Users:

[Primary Users]: Logan Williams,

1. Logan Williams: Mountain Biker and Outdoor Cinematographer
    a. works and recreates in the outdoors frequently
    b. uses gps maps like trailforks and fatmaps quite regularly
2. Austin Artichuk: Van lifer, full time outdoorsman.
    a. Austin works as an engineer part of the year and spends the rest of his days living in his van enjoying the outdoors. Frequents parks, campgrounds and ski areas as places to live/explore.
    b. Avid big mountain skier, spends time in the backcountry. Uses appslike trailforks, alltrails, avalanche canada, parks canada national app, etc. Also uses gps devices like garmin inReach.

[Secondary Users]: Jaiden Webster, Luca Boucher

1. Jaiden Webster: VOCO executive and VOCO event organizer / head of gearspace
    a. Recreates in the outdoors frequently
    b. Organizes outdoor recreational events for VOCO club
    c. In charge of renting out gear to VOCO members
        i. As a secondary user, could crowdsource user data from members and nonmembers in order to deduce conditions of trails / areas of interest for an event. Could also refer to what new gear to buy based on high-volume VOCO member areas of interest.
2. Luca Boucher: Silver Star Employee
    a. Recreates in the outdoors, mainly mountain biking and skiing
    b. Works as a Lift Operator for Silver Star in summers / winters
    c. Relays trail knowledge / condition to customers
        i. As a secondary user, could crowdsource user and employee data to generate weekly or even daily reports on all Silverstar trails. Could make generalized / silverstar verified reports on the mountain based on volume of reports (good or bad reports - rating feature).

Requirement gathering technique and rationale:

For our project, we gathered our user requirement data through semi-instructed interviews. Most questions were open-ended with qualitative or quantitative answers however we included a few close-ended questions for generic responses. Many open-ended questions also had follow up questions to probe for more detailed responses. We decided on a semi-structured interview over an instructed interview because many of the responses trailed off into more insightful discussions about mapping/reporting softwares. For example, the interview with Logan eventually dove into the reporting system in TrailForks and how its responses are generally outdated due to the lack of community presence on the app (could be related to its outdated design and paywall). Overall the types of responses our semi-instructed interview gave us much more insight into a user's previous experiences with mapping softwares than an instructed interview would.

Users' feedback (in bullet points):

Functional Requirements:

- Should be able to review reports in three or less steps
- Should be able to generate reports in four or less steps
    - Report Type (user selects a type), report desc / comments (desc not required, should have selection of comments based on report type), rating for condition (1-5)
- Should switch between maps in three or less steps
- User should be able to categorize reports shown on map two or less steps

Data / Resource Requirements:

- Having different types of maps (topography, satellite image, trail maps, etc.)
    - Referencing map API's like MapBox
    - Having a summer and winter mode that updates automatically based on the time of year
- Saving / Storing multiple reports on local system
- USE SQL database to store reports

Environment Requirements:

- Less computations to reduce power intake / Find a way to preserve phone power
- App updating recent reports once connected to the internet, saves recent reports until disconnection.
- TOUGH mode: restricts detailed features but makes app extremely simplistic so features won't take more than 2-3 steps
- Technical: Could have an implementation for smaller outdoor devices (like garmin watch, apple watch, etc.)

Usability Requirements:

- Easy way to remove a report incase accidental generation
- Intuitive task-bar design (accordance for taskbar logos) in order to make app navigation memorable / learnable

<u>Two scenarios:</u>

[Scenario 1]

Alex is a 31 year old who loves to hike, backpack and go for trail runs on his days off from his hectic work schedule. Alex struggles to find the time to read through bulletins and full trail reports, so he uses AFRITO to quickly check any current reports of the trails he was interested in doing. Alex loves that he doesn't have to scroll through pages of information, but instead can get the crucial reports he needs right before heading out, all from real users. For example, in the previous week Alex wanted to go for a hike on this specific route he had never done before. Upon checking AFRITO in the parking lot, he found that a few hours earlier another user had reported a newly fallen tree completely blocking the route. With this information Alex chose to hike another route. With bears active in a lot of the areas Alex spends time in, he likes that he can keep up to date on recent sightings through the real time user reports.

[Scenario 2]

Luca is 20 year old, full time lift-operator for Silver Star Mountain Resort in Vernon, BC. Throughout his days at work, Luca receives a lot of questions about trail conditions, his recommendations, and receives plenty of bear reports. Although Luca is able to respond to the best of his knowledge, his information may be outdated as he is not actively on the trails. Instead, Luca and his department could use our app to check or add real time updates. Not only will this make Luca's job easier, he will be providing more accurate recommendations and reports. Luca is also able to recommend our app to our resort users, so they are able to update trail conditions or report bear sightings in real time. Not only does this help the other users, it also provides valuable information to Luca, his coworkers, patrollers, and trail crew. Luca finds that a lot of the resort users are newer to the sport, so he feels that once they start venturing beyond the resort, they will feel safer and more comfortable with the information on our app.