



Project Final Report

Spring - 2017

Team – 7

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- Abhilash Reddy Gaddam - 23

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1. Introduction

LOCUS

- **Motivation:**

How important is your vehicle to you? Do you treat it as your family member, if so what if your friend requests for car to go for a ride with his girlfriend? Don't worry if you have "Locus" app with you anymore; you can track your vehicle anytime, anywhere wherever you are. Also, when you are travelling, the app reminds your favorite locations near to you.

- **Significance/Uniqueness:**

Our investigation for applications which provides location based services like reminders for favorite spots near current location, tracking vehicle, didn't fetch great results. This made us thinking about creating an application with advanced technologies that brings in real time and accurate information available to users all the time.

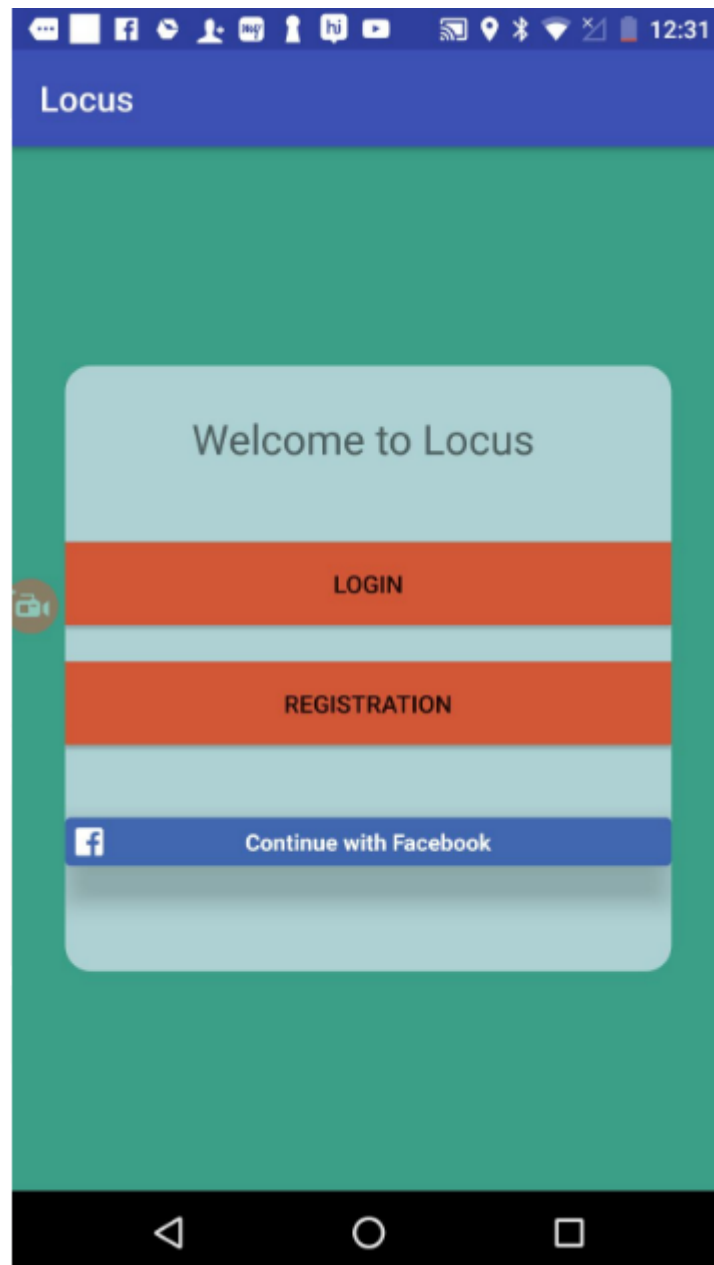
- **Objectives:**

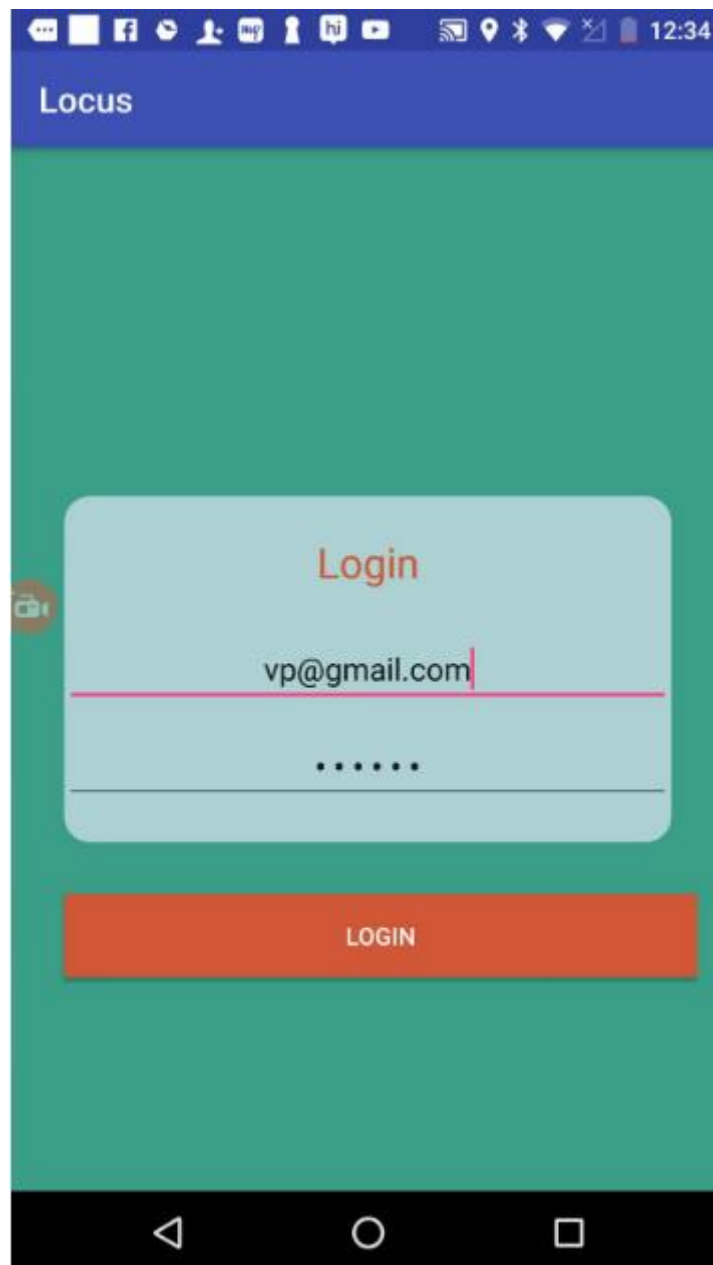
The objective of our web/ mobile application is to track their loved vehicle anytime, anywhere if shared to anyone till it reaches to him. Also, notifying his/her favorite spots available near to his current location when in travel. Our best efforts appear in presenting the most accurate and real-time data available to users all the time.

2. Project Deployment & Project Management

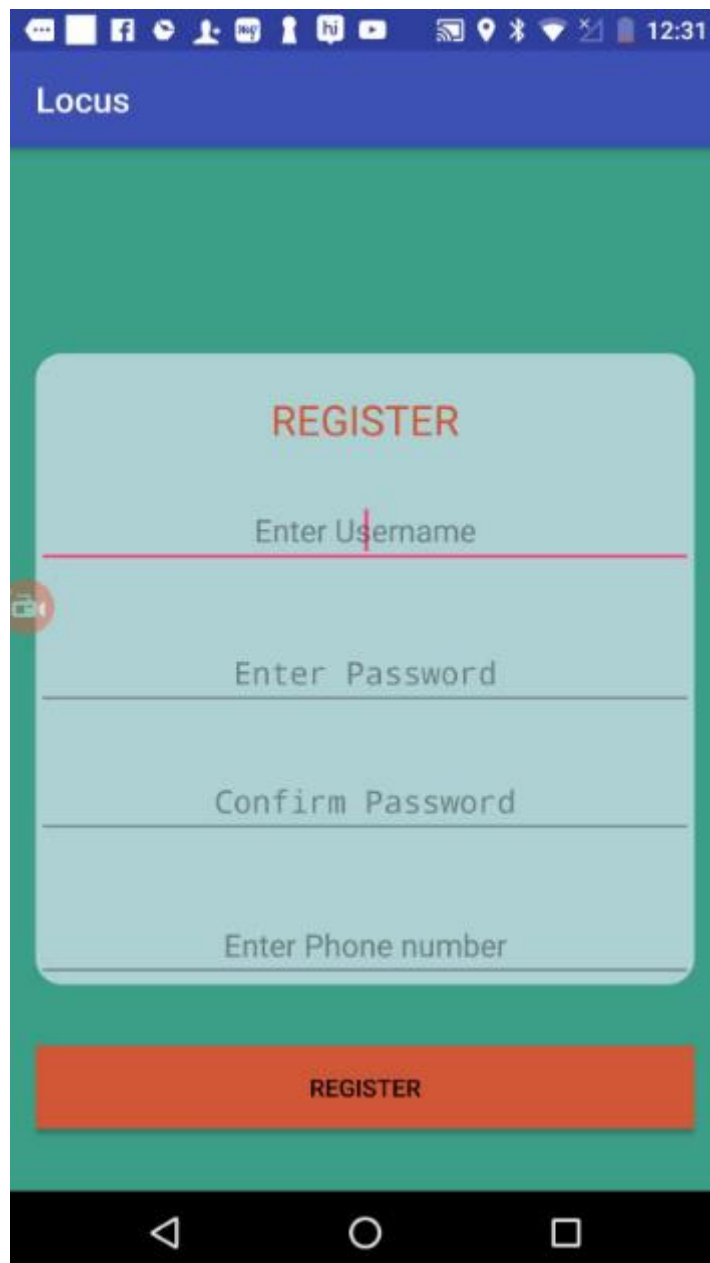
Application:

2.1 Home and Login page for the application “LOCUS” as shown below:



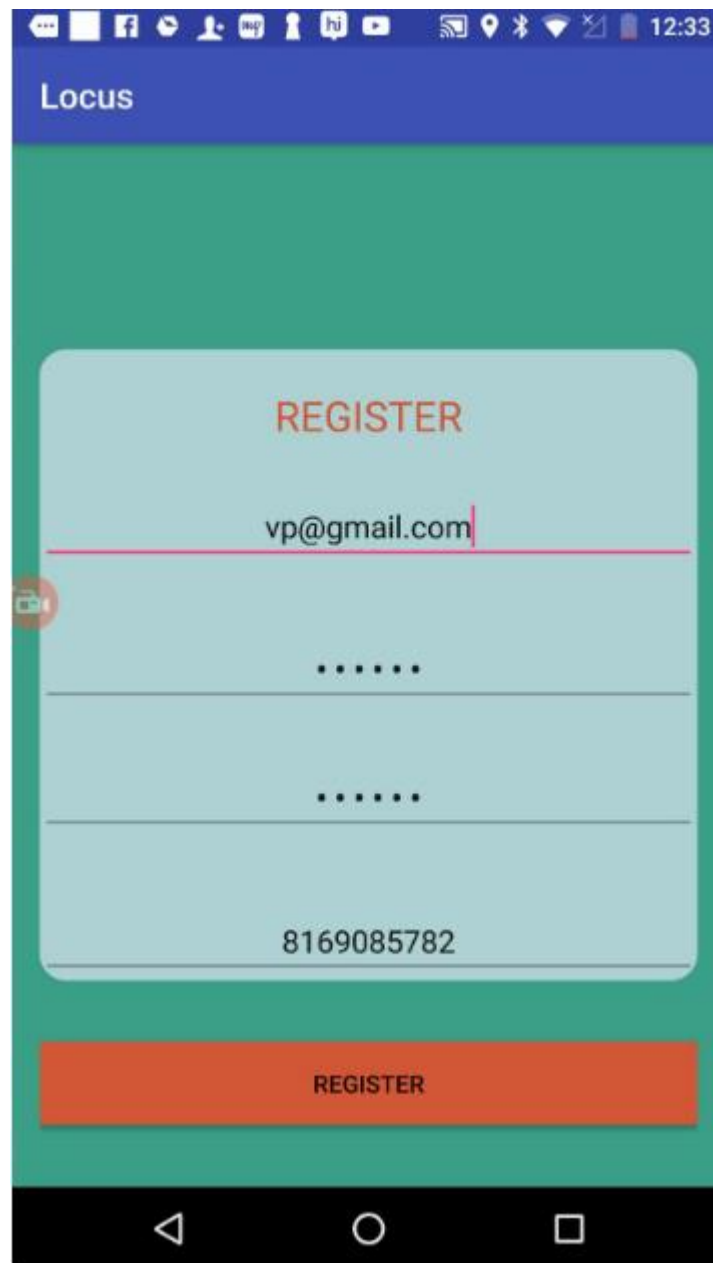


2.2 A new user can register by clicking on 'Register' button. By clicking on this button, application will be redirected to registration page.



The screenshot shows a mobile application interface for registration. At the top, a blue header bar contains the word "Locus" in white. Below this is a green background area. In the center, there is a light blue rounded rectangle containing the word "REGISTER" in red. Below the title, there are four input fields with placeholder text: "Enter Username", "Enter Password", "Confirm Password", and "Enter Phone number". Each field has a red underline. To the left of the input fields, there is a small red circular icon with a white camera symbol. Below the input fields, there is a red rectangular button with the word "REGISTER" in white. At the bottom of the screen, there is a black navigation bar with three white icons: a triangle, a circle, and a square. The top of the screen shows a status bar with various icons and the time "12:31".

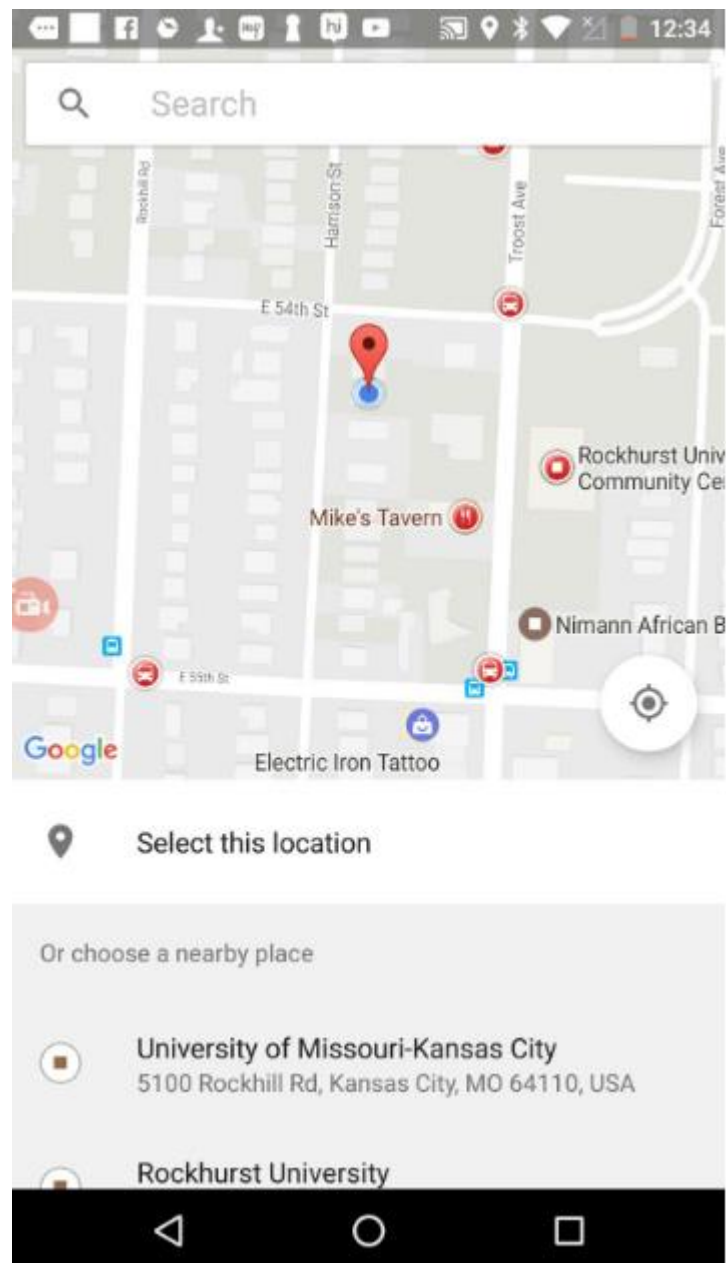
2.3 User must enter email id, password and confirm password, phone number fields to complete the registration.



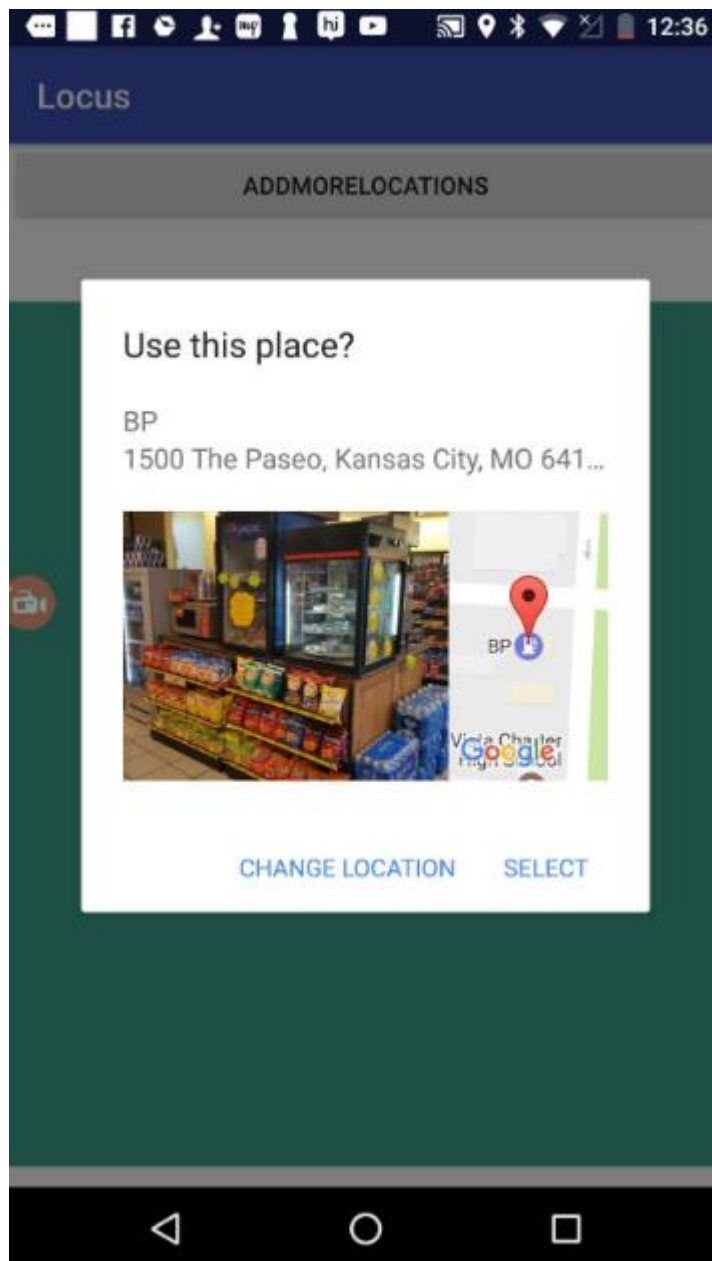
2.4 Following is the home page of our application. User will be redirected to home page by logging into the system.



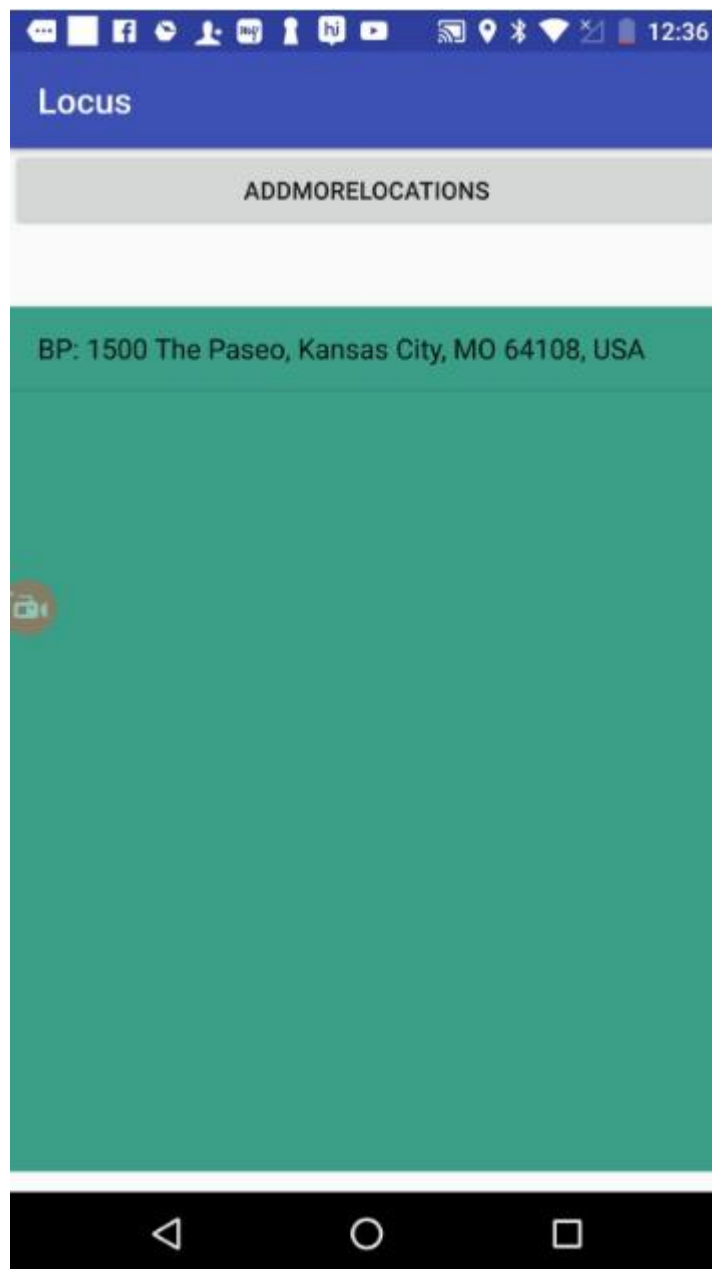
2.5 User can add favorite locations on home page by clicking favorite location button on home page



2.6 By clicking on select this location below page will be displayed.



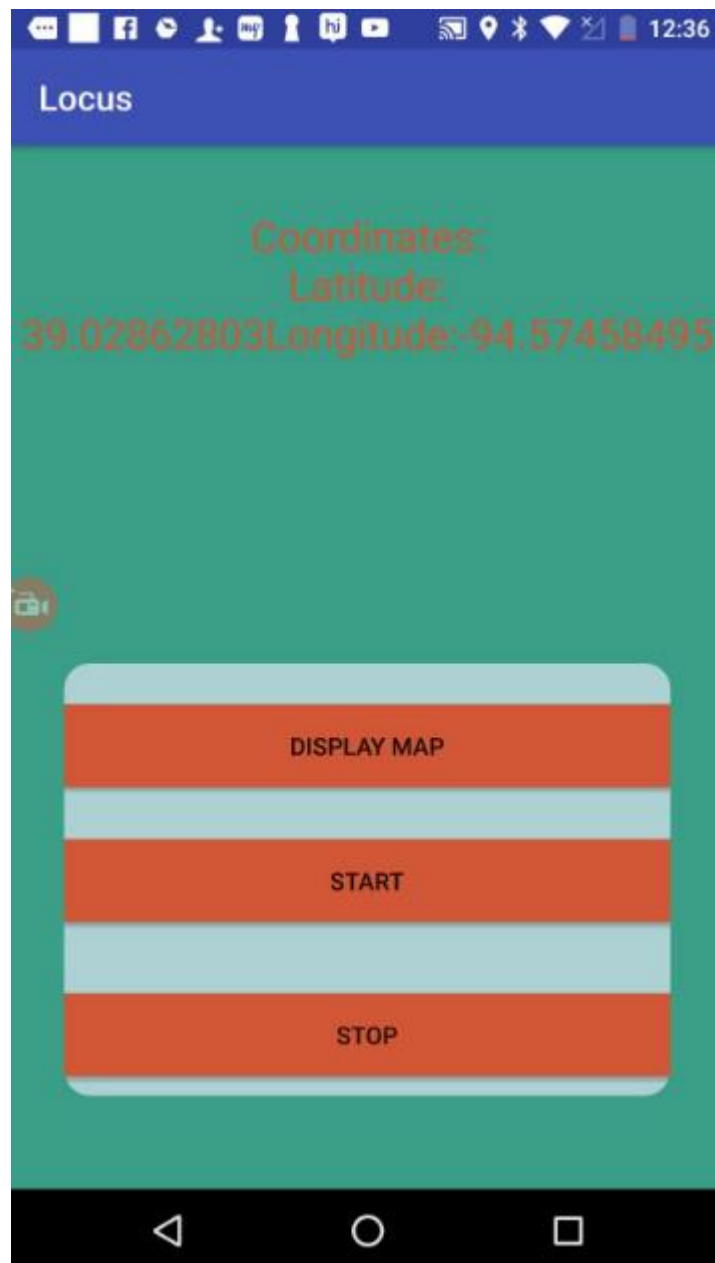
2.7 By clicking select, user can see list of favorite location



2.8 By clicking on track car, user can save his current location co-ordinates to firebase

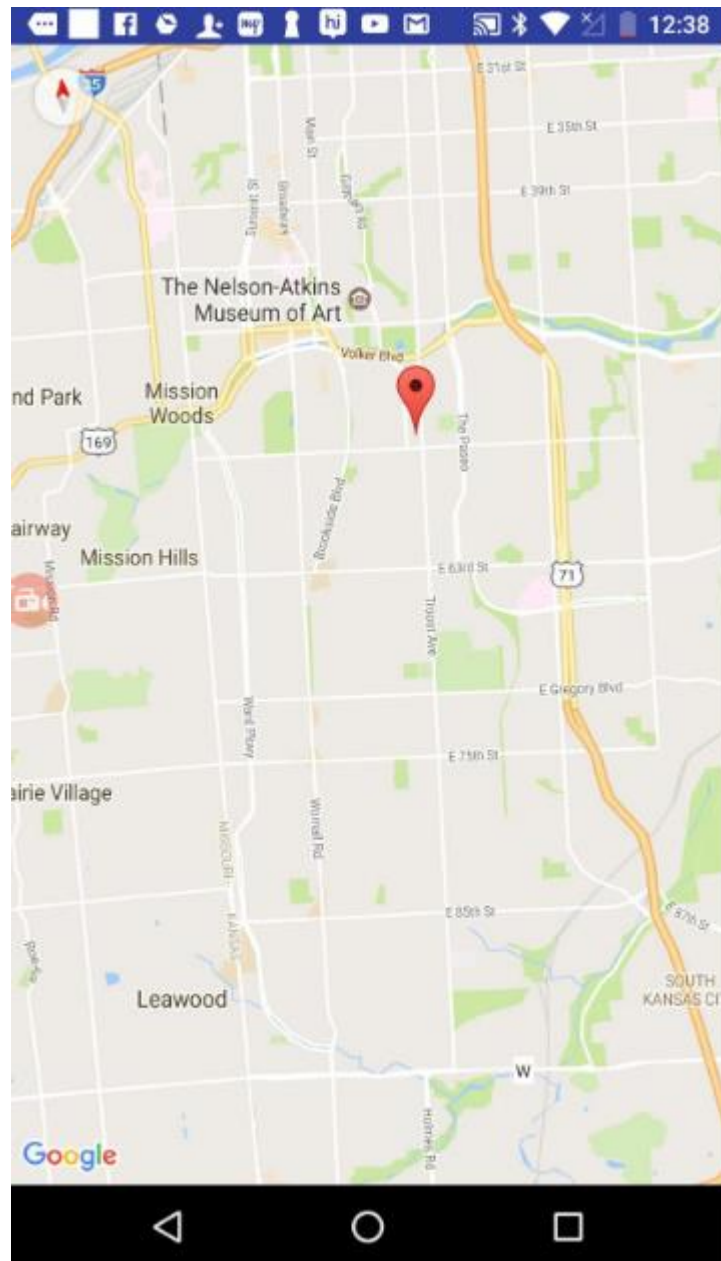


2.9 By clicking on start co-ordinates will be saved for every 5 seconds





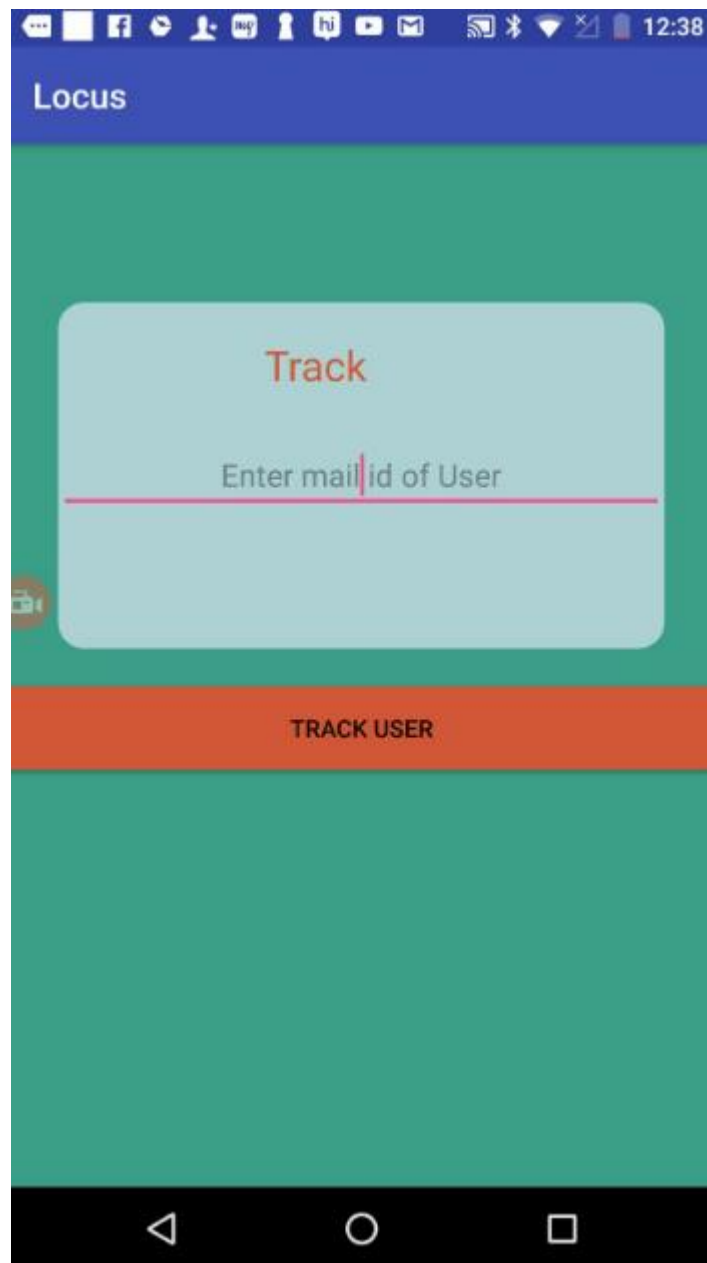
2.10 By clicking on display map , current location map will be displayed.



2.11 Now admin can track the user by logging through Facebook OAuth

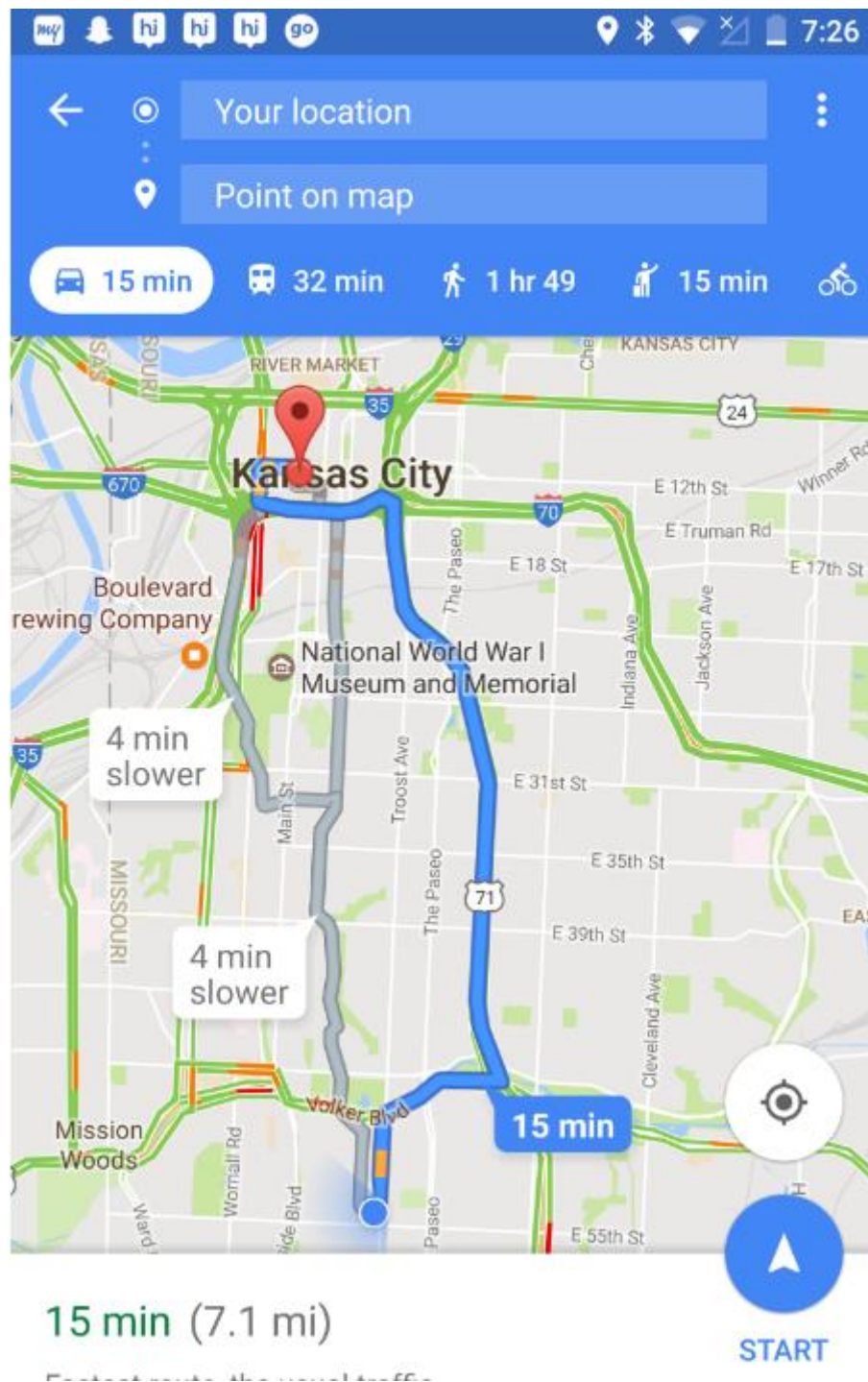


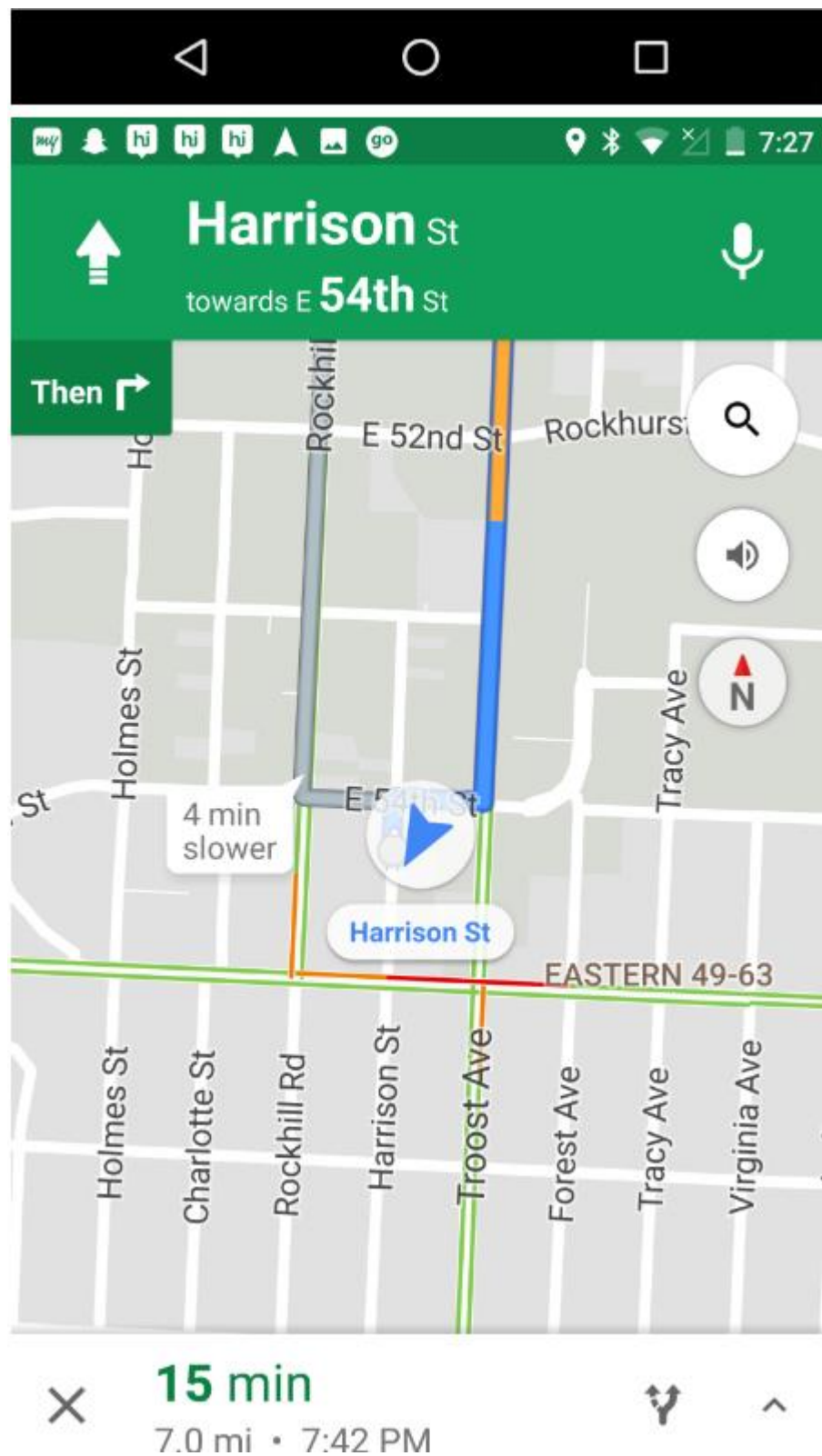
2.12 Here admin has to provide id of user, so that he can track the particular user.



2.13 Here Admin can track the location of user and can display the navigation and estimated time , distance using Google map API

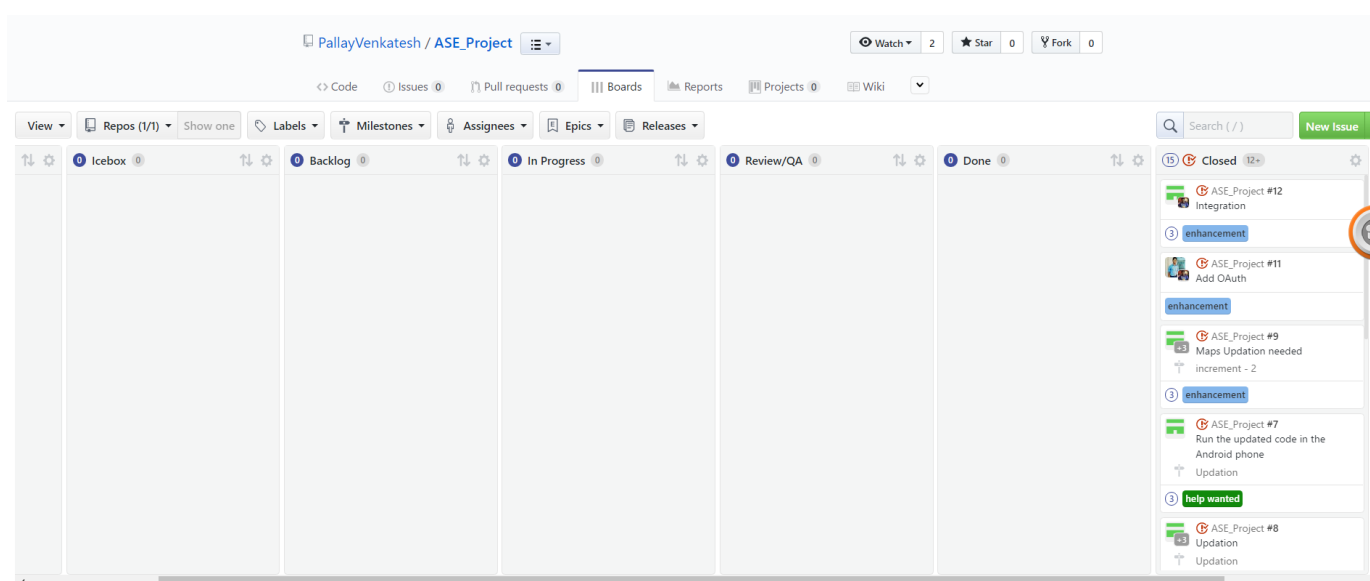
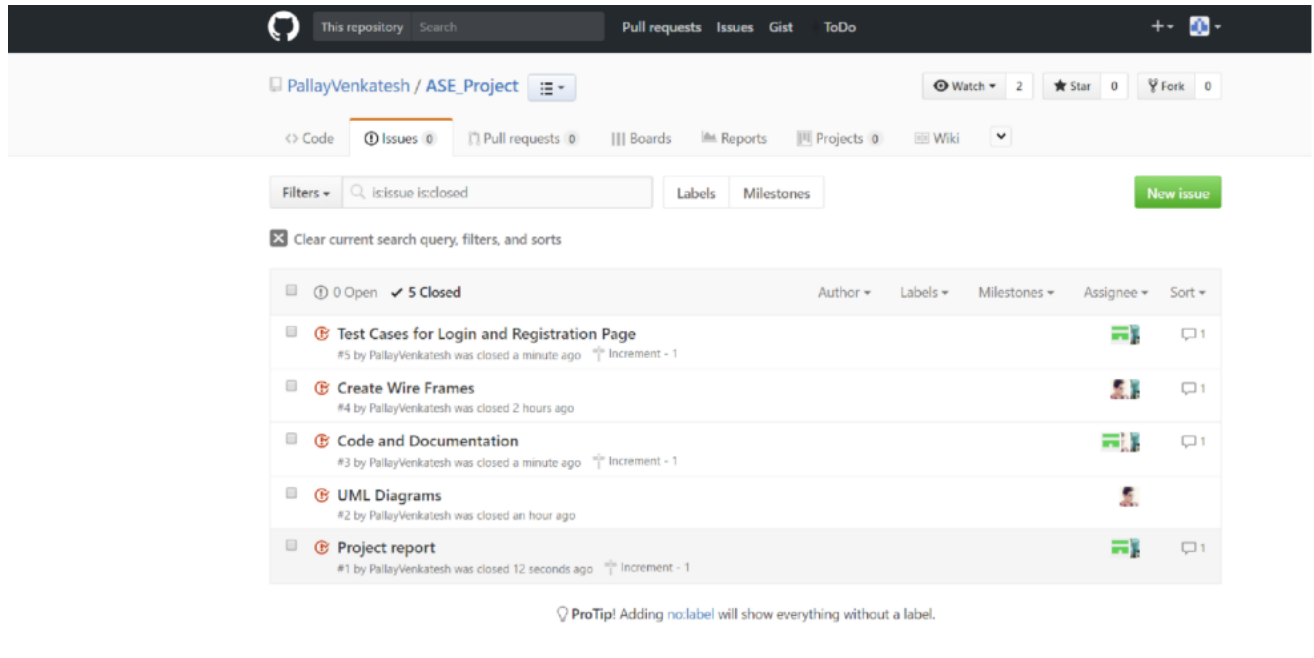






Project Management:

Project Management Report:



3. Project proposal

Project Goal and Objectives:

- **Motivation:**

How important is your vehicle to you? Do you treat it as your family member, if so what if your friend requests for car to go for a ride with his girlfriend? Don't worry if you have "Locus" app with you anymore; you can track your vehicle anytime, anywhere wherever you are. Also, when you are travelling, the app reminds your favorite locations near to you.

- **Significance/Uniqueness:**

Our investigation for applications which provides location based services like reminders for favorite spots near current location, tracking vehicle, didn't fetch great results. This made us thinking about creating an application with advanced technologies that brings in real time and accurate information available to users all the time.

- **Objectives:**

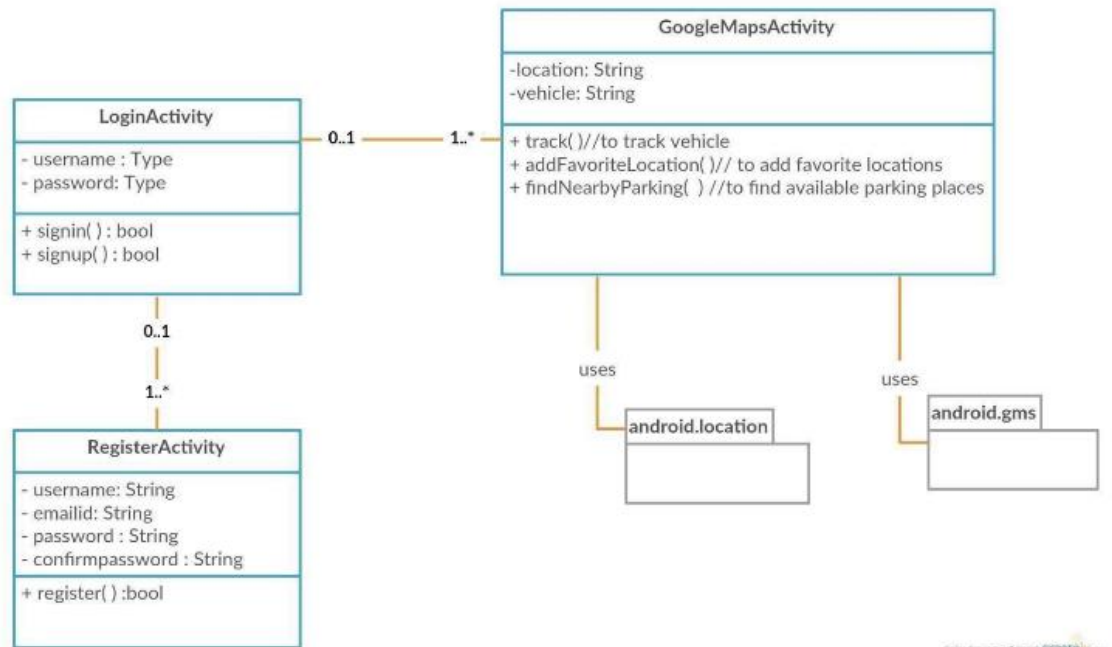
The objective of our web/ mobile application is to track their loved vehicle anytime, anywhere if shared to anyone till it reaches to him. Also, notifying his/her favorite spots available near to his current location when in travel. Our best efforts appear in presenting the most accurate and real-time data available to users all the time.

- **System Features:**

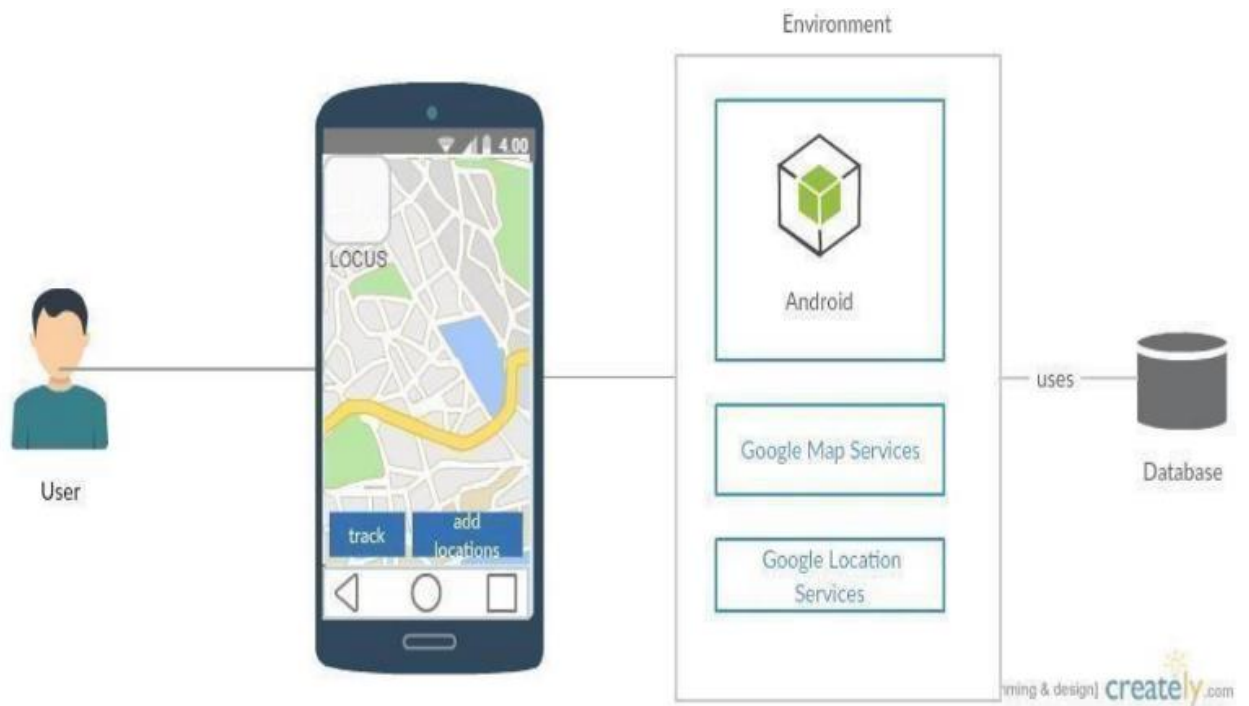
- Users can track where the vehicle is moving
- Users can estimate the arrival time of their vehicle
- Users can find the distance travelled by the vehicle.
- Users can register their vehicle in system.
- Users can receive notifications about his favorite spots near his current location.

4.Project Plan

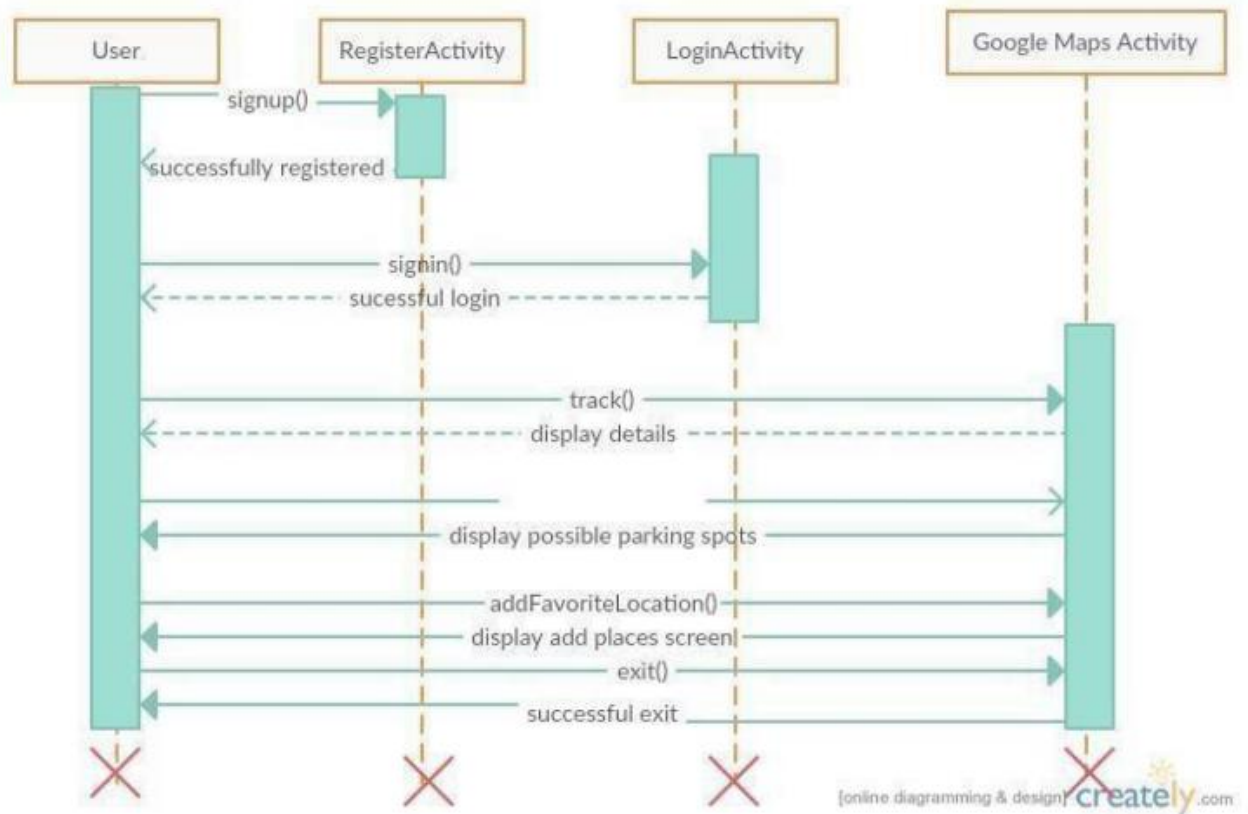
4.1: Class Diagram



4.2 Architecture Diagram:



4.3 Sequence Diagram



5. First Increment Report

Implementation:

In the first increment, we have implemented the following features.

- Login page
- Registration page
- Facebook OAuth login
- Home page

We have implemented these features in android using android studio.

First increment report:

https://github.com/PallayVenkatesh/ASE_Project/blob/master/Increment%201/Documentation/Increment%20-%201.pdf

6. Second Increment Report

Implementation:

In the second increment, we have implemented the following features.

- OAuth implementation
- Favorite Location module
- Google maps and places API
- Improved the user interface of home page, login page and registration page.

We have implemented these features in android using android studio.

Second increment report:

https://github.com/PallayVenkatesh/ASE_Project/blob/master/Increment%202/Increment%20-%202.pdf

7. Third Increment Report

Implementation:

In the third increment, we have Implemented

- Firebase Authentication
- Firebase Storage
- Google maps API
- User Tracking Module
- Improvised the user interface of the application

Third increment report:

https://github.com/PallayVenkatesh/ASE_Project/blob/master/Increment%203/Increment%203.pdf

8. Fourth Increment Report

Implementation:

In the fourth increment, we have implemented the following features

- Firebase Authentication
- Firebase Storage
- Admin Module
- Google maps API
- User Tracking Module
- Improvised the user interface of the application

Fourth increment report:

https://github.com/PallayVenkatesh/ASE_Project/blob/master/Increment%203/Increment%203.pdf

TEST CASES:

Test Case Name	Test Description	Expected Results	Pass/Fail
Login	Enter Invalid Userid and Invalid Password	Invalid Login Error Message should be displayed	Pass
	Enter Valid Userid and Invalid Password	Invalid Login Error Message should be displayed	Pass
	Enter Valid Userid and Valid Password	Application Should Be Redirected to Home page	Pass
Sign Up	Enter Email Id without @	Invalid Email id should be displayed	Pass
	Enter different confirm password	Invalid Error Message should be displayed	Pass
	Blank Spaces	Invalid Message should be displayed	Pass

9. Presentation URL:

<https://docs.google.com/presentation/d/1OjWzPEFQc0A2efxlOq3YIvE4Z75DYJf4EFDFPJTUQw/edit?ts=5908d7ff#slide=id.p9>

10. GitHub wiki page URL:

https://github.com/PallayVenkatesh/ASE_Project

11. YouTube URL:

<https://www.youtube.com/watch?v=PHtL6pxGVgg>