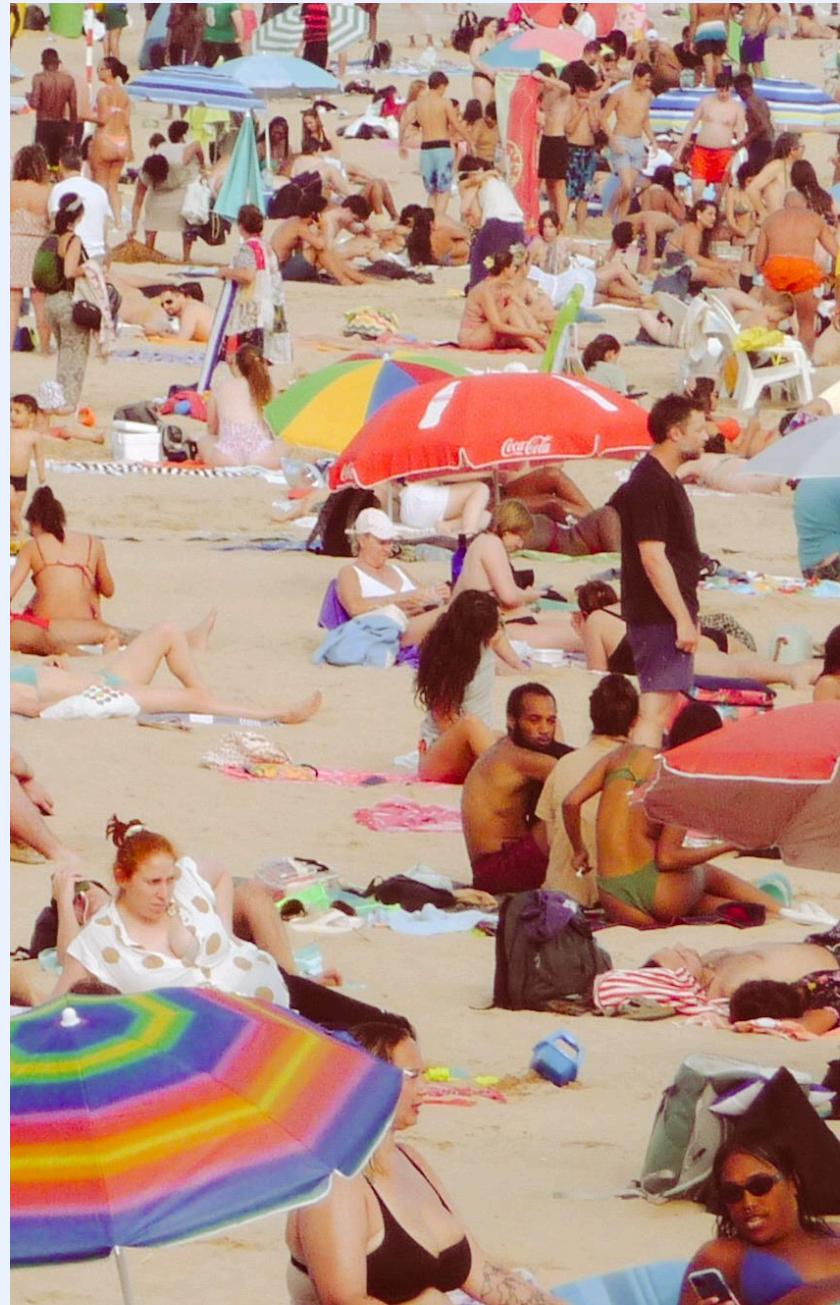
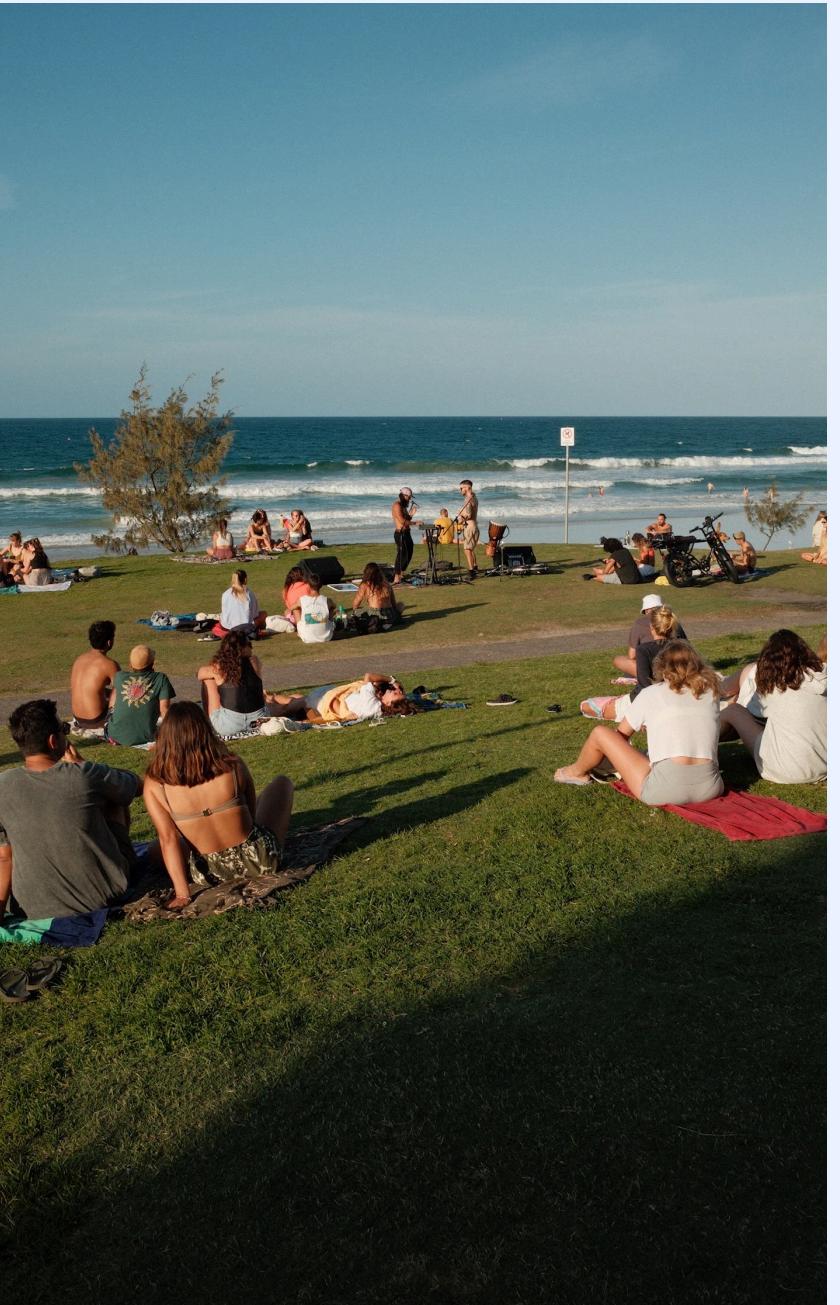
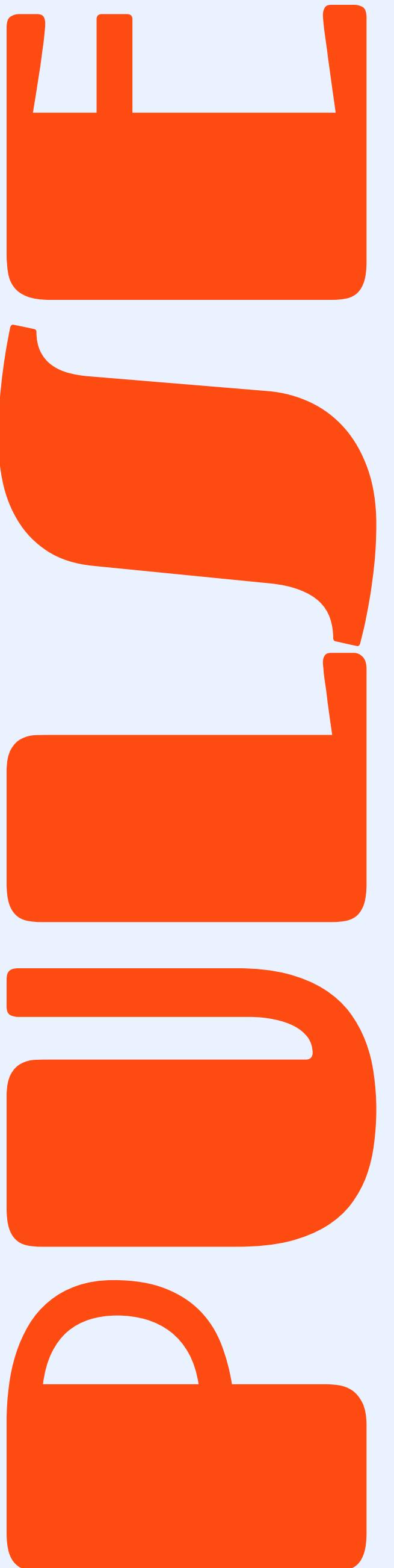


real-time crowd info for your  
next move.

## CROWD CTRL

Mackenzie Bogart  
Jodie Eiler  
Dawn Grossenbacher  
Jordyn Parker

HCI 594 | SUMMER 2025



**PULSE** is a real-time crowd and vibe checker to help beat decision paralysis and empower people to move through their city with confidence.

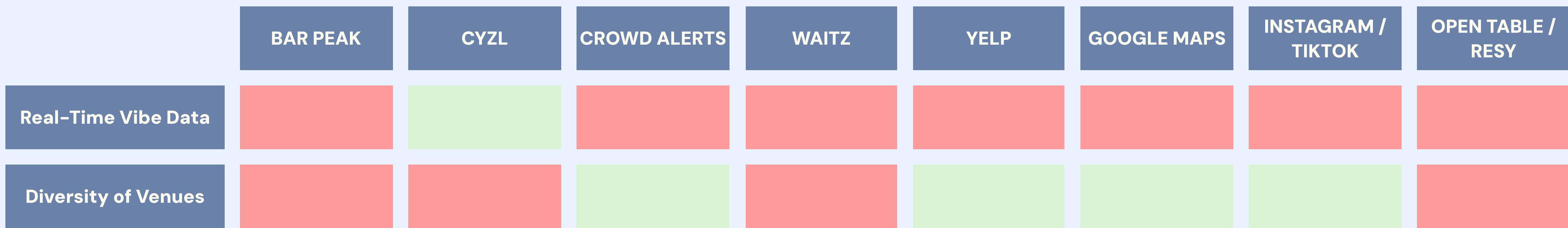
**City life offers an abundance of choices, but without clarity, these choices can become overwhelming.** Unable to decide on the right spot for the moment, people wind up with poor experiences at overcrowded museums and low-energy bars.



People need real-time, vibe-focused data to make confident decisions, fast. By offering live insight into atmosphere & crowd dynamics, we can **reduce stress, increase spontaneity, and help users choose the right spot with ease.**

# Existing platforms provide static reviews and outdated information. We can do better.

Literature tells us that crowd experience hinges on deliberate environmental design and that smartphones can be leveraged to curate crowd experiences.



Unlike our competitors, we will offer real-time into venue atmosphere and crowd dynamics – going further than just crowd size to show what places are actually *like*.

Our target users are urban dwellers who are socially active, decision-fatigued, and enjoy various experiences.



**THE EXPLORER** wants to find new and interesting experiences rather than returning to the same places.

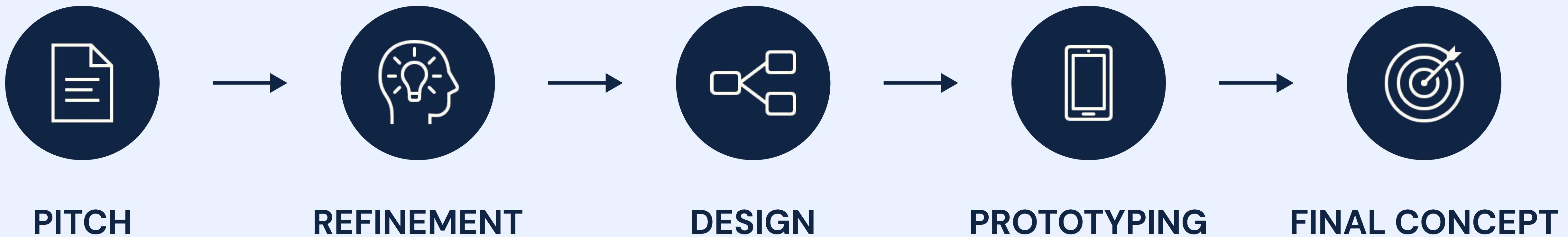
- They repeatedly check the app for recommendations.
- They rely on real-time data to find spots to visit in the moment.
- They enjoy spontaneous outings and exploring new places.
- They love to share feedback and review their experiences for others.



**THE PLANNER** wants to optimize their usual routine by checking in on their favorite spots.

- They use the app to check in on their usual spots to see if the vibe is right.
- They routinely check the app right before going out.
- They value real-time data from other users.
- They love to share real-time crowd check-ins.

We designed a timeline that would allow us to achieve and well-researched concept and early prototype by the end of the quarter.



# STAGE 1: PITCH

We began our project by writing a project proposal that outlined our concept based on a competitive analysis and literature review. We determined our team vibe, created a prospective schedule, and detailed our research plan.

## INITIAL PLAN

### Team Formation & Project Vision

June 15 – July 5

### Prototyping & Usability Testing

June 27 – August 9

### Preliminary Research

July 6 – July 12

### Inspection

August 10 – August 16

### Early Designs

July 13 – July 26

### Finalization

August 17 – August 23

# STAGE 2: REFINEMENT

After conducting a SWOT analysis and receiving feedback on our proposal, we refined our idea by discussing details and creating behavioral archetypes to model our users. We then designed and conducted further preliminary research studies to better understand our users and their current attitudes and behaviors.

## STRENGTHS

- Real-time vibe & crowd data
- Social integration & gamification
- Diversity of venues
- Modern, user-friendly interface & intuitive UX

## WEAKNESSES

- Reliance on user-generated input
- High initial data requirements
- User-generated reviews & reports could include misinformation, affecting trust & credibility

## OPPORTUNITIES

- Partnerships with local venues
- Diverse venue coverage
- Vibe/mood information
- Rewards for checking in & reporting

## THREATS

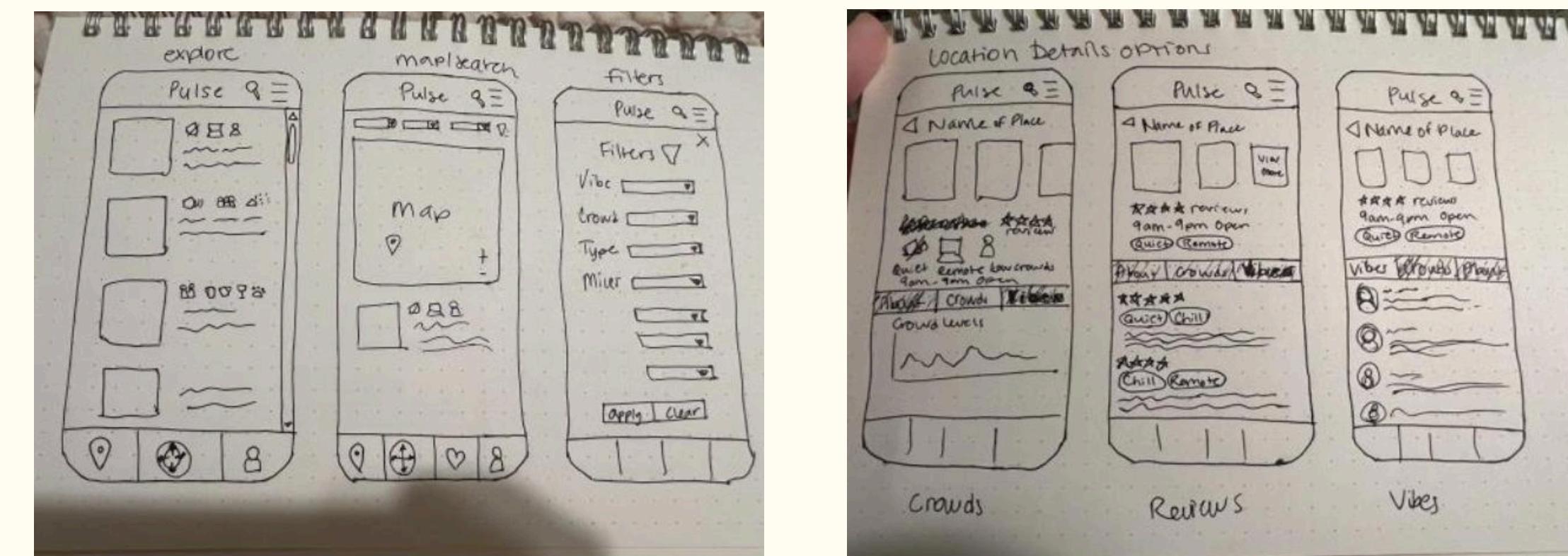
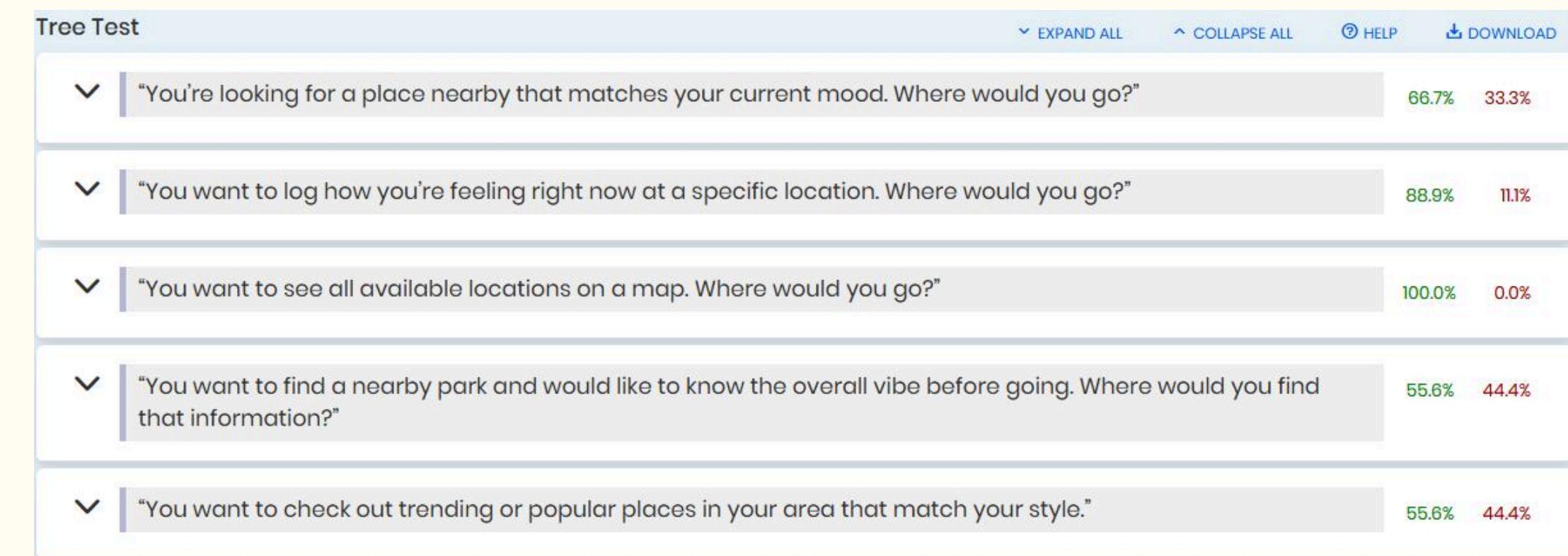
- Competition from established platforms
- Privacy concerns
- User trust concerns

# STAGE 3: DESIGN

To determine the structure and information architecture of our mobile application, we conducted a card sort, tree test, and vibe tag survey. We then sketched paper wireframes to begin our visual design process.

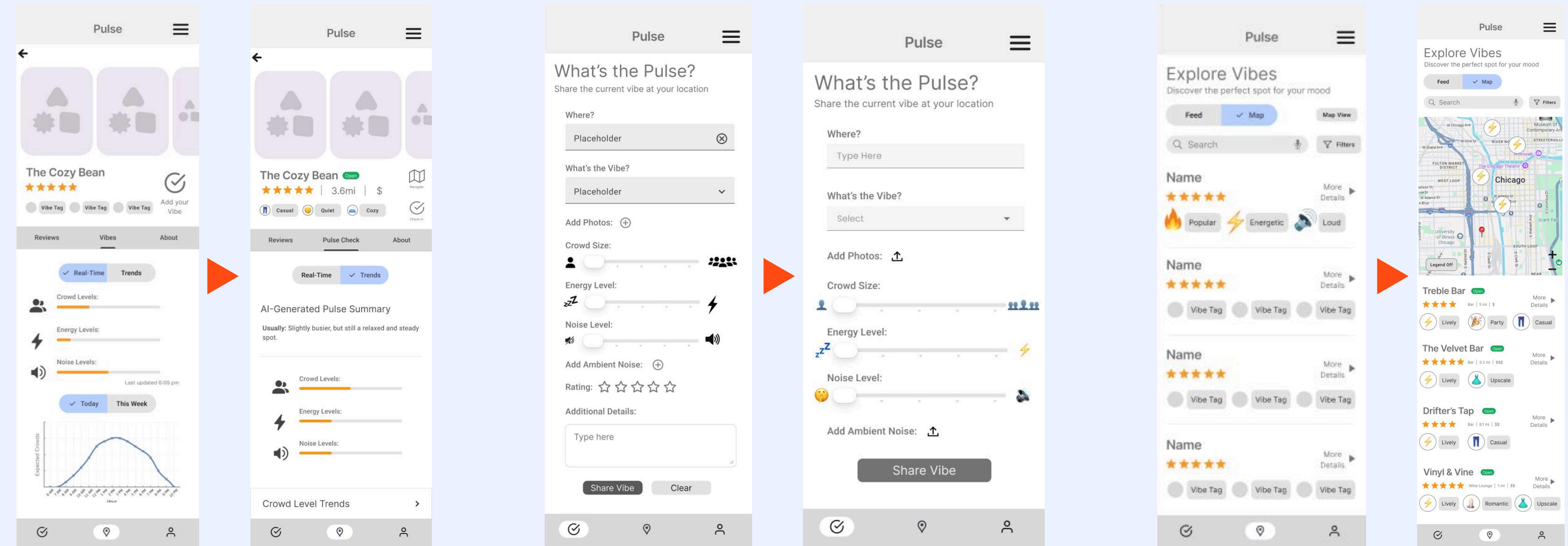
Group x Cards Help

Card	Explore	Map	Check-in	Profile	Location Details
Personalized Recommendations	14	14	0	71	0
Search	100	0	0	0	0
Real-time Crowd Levels	14	14	0	0	71
Location Reviews	14	0	0	0	86
Location Pictures	0	0	0	0	100
About Location	14	0	0	0	86
Real-time Vibe of Location	29	0	0	0	71
Vibe Filters	71	14	0	0	14
View of Map	0	100	0	0	0
How I feel today?	0	0	71	29	0
User Information	0	0	14	86	0
Settings	14	0	0	86	0
Vibe Icon Indicators	43	57	0	0	0



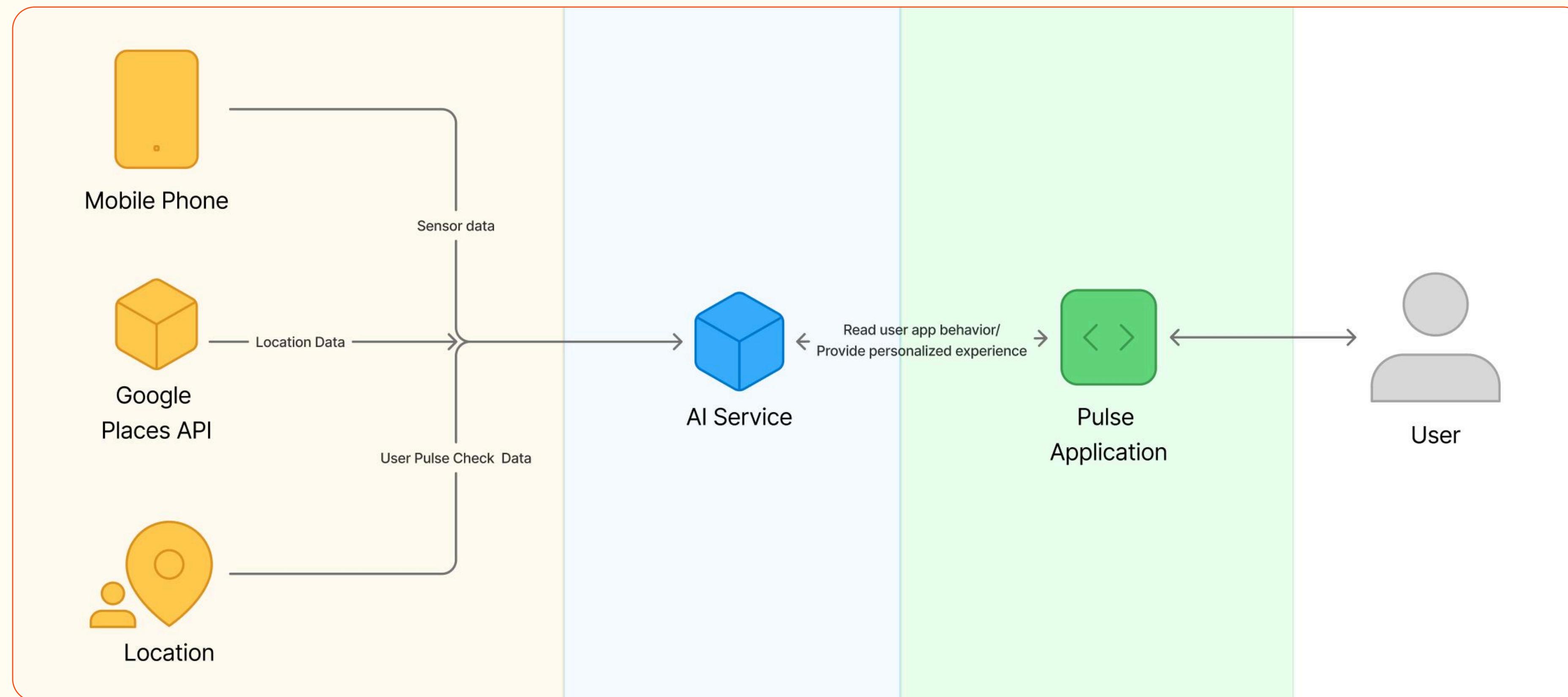
# STAGE 4: PROTOTYPING

We then began designing and testing prototypes. On our initial static prototype, we conducted generative usability testing. We used our findings to create a dynamic prototype, with which we conducted task-based usability testing.



# STAGE 5: FINAL CONCEPT

Using our research findings, we created a concept model and defined theoretical plans for future design of the Pulse mobile application.



**Our project was an overall success. We were able to gain valuable insights from user research and designed the concept for a desirable mobile application that combines the strength of its competitors while addressing user needs.**

## LOOKING BACK

- Our scope could have been better defined from the beginning.
- Our initial plan could have been more detailed to divide work into more specific timeframes.
- Further research could have been conducted to address conflicting user feedback.

## MOVING FORWARD

- Our future work as HCI professionals will build upon foundations that are stronger, yet still flexible.
- We will continue to communicate on future teams and ensure collaboration is at the base of every project.
- Future design of the Pulse app would include a social aspect, further research into scraping data from social media, and AI integration for personalized recommendations.

By turning real-time insight into action,  
we can help users find the right spaces  
and redefine how they experience their  
communities.

**THANKS FOR YOUR TIME**  
**ANY QUESTIONS?**

