

Booking Travel

Contextual Design Results

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This document is a summary of our group's consolidated vision for the design of a new website to assist in the task of booking a travel experience. This task includes all aspects of travel from the home to the destination (and back) as well as any surrounding logistics such as a hotel stay at the destination. In addition to our vision for the website, we have also included a set of product concepts as well as a set of personas and scenarios. The following is an outline of the contents of this summary document:

- 1. Executive Summary of Inquiry Results**
- 2. Consolidated Vision and Product Concepts**
 - a. Consolidated Vision Drawing
 - b. (5) Product Concepts
 - i. Drawn Concept
 - ii. Description
- 3. Personas and Scenarios**

- a. Introduction of Personas and Scenarios
- b. (5) Persona/Scenario Combinations

4. Reflection Short Story

5. Appendix

- a. (3) Original Visions
 - i. “Hot Ideas” and Issues

Executive Summary

This summary is a brief condensation of the report that follows detailing the consolidated vision for a website/app that will assist in the task of booking a travel experience, along with the product concepts contained in this overall vision. We have also included several example personas and scenarios that further discuss these product concepts and illustrate how they work in practice. (The detailed descriptions of each product concept can be found on pages 5-20 of this report.) This document is intended to provide a general understanding of the vision for our group's tool as well as detailed descriptions and demonstrations of the individual product concepts that will implement this design.

Our team walked our previous affinity diagram and consolidated models to come up with a master list of "hot ideas" and issues that we thought would be helpful to include or improve on respectively in our own design of a tool. We then used these to come up with three visions for the tool (pg. 35-37) and subsequently combined these into one consolidated vision (pg. 4). We also created five different product concepts (pg. 5-20) that discuss more specific features that would implement our consolidated vision. The goal of these product concepts is to explain precisely how our group plans to achieve the desired functionality, aesthetic look, and ease of use that we were aiming for with our vision. (Note: All of these visions and concepts also draw on the contextual inquiries we performed and discussed in Assignment 1.) In this report, we have outlined each of these five product concepts in the form of a drawing of the concept followed by a summary describing the intent/goal of the concept. Our group has also built example personas and scenarios that directly relate to each of the product concepts. Each member of the group (in addition to their own product concept that they contributed) created an imaginary persona with its own identity, values, and technological background. This persona was then placed into a scenario (also created by the same group member) that depicts that persona using the corresponding product concept to complete a piece of our tasks's sequence diagram. Essentially what we have provided is an end-to-end walkthrough: introducing an idea, introducing a user, introducing a scenario, and showing the user in that scenario employing our product concept to help them achieve the desired task/subtask. This is meant to provide a more comprehensive understanding of how our product concepts help users to overcome the obstacles they are faced with when completing this task. We then conclude our report with a reflection short story (pg. 33-34). This short story describes our vision in detail by discussing various users and how they use our website/app to help them perform subtasks that are part of the overall task of travel booking. This is essentially a fluid combination of all five personas and scenarios in the form of a short story.

For more details on each of these sections, please see the outline on the title page and visit the respective section's page(s).

Consolidated Vision and Product Concepts

Consolidated Vision Drawing

Consolidated

☒ H&I
 ☐ Lodging
 ☒ Flights
 ☐ Rental Car
 ☐ Bundles

Where are you coming from?

~~~~~

Where are you going?

~~~~~

When are you leaving?

mm/dd/yy

When will you return?

Search 🔍

Advanced Search

#Travelers 2

☒ Flights

☐ Rental Car

☒ Lodging

☒ Bundles

Popular Destinations

- * ~~~
- * ~~~
- * ~~~ Sponsored
- * ~~~

Product concepts

Streamlined Search Interface (Reagan)

Website Header/Menu...

Where are you coming from?

Departure Location...

Where are you going?

Pit

Pittsburgh, PA, USA

-Pittsburgh International Airport (PIT)

-Allegheny County Airport (AGC)

-Pittsburgh-Butler Regional Airport (BTP)

When are you leaving?

03/06/20

When will you return?

03/08/20

Search Q

Advanced Search ▼

of travelers

Flights ☒

Rental Cars ☒

Lodging ☒

Bundler ☒

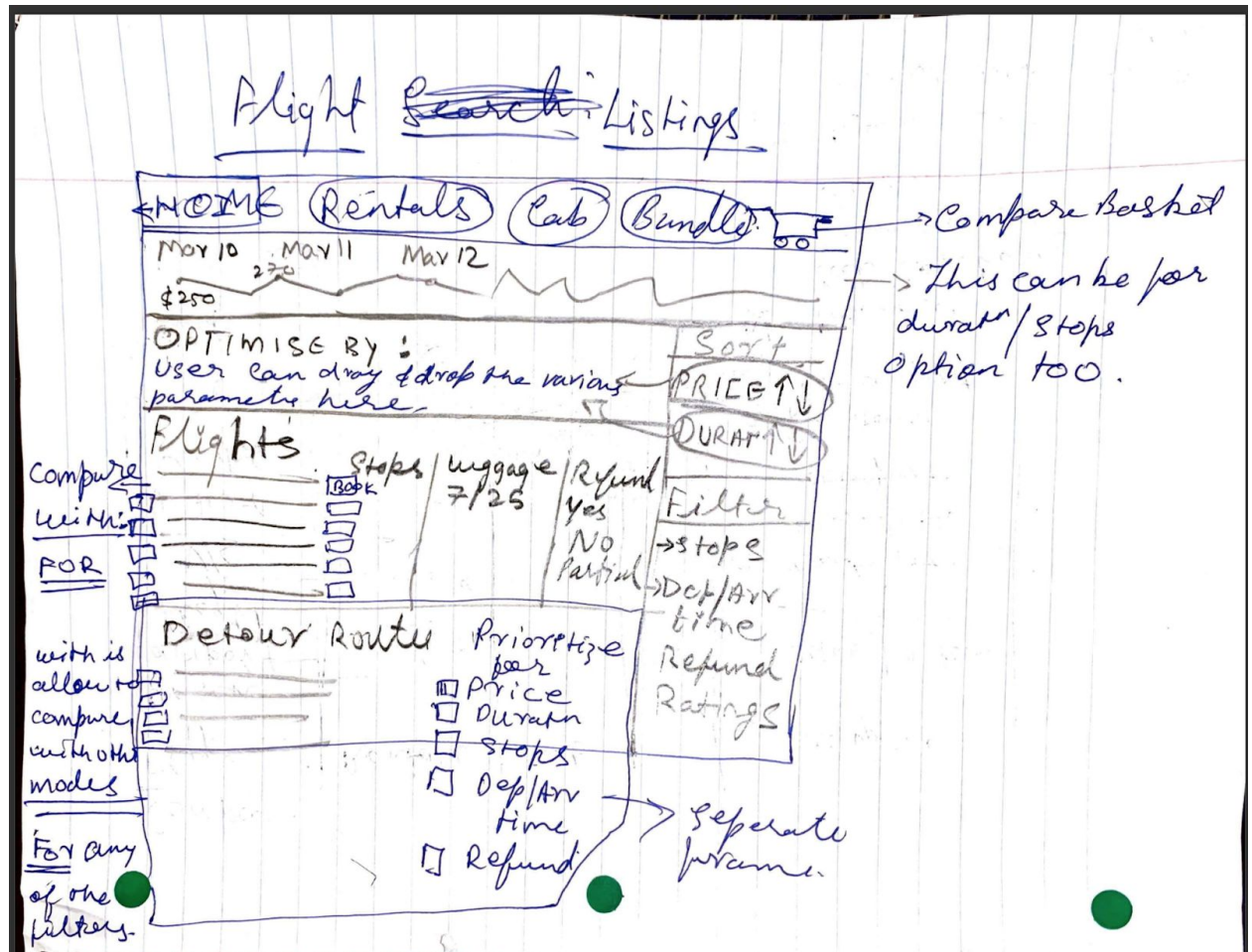
This is a rough drawing of our idea for a “Streamlined Search Interface”. The basic idea is to cater to the user’s desires of 1) having all essential information that the user needs to perform their initial search, 2) not having *too much* information thus overwhelming the user, and 3) making it simple and easy to perform the search with as few clicks and characters typed as possible. The basic components needed to perform the search are as follows: an input field for the departure location, an input field for the destination, an input field for the departure date/time, and an input field for the return date/time. We also thought it would be helpful to have a few menu tabs at the top of the screen in case the user does not want to perform their search immediately once they open the website/app. They may choose to explore the website/app further and come back to the home screen at any time by clicking the website logo in the top left corner (or the Home button in the top left corner of the app). The menu options that we have

decided to include are as follows: Rental Cars, Flights, Lodging, Bundles, and More. However, this menu is a separate product concept and will be discussed in further detail later on.

The basic idea here is to have the search itself take up a majority of the screen space on the home page of our site so that it is the first thing the user's eye is drawn to. We want the first thing in the user's mind to be, "Wow, there's how and where I search. That was easy!" This streamlined search interface will also include the ability to suggest locations by city and airport (which will be listed under their respective city). For example, if the user started typing "Pit" into the destination location field, the first thing to pop up in the suggestion dropdown below the input field would be "Pittsburgh, PA, USA" in bold on the first line. On the next few lines, the airports nearest Pittsburgh would be listed in normal text, indented so that they are "sub-suggestions" within the Pittsburgh suggestion. They would be listed in order by popularity/most-trafficked along with their airport code. So in this case, the next three lines would be listed as "Pittsburgh International Airport (PIT)", "Allegheny County Airport (AGC)", and "Pittsburgh-Butler Regional Airport (BTP)". This would hopefully make for the smallest amount of manual work needed by the user to select the departure and destination locations.

For the departure and return date input fields, a predetermined suggestion would be filled in on the initial loading of the screen. The suggestion for the departure date would be the next upcoming Friday (as that is one of the most popular departure dates for flights). The suggestion for the return date would be the Sunday following that Friday (as this is a very common time-span for a weekend trip). While this suggestion of dates will not often be correct for more than a very small percentage of users, as plans and trip-lengths often vary, it offers no downside as the user would have to input their dates anyway and will be able to do so just as easily as if it were left blank. So this date suggestion will at least save *some* users a few seconds on *some* rare occasions that it is correct. There is also an "advanced search" dropdown as part of the search button itself that allows the user to input how many travelers they are booking for. In this dropdown, they can also check the boxes of the travel options they would like to search for at this time (by default they are all checked). These options correspond to the menu options briefly mentioned above.

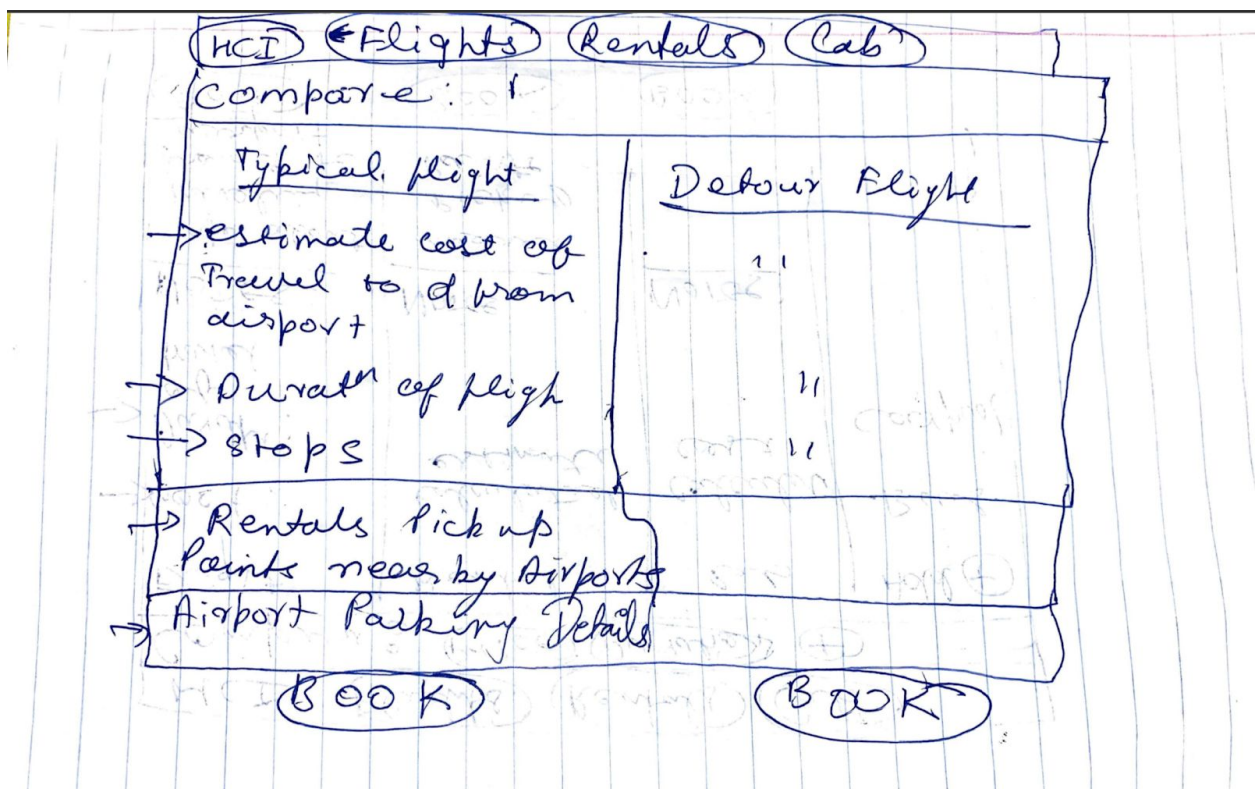
Efficient Flights Search Listings(Abhimanyu):



This models our planned search listings for the flights search. Once the user chooses the flight option, the user will land on this page. To summarize this search concept, this web page will have it's top section dedicated to presenting a visual summary trend to show price variation by date and will show the lowest price flight that is available for that day. In addition, the user can opt to have summary graphics displayed by other parameters which can include duration and number of stops. Below the top section is the area where the user can drag and drop any of the parameters that they would like to filter or sort by. The web page also provides users with all filtering/sorting options on the right column space where users can just click on any of the parameters of his/her interest.

The flight listings are shown with each row displaying information with regards to number of stops, luggage allowance limits for both cabin and checked bags, refundability policies, as well as an airline info link in the form of the airline logo which takes the user to the airline's home page. The user will also see each flight's star rating. Apart from this each row has a checkbox option which users can check to add the flights to their compare basket. This result listings page also has a separate frame in the webpage to display flights from other nearby airports with their own filter/sort options which will sort/filter only the alternative routes.

Multiple Flights comparison Concept (Abhimanyu):



This is a model flights comparison web page where all the flights that the user selects for his comparison basket are displayed. This page contrasts each of the compared options for cost, duration of flight, number of stops, distance from the user's current/home location to the airport, all nearby rental pickup/dropoff points, and the parking facilities along with the cost of parking and other pertinent parking policy information.

Comparison of different Modes of travel Concept(Abhimanyu):

The wireframe shows a web page layout for comparing travel modes. At the top, there are four tabs: 'H.C.I.', 'Flights', 'Rentals', and 'Cab'. Below these is a search bar labeled 'Compare' with input fields for 'Price' and 'Duration', and a '+' button. The main content area is divided into four columns: 'Flight', 'Rental', 'Cab', and 'Add (+)'. The 'Flight' column has a 'Cost' field with an arrow pointing to it, a 'Duration of travel' field with an arrow, and a 'NOTES' section containing 'info about traveling from d to airport'. The 'Rental' column has a 'Calculated estimate' field, a 'NOTES' section containing 'nearest Pickup Points', and a 'BOOK' button. The 'Cab' column has a 'Calculated cost' field, a 'NOTES' section, and a 'BOOK' button. The 'Add (+)' column has a 'Bus carpool' field. At the bottom, there are three 'BOOK' buttons corresponding to each mode.

H.C.I.	Flights	Rentals	Cab
Compare: Price Duration +			
Flight	Rental	Cab	Add (+)
Cost:	Calculated estimate	Calculated cost	Bus carpool
Duration of travel			
NOTES:	NOTES	NOTES	
info about traveling from d to airport	nearest Pickup Points		
BOOK	BOOK	BOOK	

This web page concept models how a user can compare distinct modes of travel for a particular set of source and destination points.

. The website compares different modes in terms of cost, time of travel, and other miscellaneous information such as distance to airport/pickup/drop-off, booking requirements(if applicable e.g for rental booking), hours of operation, etc. The comparison model also lets users compare by any other parameters that the website offers apart from choosing additional modes of transport.

Flight Purchase Concept (Tyler)

Header

Login/sign Up

Choose class

☒ Economy ✓ + \$0.00

☐ Business ✓ + \$20.00

☐ First ✓ + \$50.00

Insurance

☐ Yes, --- + \$15.00

☐ No, ---

Payment

Card #

Exp Date

Month ✓ Year ✓

Security code

Trip summary

Flight 1 ✈

Flight 2 ✈

Price summary

Flight 1 Adult \$175.00

Taxes \$25.56

Insurance \$15.00

+ Add a car or hotel

Total \$215.56

Stays as you scroll

Billing Address/ Email Below

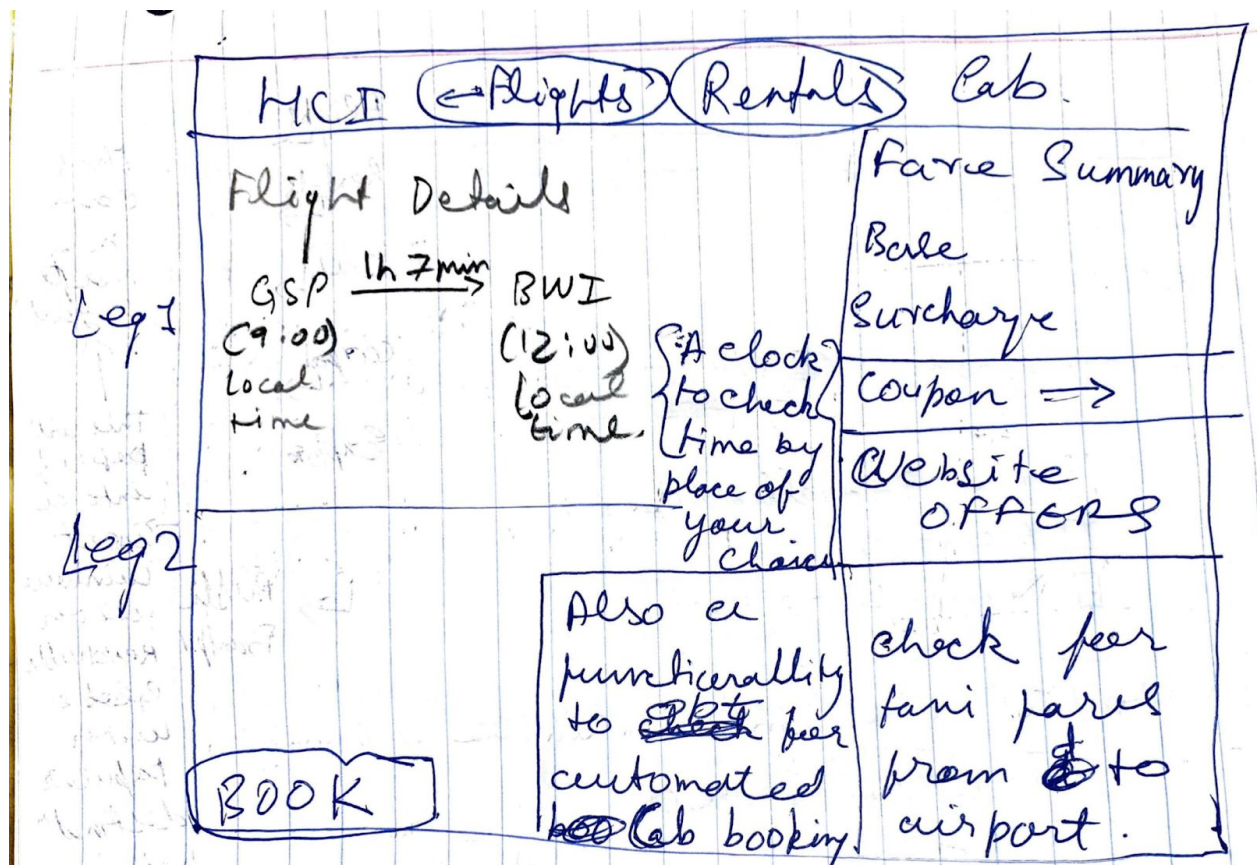
Book >

greyed out until complete

This page represents our flight purchase screen concept. It provides the ability to choose your flight class, if you want Insurance, as well as if you want to add a car or hotel to your trip. You can then enter your card information, and billing address/email when you scroll down. You can also Log In to save this information. As you choose options on the left, your price summary will automatically update your price accordingly. As you scroll down the page to enter the Billing Address and email, the Bar and “Book” button on the right side of the screen will scroll with you, to keep the important information on screen at all times. The aforementioned “Book”

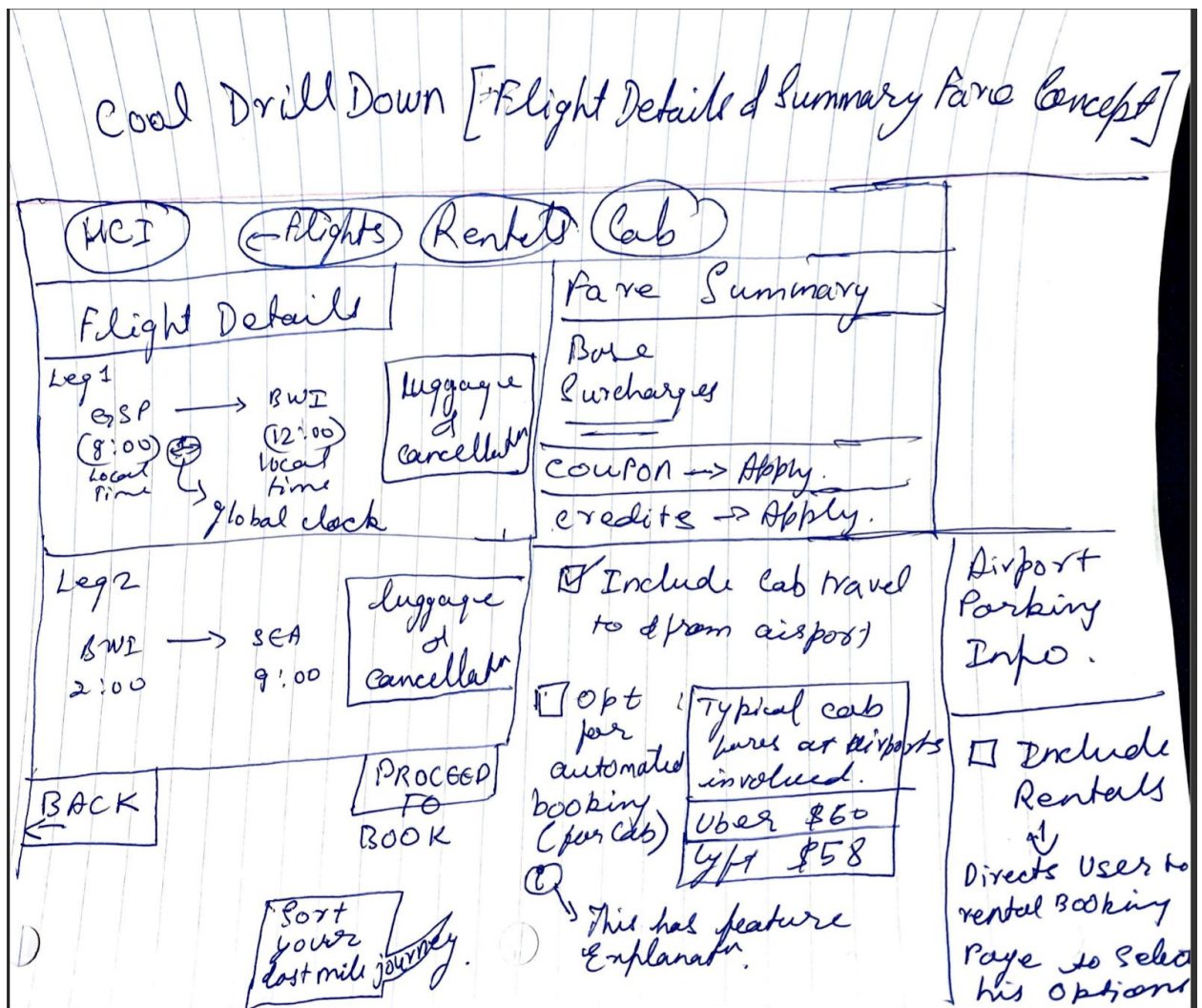
button will be unclickable and greyed out until all important information is filled out and the bottom of the screen has been reached. Then it will turn green and become clickable.

Flight and Fare details Summarization Concept(Abhimanyu) :



This page presents our concept for displaying flight details and fare summary along with other functionality where users can check for typical uber cab fares around their flight times for both source and destination airports. We are also proposing the functionality to allow the user to automatically book a Uber or other ride share service. The website would keep track of prices and present the optimal price factoring in surge hours using predictive analytics up until before the time when the user should ideally leave so they don't run the risk of missing their flight and then book a cab for them at the most optimal price.

Cool Drilldown (Abhimanyu):



Questions Addressed:**Accomplishment:**

Ques: Is the right information provided at the moment when it is needed?

Cab/rentals bookings to and from the airport are things which user normally looks for once he has fixed upon his primary flight travel bookings, so in my view this is perfect place to introduce users to the options of cab/rentals and get done with their end to end logistics planning all at once.

Ques: Does it support device switching?

The fact that our website is meant to be accessed via a browser and will be supported for all popular available browsers. Based on this premise ,especially for iphone and macbook users , there's a new feature where all the contents being browsed over your iphone can be casted to your desktop once the phone is brought within bluetooth connectivity range. Hence making use of this feature, our website does become cross device functionable.

Connection:

Ques: What would the user want to share? Can they?

The user can share all this details to oneself along with unlimited number of email ids which is an already implemented feature in almost all existing websites and provided by our website.

Identity:

Ques : Are any of the core identities directly targeted by this product concept?

The core identities that are target by this product concept are people who value their time and money and want best value for their buck, does not want their time to be wasted on doing sort of repetitive, mundane tasks each and every time they book flights in reserving cab/rentals. Also people who likes completing their task end to end and does not like to leave any loose ends would like this feature in my view.

Ques: Does the product concept help people adopt, reinforce, and promote their identity?

The product concept does help people of aforementioned identity in adopting, reinforcing and their identity by presenting them with a catchy, nudging display in the form of animated support representative display.

Ques: Does it help the user celebrate themselves and their accomplishments?

It does give the user the feeling of celebration and accomplishment when the application books the cab on the user's behalf and notifies them for booking the most economically priced cab/rentals to get to their airport.

Sensation:

Ques : How are people drawn into the app through its design?

By the catchy and nudging animated graphics users are lured in trying the automated cab/rental booking feature and to check its predictive prices.

Ques : Does it “wow” without distracting the user?

When the user receives the notification about his confirmed cab booking at the most economical price ,it certainly “wows” the user. Also the upfront display of information about

prospective cab/rental charges , airport parking details certainly will assure the user what he is getting into and instill a sense of surety while executing his task.

Ques: Can you make it fun without getting in the way of the task?

I think graphical user interaction model will go a long way in making interaction more intuitive and fun but if this can also be integrated with voice enabled interaction then it can enhance the user experience a lot more!!

Ques : Is the aesthetic design (graphics, movement, interactivity) appropriate and sufficiently modern?

Once equipped with graphical and voice enabled interaction , in my view this should suffice the aesthetic design requirements

Direct into action (without hassle):

Ques: Is everything needed for a given intent available in one place?

This drill down concept design provides for booking/provisioning all the last mile travel to the user. The last mile connection typically includes commuting to /from the airport. This product concept gives the users the various options to arrange or this need. Also the user is presented with parking details for all the airports that the user will touch during his journey.

Ques: Does the design “think for the user”?

The design does think of the user in terms of the user does not have to explicitly go a separate cab booking/rental car application to check prices and availability, instead the user is presented with the concise and pertinent (to my mind) information upfront with the option of clicking the external link to go to the cab/rental car application.

Ques:Can the app learn things without asking?

The option of automated cab booking does equip our proposed concept to learn about cab price's variation and fluctuations and use predictive analytics to predict surge pricing times and accordingly make booking for the user by optimising the prices and taking for start location either the current location of the user at the time of login or any of the user fed location as starting point.

The application does take user's current GPS location as the default staring location with the additional option of changing it to any other location from the user.

Ques: Is every hassle eliminated?

The hassle of going to different websites/applications exploring for airport travel choices is being aimed to reduce and also the fact that users do not have to remember to book for a cab/rentals just before his/her scheduled departure. Instead users can do all at once while making payments for the primary travel bookings and the user is apprised of it by notifications starting a few days before travel. Also the hassle of checking the app at different and multiple times to be able to book the most economical cab is taken care of.

The learning delta:

Ques:Is training needed, or does the interaction build on what users already know?

No , to use this product concept feature no explicit training is required. In Fact there's a very compelling, intuitive user interaction made available to the users.

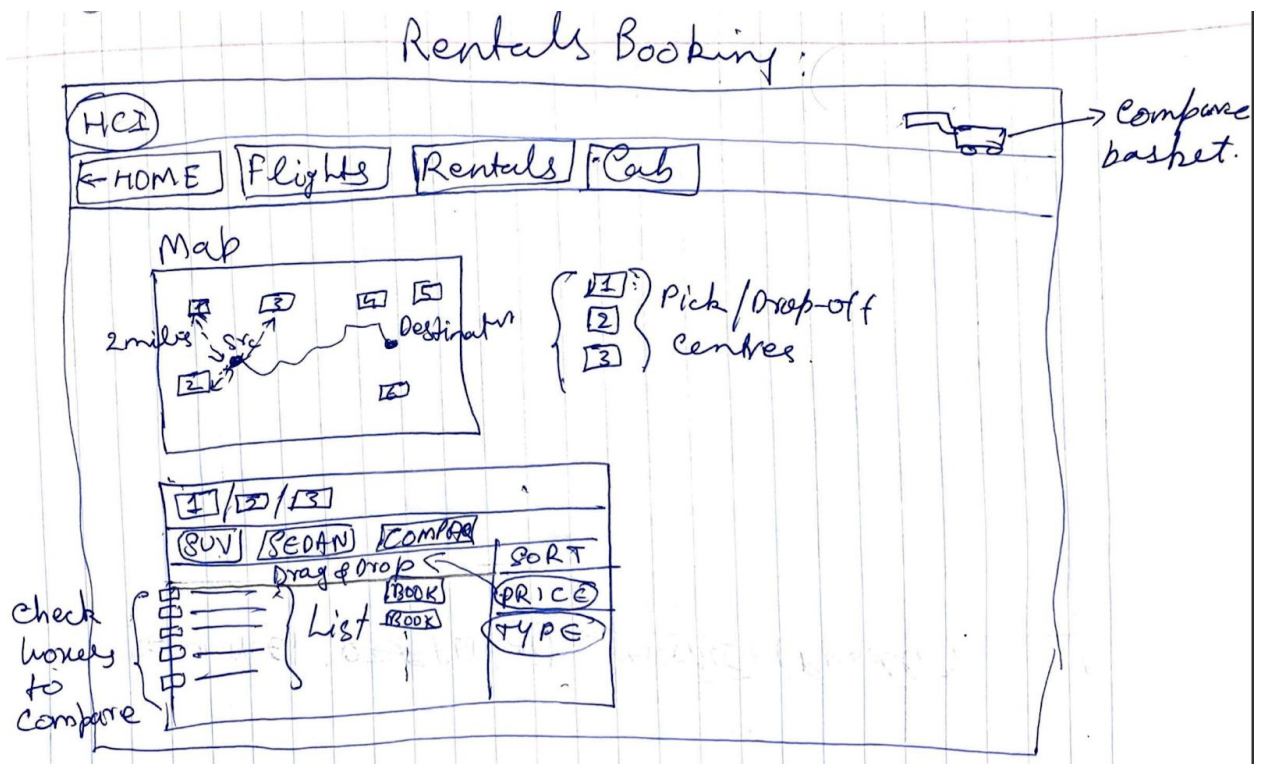
Ques: Is all complexity eliminated?

All efforts have been there to make the user interaction as legible,intuitive and fun as possible.

Ques: Does the app nudge users in the right direction?

Yes, the UI designed does nudge the users to explore and use this feature.

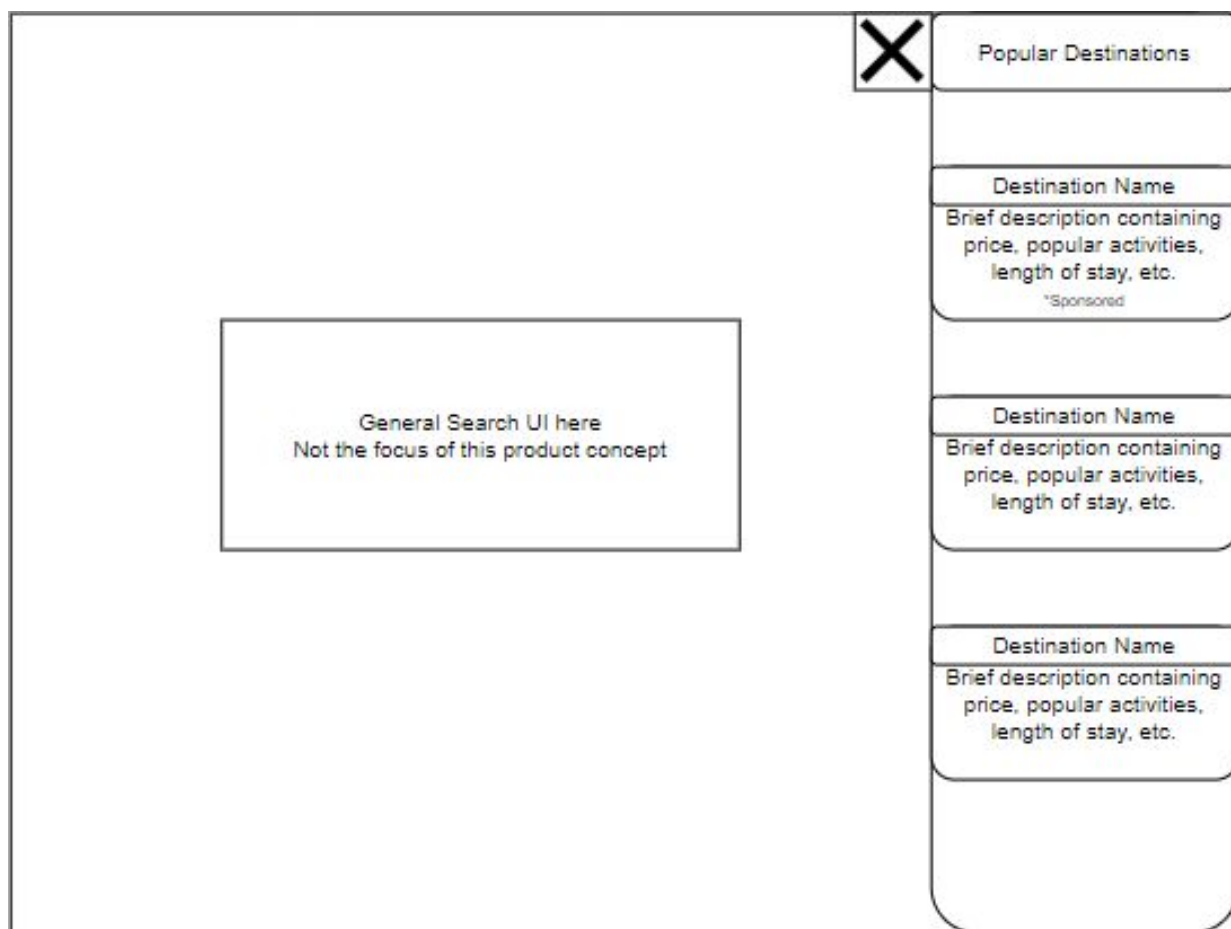
Rentals Booking concept(Abhimanyu):



This web page allows users to book for rentals. Upon clicking the rental option, the user will be brought to this page where he can see a map layout of his chosen starting location and ultimate destination location. Accompanied with this would be marking out all nearest pickup/drop-off centers of various rental cab companies that a user can avail with listing the distance from his start/destination location.

On clicking any of the available centres , displayed in a roll down manner will be a listing of all present options at that rental cab centre. Users here can perform very similar operations to what he can do over the flight listings page with the same functionalities.

Popular Destinations Tab Interface (Daniel)



The idea behind this interface was for the main page to also include some suggested destinations. We thought that it would be important for users to see so that users that might not have a clear idea of their plans can be presented with options from which to choose from.

The basic components of the design consist of a tab which opens over the right side of the screen. This tab will display a scrolling list of cards which display destinations that have been

traveled to by many other users - or by destinations that wish to sponsor the site for promoted placement. For these sponsored destinations, the fact that they are promoted will be clearly denoted at the bottom of the placard.

Each card on the tab will list the name of the destination in a larger font. The main body of the card will then contain a brief description of the locale, and will also contain pertinent information that the user would likely deem of importance. From our studies, we determined that price was one of the most crucial variables when booking a trip, so this will certainly be one of the listed items. Popular activities at the destination would also help the user decide whether the destination is one they would wish to visit (as we assume users of this tab may not be set in stone on where they are traveling, they likely may not know much about various locales). Lastly, displaying the average duration of trips booked by other users would help a user gauge how long an escape to a destination would last.

This feature does make one assumption: the user is booking a trip for leisure rather than business. While we discussed whether this would be an issue, we determined that users that are travelling for business likely know exactly where they will be travelling to in the first place, and as such will have no need of this tab in the first place.

Calendar Date Selection (Malaya)

Where are you going?

Where are you going?

When are you leaving?

10/24/2014

When will you return?

10/27/2014

4 Days, 3 Nights

Search

October 2014

Mo	Tu	We	Th	Fr	Sa	Su
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31	1	2	3	4
5	6	7	8	9	10	11

When conducting a search anywhere on the site, the user will have two options for selecting their travel dates. They can type their dates into the text boxes, or click on the calendar icon next to the date fields. The text boxes are intuitive with text to show the user the correct format for the date entry.

If the user clicks on the calendar icon, the window expands to show a view for the current month. At the top of the window, the month and year are listed, with an arrow pointing left to the left of the title, and a right-pointing arrow to the right. This allows the user to intuitively select a different month for their travel. When the user clicks on a date, it will be highlighted in the calendar grid, and the text box will be populated with the selected date. The user can dismiss the calendar by clicking in a different area of the page, or pressing escape on the keyboard. The length of the trip will be displayed below the date field. Once the dates are selected, the user can then proceed with their search.

Personas and Scenarios

Introduction of Personas and Scenarios

Personas are a useful tool for us to explore the needs, goals, and desires of users. While personas may not be directly based off of a specific person, they tend to portray a wide variety of users to help approach the site from many different angles in the hopes of collecting more information about how it can be modified and improved. For the purpose of this project, we were quite lucky in the selection of our users from assignment one, as they already come from a wide background of users of different ages, genders, personalities, and experiences with technology. As such, these personas may bear some resemblance to actual people or events, but are not representative of such.

Furthering these personas, we will make use of them in various scenarios. These scenarios - as the name implies - will allow us to walk through the usage of the site in a specific manner in an attempt to glean information about how our “user” might react or respond to what the site performs. These scenarios are intended to follow the process from beginning to end, and will attempt to follow the sequence diagram as dictated in assignment one - with slight variation where permitted due to changes in design.

Persona/Scenario Combinations

Sarah (Reagan)



Hard Facts

Sarah is a 22-year-old female college student. She will graduate from Clemson University in May 2020 with a Bachelor's degree in Accounting. She plans to go on to earn a Master's in Accounting, also from Clemson. She aspires to be a CPA in the public sector. She plans to take the CPA exam in parts over the next year or so.

Interests and Values

Sarah loves to stay in shape and she does so by going to Crossfit about three times a week. When she isn't doing Crossfit, she runs to keep herself active. In addition to working out, she also likes to eat healthy as often as she can. She usually buys lots of fresh chicken and vegetables at the grocery store and serves them with some noodles or rice. Sarah also loves music! She has a wide variety of tastes when it comes to music and is constantly listening to new artists suggested to her by Spotify and her other musical friends. She often enjoys going to concerts of the bands that she listens to most frequently. She is the leader of an on-campus charity organization that helps underprivileged elementary-age children. She loves to help people and especially loves interacting with and teaching kids. She is quite adventurous and loves going on trips just for leisure. As a college student, she is on a tight budget so she values her money and is often very careful about her spending habits. She also values her time very much; she is a very efficient person. Therefore, any time wasted either in the booking of the travel or during the travel of the trip itself is very frustrating for her. She tends to mostly drive wherever she is going even if it is hours away because it is still usually cheaper than flying while also offering the greatest flexibility of departure time.

Computer, Internet, and TV Use

Sarah owns an iPhone, a Macbook Pro, and a FitBit bracelet. She also has a 38-inch TV in her room equipped with a Roku, as well as a Google Home Mini and an Amazon Echo Dot. She has used her computer (which has internet access via her apartment amenities) for lots of her classwork, including several online classes that she has taken through Clemson. She also does the majority of the administrative work for her charity organization on her laptop. She is well-versed with her Mac computer and browsing the internet in general, but is still sometimes frustrated by non-intuitive designs or processes that she encounters on the web. She prefers to have less information presented to her at once than to be overwhelmed by search results.

Sarah's Scenario

Sarah, who is feeling especially adventurous, has decided that she wants to go on a trip up north this May and she has chosen Pittsburgh as her destination city. She is now faced with the scenario of actually searching for travel options to Pittsburgh.

For this, she will need to open her computer at home, open her favorite web browser (Google Chrome), navigate to our website/app, and begin searching for both car routes and round-trip flights on the days she plans to travel. This action will be triggered by Sarah having enough free time (roughly an hour, to be safe) to adequately search for and weigh her potential travel options. Once she has searched for car and plane routes, she can estimate what gas costs would be if traveling by car versus the cost of a plane ticket. In addition to the price, she will also consider factors such as comfort, flexibility of departure time, traffic/crowds, and total travel time for each option. She will then make her final decision of whether to drive or fly to Pittsburgh.

So Sarah opens up our website on her Macbook and the first thing she notices is the Streamlined Search Interface. She chooses to search from this home page as opposed to clicking one of the menu tabs at the top of the screen to search more specifically for rental cars/car routes or flights. Below the prompt “Where are you coming from?”, she begins typing in her departure location (Clemson, SC). After she types “Clem”, Clemson pops up in the suggestion dropdown in bolded letters. She notices this and is happy to not have to type the rest of the location. Below Clemson, several nearby airports are listed including Greenville-Spartanburg International Airport (GSP) and Clemson Airport (CEU). But for now, she will just search with Clemson as her location because she thinks she may search for car routes first. She sees that the departure date is already input for her. It is this coming Friday (today is a Tuesday) which happens to be the day she wants to leave. She doesn’t need to put in her departure date (hooray!). She then starts typing “Pit” into the destination field. Pittsburgh comes up and she clicks it. The return date is listed as the Sunday following this Friday. However, she wants to take a week-long trip and return next Friday. So she changes this easily. Now all she has to do is click search (or press

Enter) to complete her search. All in all, this process took 5 clicks and 10 key presses. She does so and is taken to the search results page. Here she will see search results for rental cars/route times, flights, lodging options at her destination, and bundles based on her inputted location and dates. From this page, she will compare her options and determine whether she wants to drive or fly (or other) on her trip. These search results will be explained in more detail later in the report.

John Smith (Daniel)



Hard Facts

John is a 22-year-old university student studying in the engineering fields. He will graduate from Clemson University in Spring 2021 after finishing his co-op and his BS in Materials Science Engineering.

Interests and Values

John loves to be outdoors, and will often prefer to spend time outside camping rather than indoors. At least, he would if his class schedule was not keeping him busy from sun up to sun down. He often works at a summer camp ran by his church when not in school or his co-op. Since he also goes to the gym every day following his classes, he rarely has much time upon returning to his apartment. He nearly always eats in, cooking a meal with lean meats. When John travels, he has always had previous accommodations set up with a friend or family such that he never has had to worry about booking a hotel. Even if he did – he often prefers to go camping instead. Not only is it cheaper than a hotel, he gets to enjoy the outdoors at the same time! As a college student, John is obviously on a budget, and values his time and money greatly. Any trips

he takes must fit into his busy schedule, and can't break the bank. He prefers to drive most places, and has never been on a plane, but knows that some places he can't drive to that easily.

Computer, Internet, and TV Use

John enjoys watching sitcoms, but very rarely has the time anymore, and as such uses his laptop for primarily work anymore rather than entertainment. In a similar vein, he only uses his phone for the purpose of communication, not counting the occasional need to look something up in a web browser. His TV is nearly never used for its main purpose, rather being used as a second monitor to allow for video from his laptop to be broadcast to a bigger screen. In regards to his work, John is greatly detail-oriented, and will always prefer to plan ahead if given the ability to. He has never used a travel site in the past, and is intimidated by the thought of booking an entire trip.

John's Scenario

John has finally found himself in possession of some free time in the distant future in between his busy activities. He decides to spend the week camping in a place entirely new to him: Glacier National Park. John has already decided his destination, now he must find a place to sleep.

John opens his laptop to his preferred browser (in this case, we'll say Google Chrome), and navigates to our website. Though he is a novice to booking sites, he recognizes in large fonts statements telling him where to place both his destinations and his dates. Already knowing his available dates and times, he obliges the site and enters in the designated boxes labeled "Where are you coming from?", "Where are you going?" "When are you leaving?", and "When will you return?". John notices that he is able to click on the small calendar in the date boxes, but opts to type in his dates manually as it is much faster for him to do so. In the meantime, a tab opens over the right portion of the screen, displaying popular destinations that the site seems to be recommending to him. This is a bit aggravating to John, as pop-up ads are one of the most annoying things to him. Thankfully, this did not cover up the relevant information, so it was not entirely unreasonable (though he still mumbled under his breath about why his ad-blocker can't catch things like that), and he quickly closes the tab with its designated 'X'. As he goes to click the large "Search" button, he notices a smaller button labeled "Advanced Search" and hesitates. However, he does not trust himself enough to know more than the website does, and opts to click on the basic search instead.

Now that his initial search is complete, John must now decide where he wants to stay. On his screen is a multitude of options ranging from hotels to rental cars, from flights to...

campsites! Relieved to have found options for campsites so quickly, John clicks on the first one he sees and opens it in a new tab so that he can save this page if he needs to return to it. While not overly picky with campsites, John does have standards to be met. Thankfully, he notices that the campsite is listed as having access to running water, working bathhouses nearby, and a designated fire pit. Sadly, the price is slightly more than John would like, so he navigates back to his initial tab, leaving this one open as a backup plan.

Looking closer at the page, John notices filter options near the side of the screen, and clicks the checkbox labeled “Campsites”. This dramatically reduces the clutter on his screen down to only campsites in the Glacier National Park area. John also notices filters corresponding to distance from the park and price. John adjusts his preferences as he desires, and narrows down his list further – relieved that the process is much simpler than he initially believed. Having closed in on a few options, John examines each campsite for its amenities and prices, and eventually settles on one he is happy with. With a destination decided upon, John just needs to actually book his reservation – which will be discussed in another scenario.

Kaylin (Tyler)



Hard Facts

Kaylin is a 21-year old college student. She will graduate in May 2020 from Clemson University with a Bachelor’s degree in English and Sociology. She plans to go into the workforce before returning to get a Masters (and possibly a PhD) in Sociology, with long-term aims of becoming a professor.

Interests and Values

Kaylin is someone who revels in the life of work and helping others. When not doing classwork for her Bachelor's, she works at the Clemson University Writing Center, helping both undergraduate graduate students with essays and cover letters no matter their fluency in English. She is also a member of the Cultural Ambassadors club at Clemson and does work with many exchange students. Even when not at school, she works various summer jobs to keep herself occupied. Because of all this, Kaylin rarely has time to relax or slow down. When home, she makes quick meals and spends time with her boyfriend. When traveling, Kaylin has never had to worry about booking hotel space, with it either being covered by someone else previously or not necessary. Although she has traveled on planes fairly often recently, she has only had to book them once or twice. She also prefers to stay local when possible, only traveling more than a few hours away for work/academic reasons. As a result, Kaylin prefers to drive to not only save money, but because there wouldn't be much of a point to do so otherwise. And even with the amount of paid work she does, she is still a college student, so operating on a budget is a top priority.

Computer, Internet, and TV Use

Kaylin enjoys watching a variety of TV, from sitcoms to prestige dramas. However, due to her lack of time (and cable), she prefers other forms of entertainment, such as video games and movies, more often than not. She enjoys playing games on her Nintendo Switch, phone, and her Mac laptop on occasion. She is fairly familiar with these devices, and uses her laptop and phone as communication and gaming devices about as equally. Kaylin has used a travel site a few times in the past, so she is familiar enough with how to use them while also not being proficient in or loyal to any particular website.

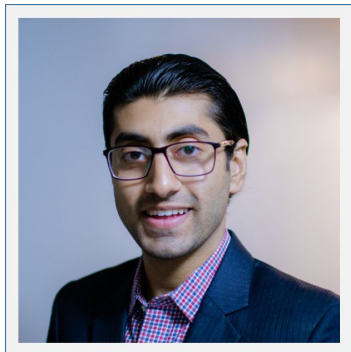
Kaylin's Scenario

Kaylin has been made aware that a paper she wrote has been accepted to be presented at a conference in Washington, DC. While the department has already booked her hotel for her, Kaylin needs to book the flight herself before the department will reimburse her. Since Kaylin already has her dates, destination, and flights selected, she must now go through the process of purchasing and booking the flight.

Once Kaylin has opened her Macbook and has everything selected, she is brought to a trip summary screen. Being familiar with these websites, she can read the various trip details that form a basic itinerary, including the amount of carry-ons and various amenities available on the flight. These details have been presented to her in largely the same manner throughout the search process. Next, she is asked to decide what kind of seating she would like. She has been automatically placed in Economy Seating by the site, and is given the option to upgrade to Business or First Class. She can also see a dropdown menu of comparisons of the various amenities available, and the bonuses she can receive by upgrading her flight. Since she is very

tech savvy, she realizes she can click the dropdown menu to see more details. Since she is also very budget focused, she chooses Economy, as she does not need any special amenities. After this, Kaylin scrolls down and sees an opt-in checkbox to select Flight Insurance, meaning that if her flight is cancelled or she cannot come for any reason, the flight will be reimbursed. Having experience with booking flights before, she doesn't feel like she needs to purchase this, so she does not check the checkbox. She then scrolls and sees the option to opt into choosing rental car or hotel information. Since Kaylin does not need to worry about these parts of the travel experience, she does not opt to choose a hotel or car. After this, she reaches the bottom of the page and hits a large green “continue” button, as her choices thus far (and her total price) display on the right side of the screen. In total, this screen took 5 clicks and 0 key presses. On the next page, she enters her card information and billing address in a fairly standard entry system. Since Kaylin is privacy minded, she does not save her credit card info with Google, she enters this info in manually. Kaylin then scrolls and sees all of her selected information presented to her at once, presses another large green “confirm” button. This confirms the purchase. This screen takes 10 clicks and however many key presses are required for entry of this data. Afterwards, Kaylin receives an email and web page with her itinerary and she has completed the booking process.

Subbu (Abhimanyu)



Hard Facts :

The user's name is Subbu. He lives in Clemson, South Carolina in a shared apartment with his three other friends. He has been here at Clemson since January 2020 and is pursuing his master's degree, which he expects to complete by December 2021 . He is pursuing his master's in Computer science with a concentration in the data science and informatics domain. He is originally from India where he completed his bachelors in computer science and consequently

picked up a job as a systems engineer at an Indian multinational software services and consultancy firm based in the state of Karnataka, India. He has mostly been away from home since the start of his bachelor's degree and subsequently for the job and is quite used to traveling to his home about every 3 months while he was in India. In a way he is quite attached to his family and home and had developed a particular taste for this certain website called "Goibibo.com" for booking his tickets for travel. He is quite happy with the website and has become quite used to it and uses it without a second thought as he feels this website offers the most economical tickets and helps him save his money over his frequent travels. Since he was managing his world at 2 different places, there is a touch of dynamism to his plans where things can come up at the last moment and he might have to alter his initial plans. Now he is in the United States, where he has relatives in Baltimore Maryland. He intends to visit them during his spring break.

Interests and values.

Subbu likes to watch movies, listen to music, and watch web series in his free time. He is not much of a traveler apart from travelling home. He also enjoys taking part in online coding competitions and applying his problem solving skills to solve them. It helps him engage his time constructively when he's not busy with his curriculum studies. It helps him broaden his thinking and problem solving horizons by solving and discussing solutions to various problems. He also indulges in Adobe photoshop where he can edit and play with his photoshopping skills. He likes tampering with original photos and letting his imagination play in editing pictures.

He values his time and skills and wants to create a positive change in his society. He thinks his technological skills can be a great way to accomplish this and hence decided to hone his skill and deepen his expertise. With this intent he has decided to pursue his master's and wants to be a successful graduate student with an intent to put his skill to greater good one day.

Computer, Internet, and TV Use

His typical computer, internet and TV use include use of mobiles and laptops to access the internet. Though he prefers to use his laptop more as this gives him the option of larger screen which is of great help in working long hours.

He can be considered quite proficient technologically and uses these digital devices to conduct his studies, accessing and reading various research papers, get on to social media ,pay his bills, access information to his queries, order food to name a few of the activities he does.

Subbu's Scenario:

As referenced above, Subbu is someone who likes visiting home/family once every few months and a week of spring break gives him a perfect opportunity to visit his relatives in Baltimore, Maryland. Right now he is in the middle of his busy semester attending classes, having assignments and other related academic work. This is all amidst getting used to a new place, and new systems. For now the users main goal is to search for the most economical flight to Baltimore to see his relatives. So the task which Subbu has in front of him is to search for the flight that suits his schedule as he plans to leave the very same day on which he has his last class before the break.

So he is searching for a flight which is primarily in the evening as his classes are finished by early afternoon. He wants to get the cheapest, fastest flight he can book with the preference of finding a refundable ticket. The user quickly pulls up the application on his phone to get an initial idea for the time and price. Because he doesn't feel very comfortable with the small screen size, he switches to his desktop where he can view the full version of the website.

Once the user has searched for the flights for the specific departure and return date, they will see a list of results. The web page will allow the user to sort his results by price, flight duration in two ways essentially , one by clicking those parameters that are made available at the side bar or also by dragging and dropping them in the section meant specifically for that in the Optimise By section. The listings page also has a visual price trend summary at the very top of the page, which allows the user the advantage of booking on a different date if the prices differ significantly. Also the user is presented with info about luggage allowances, refundability, number of stops, and an external link for airline information. The user can also compare his various options by checking the box which automatically adds that flight to the comparison cart which can then be clicked to get a column wise compared results page. This essentially compares the various flights based on price, flight duration, stops, rental pickup locations near the airport, and parking details etc. The user is also presented with alternative flights that are listed in a separate frame in the web page with its own controls and functionality similar to the main results listing. The user wishes to sort his results by the refundable flights parameter as he feels his plans might change at the last moment, so providing the user with this filtering option is very valuable. He doesn't have to click on multiple flight options and check the flight details to see if those flights have refundable options. The user is able to see luggage allowances for each option in a very. Upfront manner as cabin and check-in allowances are presented in a very clear manner.

Also the comparison option lets users not only compare flights but also other modes of transportation. This option gives users the flexibility to explore other options if desired. Once the user has done all his investigative exploring, he can go ahead with the booking by clicking the “book” option. This will lead him to flight details and a fare summary page where the user is presented with his journey details including departure and arrival times for all flights. Also an additional feature is provided where the user can check times for places other than the local time when he lands at his destination. This will help users coordinate their schedules so there are no time conflicts.

Also in our model we have presented the user with the option of checking the predictive cost for ride share taxis to and from the airport along with the distances from their current location. The user can opt in for an automated cab booking feature through which the user tells the website to book for the most optimal priced taxi by keeping track of charges and predicting surcharge periods. In this way, it frees users from constantly looking at various taxi apps to check and book for the lowest price.

Ann (Malaya)



Hard Facts:

Ann is a 62-year-old female retiree. She enjoys spending time with her family, especially with her 2-year-old granddaughter, whom she watches 3 times a week.

Interests and Values:

Ann's primary interests involve spending time with her family and staying healthy. She walks every day, and goes to an exercise class twice a week. She also enjoys taking trips to visit

friends living out of town, but because she is now on a fixed income, she must plan her budget very carefully in order to accomplish this goal. This means watching prices and trying to find fare sales. She appreciates a site that she can search quickly and easily, with different date combinations. She tries to get in 1 or 2 trips a year, and stays with friends when possible, although she likes to stay in a nice hotel once in a while.

Computer, Internet, and TV Use:

Ann is not a frequent user of technology. She uses her smart phone mostly for communicating via text and social media. She does know how to accomplish tasks on a Roku, like accessing apps such as Netflix and a cable TV streaming app. She occasionally gets on the desktop computer in the home when she wants to see things on a larger screen. Booking travel is one of those times when she wants to have an adequate amount of screen real estate so she can easily view all of her options.

Ann's Scenario(Malaya):

Ann wants to go visit her friend in Phoenix soon, and she wants to check on the prices for a few possible dates. She wants to see which date combination will be the most budget friendly. Ann sits at the desktop PC and opens up our web site. She is happy that the page isn't too complicated, because she has had a hard time in the past with some sites. She doesn't know what airports are available in Phoenix, so she likes the fact that she can pick once she types in the city name. She enters her departure and destination information, then turns her attention to the dates. She isn't really sure what the text in the date boxes is for, but she recognizes the calendar icons next to each date field. She clicks on the icon, and sees a neat calendar grid where she can pick her dates. When she clicks on a date, she is happy to see that the box now shows that date. After entering both dates, she sees the trip length under the text fields, and realizes she has selected a trip length that is longer than her desired stay. She clicks on the calendar icon again, and can easily change the date. She then clicks the big green search button that stands out on the page, and is presented with her results.

She then looks at the prices and wants to check some other options. She thinks there is a way to see the prices for other dates, but prefers to change them manually. She can easily click the calendar icons in the selected criteria area at the top of the page and change her dates and search again. Once she has settled on a flight, she then checks a box labeled Hotels, and clicks the big green Continue button, where she can look at possible hotels. She looks at the available results, and clicks on a couple to check out their amenities. These hotel listings open in a separate page, so she can easily close them and go back to her results. After selecting the hotel, she is taken to the screens where she can book the trip and see her confirmation page at the end.

Reflection Short Story

When considering a travel web site, there are some common themes that most users desire. Many of them are pressed for time, so they want an interface that is uncluttered and intuitive. They are generally highly budget conscious, so displaying good price information is a high priority. They also desire a site that can meet their needs, regardless of their level of technology experience. In our case, the users represent a diverse range of experience levels in booking travel. On one end, we have John, who has never really booked travel for himself before, and Subbu, who regularly books trips home to see his family.

Our site seeks to address these varying user needs from the moment they visit. For the novice user, we present a clearly designated search area, with text fields labeled with a large clear font. For the experienced user, we offer an expandable advanced search area where the user can make a number of customizations to their trip. The user can also go directly to their area of interest, flights, hotels, etc., using the category menu at the top of the page. However, most users will prefer to start with the search area on the home page.

When entering the departure and destination information, the user has a few options. First, they can enter the airport codes or names if they know them, which is helpful to those who travel frequently. If the user does not know what airports are available near a particular city, they can enter a city name and see a list of nearby airports, which are clearly noted under the bolded city name. This is a feature that both Ann and Sarah would find useful, as they are unsure of what is available near their destination.

Our use of flexible design continues in the date selection area, users like John can quickly enter their dates in the date fields, while users like Ann who are a little unsure can click on a calendar and then click on a date to select it, and the field will be populated with that date. There is also a listing of the trip length under the date fields, which can give an added confirmation that the right trip length has been selected. Ann found this feature to be helpful as it alerted her to the fact that one of her dates was incorrect.

From this search area, the user can decide what trip components they would like to search for by checking the appropriate boxes. The user will have the option to further filter these results on the next screen. Finally, our Advanced Search feature allows more experienced users to further customize their trip, by specifying such parameters as cabin class, number of stops, and number of adults and children traveling. A large green button draws the user's attention to where they need to click to proceed with the search.

After clicking on the Search button, the user is presented with a page of search results, along with other helpful features. At the top of the screen, helpful information such as price

trends and other travel options are presented. Down the left side of the page, the user will find several filter options, depending on the component being searched for. This page can be customized as little or as much as the user desires. Each search result displays the pertinent details, with price being featured most prominently in larger green font. When the user clicks on a result, it opens in a separate tab/page, allowing the user to quickly return to the search results.

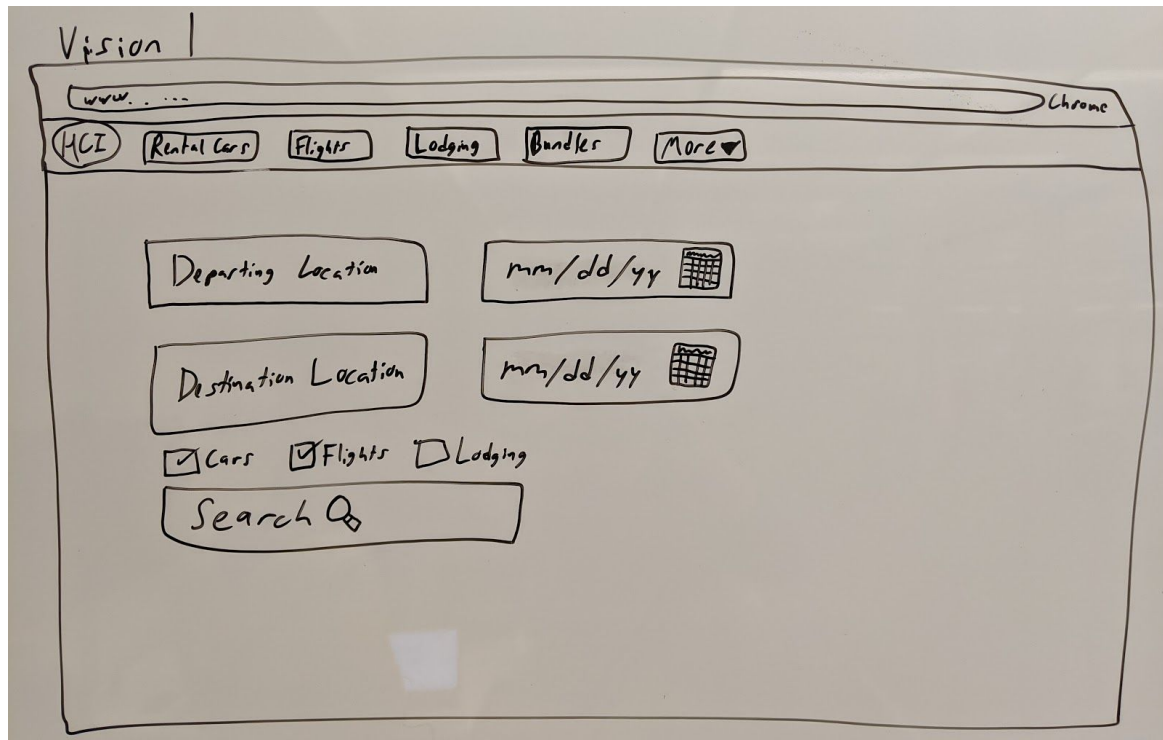
John is able to quickly find campsites in his area of interest, as well as viewing details for a couple of prospective sites without losing his place in the results. Subbu is able to narrow his search down to refundable flights, and was able to use the price trend data to focus on the cheapest dates and times to travel. More advanced users such as Kaylin are able to click drop down menus on this and subsequent screens to see more detailed amenity information such as upgrade options and seat selection.

Once the user has selected an option, they are taken to a summary screen where they can see what they have selected. The previously mentioned drop down menus are still available on this page, allowing the more advanced user to select options such as seat selection and other upgrades. At the bottom of this page are the same series of check boxes found in the search section of the home page. The user's previous selections are still displayed, but they can make changes to them if desired. If a flight is being booked, an offer of trip insurance may be displayed, but this is a simple check box that is opted out by default, so the user only has to interact with it if they desire. The user then clicks a large green continue button to proceed to the next component or the booking screen, depending on the user's selection.

Once all desired trip components have been selected, the user is taken to a booking screen. The page displays a summary of the user's selections, including pricing information, along with fields for entering passenger and payment information. The user can use their favorite saved payment method or enter their information manually. This feature is important to Kaylin, who is very privacy conscious. Finally, a screen is presented with a detailed breakdown of the user's selections, including other charges such as taxes and fees, giving the user a final look at their total price. The user can choose to edit their selections, or click the large, green Confirm button to book their travel. The final screen advises the user that their booking has been completed, or that there are errors that need to be addressed. Once addressed, the user will see the desired completion screen.

Appendix

Unconsolidated Visions



Green Flags

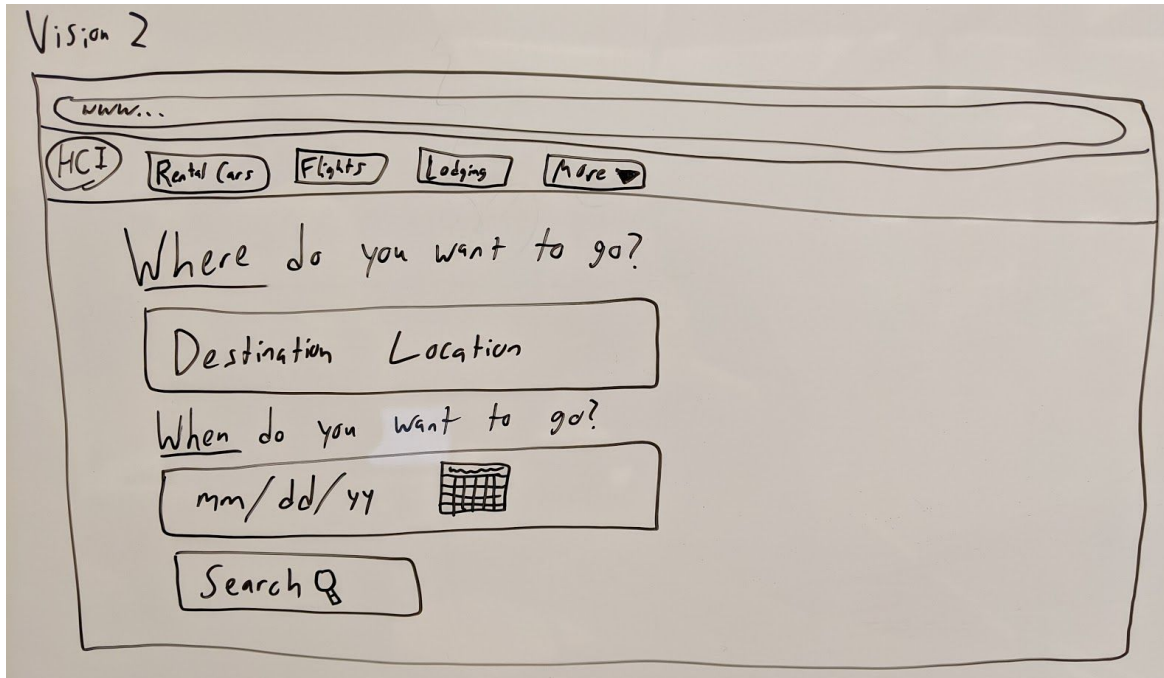
- Top navigation bar - easily navigate from one portion of the website to another

Yellow Flags

- Four separate entry boxes - Nice for separation, but entry labels could be more apparent
- Check boxes deciding what to search - Good concept, but might fit better into another area to reduce clutter

Red Flags

- None



Green Flags

- Top navigation bar - easily navigate from one portion of the website to another
- Large labels denoting what each field is for (done with direct questions to remove confusion)

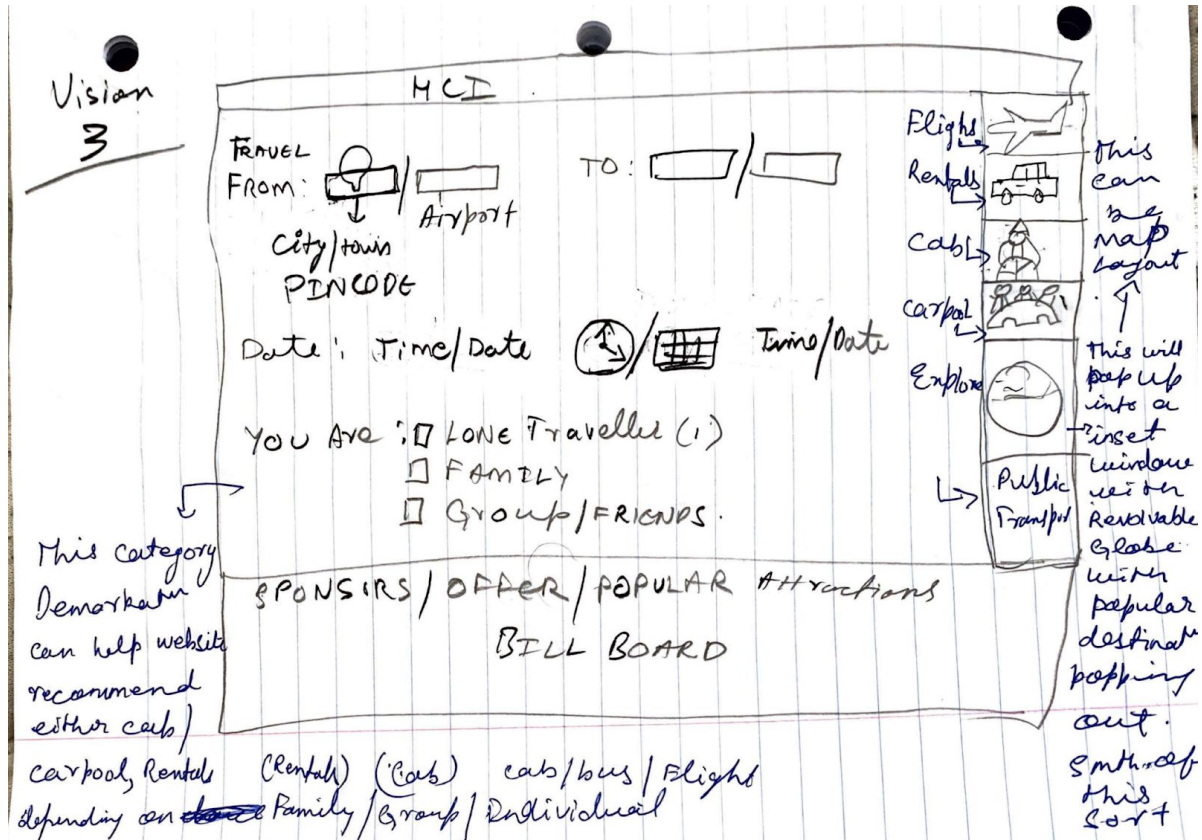
Yellow Flags

- Two entry boxes - Only allows for ending locations and starting dates. Need to be able to decide when you're returning, for example.

Red Flags

- None

Vision 3

Green Flags

- Large labels denoting what each field is for (done with direct questions to remove confusion)

Yellow Flags

- Sponsored results could be useful for users who do not know where they want to go. Don't want it to become too intrusive, however. Could also adapt it into a "popular destinations" concept.
- Navigation bar has been moved to the side rather than the top. Unsure of how this affects the layout
- Checkboxes for selecting travelling alone/as a group can be nested, makes things slightly cluttered. Could be included in a dropdown menu?

Red Flags

- No obvious search button
- Confusing symbols on right side. Without labels may not be obvious what they represent. Can be repurposed elsewhere?