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COURSE:	MUX
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DOCUMENT:	Application UX Plan

LEE COUNTY BUS ROUTES

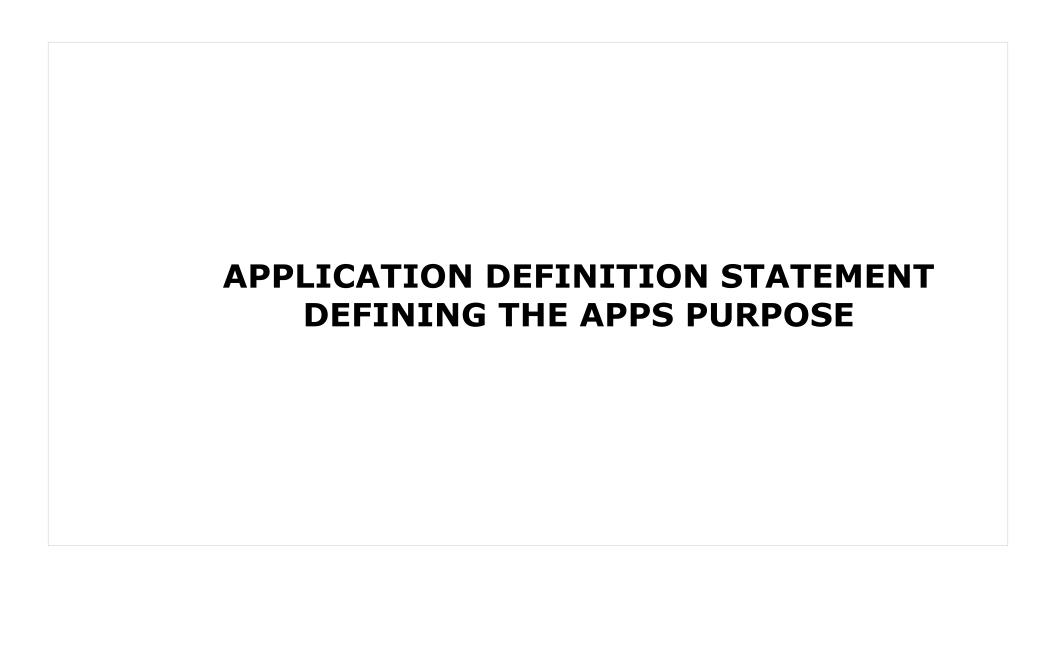**OVERVIEW**: HTTP://WWW.YOUTUBE.COM/WATCH?V=JWYEIANYXNE

PROTOTYPE: WEB BASED: HTTP://AGVINSANT.GITHUB.COM/MUX

XCODE PROJECT FILE FROM INTERFACE IPAD PROTOTYPE APP: HTTP://INTERFACE2.LESSCODE.CO.NZ/PROJECTS/9D63E9

GOOGLE FORM SURVEY: HTTPS://DOCS.GOOGLE.COM/FORMS/D/16QPS6DYDB4NXZY9KQQL09JWDLUKURJFLPAMDFZCWWYK/VIEWFORM

APPLICATION DEFINITION STATEMENT DEFINING THE APPS PURPOSE

Application Definition Statement

A concise, concrete declaration of the app's main purpose and its intended audience

Purpose or Main Intent

An app to assist public transit riders find bus stop times and locations.

Description of Intended Audience

Anyone who is riding the public transit bus system in Lee County, FL. This could be patrons or staff alike, anyone needing to know route times and stop information.
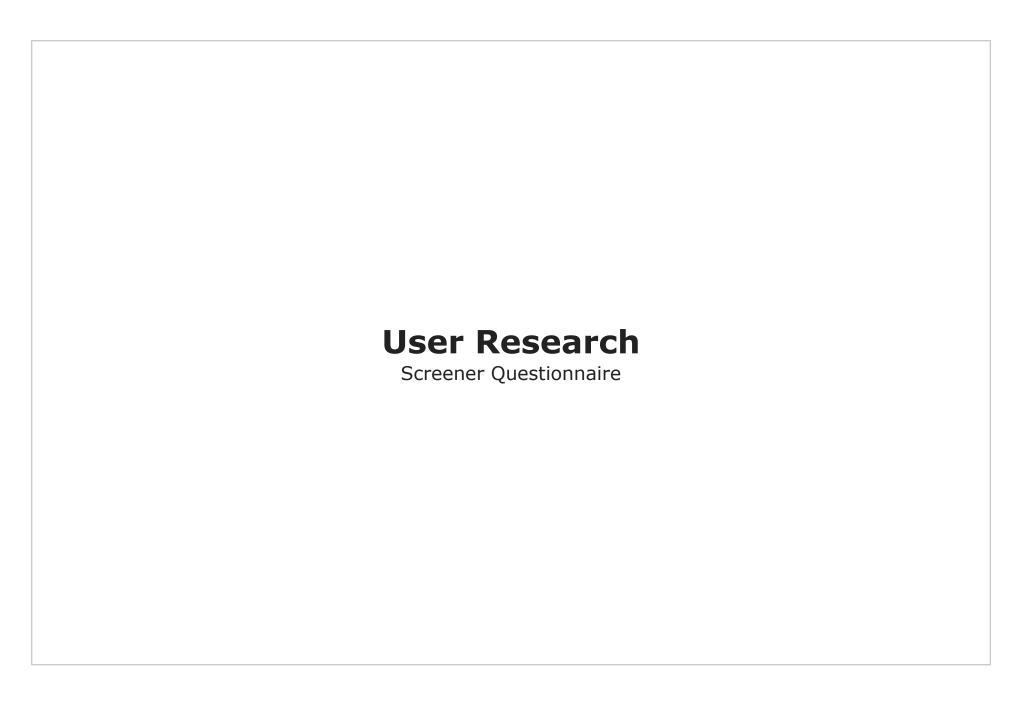
Core Functionality

Show a list of routes with stop times accompanied with a map with pinned locations that give a short description and possibly goes to a further detail description of the bus stop such as address, picture of stop, cross streets, etc.

Feature Set

- Window with list of routes.
- Routes listed by route number
- Each route section includes:
  - Map with pinned points
  - Southbound times and stops.
  - Northbound times and stops.

Nice-to-Have

- Transfer information
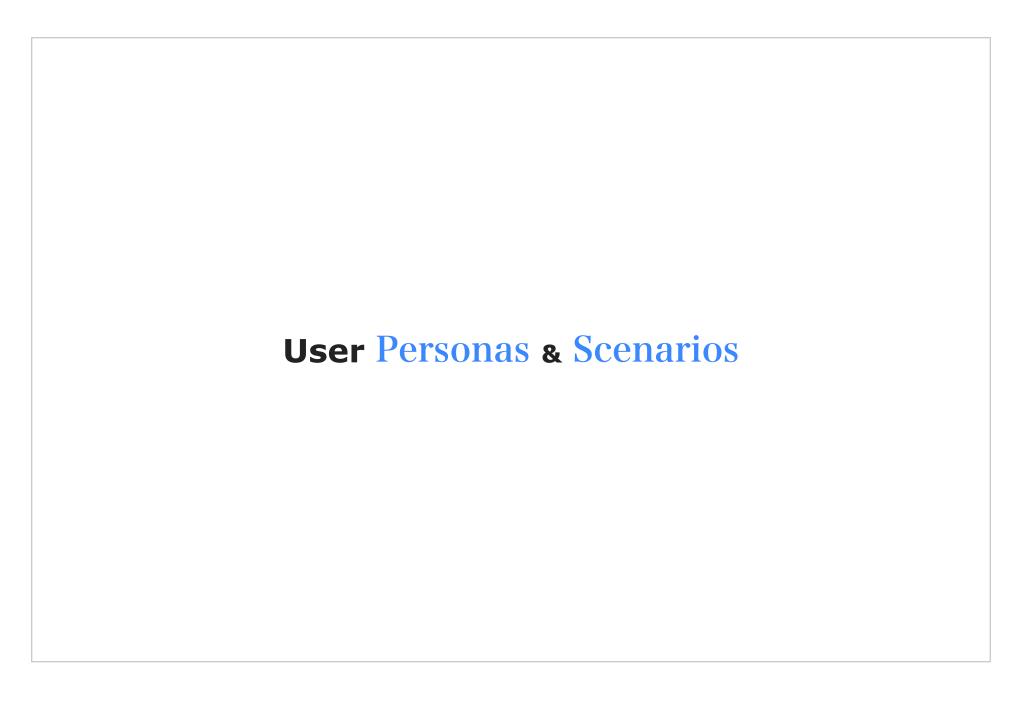- Geolocation to find nearest bus stop
- Trip planner

User Research

Screener Questionnaire

User Questionnaire

Used to qualify participants as surrogate or intended users..

Question [P = Person]	P1	P2	P3	P4	P5
Person's gender? (Use this to get an even mix of male and female).	Male	Male	Female	Female	Male
How often do you ride the bus? (helps identify the person's transit bus use)	Daily	regularly	twice a week	daily	daily
Do you transfer buses on your trip? (obvious question)	NO	NO	YES	YES	YES
Do you own a smartphone? (identify if the person is a smartphone user)	YES	YES	YES	YES	Yes
Which platform? iPhone or Android? (identify which platform do they use)	Android	Android	iPhone	Android	Blackberry
How do you use your phone? (doing things other than calling - like email, pics, notes, tweets)	internet, pics, music, email	notes, email, calendar, internet	games, music, internet, email	Notes, internet, email	internet, email
Are you familiar with using the App Store or Google Play (if Android)? (to find out if they know how to download apps)	YES	YES	YES	YES	NO
What mobile internet browser do you use? (determining what the preferred browser is.)	CHROME	Carrier Browser	Safari/Chrome	CHROME	Blackberry browser

Would you prefer to use this app as a native app or a web app (accessible through the browser)? (determining if the user would rather download the app or just view it through the web browser)	WEB	NATIVE	WEB or NATIVE	WEB or NATIVE	WEB

User Personas & Scenarios

Carson Kingsly Primary Persona

"I want an easy way to view the bus stop times so I know exactly when I have to leave to be at work."

Carson is a hard working guy in his late twenties that has been working hard for years and like many others has taken a big hit with the economy. He lost his corporate job and had to go back to work serving tables. On top of it all, his car blew up and he is now without a car and has to rely on the public bus system to get him back and forth to work. Carson is an iPhone user and would love to see an app or mobile site that makes it easy to see what time he has to be at the bus stop. He also has to change buses on his trip and the current format makes it hard to see which route he has to connect to and the transfer time. He would love to see an app that makes his trip scheduling easier.

Characteristics

Age: 35
Job Title: Server
Tech Competence: Average
Tech Usage: Daily
Platform: Apple (Mac iOS)

Influencers

- An easy way to route his bus trip.
- Something that gives her what she needs quickly
- Also needs an app that is efficient.
- A way to quickly see any route or transfer stop
- An easy to view map that shows each transfer stop and has a detail view that gives all stop information.

Pain Points

- Having to navigate a badly written desktop site with no mobile compatibility.
- Having look at hard to read PDF files on a mobile browser to see about stop times.
- Having to fumble through brochures on the bus to find the transfer stops and corresponding routes.

Scenarios

Goal:
View route schedules.

Method:
Currently he uses his computer or phone to find out what time he has to be at the nearest bus stop. The current site is blocky and ugly and hard to navigate. The only thing it gives you is a list of routes and PDF documents that are hard to read. He hope that a newly designed site, mobile site or app would make easier to catch the right buses and get to his job on time.

Goal:
View stop details

Method:
He would like to also see a detailed hybrid map with pin points that lead to detail views of each major transfer stop on each route. He mentioned having a street view picture of each stop so he will know exactly where he is supposed to get off. Also requested to see the connecting routes at each stop.

Rene Fields

Secondary Persona

> "I have a job and no car so I have to take the bus. I really need an easier way to see the bus information."

Rene has a very busy work schedule. Her schedule is different week to week so she needs to plan out in advance when she needs to leave her apartment to get to the bus stop which is in between two major transfer stops. She has to judge the time between stops so she knows when she needs to be at the stop. She does not have to transfer buses on her daily route but likes to go to the beach on her off days and has to transfer two buses on that trip. She wants an easy way to access multiple routes to see when she connects with the other buses.

Characteristics

Age: 28
Job Title: Fast food worker/ Single Mother
Tech Competence: Fair
Tech Usage: Daily
Platform: Android

Influencers

- A quick way to see stop times.
- A detailed view of stops and transfer information.
- A map view of routes and stops

Pain Points

- Small writing on current PDF formats.
- Easy confusion between northbound or southbound route times.
- No easy way to determine connection times at stops.
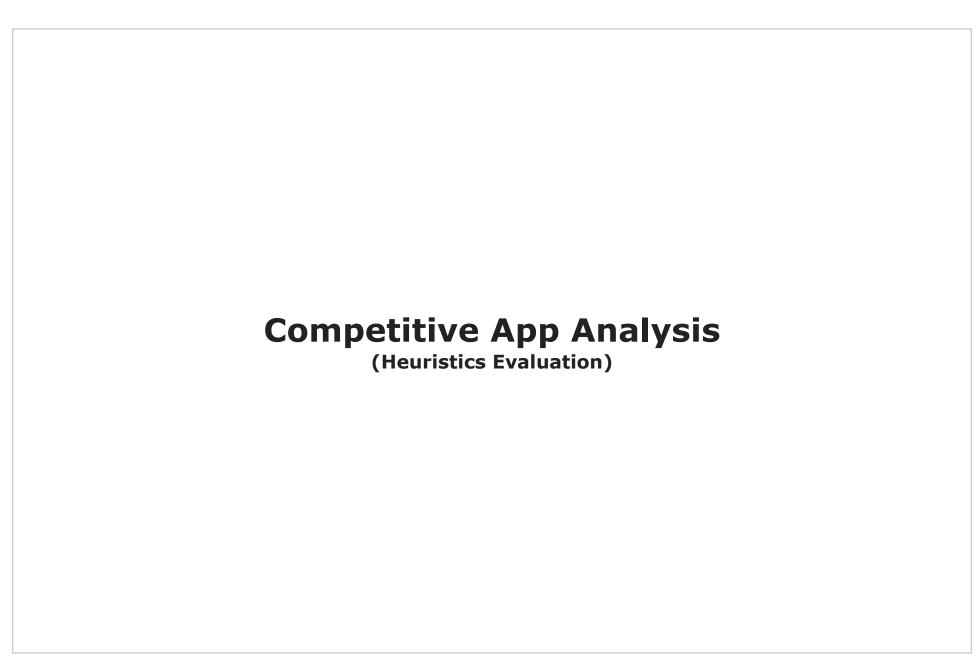
Scenarios

Goal:
View route schedules.

Method:
Rene goes to her computer to check to see what time she is supposed to catch the bus. She has done this before and has already saved the PDF bus schedule on her computer. But she really want to go to the beach when she gets off work but has a hard time seeing the route times on her phone. She really wants a clear and easy to read mobile format for the schedules.

Goal:
View stop details

Method:
Rene wants to be able to select a stop and see a street view picture so it clear where she is going, what the bus times are for her route and what the times are for the corresponding connection routes.

Competitive App Analysis
(Heuristics Evaluation)

Heuristics Evaluation Sheet

A method for conducting quick and easy, low cost evaluations of user interface designs

Heuristics	Transit	London Bus Free
Visibility of app status Does the app keep users informed about what is going on, through appropriate feedback?	The app loads into an instruction screen which is poorly designed. Then it shows a bus route somewhere in California. Really no news or upcoming info. Has a feedback section that links to device email.	London Bus Free starts with a map centered around the SOHO area in London. It shows route information and a trip planner. Also has an info area.
Match between app and the real world Does the app sense the user's environment and adapt the information display accordingly?	It can locate you if you select your position. But doesn't get your current location from the start. This app is for bus transit in San Francisco, CA.	This app will grab your current location but is useless because this is for bus routes in London. It has a good deal of information about the areas, routes, and stops.
User control and freedom Users often choose app functions by mistake and will need a clearly marked "emergency exit." Does the app contain safe exploration features? (back, cancel, undo)	Not a ton of functionality. Lets you put in a beginning address and ending address. If the two points are in the service area it will give you the trip information. Otherwise it gives you an error. There are back buttons and tabs that assist in navigation. You can easily find your way around the app.	There are buttons and tabs that aid in navigation and each window has a back button or some kind of option to keep moving forward. Each text field has an "x" button that clears the text and a cancel button when the keyboard is active.
Error prevention Does the app eliminate error-prone conditions and present users with a confirmation option?	It gives you an error when you enter addresses that are not in the service area.	Gives you a warning if you try to delete a route off you favorites list.
Consistency and Standards Users should not have to wonder whether different words, situations, or actions mean the same thing.	This app is crude at best. It is using the Google maps API, but not to the best of it's ability. Doesn't give many options other than saving reminders and dropping a pin on a location.	Gives you a list of routes with info on each route, maps, info , trip planner and more.
Recognition rather than recall Minimize the user's memory load by making objects, actions, and options visible.	The few options this app has are somewhat visible.	Some of the options are hidden or inside of other options. Not the easiest app to navigate.

Flexibility and efficiency of use Reduce the number of steps required by anticipating user needs and enabling customization.	Very simple app. Not very complex at all. Instead of reducing the number of steps, I would want to add more functionality.	Streamline options and make some options more visible.
Aesthetic and minimalist design Screens should not contain information which is irrelevant or rarely needed	Good use of design, very simple layout.	Overall good design, a little too complex. Could be a bit more simple.
Help users recognize, diagnose, and recover from errors Error messages should be expressed in plain language precisely indicating the problem and solution	Only an error and it let you cancel out. Easily recoverable.	Not really any error messages. Lets you undo text. Easily recoverable.
Help and documentation Help should be focused on the user's task, list concrete steps to be carried out, and not be too long	Not much help documentation at all. Just wanted you to go pro for $.99.	Really no help documentation.
Add your own Heuristic if the App can be evaluated using another heuristic, feel free to add to this list.		
Add your own Heuristic if the App can be evaluated using another heuristic, feel free to add to this list.		

Usability Testing Plan
&
Discussion Guide

Usability Testing Plan

Purpose & Objective

To test the flow, UI, and ease of use in the app.

Roles

I alone will proxy the roles and responsibilities of the interviewer, note taker, and observer. There will be one role defined as participant.

Method

Looked for people on the bus or at the bus depots who had smartphones. If they had a smartphone, I asked them to go to the site where my prototype is stored on a remote server, and go through the trip planner, and the route information. Only one route is completed at this time, and not fully due to time constraints. Getting feedback from users before proceeding on how to design the route information views. The one working route is to show the intention of the way the UI will look and operate.

User Profiles

Rene Hope

Carson Kingston

Participant Count

6	An equal number of male and female participants will be used to actualize behaviors of my intended audience.

Metrics

- Ease of use
- Clarity and direction

Equipment

- User's device

Locations

- Bus Depots
- Aboard Bus

Discussion Guide

The step-by-step dialog of conducting usability tests

1	Introduction	"Hello, my name is Adam Vinsant. I am a student at Full Sail University and I am conducting a test of an app I am trying to build for a class. The app is an info style app that lists all the route stops and times for the LeeTran system. I see you have a smartphone, would you mind going to a web address and trying out my prototype? "
2	Explain the Test Goals	"I am trying this app out on the public, people like you and me who ride the bus. I am trying to see how people are responding to the usability and look of the app. I would greatly appreciate your participation and hopefully make this app a part of the LeeTran future."
3	Complete the Questionnaire	[SEE USER QUESTIONNAIRE] [ACTION: Ask participants to answer the screener questions to qualify them as users that most closely represent your intended audience. The app's intended audience is represented in the user personas]
4	Introduce the Test Scenario	"First, being that this is a prototype, if you could go to "See Routes" and tap the button. If you would next click on Route 5 and then Eastbound. This is currently the only one working at the moment for prototype purposes. The time and location table will be adjusted and is currently showing the same table that they use on the current website so please disregard that. Hit all the back buttons to return to previous screens and then go to trip planner and plan a trip."
5	Define the Tasks	VERB BASED TASKS

		[use this space to write questions that require users to perform an action like copy, send, filter, etc.]
		SCAVENGER HUNT TASKS
		Was your particular route listed? As the information is finished, all times will then be available.
		INTERVIEW BASED TASKS
		Where did you plan a trip to? How was your experience with the trip planner? How was your experience with the route information section? Would you like to see an interactive map?

		QUESTION	ANSWERS
6	**Complete Follow-Up Survey** (completed by the user)	What is your overall impression of the app?	SEE ANSWERS BELOW TO ALL THE FOLLOWING QUESIONS
		Do you think an app like this is useful?	
		How difficult was completing the basic tasks?	
		Were the navigation cues easy to interpret?	
		What was confusing if anything?	
		Would an interactive map with location pins and detail view be a good addition?	
7	**Thank your Participants**	"Thank you very much for your time. You have given me great insight on how I should finish this app and make it great! Hopefully this app will be a reality in the near future."	

8	**Report your Findings**	[SEE WEEK REFLECTION VIDEO]
	(week reflection video)	

Answers from Follow Up Surveys

What is your overall impression of the app?

1.   Very easy to follow and great for quickly finding my route
2.   Great looking app. When it's finished it will be very useful to riders.
3.   I think it is coming along great, can't wait to use the finished product.
4.   Hope LeeTran buys this app from you and actually uses it. It would make finding times much easier.
5.   Going to be a great thing. Been a big need for it for some time. Could use a search bar in the route list section.
6.   FINALLY A LEETRAN BUS APP!!! It would be great to update the trip planner and possibly by tickets from the app.

1.   Very Easy to use. Nice layout. Will be great when it is finished
2.   Nice look, this would be very helpful.
3.   Thank you, finally someone is making an app for this.
4.   Easy flow, when it is finished it will be a nice tool to use

Do you think an app like this is useful?

1.   yes
2.   Great for people with smartphones
3.   yes
4.   I will use it everyday!
5.   yes
6.   absolutely

1.   yes
2.   yes
3.   yes
4.   yes

How difficult was completing the basic tasks?

1.   Very easy going through the app.
2.   Not at all difficult
3.   Very easy finding what I needed.
4.   Not difficult
5.   easy flow

6.   it's simple, you search your route and find the info you need.

1.   not difficult at all
2.   very easy to go through the different pages.
3.   not difficult
4.   built with simple minds in mind

Were the navigation cues easy to interpret?

1.   yes
2.   yes
3.   yes
4.   yes
5.   yes
6.   yes

1.   yes
2.   yes
3.   yes
4.   yes

What was confusing if anything?

1.   No
2.   No
3.   No
4.   No
5.   No
6.   No

1.   no
2.   no
3.   no
4.   no

Would an interactive map with location pins and detail view be a good addition?

1.   It would be nice, but not necessary.
2.   It would be nice to see what is around the stop you are getting off at.
3.   Could be useful but don't need one.
4.   Map with stop details would be cool.
5.   sure
6.   I would keep it simple. Most people who ride the bus are not the brightest crayons in the box and it would be too much for them. (LOVED THIS ANSWER!!!)

1.   that would be cool.
2.   it would be a good addition but not needed if the original maps are there.
3.   A street view of the stops would be nice, but a Google map is not needed.
4.   keep it simple for the stupids! (This guy was awesome!).