CS551 Advanced Software Engineering

PROJECT INCREMENT-1

Project Name: PASEO

Group Details: Team-2

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I INTRODUCTION:

Carpooling is sharing of car journeys such that more than people travel together in a car towards the same destination. Carpooling has proved to be a major triumph in reducing the emissions of greenhouse gases as it reduces the number of cars on road, further it has also proved to be a blessing to those who do not own a private car.

The application "PASEO" is a carpooling android application with security measures to ensure that the user feels secured all times. We register the rider and the passenger and validate the details of the users by checking their passport number, Driver's license, car details etc. The rider gives the timings of his ride and the passenger picks up the ride based on his convenience. We further ensure full security to the users by providing unique features like sharing current location, tracking the ride in case of emergency providing them a button to give alerts based on location and time.

II PROJECT GOAL AND OBJECTIVES

GOAL:

The main intention of our project is to make carpooling more feasible and secure to both the parties that is the rider and the passenger. We essentially want to bridge the gap of security which plays a major spoilsport and makes people more skeptical towards opting carpooling. We want to ensure maximum security and anonymity by introducing unique features such as "send current location", "alert when there's an accident nearby" and "declaring emergency on a click".

OBJECTIVES (Problem Statement):

There are a lot of impediments faced by people who travel to different parts of the city in their own transport which kind of makes them irksome and there are also people who do not have their own transport and pay a bomb to commute in the city. The amount of environmental pollution that is caused by single driver cars is phenomenal and is on the rise. On an average American spends 40 hours each year stuck in traffic which further adds to our woes.

According to a survey by carpooling just twice a week about 1,600 pounds of greenhouse gases can be kept out of the air each year. Further carpooling cuts down the cost of both the rider and the passenger, makes their life and also for the generations to come.

SPECIFIC FEATURES:

- REGISTER AND LOGIN

User can register themselves as a rider or a passenger through the application by giving their details.

- VALIDATION

The application validates certain details of the rider by checking his history, checks if he has a valid license and checks certain details of the car.

- ANONYMITY

The application ensures possible anonymity of both the rider and the passenger as only their names will be revealed. They can contact each other through the app to ensure certain safety.

- RIDE TRACKING

The user can track his ride through the app and can also share his location on the click of a single button to his desired friends who can also track the users ride to ensure to safety.

- EMERGENCY ALERT

The user can just pop out an emergency signal to the police and his family in case of any accident or in danger on the click of a button or on the utterance of a certain keyword.

- SAFETY METER

The user can see how safe an area is during different times of the day in which they are travelling, so they can be alert at each and every point. The application pops out a warning or alert on case if the area is highly unsafe.

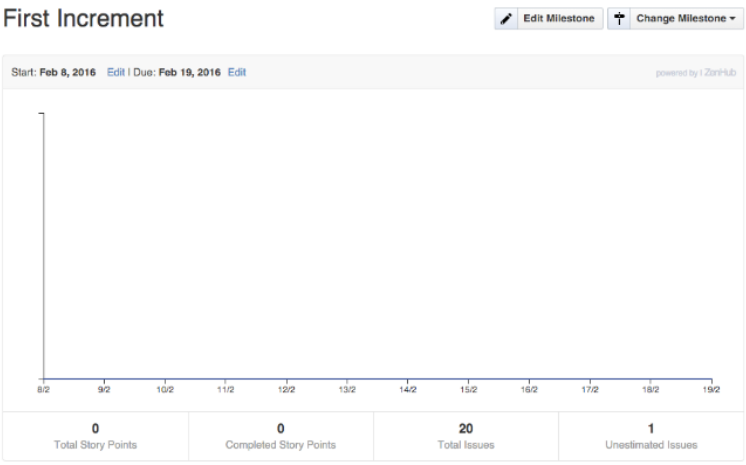
SIGNIFICANCE:

Our application is a perfect blend of carpooling with the right amount of security which should attract a user. It helps people with no own transport to travel at great discounted prices and the ones with own transport to cut down their costs by a large margin and to avoid the daily humdrum of driving in traffic .It further helps to cut down the emission of the greenhouse gases and to ensure a better future for the present and generations to come.

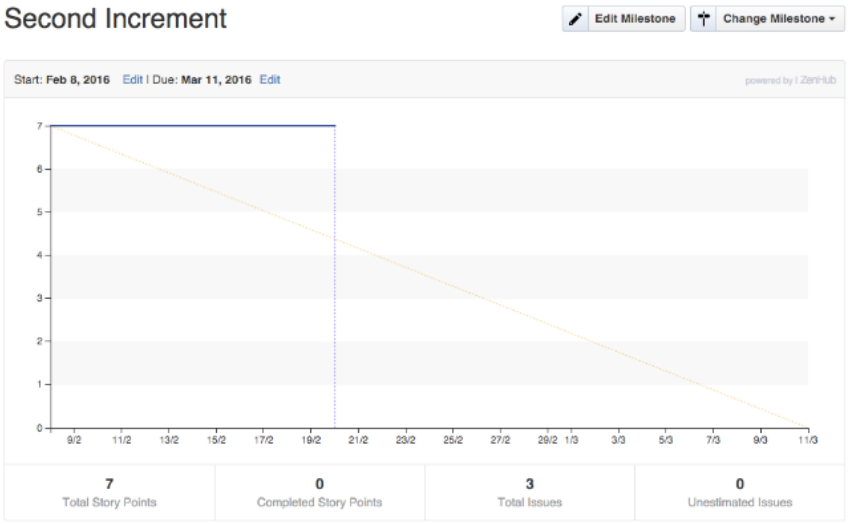
III PROJECT PLAN:

BURNDOWN SCREEN SHOTS:

First Increment Burndown Graph:



Second Increment Burndown Graph:



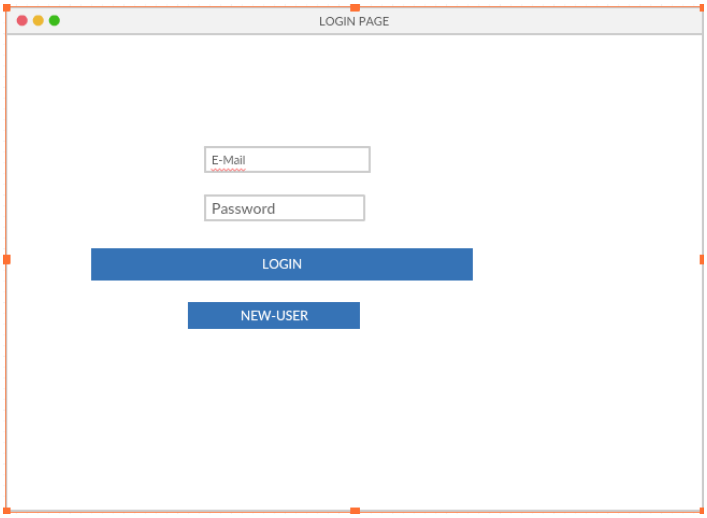
IV FIRST INCREMENT REPORT:

EXISTING API's

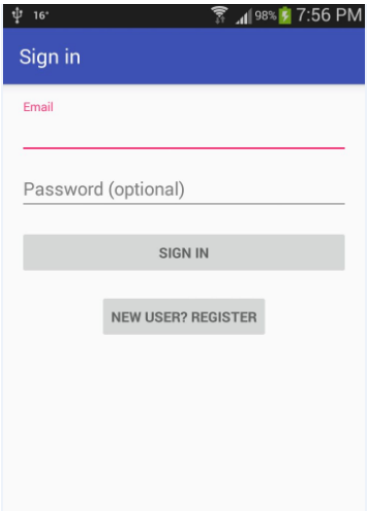
1. Google Maps API
2. Mongo DB API

WIREFRAMES AND MOCKUPS

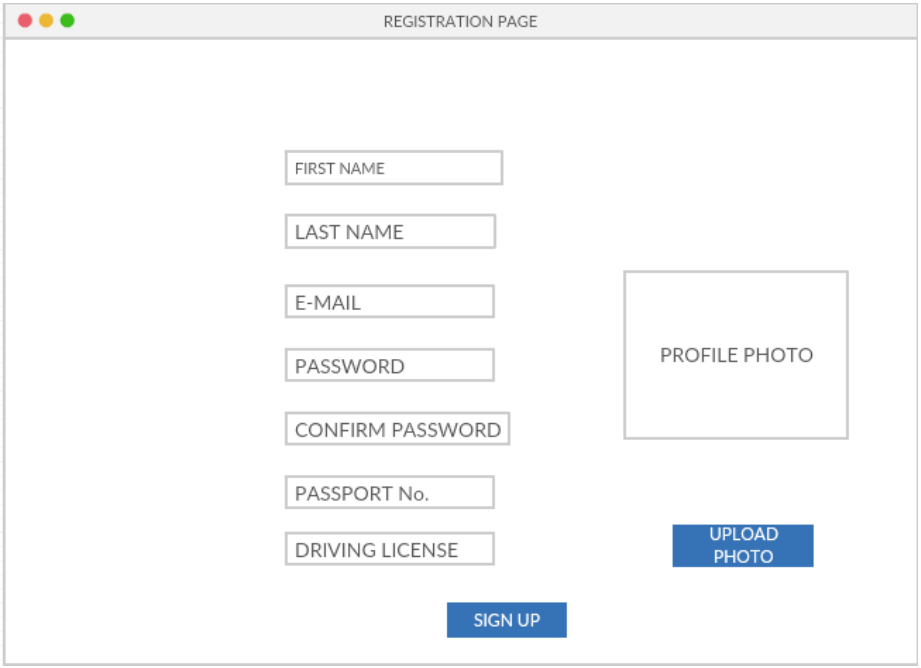
1. The login Page is used by the users to login the application and New-Users can click register to create an account in the application.



MOCKUP FOR THE ABOVE WIREFRAMES is

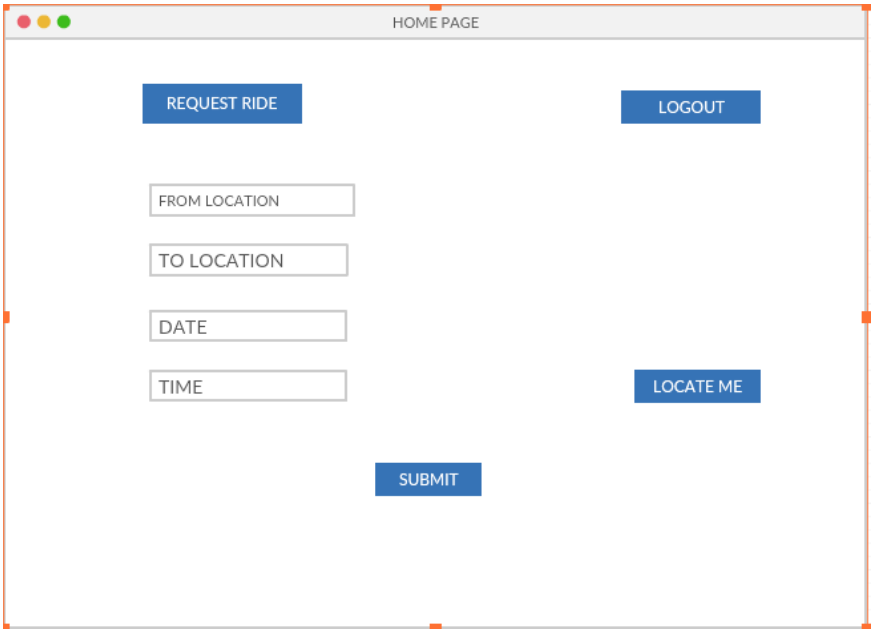


2. The Registration page is used by the New-Users to enter their details and save them to data base for creating the account.

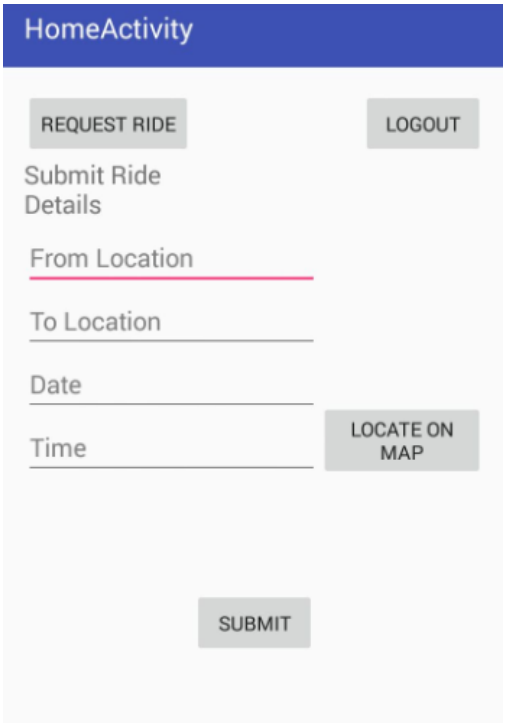


MOCKUP FOR THE REGISTRATION PAGE

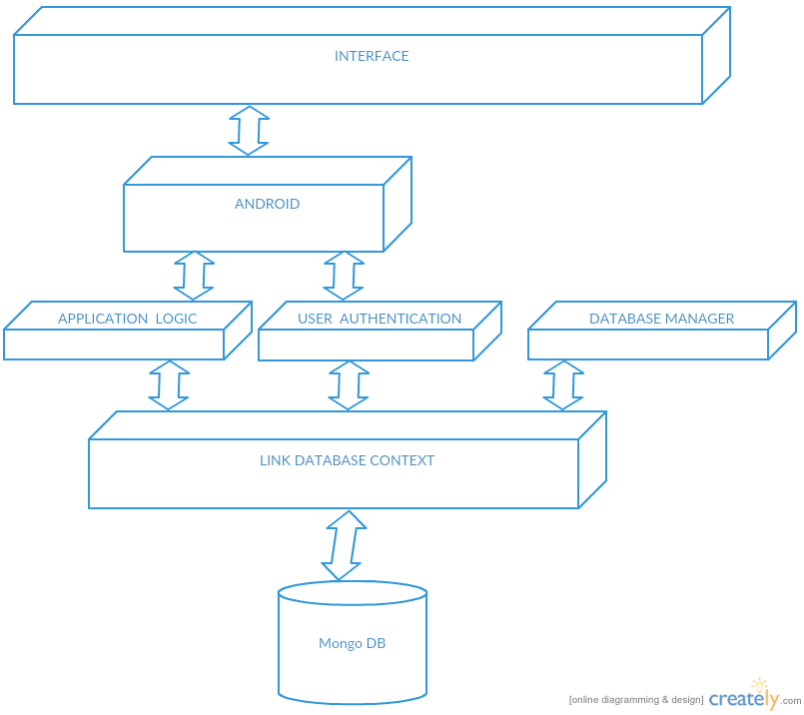
3. Home Page is used by existing users to give in their ride details, request ride details and view location.



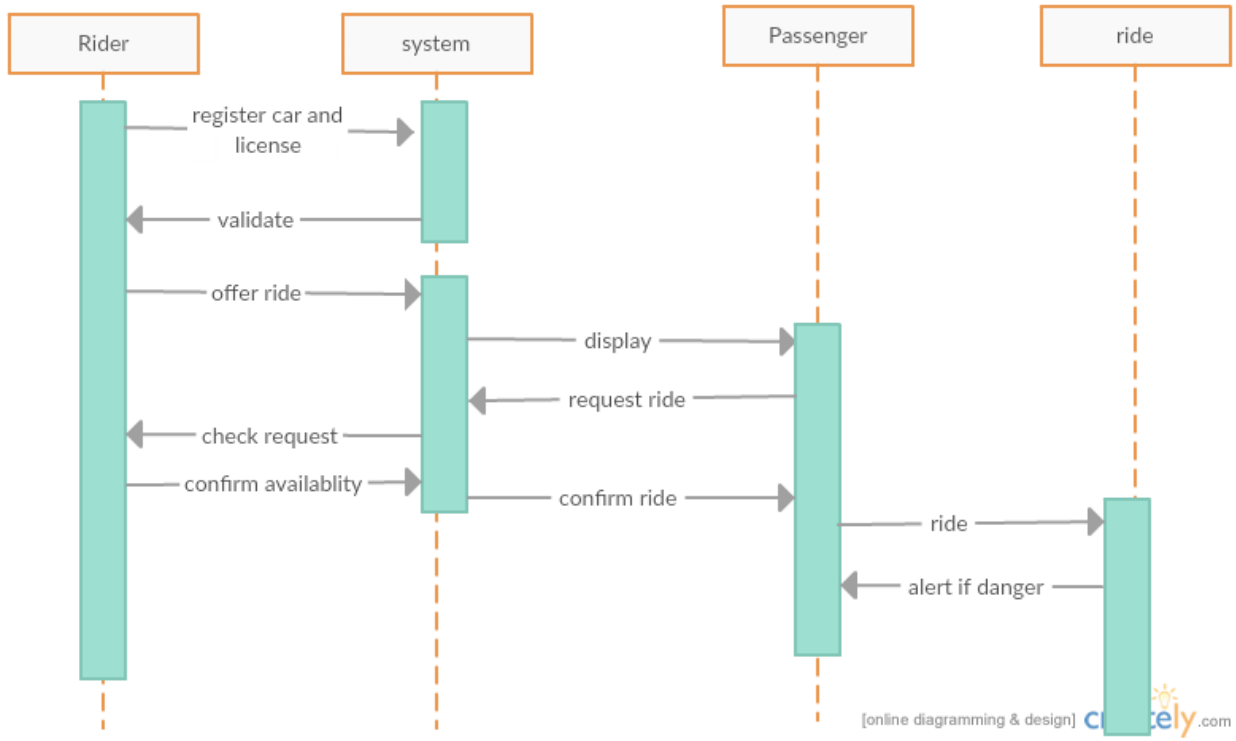
MOCKUP SCREEN FOR THE HOME PAGE:



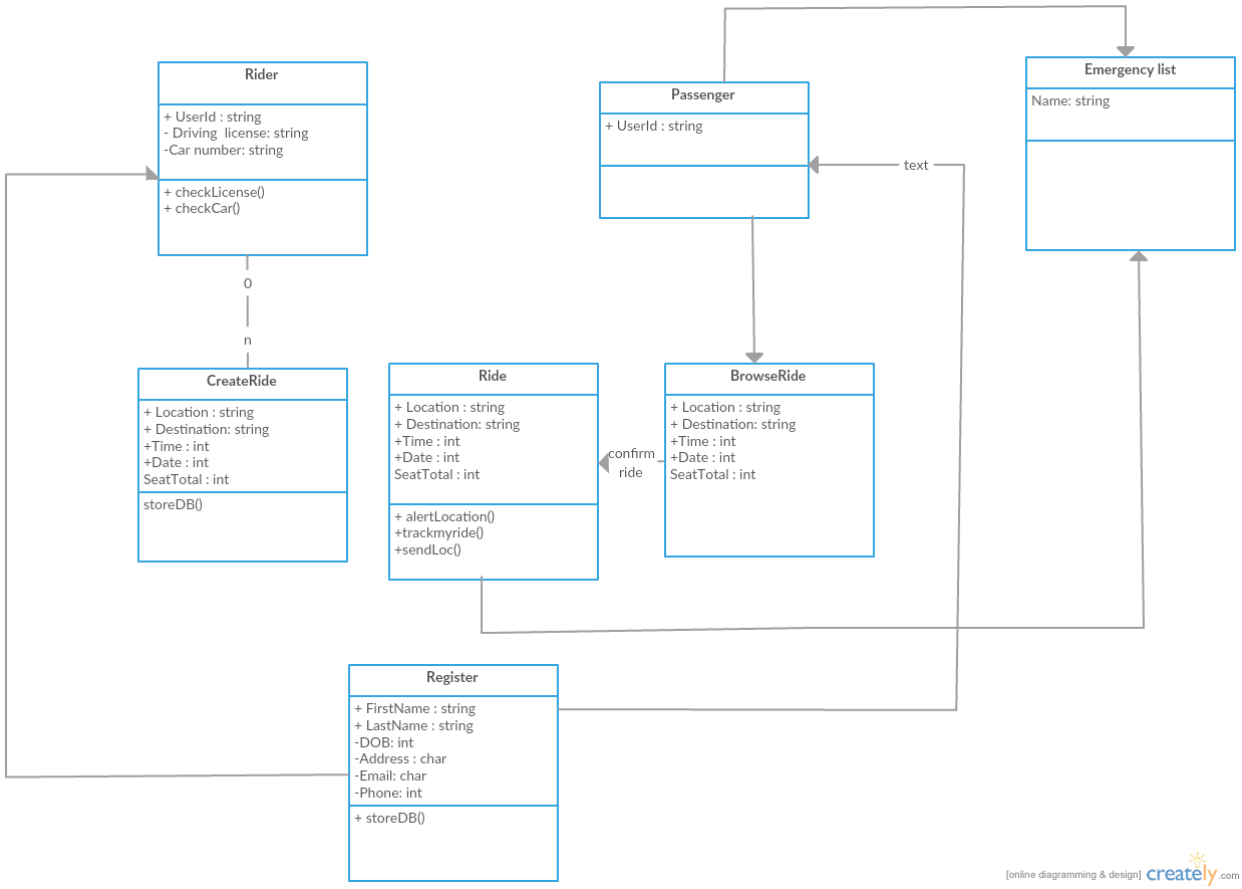
ARCHITECTURE DIAGRAM:



SEQUENCE DIAGRAM:



CLASS DIAGRAM:



USER STORIES:

1. US-1 (Login details of the Application)

User-Story Description: The user should be able to view the signing page enabling him to either login if an existing user or registering if new user.

Actor: Users

Requirement Specification: The screen should consists of two fields accepting the Email and password and two buttons login and New-user.

- Should have an input text field to accept Email
- Should have an input password field to accept password
- Button named Login, when clicked by the user he should be directed to US-2
- Button named New-user, when clicked by the user he should be directed to US-3
- The details of the user are authenticated, if he/she are existing users.

Assumptions: User should be able to perform the login and registration successfully.

2. US-2 (Home screen of the Users)

User-story Description: As a registered user, he should be able to either request a ride or give the ride details and submit.

Actor: Users

Requirement Specifications: The screen should consists of fields enabling user to provide details of his ride and submit. Should also consists of three buttons for requesting ride, showing present location and logout.

Ride details should consists of four input fields.

- Should have an input text field to accept the From location
- Should have an input text field to accept the To location
- Should have a date field to select the desired date.
- Should have a Time field to select the desired time.
- Button named ‘Submit’ at the bottom of the page to submit the ride details
- Button named ‘Locate me’ to provide the present location of the user
- Button named ‘Logout’ to come out of application.
- On clicking submit the ride details should be saved.
- Button named ‘Request Ride’ to enable user to request a ride

Assumptions: User should be able to easily submit the ride details and request ride.

3. US-3 (Registering the new-users)

User-story Description: Enabling the user to register into the application by taking the basic details.

Actors: Users

Requirement Specifications: As a New-user, he should be able to register with the application by filling the details of the user.

- Screen should consist of an input text field to accept the first name of the user
- Should consist of an input text field to accept the last name of the user.
- Should consists of an email field to accept the email.
- Should have a set password field enabling the user to set password
- Should have a confirm password field to verify the password.
- Should have an input text field to enter the passport number.
- Should have an input text field to enter the user's driver's license.
- Should have a facility for the user to select a profile picture.
- Button to submit the details to database.

The following fields should be mandatory:

First name, email, Password, passport.

Assumptions: New-users should be able to create an account in the application.

4. US-4 (Showing the current location)

User-story Description: As a registered user, the user should be able to see his present location.

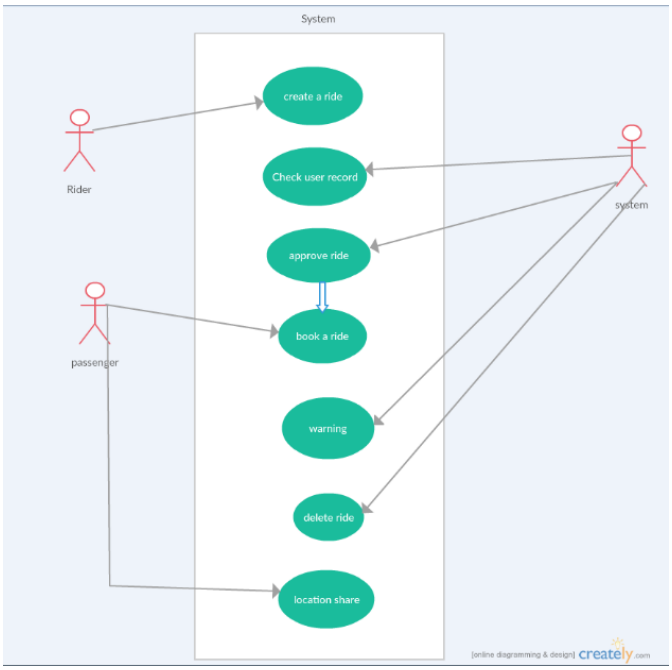
Actors: Users

Requirement Specifications: User should be able to locate his current location.

- The button would be placed in the registration page and once the user clicks the button his current location would be displayed. (This would be updated in further US)

Assumptions: User should be able to locate his present location.

USE CASE:



TESTING DOCUMENTS:

1. Login details of the Application

S.No	Test Description	Steps to Follow	Expected Result	Actual Result
1.	User should be able to login/New-user should be able to register	The user would be able to enter the E-mail and password and click login to enter to application	User should be able to login	User is logged-in.
2.	User should be able to login/New-user should be able to register	New-User should click the Sing-up button to register, to navigate to registration page	New-users are directed to register page.	New-Users are able to view the registration page.
3.	User should be able to login/New-user should be able to register	User should enter E-Mail and Password and are validated for the users.	User details are authenticated.	User is able to login only when accurate details are submitted
4.	User should be able to login/New-user should be able to register	User is entered wrong details an error would pop up.	User credential are to be validated and if wrong a pop-up would be display	User would be able to view a message if incorrect details are entered.

2. Registration screen of the Users

S.No	Test Description	Steps to Follow	Expected Result	Actual Result
1.	New-User should be able to register by giving the basic details.	New-Users should fill all the fields and click submit.	New-users should be successfully register.	New-Users are registered.
2.	New-User should be able to register by giving the basic details.	New-User should enter all the mandatory fields. First name, email, password, passport	New-users are registered once the user enters the mandatory fields	New-Users are able register.
3.	New-User should be able to register by giving the basic details.	New-Users would be notified with validation regarding the mandatory fields.	New-Users are able to view an error if fields are left blank.	New-users are notified with error.
4.	New-User should be able to register by giving the basic details.	On submit the details entered are saved to the Data Base.	New-User details are save to the data base once they click the submit button.	Details of new users are save to data base.

3. Home Screen of the Users

S.No	Test Description	Steps to Follow	Expected Result	Actual Result
1.	Registered User should be able to either request a ride or give in ride details.	Users can fill in the ride details and submit their details.	Users should be able to fill the ride details to provide a ride	Users can successfully provide their ride details.
2.	Registered User should be able to either request a ride or give in ride details.	Users can click locate me button to view their current location.	Users can view their present location.	Users are able to view their location.
3.	Registered User should be able to either request a ride or give in ride details.	User can click request ride to view the existing trips.	Users are able to view the trip details if they request ride.	Users are able to check the trip details.
4.	Registered User should be able to either request a ride or give in ride details.	Users can click on logout to come out of the application.	Users are redirected to the login page if they select the logout.	Users are logged out successfully.

4. Showing the current location

S.No	Test Description	Steps to Follow	Expected Result	Actual Result
1.	Registered User should be able to locate their location.	Users are able to vies their location on clicking locate me button.	Users are to view their current location.	Present location of the user is dislayed.

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