



By Team 7

# MTLQuest Portfolio

01

# Problem Statement

- We are trying to bridge the knowledge gap between locals and newcomers to Montréal through encouraging exploration of the city
- Goal: Gaining local knowledge takes time, we are trying to help speed up that process to make the transition into a new city easier



02

## Brainstorming

Exploring multiple aspects of urban movement, we considered different problems and decided to focus on community knowledge and new comers' transition to Montreal.



# Formative Evaluation

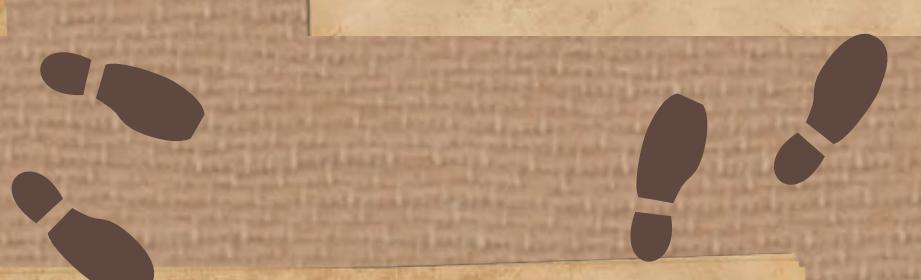
## Sketch

Based on results from the observation, we identified several personas and sketch some possible design solutions.



## Observation

After curating and narrowing down the design question, we accumulated the contextual observation data and generated task-based user segmentation.



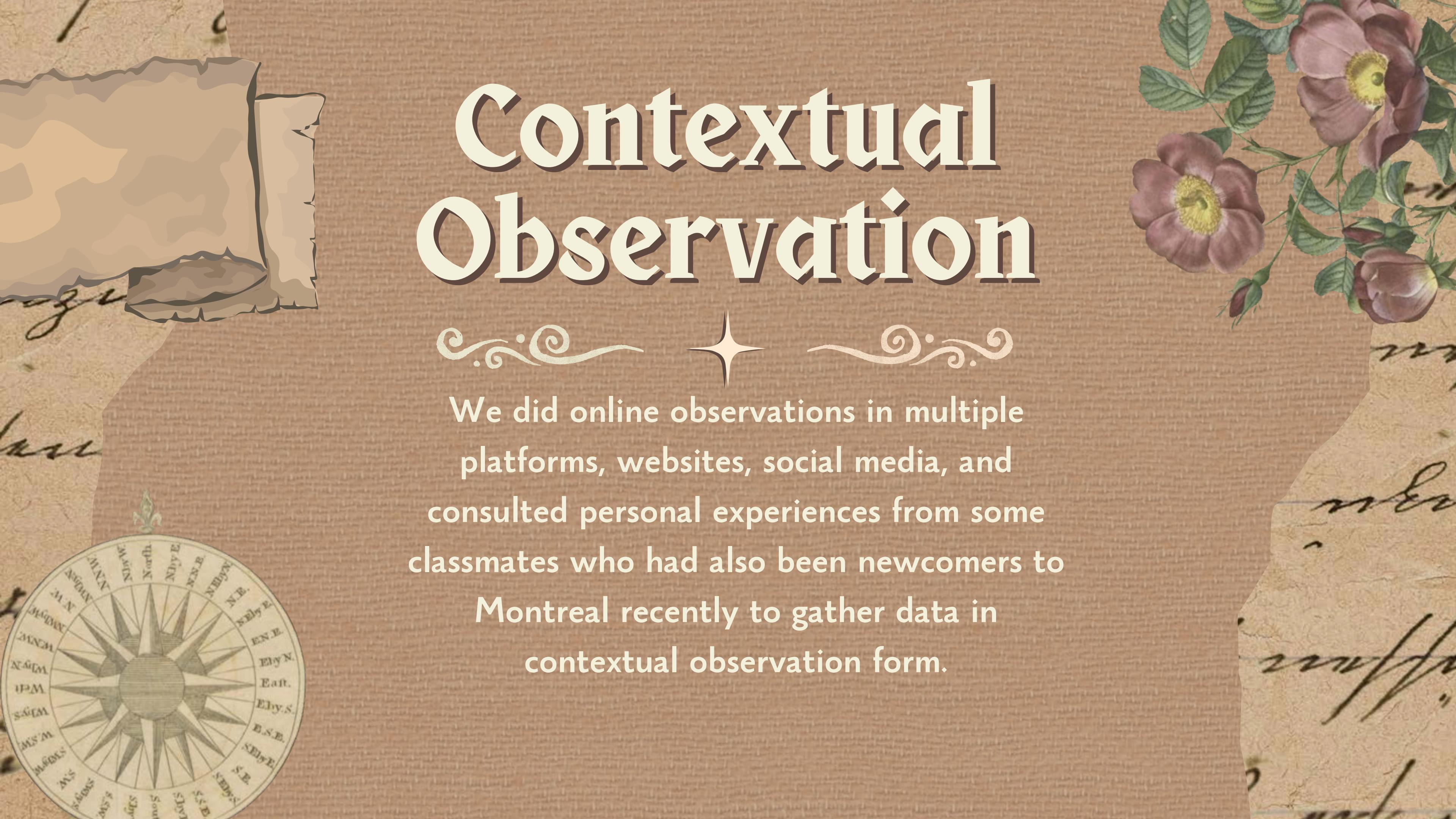
## Persona

Considering the special needs and behaviors of individual personas, we focused one persona and developed our solution and storyboard for the persona.

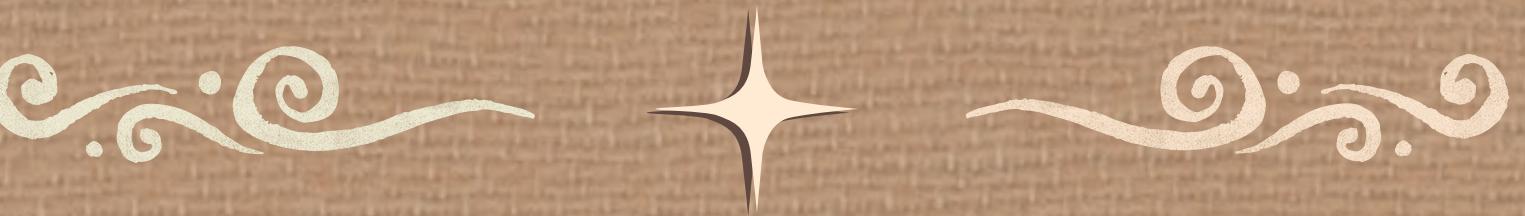


## Prototype

We created low-medium fidelity interactive paper prototypes to demonstrate the core concepts and value we aimed to bring to our main persona.



# Contextual Observation



We did online observations in multiple platforms, websites, social media, and consulted personal experiences from some classmates who had also been newcomers to Montreal recently to gather data in contextual observation form.

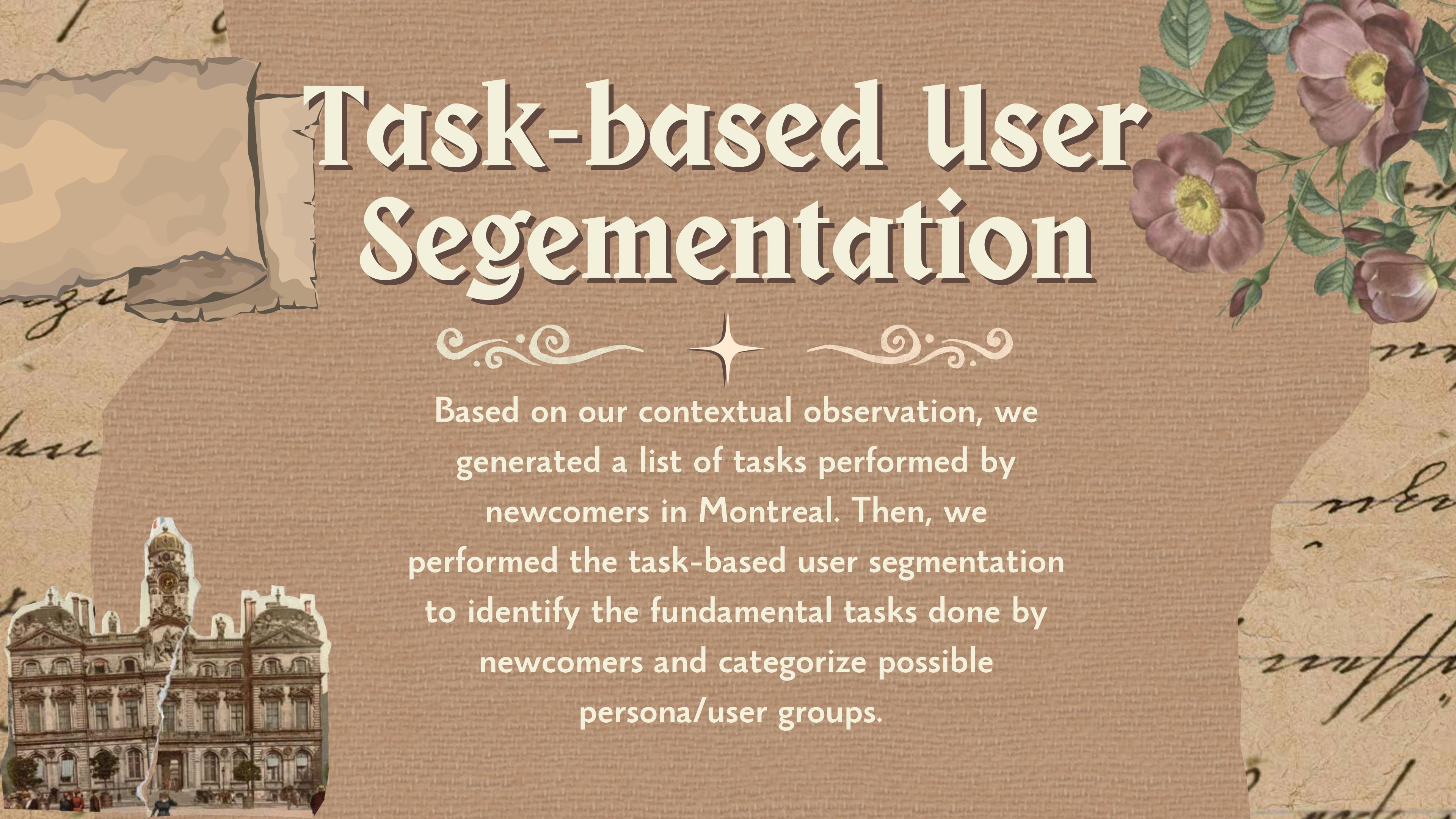
# Contextual Observation

## Data sheet

# Contextual Observation

User Goal / Task	Interface Part / Location	Physical Behaviour
<p>Learn how to navigate around city</p> <ul style="list-style-type: none"> <li>* metro</li> <li>* bus</li> <li>* bike</li> <li>* walk</li> <li>* drive</li> </ul>	<p>Website, app, reddit, FB groups, maps</p> <p>Street signs, strangers (in-situ)</p>	<p>(Facial expressions, gaze, gestures, posture, body language, vocal utterances, indicators of emotional state)</p> <p>Location points, search queries, following instructions, trial and error, feelings of frustration E: tired, late from missed transport, limiting to only familiar modes of transpo, surprise at cost</p> <p>Struggling with language, worrying about getting a ticket, observing others, drive slowly</p>
<p>Find things to do</p> <p>Generally learn about city</p> <p>Experience culture, aesthetic, humor, etc.</p>	<p>Tiktok, instagram, websites, mtlblog, reddit, FB, eventbrite, vlogs and youtube, on the street/posters</p> <p>Tiktok, youtube, instagram</p>	<p>Curated content, doom scrolling, word of mouth, "pre-train" algorithm, peruse existing content, saving content, indicating "interested" for event, prompt engineering, resource evaluation</p> <p>Organize meet-ups</p> <p>E: excitement, outlet, sense of community, doubtful that it's too curated (especially the aesthetic videos, over dramatized), fear? - depends on type of information, having to decipher stereotypes, needing to identify trustworthy sources</p>
<p>Search for specific information</p> <p>Share information</p> <p>Find essentials</p> <p>Learn information for specific areas</p> <p>Identify needed information</p>	<p>Websites, reddit, FB groups (limited but for rentals), Twitter/X (but specific to a single company or person), google maps</p> <p>Personal life/identity/purpose, other people, google maps, all the sites</p>	<p>Write a question, using friendly language/emojis. Punctuation indicates level of distress?</p> <p>Deciding who/where to contact, calling government agencies</p> <p>Verifying information through additional sources, Talking with trusted people irl</p> <p>Making yourself vulnerable to search for information</p> <p>E: frustrating - finding someone with same question but no answers, tiring to dig through content</p>
<p>Interact with others in a community</p> <p>Find a community</p>	<p>Whatsapp, FB, reddit, religious centers, community centers, private discord groups</p> <p>Facebook, Discord (attempted, but not accomplished) TikTok</p>	<p>Identifying communities you belong to</p> <p>Joining community, asking questions, answering, Leaving community if no one responds</p> <p>Writing search queries and inspecting results, identifying common goals E: conflicting &amp; confusing - do I belong? gatekeeping struggles, vulnerability to put yourself out there, threat of not being accepted, exposing yourself to "hate speech" (see discord)</p>
Navigate bilingual city	Reddit, google translate, duolingo, fb, tiktok, instagram reel, French friends, ignorance (don't speak french), language classes and groups	Anxious, Struggling with french, hesitant, scared of hostile repercussions, try to learn a bit of french before moving to Mtl, save yourself from embarassement, struggling to find places b/c names are different from other provinces

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# Task-based User Segmentation



Based on our contextual observation, we generated a list of tasks performed by newcomers in Montreal. Then, we performed the task-based user segmentation to identify the fundamental tasks done by newcomers and categorize possible persona/user groups.

# Task-based User Segmentation

We grouped related tasks through affinity diagramming:

# Task-based User Segmentation - 2

	A - Thorough Information Gatherer					B	People who have accessibility needs or travel with people who have it		C - Explore the world			D - Join into society		
	Person searching for specific info -					The Public transportation warrior	The comfort-seeker	Adventurer	The Traveler	The International traveler	The French Student	Looking for work - The Worker	Looking for housing	
	The Serious Seeker	The Researcher	The Prepper	The skeptic	The Budgeter									
Search on Google	x	x	x	x	x	x	x	x	x	x	x	x	x	
seeing an ad	x	x	x	x	x	x	x	x	x	x	x	x	x	
Walking around town and see an ad or poster	x	x	x	x	x	x	x	x	x	x	x	x	x	
Ask locals (friends, family, etc.) what weather is like there that time of year	x	x	x	x	x	x	x	x	x	x	x	x	x	
find things to do	x	x	x	x	x	x	x	x	x	x	x	x	x	
See/experience something influences decision	x	x	x	x	x	x	x	x	x	x	x	x	x	
evaluate your language level	x	x	x	x	x	x	x	x	x	x	x	x	x	
learn the language's alphabet	x	x	x	x	x	x	x	x	x	x	x	x	x	
Search the information of classes online	x	x	x	x	x	x	x	x	x	x	x	x	x	
use google translate (or similar app)	x	x	x	x	x	x	x	x	x	x	x	x	x	
Look at rating	x	x	x	x	x	x	x	x	x	x	x	x	x	
search for popular attractions	x	x	x	x	x	x	x	x	x	x	x	x	x	
Currency exchange info	x	x	x	x	x	x	x	x	x	x	x	x	x	
Search currency exchange rate	x	x	x	x	x	x	x	x	x	x	x	x	x	
Check out official guides	x	x	x	x	x	x	x	x	x	x	x	x	x	
look at comments in reddit	x	x	x	x	x	x	x	x	x	x	x	x	x	
Searching for information	x	x	x	x	x	x	x	x	x	x	x	x	x	
train algorithm to suggest things to do	x	x	x	x	x	x	x	x	x	x	x	x	x	
Go to local events or festivals of interests	x	x	x	x	x	x	x	x	x	x	x	x	x	
create search	x	x	x	x	x	x	x	x	x	x	x	x	x	
search online	x	x	x	x	x	x	x	x	x	x	x	x	x	
Decide preferred environment	x	x	x	x	x	x	x	x	x	x	x	x	x	
Attend festivals or big events	x	x	x	x	x	x	x	x	x	x	x	x	x	
Decide climate you want to visit	x	x	x	x	x	x	x	x	x	x	x	x	x	
Google maps optimal navigation route	x	x	x	x	x	x	x	x	x	x	x	x	x	
put into spreadsheet	x	x	x	x	x	x	x	x	x	x	x	x	x	
Consult local agency trusted resources and websites	x	x	x	x	x	x	x	x	x	x	x	x	x	
Check out local bars/clubs to meet people	x	x	x	x	x	x	x	x	x	x	x	x	x	
Meet new people	x	x	x	x	x	x	x	x	x	x	x	x	x	
Go to local event (e.g. ice hockey)	x	x	x	x	x	x	x	x	x	x	x	x	x	
Look at statistics (if provided)	x	x	x	x	x	x	x	x	x	x	x	x	x	
Check google map ratings	x	x	x	x	x	x	x	x	x	x	x	x	x	
Read reviews	x	x	x	x	x	x	x	x	x	x	x	x	x	
Inspect numbers users	x	x	x	x	x	x	x	x	x	x	x	x	x	
Decide on relevancy	x	x	x	x	x	x	x	x	x	x	x	x	x	
Read app recommendations	x	x	x	x	x	x	x	x	x	x	x	x	x	
look to see if you need any vaccinations	x	x	x	x	x	x	x	x	x	x	x	x	x	
Try different keywords: Life in Montreal, Montreal Life, Montreal	x	x	x	x	x	x	x	x	x	x	x	x	x	
Inspect user activity	x	x	x	x	x	x	x	x	x	x	x	x	x	
Click the montrealhousing thread on Reddit	x	x	x	x	x	x	x	x	x	x	x	x	x	
look at relevant search results	x	x	x	x	x	x	x	x	x	x	x	x	x	
refine search queries	x	x	x	x	x	x	x	x	x	x	x	x	x	
Search key words on social media	x	x	x	x	x	x	x	x	x	x	x	x	x	
Search local festivals/events	x	x	x	x	x	x	x	x	x	x	x	x	x	
Read app download page - description by developers	x	x	x	x	x	x	x	x	x	x	x	x	x	
Use google maps/transit/other apps to navigate	x	x	x	x	x	x	x	x	x	x	x	x	x	

Then we ID'ed distinct user groups ...

A vintage-style gramophone with a large, dark, conical horn is positioned on the left side of the slide. Above the horn, there is a small, rectangular sign with the number '03' written on it.

03

# Personas

A decorative horizontal flourish consisting of two symmetrical scroll-like ends connected by a central five-pointed star.

We identified five possible user groups of new comers and then created three different personas. After exploring some possible solutions to our design problem, we selected Rosa, the explorer, as our main persona for developing the final design and prototypes.

# Main Persona

Residing in Montreal



Goals: Explore Montreal, Connect with People, Feel Local culture



Adventurous/Outgoing/ Open-minded Personality



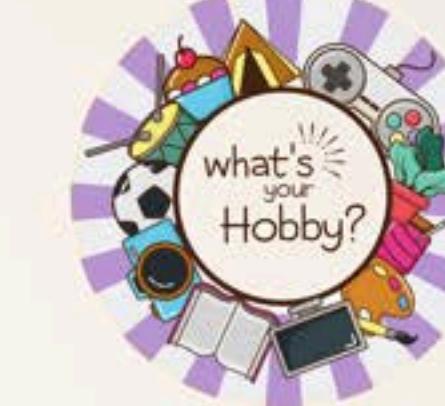
Rosa  
The Explorer



Prefers User-friendly technology that saves time



Diverse range of Interests



Challenges: Overload of Info and hard to explore Montreal





04

# Storyboard



For our storyboard, we focused on showing the main function of our app. Since Quests are the main purpose of the app, we thought that this was the most important thing for people to understand about our design.



# Storybook



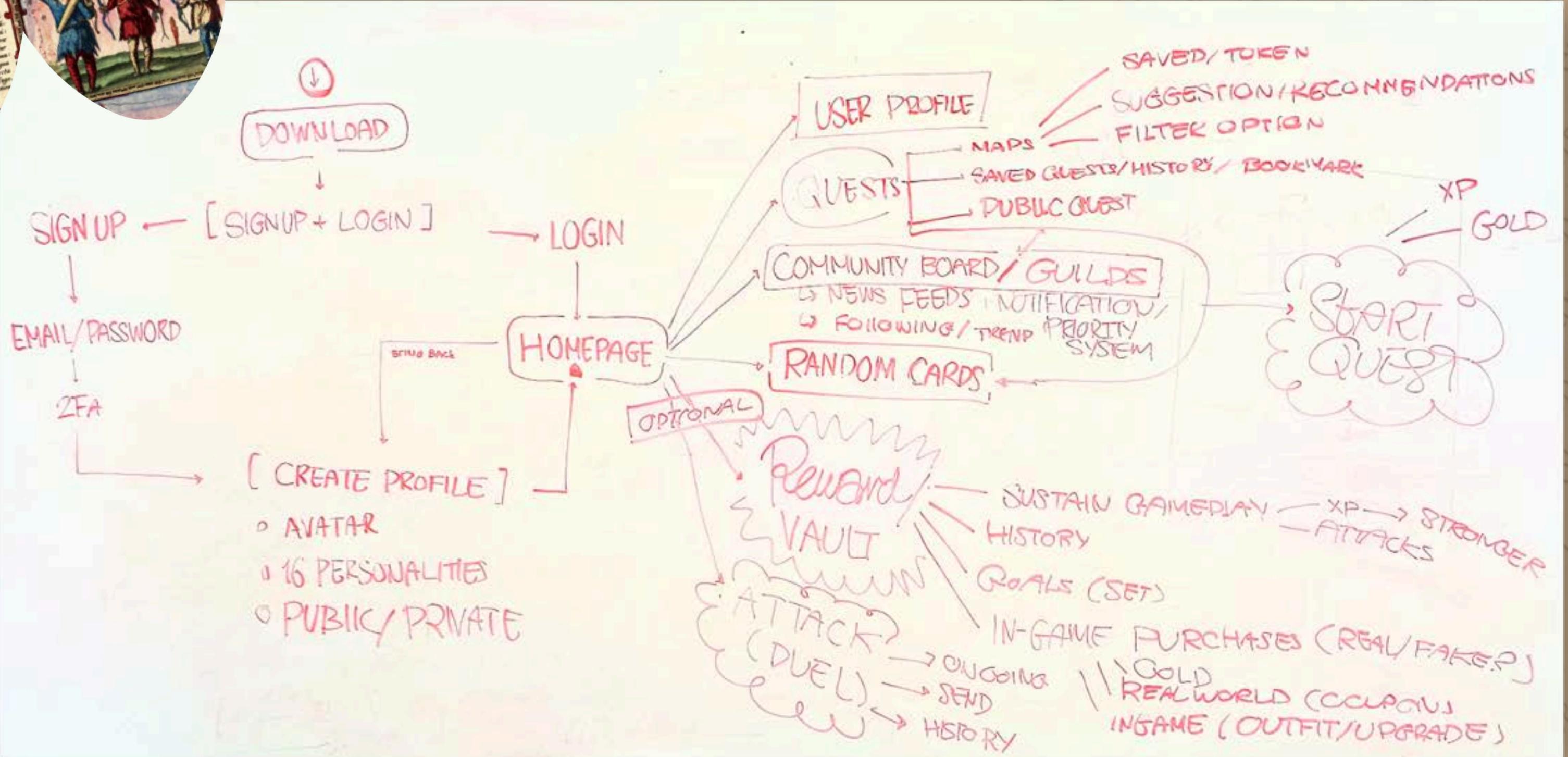


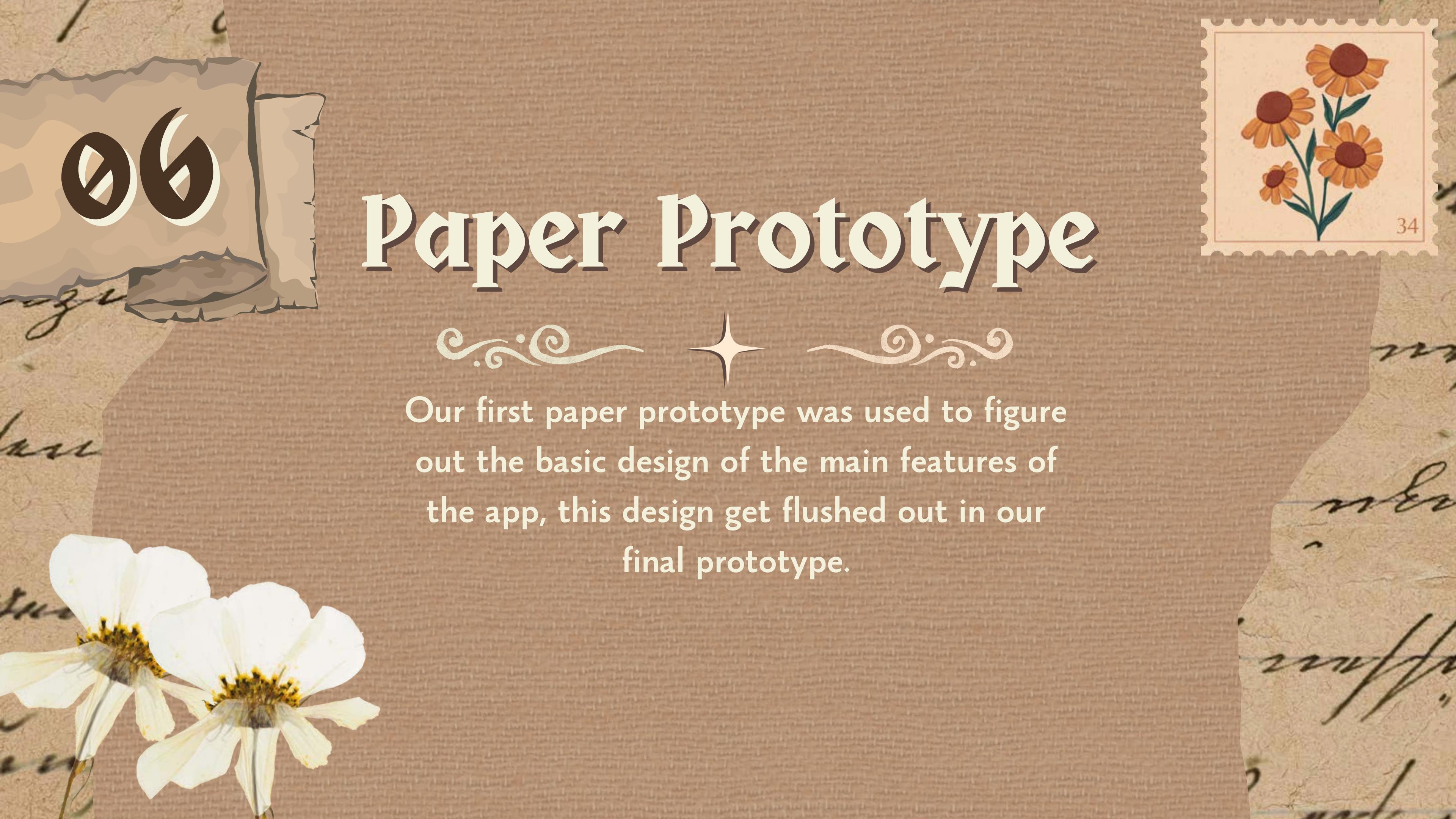
05

# Site Map

The sitemap helps us determine the prototype's critical information priorities based on our user research. The sitemap architecture emphasized those priorities through UI pathways and content organization.

# SiteMap

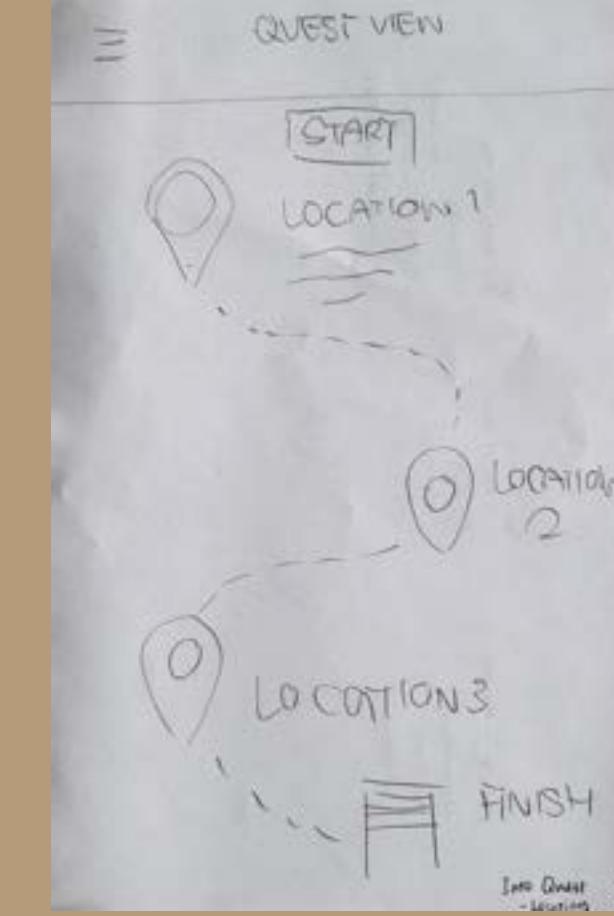
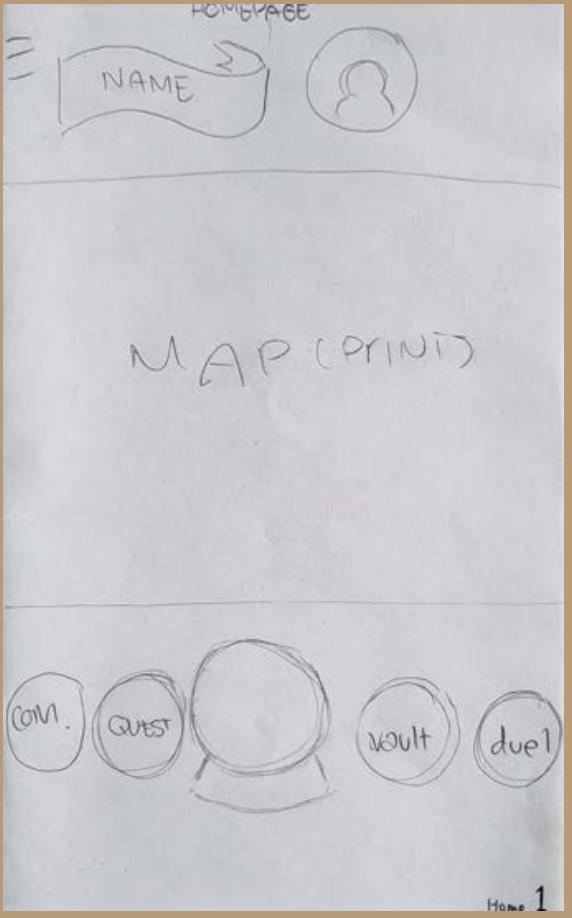
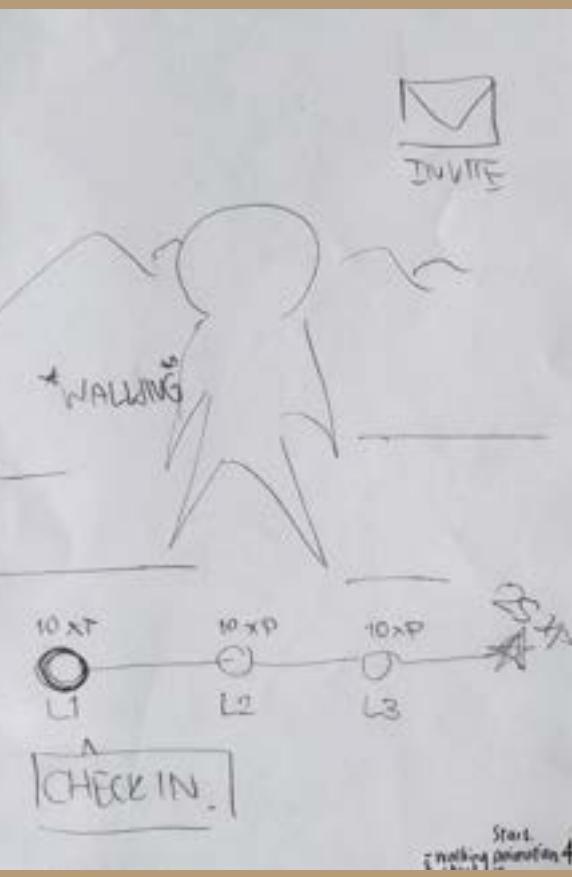




# Paper Prototype

Our first paper prototype was used to figure out the basic design of the main features of the app, this design get flushed out in our final prototype.

# Paper Prototype 1





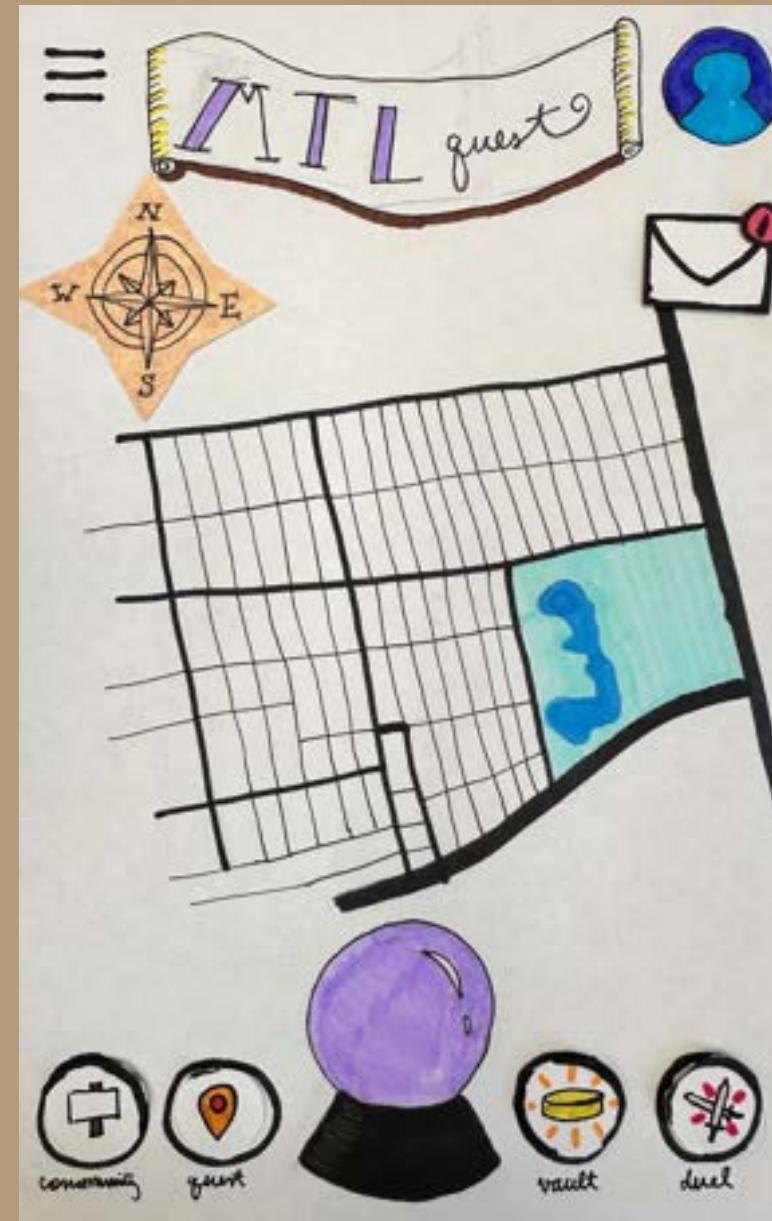
07

# Final Prototype

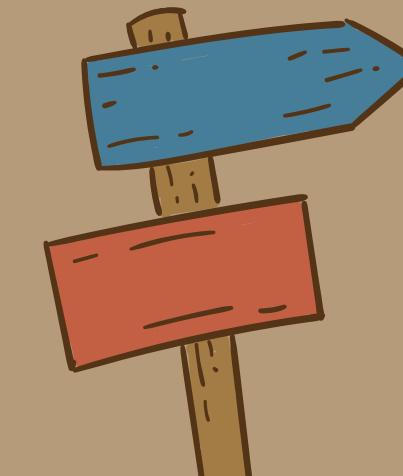


Our final prototype continued to focus on Quests as the main functionality as this is the main purpose of the design and the other parts of the app were outside of the scope of the class. We wanted to make the design fun and colourful to make it exciting to look at.

# Final Prototype-1



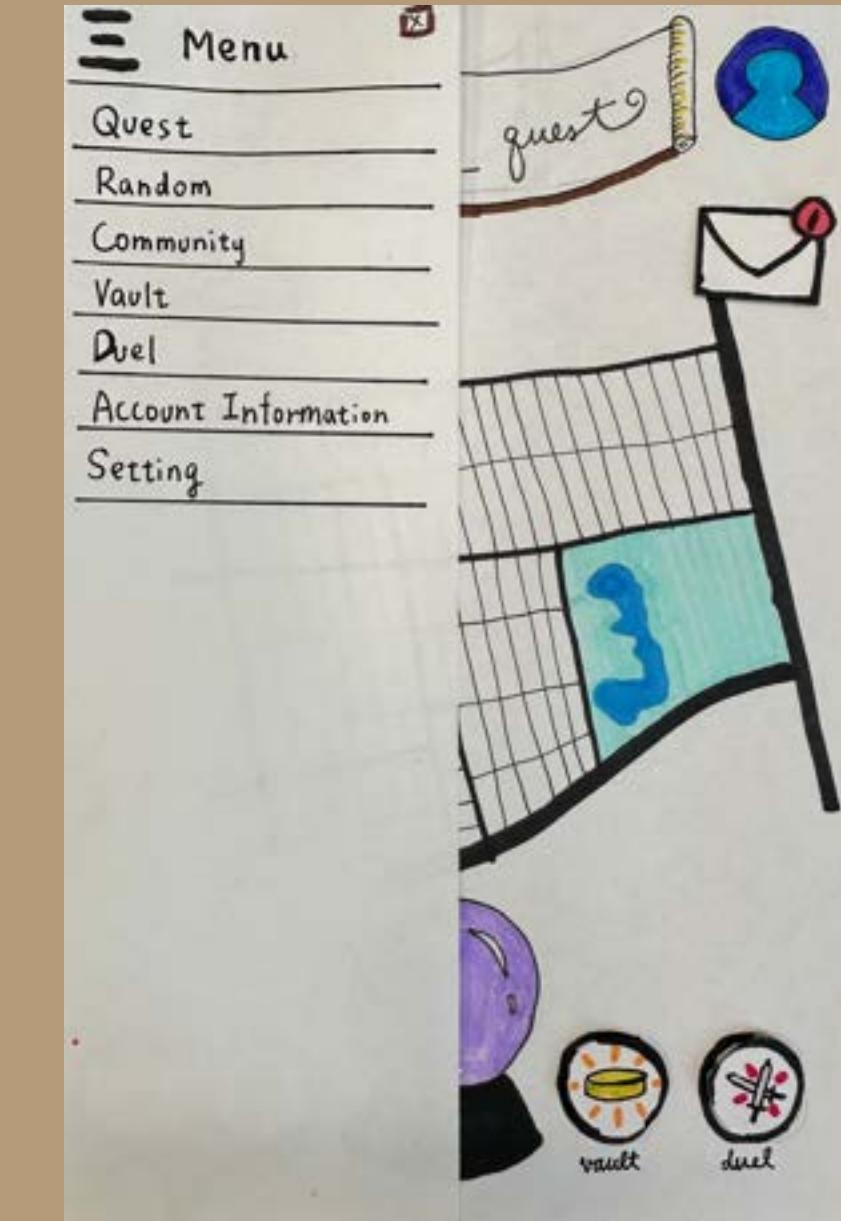
Home page



Home page -  
Click on the  
message.

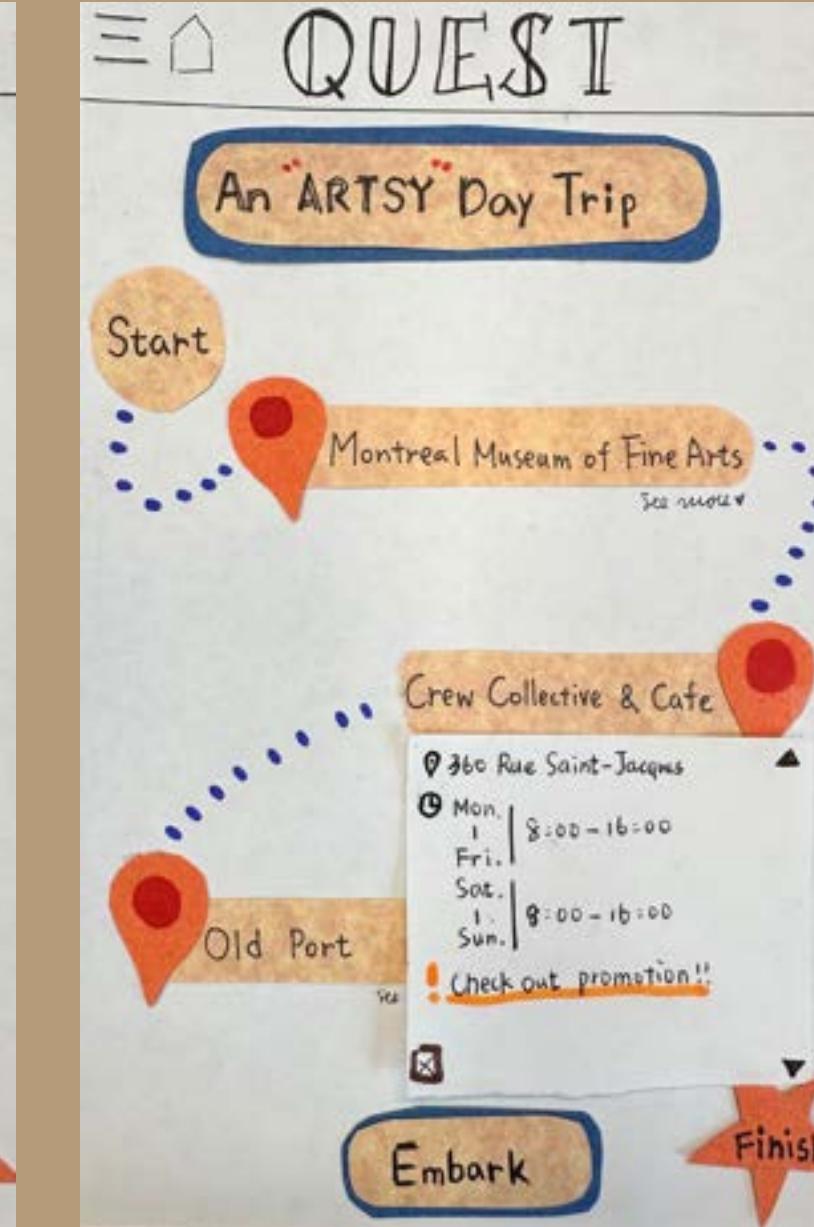
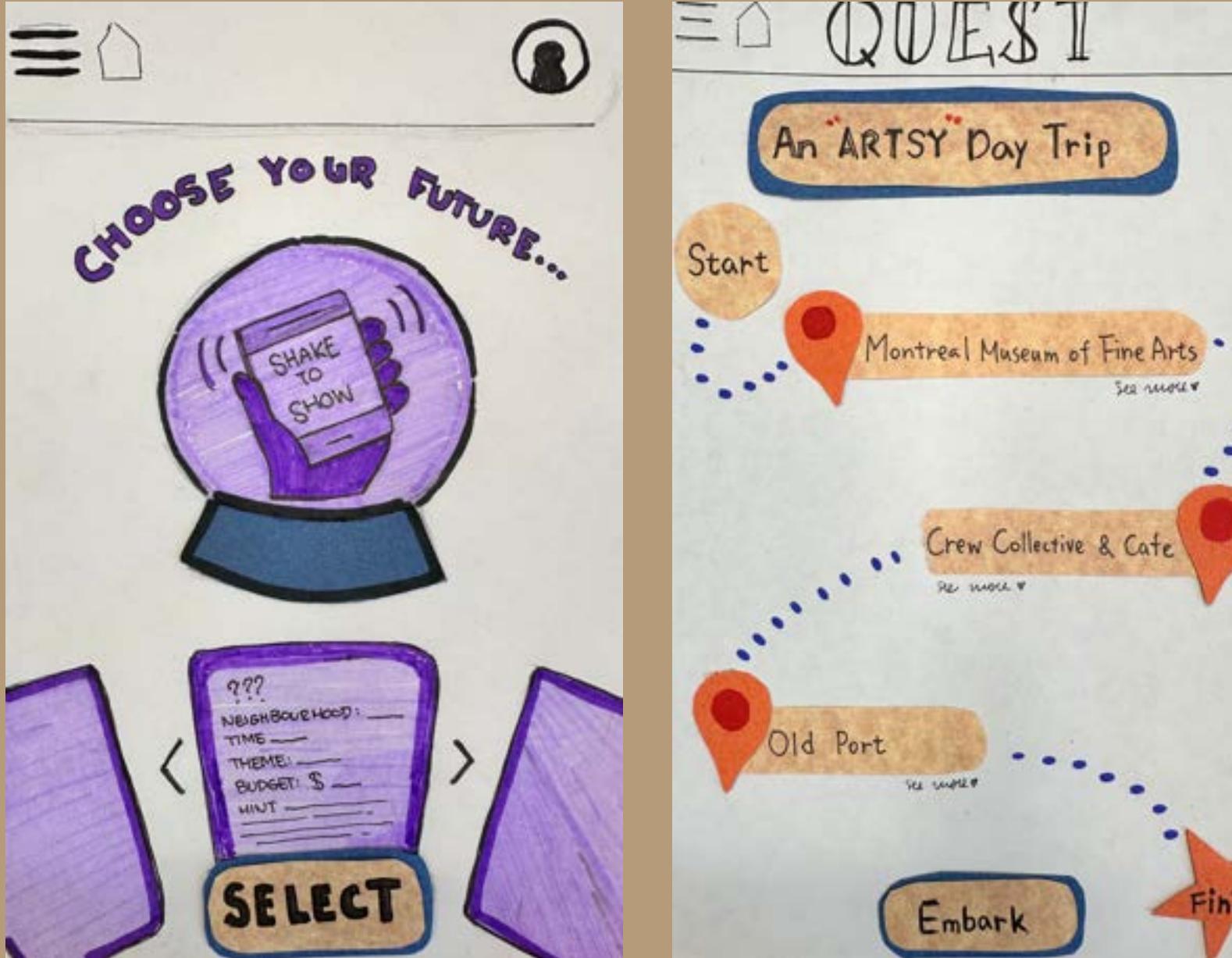


Home page -  
Click on the duel  
button.



Home page -  
Click on the  
hamburger button  
to show navigation.

# Final Prototype-2



Click on the crystal ball (random) button in home. Interact to get customized recommendation

After select the quest, show an itinerary of the quest.

Click on the location to show detailed information, such as open hours, address, tips or promotion.

Embark on the quest. Manually check in the progress to gain experience points and golds.

# Final Prototype-3



Click on the quest button in home. Browse quests by sort or filter function to view popular, saved, or visited quests.



Choose a specific quest with the map showing the direction and neighborhood. Click see more button to view the itinerary.



Click on the vault button in home. Check current winning golds and experience points, which can purchase vouchers for local stores.

# Feedback



01

The prospect of meeting new people through shared quests was appealing but raised privacy/safety concerns about filtering users and building connections.

02

The avatar customization and potential for taking a personality quiz resonated well, as it could foster a sense of belonging and strengthen the app's brand identity.

03

Some suggestions were made to expand social features like inviting friends, sharing quests/app via links to facilitate making new connections around common interests.

# REDESIGN



## Gamification

The gamification elements need refining. Experience points are earned for each quest stage, leading to gold upon quest completion.

Dueling also earns gold, but concerns about fair gameplay require further investigation and possible system redesign.



## Localization & Personalization

Successful and fun personalized experiences require expertise in software engineering, machine learning, and large language models. GPT models may be an avenue, but pretrained models likely have outdated information. We may turn to using Google Maps API for up-to-date reviews and creating personalized quests. However, adjusting the value proposition to allow for manually created quests may be necessary for a high-quality experience.



## Privacy vs. Community Building

While MTLQuest focuses on community building, it prioritizes privacy by design principles, including default privacy settings, embedded privacy in design, user respect, and transparency. Extensive user testing is essential for designing public community features while safeguarding user privacy and safety.

# Conclusions & Future work

We started out the design process considering a topic completely different from MTLQuest. The design process helped us identify areas that we felt were lacking in our own lives and also encouraged us to cast those aside to find challenges that people other than us had. Through activities, such as task-based user segmentation, persona building, and sketching, we were truly able to tap into our creativity and build a solution that consistently received positive feedback in our design critiques. Many people said to us, "I would use this right now!" or "When will you make this?" Some of this feedback even led us to realize that further work could be done to refine our user groups and personas (such as parents with young children). However, there were constraints as well. We were not able to conduct interviews or perform more extensive user testing. In the future, these would be two critical areas for us to focus on: further refining the user groups to adapt the design to best meet the users' needs and conducting user tests, beginning with interview studies.

**Thank  
you**