Team Ate (8)

Scenario Summary: A map-based application that locates and guides users towards important places of interest such as restrooms, water fill-stations, hospitals, etc. The system revolves around the utilization of GPS as well as QR codes to identify locations.
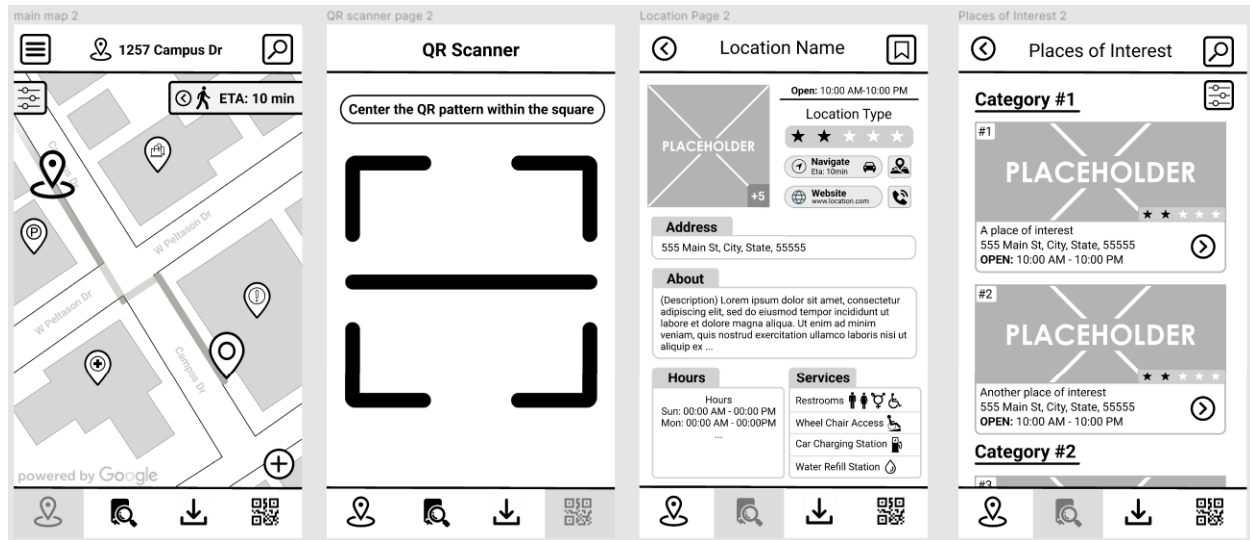
Travology

Members:

Alexa Wang

Michael Orlanes

David Chen

Tiffany Wu
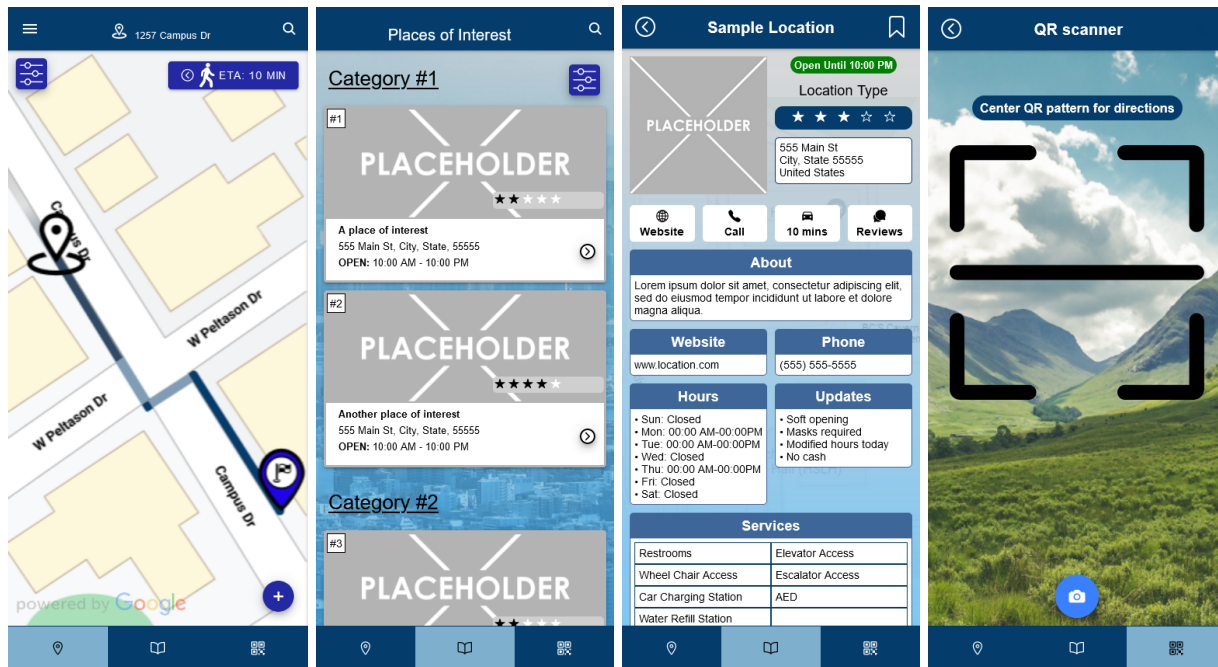

Date: 03/10/2022

Part 1: Medium Fidelity Prototype

- These were screenshots of our 2nd iteration, medium fidelity Figma prototype

1) First Page was the medium fidelity Main Map page where users could view their current location and navigate to destinations
2) Second Page was the medium fidelity QR Scanner page that allows users to scan QR codes for directions and location information
3) Third Page was the medium fidelity Information page where users could find specific details about a location and its services
4) Fourth Page was the medium fidelity Places of Interest page where users could browse, discover, and search for locations that may or may not be nearby

Summary of Feedback

- Feels very pedestrian-based and more simplistic compared to other apps like Google Maps
- This app has lots of info, takes things like Google Maps' accessibility and turns it up a notch with how visible it is
- QR scanner page is confusing: why is it there?
- "Places of interest" icon a bit confusing, looked too similar to a "search" feature with the magnifying glass
- The reason for the download bottom tab was a bit confusing–what are you downloading?
- Map filters should use square check marks instead of circular check marks

Part 2: Functional Prototype

- Old high-fidelity prototype using Ionic React (abandoned due to time constraints)

- Latest high-fidelity prototype using Figma

Full Figma Demo Link

Part 3: User Evaluation

Tasks

Pre Task 1
Summary: Filter by Parking
- From this map page, how would you only be able to see just parking locations?

Pre Task 2
Summary: Finding landmark information
- Can you demonstrate how you would find more information about one of the landmark icons on the map?

Pre Task 3
Summary: Finding new locations of interest
- From this map page, how would you go about discovering new locations around you?

Task 1
Summary: QR code, for event at Eagle Rock Recreation Center
1) You are walking down a street in Eagle Rock and you see a flier for a public speaking workshop at the Eagle Rock Recreation Center, but you do not know where that is nor the details of the event.
2) Using that QR code, could you demonstrate how you would think how to get there and if the event is a mask required or not.

Task 2
Summary: Downloads page

1) You are planning a trip to Mt Fuji in Subarshiri, Japan, but there is no cellular data available while in the mountains but you still want access maps for information such as the trail itself and nearby medical centers or lodges.
2) From the map page, how would you go about downloading these maps for this trip?

Task 2.25 (combined into Task 2)
Summary: Download page 2.0

1) Now that you're on this downloaded map page, please simulate drawing something and simulate adding your own landmarks, before saving map.

Task 2.75 (combined into Task 2)
Summary: Download page 2.0 once more

1) Without navigating to another page, how would you access your newly downloaded map?

Interview Results

Common Likes
- Banner/Card popups on main map
- Map download feature: convenience and uniqueness
- Intuitive and simple design, easy to read, colors organized
- Updates and upcoming events on detailed information page
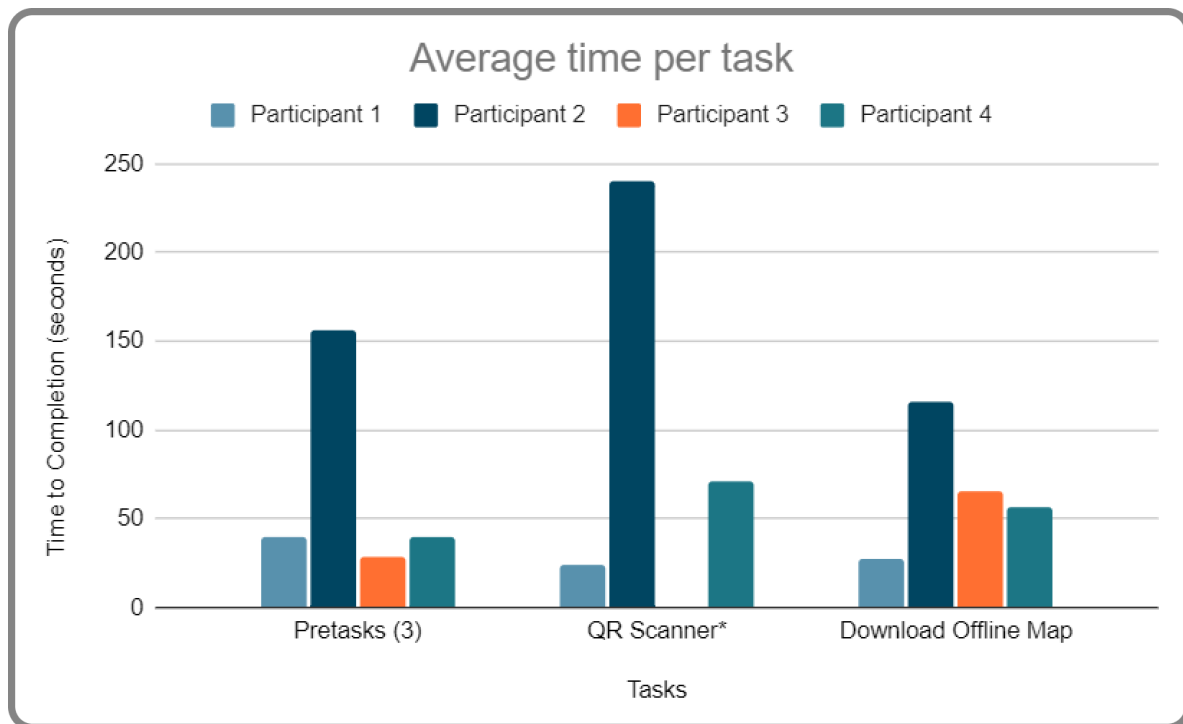
Common Dislikes
- Confusion about the QR page (initially)
- Lack of map functionality (due to Figma limitations): scrolling, zooming, satellite view
- Background map "was a bit distracting" for Information Page (text in the background)

Future Changes
- Remove/change card numbering system on Places of Interest Page
- Make Bookmark Page its own tab in the bottom nav bar
  - Make main map page the center button
- More variety of icons for downloaded maps
  - Ie: airports or other transportation modes
- Suggest icons for downloaded maps, based on name (AI)
  - Ie: suggest a hiking icon if name contains "trail"

Analysis of Results

Particpant Number	Age	Experience with Software Interfaces*	Pref. Web Browser, OS, mobile OS	Disposition	Familiarity with Tech**	Interest in Travel**	Familiarity with Travel**
1	21	Intermediate	Safari, Windows, iOS	Tired	7	8	6
2	20	Intermediate	Chrome, macOS, iOS	Tired	10	9	8
3	21	Advanced	Chrome, macOS, iOS	Excited	10	4	2
4	21	Novice	Chrome, Windows, iOS	Attentive	8	9	6

Average time per task

	Success Rate	Avg user error
Pretasks	100%	0
Task 1 (QR)	75%	2.25
Task 2 (Download)	100%	0

APPENDIX

High-Fidelity Interviews: raw notes

David

Demographic
- Age: 21
- Experience with software interfaces: intermediate
- Preferred web browser, computer operating system, and mobile operating system: Safari, Windows, iOS
- Recruiter (team member name): David
- Disposition: tired

Scale from 1-10
- Familiarity with technology: 7
- Interest in travel: 8
- Familiarity with travel: 6

Comments

Main map page:
- Menu not accessible, expect to be clickable
- Cannot zoom, looking at whats available
- Clicking on popup gives u lil preview
- Basic map
- Does its job, needs movement type
- Cant complain, it works
- What is the home screen, maybe better to put it in the middle of bottom bar

Location page:
- Info page formatting doesnt like, prefers one column versus two, picture should take up whole screen
- Larger action icons to be obvious or easier to tap
- Incorporate url into larger box to be more smooth, phone number to call icon
- Add drive button to address box
- Add reviews w rating stars, right underneath or next to it
- Hours up further on the screen, ppl "usually" look for hours/rating first
- Contact info and address should be below updates because more important
- About and services can stay at bottom
- Services may be better up, depending on targeted demographic ie disabled
- Recreation centers or events: maybe include age restrictions (into updates?)
- Picture nice as banner, maybe main picture as larger square and smaller ones are shown with it. Multiple shown at same time, especially for food bc diff dishes/options
- Make sure services match with place, ie good for groups or wifi available

- Rec centers: liked upcoming events and that ur gunna need masks, would also be nice to include more details about upcoming events. Perhaps in about section about what events they historically offer (community, charity, etc events) not much info on how someone can use it other that indoor/outdoor
- Likes added rates of parking structure
- Might also want to add if public access
- Nice to know any limitation, what does all day parking mean
- For shopping center, better to show a small sample of things it includes ie theatre, shops, etc
- Sometimes ppl are just looking for certain types of places
- About section shouldnt list specific stores, but should link to directory
- Bookmark tab isnt that intuitive, expecting on bottom nav bar

Map saving:
- Pencil icon doesnt feel right if its walking trail, maybe person icon
- Placement for mile markers are nice, likes knowing progress
- Info icon was good to know, helps plan and download accordingly

Results

Pre Task 1
Task completion results:
- Success

Errors:
- None

Time per task:
- 12.18 seconds

Notes from user reflection:
- Liked how clicking into parking flow from filter list to icon to lil banner to parking page
- Clicked into location page before saying done

Pre Task 2
Task completion results:
- Success

Errors:
- None

Time per task:
- 10.22 seconds

Notes from user reflection:
- Interesting to see the map in the background

Pre Task 3
Task completion results:
- Success

Errors:

- None

Time per task:
- 17.62 seconds

Notes from user reflection:
- Clicks into the location of interest tab and scroll to places that look interesting (like based on rating) and click into it

Task 1

Task completion results:
- Success

Errors:
- Clicked from qr code page back to main map to use filters to find eagle rock marker and page, used events filters
- Did not directly find the location from qr code page
- Qr code camera button did not seem to flow into plotting location on the map, MAYBE POOR CLICK HITBOX ?

Time per task:
- 23.70 seconds

Notes from user reflection:
- Knew how to get there anyways from exploring app earlier
- First thought process was to look for the name of location, not necessarily used qr code
- Knew it had to be nearby if it was on a flier

Task 2 (and rest)

Task completion results:
- Success

Errors:
- None

Time per task:
- 27.31 seconds

Notes from user reflection:
- Drawing trail and markers appear on saved map even when its not drawn
- Most recent downloads should be at top v chronological order, maybe allow for preference, reassuring to user that their download was successful if its at the top (ADD SUCCESS MESSAGE?)
- Have sorting option for downloaded maps
- Thought pencil icon wasnt drawing, but autorouting (maybe just how it appears hardcoded on figma)
- Thought mile markers were generated but just hardcoded in figma
- Because flow figma wasnt correct, thought drawings and markers were generated even though it wasnt done by user (maybe add popup saying you can customize your offline map)

Closing Questions

- Improvements:
  - Different overlaps for viewing map, satellite view for diff transportation modes, etc
  - Seeing map in background is cool, but distracts from seeing restaurants etc in location list, cleaner that way
  - Dont underline categories lol
- Liked:
  - Likes flow of icon to banner to location page
  - Eta button on location page actually shows directions
  - Directions on eta banner
- Things to add:
  - Add bookmarks to bottom tab, now 5 and can put main map page at center
  - Maybe move settings menu from main page to bookmarks bc both are personal? Having it at main page can still work but different icon like gear icon if just settings. Three lines could mean additional menus
- Stood out:
  - Liked how clean the icon sorting menu is on main map, Show Near Me, intuitive
  - Pin to banner to location page
  - Sorting of places of interest page, makes sense
- Other:
  - Qr code use doesnt seem widespread and it seems like its more geared towards students bc everyone else still using addresses

Tiffany

Demographic
- Age: 20
- Experience with software interfaces: intermediate
- Preferred web browser, computer operating system, and mobile operating system: Google Chrome, macOS, iOS
- Recruiter (team member name): Tiffany
- Disposition: tired, just woke up from a nap

Scale from 1-10
- Familiarity with technology: 10
- Interest in travel: 9
- Familiarity with travel: 8

Results

Pre Task 1
Task completion results:
- Success
Errors:
- None

Time per task:
- 6.87 seconds

Pre Task 2

Task completion results:
- Success

Errors:
- went to places of interest and scrolled all the way down, kinda went back to map and went back to places of interest before confirming

Time per task:
- 29.51 seconds

Notes from user:
- No obvious landmark
- Assume that any event occurring would happen in a famous place

Pre Task 3

Task completion results:
- Success

Errors:
- Would've wanted to use places of interest and go to filter.
- Was looking thru the places of interest and exploring search bar. Would've wanted to search for it.
- Now realize to click on all filters.

Time per task:
- 1:59.39

Notes from user reflection:
- Filter button not enabled on places of interest page was slightly irksome to them

Task 1

Task completion results:
- Success

Errors:
- went to places of interest to find eagle rock and looked at info originally
- Clicked on qr and saw the icons but didn't know they can click on it ("no icon to display that it is the end result cuz it blends in with everything else").
- Kinda stuck at 1:55.
- At 2:46 expressed frustration (they clicked on the icon but it wasn't showing up the card cuz the hitbox is smaller - aimed a little too high)
- at 3:19 mark noticed that a card appeared when clicking on the icon.
- Got the card clicked at 3:50.
-

Time per task:
- 4:00.73

Interviewer reflection:

- I think the way it was phrased since it mentions the location kinda compels participants to remember that it was seen in the "places of interest" so with that, just looked there first.
- Upon going back to use the QR page, they clicked around everywhere and a few times on the icon of the destination but the card wouldn't appear cuz they were slightly off

Task 2 (and rest)
Task completion results:
- Success

Errors:
- None

Time per task:
- 1:56.60 seconds

Notes from user reflection:
- Clicked on the pencil icon a few times confused (figma limitation)

Interviewer reflection
- Took a bit to find the downloads page cuz didn't occur to them it was to click on the tabs. Once that was found, everything else went by fairly quickly

Closing Questions
- Improvements:
    - Assuming map has full functionality (zoom in out and moving left right up down)
    - Places of interest page is a bit overwhelming. If it was longer than anything we got, it'll be overwhelming
    - Is there a way to delete these downloads?
- Liked:
    - Easier time plotting landmarks in downloads
    - Liked the downloads custom feature and can be downloaded
- Things to add:
    - Places of interest can be more developed
        - Allow people to download a category which will be displayed with gridview
        - Make more space
- Stood out:
    - Interesting that streets have more emphasis in map view over buildings. Liked seeing the main street over anything else at the start and it's nice cuz you'd avoid getting lost if following main street
        - Directions are fine but prefers main street
- Other:
    - Feels like that this interface is better suited for tablets. Would think it'd be for a wider screen - looks fun to play with
    - As long as the map says where info centers are for each location explicitly, this would be a great travel app. Having an "info center for travelers" would make this an awesome app for traveling (for example in chino hills, there's an info booth for

chino hills in the shoppes but it's hard to find cuz they're too easy to miss - generally find those in parks, department stores)
- ■ Having those locations marked makes it super useful

Alexa

Demographic
- Age: 21
- Experience with software interfaces: advanced
- Preferred web browser: chrome
- Preferred Computer OS system: Mac
- Preferred Mobile: ios
- Disposition: excited

Scale from 1-10
- Familiarity with technology: 10
- Interest in travel: 4
- Familiarity with travel: 2

Comments

Main page
- Sees a blue cursor and wants to drag it everywhere
- Clicked on the Places of Interest (POI) tab
- There's a + sign here, what does it do?
- Does it show different routes, like in a car?
- Or if you wanna add another destination

POI place

- What are events?
  How do you know the event? You know it's just happening? Can you set a range of how soon the event would be? Or is it just an event for the week or the day?
  What if there's special hours like Christmas? Would it still say open like default? Or closed for Christmas or something
- Did not understand the filter bar

More Details page
- "Can't click anything!"
- "Website's not working, can't copy paste"
- Hours, drive through only
- Likes the restroom services! Have unisex and disabled

- Didn't like the words in the background, thought it was suspicious

Eagle Rock recreation page (More details page)
- Likes the services
- The hours thing is very good
- Updates, how would you get updates
- Clicked on 10 minutes

Map Page (directions)
- Having a draggable map would be nice, to see whats nearby
- ETA popup is good
- Doesn't like how it's for walking only

Promenade (more details page)
- Clicked the back button and got back to the home page, instead of going back to the map full of pins

Bookmarks page
- Didn't understand the filter button
- Didn't understand the bookmarked page vs the places of interest page
  - Can't you save places of interest?
  - Are there two separate save slots?

QR page
- Had no idea what to do with the QR page
- "I can't scan it when its on my phone"
- Could possibly be helpful for other people?
- A QR sharing feature?

[instructor intervened to ask about the design rather than the functions]

General Remarks

- Liked the colors, the clean design and lack of clutter
- Likes how the POI are divided into1 sections and each place has an image
- Likes the bookmark feature
- Likes the design of the downloaded map page
  - Each place is a different color
  - Each place has its own title
- Did not like how text gets cut off with "…"
- Still confused about the QR code
- On the main map page
  - Doesn't like how opening the filter box covers up most of the map
- On the places of interest page
  - Kind of hard to see the star/star ratings
  - They all look white

- - - Kind of strange how the different categories continue the numbering system
    - The event text is pretty small
      - Didn't understand the "!" before the event at the eagle rock
- On the "more details page"
  - Would be nice if she could press the "POI" tab button on the bottom while on this page, and go back to the POI page
- On the downloaded map page
  - Doesn't like the words in the background, are distracting
- On the QR page
  - Design is nice, but why is there a "windows 10 wallpaper"

Pretask 1

Task completion results:
- Success

Errors:
- None

Time per task:
- 3.27 seconds

Notes from user reflection:
- Knew how to do it from prior exploring

Pretask 2

Task completion results:
- Success

Errors:
- None

Time per task:
- 5 seconds

Notes from user reflection:
- Very easy to do
- Just went to the filters, dropped the pin, and clicked on it
- If that didn't work, would go to the places of interest

Pretask 3

Task completion results:
- success

Errors:
- None

Time per task:
- 20 seconds

Notes from user reflection:
- Go to POI place
- And go look at all of them
- And make a decision
- Then would click on one and look at it more

Task 1

Task completion results:
- failure

Errors:
- Did not click QR code "take picture" button at all
  - User thought process:
    - Go out of the app, find a camera and scan the QR code, then follow the link
    - If the link didn't work, they would manually search in the app
- Instructor asked them to try to do it within the app, and they got stuck very quickly
- **[Instructor had to tell them to go to the QR page and "scan" the already embedded QR code]**

Time per task:
- 1 minute 22.61 seconds

Notes from user reflection:
- Extremely confused about the QR code
- Initially thought they would go out of the app and use a third-party app to scan the code and follow the link
- Upon explanation, said they didn't realize the Figma page was simulating the user already examining a QR code

Task 2 (and rest)

Task completion results:
- Success

Errors:
- Went back to the main map page to search for Fuji, got thrown off when the search didn't work (around 0:20 mark)

Time per task:
- 1 minute 5 seconds

Notes from user reflection:
- Went from download page, to main map page, to back to download page
- Was confused about the inability to dynamically draw (clicked pencil but drawing just appeared, due to figma limitation)

Ending overall questions

Improvements
- Trail page
  - If zooming in/out is possible, pen thickness should be customizable
  - Color of pins should also be customizable
- Download page
  - Have a sorting option, maybe automatically organize chronologically
  - If coming back from the trail page, have a popup that says the download was successful
- Didn't process the button was for the QR scanner
  - So used to clicking on the barcode itself to go to the map

Liked
- Like how pretty and simple it is
- Not cluttery, except for the legend on the main map page
- Liked being able to see a location's information on one page
- Liked being able to tap on a pin and get more information that way
- And how they can access that page form the map (pins)
- Likes they can download maps and use when they're offline

Stood out
- Liked the flow
- Text was bold and easy to read

Suggestions or Recommendations
- Make the main map page legend less cluttery
  - Doesn't know how
- When seeing more details about a page, let the bottom nav bar take you back to the Places of Interest page
- Would be nice if you could save a Place of Interest without viewing its details
- For the QR page
  - Didn't know what the button was
  - If it was a camera icon, might be more intuitive
  - Or more words and instructions, not enough context right now

Instructor Qualitative Remarks
- Participant is generally thorough in everything they do—this is why they explored so thoroughly at the beginning
- Was excitable at the time of the interview, may explain why they jumped around so much
- Has little to no Informatics prototyping background—explains why they didn't understand the prototype was simulating a phone app (thought they was using a computer app in the shape of a phone)

Michael

3/4/2022

"What's your age/experience with software interfaces/preferred web browser, computer operating system, and mobile operating system"

- Age: 21
- Very little experience with software interfaces; good with phone, not good in general though
- Google chrome
- Windows 10
- Android
- Alert/attentive disposition

1 is not at all, 10 is very
"On a scale from 1 to 10, how familiar are you with technology"
- 8

"On a scale from 1 to 10, how interested are you in travel"
- 9

"On a scale from 1 to 10, how familiar are you with travel"
- 6
- A person on a scale from 2-5 could ask for something

- A person on a scale from 9-10 could ask for something else

"It's the interface that is being tested, not you"
"We want raw feedback about the interface and its design so feel free to be mean"

"So go ahead and go through all the pages in this app. In Figma, if you click around and a highlighted blue box pulsates, it is a clickable button (demonstrate). You can make comments, but we will not answer questions at the moment, and when you're ready to move on to the next part of the evaluation, return to the home screen and let (us) me know when you're ready.**"**

- Does not understand why there is a QR feature
- Wonders what the draw in the download does
- Think she understands the basic purpose of the app
- Questions as to why the numbering is weird for different categories on the places of interest page
  - Not sure if its ranked or not

"While you're doing the task, please speak aloud your thought process. We want to see how you interact with the interface. When you're finished with the task, say you're done with the task so I know to stop the timer."

~ 7 ½ minutes

Pre Task 1 (5 seconds)
Summary: Filter by Parking
- From this map page, how would you only be able to see just parking locations?

Passed

Pre Task 2 (4 seconds)
Summary: Finding landmark information
- Can you demonstrate how you would find more information about one of the landmark icons on the map?

Passed

Pre Task 3 (31 seconds)
Summary: Finding new locations of interest
- From this map page, how would you go about discovering new locations around you?

Passed
- Thinks you would input your own location

Task 1 (1min 11 secs)

Summary: QR code, for event at Eagle Rock Recreation Center

1) You are walking down a street in Eagle Rock and you see a flier for a public speaking workshop at the Eagle Rock Recreation Center, but you do not know where that is nor the details of the event.
2) Using that QR code, could you demonstrate how you would think how to get there and if the event is a mask required or not.

passed

Task 2: (58 seconds)
Summary: Downloads page

1) You are planning a trip to Mt Fuji in Subarshiri, Japan, but there is no cellular data available while in the mountains but you still want access maps for information such as the trail itself and nearby medical centers or lodges.
2) From the map page, how would you go about downloading these maps for this trip?

passed

Task 2.25: (10 seconds)
Summary: Download page 2.0

1) Now that you're on this downloaded map page, please simulate drawing something and simulate adding your own landmarks, before saving map.

passed

- Thinks you can measure miles due to the example

Task 2.75: (4 seconds)
Summary: Download page 2.0 once more

1) Without navigating to another page, how would you access your newly downloaded map?

passed

Ending overall questions (~45 minutes)

● What would you like to see improved?
- Top part of the main map still says campus drive
- Does not know how you would add the miles in
- Does not know if the icons on the left side of the downloads page are custom or not

- ● Anything you liked?
- - Really likes the services and updates; not sure about feasibility bc not all sites update regularly
- - Wonders if you can move the downloaded maps' order
- - For the bookmarks, would you be able to change the order
- ● Anything you'd like to see?
- - Wondering why the settings button on the home page is not clickable
- - Can think if you can have access to previous search locations (location history)
- - QR code functionality still don't make sense
- ● What stood out to you?
- - The downloads page for the fact you can download it
- - Likes that you can also only add 10 maps at a time
- - Likes the "i" icon because a lot of people may not know why or what the reason is
- ● Suggestions or recommendations for improving interface
- - Previously mentioned
- - Wonders what the plus button on the bottom right of the main map page is for
- ● Any other subjective data you would like to collect from your user
- - Does not like the rank system; bookmark solves that problem
    - - Wants a bookmark buttons
- - Wants to see 2 information pages at once
    - - Top one screen of page information
    - - Bottom screen another page of information
        - - Be able to filter out only the wanted information on either page
- - Pick 2 points on a map and check the distance between them
- - Add airport/transportation icons to the downloads
- - Add more icons and have an AI to determine icon suggestions - sees "trail" in the title so it suggests hiking icon
- - Wants to delete the "search a location to download"; dont need the cues - should start you on a map of where you are currently at

Definitions
- ● Tech Error ("error" on T3 page): if they go to the wrong page due to the technology being badly coded
- ● User error ("mistake" on T3 page): if the user goes somewhere where they have to push the back button, since they weren't supposed to go there