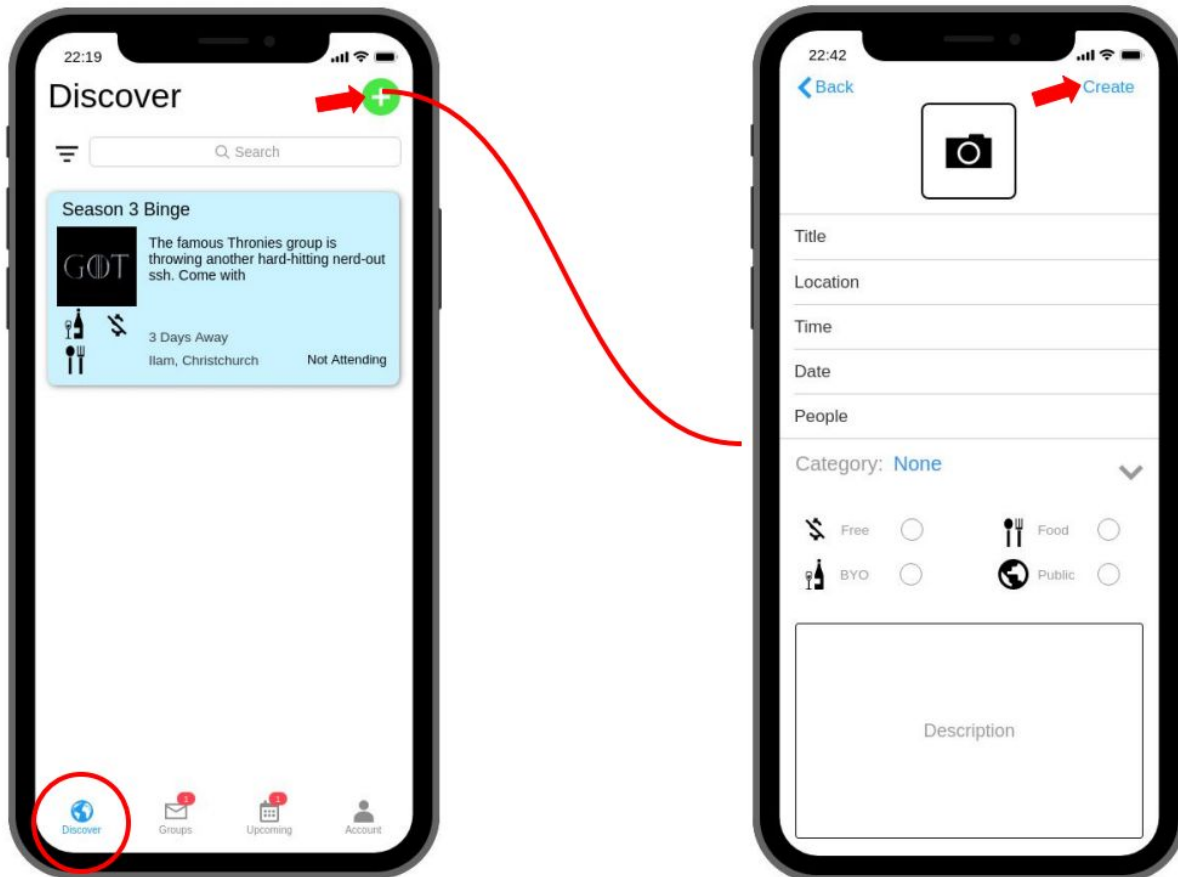
## Screens Supporting App Task Flows

### Edit Profile



Users can navigate to their account page using the bottom navigation bar. This shows an overview of their account displaying the user's name, age and a biography. By clicking on the 'Edit' button in the top right corner, it allows the user to edit their account information. Users can update their name, date of birth, biography as well as add their third party calendars for use with the group calendar feature. The account photo can also be updated by uploading a new picture. After all the changes have been made, users can click on the 'Done' button to finalize the changes or click on 'Cancel' to discard their changes.

## Create an Event

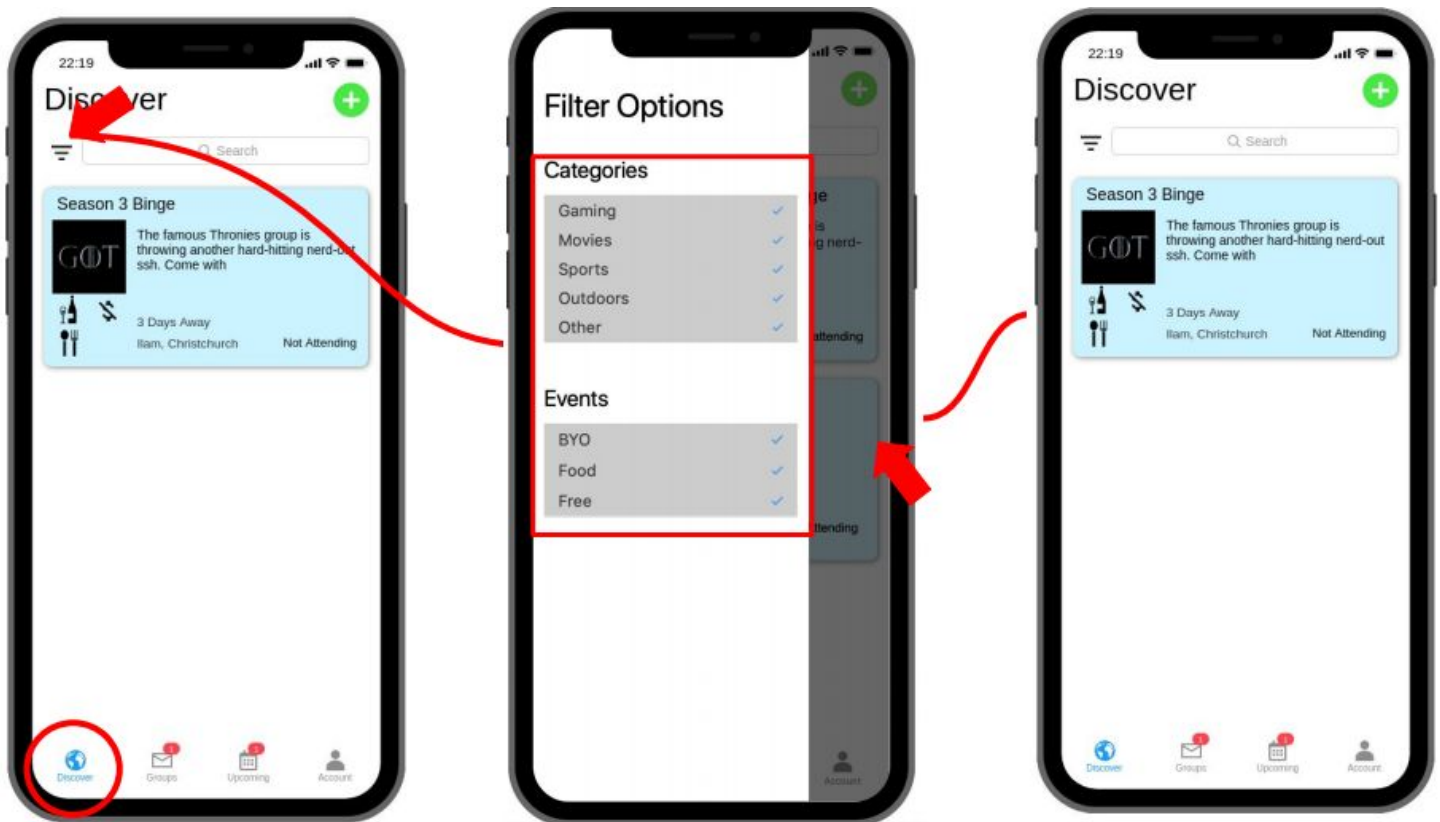


The first screen the user will see after logging into the application is the discover screen. This was set as the default to encourage our users to find new events and friends; pursuant to the company's mission statement to bring people together through events. Importantly, the large green plus icon is immediately noticeable and is clear in its purpose: to create an event for others to discover. It is large and a different color than all the other UI elements, and the "+" symbol signifies its function. Our user research indicated this was well designed from the beginning and thus we did not alter this for the final prototype.

The screen to create the event is a form layout with text fields and checkboxes. The "Create" button is in the same location as the green "+" button was to keep a consistent UI flow for the user i.e. continue pressing the top right corner to progress through the task flow. The list of event attributes such as title, location, public, etc. are clearly editable and that is conveyed to the user largely by the screen changing format to indicate the user is in a pseudo "create" mode. The back button is placed at the top near the "Create" button to show the binary choice the user has: create or exit; and is placed on the left to give the user a sense of flow from left to right as the user progresses through the task of creating an event. The back button also has a right overlay transition (the screen slides from left to right to feel as though it is moving toward the right) when pressed so that the user feels the regression when they press "back". In addition it provides feedback to the user that the action was undone.

Pressing “Create” brings the user to the Upcoming page again where the user will see the newly created event thus confirming to the user that the event was successfully created.

## Find an Event

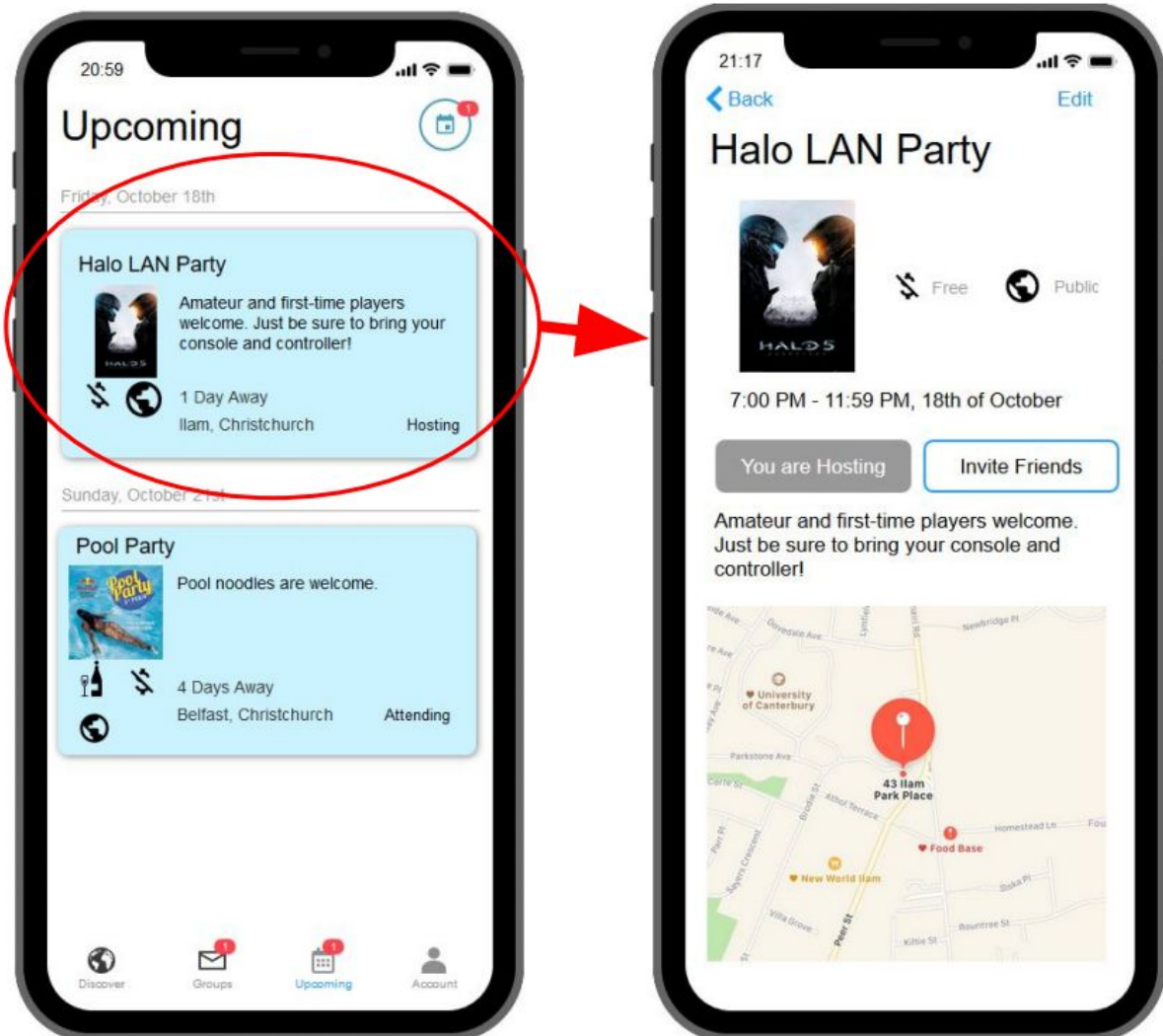


Events within the system have a number of categories and event types that they can be associated with. Users are able to tap on the filter button and choose which filters will be used when limiting the search results. Users can then search for matching keywords in event titles or event descriptions.

Then for each event, the results contain labels which displays the event title, description, starting day, location and the user's attendance status. Despite this information also being present in the detailed pages for each event, it was noted that during usability testing, users expected this information to be included.

The number of days remaining until the the event begins was chosen to be displayed instead of the start date of the event. The intention was to avoid the users needing to calculate the length period of time until the event starts, as well as to provide a more intuitive sense of time. The start date can be viewed in each event's individual page which shows the detailed event information. When the period of time until the event starts is greater than a month, the start date will be represented in a date format.

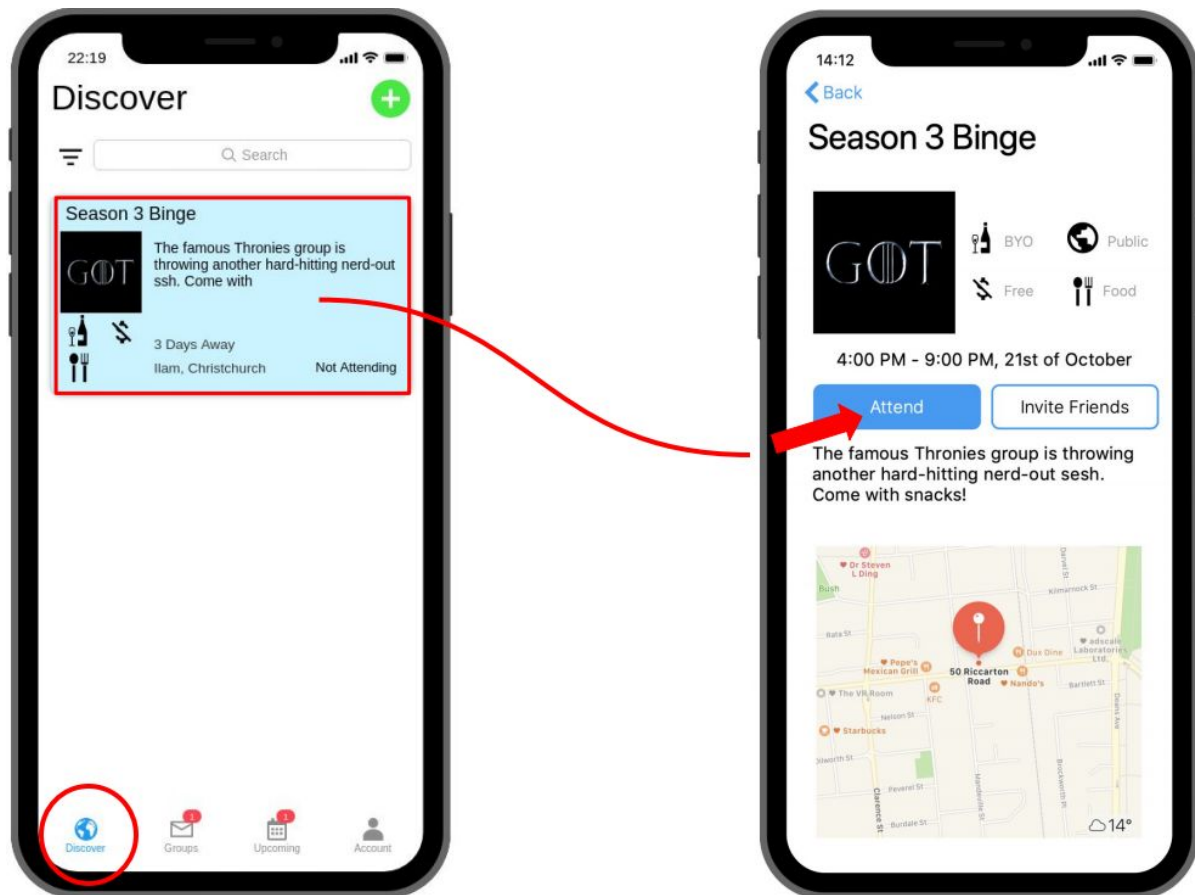
## View Events I Will Attend



On the upcoming page, accessible by the navigation bar on the bottom of the application, users are able to view all the events that they will participate in. This includes events that the user is either attending or hosting. This area within the system re-uses the same event summary to keep the application consistent and familiar. Similar to other areas within the application, users can view the detailed information about event by tapping on the event..



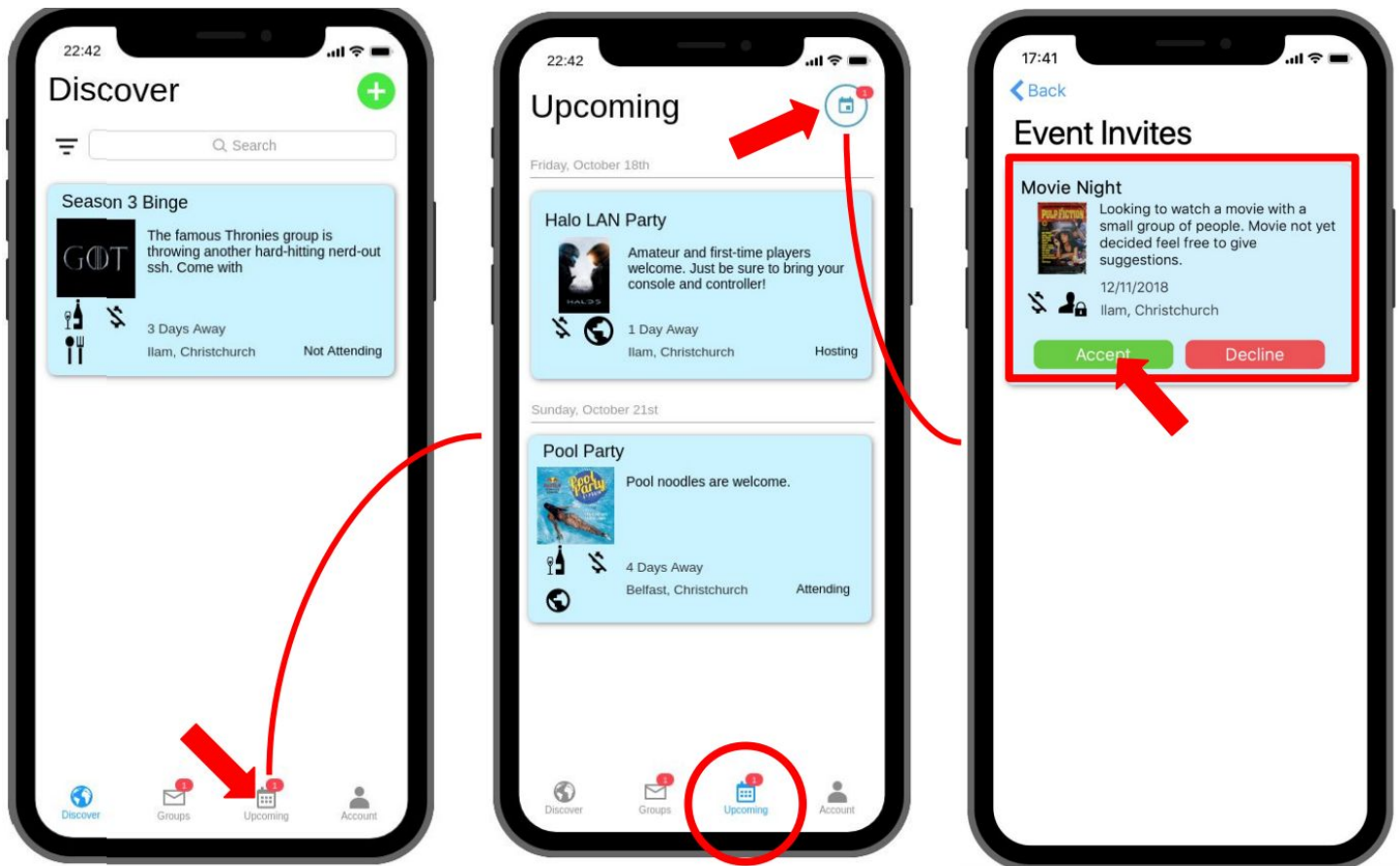
## Attend an Event



Clearly, attending an event is an important function that users must be able to complete easily. Our design is very clear in how users can attend events. Under the “Discover” tab, there are a list of events that are visible. From there any event can be tapped to view the event. Following, as a user would expect, a large button is present which invites the user to register themselves as attending.

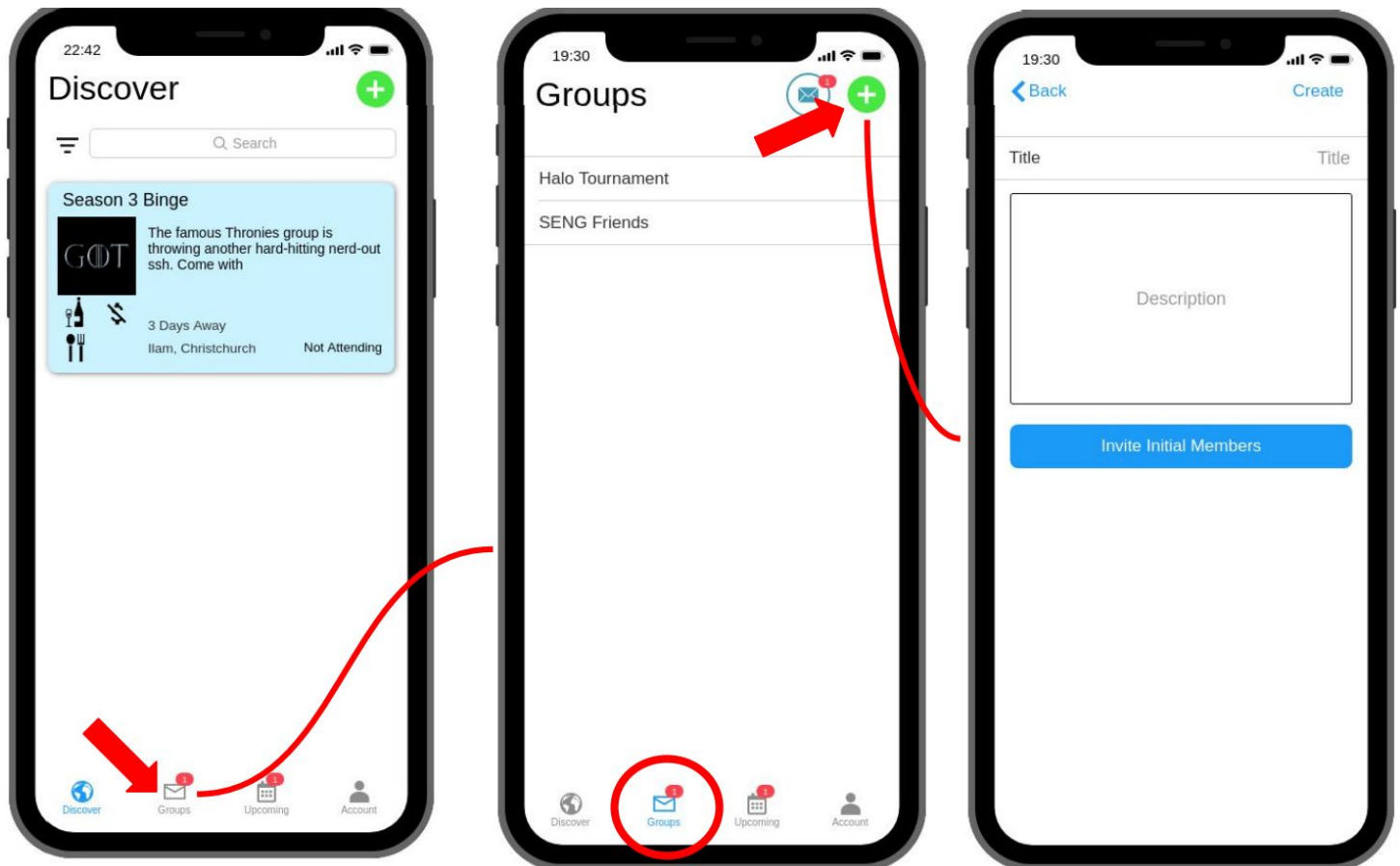
There were a few other design choices we made that affected this final design. Initially the button was labelled “RSVP”. We then added a label above the buttons which said “Status: Not Attending” to inform the user of the current state of the event with regards to them. This amount of information on the page became overwhelming to the users that participated in the usability tests. So we combined those two UI elements into a single “Attend” button (which changes to “Cancel Attendance” when already attending, to provide feedback to the user). This button signifies that the user is not attending when the button says “Attend”, thus making redundant the “Status: Not Attending” label. This helped reduce clutter on the interface to aid the user’s understanding of the event.

## Respond to an Event Invite



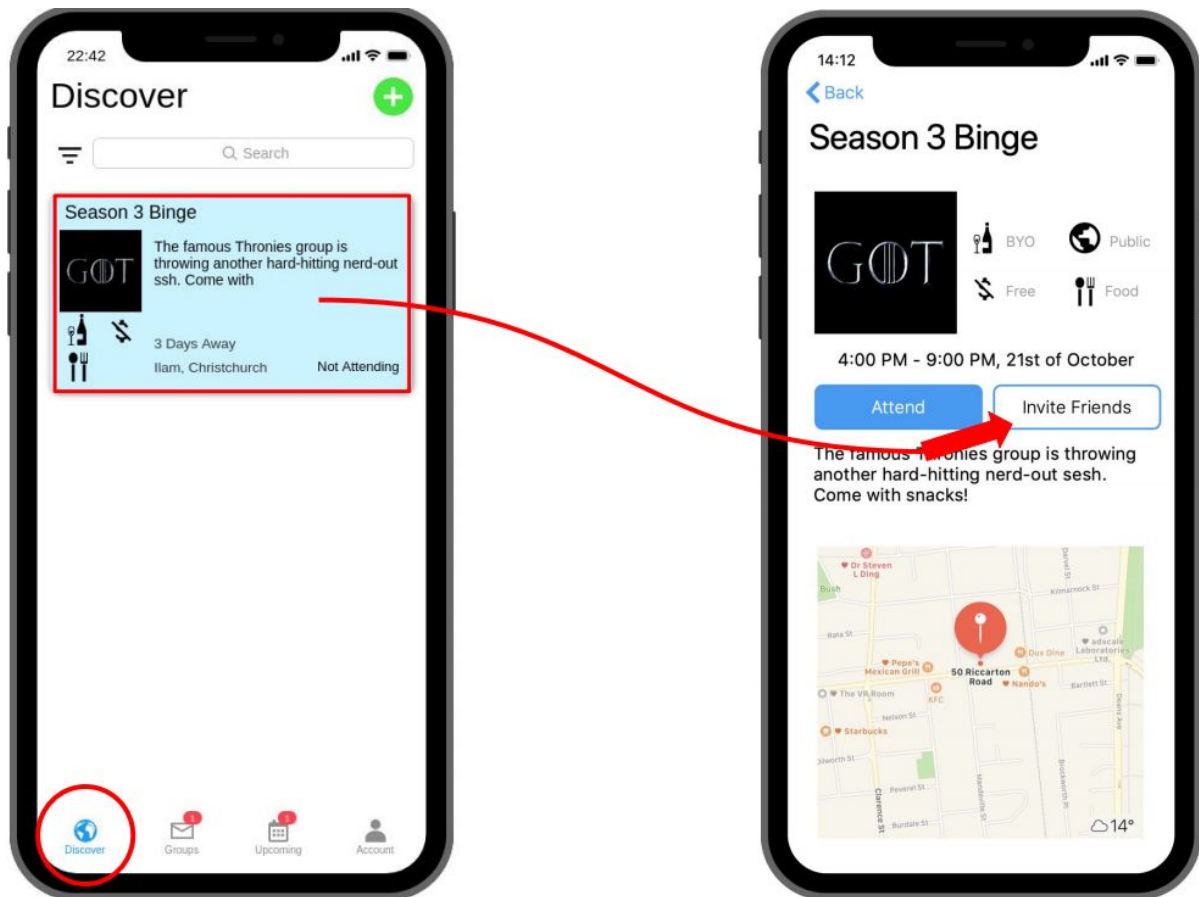
Users can be invited to events, so being able to respond to those requests is a necessary feature of the app. To do so, the user will go to the 'Upcoming' tab to view the events they are currently attending. Logically, events that a user may be attending in the future are shown in the inbox at the top of the screen (similar to the groups invites). Tapping on that will show a list of event invites that the user has not replied to. The user then has the option to accept or decline (or abstain by pressing the back button).

## Create a Group



Creating a group can be accomplished in three taps. To create a group a user has to navigate to the groups page. From there they can click the plus button to open the create group page. Here a user can enter the necessary details, while also inviting initial group members, and confirm creation by clicking create.

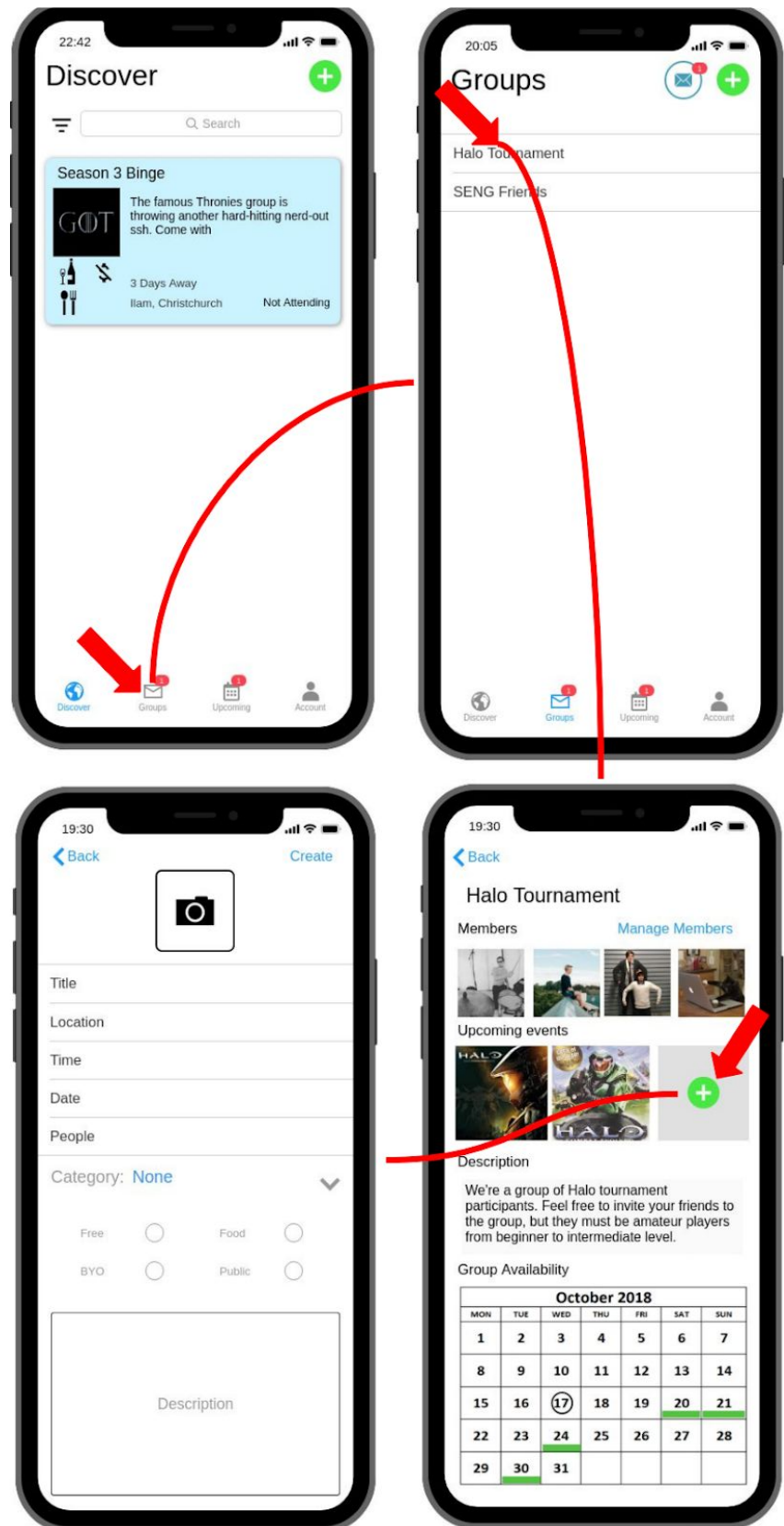
## Invite a Friend



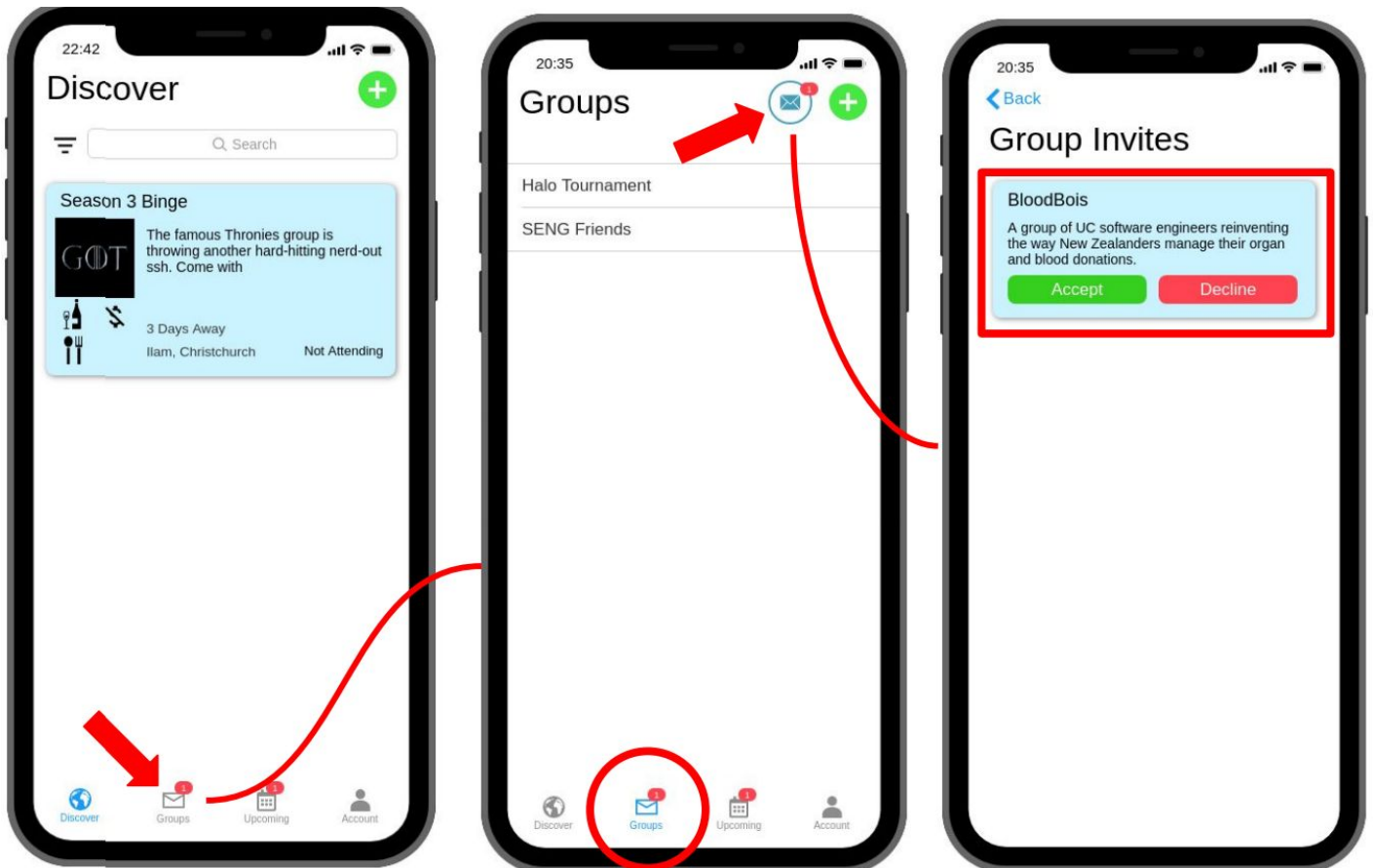
To invite a friend a user has to navigate to an event. From there they can click on the invite friends button to invite the friends they want to attend.

## Create Group Event

To create a group event a user must be a part of an existing group. The user can access the groups they are in on the group page. From there a user can choose the group that they want to create the event for. When they are on the group page they can click the plus button to create a new event. From here they create the event they want filling in all necessary details. They can confirm creation by clicking the create button.



## Respond to a Group Invite



To join a new group, a user must be invited by an existing member of said group. A user must then accept the invite to join the group. Users can access their group invites by firstly tapping on the groups pane and then tapping on the invites icon at the top right of the application. This follows the application flow where navigation is primarily done through the pane at the bottom of the application and subsequent actions are signified through their corresponding icons in the top right. This icon type and positioning was specifically commented on as being intuitive and logical by both participants A and B.

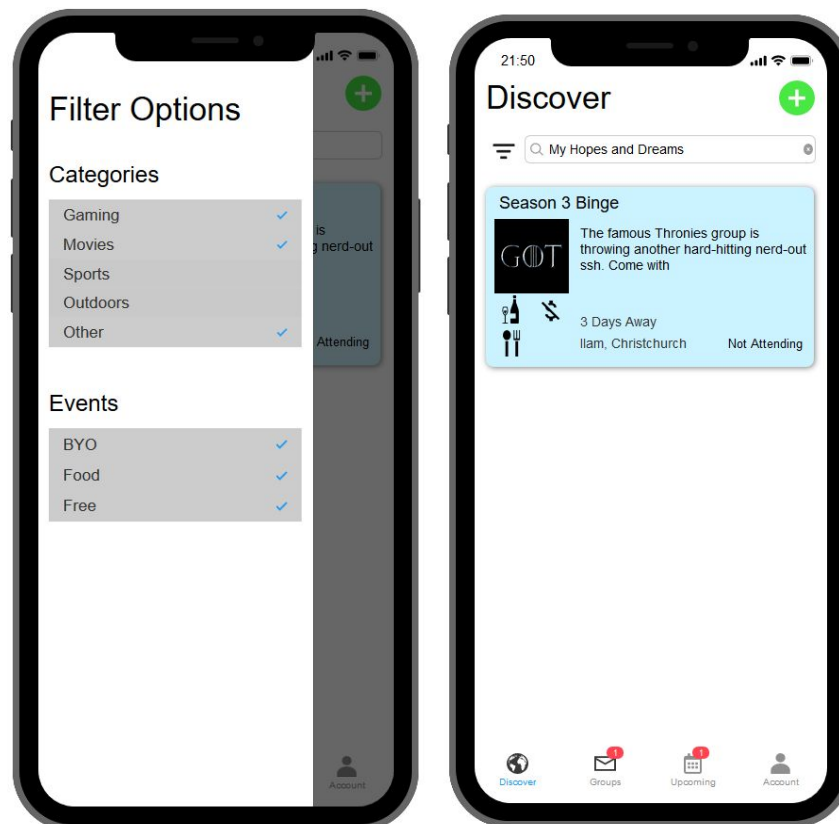
## Error Prevention and Handling

*Note: Due to the limitations of the prototyping software, there were event flows that were unable to be captured within the prototype. These changes will be described in the following section, but will not be evident within the live prototype.*

### General Information Input

For situations where the user is changing details about an event, group or their profile there is a chance where the user has entered technically valid information. However, this was not what they wanted to be saved. Users can recover by editing the details again and changing the incorrect information.

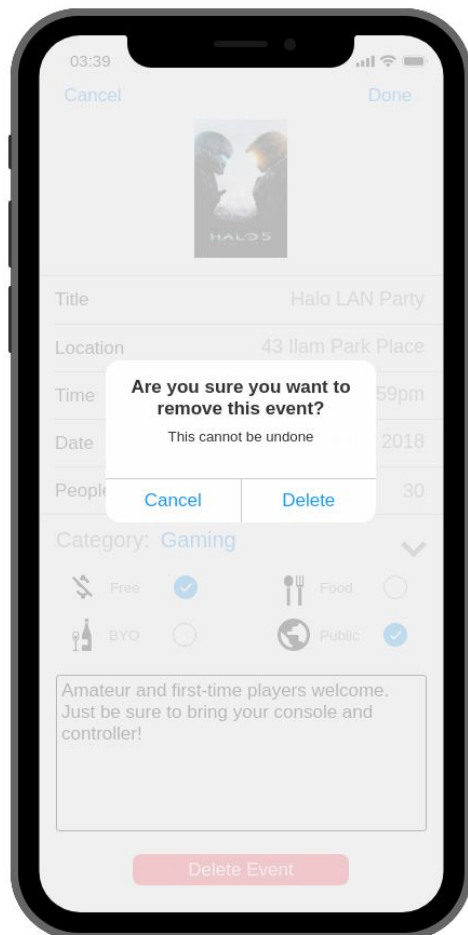
### Incorrect Searching



The filters and keywords used in a search will persist after the results are shown. This will prevent memory-lapse errors from occurring as users will be reminded of their search criteria. This will be particularly useful when the search results do not match with a user's intention and the user wants to revise their selected filters and entered keywords.



## Deleting an Event and Leaving Unsaved Work



If the host of an event clicks on the button to remove an event from the system, the user will be shown a pop-up. This can be seen to the left. If the user confirms this pop-up on accident, the user will be able to shake the device to undo this deletion, allowing the user to correct their mistake.

Similarly, when the user is partially through providing input for an event, profile or group and accidentally interacts with the 'Cancel' button the user will not lose any unfinished work. Instead, a similar pop-up will be displayed informing of their unsaved work. The user can then confirm or deny discarding their unsaved changes. The undo by shake feature is not associated with this error as users can re-enter the changes.

## Date and Time

Time	20:00	>
5	57	
6	58	
7	59	AM
8	00	PM
9	01	
10	02	
11	03	
October	9	2012
November	10	2013
December	11	2014
January	12	2015
February	13	2016
March	14	2017
April	15	2018

To prevent users from entering invalid dates and times a date picker component will be used to input its values. This would be similar to Apple inspired date and time pickers seen to the left. This will prevent non-numeric characters from being entered for the date as well as avoiding users from being confused with different time format standards. In addition, the date picker will only allow valid dates and times to be selected such as omitting past dates from being selected.



# Conclusion

This assignment offered an opportunity to gain first hand experience with usability testing and user-centered design. The most valuable lesson learnt was the importance of users throughout this process. After interviewing users as part of the usability study, we found a large number of flaws in the general design of our application that we as the designers had not anticipated. It was eye-opening to see our test participants easily identify several somewhat obvious usability problems in our designs.

After selecting the best design based on the user feedback, we compiled all our test findings into a list of improvements that needed to be made to the design. Following the usability study there was a list of features to update and change the corresponding user flow. Upon trying to implement these changes as a team we learnt our second important lesson that design is incredibly difficult to do simultaneously in a large team. It was quickly identified that the group tended to get caught up on trivial details. As a result, it was decided that design sessions would be broken up into sessions where one to two people could work together.

We were surprised to find that even with the extensive user research completed as part of assignment one our designs still had many issues. Many of these issues were discovered during usability testing. After taking the feedback from this onboard it was surprising how difficult it was to convert this into a design that was intuitive and functional while keeping the aesthetic of the application looking good.

In saying that, we are incredibly proud of the design we managed to create. We believe that it encapsulates all the user needs we uncovered from the first assignment while developing the user experience our users wanted from the usability study.

# Appendix

## Access to Interactive Prototype

Below is a link to the an interactable prototype hosted on Proto.io. This link will only be valid until approximately the 12th of November.

<https://pr.to/IDEUA1/>

## Contribution Form

Name	Contribution	Signature
Andrew Spearman	20%	
Braden Alsford	20%	
Eoghan Roberts	20%	
Matt Belworthy	20%	
Patrick Ma	20%	