

CPSC 481: Foundations of HCI, Fall 2024 Project Part I

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Project Title: A travel company would like to have an app that helps their clients during their trip (post-covid). The program helps clients view their itinerary, book upcoming local events, and find local amenities (tourist hotspots, emergency contacts, etc). Hint: Choose Calgary, or a specific travel destination you are familiar with, for the scope of the design.

Date: October 15th, 2024

Table of Contents

	Page
Overview	2
Section 1: Identification and Requirements	2- 10
1.1 Background Environment	2 - 3
1.2 Phase 1: Identification of Users and Work Contexts	3 - 4
1.3 Task Examples	4 - 7
1.4 Phase 2: System Requirements	7 - 10
Section 2: The First Prototype and Walkthrough	10 - 26
2.1 Phase 3: Low-Fidelity Prototypes	10 - 11
2.2 Phase 4: Task-Centered Walkthrough	12 - 26
I. Walkthrough 1	12 - 15
II. Walkthrough 2	15 - 18
III. Walkthrough 3	19 - 21
IV. Walkthrough 4	22- 24
V. Walkthrough 5	24 - 26
Appendices	27 - 41
I. Detailed Prototype	27 - 32
II. Walkthrough with screen flow	33 - 39
III. Early iterations of prototypes	40 - 41

Overview

Project Objective:

The objective of this project is to design a desktop application for a travel company that assists tourists in navigating their trips in a post-COVID environment. Using principles of Task-Centered System Design (TCSD), the focus is on identifying real-world tasks tourists perform during travel, such as viewing itineraries, booking local events, and accessing local amenities. By gathering and analyzing these tasks, the design will cater to the practical needs of different tourist user groups. The project will emphasize prototyping to visualize potential solutions and iterate on user feedback, leading to a user-friendly and task-centered system.

Purpose of the Assignment:

The purpose of this assignment is to familiarize students with Task-Centered System Design (TCSD), task articulation, and low-fidelity prototyping as key elements in iterative User-Centered Design. Through identifying core user tasks, students will learn to design systems that address user needs and enhance usability. The iterative prototyping process will highlight the importance of early user feedback and task validation to refine the design, ensuring the final product is grounded in real-world use cases.

Section 1: Identification and Requirements

1.1 Background Environment

Current Work Situation: The local travel company, GlobeTrekker, currently based in Calgary, operates physical stores and provides in-person tour itineraries to visitors. Their current system relies heavily on face-to-face interactions and traditional tourism services. However, with the increasing reliance on mobile technologies and the convenience of digital solutions, the company is seeking to modernize its offerings. The existing in-person approach may limit the company's ability to attract tech-savvy tourists who prefer to plan and manage their trips digitally.

System Purpose: The goal of this project is to develop a desktop application that allows tourists to easily explore Calgary by accessing information about famous landmarks, restaurants, outdoor activities, and events. The app will enable tourists to create accounts, log in, book event tickets (e.g., a dinner at Calgary Tower), add events to a personalized itinerary, and view an interactive map showing the location of various attractions. This system is expected to boost tourist engagement and encourage more visits to Calgary, ultimately driving more in-person business for the company. The long-term vision includes a premium subscription service offering personalized itineraries (though this feature is beyond the scope of this project).

System Constraints: The company may need to allocate resources to improve server efficiency during peak holiday times. Failure to do this may affect the responsiveness of the app to user requests, such as booking tickets, sending confirmation emails, or communication with 3rd parties such as local transit options.

Budgetary Constraints: The company may have a limited budget allocated for the app's design and development. This will influence decisions on the technology stack, the size of the development team, and the depth of features that can be implemented in the initial version of the app.

Time Constraints: The project has a limited timeline for delivery, requiring a clear focus on the most essential features. Time pressure may limit the level of testing and refinement, meaning the first iteration of the app may prioritize core functionality over extensive feature sets.

Technology Constraints:

- **Desktop Focus:** The app will be built specifically for desktop use, which means it must be optimized for major operating systems (Windows, macOS) and web browsers (Chrome, Firefox, Safari). There will be no mobile support, which may restrict user access in comparison to a more universal web app.
- **Cross-Platform Compatibility:** Ensuring that the app runs smoothly across different desktop platforms can introduce challenges in terms of design and development.
- **Legacy Systems:** If the company has legacy IT systems or databases, the app might need to integrate with them, which could introduce technical challenges in terms of data compatibility or migration.

Scope Constraints:

The project scope is limited to essential features, including user account management, event booking, itinerary creation, and map viewing. More advanced features, such as a personalized itinerary system or premium subscriptions, will not be included in this phase. This ensures the project remains feasible and avoids scope creep.

1.2 Phase 1: Identification of Users and Work Contexts

Expected Users:

Inexperienced Tourists:

- **Singular Tourist:** A tourist traveling alone for the first time. This user needs guidance for booking events and discovering local attractions. They prefer a simple and user-friendly interface that provides recommendations and essential information in a straightforward manner. They might not be familiar with digital booking tools and require step-by-step assistance.
- **Group Tourist:** A tourist traveling with friends or family, requiring the ability to book events as a group and create shared itineraries. This user type needs options that accommodate multiple people's interests and schedules, allowing for efficient planning and coordination. They may need group-friendly recommendations such as family-oriented activities or events that cater to various age groups.

Experienced Tourists:

- **Return Tourist:** A repeat visitor to Calgary, looking for new experiences beyond the usual tourist hotspots. This user is interested in exploring off-the-beaten-path attractions, local events, and hidden gems. They are comfortable and experienced with using travel apps and may want advanced features, such as personalized recommendations based on their previous visits or the ability to customize their itinerary.

Work Contexts:

Pre-Travel Planning (At Home): Before arriving in Calgary, users plan their trip using the app from home or work. They browse landmarks, restaurants, and events, create accounts, and book tickets (e.g., dinner at the Calgary Tower). The app helps build a personalized itinerary and includes a map highlighting key attractions for route planning, making pre-trip organization convenient.

During Travel (In Calgary): In Calgary, users adjust plans, make last-minute bookings, and use the map to find nearby attractions from their current location. The app provides flexibility to manage schedules dynamically, ensuring a smooth travel experience.

In-Event or On-Site Navigation: While attending events or visiting attractions, users use the app for event details, navigation, and confirmations. The map guides them between locations, ensuring a seamless experience throughout their stay.

1.3 Task Examples

List of Representative Tasks:

Task 1: Plan and Edit a Custom Itinerary

Description:

Henry, 30, is planning a five-day trip to Calgary this spring. He starts by googling “top calgary attractions” and clicks into some travel blogs, forums, tour guide ads and notes down a few attractions that interest him(Calgary Tower, Calgary Zoo, etc.). Next, he conducts more detailed searches for these attractions. He googles “Calgary Tower” and gathers basic information about it such as location, price, and opening times. He does so for a couple of attractions he previously noted down. After gathering enough information, he now decides to visit an attraction(Calgary Tower). He searches for Calgary tower again in google and tries to find sites that sell tickets to Calgary Tower. He compares the official site with other travel booking websites and decides to go with the official site. He books a ticket on the official site and notes down the date, time, location, etc. to his itinerary. He repeats this step a couple times for his other attractions. As he continues his research, Henry frequently revises his itinerary, adding or removing locations based on how much time he estimates for each activity.

Potential issues: Getting stressed by constant revisions, dealing with potential conflicts in travel times or attraction schedules, and the difficulty of finding a way to organize the itinerary dynamically.

Expected User Type: Singular Inexperienced Tourist

Importance and Frequency: Very important for tourists who value organized trip planning, and

frequently performed during pre-travel preparation.

Validation: (Team member recollections) From personal experience and conversations with friends who enjoy detailed trip planning, building an itinerary is often a stressful process. It requires cross-referencing multiple websites for reviews, opening hours, and locations. We frequently change plans as we gather more information, and it's hard to find an easy way to organize this dynamically. The need to frequently edit and update itineraries based on time, accessibility, or changes in interest is a common pain point for travelers like Henry.

Task 2: Group Navigation and Planning

Description:

Julia, 24, and her three friends have decided to visit Calgary together this fall. Since travelling as a group can be tricky, Julia has taken the lead in figuring out where they want to go. She begins by researching the city's most popular landmarks, museums, and restaurants, paying close attention to how far apart everything is located. Julia wants to gather enough information to share with her friends and make sure they all agree on what to include in their itinerary. They plan to discuss and finalize their schedule as a group before their trip. Julia begins her research by searching "Calgary group tourist attractions" and "best landmarks in Calgary." She carefully reviews the results, focusing on locations that could appeal to everyone in the group. Using Google Maps, Julia checks the distances between various attractions, calculating how far apart they are and determining which ones can be visited on the same day. After finalizing a shortlist of spots like museums, parks, and popular restaurants, she shares her ideas with her friends via group chat, asking for feedback and preferences. Once everyone has weighed in, they finalize the itinerary together. Julia ensures that the chosen activities fit within their travel dates and are conveniently located to minimize travel time. To stay organized, she keeps a digital copy of the itinerary on her phone.

Potential Issues: Coordinating the different preferences of the group members and the difficulty of finding attractions that are close enough to fit within their schedule.

Expected User Type: Inexperienced Group Tourist

Importance and Frequency: Medium importance and frequency, as group planning involves coordinating with multiple people.

Validation: (Interviewing user representative) Using my own experience as a reference, last year when my friends from northern Europe visited Calgary, we had to carefully plan our day trips around public transportation routes, since we didn't have access to a car. The key challenge was organizing activities that were geographically close to minimize travel time. Through interviews with friends who've also planned group trips, they echoed similar challenges—balancing multiple preferences and coordinating based on locations—making the ability to map attractions a critical part of group trip planning.

Task 3: Find Family-Friendly Outdoor Activities for a Group

Description:

John, 35, is taking his family on vacation to Calgary. The group includes his wife, their 8-year-old son, and his 60-year-old mother, and John is responsible for planning activities that will work for everyone. He needs to find outdoor activities that are engaging for his energetic son but also relaxing and accessible for

his mother. John starts by researching family-friendly parks, nature trails, and picnic spots that could fit their diverse needs, focusing on options that offer a good balance of fun and relaxation. John, planning a vacation to Calgary with his family, begins by searching for “family-friendly outdoor activities in Calgary” on his browser. His goal is to find activities that can engage his energetic 8-year-old son while also being relaxing and accessible for his 60-year-old mother. John clicks through various travel blogs and parenting websites to compile a list of parks, nature trails, and picnic spots that cater to families with diverse needs. Using Google Maps, he checks the locations of these spots and evaluates accessibility features like wheelchair access, rest areas, and parking availability. After narrowing down the options, John shares the plan with his family to ensure that everyone is comfortable with the choices. He bookmarks the selected locations on his phone for quick access during the trip.

Potential Issues: Hard to find activities that strike the right balance between engaging and relaxing, ensuring accessibility for his mother, and the possibility of weather-related limitations.

Expected User Type: Inexperienced Group Tourist

Importance and Frequency: Medium importance and less frequent, as this task caters to the specific needs of families.

Validation: (User Interview) Interviews with friends who travel with their families revealed that they often face challenges when finding activities suitable for all age groups, particularly when traveling with children and elderly family members. They spend a significant amount of time upfront checking various sources to see if an activity is accessible, family-friendly, and engaging for everyone. The goal is to find something that strikes a balance between fun and relaxation, which can be difficult to do without proper research.

Task 4: Discover New Events or Attractions as a Return Tourist

Description:

Hannah, 28, has visited Calgary once before, but this year she's looking for something new to experience. She's already seen the main tourist spots, so she's hoping to discover events, festivals, or lesser-known attractions that are unique to this time of year. Hannah checks local event listings, blogs, and community calendars for something interesting, like a seasonal festival or a new art exhibit. She's eager to find activities that are different from her past visits to make this trip feel fresh and exciting. Hannah is eager to discover new and unique experiences for her return trip. She opens her browser and searches for "Calgary local events this season" and "unique things to do in Calgary." As she navigates through local event listings, tourism blogs, and community calendars, she finds an art exhibit and a seasonal festival that she hasn't seen before. Hannah double-checks the event details, such as dates and locations, ensuring they fit within her travel schedule. Comparing these events with her past experiences, she gets excited about the opportunity to explore something different. To stay organized, she adds the event dates to her calendar and saves the links for updates closer to her trip.

Potential Issues: Hard to find fresh activities that she hasn't already experienced and outdated or incomplete information about local events.

Expected User Type: Experienced Return Tourist

Importance and Frequency: Important but less frequent, as returning tourists are not as common and

often seek new experiences.

Validation: (User Interview) I interviewed a friend who had visited Calgary before and asked what would motivate her to return. She mentioned that while she enjoyed the well-known landmarks, a second visit would only interest her if she could find new, unique events or seasonal activities. This aligns with common behaviours of returning tourists seeking fresh experiences, such as local festivals or temporary exhibits that they haven't seen before, making it worth the trip.

Task 5: Discover Popular Landmarks to Decide Whether to Visit Calgary

Description:

Josephine is a 21-year-old university student who's considering where to go for her summer break. She's heard from friends about Calgary but doesn't know much about the city. To help her decide, Josephine spends some time researching online, looking for information about Calgary's famous landmarks and attractions. She enjoys browsing travel blogs, guides, and reviews to see if the city aligns with her interests, like nature, culture, or entertainment. Josephine wants to gather enough information to feel confident about her decision on whether Calgary should be her next destination. Josephine starts her research by opening her browser and typing "Calgary tourist attractions" into Google. As she sifts through the search results, she clicks on the first few links, leading her to travel blogs, tourism websites, and reviews. She skims articles that highlight famous landmarks like Calgary Tower, the Calgary Zoo, and various museums. During her browsing, Josephine takes note of how these attractions align with her interests in nature, culture, and entertainment. To gather a comprehensive understanding, she visits several websites and reads user reviews, comparing the city's offerings to other destinations she is considering. Once she feels she has enough information, Josephine decides that Calgary could be a good fit for her summer break and bookmarks a few pages for later reference.

Potential issues: Encountering outdated or incomplete information, difficulty comparing multiple sources, and information overload from the variety of options.

Expected User Type: Singular Inexperienced Tourist

Importance and Frequency: Very frequent and highly important since these are usually the steps people take to make a key decision about whether or not to visit a destination.

Validation: (User Interview) After interviewing friends about how they decide on travel destinations, they confirmed that the first thing they do is research online for popular attractions and landmarks in a city. They often rely on an initial glance at what the city has to offer before diving deeper into specific activities or details. They mentioned using a mix of travel blogs, tourism websites, and quick Google searches to get an overview of a destination, which helps them decide whether it's worth visiting.

1.4 Phase 2: System Requirements

Prioritized System Requirements:

Must Include

1. View Popular Landmarks and Must-Visit Places (e.g., Calgary Tower, Calgary Zoo):

This feature allows users to easily access a list of top attractions in Calgary. Each landmark would

have a detailed page, showing essential information like a brief description, history, pictures, and opening hours. This section should also indicate whether the place has upcoming events, special tours, or seasonal activities.

Justification:

First-time visitors often decide whether to visit a city based on the available attractions. Offering a "Calgary at a Glance" section allows users to quickly evaluate what Calgary offers, making it the main hook for inexperienced tourists. Without this, users might feel lost and uncertain about how to explore the city.

2. View and Book/Cancel an Event (e.g., Book a Dinner at Calgary Tower):

Users can view detailed information about available events, including descriptions, schedules, ticket prices, and available time slots. After exploring, users should be able to easily book the event directly within the app, cancel it if needed, and receive immediate confirmation.

Justification:

This feature supports the app's main function: building a personalized itinerary. Once users find something they like, they need an easy and intuitive way to book it. Without this functionality, users would have to use other apps or websites to book, decreasing the app's overall usefulness and breaking the flow of planning.

3. View and Manage Personal Bookings (Itinerary) in Profile:

The itinerary feature allows users to manage their trip plans by viewing the events they have booked, editing details (such as adjusting the time), and cancelling if necessary. It should offer a calendar view, so users can visualize their day-to-day schedule at a glance.

Justification:

Travelers rely on itineraries to organize their trips. Offering this feature is essential to fulfilling the app's promise of easy trip planning and management. Without it, users would need to manually keep track of their bookings, making the app less user-friendly and practical.

4. View/Navigate Different Types of Events (Restaurants, Outdoor Activities, Festivals):

This feature organizes events into different categories (e.g., restaurants, festivals, outdoor activities), making it easier for users to explore based on their interests. Each category would have its own page with a list of available options, descriptions, and booking links.

Justification:

Users have diverse interests, and the app should cater to them. By organizing events into clear categories, users can efficiently find what they are looking for without getting overwhelmed by too many unrelated options. This is crucial for maintaining user engagement and ensuring that the app meets the needs of both casual and experienced tourists.

Should Include

1. Map for Efficient Route and Travel Planning:

An interactive map showing the locations of popular landmarks, booked events, and other points of interest. Users can see the proximity of attractions to each other and plan their routes to maximize their time.

Justification:

Travelers appreciate tools that make their experience easier and more efficient. Offering a map ensures users can navigate Calgary effectively and plan their days to minimize travel time.

2. Accessibility Filters (Family, accessibilities, etc.):

Users can filter events and attractions based on accessibility needs, such as family-friendly activities or attractions that cater to elderly visitors. These filters should be visible when browsing or searching for events, helping users quickly find options suitable for their group.

Justification:

This feature promotes inclusivity, ensuring that the app can cater to a wide range of users, including those with special needs or specific group dynamics. Without it, the app risks alienating certain user groups, such as families or elderly travelers, reducing its overall appeal.

3. Most Recent and Seasonal Events:

This feature highlights the latest events happening in Calgary, such as seasonal festivals, concerts, or special exhibitions. It should also inform users about upcoming events based on the season (e.g., winter skating events, summer festivals).

Justification:

Keeping content fresh is essential for attracting repeat visitors. For experienced tourists or those making a return visit to Calgary, this feature provides new and unique experiences they might not have encountered on previous trips. Without this, return visitors might lose interest in using the app.

Could Include

1. Event Notifications:

Users can opt-in to receive push notifications about upcoming events or reminders before their booked events. Notifications can also alert users about last-minute deals or newly added activities.

Justification:

While useful for keeping users engaged and informed, this feature is not essential for the core functionality of the app. Additionally, notifications may become an annoyance for some users and increase development complexity, so it can be excluded to stay within scope.

2. Review and rate Events:

After attending an event, users can leave reviews and feedback. Reviews could include a star rating and a short written description of their experience. Other users can see these reviews when considering booking the same event.

Justification:

While this might foster user interaction and help inform future bookings, it is not essential for the app's primary goal of helping tourists plan their trips. Additionally, developing a review system adds extra layers of complexity (moderation, sorting), which might detract from a streamlined user experience.

3. Contact Information for Event Organizers:

Event details pages can include contact information (email, phone number) for event organizers in case users have specific questions or require additional information before booking.

Justification:

While potentially useful in a few cases, this is not a feature users are likely to use frequently. It could also complicate interactions between users and organizers, leading to potential frustrations if organizers are unresponsive. Therefore, it is a lower priority.

Exclude

1. User Messaging:

A feature allowing users to message each other within the app, potentially for organizing group trips or sharing experiences.

Justification:

Messaging systems introduce significant development and moderation challenges, requiring infrastructure for real-time communication. This goes beyond the app's focus of helping individual travelers plan their trips. Since messaging isn't central to the app's core purpose, it should be excluded.

2. Transit Route Navigation:

A feature that offers users detailed transit routes to reach various destinations in Calgary, integrating with local public transportation.

Justification:

Implementing transit navigation requires a significant level of complexity, including data from transit providers and real-time route planning. Most users already rely on dedicated apps (e.g., Google Maps) for this, so offering this feature within the app would be redundant and unnecessary for its core purpose.

3. Search Functionality for Specific Events:

A feature that allows users to search for specific events using a search bar, possibly using keywords or tags.

Justification:

Implementing robust search functionality, especially with semantic or keyword search, requires significant development effort and may not align with the app's click-based interface. Since users are more likely to browse for events based on categories, this feature can be excluded without sacrificing user experience.

Section 2: The First Prototype and Walkthrough

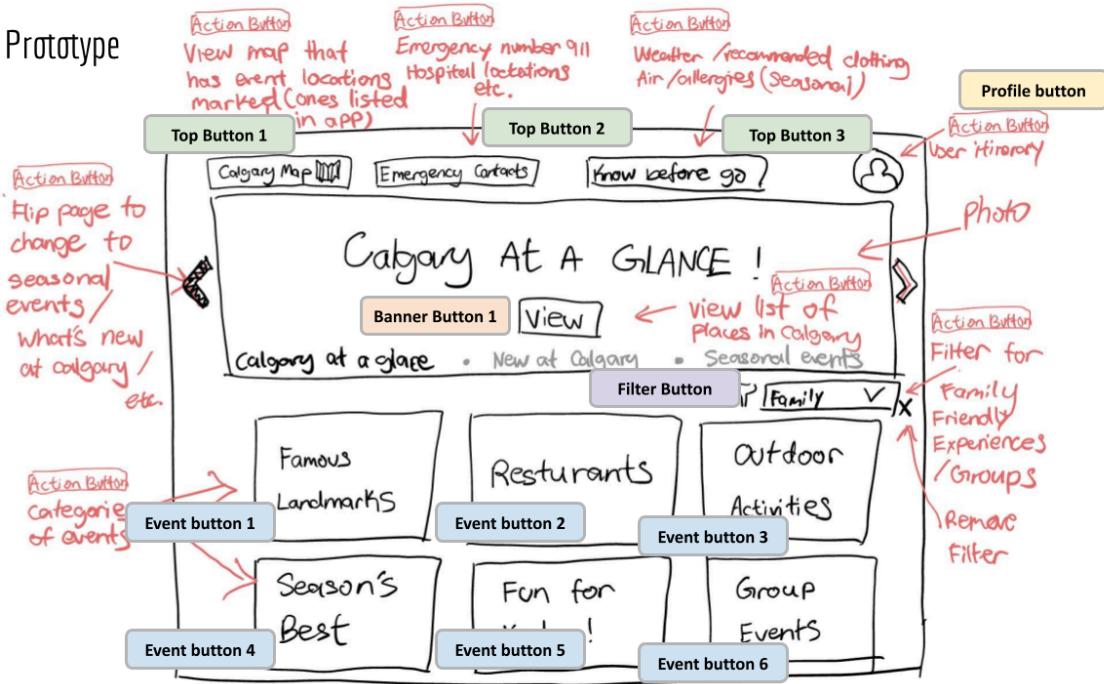
2.1 Phase 3: Low-Fidelity Prototypes

- **Prototyping Approach:** Used Storyboards and screen flow
- **Prototype Designs:**
 - **Iteration Process:** Please see **appendix III** for Early evolution of prototypes.
 - **Final prototype (see below), See detailed prototype in appendix I**

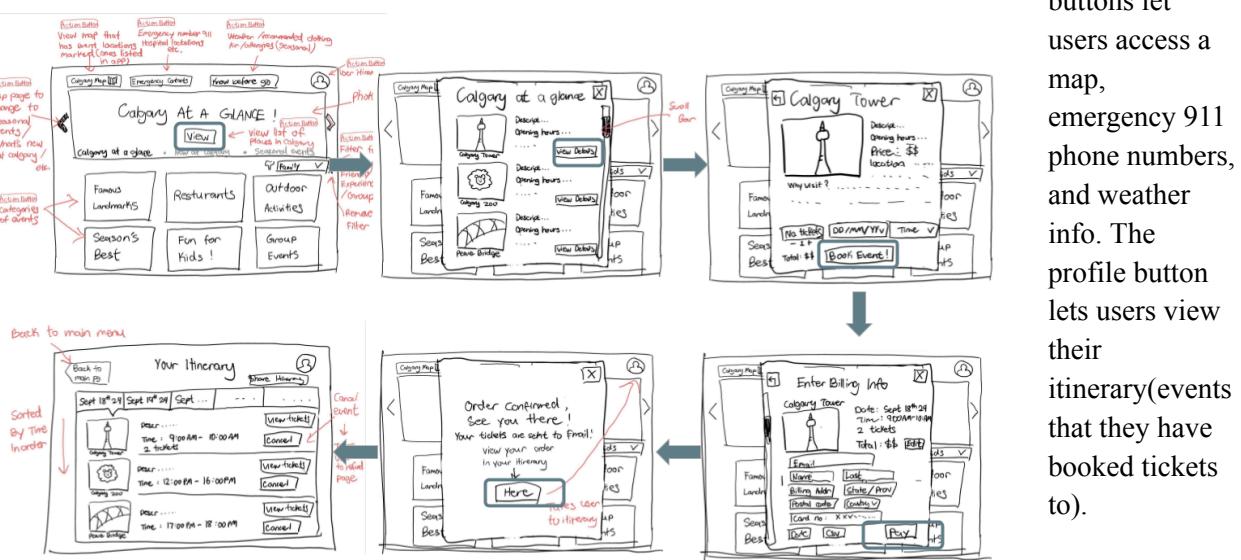
This is the final prototype's main page. The user comes in and sees the possibly most popular/most clicked option in the big "Calgary at a glance" banner. This banner has 3 pages that are rotating(every 5 seconds) so that it is more interesting and engaging for users. The banners are "Calgary at a glance", "Seasonal fun in Calgary", and "New at Calgary". The user can wait for the banner to rotate themselves or manually click the arrow buttons to switch banners. (The arrows rotate the banners back to back so it will not reach the end no matter which direction the user clicks) Users can then click the view button to view a popup list of attractions. (For the Calgary at a glance section, it will show a couple of famous Calgary landmarks, restaurants, and activities. So basically an overview) Same with the other 2 banners.

But the same attractions can also be found in the bottom “event buttons”. So clicking “Famous

Final Prototype



Landmarks” will also give users the famous landmarks that previously appeared in “Calgary at a glance” and more of other landmarks that were not included. Same with the “Restaurant’s” option, it will have all the restaurants listed in “Calgary at a glance” and more. The filter accommodates families or groups, so if we don’t apply any filters, the list of Event Buttons will be famous landmarks, restaurants, outdoor activities, seasonals best, plays and festivals, musical events. But if we filter for family for example, we will have event buttons with kids fun, family activities, etc. added to the list of event buttons. The top 3 buttons let users access a map, emergency 911 phone numbers, and weather info. The profile button lets users view their itinerary(events that they have booked tickets to).



This is a screen flow example of clicking into the “Calgary at a glance” view button.

2.2 Phase 4: Task-Centered Walkthrough - See walkthrough with screen flow in appendix II

Scenario 1

Henry, 30, is planning a five-day trip to Calgary this spring. He opens the travel app and notices the “Calgary at a glance” banner and clicks “view”. He sees a list of attractions Calgary has to offer and clicks into Calgary tower. He views the details of this attraction and finds it interesting. He returns back to the list of attractions and clicks into another attraction to view details. He repeats this a couple times looking at various attractions. He wonders where each location is located in Calgary. So he returns to the main menu hoping to find a map somewhere. He finds the “Calgary map” button at the top left corner and clicks into it. He checks the location of each attraction and gets a better understanding of the city. He then decides to click back into Calgary tower and tries to book a ticket. He selects the date and time and one ticket. Then he proceeds to payment. He pays and booking is confirmed. He clicks the button that appears which leads him to his personal itinerary page. He sees his booking there. He returns back to the main page to find some other attractions to book tickets to and repeats the above booking process a couple times. He returns to his itinerary and double checks the details of his various bookings. He saves a pdf copy of his itinerary.

Walkthrough 1

Task step	Knowledgeable? Motivated?	Comments /Solutions
1. User opens our webapp	Yes	
2. User gets prompted to login with login/signup popup.	Yes, this is a typical login page most modern applications will have.	
3. User clicks sign up button	Might not be motivated to sign up right away as a first time user. Might need more reasons to sign up.	Let users know that signing up will let them save their bookings and build personal itinerary.
4. User fills in field for name	Yes, see step 2.	Let user know this is display name(doesn't have to be real name)
5. User fills in field for email	Yes, see step 2.	
6. User fills in field for password	Yes, see step 2.	
7. User fills in field for password confirmation.	Yes, see step 2.	
8. User clicks sign up and popup closes showing main page with user name indicating user is signed in.	Yes, user is motivated to signup after filling all the info.	
9. User sees the “Calgary at a glance” banner and clicks view button.	It is quite noticeable, but user might not know what view button does.	Give user hover prompt that says this shows list of famous calgary attractions.
10. User sees a popup with a list of attractions famous in Calgary, and scrolls down to see all.	Yes, the scroll bar should be familiar to most modern users.	
11. User clicks “Calgary tower” view details button.	User might not be motivated to click into details yet(not ready to commit).	Maybe add more scrollable photos to engage users.

12. User sees a detail page for “Calgary tower” that allows him to also book a ticket. He scrolls up and down to view details.	Yes, see step 10.	
13. User clicks date popup and selects date	Yes, this should be familiar to users who have done bookings before.	Make it more obvious that it is clickable
14. User selects time for the date	Yes, see step 13	
15. User clicks “book event”	Yes, user is motivated after filling in the above 2 steps, but might not be obvious what comes next.	Make it more obvious to users that it will take them to payment confirmation page.
16. User gets taken to payment page where he can view booking details and fill in billing info. He fills in email field.	He might not understand why email is required.	Let user know email is for sending ecopies of tickets.
17. User fills in name field	Yes, this is typical for filling in billing information.	
18. User fills in billing address	Yes, see step 17	
19. User selects state/province	Yes, see step 17	
20. User fills in postal code	Yes, see step 17	
21. User selects country	Yes, see step 17	
22. User fills in card number	Yes, see step 17	
23. User fills in date	Yes, see step 17	
24. User fills in CSV	Yes, see step 17	
25. User clicks pay button	Yes, User is motivated to pay after filling in info.	
26. User gets asked whether or not to save payment info for future use and user clicks yes.	Yes, user is already logged in and wants to save for future use.	Let user know its safe and secure.
27. User gets confirmation message on pop up and gets informed that tickets have been sent to email, and he can click here button to view the booked events and his itinerary.	Yes, user would want to see booking confirmation immediately, might not know what itinerary page looks like.	Add more prompts to engage users to click.
28. User views itinerary page and clicks back to main menu button.	Yes, the button has prompt and is intuitive.	
29. User gets back to main menu and clicks view map button.	Map button location might not be too visible	Change where the button is placed, make it more noticeable that this is an action button.
30. User views map and sees where all the attractions are located, including his signed up for events. User zooms in to see details and transit options.	Yes, this should be obvious for users	
31. User closes map popup.	Yes, the x should be noticeable and familiar to users.	Also allow users to click outside of popup space to close it.
32. User returns to main menu and clicks “Calgary at a glance” view button again.	Yes, user has done it before.	

33. User sees a popup with a list of attractions famous in Calgary, and scrolls down to see all.	Yes, see step 10.	
34. User clicks “Calgary zoo” view details button.	Yes, see step 11	
35. User sees a detail page for “Calgary zoo” that allows him to also book a ticket. He scrolls up and down to view details.	Yes, see step 10.	
36. User clicks date popup and selects date	Yes, see step 13	
37. User selects time for the date	Yes, see step 14	
38. User clicks “book event”	Yes, see step 15	
39. User gets taken to payment page where he can view booking details and fill in billing info. User selects to auto fill. And the fields are auto populated.	Yes, user can also manually fill if they don't want to auto fill.	
40. User clicks pay button	Yes, see step 25	
41. User gets confirmation message on pop up and gets informed that tickets have been sent to email, and he can click here button to view the booked events and his itinerary.	Yes, see step 27	
42. User views itinerary page and clicks back to main menu button.	Yes, see step 28	
43. User returns to main menu and clicks “Calgary at a glance” view button again.	Yes, user has done it before.	
44. User sees a popup with a list of attractions famous in Calgary.	Yes, see step 10.	
45. User clicks “Peace bridge” view details button.	Yes, see step 11	
46. User sees a detail page for “Peace bridge” that allows him to also book a ticket.	Yes, see step 10.	
47. User clicks date popup and selects date	Yes, see step 13	
48. User selects time for the date	Yes, see step 14	
49. User clicks “book event”	Yes, see step 15	
50. User gets taken to payment page where he can view booking details and fill in billing info. This event is free, so he doesn't need to fill in any billing info.	Yes, no action from user needed.	
51. User clicks pay button	Yes, see step 25	
52. User gets confirmation message on pop up and gets informed that tickets have been sent to email, and he can click here button to view the booked events and his itinerary.	Yes, see step 27	
53. User views itinerary page and clicks share itinerary button to download a pdf copy of his itinerary.	Not that obvious what the action does.	Add more prompt to let users know that it downloads pdf.
54. User closes out of the webapp.	Yes.	

Summary of key issues:

- User might not be motivated to do all the actions (Add more prompts and engage users)
- some action buttons have unclear instructions (Add more obvious instructions and inform user of action results)
- Users might not be able to find what they're looking for when they use the app for the first time. (Better placement of buttons)
- Users might not be able to view the location of events on a map directly before booking. There's only one location in the app where the map can be displayed from.

Scenario 2:

Julia, 24, is planning a fall trip to Calgary with three friends. Since organizing a group trip can be tricky, she takes the lead in researching the city's best attractions. She signs up on a travel app after being informed that creating an account will help her save bookings and build a shared itinerary. Julia starts by exploring the "Group Events" filter and clicks the "Group Activities" button, bringing up a list of options like museums and parks. She clicks on "Telus Science Center" to view more details, considering it for her friends. Wishing she could view its location on a map, she notes that this feature would be helpful before booking. She selects a date and time for a visit to the Science Center and proceeds to book tickets for four people. The app takes her to the payment page, where she fills in her details. After the payment is confirmed, she shares the itinerary with her friends through a group chat to get their feedback. Once her friends agree on the plans, Julia finalizes additional activities like canoeing at Bowness Park, using the same process. She appreciates that the app changes the "Pay" button to "Book" for free events, making the process clear. Julia then uses the map feature to visualize where each attraction is located, ensuring they can visit multiple spots in a day. She keeps a digital copy of the finalized itinerary on her phone, feeling confident that their trip is well-organized and enjoyable for everyone.

Walkthrough 2:

Task step	Knowledgeable? Motivated?	Comments /Solutions
1. User opens our webapp	Yes	
2. User gets prompted to login with login/signup popup.	Yes, this is a typical login page most modern applications will have.	
3. User clicks sign up button	Might not be motivated to sign up right away as a first time user. Might need more reasons to sign up.	Let users know that signing up will let them save their bookings and build personal itinerary.
4. User fills in field for name	Yes, see step 2.	Let user know this is display name(doesn't have to be real name)
5. User fills in field for email	Yes, see step 2.	
6. User fills in field for password	Yes, see step 2.	
7. User fills in field for password confirmation.	Yes, see step 2.	
8. User clicks sign up and popup closes showing main page with user name indicating user is signed in.	Yes, user is motivated to signup after filling all the info.	

9. User sees the “Group Events” Filter button.	It is quite noticeable, but user might not know if the button is clickable	Maybe add some more prompts that indicate this is a filter. Give user hover prompt that says this shows list of popular group events in Calgary.
10. User sees the “Group Activities” button, filtered as the user requested	It is quite noticeable, but user might not know if the button is clickable	Give user hover prompt that says this shows list of popular outdoor activities in Calgary.
11. User sees a popup with a list of popular group events in Calgary, and scrolls down to see all.	Yes, the scroll bar should be familiar to most modern users.	
12. User clicks “Telus Science Center” view details button.	User might not be motivated to click into details yet(not ready to commit).	Maybe add more scrollable photos to engage users.
13. User sees a detail page for “Telus Science Center”. She scrolls up and down to view details.	May not be possible to view location of event on a map.	Maybe add a functionality to view the location on a map before booking, like a clickable location icon
14. User clicks date popup and selects date	Yes, this should be familiar to users who have done bookings before.	Make it more obvious that it is clickable
15. User selects time for the date	Yes. see step 13	
16. User clicks “book event”	Yes, user is motivated after filling in the above 2 steps, but might not be obvious what comes next.	Make it more obvious to users that it will take them to payment confirmation page.
17. User gets taken to payment page where she can view booking details and fill in billing info. She fills in email field	User may not understand why email is required	Let user know email is for sending copies of tickets
18. User fills in name field	Yes, this is typical for filling in billing information.	
19. User fills in billing address	Yes, see step 17	
20. User selects state/province	Yes, see step 17	
21. User fills in postal code	Yes, see step 17	
22. User selects country	Yes, see step 17	
23. User fills in card number	Yes, see step 17	
24. User fills in date	Yes, see step 17	
25. User fills in CSV	Yes, see step 17	
26. User clicks pay button	Yes, user is motivated to pay after filling in billing info	
27. User gets confirmation message on pop up and gets informed that tickets have been sent to email, and she can click the “click here” here button to view the booked events and her itinerary.	Yes, user would want to see booking confirmation immediately, might not know what itinerary page looks like.	Add more prompts to engage users to click.

28. User views itinerary page and clicks back to main menu button.	Yes, the button has prompt and is intuitive.	
29. User returns to main menu and clicks “Outdoor Activities” button again.	Yes, user has done it before.	
30. User sees a popup with a list of popular outdoor activities in Calgary, and scrolls down to see all.	Yes, user has done it before	
31. User clicks “Shouldice Park” view details button.	Yes, see step 11	
32. User sees a detail page for “Shouldice park” that allows him to also book a ticket. He scrolls up and down to view details.	Yes, see step 10.	
33. User clicks date popup and selects date	Yes, see step 13	
34. User selects time for the date	Yes, see step 14	
35. User clicks “book event”	Yes, see step 15	
36. User gets taken to payment page where he can view booking details and fill in billing info. This event is free so he doesn’t need to fill any billing info	Yes, no further action from the user is required	
37. User clicks pay button	No, user may be confused on wording of “pay” button	Change the text of the button to “Book” for free events
38. User gets confirmation message on pop up and gets informed that tickets have been sent to email, and he can click here button to view the booked events and his itinerary.	Yes, user would want to see booking confirmation immediately, might not know what itinerary page looks like.	Add more prompts to engage users to click.
39. User views itinerary page and clicks back to main menu button.	Yes, the button has prompt and is intuitive.	
40. User returns to main menu and clicks “Group Activities” view button again.	Yes, user has done it before.	
41. User sees a popup with a list of popular group activities in Calgary.	Yes, user has done it before	
42. User clicks “Canoeing at Bowness Park” view details button.	Yes, see step 11	
43. User sees a detail page for “Canoeing at bowness Park” that allows her to also book a ticket.	May not be possible to view location of event on a map.	Maybe add a functionality to view the location on a map before booking, like a clickable location icon
User clicks “+” sign on number of tickets and selects “4” tickets	May not be obvious that the “+” sign is clickable	Maybe add more prompts that the “+” sign is clickable and responsive
44. User clicks date popup and selects date	Yes, see step 13	
45. User selects time popup and selects time	Yes, see step 14	
46. User clicks “book event”	Yes, see step 15	
47. User gets taken to payment page where she can view booking details and fill in billing info. User selects to auto fill. All the fields are auto populated	Yes, user can also manually fill if they don’t want to auto fill	

48. User clicks pay button	Yes, User is motivated to pay after filling in info.	
49. User gets confirmation message on pop up and gets informed that tickets have been sent to email, and she can click here button to view the booked events and her itinerary.	Yes, see step 27	
50. User views itinerary page and clicks share itinerary button to share itinerary through other applications such as whatsapp and instagram.	Not that obvious what the action does.	Add more prompt to let users know that it gives user the option to share a link to the itinerary through other applications, or save as a pdf
51. User exits to main menu, and clicks on map button.	Map button location might not be too visible	Change where the button is placed, make it more noticeable that this is an action button.
52. User views map and sees hers location, as well as where all the attractions are located, including her signed up for events. User zooms in to see details and transit options.	May not be obvious which of the events on the map are his signed up for events.	Differentiate the events by colour to make signed up for events stand out more.
53. User closes out of the webapp.	Yes.	

Summary of key issues:

- User might not be motivated to do all the actions (Add more prompts and engage users)
- some action buttons have unclear instructions (Add more obvious instructions and inform user of action results)
- Users might not be able to find what they're looking for when they use the app for the first time. (Better placement of buttons)
- User currently unable to view location of an event they're interested in on map before booking of event
- Filters have multiple layers, adding a layer of complexity for the user
- Filters may not be clear enough to the user, more visual prompts likely needed

Scenario 3:

John, 35, is planning a family trip to Calgary with his wife, their 8-year-old son, and his 60-year-old mother. He needs to find activities that are engaging for his son yet accessible for his mother. To make sure he chooses the right spots, John uses a travel app to search for family-friendly outdoor activities. After signing up to save his itinerary, John uses the “family” filter and clicks on “Outdoor Activities” to see options tailored for families. He browses through a list of activities like nature trails and parks. He clicks on “Nature Trail” to view more details, checking if it offers rest areas and wheelchair access. He selects four tickets and books the trail for a date that works for everyone. John continues searching, this time selecting “Shouldice Park” from the list. He follows a similar booking process, appreciating that the app changes the “Pay” button to “Book” for free events, making it clear. After booking, he views a map to see where each location is, ensuring that they can visit multiple spots in a day without too much travel. Satisfied with his selections, John shares the itinerary with his family and downloads a copy for easy access. He feels confident that the chosen activities will provide fun for his son and relaxation for his mother, making the trip enjoyable for all.

Walkthrough 3:

Task step	Knowledgeable? Motivated?	Comments /Solutions
1. User opens our webapp	Yes	
2. User gets prompted to login/signup popup.	Yes, this is a typical login page most modern applications will have.	
3. User clicks sign up button	Might not be motivated to sign up right away as a first time user. Might need more reasons to sign up.	Let users know that signing up will let them save their bookings and build personal itinerary.
4. User fills in field for name	Yes, see step 2.	Let user know this is display name(doesn't have to be real name)
5. User fills in field for email	Yes, see step 2.	
6. User fills in field for password	Yes, see step 2.	
7. User fills in field for password confirmation.	Yes, see step 2.	
8. User clicks sign up and popup closes showing main page with user name indicating user is signed in.	Yes, user is motivated to signup after filling all the info.	
9. User clicks on the “family” filter button	May not be obvious that this button is responsive as a means to filter out unwanted options. May not also be clear how many filter options are available to the user.	Maybe add some more prompts that indicate this is a filter.
10. User sees the “Outdoor Activities” button, filtered as the user requested	It is quite noticeable, but user might not know if the button is clickable	Give user hover prompt that says this shows list of popular outdoor activities in Calgary.
11. User sees a popup with a list of filtered outdoor activities in Calgary, and scrolls down to see all.	Yes, the scroll bar should be familiar to most modern users.	
12. User clicks “Nature Trail” view details button.	User might not be motivated to click into details yet(not ready to commit).	Maybe add more scrollable photos to engage users.
13. User sees a detail page for “Nature Trail”. He scrolls up and down to view details.	Yes, see step 10.	
14. User selects “+” sign on number of tickets and selects “4” tickets	May not be obvious that the “+” sign is clickable	Maybe add more prompts that the “+” sign is clickable and responsive
15. User clicks date popup and selects date	Yes, this should be familiar to users who have done bookings before.	Make it more obvious that it is clickable
16. User selects time for the date	Yes. see step 13	
17. User clicks “book event”	Yes, user is motivated after filling in the above 2 steps, but might not be obvious what comes next.	Make it more obvious to users that it will take them to payment confirmation page.
18. User gets taken to payment page where he can view	Yes, no further action from the user	

booking details and fill in billing info. This event is free so he doesn't need to fill in any billing info.	is required	
19. User clicks pay button	No, user may be confused on wording of "pay" button	Change the text of the button to "Book" for free events
20. User gets confirmation message on pop up and gets informed that tickets have been sent to email, and he can click here button to view the booked events and his itinerary.	Yes, user would want to see booking confirmation immediately, might not know what itinerary page looks like.	Add more prompts to engage users to click.
21. User views itinerary page and clicks back to main menu button.	Yes, the button has a prompt and is intuitive.	
22. User returns to main menu and clicks "Outdoor Activities" button again, with their filter options still active.	Yes, user has done it before. May not be clear that the filter options are still active.	Maybe make the filter button blue to visualize that they're still activated.
23. User sees a popup with a list of popular outdoor activities in Calgary, and scrolls down to see all.	Yes, user has done it before	
24. User clicks "Shouldice Park" view details button.	Yes, see step 11	
25. User sees a detail page for "Shouldice park" that allows him to also book a ticket. He scrolls up and down to view details.	Yes, see step 10.	
26. User selects "+" sign on number of tickets and selects "4" tickets	May not be obvious that the "+" sign is clickable	Maybe add more prompts that the "+" sign is clickable and responsive
27. User clicks date popup and selects date	Yes, see step 13	
28. User selects time for the date	Yes, see step 14	
29. User clicks "book event"	Yes, see step 15	
30. User gets taken to payment page where he can view booking details and fill in billing info. This event is free so he doesn't need to fill any billing info	Yes, no further action from the user is required	
31. User clicks pay button	No, user may be confused on wording of "pay" button	Change the text of the button to "Book" for free events
32. User gets confirmation message on pop up and gets informed that tickets have been sent to email, and he can click here button to view the booked events and his itinerary.	Yes, user would want to see booking confirmation immediately, might not know what itinerary page looks like.	Add more prompts to engage2 users to click.
33. User views itinerary page and clicks back to main menu button.	Yes, the button has prompt and is intuitive.	
34. User returns to main menu and clicks "Popular Outdoor Activities" view button again.	Yes, user has done it before.	
35. User sees a popup with a list of popular outdoor activities in Calgary.	Yes, user has done it before	
36. User clicks "Canoeing at Bowness Park" view details button.	Yes, see step 11	
37. User sees a detail page for "Canoeing at bowness Park"	Yes, see step 10.	

that allows him to also book a ticket.		
38. User selects “+” sign on number of tickets and selects “4” tickets	May not be obvious that the “+” sign is clickable	Maybe add more prompts that the “+” sign is clickable and responsive
39. User clicks date popup and selects date	Yes, see step 13	
40. User selects time popup and selects time	Yes, see step 14	
41. User clicks “book event”	Yes, see step 15	
42. User gets taken to payment page where he can view booking details and fill in billing info. He fills in email field	User may not understand why email is required	Let user know email is for sending ecopies of tickets
43. This is a free event so user doesn't need to fill payment info.		
44. User gets confirmation message on pop up and gets informed that tickets have been sent to email, and he can click here button to view the booked events and his itinerary.	Yes, see step 27	
45. User views itinerary page and clicks share itinerary button to share itinerary through other applications such as whatsapp and instagram.	Not that obvious what the action does.	Add more prompt to let users know that it gives user the option to share a link to the itinerary through other applications, or save as a pdf
46. User exits to main menu, and clicks on map button.	Map button location might not be too visible	Change where the button is placed, make it more noticeable that this is an action button.
47. User views map and sees his location, as well as where all the attractions are located, including his signed up for events. User zooms in to see details and transit options.	May not be obvious which of the events on the map are his signed up for events.	Differentiate the events by colour to make signed up for events stand out more.
48. User closes out of the webapp.	Yes.	

Summary of key issues:

- User might not be motivated to do all the actions (Add more prompts and engage users)
- some action buttons have unclear instructions (Add more obvious instructions and inform user of action results)
- Users might not be able to find what they're looking for when they use the app for the first time. (Better placement of buttons)
- User currently unable to view location of an event they're interested in on map before booking of event
- Filters may not be detailed enough, may need to add more depth, for issues related to health and safety.
- Filters have multiple layers, adding a layer of complexity
- Filters may not be clear enough to the user, more visual prompts likely needed
- Wording relating to free events may cause some confusion

Scenario 4

Hannah, 28, is planning a return trip to Calgary, hoping to discover new and unique attractions beyond the main tourist spots she visited before. Eager to find seasonal events or lesser-known activities, she uses a travel app to explore her options. After logging in, she spots a “Season’s Best” button on the homepage, which highlights current seasonal attractions. She clicks on it and browses through a list of events.

Scrolling down, she finds an art exhibit that piques her interest and clicks “view details” to learn more. Hannah selects a date and time for the exhibit and proceeds to book her ticket. She’s taken to a payment page, where she fills in her billing information and completes the booking. A confirmation appears, letting her know that her ticket has been sent to her email. She saves the event details in her calendar for easy access. Returning to the main page, Hannah checks out another event—a seasonal festival that she hasn’t experienced before. She follows the same booking process, opting for autofill to make the payment quicker this time. After confirming the ticket, she adds this event to her itinerary. Using the map feature, she checks the locations of the new attractions, zooming in to understand how they fit within her schedule. Satisfied with her plans, she downloads a PDF of her itinerary for reference and logs out, excited to explore a different side of Calgary this time around.

Walkthrough 4

Task step	Knowledgeable? Motivated?	Comments /Solutions
1. User opens our webapp	Yes	
2. User gets prompted to login with login/signup popup.	Yes, this is a typical login page most modern applications will have.	
3. User clicks login button	Yes, user is a returning tourist	
4. User is taken to the main homepage	Yes, this will be automatic	
5. User clicks on the “Season’s Best” button.	It might take a few eye movements to notice this option.	Give user visual cues like a size increase once hovered over, showing that it can be clicked.
6. User sees a popup with a list of seasonal attractions in Calgary, and can scroll down to view them all.	Yes, the scroll bar should be familiar to most modern users	
7. User scrolls down to an art exhibition event, and clicks “view details” button	User might not be motivated to click into details yet (not ready to commit)	Maybe add more scrollable photos to engage users
8. User sees a detailed page for “Art Exhibition” that also allows her the option to select a date and time from dropdown menus, and/or book a ticket. She scrolls up and down to view additional details.	Yes, see step 7	
9. User selects the date dropdown and selects date	Yes, this should be familiar to users who have done bookings before.	Make it more obvious that it is clickable
10. User selects the time dropdown and selects time	Yes, see step 9	
11. User clicks “Book Event” button	Yes, user is motivated after filling in the above 2 steps, but might not be obvious what comes next.	Make it more obvious to users that it will take them to payment confirmation page.

12. User gets taken to payment page where she can view booking details and fill in billing info. She fills in email field.	She might not understand why email is required	Let user know email is for sending e-copies of tickets
13. User autofills payment info since they have it saved.		
14. User clicks pay button	Yes, User is motivated to pay after filling in info.	
15. User gets asked whether or not to save payment info for future use and user clicks yes.	Yes, user is already logged in and wants to save for future use.	Let user know its safe and secure.
16. User gets confirmation message on pop up and gets informed that tickets have been sent to email, and she can click here button to view the booked events and his itinerary.	Yes, user would want to see booking confirmation immediately, might not know what itinerary page looks like.	Add more prompts to engage users to click.
17. User views itinerary page and clicks back to main menu button.	Yes, the button has prompt and is intuitive.	
18. User gets back to main menu and clicks view map button.	Map button location might not be too visible	Change where the button is placed, make it more noticeable that this is an action button.
19. User views map and sees where all the attractions are located. User zooms in to see details.	Yes, this should be obvious for users	
20. User closes map popup.	Yes, the x should be noticeable and familiar to users.	Also allow users to click outside of popup space to close it.
21. User returns to main menu and clicks "Season's Best" button again.	Yes, user has done it before.	
22. User sees a popup with a list of seasonal attractions in Calgary, and scrolls down to see all.	Yes, see step 6.	
23. User clicks "Seasonal Festival" view details button.	Yes, see step 7.	
24. User sees a detail page for "Seasonal Event" that allows her to also book a ticket. She scrolls up and down to view details.	Yes, see step 10.	
25. User clicks date dropdown and selects date	Yes, see step 8	
26. User selects time dropdown and selects the date	Yes, see step 9	
27. User clicks "book event" button	Yes, see step 11	
28. User gets taken to payment page where she can view booking details and fill in billing info. User selects to auto fill. And the fields are auto populated.	Yes, user can also manually fill if they don't want to auto fill.	
29. User clicks pay button	Yes, see step 25	
30. User gets confirmation message on pop up and gets informed that tickets have been sent to email, and she can click here button to view the booked events and her itinerary.	Yes, user would want to see booking confirmation immediately, might not know what itinerary page looks like.	Add more prompts to engage users to click.
31. User manually adds the "Art Gallery" and "Seasonal Event" events to their calendar.	No, there is no option through the app to automatically add the event to their calendar	Add button to allow the user to add the event to their calendar

32. User clicks share itinerary button to download a pdf copy of her itinerary	Not that obvious what the action does	Add more prompt to let users know that it downloads pdf version
33. User closes out of the webapp	Yes.	

Summary of key issues:

- User might not be motivated to do all the actions (Add more prompts and engage users)
- some action buttons have unclear instructions (Add more obvious instructions and inform user of action results)
- Users might not be able to find what they're looking for when they use the app for the first time. (Better placement of buttons)
- User currently unable to view location of an event they're interested in on map before booking of event
- User currently unable to add events to other calendar applications. Itenary is already available through the app, though unable to view potential conflicts with other external events.
- Location of clickable buttons may take some adjustment
- Wording relating to free events may cause some confusion

Scenario 5:

Josephine, a 21-year-old student, is considering visiting Calgary for her summer break. She opens a travel app and signs up to save her bookings and build a personal itinerary. On the main page, she clicks the “Famous Landmarks” button and explores details of the Calgary Tower. After viewing the description, she books a ticket by selecting a date and time, and completes the payment. Next, she explores “Outdoor Activities” and books a free visit to Shouldice Park. She appreciates that the app’s button changes from “Pay” to “Book” for free events. To understand the city layout, Josephine uses the map feature to see where each attraction is located, including her bookings. She downloads a PDF of her itinerary for easy access and logs out, feeling ready for her Calgary trip.

Walkthrough 5:

Task step	Knowledgeable? Motivated?	Comments /Solutions
1. User opens our webapp	Yes	
2. User gets prompted to login with login/signup popup.	Yes, this is a typical login page most modern applications will have.	
3. User doesn't want to sign up, so she closes popup.	Yes	
4. User sees the “Famous Landmarks” button.	It is quite noticeable, but user might not know if the button is clickable	Give user hover prompt that says this shows list of a Famous Landmarks in Calgary.
5. User sees a popup with a list of popular landmarks in Calgary, and scrolls down to see all.	Yes, the scroll bar should be familiar to most modern users.	
6. User clicks “Peace bridge” view details button.	User might not be motivated to click into details yet(not ready to commit).	Maybe add more scrollable photos to engage users.
7. User sees a detail page for “Peace bridge”. She scrolls up and down to view details.	May not be possible to view location of event on a map.	Maybe add a functionality to view the location on a map before booking, like a clickable

		location icon
8. User clicks date popup and selects date	Yes, this should be familiar to users who have done bookings before.	Make it more obvious that it is clickable
9. User selects time for the date	Yes. see step 13	
10. User clicks “book event”	Yes, user is motivated after filling in the above 2 steps, but might not be obvious what comes next. User may not be motivated to book event yet, but wants to bookmark for later reference.	Maybe add a bookmark event button next to the book event button, and a section to view all their bookmarked events.. Make it more obvious to users that it will take them to payment confirmation page.
11. User gets taken to payment page where she can view booking details and fill in billing info. She fills in email field	User may not understand why email is required	Let user know email is for sending ecopies of tickets
12. This event is free so no billing info is required.		
13. User clicks pay button	Yes, user is motivated to pay after filling in billing info	
14. User gets asked whether or not to save payment info for future use and user clicks yes.	Yes, user is already logged in and wants to save for future use.	Let user know its safe and secure.
15. User gets confirmation message on pop up and gets informed that tickets have been sent to email, and she can click the “click here” here button to view the booked events and her itinerary.	Yes, user would want to see booking confirmation immediately, might not know what itinerary page looks like.	Add more prompts to engage users to click.
16. User views itinerary page and clicks back to main menu button.	Yes, the button has prompt and is intuitive.	
17. User returns to main menu and clicks “Outdoor Activities” button again.	Yes, user has done it before.	
18. User sees a popup with a list of popular outdoor activities in Calgary, and scrolls down to see all.	Yes, user has done it before	
19. User clicks “Shouldice Park” view details button.	Yes, see step 11	
20. User sees a detail page for “Shouldice park” that allows him to also book a ticket. She scrolls up and down to view details.	Yes, see step 10.	
21. User clicks date popup and selects date	Yes, see step 13	
22. User selects time for the date	Yes, see step 14	
23. User clicks “book event”	Yes, same issue as before	Same solution as above
24. User gets taken to payment page where she can view booking details and fill in billing info. This event is free so she doesn't need to fill any billing info	Yes, no further action from the user is required	
25. User clicks pay button	No, user may be confused on wording of “pay” button	Change the text of the button to “Book” for free events
26. User gets confirmation message on pop up and gets informed that tickets have been sent to email, and he can click here button to view the booked events and his itinerary.	Yes, user would want to see booking confirmation immediately, might not know what itinerary page looks like.	Add more prompts to engage users to click.
27. User views itinerary page and clicks back to main menu button.	Yes, the button has prompt and is intuitive.	
28. User returns to main menu and clicks “Outdoor Activities” button.	Yes, user has done it before.	
29. User sees a popup with a list of popular outdoor activities in Calgary.	Yes, user has done it before	

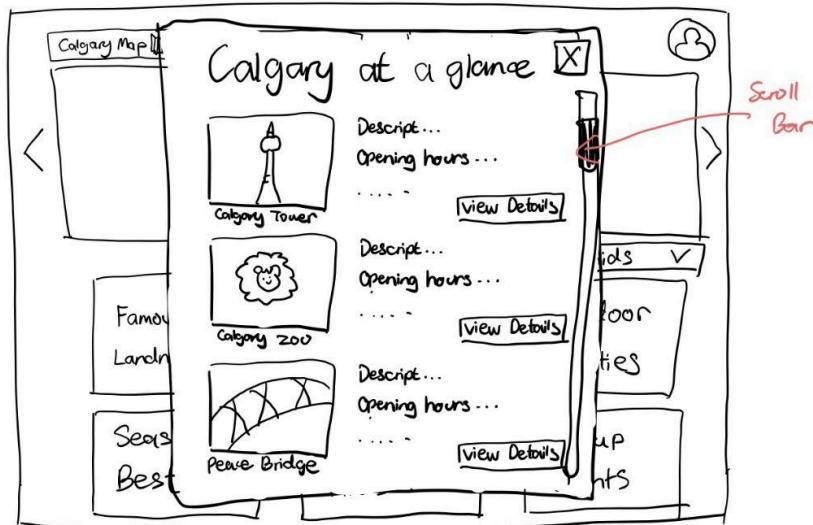
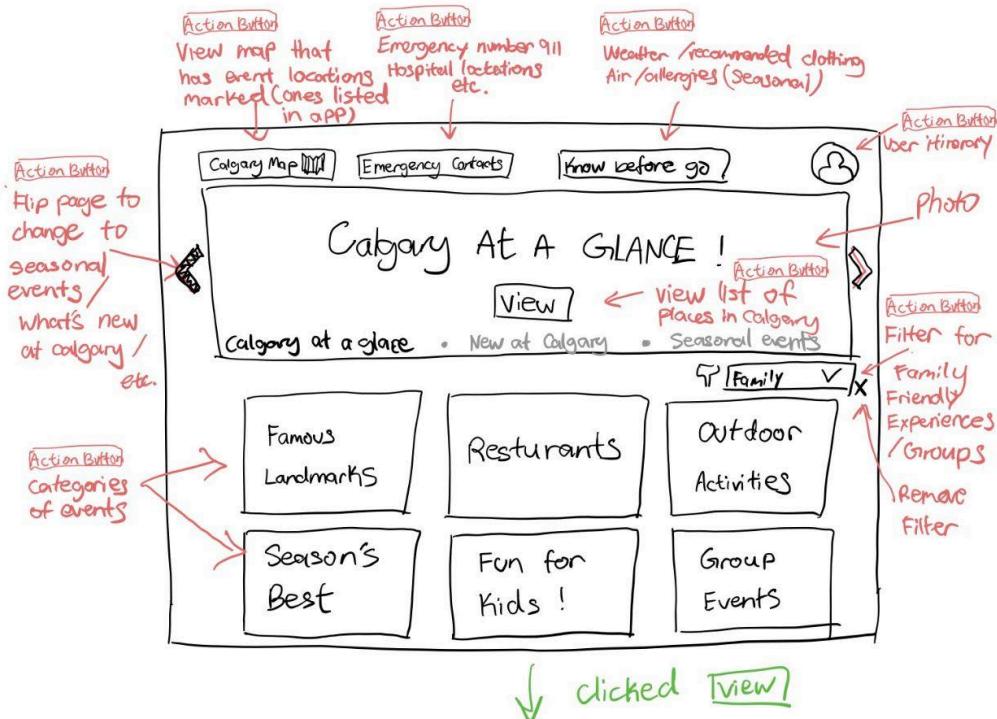
30. User clicks “Canoeing at Bowness Park” view details button.	Yes, see step 11	
31. User sees a detail page for “Canoeing at bowness Park” that allows her to also book a ticket.	May not be possible to view location of event on a map.	Maybe add a functionality to view the location on a map before booking, like a clickable location icon
User clicks “+” sign on number of tickets and selects “1” ticket	May not be obvious that the “+” sign is clickable	Maybe add more prompts that the “+” sign is clickable and responsive
32. User clicks date popup and selects date	Yes, see step 13	
33. User selects time popup and selects time	Yes, see step 14	
34. User clicks “book event”	User may not be motivated to book event yet, but wants to bookmark for later reference.	Maybe add a bookmark event button next to the book event button, and a section to view all their bookmarked events.. Make it more obvious to users that it will take them to payment confirmation page
35. User gets taken to payment page where she can view booking details and fill in billing info. User selects to auto fill. All the fields are auto populated	Yes, user can also manually fill if they don't want to auto fill	
36. User clicks pay button	Yes, User is motivated to pay after filling in info.	
37. User gets confirmation message on pop up and gets informed that tickets have been sent to email, and she can click here button to view the booked events and her itinerary.	Yes, see step 27	
38. User views itinerary page and clicks share itinerary button to share itinerary through other applications such as whatsapp and instagram.	Not that obvious what the action does.	Add more prompt to let users know that it gives user the option to share a link to the itinerary through other applications, or save as a pdf
39. User exits to main menu, and clicks on map button.	Map button location might not be too visible	Change where the button is placed, make it more noticeable that this is an action button.
40. User views map and sees hers location, as well as where all the attractions are located, including her signed up for events. User zooms in to see details and transit options.	May not be obvious which of the events on the map are his signed up for events.	Differentiate the events by colour to make signed up for events stand out more.
41. User closes out of the webapp.	Yes.	

Summarize the key issues with that walkthrough

- User might not be motivated to do all the actions (Add more prompts and engage users)
- some action buttons have unclear instructions (Add more obvious instructions and inform user of action results)
- Users might not be able to find what they're looking for when they use the app for the first time. (Better placement of buttons)
- Future reference issue: App forces user to make a decision, and no current option to come back later (bookmark, tags, etc can probably be added). Only way to do this right now is to go into the itinerary after booking events.

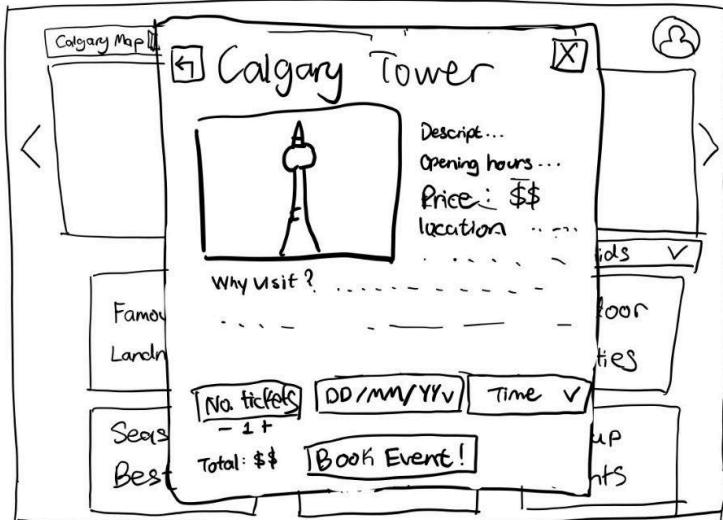
Appendices

I. Prototype details

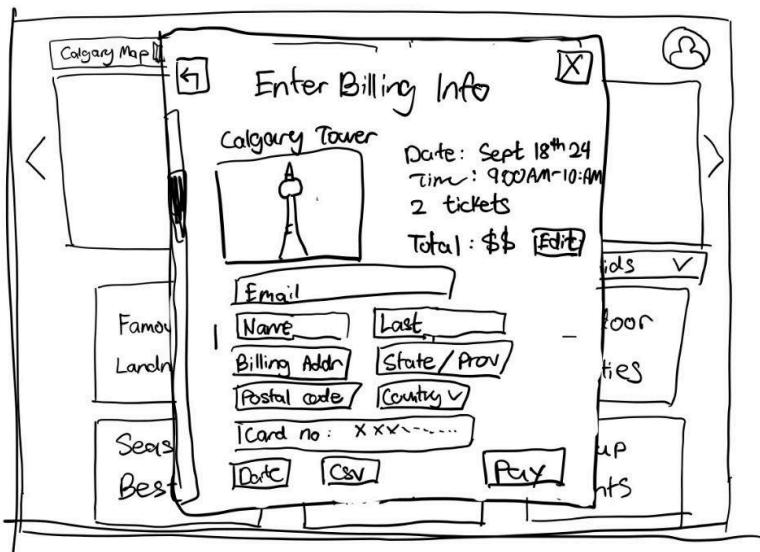


User gets a **scrollable** **popup** with **list of attractions**. The can either **close** **popup** or click **view details button** to see more about a certain attractions

↓ clicked view Calgary tower Details

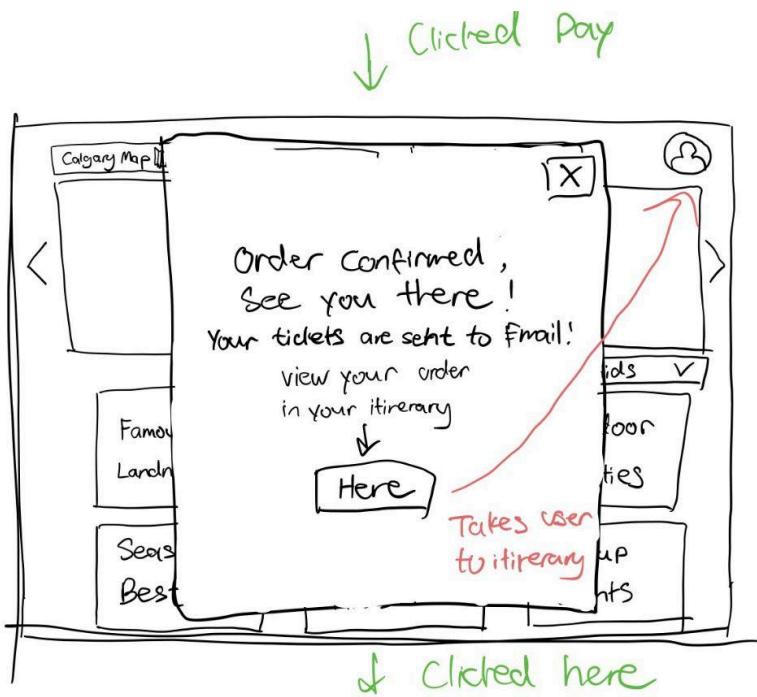


↓ Click Book event



Users get to see the details page, where they can either close the popup to return to the main page or click the back arrow button to return to the previous list of events. They can also choose date and time and number of tickets to book. The Book events button is greyed out until all actions have been completed.

After the book events button, the user gets to the billing page and can proceed to pay after filling in info or click x to return to the main page or back arrow to return to the details page.



After the user pays. They can go to view their bookings and itinerary by clicking the here button, or they can close the popup and view the itinerary through the profile button later.

Here they can view the booked events ordered by date and time. They can view ticket details and cancel events, which will take them to a cancellation and refund page. They can also share their itinerary, where the action turns the itinerary into a pdf and then they can share with friends or save for themselves. Users can also view a map that has the user booked attractions highlighted, as well as other clickable nearby attractions on the map.

Back to main menu

Back to main pg

Sorted By Time In Order

Back to main pg

Calgary Map

Profile

Cancel event

Takes user to refund page

Sept 18th 24 Sept 19th 24 Sept ...

Calgary Tower

Calgary Zoo

Peace Bridge

Descr

Time : 9:00 AM - 10:00 AM

2 tickets

View tickets!

Cancel

Descr

Time : 12:00 PM - 16:00 PM

View tickets!

Cancel

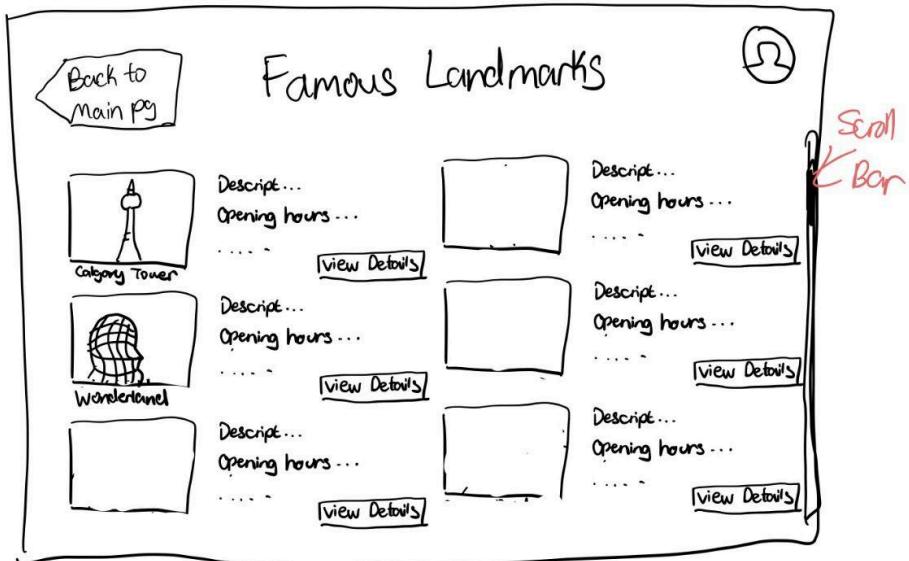
Descr

Time : 17:00 PM - 18:00 PM

View tickets!

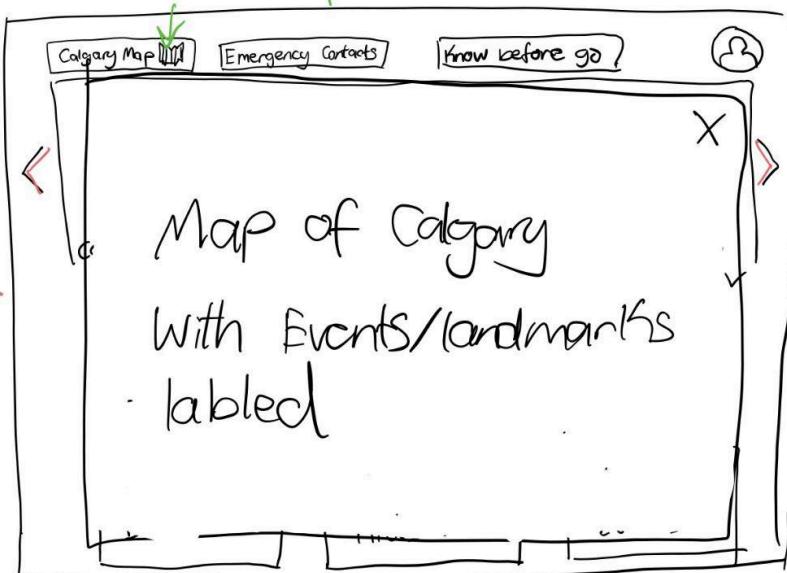
Cancel

Clicked Famous Landmark

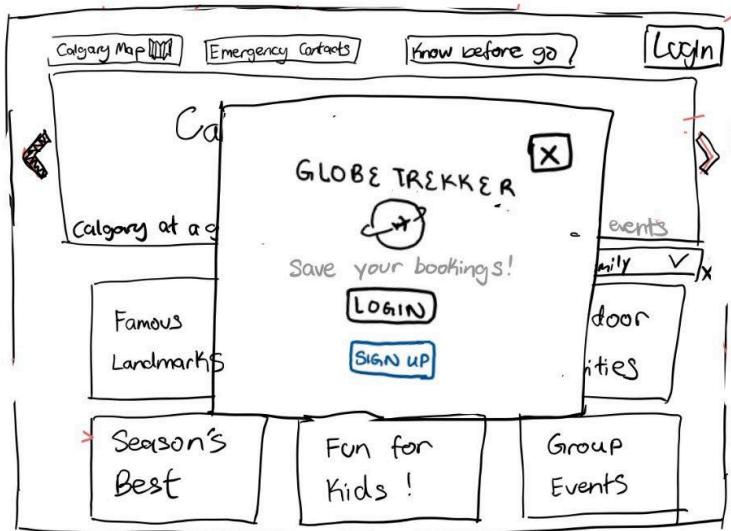


This shows the action if the user clicked famous landmarks from the main page.

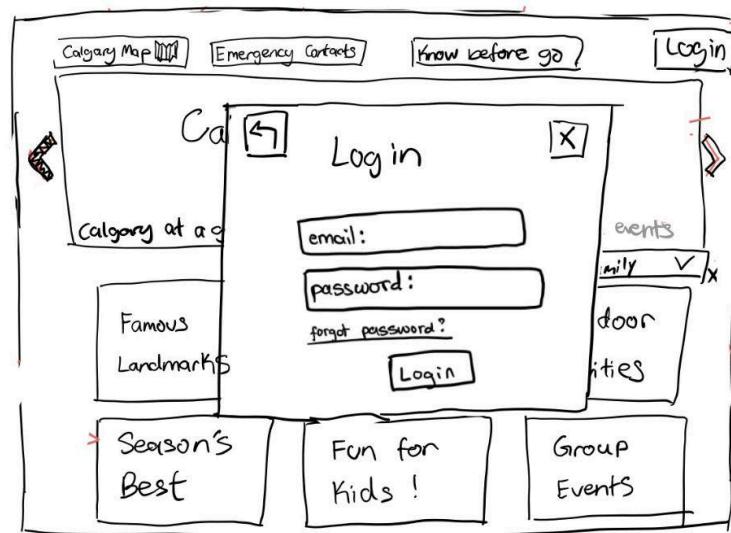
Clicked Map

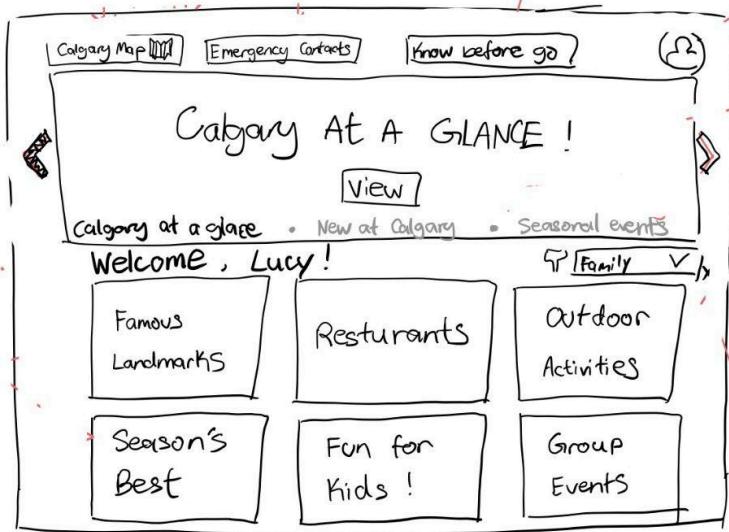


This is if the user clicked the map button. The map will have all attractions that the website has marked on a static image that is zoomable. But not interactive.

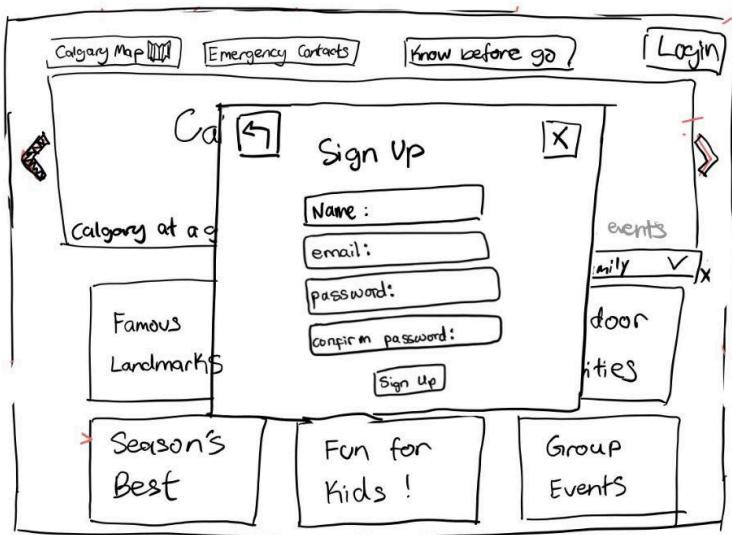


This is the login page for our app which will be prompted every time a user opens the site. It will also be prompted multiple times when the user is using the app. For example, If the user closes this, and clicks the login button, the user will be prompted again. Or when a user is trying to book an event, the user is prompted again to login to save their bookings.





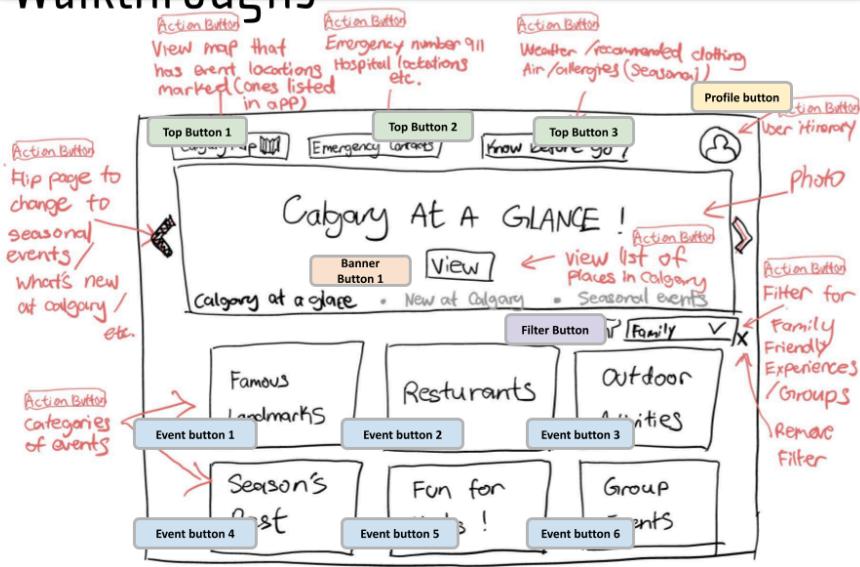
After login, the page will have the user's name and says welcome.



Signup page

II. Walkthrough with picture steps

Walkthroughs



Step 1

User sees banner "Calgary At A Glance" and clicks **Banner Button 1**.

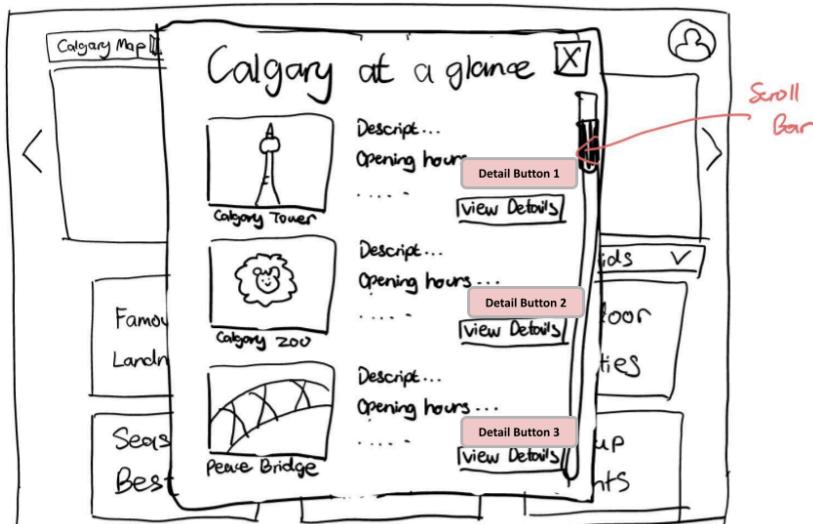
Motivated?
Knowledgeable?

User might not understand what "View" button might show them. User might be worried that they get redirected to another page.

Comments

Maybe add some prompt letting user know what to expect. (Ex. click here for a quick view of main attractions)

Walkthroughs



Step 2

User views the list of famous Calgary landmarks and clicks **Detail Button 1**

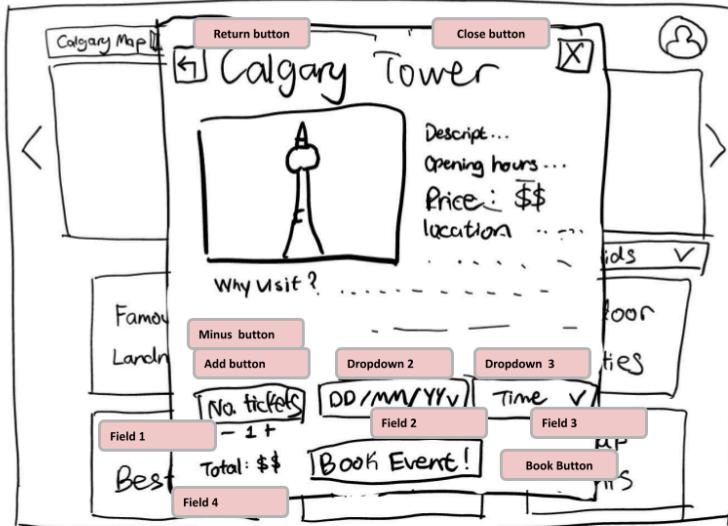
Motivated?
Knowledgeable?

User might want to scroll and view multiple attractions before viewing details. Not motivated at this point to view details.

Comments

Add more flippable preview images for each attraction to make users more interested in seeing more details.

Walkthroughs



Step 3

User views attraction details and clicks **return button** to see more attractions.

Motivated?

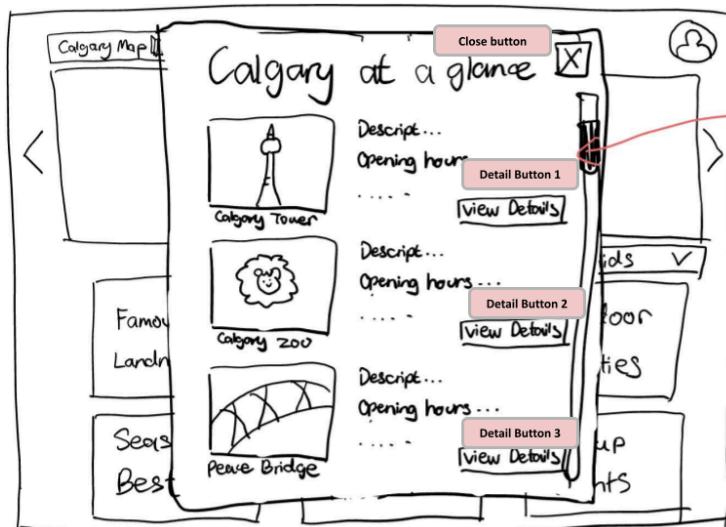
Knowledgeable?

May not be obvious to user that this button takes them back to the list of attractions (previously viewed)

Comments

Change arrow to text prompt? (Ex. Return to list)

Walkthroughs



Step 4

User scrolls through attractions and clicks **Close Button**

Motivated?

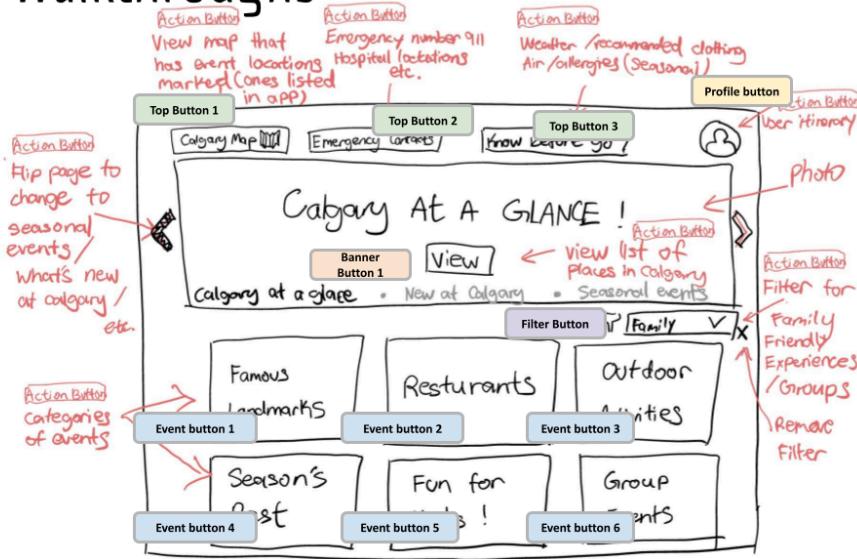
Knowledgeable?

Yes, the close button should be obvious.

Comments

Maybe also allow users to click outside of pop up to close it.

Walkthroughs



Step 5

User gets back to main page and clicks **Top Button 1** to view maps.

Motivated?

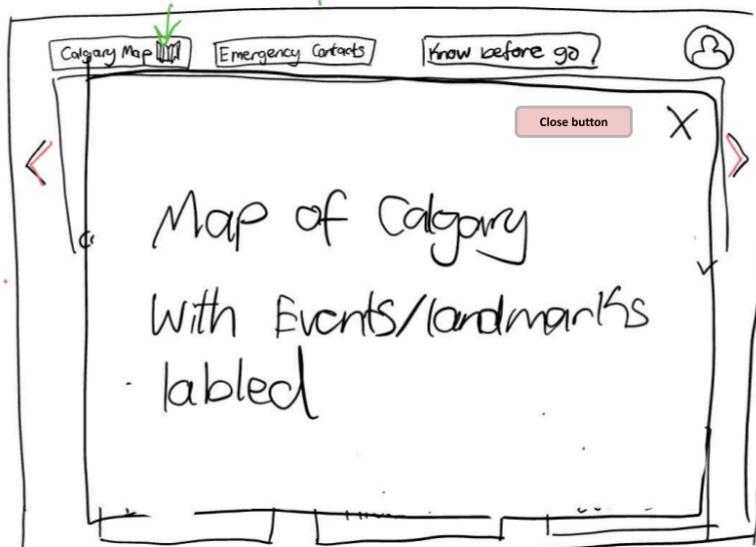
Knowledgeable?

Button might not be visible to users. (Placement issue?) No clear instructions on what happens after clicked. (Does it redirect? Is it pdf? What does the map have?)

Comments

Place the button somewhere more visible. Hover prompt to inform user of what the map is?

Walkthroughs



Step 5

User views map that is a static zoomable image of map of Calgary, with famous attractions labeled. And clicks **Close Button**.

Motivated?

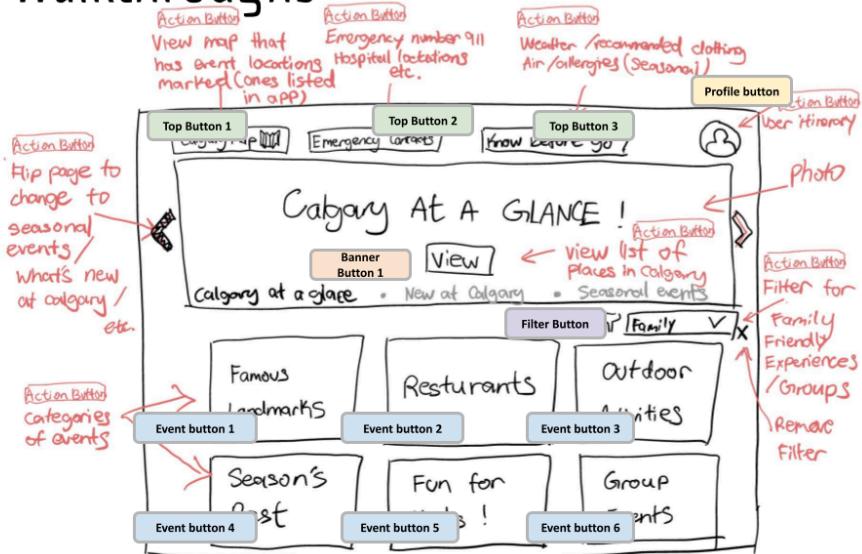
Knowledgeable?

Yes, the close button should be obvious.

Comments

Maybe also allow users to click outside of pop up to close it.

Walkthroughs



Step 6

User returns to main page, and clicks into “Calgary at a glance” **Banner Button 1**. To view list of attractions again.

Motivated?

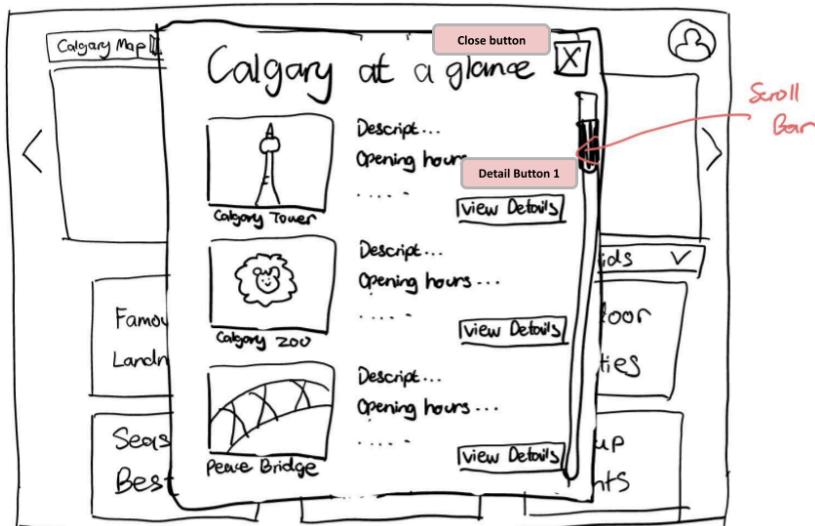
Knowledgeable?

Yes, user has done it before.

Comments

N/A

Walkthroughs



Step 7

User clicks **Detail Button 1** again, this time to book an event.

Motivated?

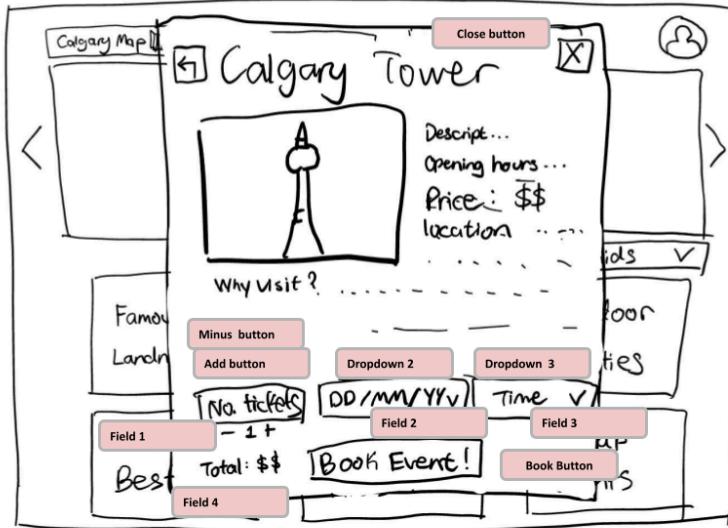
Knowledgeable?

Yes, user has done it before.

Comments

N/A

Walkthroughs



Step 8

User views more detailed descriptions and clicks **date drop down** to select a date. **Field 2** updates to date selected. (User does not click on add or minus button because default is 1 and user travels alone)

Motivated?

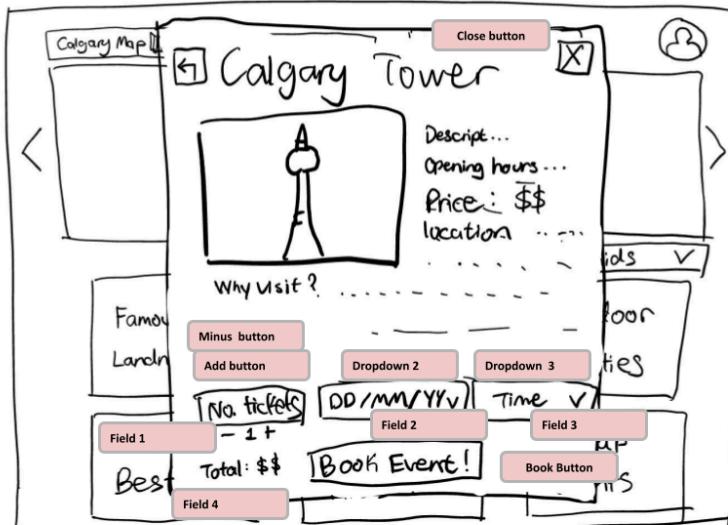
Knowledgeable?

Not obvious to users that it is clickable.

Comments

Make it more obvious that it is an action item(add arrows/ prompts?)

Walkthroughs



Step 9

User clicks **Dropdown 3** to select an available time to visit. **Field 3** updates to time selected.

Motivated?

Knowledgeable?

Not obvious to users that it is clickable.

Comments

Make it more obvious that it is an action item(add arrows/ prompts?)

Walkthroughs

This sketch shows a mobile application interface for booking an event. At the top, there's a "Calgary Map" button, a "Close button" with an 'X', and a user icon. The main title is "Calgary Tower". Below it is a thumbnail image of the tower. To the right, there are fields for "Description", "Opening hours ...", "Price: \$\$", and "location ...". On the left, there's a sidebar with "Famous Landmarks" and "Best". In the center, there's a section titled "Why Visit?" with a "Minus button" and an "Add button". Below that are dropdown menus labeled "Dropdown 2" and "Dropdown 3", and date/time inputs "DD/MM/YY" and "Time". There are also four input fields: "Field 1" (with a minus sign), "Field 2", "Field 3", and "Field 4". A summary line says "Total: \$\$". At the bottom is a large "Book Event!" button with a "Book Button" label.

Step 10

User clicks **Book Button** to book event.

Motivated?

Knowledgeable?

Not obvious to users what happens next.

Comments

Make it more obvious that it takes to booking confirmation and payment(if needed).

Walkthroughs

This sketch shows a mobile application interface for entering billing information. At the top, there's a "Calgary Map" button, a "Close button" with an 'X', and a user icon. The main title is "Enter Billing Info". Below it is a thumbnail image of the tower. To the right, there are fields for "Date: Sept 18th 24", "Time: 9:00AM-10:AM", "2 tickets", and an "Edit Button". On the left, there's a sidebar with "Famous Landmarks" and "Best". In the center, there's a section titled "Email" with fields for "Name", "Last", "Billing Addr", "State / Prov", "Postal code", "Country", and "TCard no: XXXXX-XXXX-XXXX-XXXX". Below that are date and card number inputs "Date" and "Card", and a "Pay" button. A summary line says "Total: \$\$".

Step 11

User double checks the booking details, and fills in information in **Enter fields** for email and billing address.

Motivated?

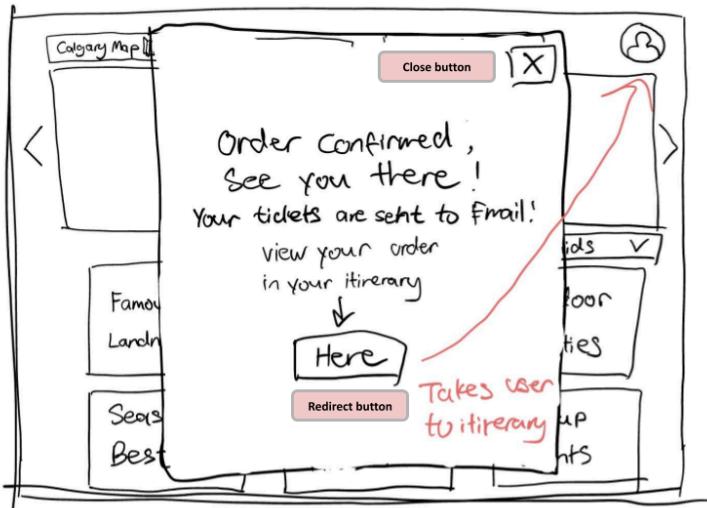
Knowledgeable?

The user may not understand why they need to fill in email(its for sending confirmation and tickets).

Comments

Add prompts explaining why these info is needed.

Walkthroughs



Step 12

User wants to view the confirmed booking, so he clicks **Redirect Button**.

Motivated?

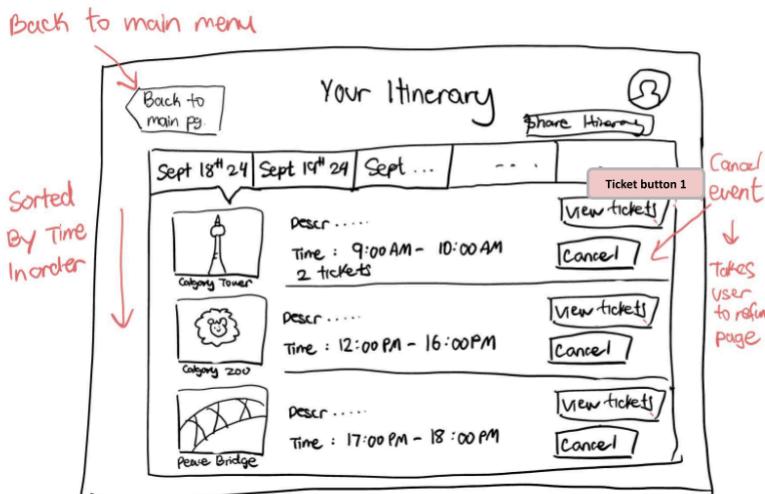
Knowledgeable?

User might not understand whether clicking this button is a MUST. And if they can do it later.

Comments

Let user know with prompts that they can either click redirect button or close popup and click profile button later. (both goes to same page)

Walkthroughs



Step 13

User clicks **Ticket button 1** to view ticket details.

Motivated?

Knowledgeable?

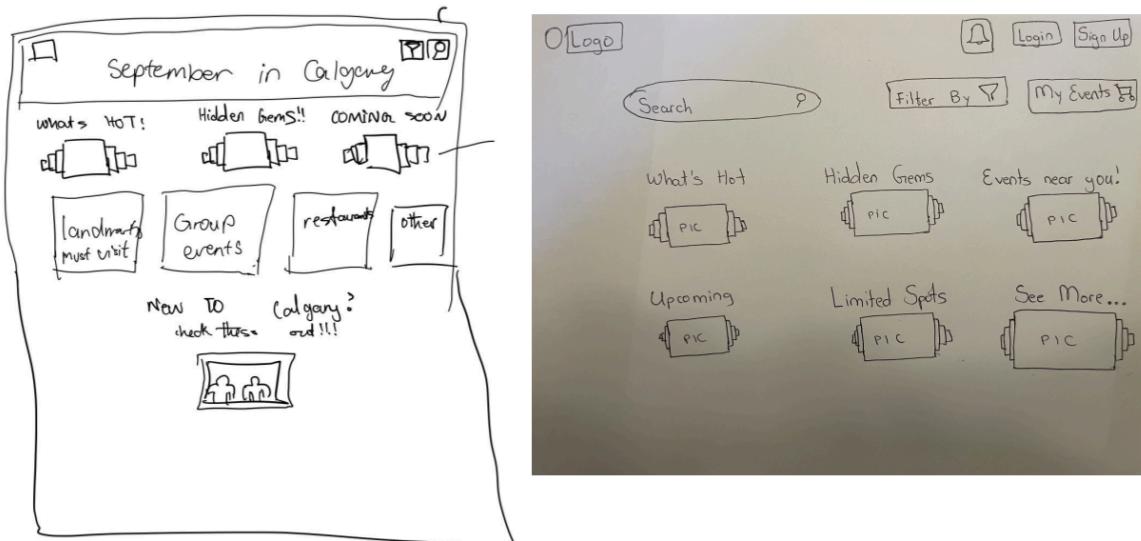
Might not be obvious to users what this action would show them, would it redirect or would it download ticket?

Comments

The tickets would be opened in a preview pop up with option to download. And we need to make it obvious to user by adding prompts.

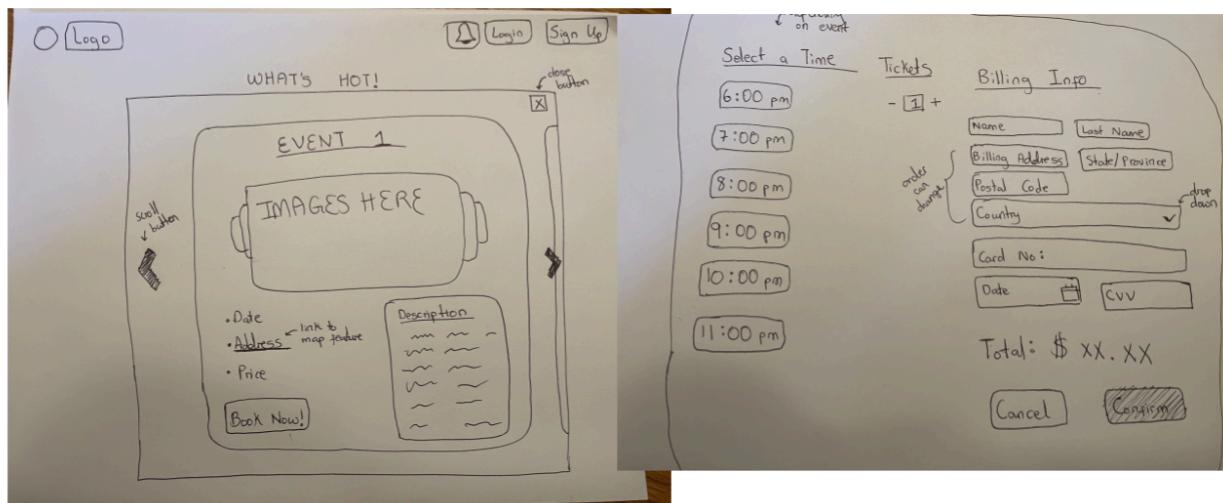
III. Early prototype sketches

Prototypes (Early Sketches) - Main Page

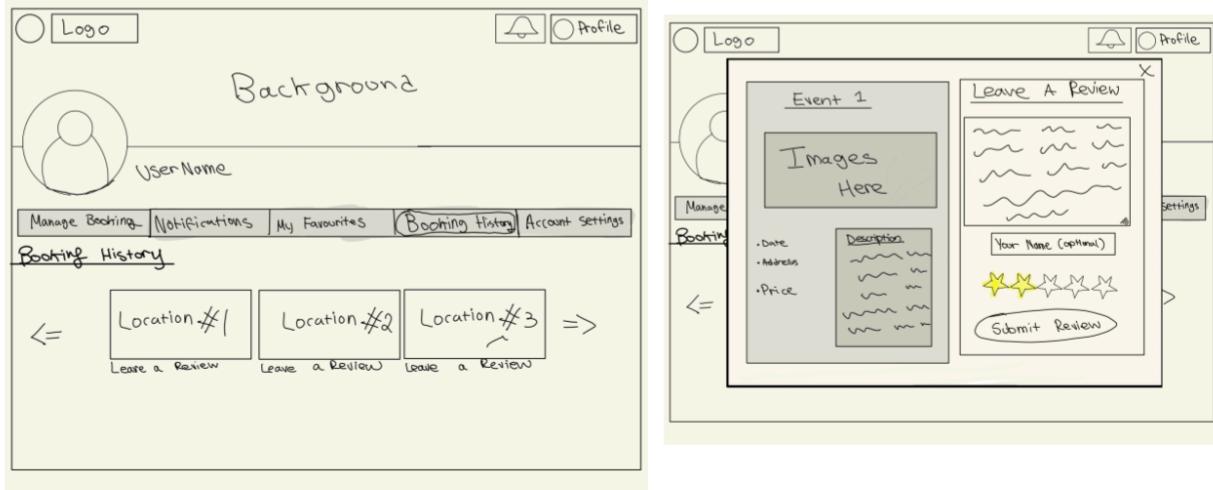


Early prototype ver 1.(Left) We started with a lot of options on the screen with multiple rotating photo albums, but we realized that it might be too overwhelming for users. For early prototype ver 2. (right) we simplified the main page and added login/signup buttons. So for our final prototype, we selected best features from both versions. We kept the banner from version 1 and the cards section format, but kept the version 2 layout

Prototypes (Early Sketches) - Event booking

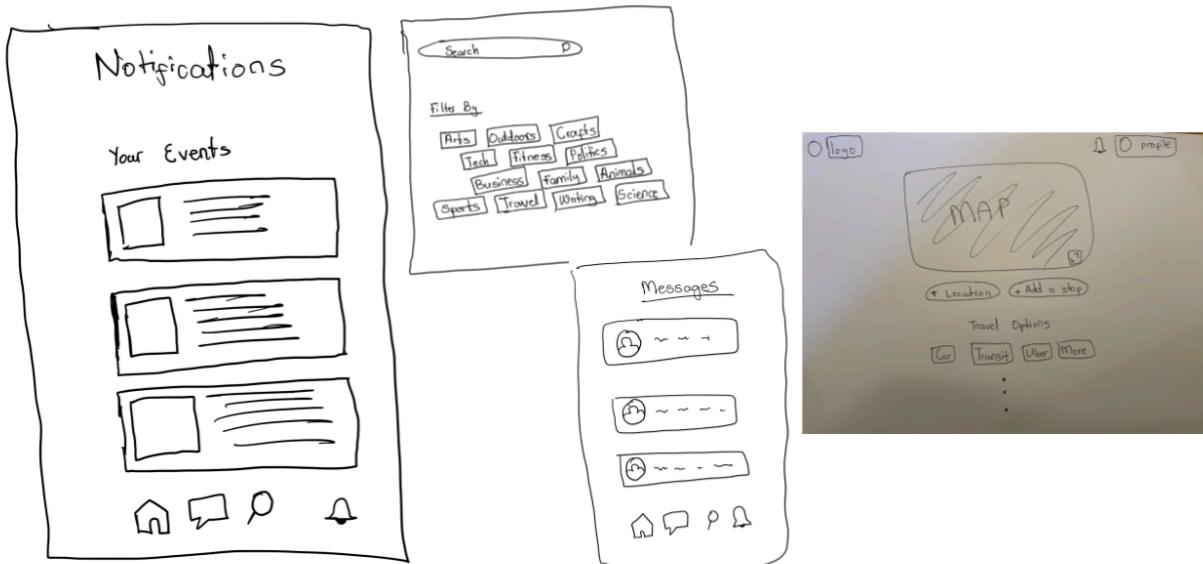


Prototypes (Early Sketches) - Itinerary, Leave review



We decided to not do reviews or more complicated profile info.

Prototypes (Early Sketches) - Other Features



We decided to not include these functionalities.

Task Centered Design and Prototyping Grading Sheet: Be sure to include it in your portfolio

Student
Names
and
emails

Note: The list below is a set of guidelines, or a "convenience" checkpoint. Getting many satisfactory checks does not necessarily indicate a good project (or vice versa).

Structure and format

	Included	Not included		
Portfolio in PDF	1	0		
Section separators	1	0		
Name on outside cover	1	0		
Name and contact information on the first page	1	0		
This grading sheet included in portfolio	4	0		
	Complete	Missing portions	Not included	
Table of contents	2	1	0	
	Great: no problems	Good: a few minor problems	Poor: Problems throughout (your mark in other sections may also be affected as well)	
Appearance (organization, layout and whitespace)	6	4	0	
	No typos, grammatical or spelling errors, clear writing style	Minor typos or grammatical errors or spelling mistakes or some writing may be a bit vague	Problems in two areas (spelling, grammar, style)	Problems in all three areas

Language and writing style	7	5	3	0
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Setting the stage

	Clear and complete (yes)	Clear and complete (no)		
Background	1	0		
Expected uses of the system	1	0		
System constraints	1	0		
Expected users	2	1	0	
Work context	2	1	0	
Approach for getting background information for tasks	2	1	0	

Tasks

	Appropriate No. (~5-7)	Fewer than what's needed for the usage of the system	No tasks were included in the portfolio	
Number of tasks	2	1	0	
Coverage of the tasks	8	6	2	0

	No violations	A few minor violations	Many violations throughout	No tasks were included in the portfolio
Do the tasks follow the properties of a good task?	8	6	2	0
Prototypes				
	Two or more	One		
Number of versions/iterations	2	1		
	Marked improvement from version to version	Few and/or superficial changes from version to version	No evolution between prototype versions	
Evolution of prototypes	6	2	0	
	Provides clear idea of how prototype changed from version to version	Describes changes but some parts are unclear	None	
Description of how prototypes evolved	4	2	0	
Requirements				
	Requirements are grouped into categories with clear and detailed explanations based on the users and their tasks	Requirements are grouped into categories, no indication of how functions were put into particular categories	Requirements are shown in a single list, no attempt at prioritization	No requirements listed
Description of system functions to be implemented	5	2	1	0
Walkthroughs				
	Walkthroughs for all relevant tasks	One	Zero	
Number of walkthroughs performed	4	1	0	
	Walkthroughs conducted, all or most usability problems were caught	Walkthroughs conducted, some minor problems were missed	Walkthroughs conducted, many minor or several serious problems were missed	Walkthrough not performed

Results of conducting the walkthrough algorithm	10	8	4	0
	Walkthrough results summarized for each scenario/task An analysis conducted that summarized for all tasks what are the high level and major problems	Walkthrough results summarized for each scenario/task but not for all tasks	Walkthroughs conducted and results shown in table but no additional analysis, summarizing problems	
Analysis of walkthrough results	6	3	0	
Ease of following/tracing the walkthroughs	Walkthroughs easy to follow (e.g., included diagrams at all relevant points of walkthrough, diagrams are annotated)	Some points of the walkthrough difficult to follow (e.g., walkthrough description didn't match interface, additional diagrams would have made things clearer)	Walkthroughs not conducted	

Tutorial presentations

	Provides clear background information, good tasks presented, requirements properly categorized	Minor problems: some background information unclear, minor violations in the descriptions of the tasks, requirements could better justified	Poor: task violate many properties of good tasks, or background missing or largely incomplete, requirements are not justified	No presentation
First presentation: Phase one and two	4	3	1	0
	Walkthrough: caught most problems, clear indication of what future improvements should be	Walkthrough: Missed a few minor problems in the walkthrough	Walkthrough: Missed many minor problems in the walkthrough or a few major usability problems	Walkthrough: Many serious problems were missed in the walkthrough
	Prototype: Gives a good feel for how the interaction unfolds, covers main system functions	Prototype: Some parts of the interaction unclear, a few minor system functions (relevant to task) or a major function is missing	Prototype: several main system functions missing	Prototype: main system functions were missing
Second presentation: Phase three & four	4	3	1	0
All team members completed all weekly MVP surveys to portfolio due date	Complete	Incomplete		