Raritan Valley Rideshare App Design Manual

Team Knights of Sidetractia

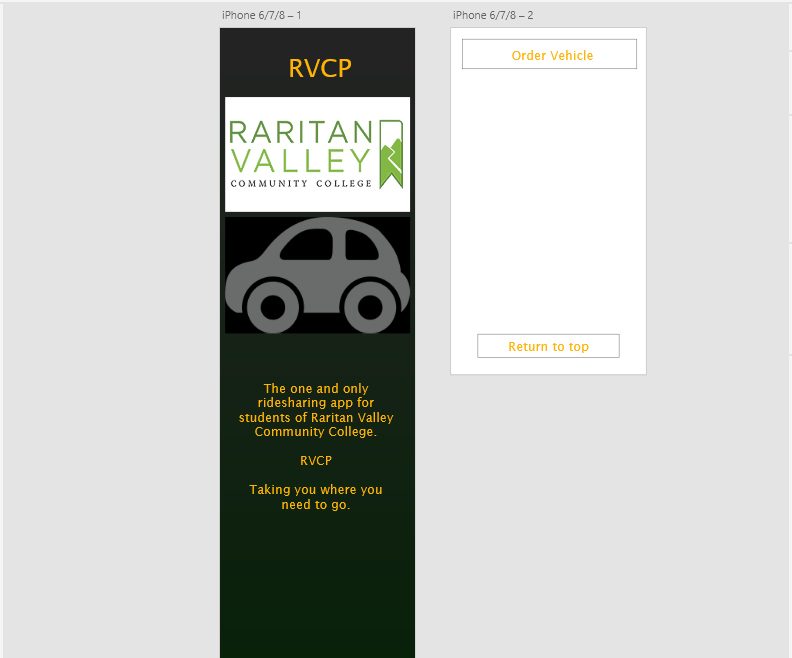
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Introduction

The purpose of this project is to create a ridesharing program for Raritan Valley Community College to make it easier for students without cars to get to class. Other goals include giving drivers the ability to commute at a lower cost by bringing other students with them. Finally, reducing the number of commuters will ease parking and reduce the school’s overall carbon footprint.

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1.0 **GENERAL INFORMATION**

The RVCC Ride Share App is a application available to Smart phones that allows its users to request rides to RVCC or Designated Drop Points. Or allows its users to serve as the drivers to both of the previously mentioned destinations.

1.1 **System Overview**

As a Ride Sharing App, the necessary requirements for the program to work would be a smart phone with access to a GPS, or Map-Based locational positioning system. The other necessary requirement for the app is to be an active student at RVCC with a functioning G#. Along with an account on the app that is directly connected to your online RVCC account.

1.2 **Goals and Requirements**

Goals:

* Goal: Ability to set up rides beforehand.
* Goal: Ability to set up a one-time ride.

Requirements:

* Include precautionary safety warnings.
* Vehicle selection of some sort - seat numbers, luggage space.
* User profiles.
  + Use G numbers to sign in.
  + Do not display G number to other users.
* User rating system - riders and drivers.
* A tracking system to let riders know when/where the driver is arriving.
  + “leaving soon/currently traveling” status.
* Drivers can set up ride offer with their route and times.
* Riders can sign up for a driver’s route.
* Drivers can ok riders who apply for their route.
* An actual incentive to be a driver!
* A Save Me button in case it all goes horribly wrong.

1.3 **Research In the App’s Goal**

In regards to the Application, unforeseen consequences was the one of the biggest areas of focus when developing the app. To create security measures that the only users were RVCC students, designated divers were officially drivers. That the only way to secure rides was to make sure the rides were tracked and that there is an emergency button. Another aspect of our research is eliminating excise, making sure that our app was streamlined and avoided unnecessary steps that would drastically make the app unpleasant or inefficient to use. Like the RVCC website, in its present state.

1.4 **User Personas**

Persona 1

People who want to get to and/or from school, but don’t have convenient way to do so.

They need a convenient, consistent, and reliable method of transport to/from school.

Persona 2

People who are commuting to school, and would like to supplement their commute with some extra income without too much investment.

Persona 3

People looking for a job to make money. They are prepared to drive to and from school regularly if they can make more money from it.

Persona 4

People driving to school, who want to help out other students, friends, due to altruism, environmental concerns, or moral reasons.

Persona 5

People who normally have their own transportation, but find themselves unexpectedly without the ability to make it to/from school. They need a way to get to/from school more imminently, without the real need for a regular schedule or the ability to set it up in advance. Also, not a person who wants to pay the fees for regular taxi/uber/lyft.

Persona 6

People who would not normally have the transportation necessary to hold down a job. They need a more economic/reliable ride to work when they leave school.

1.5 **Context Scenarios**

[1.5.1] A Student Signs Up For The App To Be A Rider

Aines just enrolled at RVCC and sees that there is a ridesharing app available to students. Since she does not always have access to a car, she decides to get the app so she can join a rideshare later. She downloads the app and presses the button to register a new account. She puts in her name, phone number, and home address, then presses the button to create her account with the information she put in. Her account is created and she lands on the rider’s page.

[1.5.2] A Student Signs Up For The App To Be A Driver

Harry is going to RVCC for his second semester of courses. He is friends with Aines, who always has trouble getting a ride. Harry lives just down the street, so setting up a rideshare with Aines would make sense. So he downloads the RVCC rideshare app. On the first screen, he presses to make a new account. He puts in his name, phone number and home address. Then because he intends to drive, he checks the box that indicates he will be a driver and a number of boxes appear. He enters license number. Then his car make, model, and year, as well as the color. Lastly is the car’s maximum occupancy, license plate number, and his insurance policy number. He presses ok to create the account.

[1.5.3] A Student Looking For A Ride To School

Jeff is a second year student at RVCC, who is now well into his Computer science major. While he is able to drive, his family isn’t able to spare the car during his class times. Jeff decides to get in contact with his classmates, talking with them before the semester begins. He knows a few of them from his previous lab classes, and learns that he should try the RVCC Rideshare. He downloads the app from the app store and opens it, and registers to be a rider. Once registered, he searches for a rideshare in his area. He discovers at least two of his friends are designated drivers with available routes. He checks the timetables listed for the routes to find the one that best fits his schedule. His friend who shares the same morning class, Logan, is able to take him to school on the days he needs for his class. He taps to apply to be added to the weekly rideshare, and drops a marker for where he wants to be picked up each week. He will need to get up earlier to make sure he doesn’t make Logan wait for him outside of his neighborhood. But now he is able to attend his weekly lab without the strain on his working mother.

[1.5.4] Student Looking For A Ride Home

Pam, was an art major, and often she needed to stay in the studio longer than most. Pam was a meticulous student, she liked to immerse herself in the studio, with a desire for perfection in her work. While this detail orientation helped her grades, she often stressed on the time, due to her parents simply finding it more convenient to pick her up after they get out of work. While she doesn’t want her parents to drive home then out again at erratic times that could vary on the day of the week, she seeks an alternative. Because of this she feels she isn’t able to work to the best of her ability, when she can easily exploit open studio time. She talks to her classmates and learns that they have a Ride Share that meets up each week. So she downloads the app and makes an account. She taps the button to search for a weekly ride. She finds the route being driven by her friend and applies for the ride share. While she still has a time limit to work under, it is much more lenient than her previous one. After talking with her parents and then the driver, who still had an open space. She was able to catch a ride home, with some friends made along the way.

[1.5.5] Student Looking To Drive to School

Box, drives his younger brother to RVCC each day of the week, since he it is simply more convenient for both of them. While Box Box, has plenty of experience driving he doesn't really consider much about it. Yet after so many times driving to school he realized that several other students were also in his neighborhood, driving around the same time he was driving. After class one day he approached some of the students, mentioning how odd it is that they essentially drive to school together. Box Box then mentioned that they should carpool, or atleast if it's convenient for them. While they would have been fine just doing that, Box Box decided that maybe he can help everyone if he can. Entering the RVCC Rideshare, he became a designated driver for his neighbors. While he doesnt drive for everyone at the same time, he does make the commute easier on everyone in the neighborhood.

[1.5.6] Student looking to drive home

Beefus gets out of his class each night at the same time, 9:20. He used to just wait for his ride to show up to drive him home, now with own car he is finally able to book it from the class. A friend, Liz, also takes the class with him, but Liz takes the bus. While normally it takes Beefus a 25 minutes to get home, Liz takes 45 to get home. She has expressed in the past a desire to drive on his own so he could get home. Offering to drive her home, he has them both resister into the RVCC RideShare App, while Beefus goes through the process to become a certified driver. Signing into the App, Beefus entering the Driver Portal is able to establish a route from his home to RVCC, on this route, he sees Liz has offered a request to join the route using her account to request a ride from him.

[1.5.7] Driver Setting Up Offer

Driver Biff who signed up to become a driver for the RV Rideshare App, is able to access the app to post an offer. On his offer, he is able to establish a route from his town where he lives to his destination at the school. Beefus posts his offer to the app and then waits for a request. This allows students to send him requests to join the car service. Through Biff’s offer, other students who are in need of a ride can contact him through the app and review his route and rating as a driver.

[1.5.8] Driver Reviewing Rider Application

Ted is preparing to leave from school for home when he sees a “ride needed” alert. Opening the App, he checks the alert and sees that the destination listed is not too far from where he lives. but sees that the rider has a very low rating. Feeling that he doesn’t want to risk any damage to his automobile or potential confrontation, he does not accept the ride and continues on home.

[1.5.9] Rating Another User

As Clark finished their ride, he parts with the driver on positive terms, happy he was able to get a ride to school. He can’t drive themself, and was glad he is able to get a reliable and consistent ride to work for the last few weeks. This time, however, they ended up getting a different driver, so need to rank the driver and the ride. Pulling up the application on their phone, viewing the screen and the options presented to them. They can see the driver’s name, basic information, and rating underneath. They had a fairly good ride, but it wasn’t perfect, but not bad by any means. So they vote up the driver, seeing the score immediately increase.

[1.5.10] Rider Applying For Non-Recurring Ride

Jenn can’t get a ride to class one day, so she opens the RV Rideshare App to call for a one-time rideshare ride. On the main screen, she selects the one-time ride option. The App shows that it is searching for a driver who can take her, and she waits for a number of minutes for a driver to accept her request. Once one does, it sends a push notification to her phone letting her know that a driver is on their way to pick her up. The app shows her the profile of the driver coming to pick her up, as well as a list of any other riders who she will be sharing the ride with.

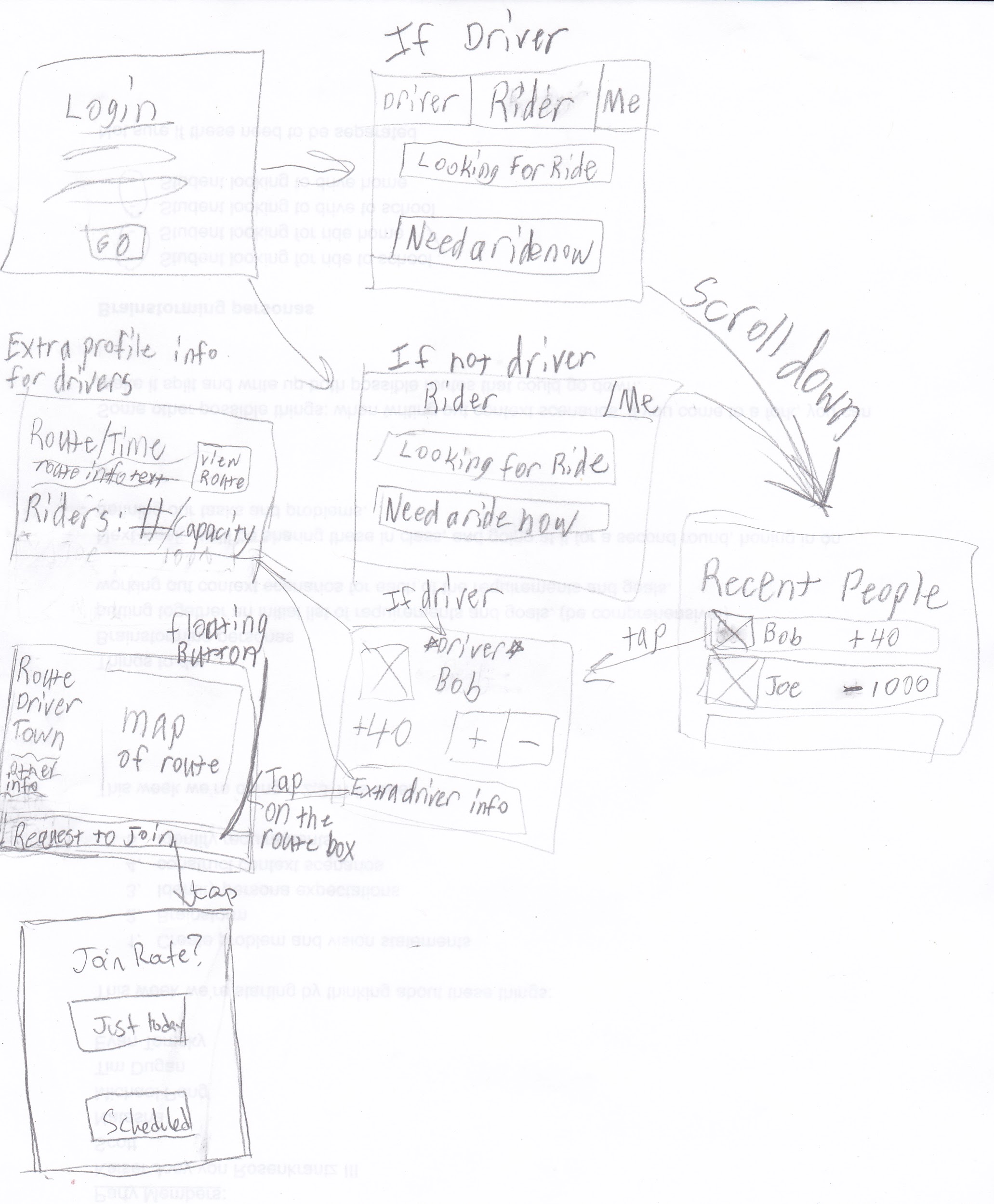
[1.5.11] Driver Picking Up Rider

Kevin opens his RV Rideshare app as he is leaving for school. Opening the app through the drivers portal, he selects his upcoming scheduled ride with the appropriate riders. Selecting that scheduled ride he marks that he will soon be leaving to alert the riders in his rideshare. All the riders that do/can come join him on the ride. He drives along the designated route, turning off of it to pick up each of the riders at their previously agreed-upon pickup locations. Each rider is able to track him with their own app to get an estimation of when Kevin will be arriving to pick them up so they can be ready. With the riders, he continues to drive to school.

[1.5.12] Driver Responding to Non-Recurring Ride Request

Munge on his way to do his regular route gets notified of a one-time route on his phone, he as a driver is able to review the one-time request if it is possible to alter his route, or if the request still keeps him on his route. Unless the request is accepted by another driver, Munge is able to accept or decline to pick up this student if they are able. If the request is declined, another driver is notified shortly after.

1.6 **Application Configuration**



* The App functions from its Login page, when signed in the user is immediately brought to the rider Portal, unless they are a Driver. Which instead brings them to the Driver Portal, as long as they are officially registered as a Driver.

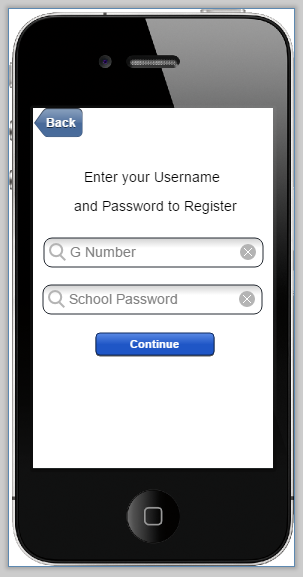
1.7 **User Access Levels**

The menu is designed with several points of accessibility within the application. Each are dependant on the The user’s purpose of use. These menus if selected will bring the user to the Rider portal to access the ability to request a driver, with different circumstances. If they were a verified driver, they can instead access the Driver portal to see their route, and designated points.

1.8 **Contingencies/Security**

The RVCC Ride Share App operates on the requirement mandatory connection to Internet when in use in order to properly use the service, internal GPS receiver in order to obtain coordinates automatically. Data of each ride will be monitored by overseers of the Driver and saved in a database. Standard users of the application are automatically registered as Riders for as long as they are active students. Riders, cannot log into the Driver portal unless they are verified within the RVCC database as so.

2.0 **GETTING STARTED**



2.1 **Installation and Logging-In**

Enter the respective App Store of the Device respective to the user and search for “RVCC Ride Share” and install it on the device. Once installed, access the app and register your account with RVCC’s Database. To do so, basic information such as a users Name, Year, will be needed. More Private information, such as G# and Contact Information will also be needed to make an account for this application. Users enter their G# and school password to log in to their account.

2.2 **USING THE SYSTEM**

Riders have the option to request to join a recurring ride (scheduled ride), join a one-time ride or view their current routes. Drivers have the option to view their current routes or set up a new one.



2.3 **System Menu and Format**

The system is designed to automatically bring the user into the respective portal they belong to, Riders into the Rider Portal, and Drivers into the Driver Portal, but both are accessible through each other. The tabs lining the top of the app will allow the users to access these areas of the App, as well as the Personalized “Me Tab” and the Logout Tab.

2.4 **Changing user Information**

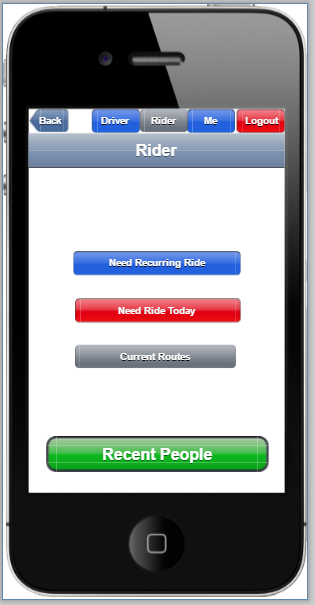
Under The “Me Tab”, which is alongside the Driver Tab, Rider Tab, and Logout Tab. The User is able to establish a personal Bio that allows them to upload a photo, and provide a short Bio that shares whatever information they feel comfortable sharing. All Personal Pictures must be approved by the RVCC Ride Share App to be uploaded to the users profile.

2.5 **Exit System**

The Logout Tab is located in the upper right and sends the user back to the login screen.

2.6 **Map/Designated Drop Point**

Rider selects a route they wish to enter and selects a point where they would like to be picked up. If the driver for the route accepts the ride request, the rider is added to the route.

2.7 **Rider User** 

Under the Riders portal the user has several options to choose from. The user can request *A Recurring Ride*, which allows them to set up a long term plan with a designated driver(s) that allows them to create a schedule based on ride plans appropriate for each day of the week, or less; *A Ride Today*, which is proposed for sudden or emergency needs for a ride to RVCC that allows Riders to find the closest driver available to them to request a ride; and *Current Routes* which allows the user to review and manage the routes they are currently on, as well as view the ratings of the driver and rider passengers. This as well as any new riders who join on each route.

2.8 **Driver User**

Under the Drivers portal the user is able to choose from two different options; They can create a new route which allows them to open it to new Riders who can request to join them on that route for a many spaces that the driver allows. Or they can review their current routes, which allows the user to manage the riders on their route, or shutdown routes if necessary.

2.9 **Settings Tab**

Users can change profile picture (pending approval) and bio from the Settings page in the “Me” tab. Their password is their Raritan Valley password, so it can not be changed from within the app.