Concepts and Early Prototypes for Rock Climbing Mobile Application

Jacob Boyk
CS 352 - Group 2
boykj@oregonstate.edu

Kira Corbett
CS 352 - Group 2
corbetki@oregonstate.edu

Michael Fagan
CS 352 - Group 2
faganmi@oregonstate.edu

Marji Symonds
CS 352 - Group 2
symondsm@oregonstate.edu

1. APPLICATION SUMMARY

Today, many rock climbers do not have up to date information for outdoor climbing sites. Most of this information comes in the form of books or word of mouth which is frequently out of date. Our mobile rock climbing application addresses this issue by providing our targeted audience of rock climbers (from the beginner to the competitor) accurate information about outdoor recreational climbing areas.

2. CONCEPT #1: Map Interface

2.1 Concept Summary

Concept 1 will focus on the use of a map interface to find routes. Users will enter a city or zip code to start their search.

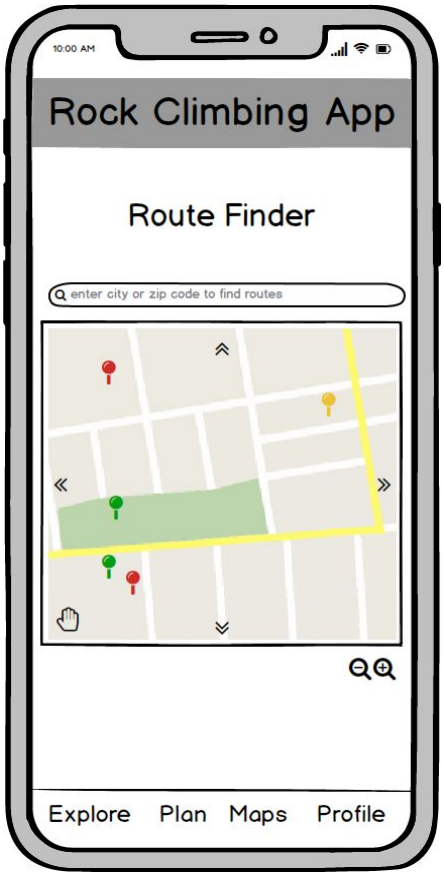
Once they are in the general area, they will be able to zoom in or out and drag the map to suit where they want to find routes. Routes will be represented as small icons on the map which will expand when selected to show the user more details.

2.2 Justification

Some of the climbers we spoke to reported wanting a map option for route finding. This method of route-finding is useful for when climbers are already in a certain area or if they know the general area of the route they want, but want more details.

The main goal of having a map view option for users is to allow for a quick visual overview of an area. Different route pins are different colors to give visual feedback on the difficulty of each route. The map is equipped with several features to make navigating the area intuitive. The search bar at the top of the page allows the user to input a zip code or city if they want to map search in an area they are not currently in - the map by default will show the user's current location. Arrows at each edge of the map allow the user to scooch the map in each direction. The hand icon allows the user to pan around the map in a way that will be familiar from most major map and direction apps. Finally, the zoom in and out icons will allow the user to focus on different size areas depending on how they prefer to look.

2.3 Sketches



3. CONCEPT #2: Lists

3.1 Concept Summary

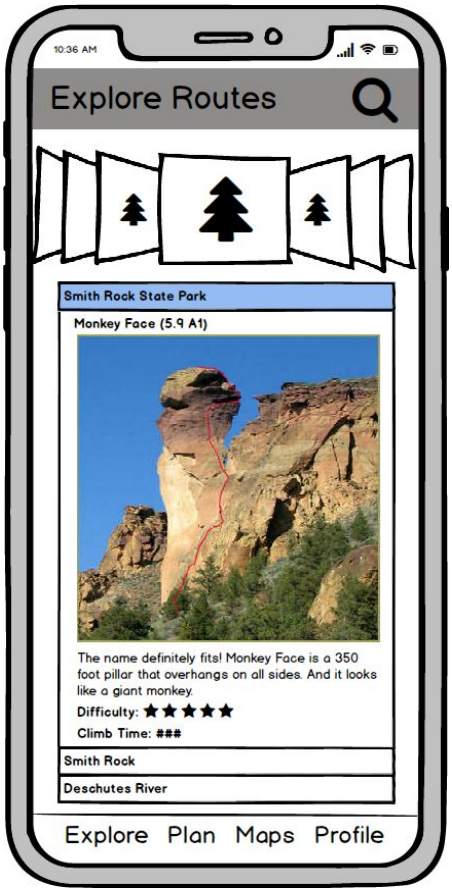
Concept two provides details to local climbing routes based on their location. Once a user has entered their location through their

city or zip code to start their search, they can view routes through the map interface (concept one) or lists.

Each list will provide a catalog of climbing options. They can then be filtered based on a user's search terms. Once they select an item from the list, the route will be populated with corresponding details such as a description, difficulty, approximations of climbing time, and climb level.

The menu on the bottom will provide access to other parts of the application, such as the map interface.

3.2 Sketches



3.3 Justification

Providing multiple ways of viewing climbing options is one contributing factor to the *list* concept. Some of our rock climbers interviewed stated that they preferred maps whereas others preferred their cellular device. The *list* concept is one way to display route information in a familiar form to a user.

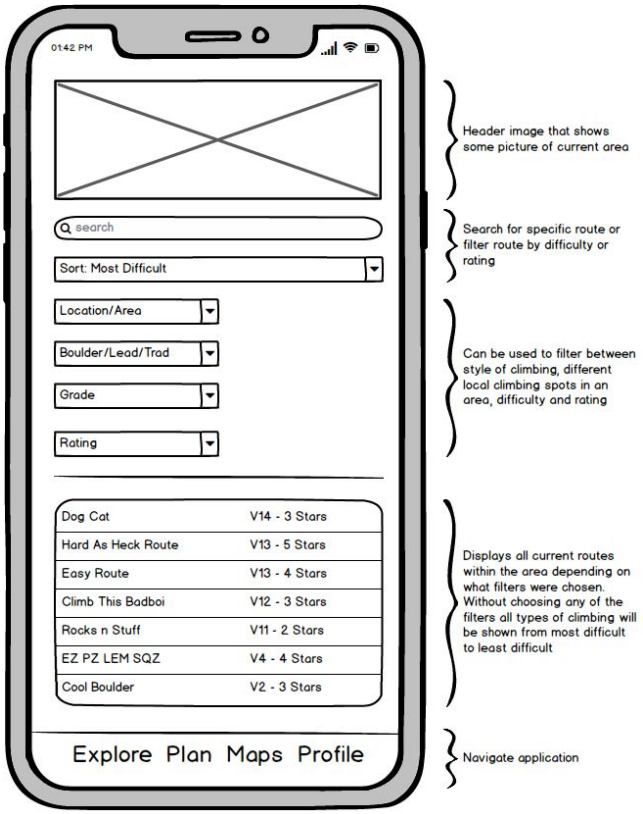
The main goal of having a listview is to provide additional details that you would not see in other parts of the application. For example, you may see "popular routes" featured on one part of the application or the locations of the routes featured on the map but you would not see all the corresponding content until selected. The listview provides access to corresponding content for each of the climbing routes.

4. CONCEPT #3: Filter & Explore

4.1 Concept Summary

Finding specific routes when heading to a local climbing area is important for both new and veteran climbers. These climbers might prefer easier routes to warm up on or harder routes to climb on for a while. There might also be different types of climbing in the same area, so a boulderer wouldn't want to be shown lead routes! That is why we are making an option with advanced filtering to allow users to find the exact route they know they're looking for.

4.2 Sketches



4.3 Justification

At the top of the page, the user can enter the name of a route if they already know it. Below, there are dropdowns to allow them to filter by the things that are important to their search. These filters are difficulty, location/area, route type, grade, and rating. The user is not required to enter all fields to search.

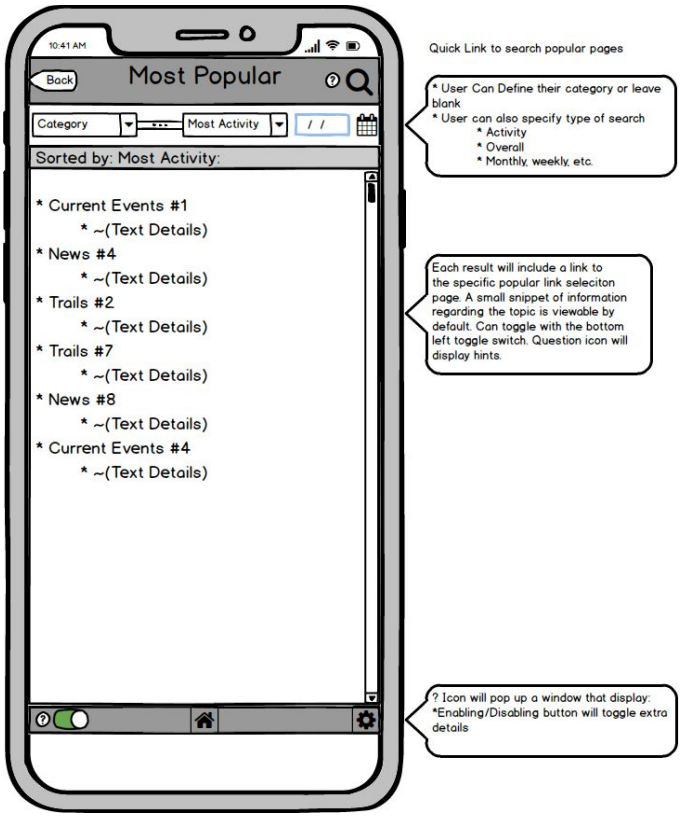
Climbers can use these features to easily access the information that the want after finding their way to the local climbing area. The list changes as filters are selected and will show the user the most desired climbing routes at the top!

5. CONCEPT #4: Find By Popularity

5.1 Concept Summary

The base most popular search page will offer the user multiple ways to sort their preferred data. The ability to choose a specific directory (like trails, news, current events, or leave blank) and refine further with specific tags like overall user activity within the month, week, etc. This will ensure a broader range of data that is more accessible to the user overall. Once user has directed beyond the base page, a home button will appear on the button cross bar and redirect back to the most popular index page when pressed. The back button is featured on all subpages and each post will display a date if applicable (below the search icon). Once the search has been completed, small snippets of data may be accessible via the small toggle button at the bottom left screen. An additional hint button ("?") is available to pop a tool-tip window up explaining button functionality. Will be enabled by default. Furthermore, the specific links themselves will link to subpages that displays the different panels with the respective data. User may also complete a general, broad search of *Most Popular* using the search icon at top-right of the display.

5.2 Sketches



5.3 Justification

We wanted to provide our user base with a simple, yet refined way to search through posts or events on our application based on varying levels of popularity.

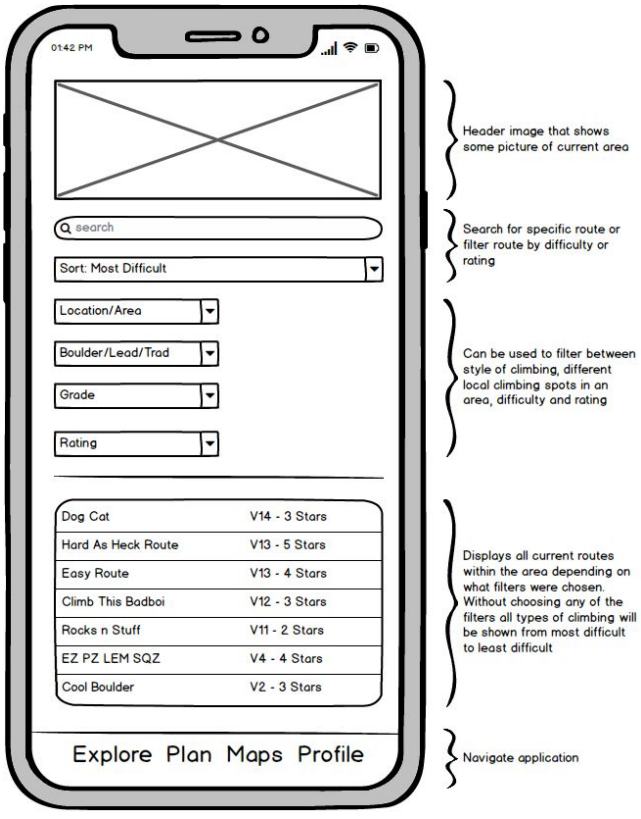
With the amount of trails and community based activities, it's easy to assume that posts will get overlooked or "lost" due to sheer volume of items. Implementing a search and filter method by most popular will provide each user with the ability to essentially backtrack throughout the *Most Popular* category with their own search parameters.

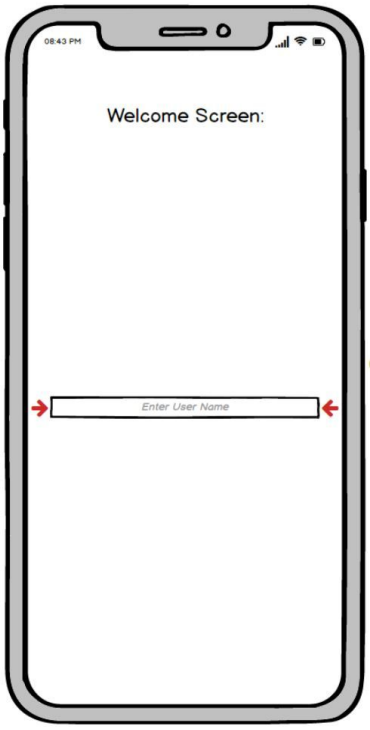
6. STORYBOARD CONCEPT #3: Filter and Explore

6.1 Summary

This storyboard shows the steps our users will take if they wanted to use filters to find a route using our app. The action goes from signing in to finding the route. It is a simple process by design based on survey feedback from our surveys.

6.2 Sketches

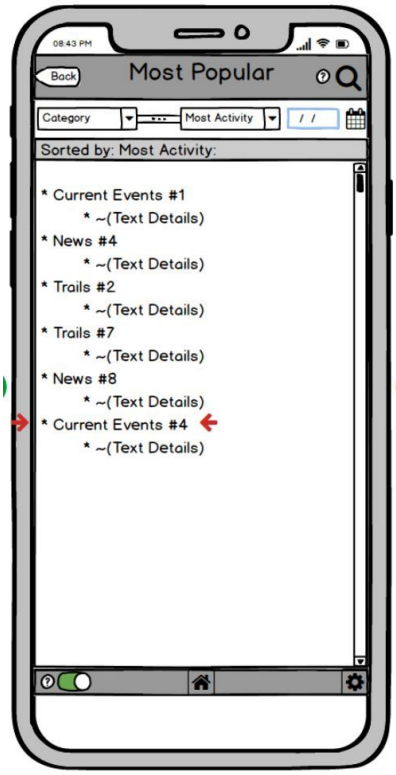




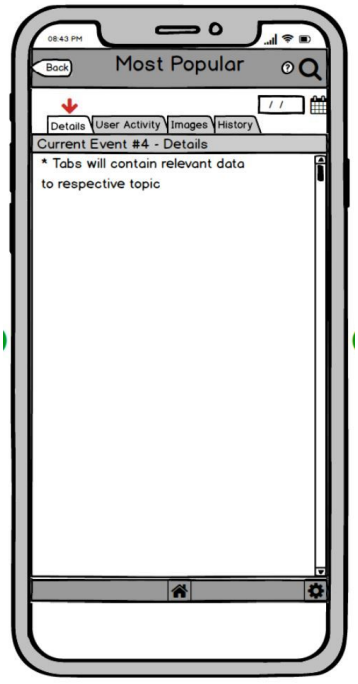
1. User will login then be redirected to home index page

The user will be provided a variety of options to navigate their outdoor rock climbing recreational areas. First, after logging on a user can view the most popular sites in their local area.

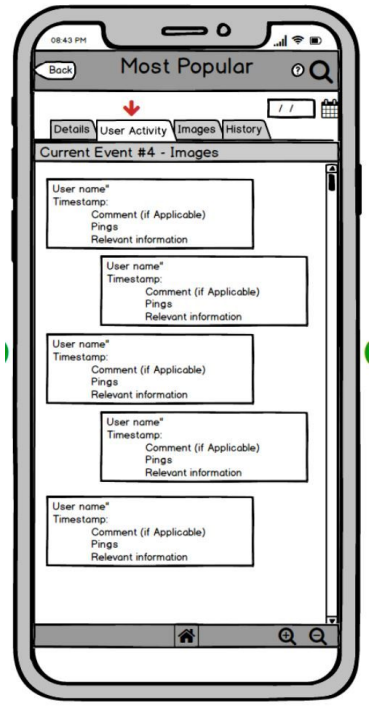
2. To find most popular:
User will direct to the Popular button at bottom left of home index



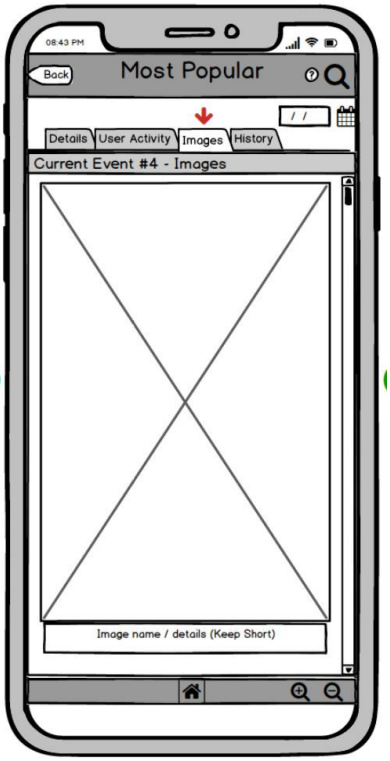
3. Selection of Post:
Each individual link will be viewable/interactable
Clicking will redirect to a sub page including relevant information



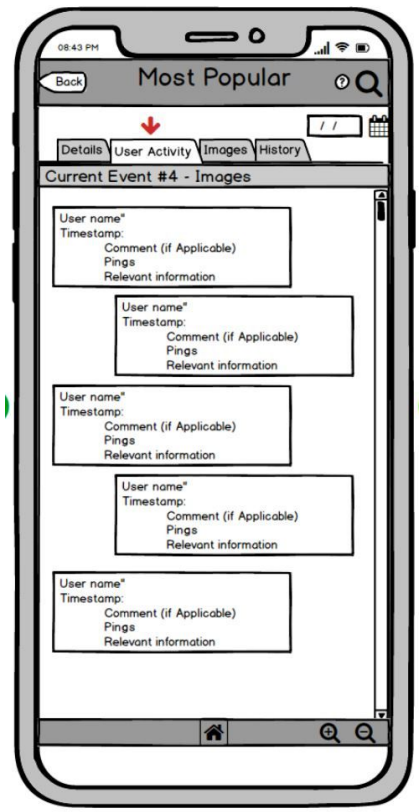
4. Subpage will contain panels with respective info on the category
Default is set to details



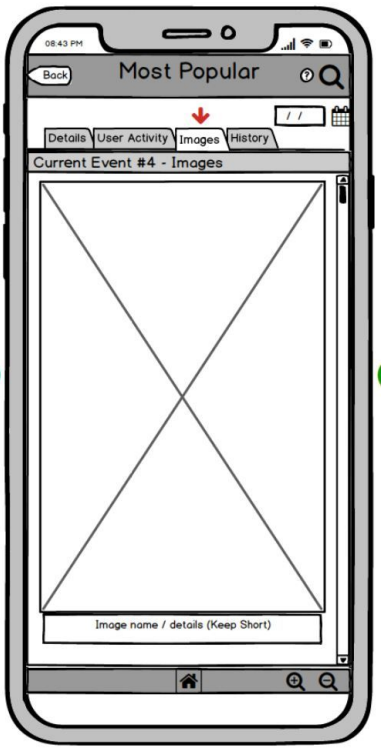
4. Subpage will contain panels with respective info on the category
Default is set to details



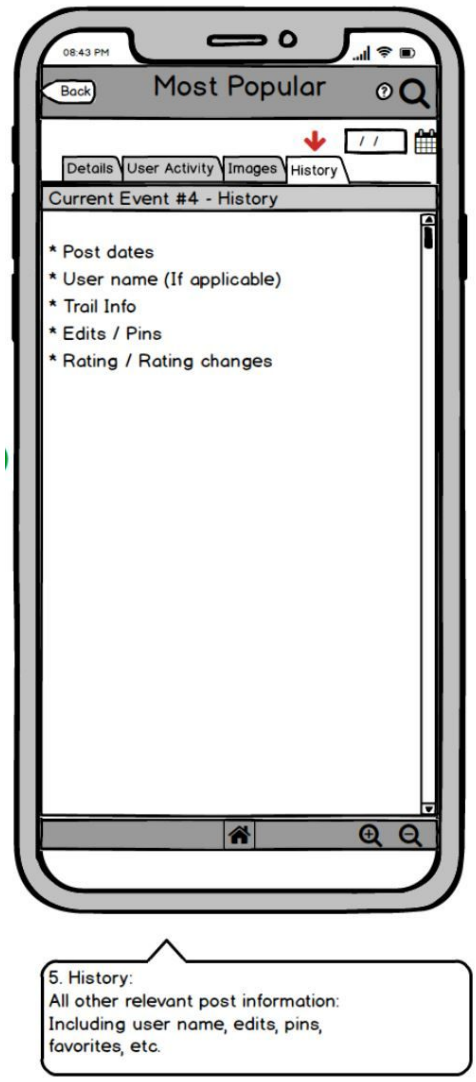
5. Images page:
Will display all images related

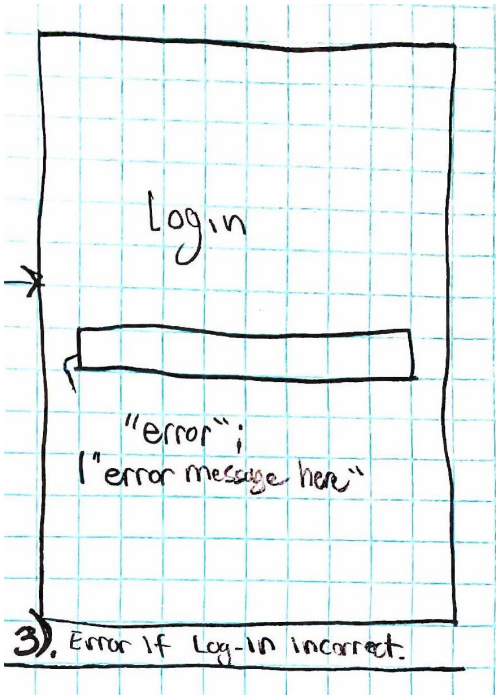


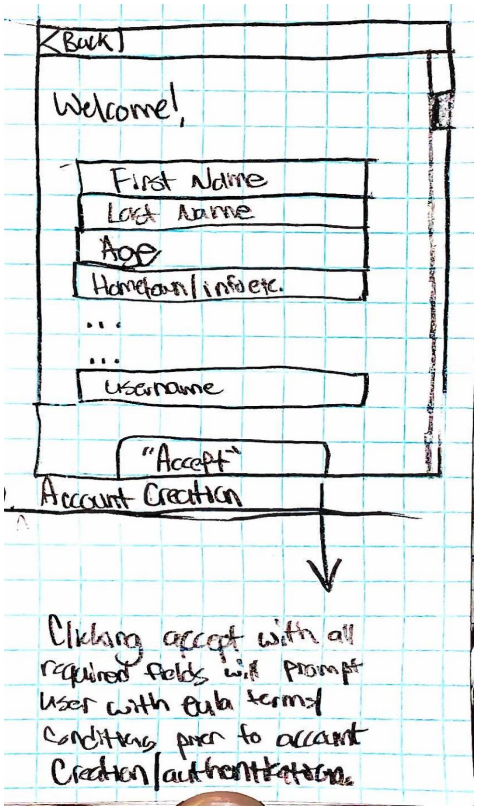
4. Subpage will contain panels with respective info on the category
Default is set to details



5. Images page:
Will display all images related

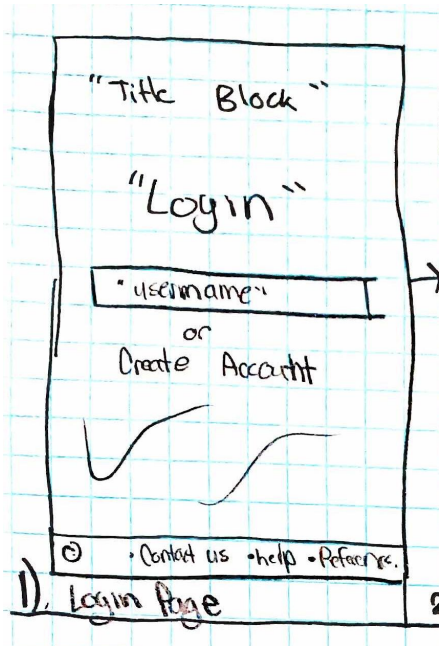


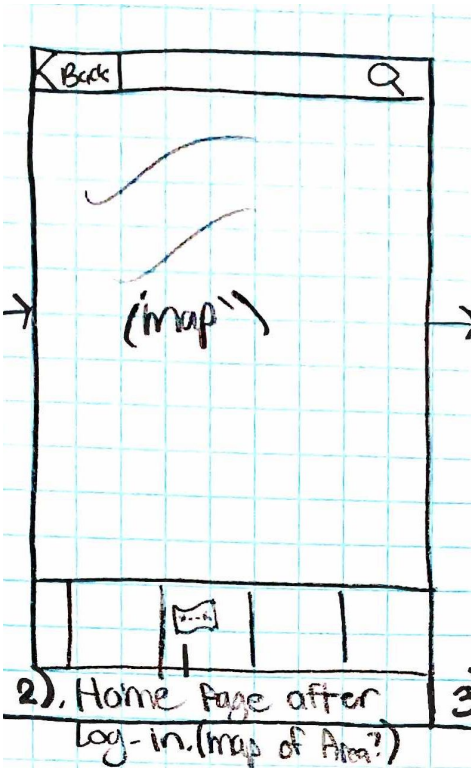


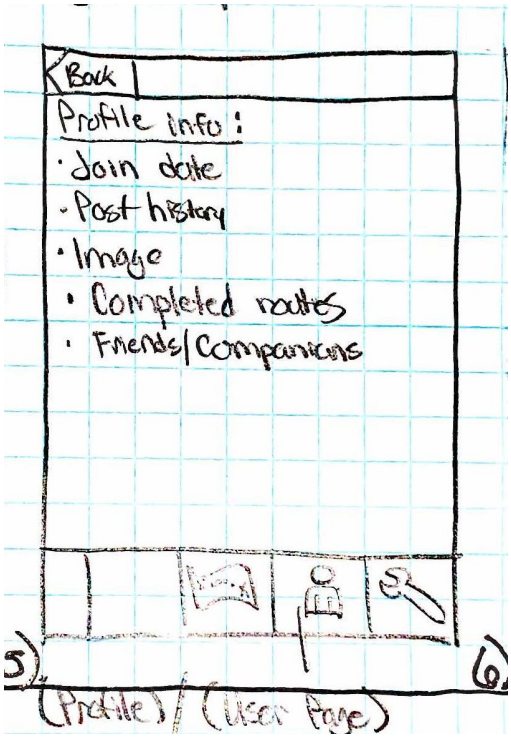


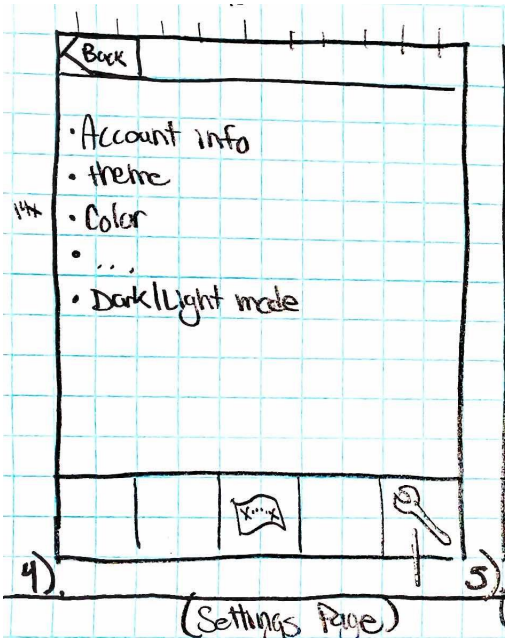
7. PROTOTYPE

7.1 Sketches

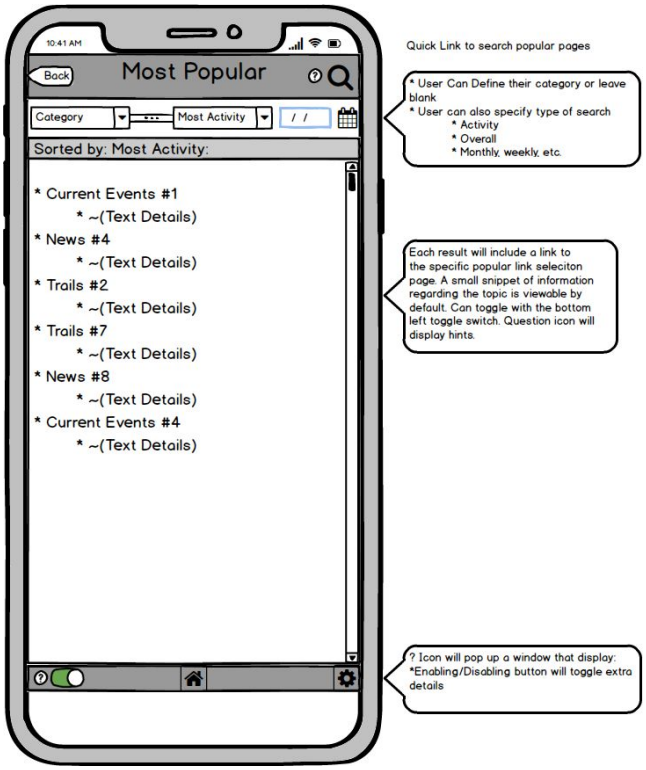


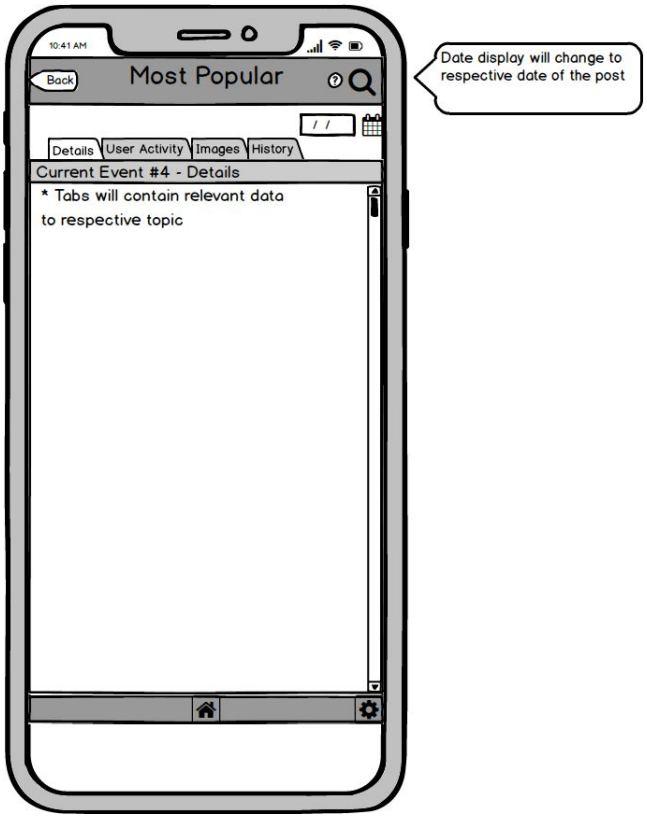


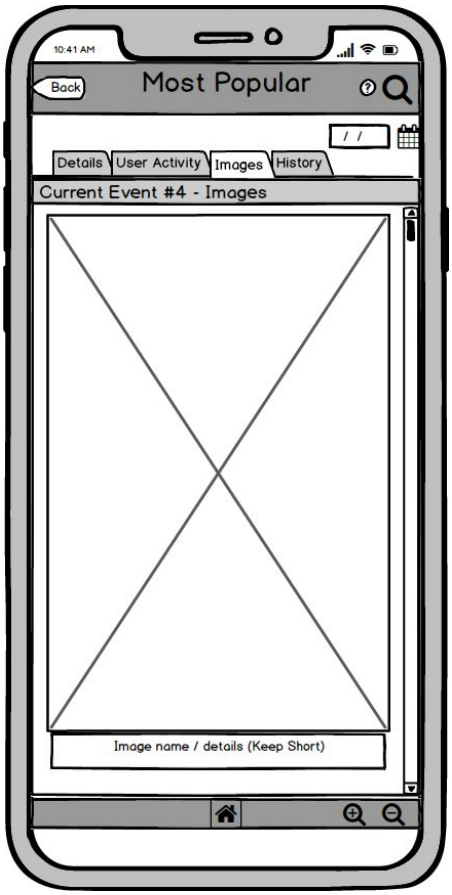


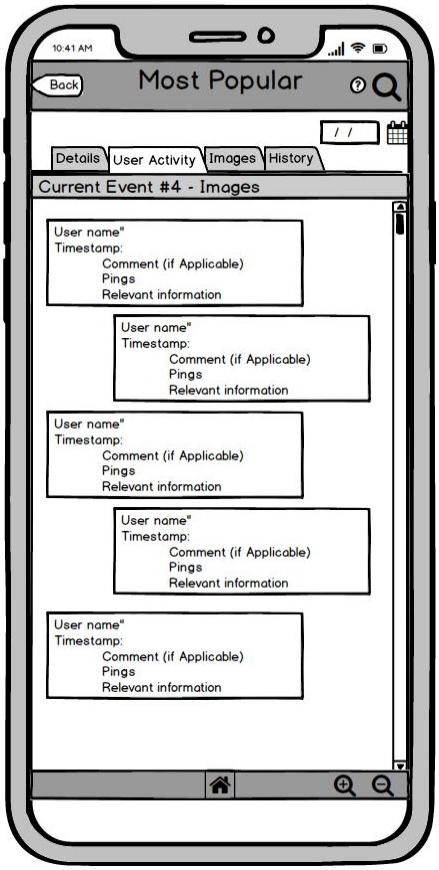


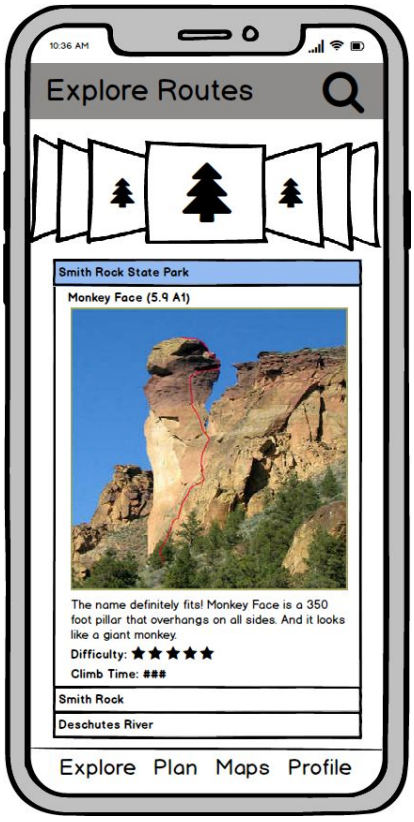
Balsamiq Prototypes:

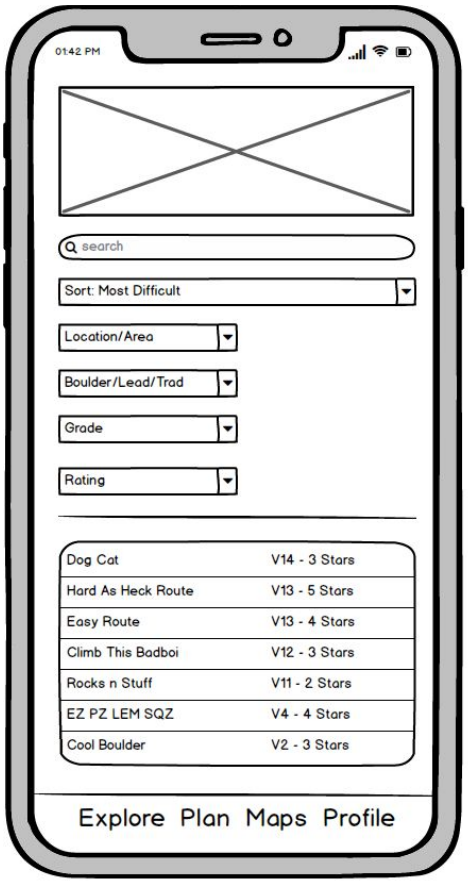


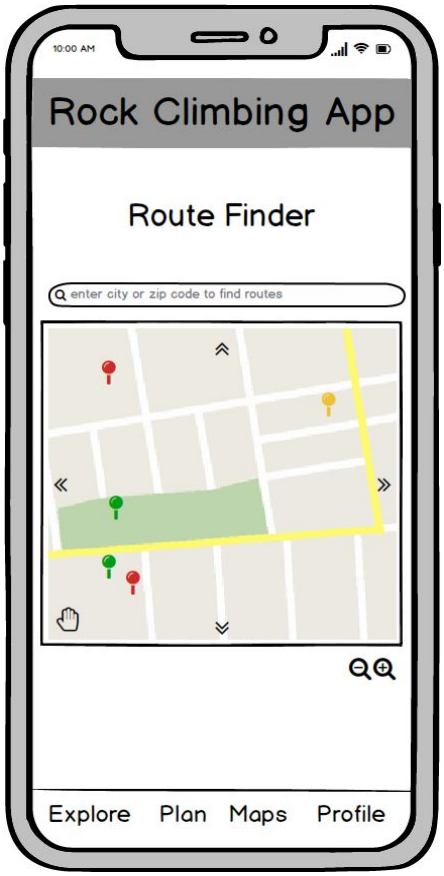

10:41 AM
Back
Most Popular
/ /
Details
User Activity
Images
History
Current Event #4 - Details
* Tabs will contain relevant data
to respective topic
Date display will change to respective date of the post


10:41 AM
Back
Most Popular
/ /
Details
User Activity
Images
History
Current Event #4 - Images
Image name / details (Keep Short)


10:41 AM
Back
Most Popular
/ /
Details
User Activity
Images
History
Current Event #4 - Images
User name"
Timestamp:
Comment (if Applicable)
Pings
Relevant information
User name"
Timestamp:
Comment (if Applicable)
Pings
Relevant information
User name"
Timestamp:
Comment (if Applicable)
Pings
Relevant information
User name"
Timestamp:
Comment (if Applicable)
Pings
Relevant information
User name"
Timestamp:
Comment (if Applicable)
Pings
Relevant information


10:36 AM
Explore Routes
Smith Rock State Park
Monkey Face (5.9 A1)
The name definitely fits! Monkey Face is a 350 foot pillar that overhangs on all sides. And it looks like a giant monkey.
Difficulty:
Climb Time: ###
Smith Rock
Deschutes River
Explore
Plan
Maps
Profile





7.2 Justifications

We decided to create login screens/profile screens because the climbers we interviewed indicated that saving favorite routes is an important feature. By allowing each user to have their own profile with save data, our app can effectively replace guide books while being portable and dynamic. By allowing the user to set the look and feel in their profile, thus increasing memorability.

Many of our screens are variations on searching for routes because that is the main function interviewees want. To that end, we allow searching by lists, by map, by filters, and by popularity. More specific justifications for each of these are listed under their respective sketches.

While we had more ideas of what we could add to the app as a group, interviewees didn't respond as positively to extra bells and whistles. At the end of the day, our target users are interested in using the app to find and keep track of routes, and then closing the app and climbing.

8. PARTICIPATION

8.1 Contributions

Each group member worked on their own concept. We knew we wanted to have a variety of ways to find routes to meet the needs of many climbers, so we each made a concept of a different way of finding routes. The result is a user experience that makes route-finding tailored to many different user types. We worked as a group together to make our storyboard and on designing the prototype. Jacob took the lead on actually sketching for the prototype. Kira kept the team organized and on task while Marji kept the documents tidy and formatted. Irish had valuable input for the content that is best suited for climbing enthusiasts.