

NOTE: Page 1 to 7 contain primarily implementation changes such as error messages, warning screens, wording, and some visual changes. After page 7, changes from a period between the medium fidelity prototype and implementation of the vertical prototype are provided. A MINIMAL NUMBER OF THESE CHANGES WERE APPLIED.

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After doing a change, make sure to mark it done so another person does not repeat the same change.

Error Messages to implement:

- email/phone number: if they enter an email without the @ or if the phone number does not have 10 digits.
- credit card number: if the card number is not 16 digits.
- exp date: if the format is not MMYY; maybe preventable with a drop down
- CVV: 3 digits
- Date: if format is not correct
- time: if date entered is not correct

Warning Screen:

- if a user enters a crazy quantity: more than 7 tickets, ask them are they sure they want to purchase that much. Or if they purchase more than 1 monthly pass.

Section 1: what is needed on screens according to prototypes:

Language Settings Screens:

- arrow should be changed to a downward arrow instead of a right facing arrow.
- Double check that the back button isn't on this page.
- Once the language drop down is opened, have an upwards facing arrow.
- Add "This" at the beginning of the parenthesis.
- Change title to "Language Selection".

Application Features Overview:

Screen 1 Purchase Tickets!:

- instead of the word "an array of options", use "a wide range of tickets" instead.
- Instead of "Included are", replace it with "Ticket choices include".
- Remove the youth ticket and adult tickets and just say something like "for every age group".

Screen 2 Personal wallet:

- remove "through" after navigate.
- Add "digital" in front of "wallet" (2 times) .
- replace the word "cash" with "funds".
- Add at the end of the second sentence "that can be used to pay for tickets".

Screen 3 Profile:

-Include a sentence that mentions creating a profile will allow you to transfer your tickets to another device/ a way to save the tickets.

For all 3 screens:

-emphasize the skip and next button a little more; maybe surround it in a box and make it a little bit bigger.

-For the skip button, change it to “Skip to Main Menu”.

User Preference Questions:

Sign In/ Sign Up:

-Instead of “are you already a member?” replace with “have an instaride account?”.

-Instead of “would you like to join”, replace it with “sign up for an account”.

-Maybe remove “next” and change it to “continue as a guest”.

Accessibility: -title should be: accessibility transportation.

Location: -add services to the title (Location services).

For each page:

-add to the top right corner something that **shows what page they are on out of how many possible pages**. Eg. Pages 1 of 4 on Sign In/ Sign Up.

-Where the **arrow is on each page, replace it with a skip button, and when clicked, goes to the main screen** with default settings; eg “skip to menu” button.

-For screens 2-4, maybe set the default choices to “no”, so if the user wants to pick “yes”, they have to manually click it. Needs to differentiate buttons selected by colour.

Main Screen (Both regular and accessibility):

Notification:

-when there is a new notification, add a red dot or something that indicates new notifications (analogy: d2l notification icon).

Size of buttons:

-make the buttons bigger to use as much screen space as possible. If buttons start to look distorted, make use of the space by making the Active Ticket Screen/ future trips screen larger; with this being larger, it can possibly fit multiple types of tickets without needing to swipe to see different ticket types.

- on the view ticket(s) button for accessibility users, change it to “view tickets and passes”; consistent with the regular main menu. Also remove the (s) at the end of “trip(s)”.

Purchase Tickets Screens:

Screen 1:

-Cart feature: remove it from the ticket options and create an actual shopping cart icon on the top right corner that shows the tickets added to cart.

-Total Cost: show total cost above where it says “youth”

-Redeem tickets: prior to the first screen, have a screen with 2 options: purchase tickets and redeem tickets; so we can remove redeem tickets on the ticket selection page.

-Arrows: make sure they are directed downwards.

Screen 2:

-Extra option: add the month pass as a purchasable option

-Make the **total cost** more obvious; above the “youth” label.

-add the **cart feature** here too

Screen 3:

Button sizes: make them bigger

-change **google to apple pay** for more consistency with application

-Add the **total cost** somewhere; above apple pay.

-add the **cart feature** here too

- “Credit card” change to “Debit/Credit Card”

Screen 4:

Title: Change to Payment Information

Layout:

-Put the Card number at the top with a dedicated row to show all the digits. CVV and EXP can share a row;

-EXP may be able to fit a drop down with month and year options; if can’t implement this, just remove the “-” between MM and YY; confusing if the user needs to enter this or not

-Email/phone number at the end with it explicitly saying it is optional for receipt purposes. Eg. “Email/ Phone Number (for optional receipt):”

Alternative payment methods: if “use funds” is chosen, skip to screen 5. If apple pay is chosen, create a generic screen that “verifies” transaction; takes a few seconds before transitioning to the next page.

Screen 5:

-remove “save order”

- change “activate now” to “activate ticket now”

DISCUSSION: should screen 4(or 3) and 5 ordering be swapped?

Quick ticket purchase:

-Remove the separate button to edit ticket options and put that feature in the top right corner while making the other buttons bigger.

- remove the pencils too

View Tickets and Passes / Wallet.

Active and non-activated ticket differential:

-primary change should be colour on the buttons; eg. grey button/neutral colour on non-activated tickets and green on active tickets.

-Add the word “available” in front of funds in the top right corner if possible; sounds a little more pleasant.

-If possible, **expand the buttons to fill the space on the bottom.**

- On active tickets, change the text to “13 hour(s) **of ticket usage** remaining”

- do we need to add “minutes remaining” as well?

-make sure regular tickets are called “regular use ticket”, instead of “ticket”.

DISCUSSION: should we remove the requirement for tickets to be expired after not using them after a period of time? This can be confusing with when activated tickets actually expire.

Accessibility trip booking:

- Rearrange order:** Put the date and time in the first row and the pickup location on the second row; a little bit more consistent to move through information.
- For date and time: if possible, have a drop down so they can choose their date and time easier (eg. select date from the calendar); if not possible to implement, just add the drop down arrows on the right side of each box and use a default time/date.
- Label change:** Instead of “need vehicle for wheelchair?” replace with: “Request special vehicle for your mobility aids”
- Extra option:** a checkbox to have the ability to book **another trip**/ round trip; this can lead to the same page being opened after “book trip is pressed” or can fill the pickup location and destination as inverses of the input entered for the 1st half of the round trip. Put this checkbox after BEFORE asking for a special vehicle.
- Time:** drop-down-ish feature to input the pickup time. At least have the option to click AM or PM
- Ticket verification: after a trip is booked, just check if they have 1 active ticket/pass or give them the option to purchase/activate a ticket. For simplicity reasons, if the user books more than 1 trip, just make sure they have 1 ticket purchased, even if the ticket expires by the time other trips are requested.

Send tickets:

- instead of “confirm” replace with “send tickets”
- double check the method to send tickets: eg via email/phone number or request a code.

Redeem tickets

Scan code:

-looks fine

-for the “scan code” via camera, can literally make it like the version of the medium prototype, but where the camera would be, replace it with a medium sized black/ white box.

Drop down:

- On the medium prototype, the drop down looks fine, but we can probably compact it and remove the white space between settings and sign in.

History:

-Looks fine

Add funds:

- Replace “how much would you like to add” to “enter funds amount you would like to add”.
- Remove the dollar sign as an option.

Sign In/ Sign Up

- On the sign in page, replace “next” with “sign in”.
- On the sign up page, replace “date of birth” with “year of birth”; so we only need their year and nothing else. Add a drop down label here to show they don’t have to type it out.

Help: to be implemented, but we are just going to hard code instructions on how to do basic tasks like purchase tickets.

Settings: hard coded values; could be exactly the same as prototype.

END of Changes by observing prototypes only. Will add to this document shortly changes from feedback and changes after viewing the C# implementation.

Section 2: Feedback from tim

1. Consider scalability of the first screen – how many active tickets can be displayed in the window?
This might be important for a family travelling together
Solution: we have extra space on the main menu, so make the screen bigger to fit 2-3 types of tickets.
2. The arrows on the Purchase Tickets screen are a bit confusing – you want to think of an interactive control as the action it performs as opposed to the current state
Solution: we have already fixed this by rotating the arrows properly in the purchase tickets, but should make sure the rest of the interface is consistent.
3. You should carry over the total cost even if it's one ticket through the screens that involve purchasing a ticket as a reminder of the cost
Solution: this has been mentioned already in section 1.
4. In the case of purchasing, I'm wondering if the pencil edit icon is the logical choice for how that interaction should go? You're not really editing tickets so much as changing the quantity
Solution: we have removed the pencil icon and moved the edit feature. The edit feature should allow us to choose the types of tickets to save. Eg. saved 1 adult regular ticket and save 1 youth regular ticket; using the same screen as selecting tickets in purchase tickets.
5. The application flows feel a little confusing at times for the user – try thinking about giving them a better sense of where they're at within the application
Solution: make sure that most pages have a title that describes the process and for tasks that have lots of steps, make sure we say what page/step they are on. Eg. for purchasing tickets, page ¼, etc.

Other feedback:

- on the profile/account page, need to be able to add and remove saved credit card information.
- in the reminders, when the user gets to a particular stop, send them a notification; may not be implementable.
- refund monthly passes in the account settings page?

Heuristics to apply

Visibility of System Status:

Every page should include a title that says the functionality of the page; eg. Purchase tickets, view tickets, etc.

The functionality that does steps (like purchase tickets) should implement some way for users to see progress (eg. Steps 1 out of 5) or something similar.

Make sure to include confirmation messages for important tasks (purchasing tickets, booking trips)

Match between system and real world:

Making sure that the terms/words we use throughout the system are in terms that most people can understand; not too complicated or technical.

Have functionality natural to use/progress.

User control and freedom:

Users should be able to undo text they entered quickly; add an “x”/ undo feature where the text box is or put an “x”/undo feature for the entire page?

Make sure for functionality that is performed in stages, we can back out of it (eg. With back arrows).

Emergency exit to the main menu: hold back arrow for a few seconds to be able to go to main menu?

Don't force the users to be committed to a function.

Consistency and standards:

Internal: Make sure text font is consistent between similar text boxes and the theme of the application is the same throughout.

External: should be fine. Maybe to add shopping cart feature to the top right corner of the payment pages; current “Cart” seems awkward.

Error Prevention:

When purchasing tickets, have a limit of tickets purchase (maybe 8 regular tickets and 1 monthly pass) and if the user enters more, we have some sort of verification. Eg. Answer some trivial math problems to verify that is isn't a mistake.

Recognition Vs Recall:

I think its fine here. There isn't anything that forces the users to have to think back on our interface. Maybe input entering boxes for address, but should be good with the map interface for selecting addresses.

Flexibility and efficiency of use:

When accessibility user books trip and needs to get ticket, make sure that the ticket starts to be active when their transportation is supposed to arrive, not ticket active the moment they book the trip.

Efficiency: can't really add other accelerators other than quick checkout and saved addresses on a mobile application.

Aesthetics and minimal design:

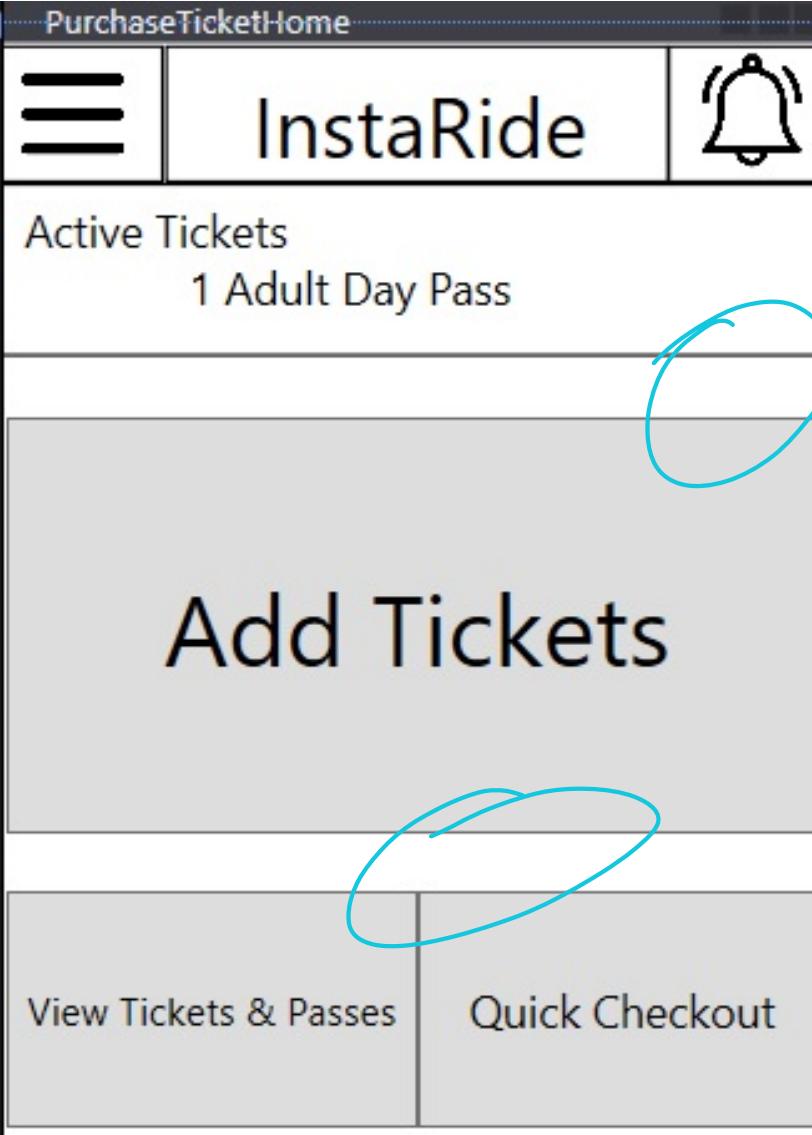
Should be good

Help users recognize, diagnose, and recover from errors:

For input texts, if user enters something wrong, we provide detailed information on what is wrong. Eg. Wrong credit card number entered (only make sure it is 16 digits),

Help:

We have help documentation on the app via the drop down. This teaches users how to use the application.



C# Implementations

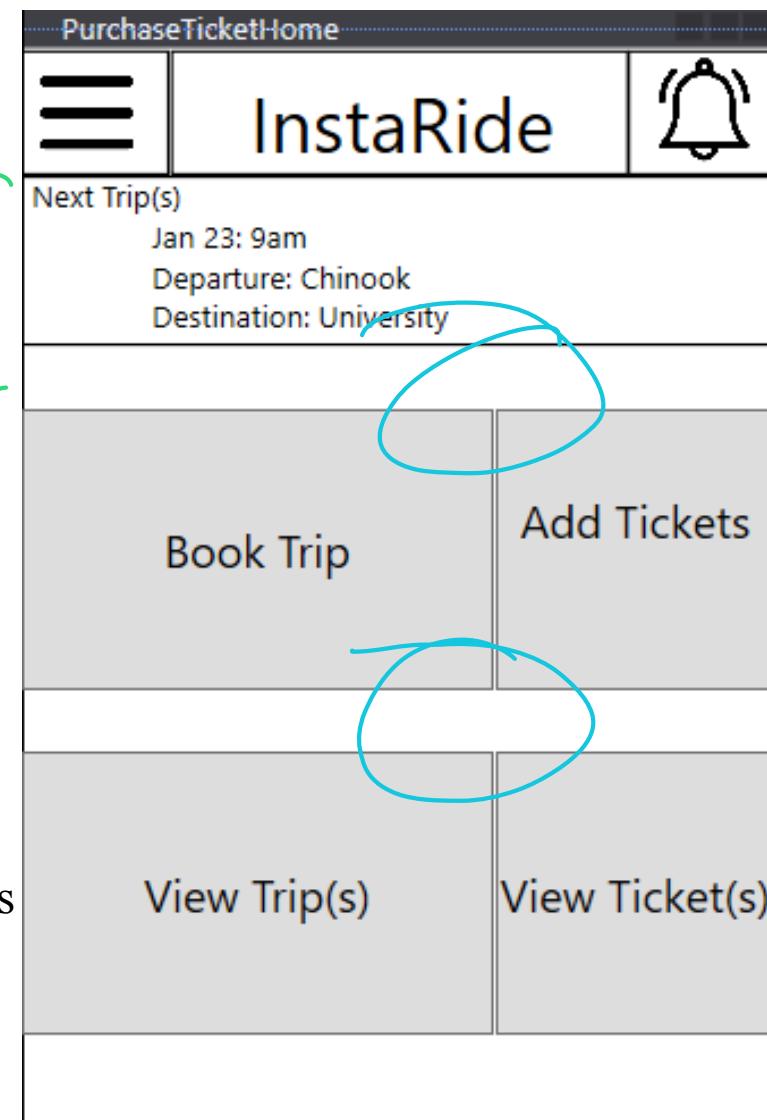
Make this
bigger to
fit more "Swipe"?

Main Screen

Fill so there
is minimal/
no white
space

Make this
bigger to
fit more "Swipe"?

Main Screen for
Accessibility Users



PurchaseTicketHome

Active Tickets

No Active Tickets

← Purchase Tickets Step 1 of 3

Total Cost: \$ "Shopping Cart"

Youth →

Adult →

Senior →

~~Cart~~ →

Remove & replace with " Shopping cart "

Redeem Ticket

Continue

~~Proceed To Next Payment~~

Remove &
add an Option
after

Screen 2

Verification: if any
unreasonable quantity
added (7+?), have
a confirmation for
the user if they
really intend to purchase
the quantity.

Purchasing Tickets Screens:

Shows

Current ticket
Selected +
Option to
Clear cart + checkout

PurchaseTicketHome

Active Tickets

No Active Tickets

← Purchase Tickets Step 1 of 3

Total Cost: \$ "Shopping Cart"

Youth ↓

Regular Use	-1+	\$3.50
-------------	-----	--------

Day Pass	-1+	\$10.50
----------	-----	---------

Adult →

Senior →

~~Redeem Ticket~~

Continue To Payment

PurchaseTicketHome

Active Tickets

Active Tickets

← Payment Options Step 1 of 3

Total Cost: \$

Google Pay

Credit Card

Use Funds: \$12.54

Screen 4

PurchaseTicketHome

Active Tickets

No Active Tickets

← Payment Options Step 2 of 3

Credit / Debit Card Number

Email/Phone Number:

Card Number: CVV Exp: MM YY Calendar drop down?

CVV: Email/phone # (for optional receipt)

Total Cost: \$

Save Card for future use

Confirm ~~Next~~ Order

PurchaseTicketHome

Active Tickets

Day Pass Active

← Wallet Funds: \$10.00

Day Pass Active

13 hour(s) remaining

Ticket Activate

Expires in: 1 day

Transfer Tickets

History Add Funds

“View Tickets and Passes” button

PurchaseTicketHome

Booked Trips

No Trips Booked

← Request Accessibility Trip

Pickup Location:

Date:

Time:

Destination:

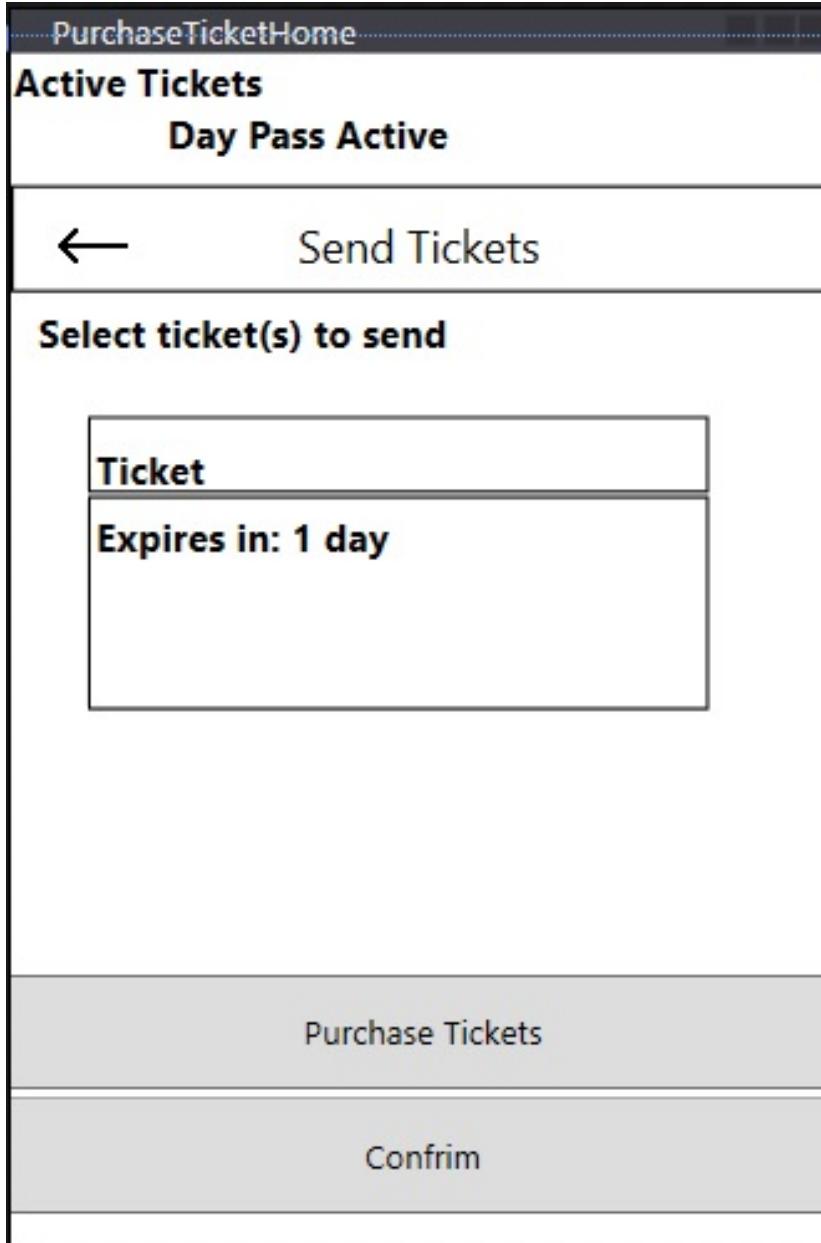
Accessibility Trip Booking

Swap
ordering

Need Vehicle for wheelchair?

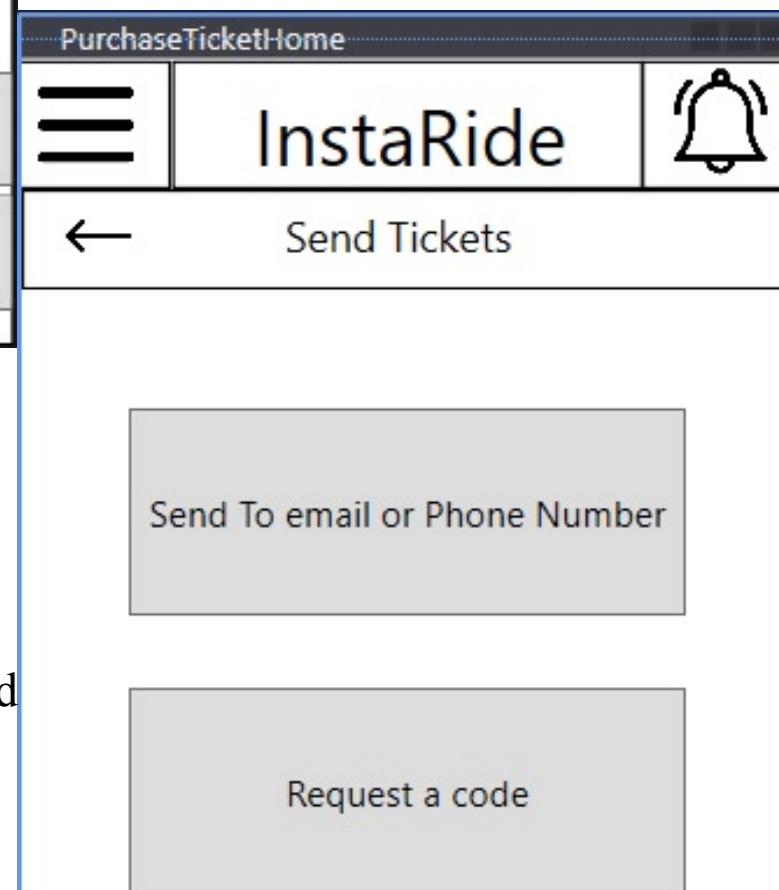
Book round trip
(or something similar)

Book Trip



Sending Tickets To Other Users

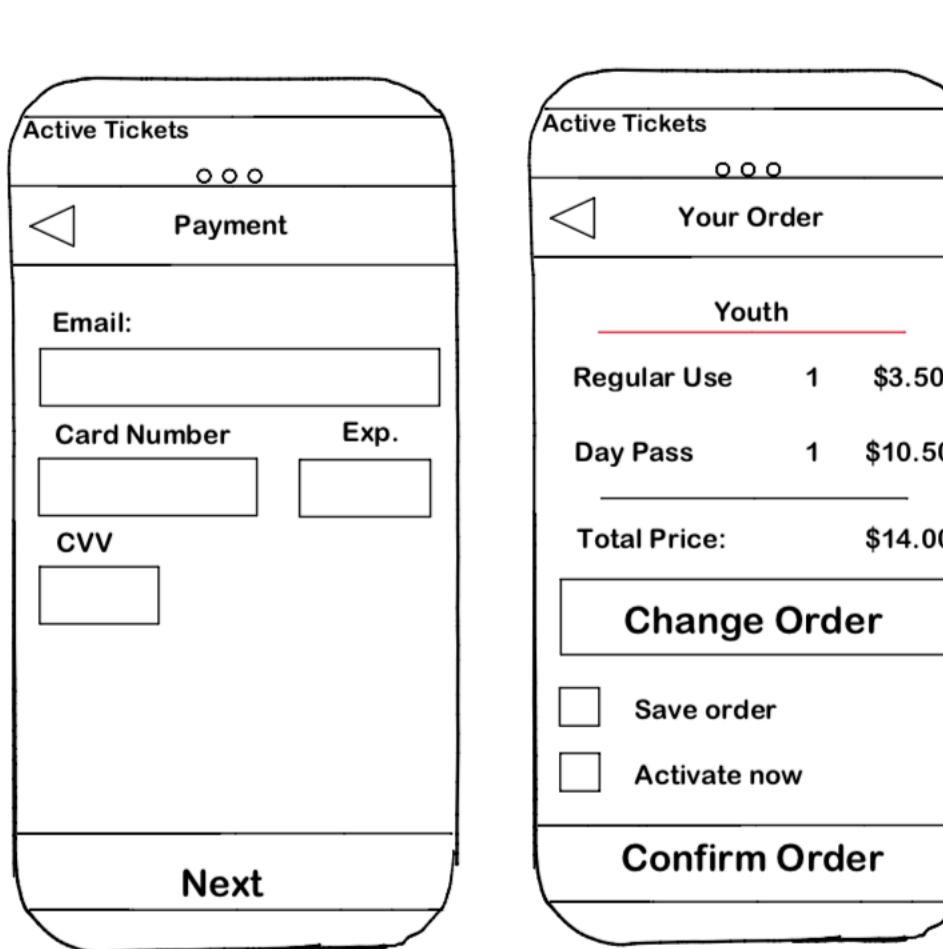
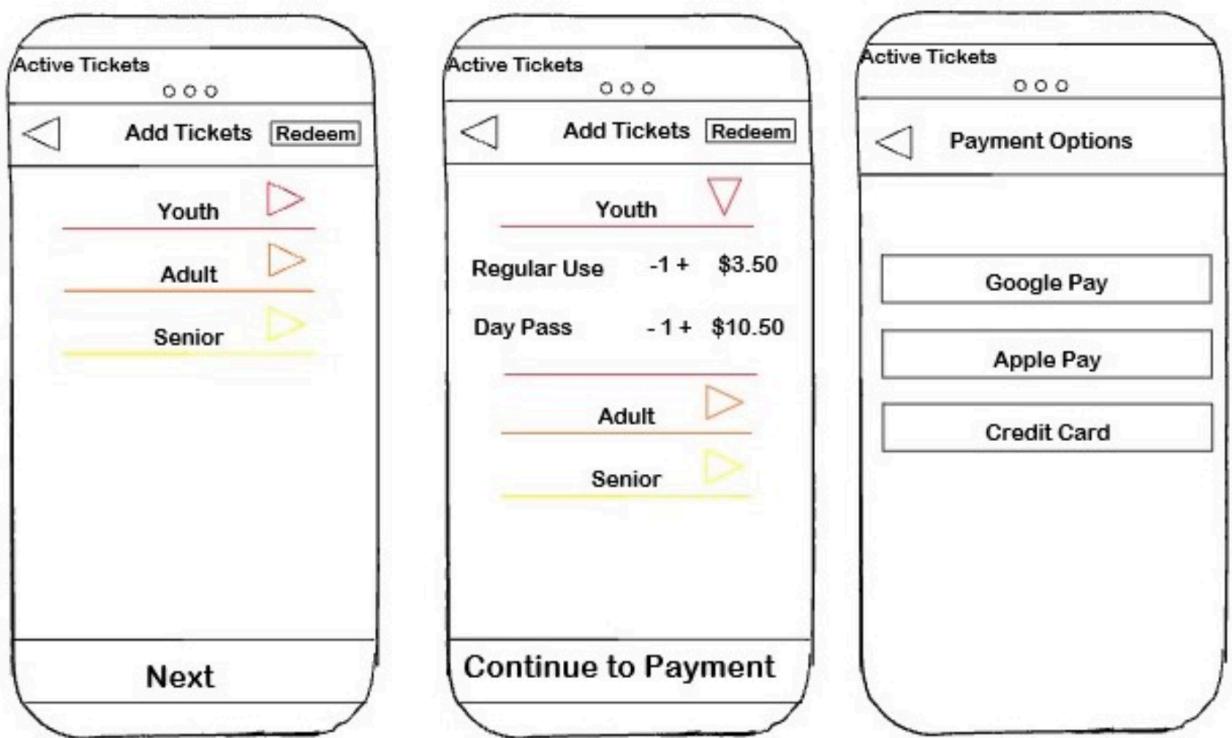
Screen 1
Selecting ticket(s) to send



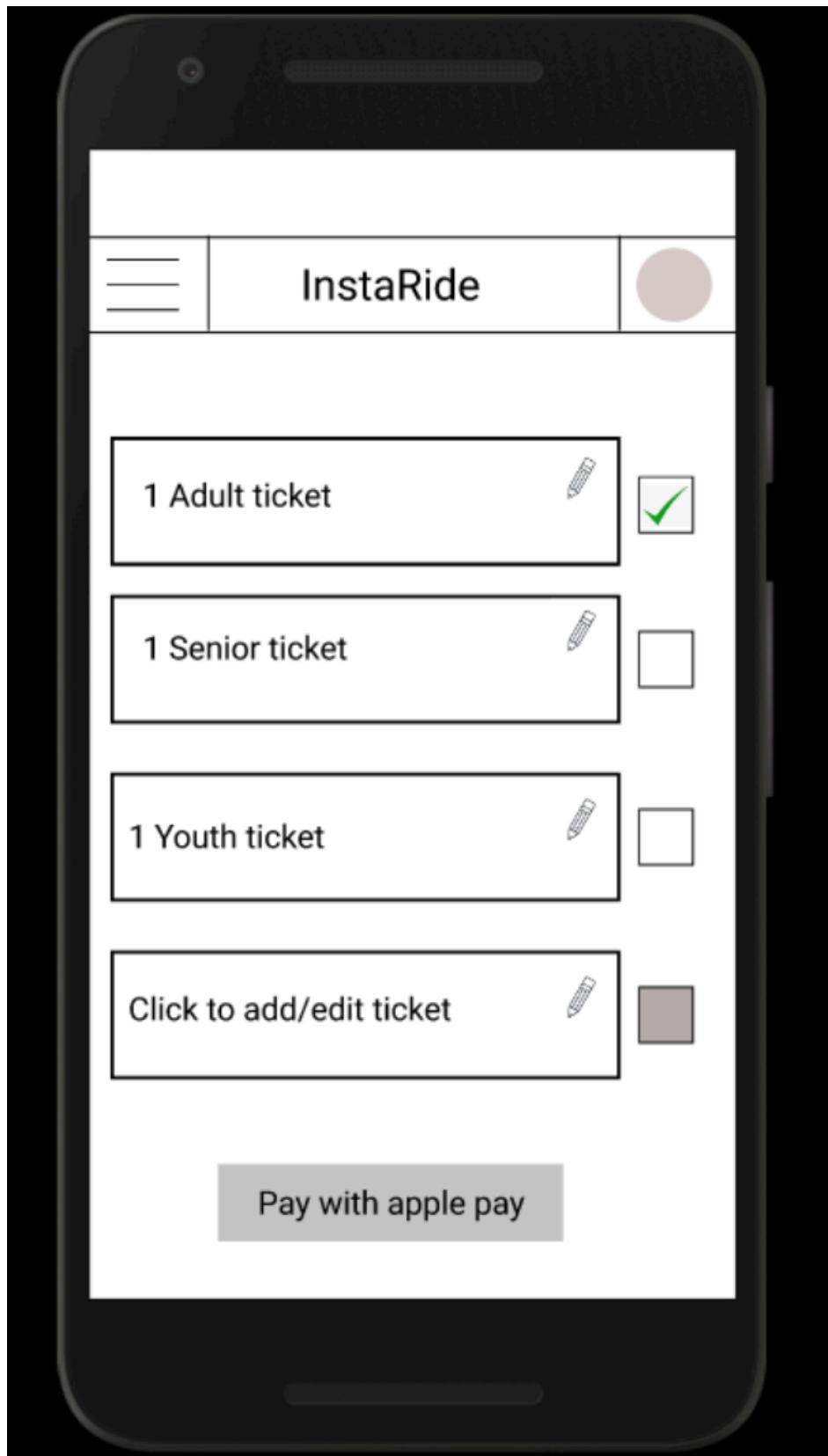
Screen 2
Picking the method
to send the code

The following screens are not implemented in C#, but is the horizontal fidelity prototype for multiple features; other features may only be shown on the C# prototype.

Purchasing Tickets (repeated from C# implementation)



Quick Checkout Screen

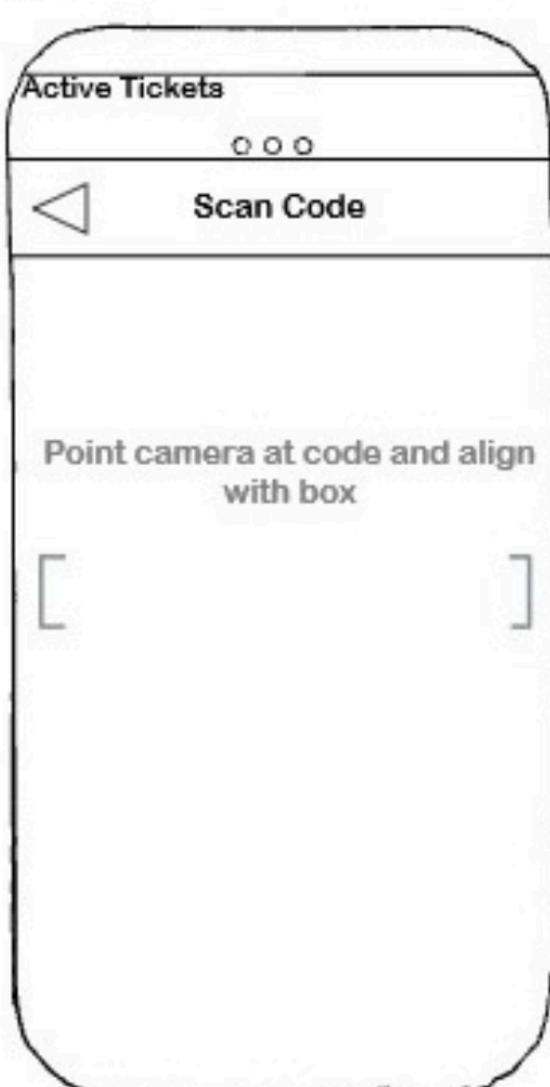


Redeem Tickets/Passes (formally known as “Special Tickets”).
Accessed via “Add Tickets” button

Redeem Tickets



Scan Code

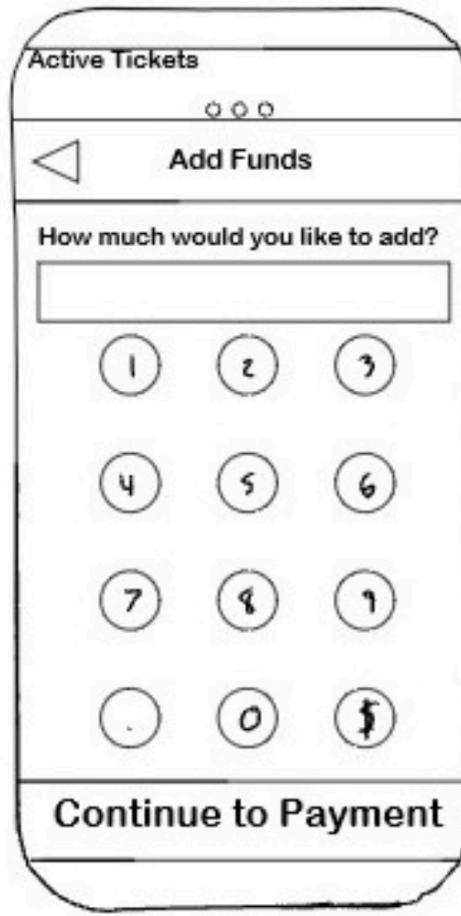


Drop Down Menu

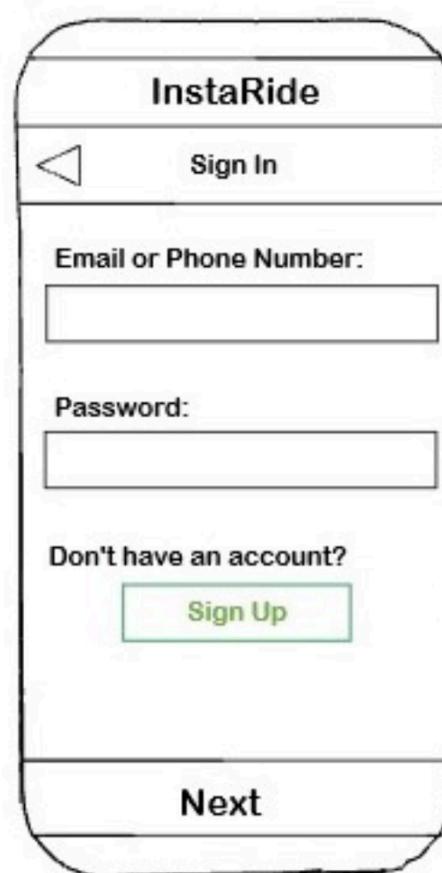
Drop Down



“History” and “Add Funds” Screen Features accessed via “View Tickets and Passes”



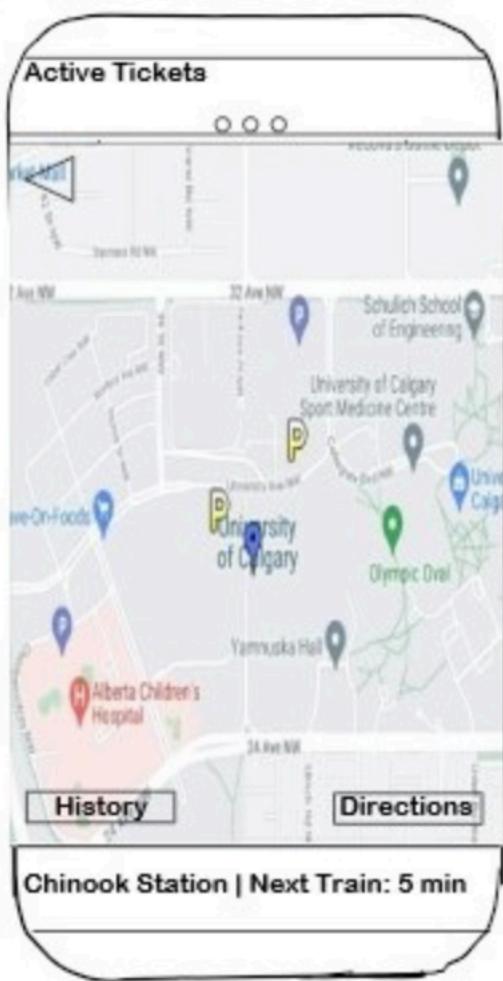
Sign In / Sign Up



Sign In/ Sign Up Pages

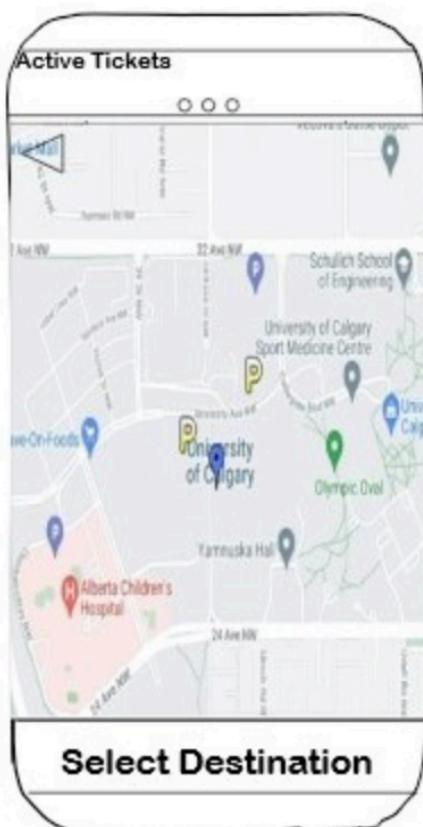
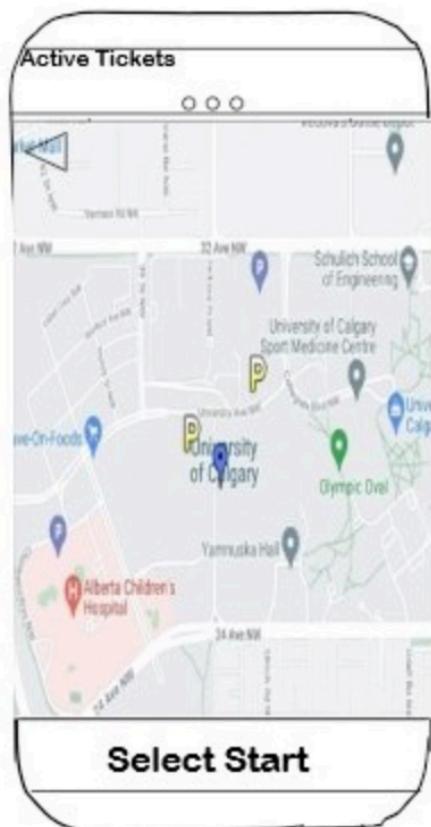
Map Interfaces

Map

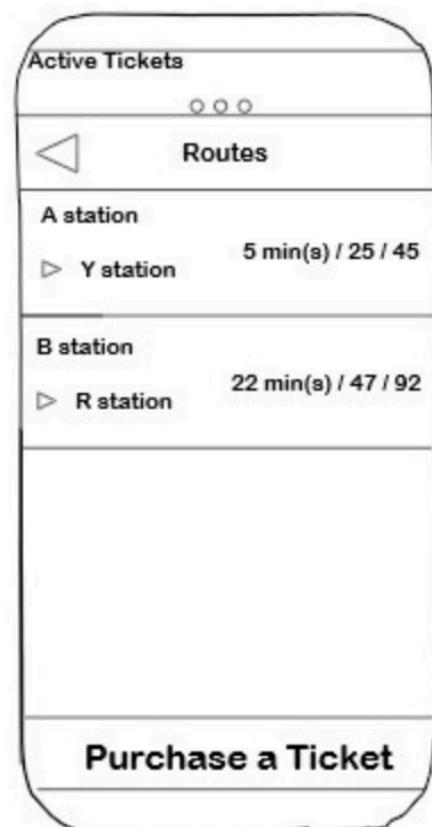


Directions

Plan a Trip



Routes

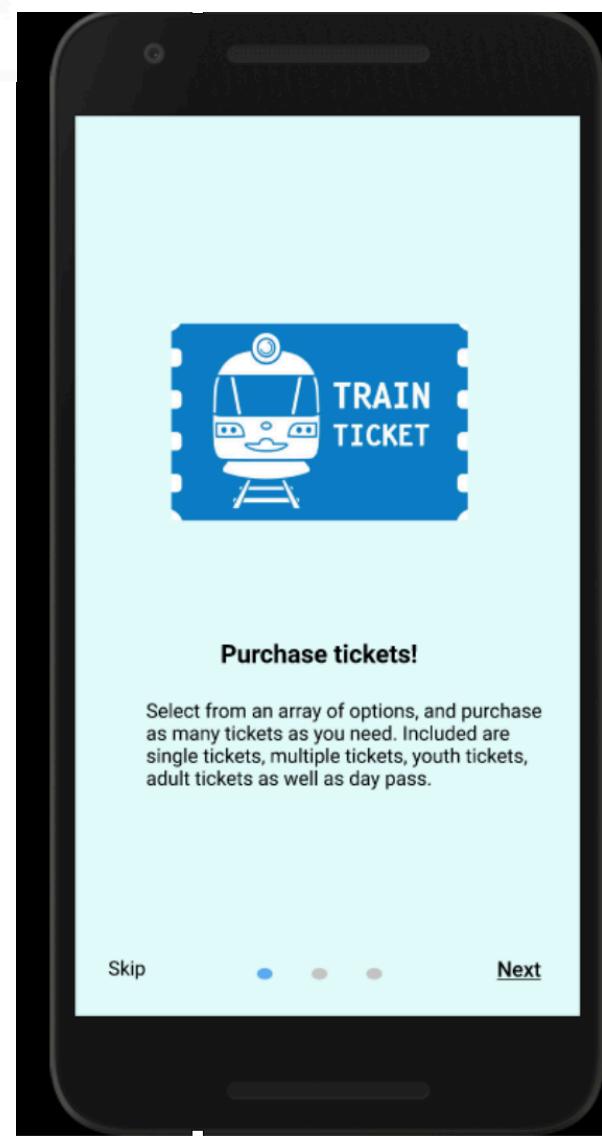


Entering locations
to find
directions
using
map

First Time Opening Application Screens



Language Options
First thing shown when app opened for the very first time



Application Features Overview



Personal wallet!

Navigate through and access all your tickets through your wallet. You can also keep a pre paid balance of cash in your wallet.

Skip



Next



Create and Customize your profile!

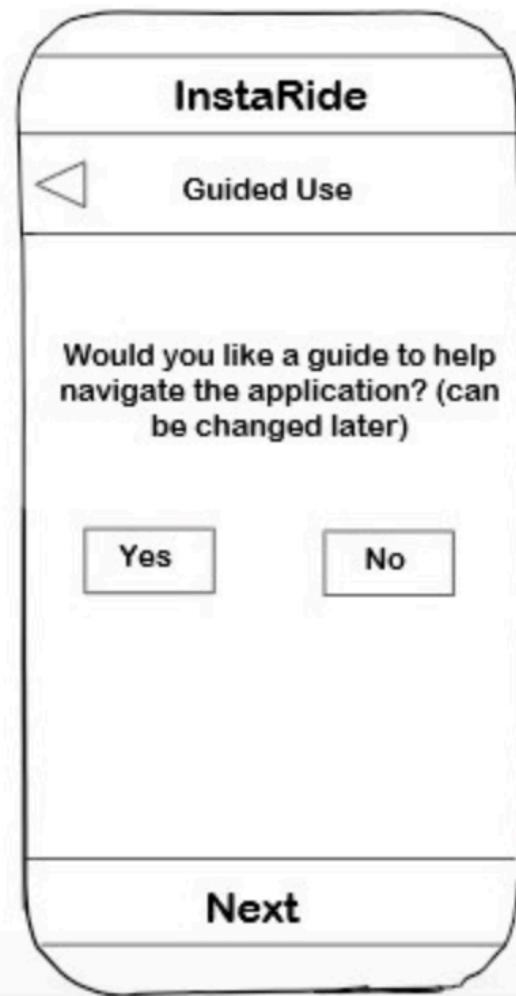
Create a profile for ease of use, maximum comfort, as well as making the app tailored towards you.

Skip



Next

User Preference Questions

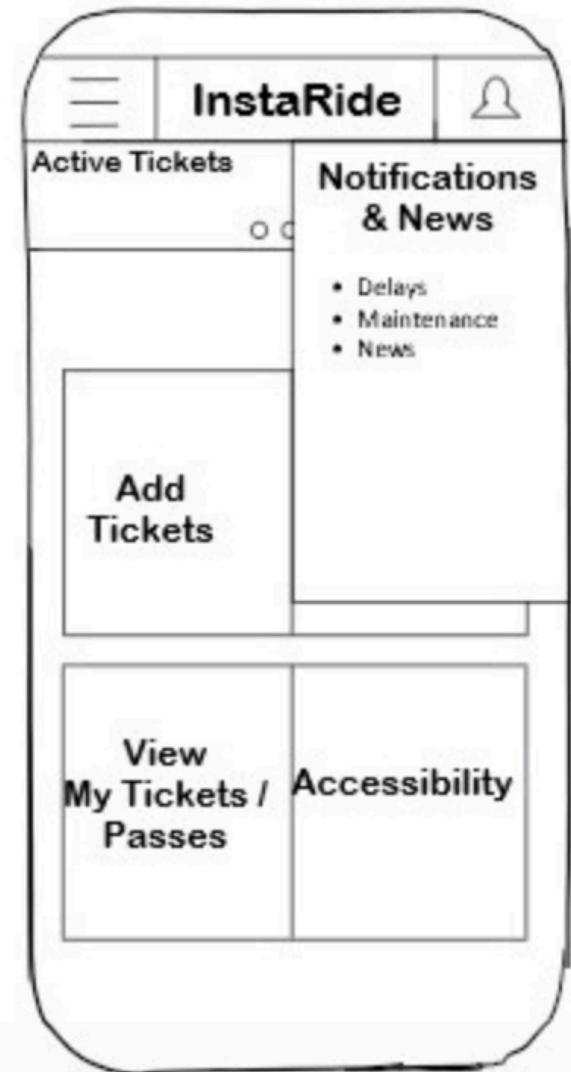


Alternative “Send Ticket” Screen

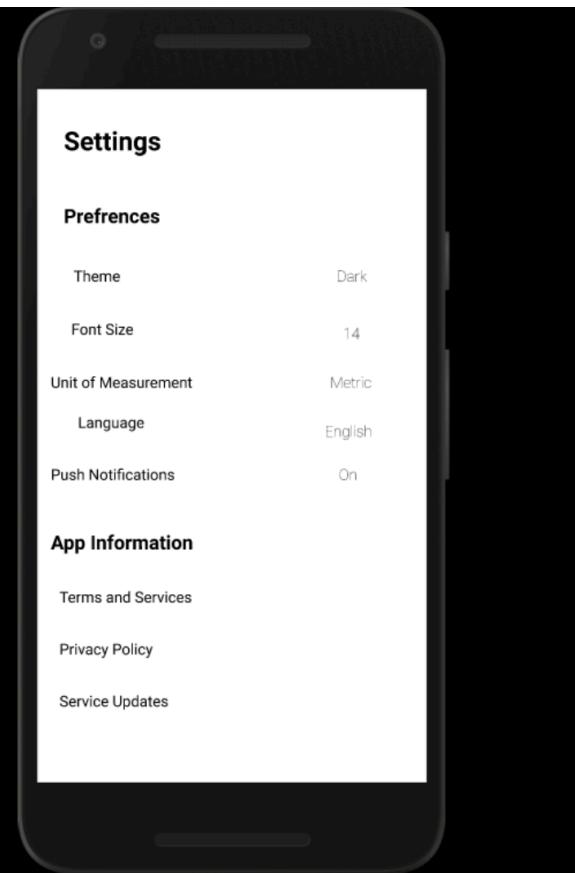


Notification/News Dropdown

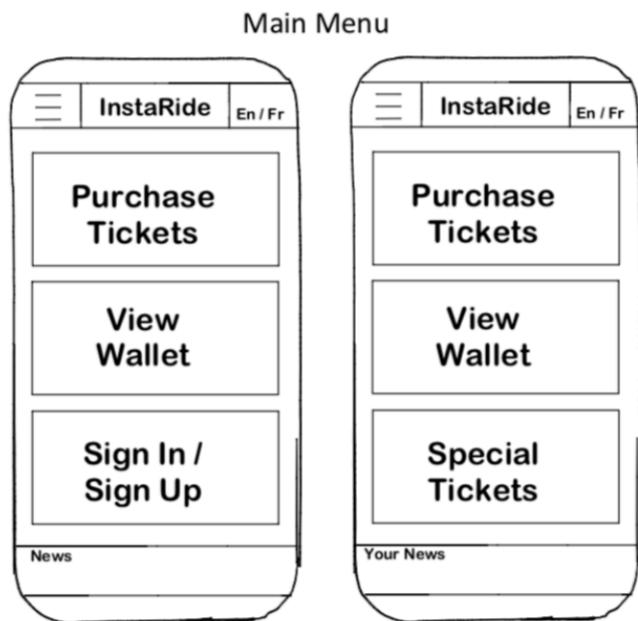
Noti / News



Application Settings

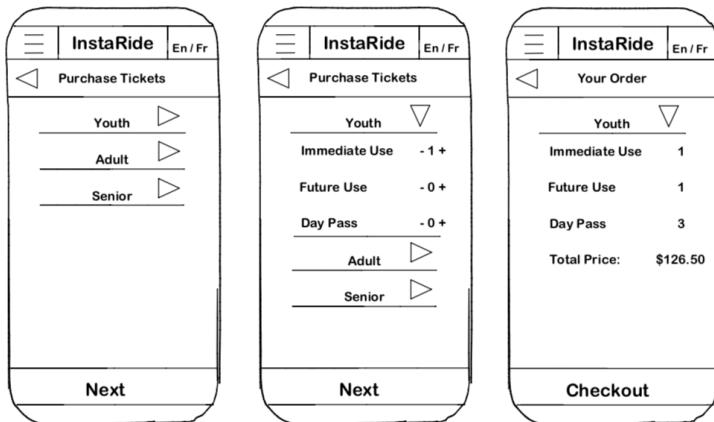


Original Lo-Fi Prototypes from Assignment 1



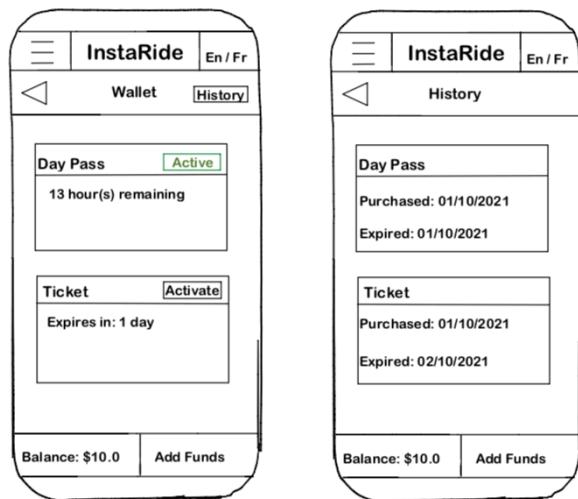
When application is opened, this will be the first things that users see. The screen on the left is for users not logged into the application, while the screen on the right shows what logged in users will see.

Purchase Tickets



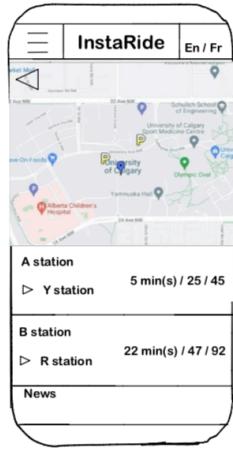
These 3 screens show how the users can purchase tickets after clicking “Purchase Tickets” on the main menu, in order from left to right. Note that the payment page has to be implemented.

Wallet / History



From the “view wallet” button on the main menu, customers can bring up their active tickets/passes and view their ticket history.

Map



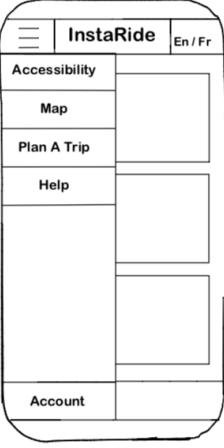
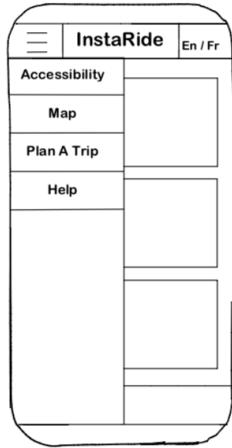
Accessibility



The interface on the left shows a map design from trip planning features such as estimated transit time.

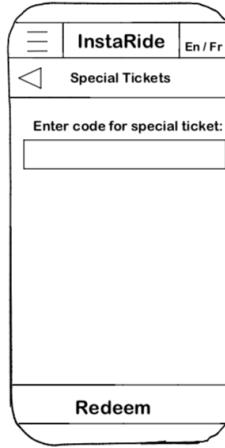
The interface on the right shows how users who need personal forms of transportation for accessibility reasons can request a trip.

Drop Down



Hamburger button reveals a drop down menu revealing multiple features. These 2 screens only differ because the screen on the right represents a logged in user.

Special Tickets



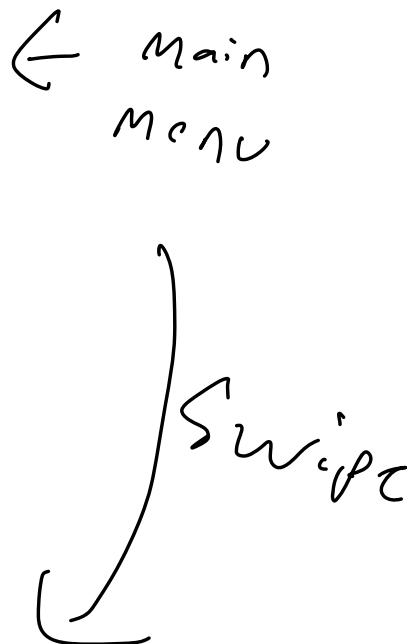
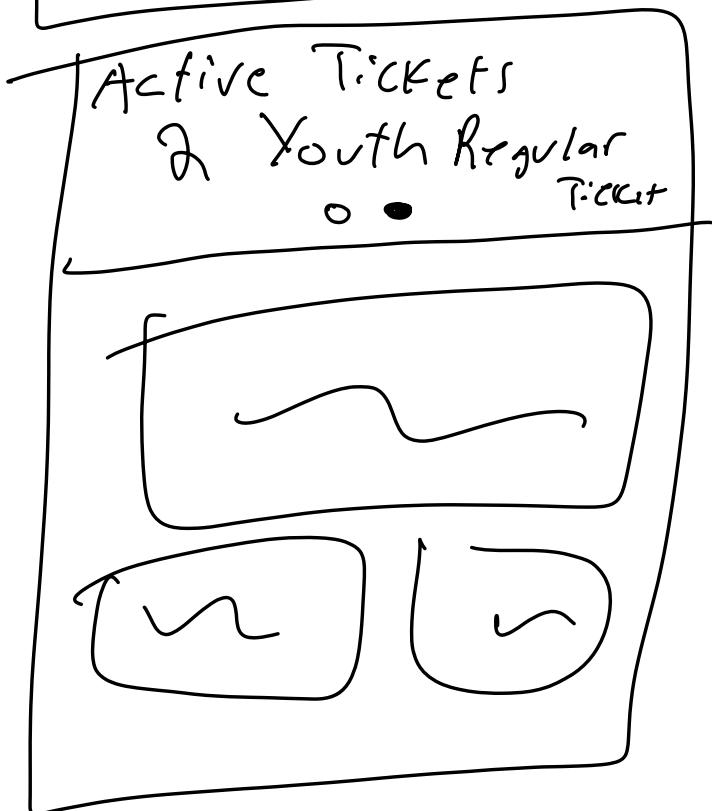
Screen to enter codes for special tickets/passes like university transit passes.

Sign In / Sign Up

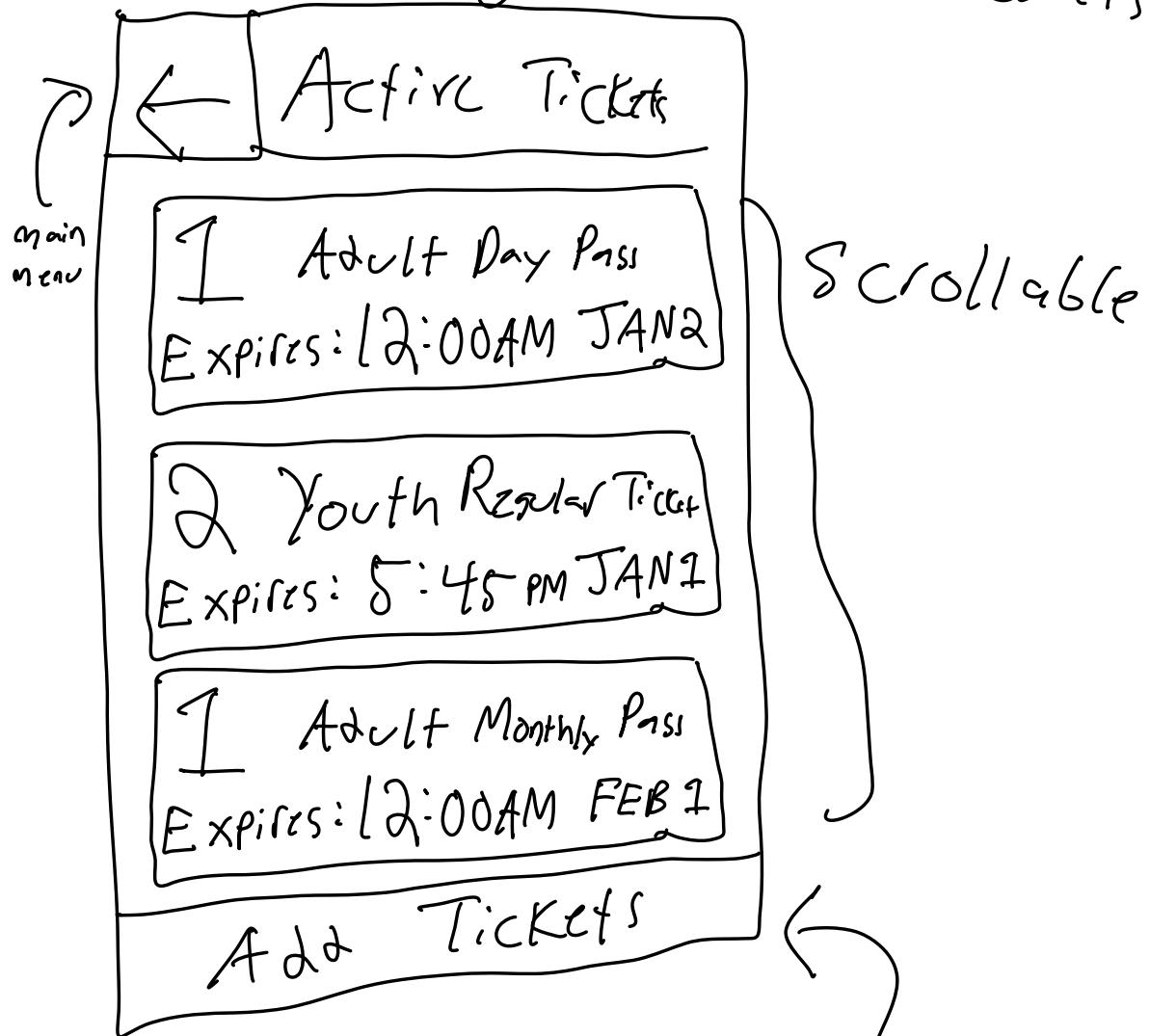


Sign In / Sign Up interfaces. Users could sign in to any device so they won't lose their tickets saved.

Active Tickets



Clicking "Active Tickets"



goes
to regular
Add Tickets

View Trips

	View Trips)
1.	JAN 23 9:00AM Departure: CHINOOK Destination: University
2.	JAN 23 11:00AM Departure: University Destination: HOME
3.	JAN 24 9:00AM Departure: HOME Destination: University
Book Trip	

Trips
Order
based
on
Departure
time

