

**CS 5551 Advance Software Engineering**

**FIRST INCREMENT REPORT**

**Locus**

**Team#7**

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# **Project Proposal**

## **Project Title: Locus**

### **PROJECT GOAL AND OBJECTIVES:**

#### **MOVITATION:**

How important is your vehicle to you? Do you treat it as your family member, if so what if your friend requests for the 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 traveling, 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 realtime data available to users all the time.

#### **SYSTEM FEATURES:**

- The user can track where the vehicle is moving.
- The user can estimate the arrival time of the vehicle.
- The user can find the distance traveled by the vehicle.
- The user can receive notifications about his favorite spots near his current location.

As a part of our project's 1<sup>st</sup> increment, we have implemented the Login page, a register page and on successful login redirects to the Home page. At first, a new user needs to register and can login using his name email and the password. Here we will be using the Google Maps location API to get the current location of the user.

## FEATURES:

1. Google Location Services: Google's location services is implemented as two features i.e Location Reporting, and Location History:
  - (1) Location Reporting is the feature that shows you places nearby, suggests local businesses, or helps you find the favorite spots by tracking the device.
  - (2) Location History is the feature that keeps track of where you've been, tracks the moving vehicle and for estimating the distance traveled by car using the smartphone.
2. Push Notification: Once the user sets his favorite spots, in case if there is any favorite spot nearby then a notification will be given to his device.
3. Map Locations: We are integrating the google maps to our application so that the user can view the exact location on the maps and locate the favorite spots nearby and also for tracking the vehicle.
4. Gesture Recognition: The gesture recognition API allows to register callback functions to be called when the user performs meaningful gestures like shaking the device which helps you display your favorite spots.

## SERVICE DESCRIPTION:

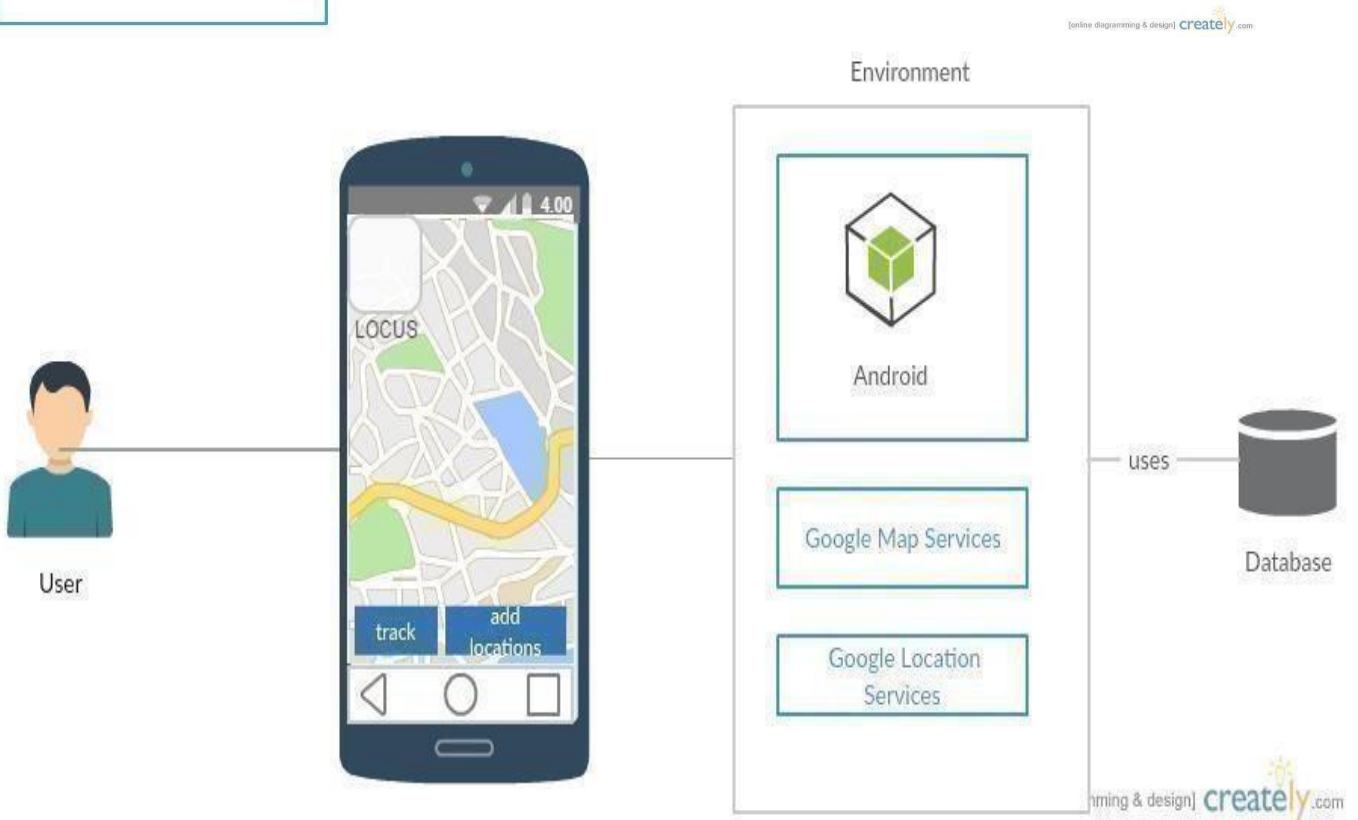
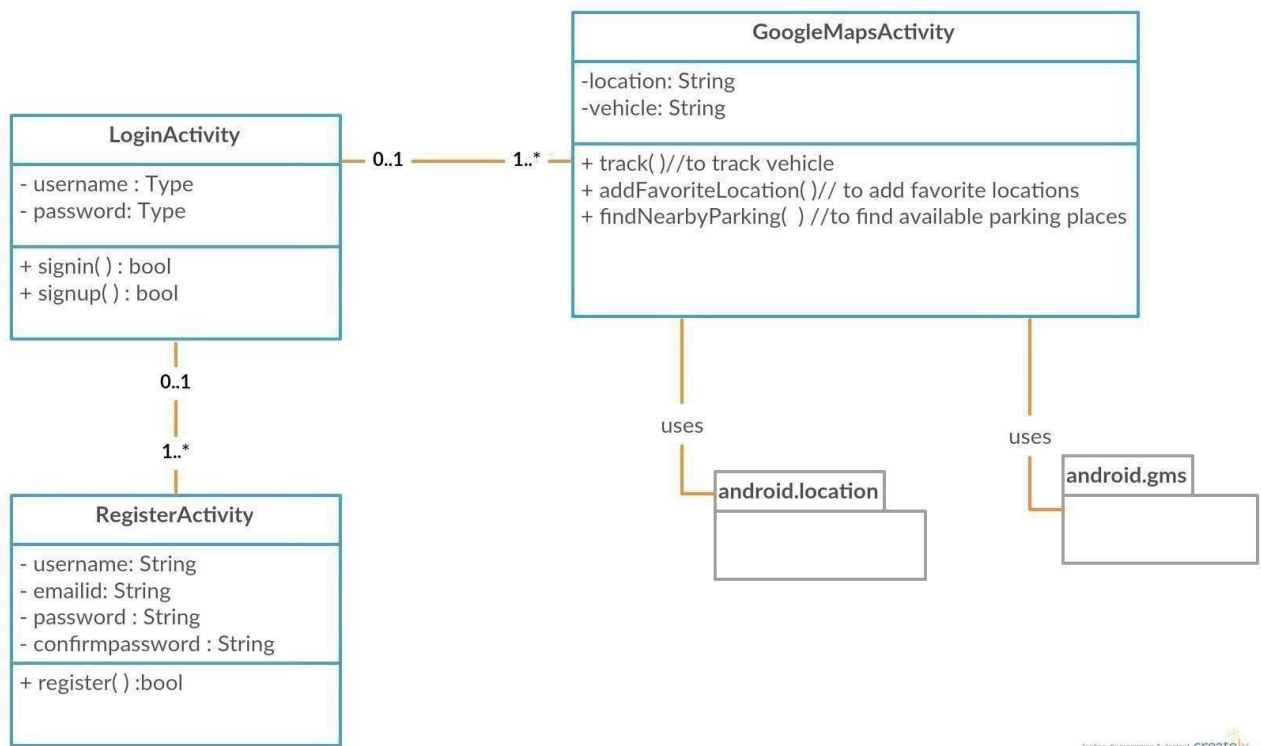
1. Maps: Maps information is displayed using the Google Maps API which gives us the information about the houses in a locality.
2. Gesture Recognition: The gesture Recognition API is used to pin the favorite spots of the user using the Gesture Recognition Toolkit(GRT).
3. Locations: To get the auto locations fill we will be using the Auto Location fill API.

## GITHUB URL:

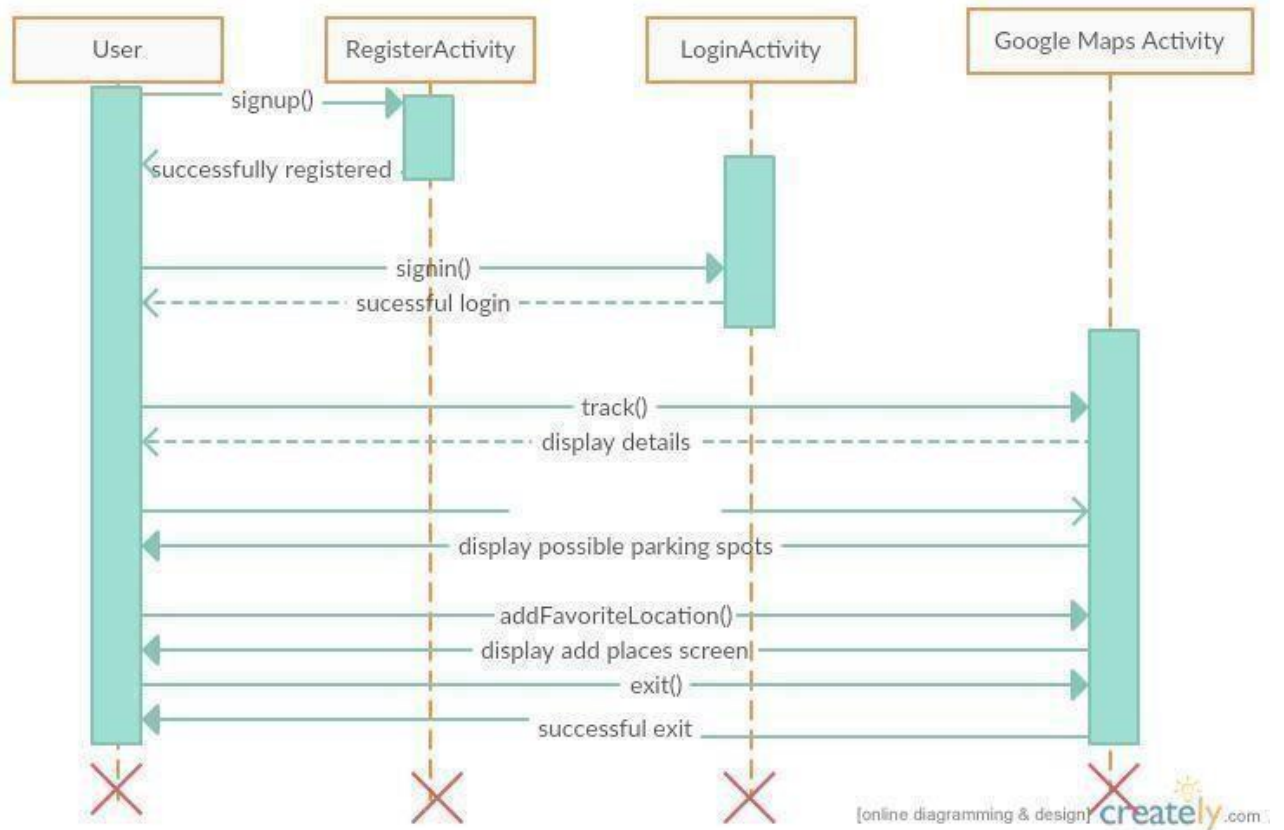
[https://github.com/PallayVenkatesh/ASE\\_Project](https://github.com/PallayVenkatesh/ASE_Project)

**ARCHITECTURE DIAGRAM:**

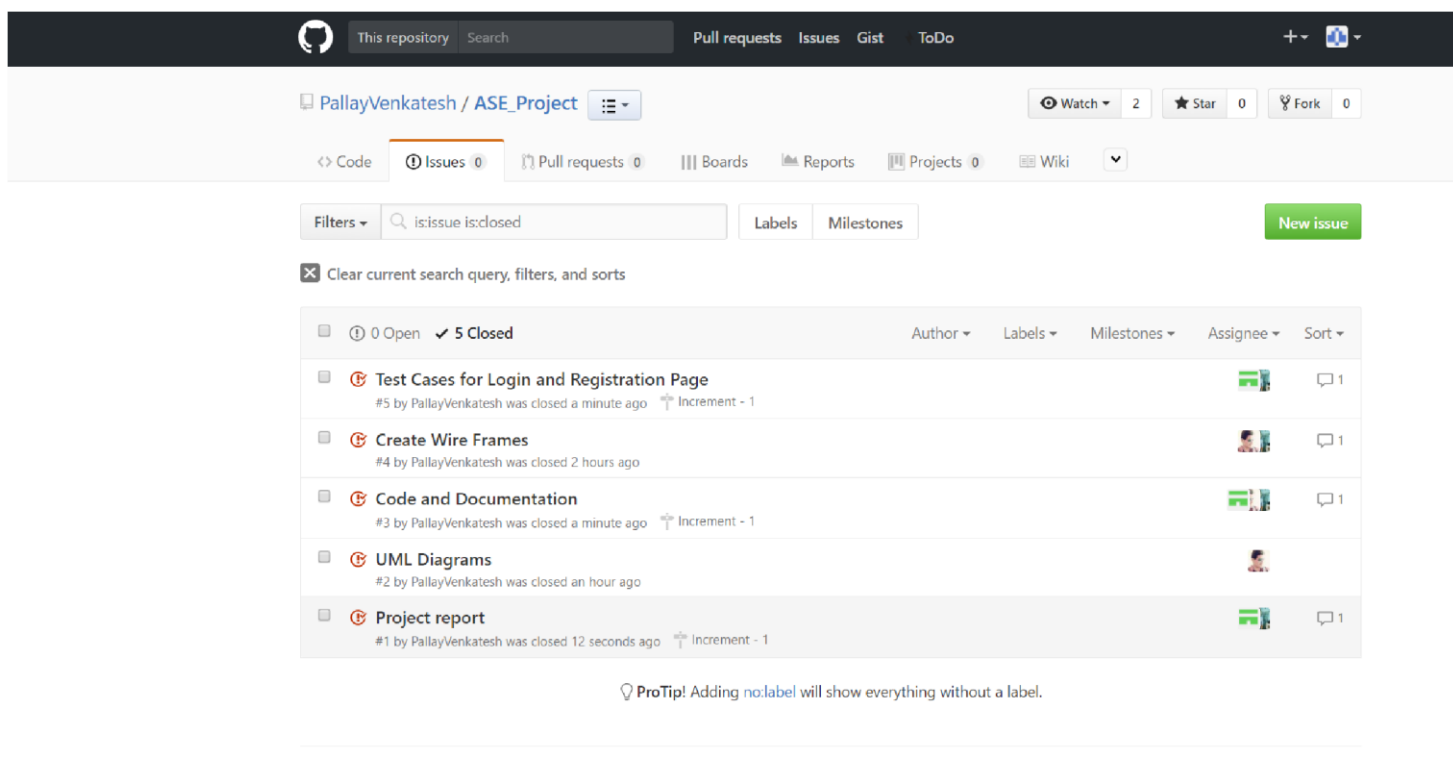
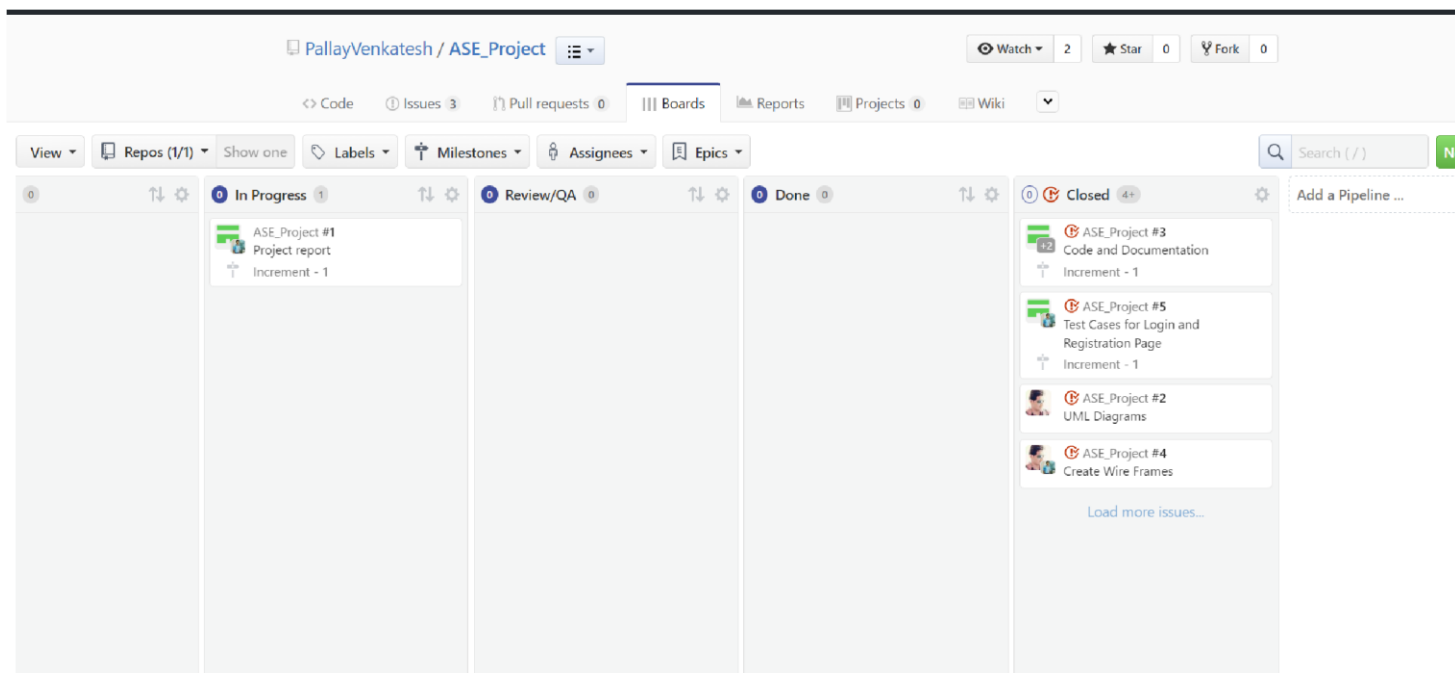
**CLASS DIAGRAM:**



**SEQUENCE DIAGRAM:**



**ISSUES TOOLBAR:**



**BURNDOWN GRAPH:**



Burndown Velocity tracking

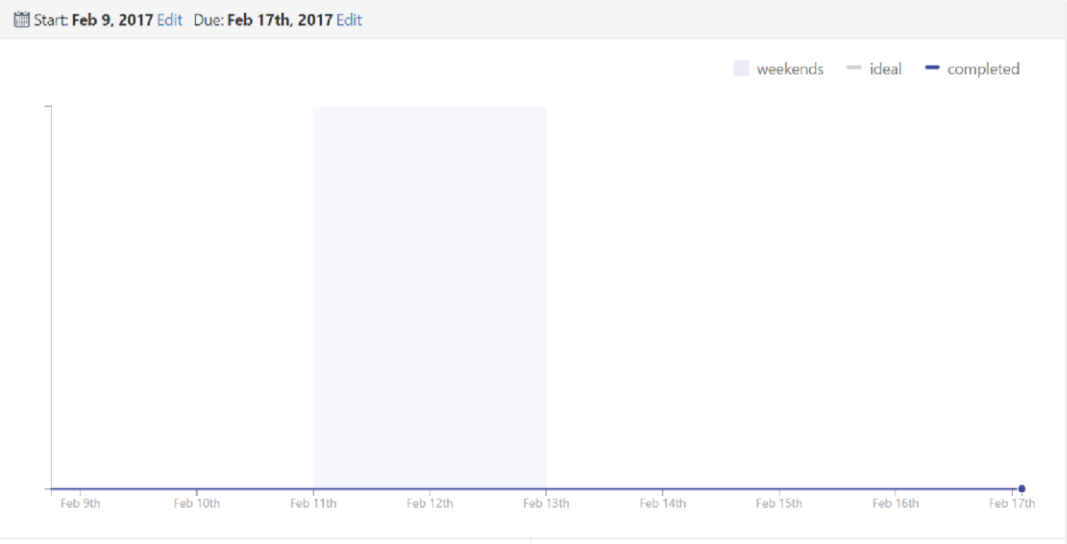
# Increment - 1

Edit Milestone Milestones

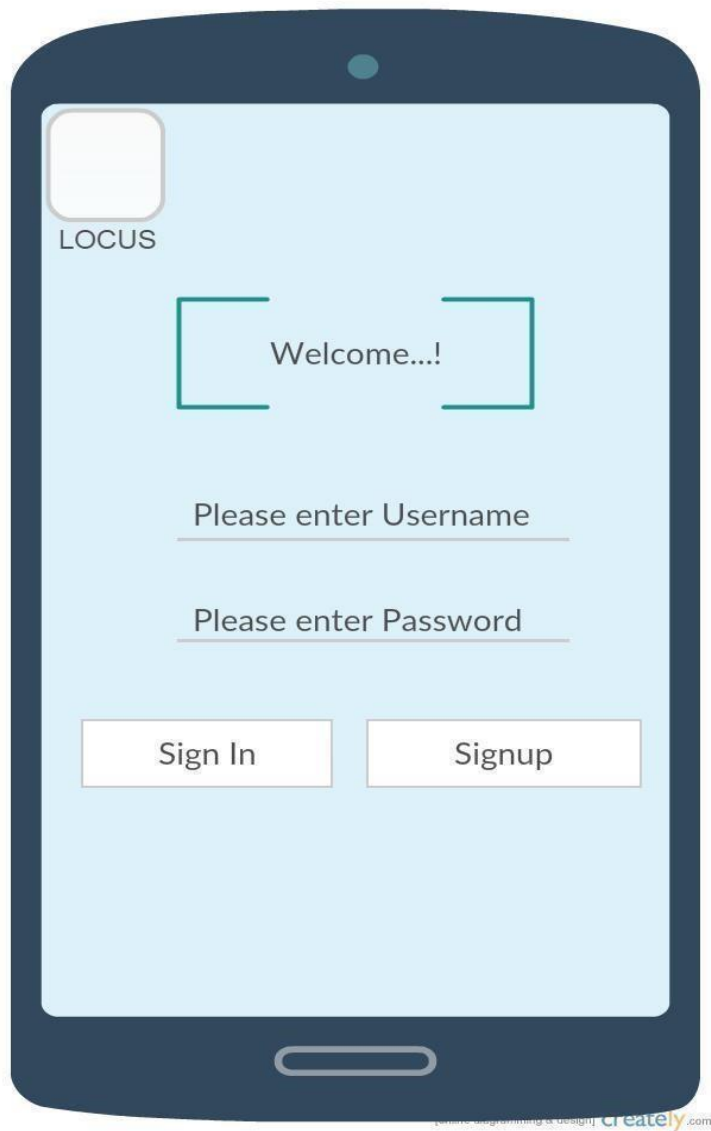
Increment 1 for project

Labels Hide Pull Requests

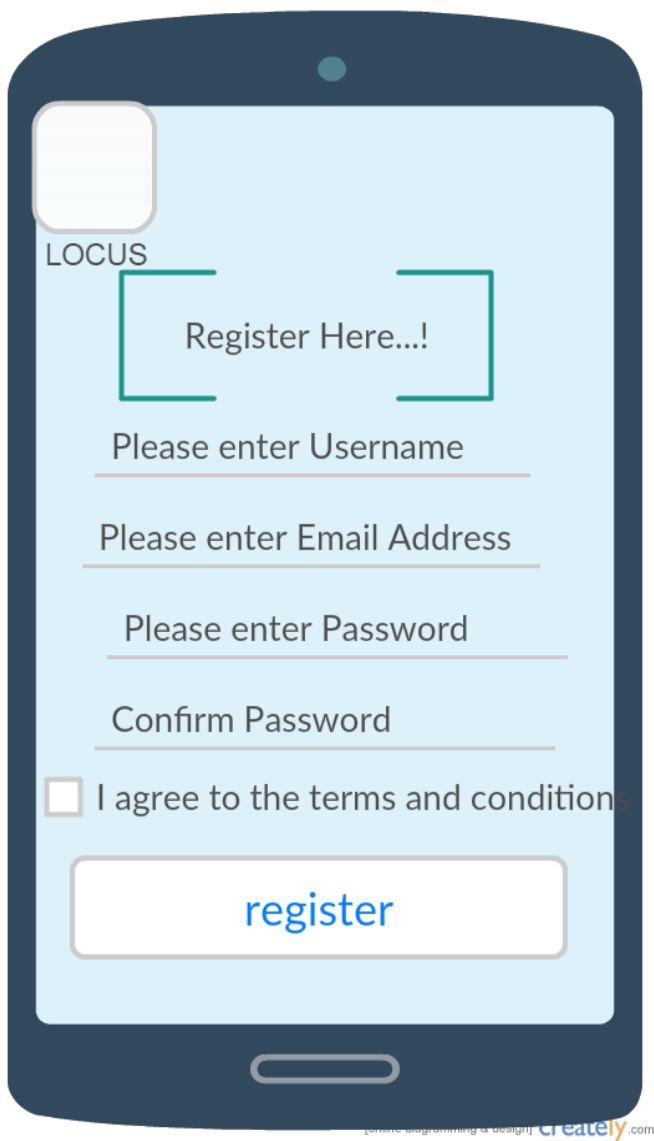
In Progress



## LOGIN PAGE

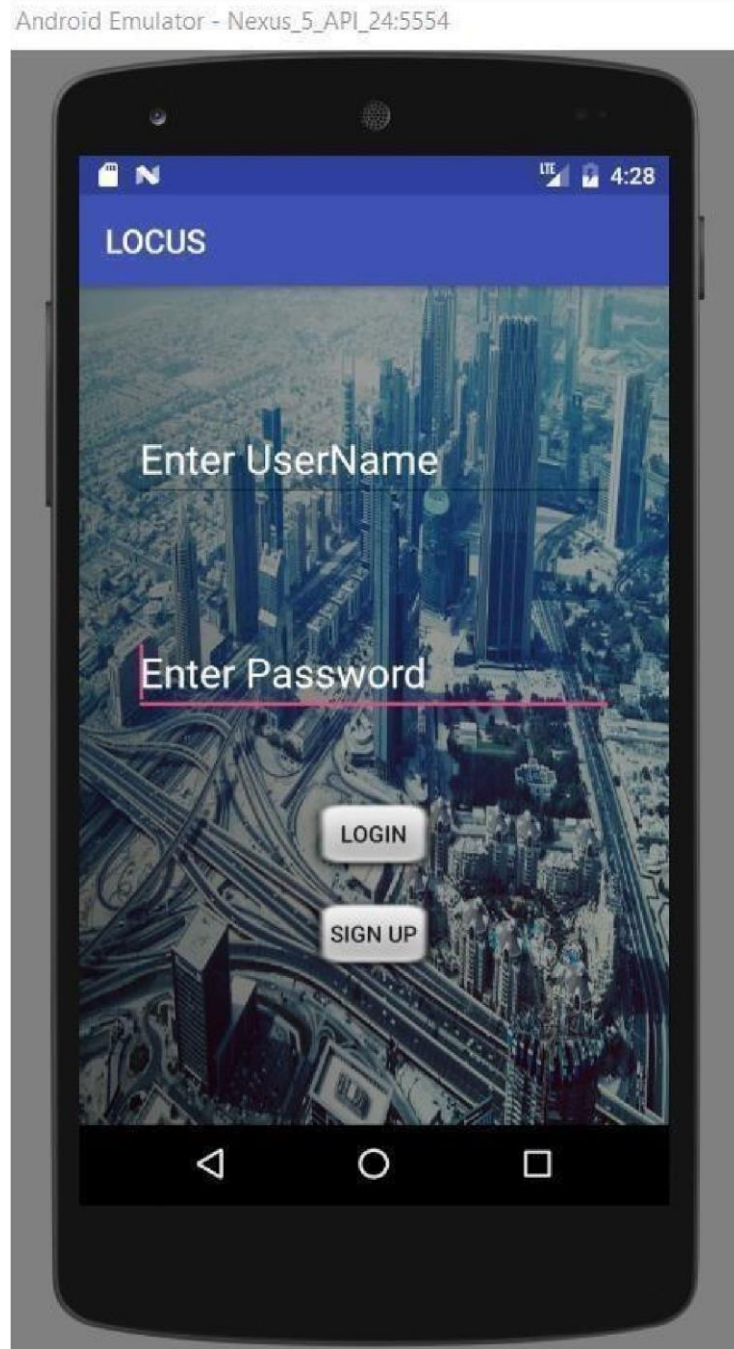


## REGISTRATION PAGE:

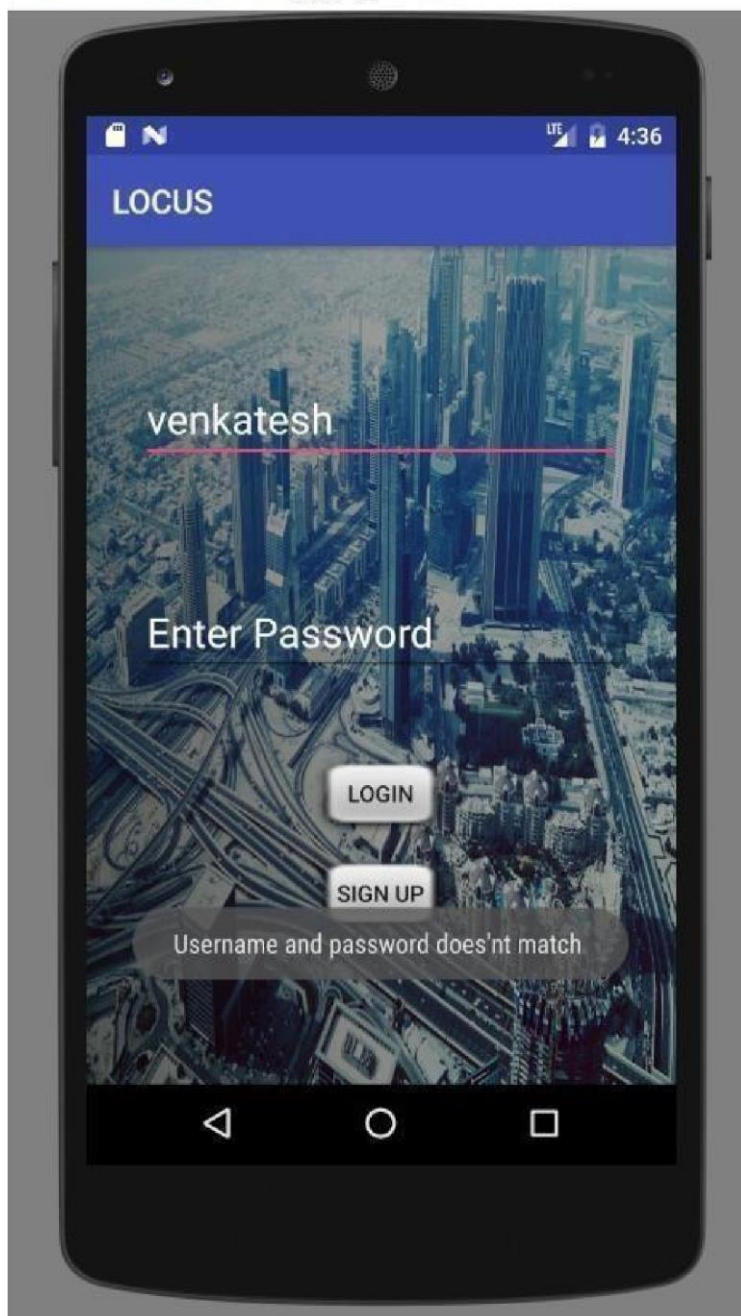


**MOCK-UPS:**

## LOGIN PAGE:



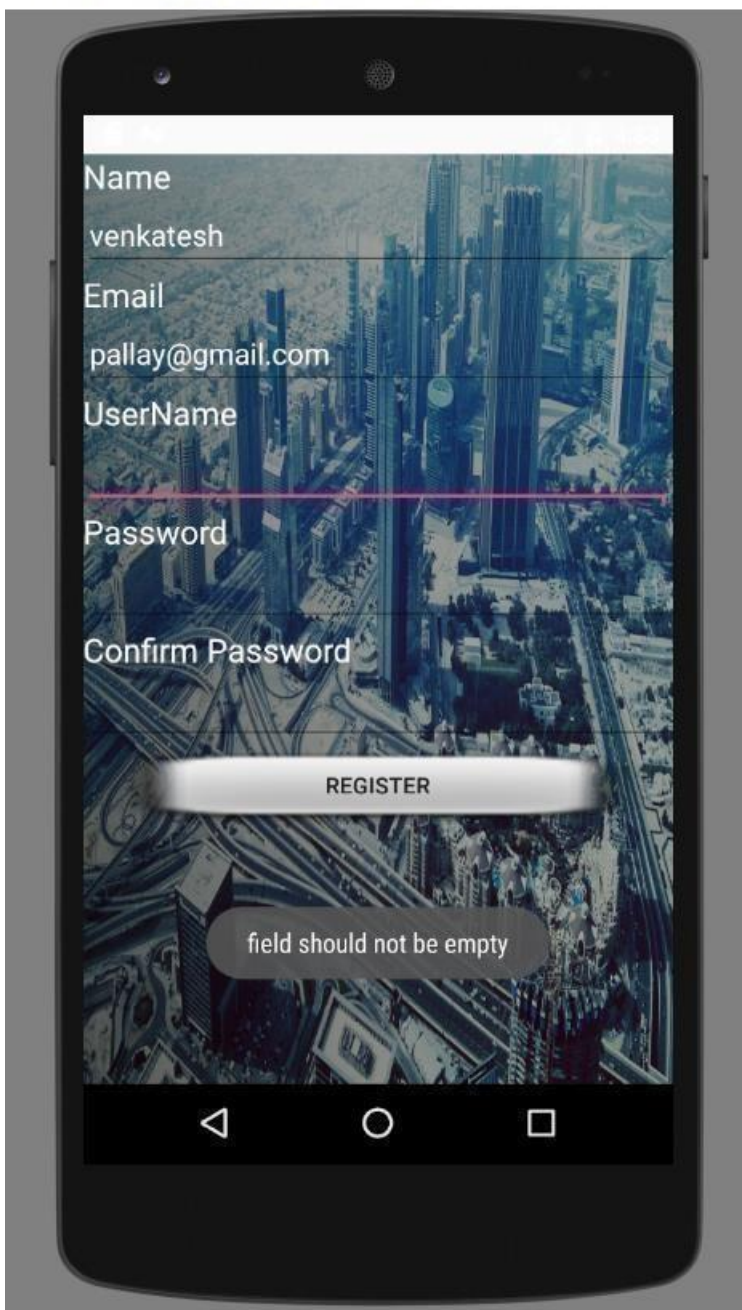
## LOGIN PAGE VALIDATION:



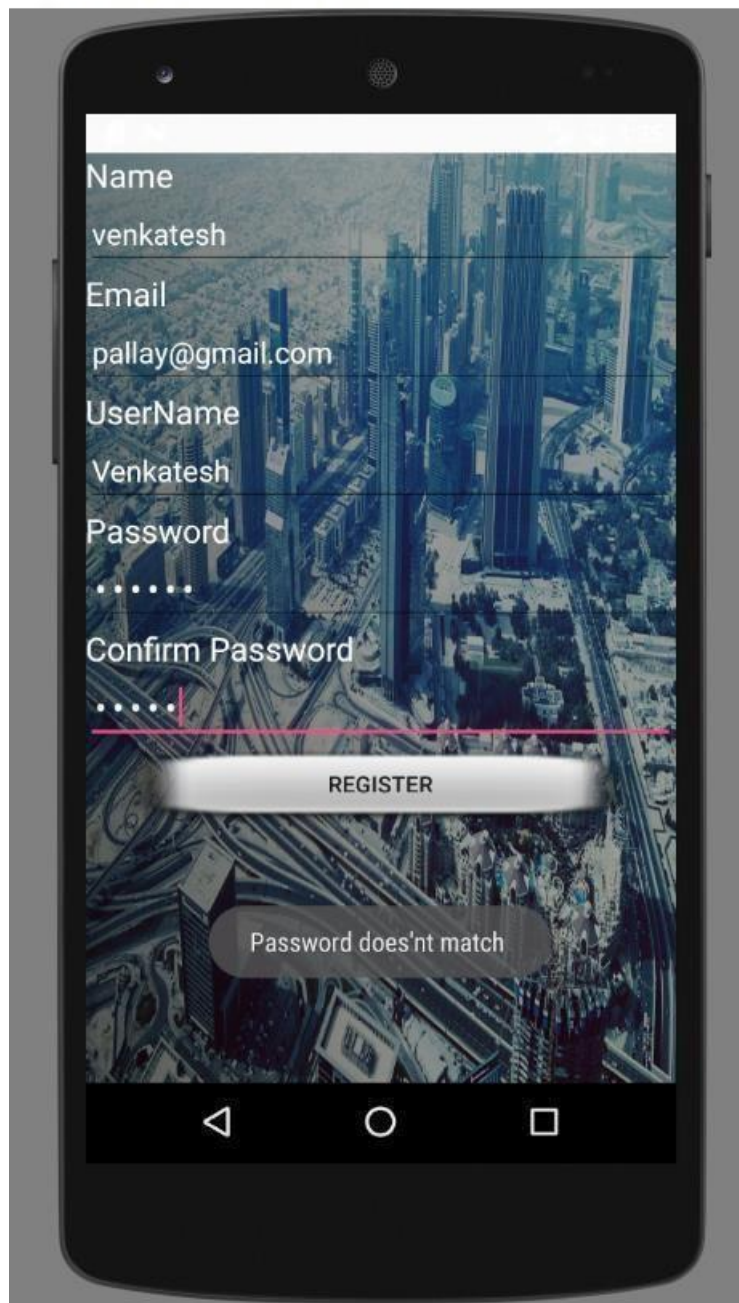
REGISTER PAGE:



REGISTER PAGE VALIDATION:







## TEST CASES:

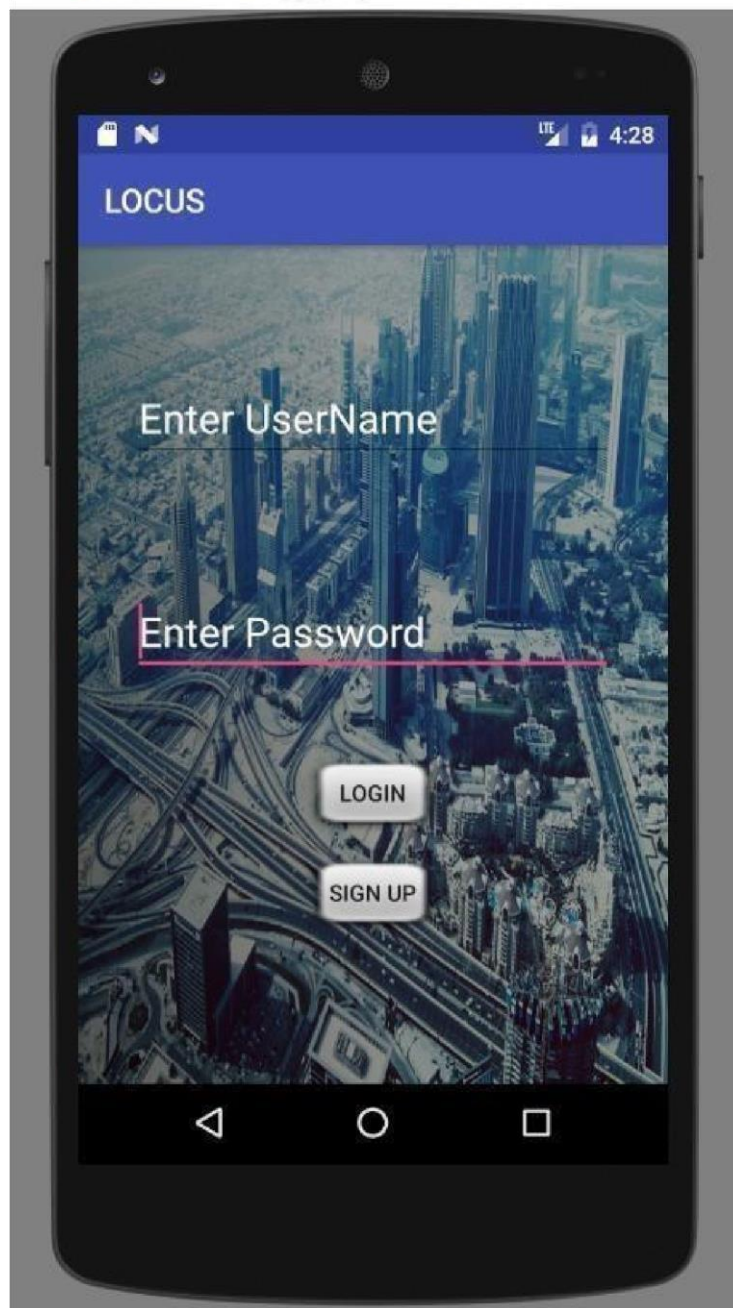
Test Case			
Name	Test Description	Expected Results	Pass/Fail



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

# **FINAL SCREEN SHOTS:**

## LOGIN PAGE:



REGISTER PAGE:



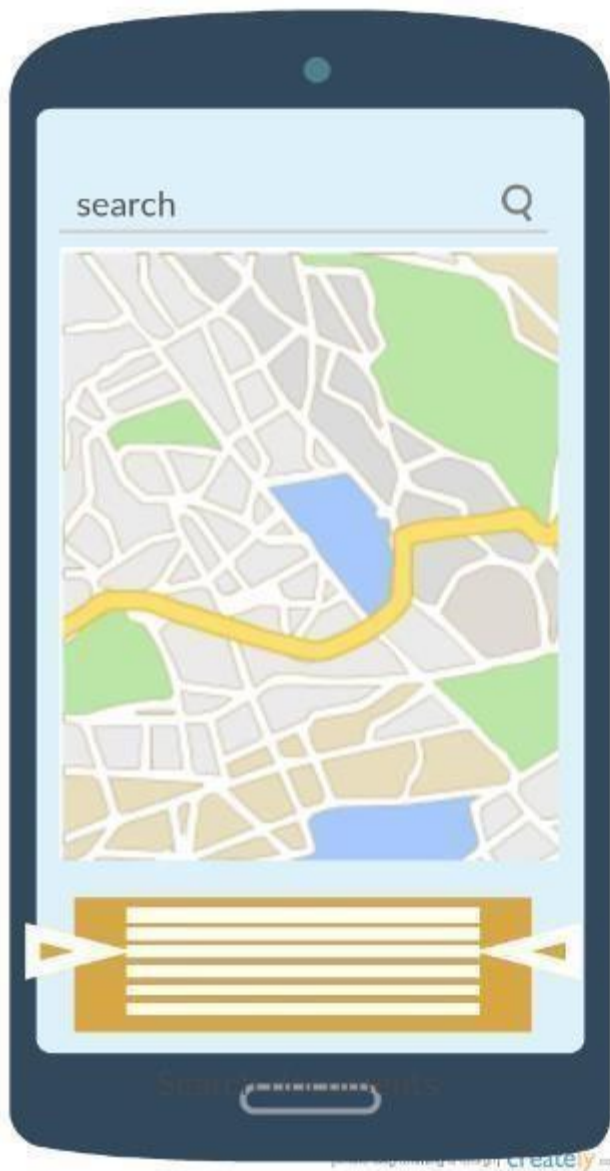
# INCREMENT 2(FAVORITE LOCATION MANAGER and Current Location Updation)

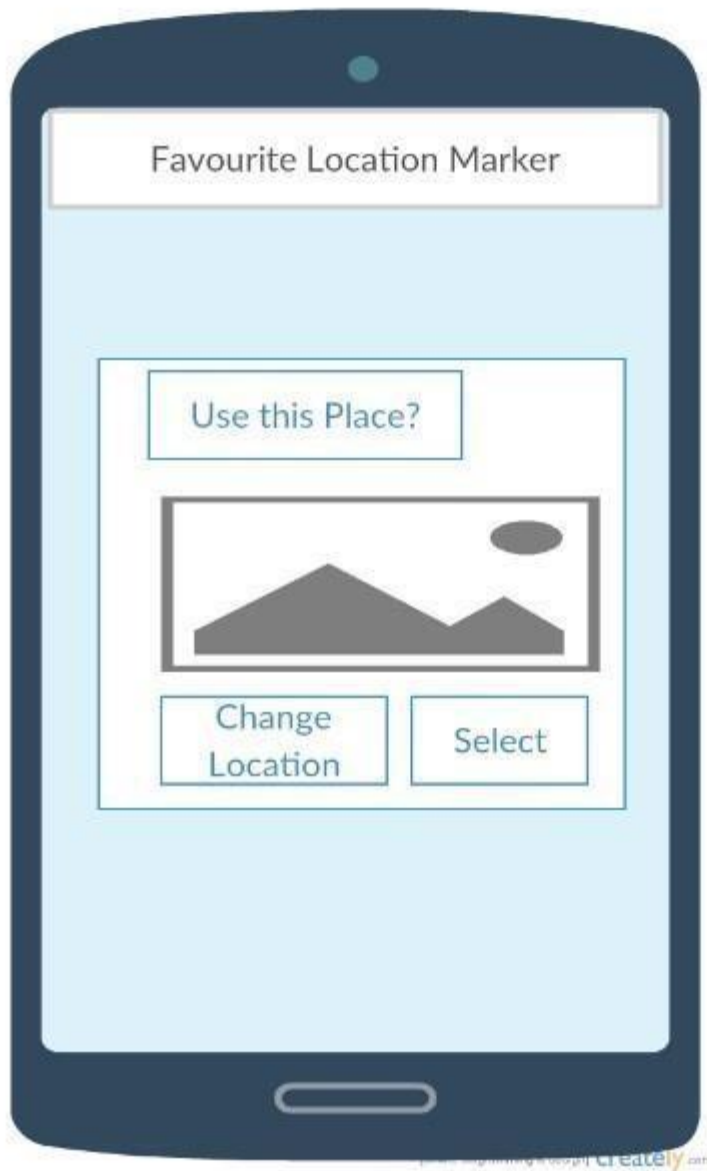
PallayVenkatesh edited this page 21 minutes ago · 3 revisions

## Location Manager Module

### WireFrame Design

### Map intent Design



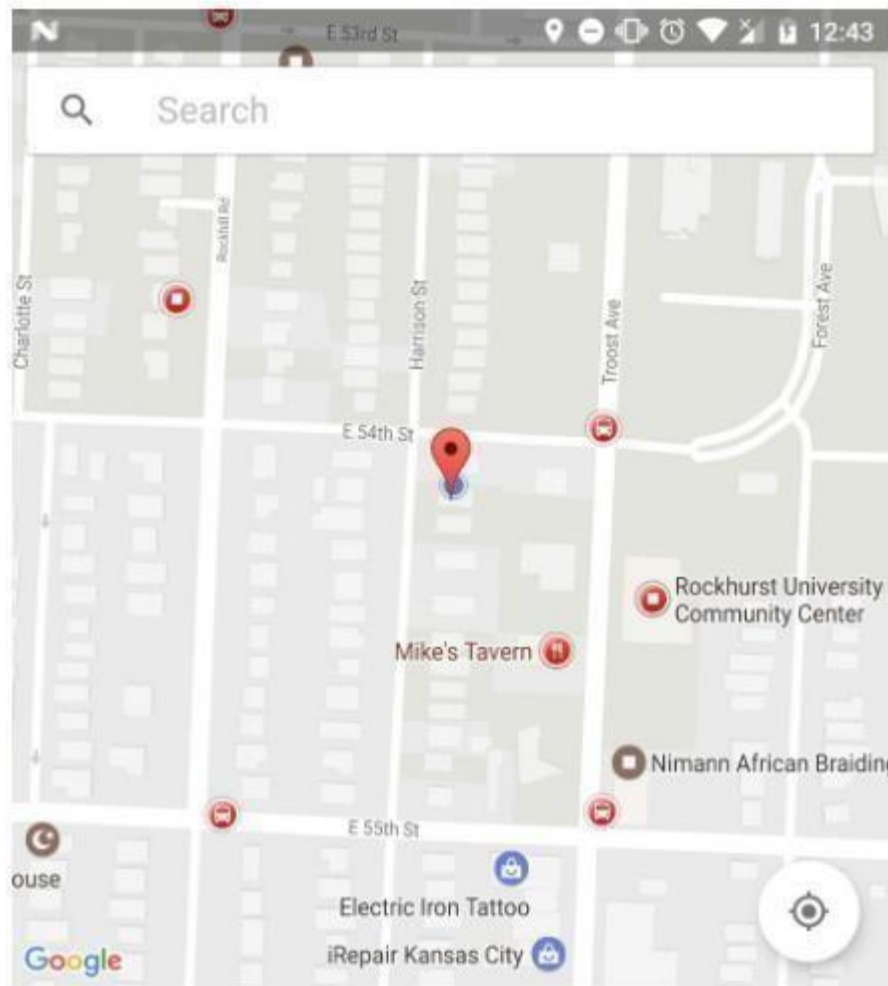


## Favorite Location List Design



## Output Screens

### Place Marker Intent



Select this location

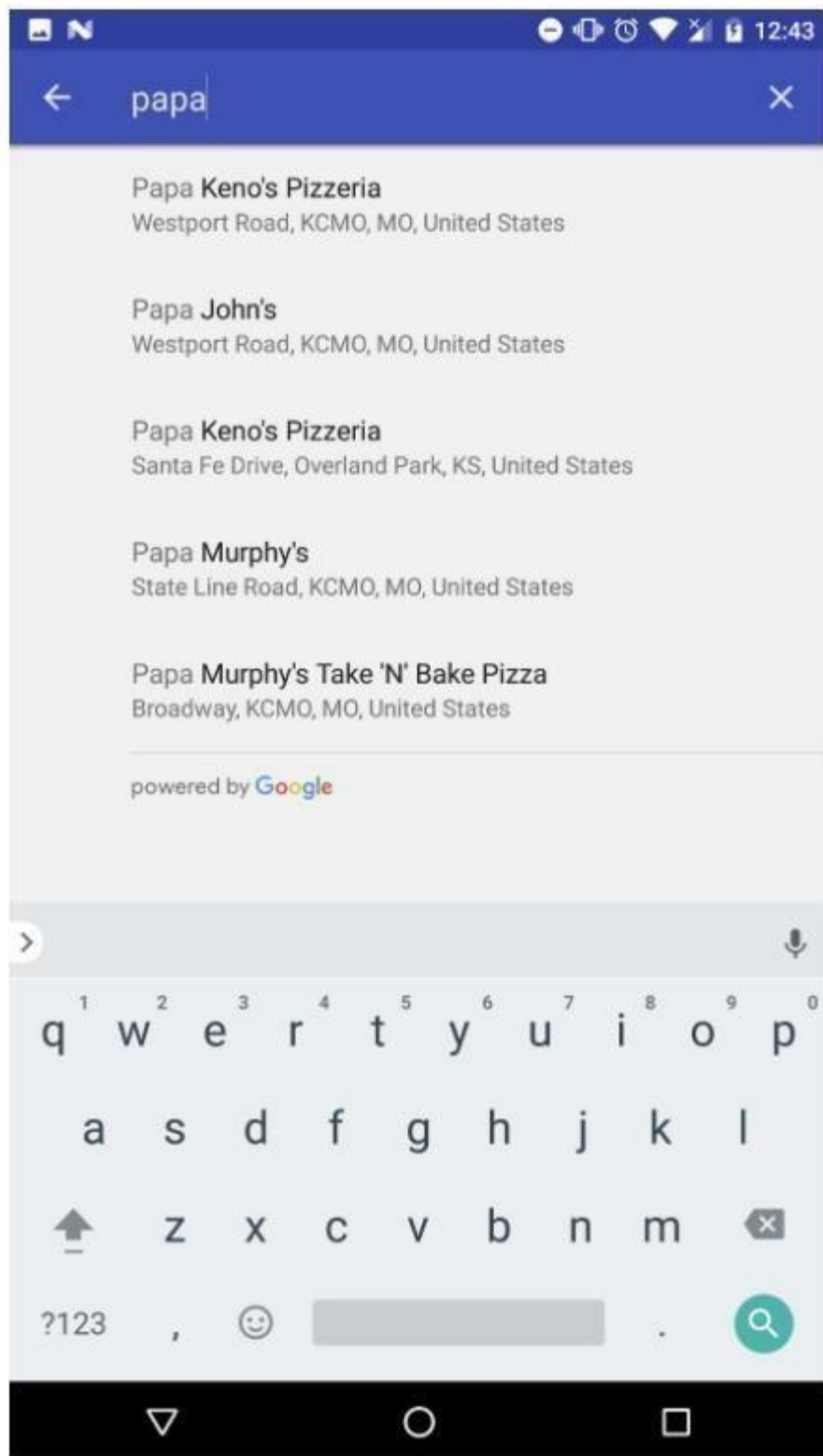
Or choose a nearby place



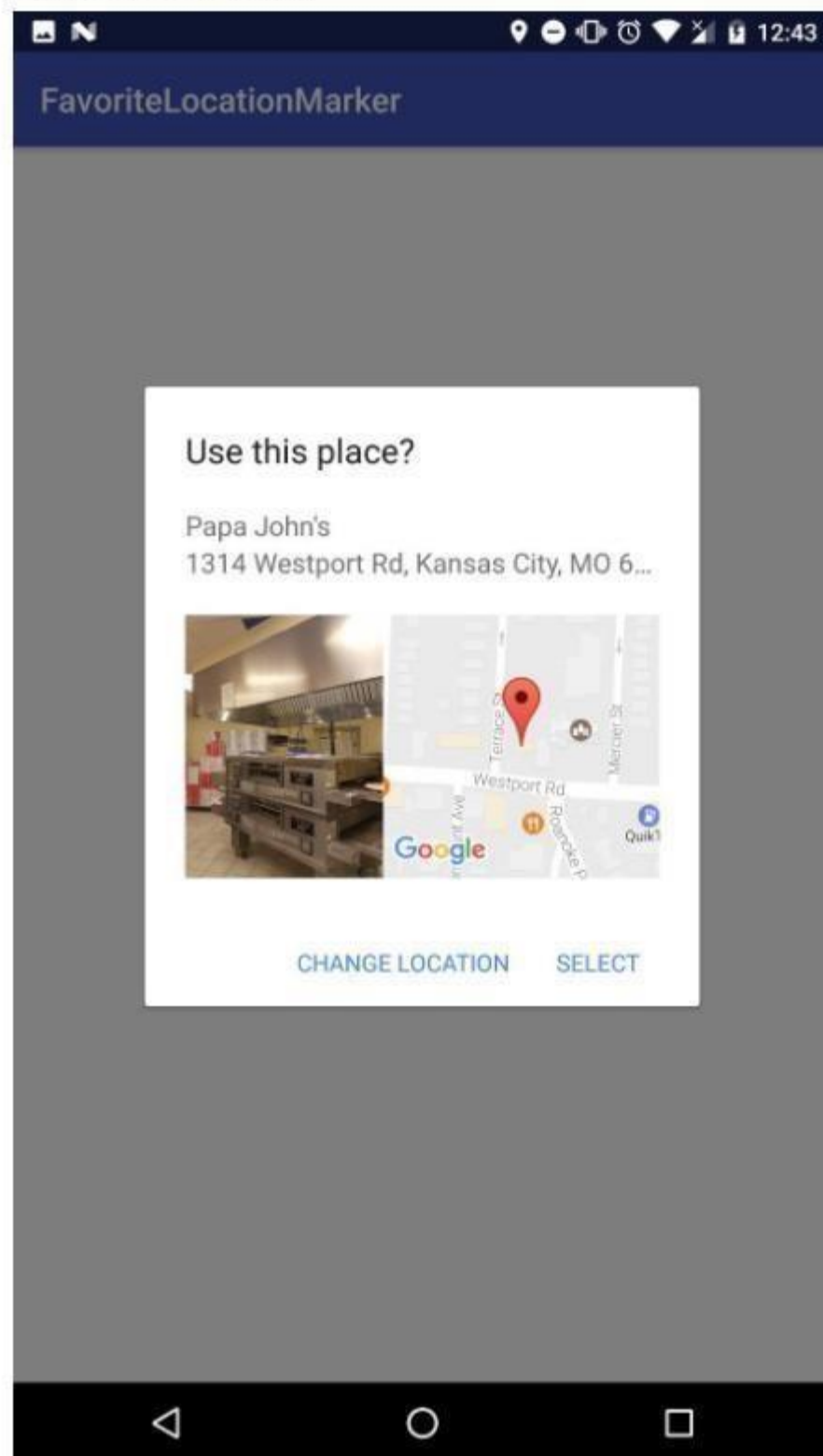
**University of Missouri-Kansas City**  
5100 Rockhill Rd, Kansas City, MO 64110, USA

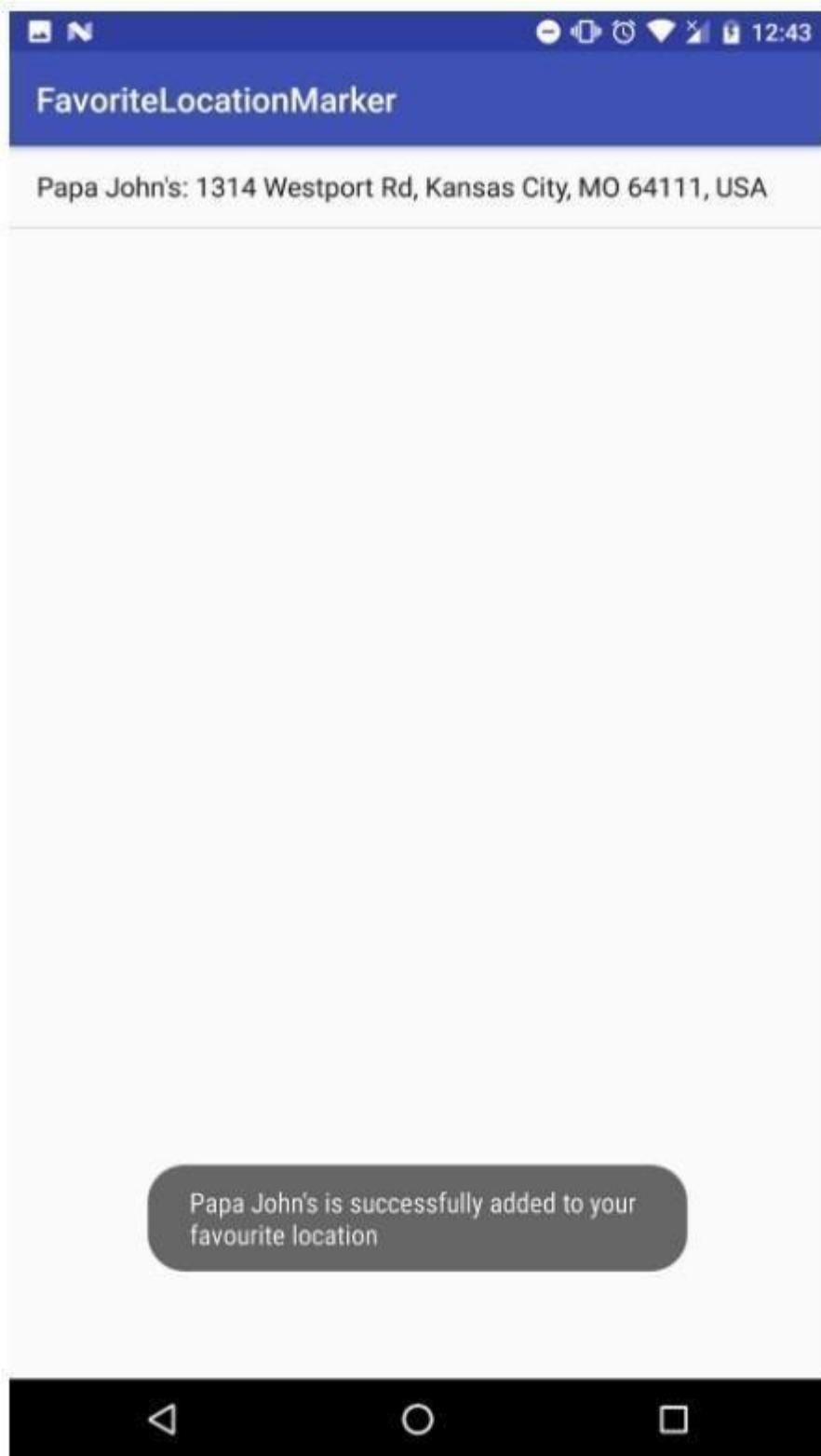


**Rockhurst University**  
1100 Rockhurst Rd, Kansas City, MO 64110, USA





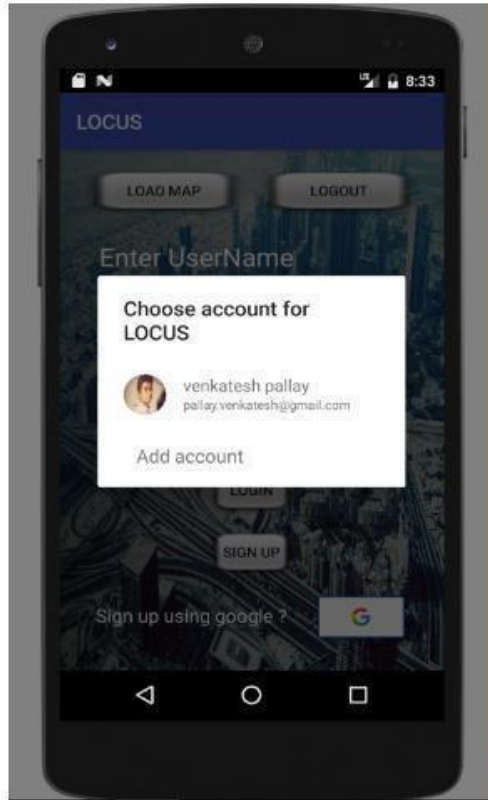




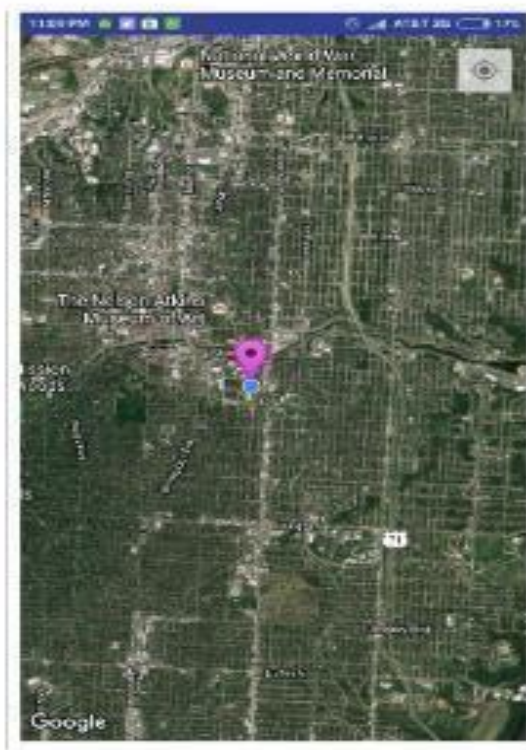
## getting Current Location Module

### OAuth Screen

Android Emulator - Copy\_Nexus\_5\_API\_24:5554



### Getting Current Location (Home Screen)



# INCREMENT 3

In this Increment, we worked on different activities:

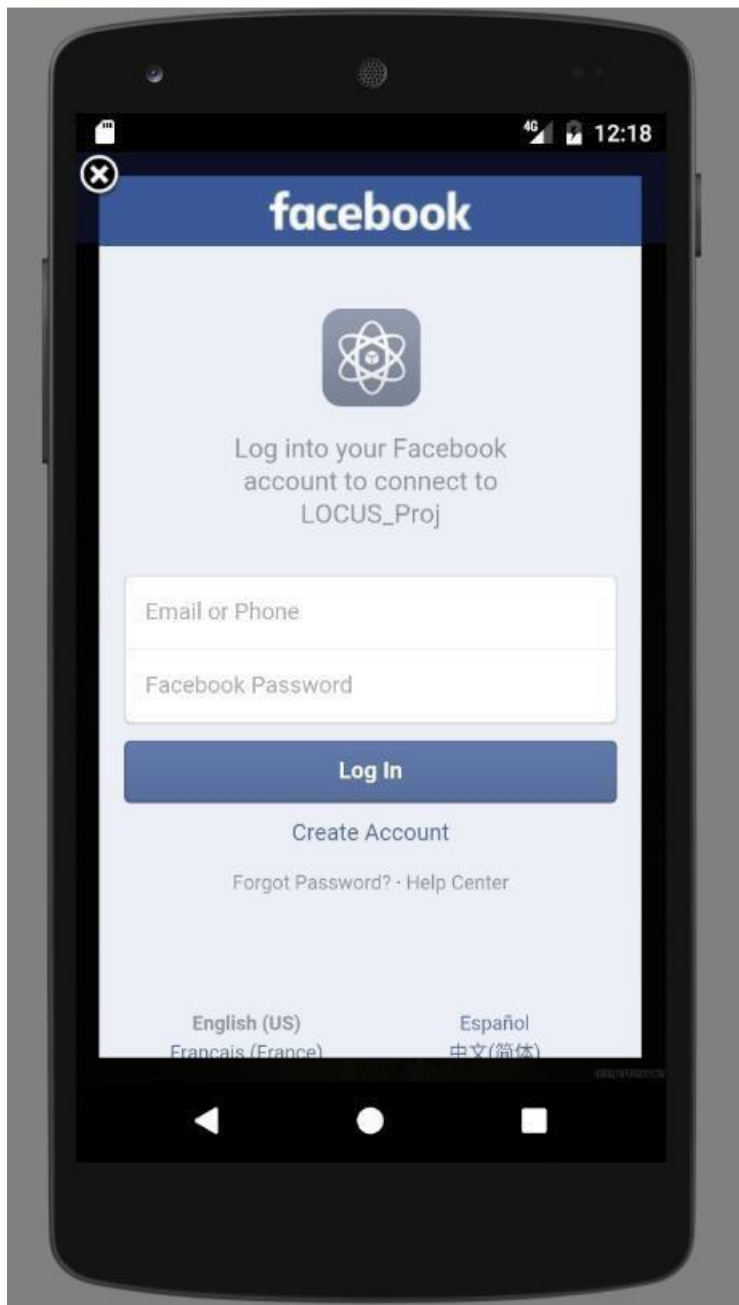
- Facebook OAuth
- Getting the device Co-ordinate's
- Connecting to the Firebase
- Storing the device co-ordinate's and favorite location's in the firebase.

Main page with OAuth:



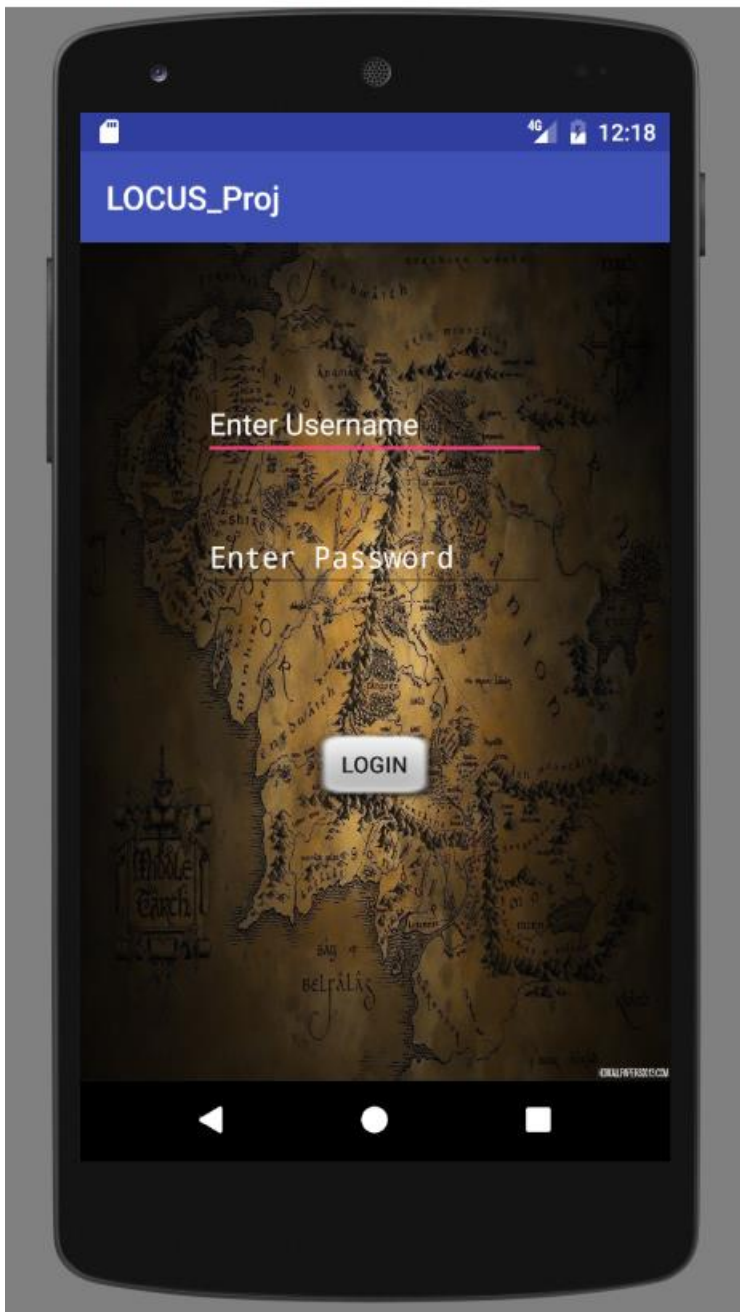
## Facebook OAuth

Android Emulator Nexus 5



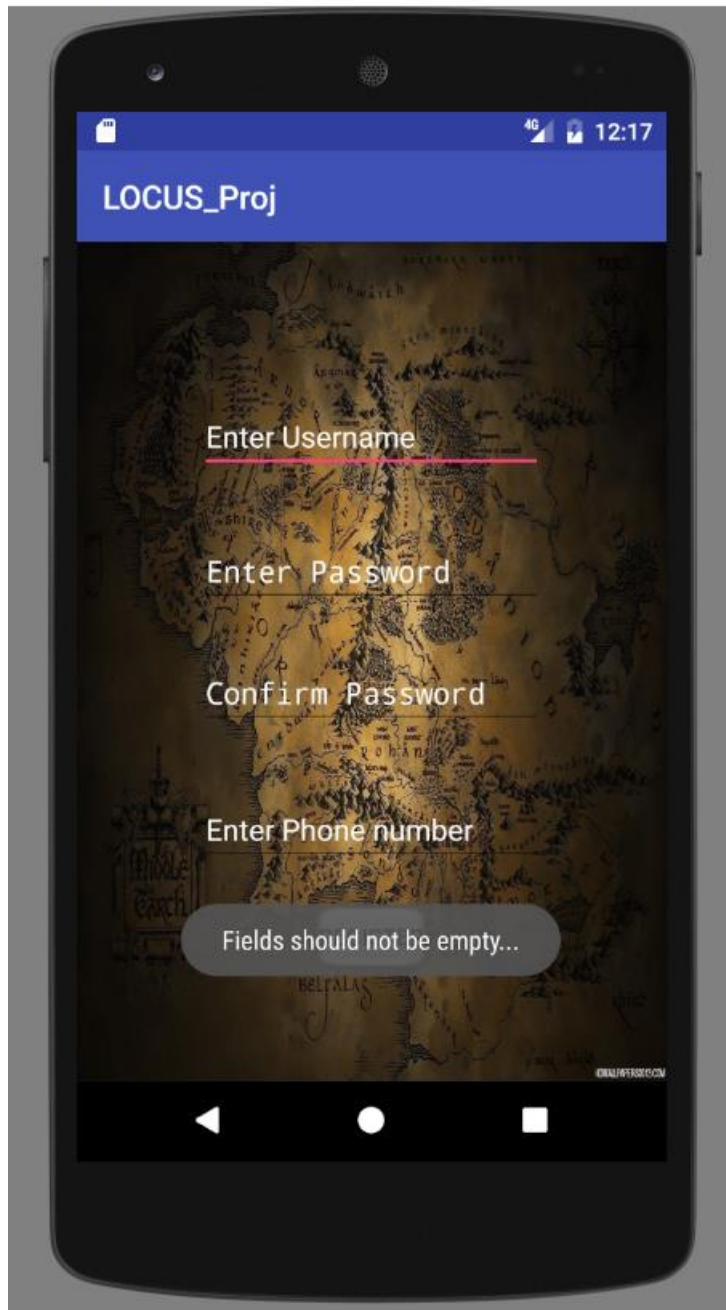
Login:

Android Emulator - kid:5554



## Registration:

Android Emulator - kid:5554



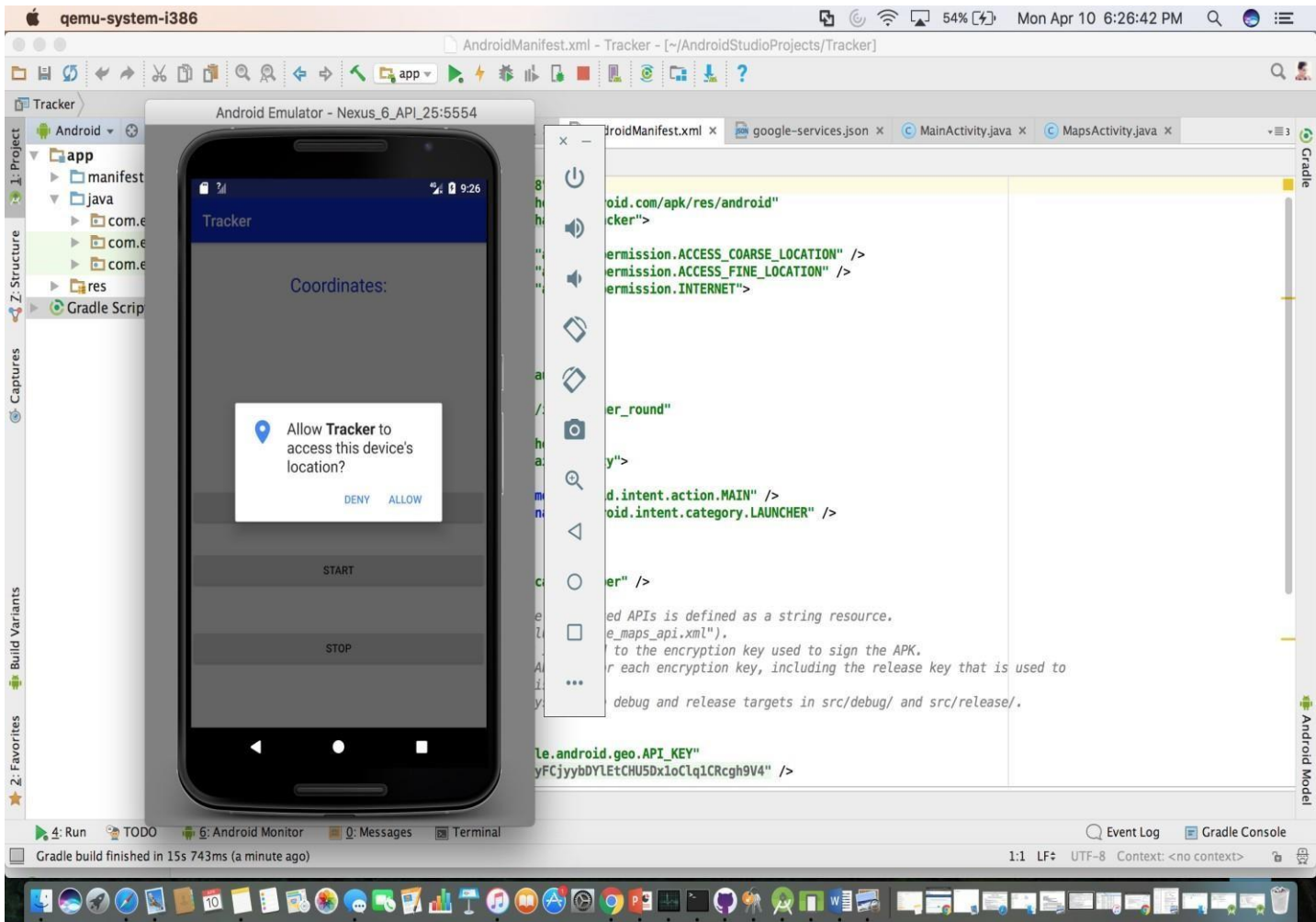


Main page with two Activities(Car Tracking and Favorite Location)

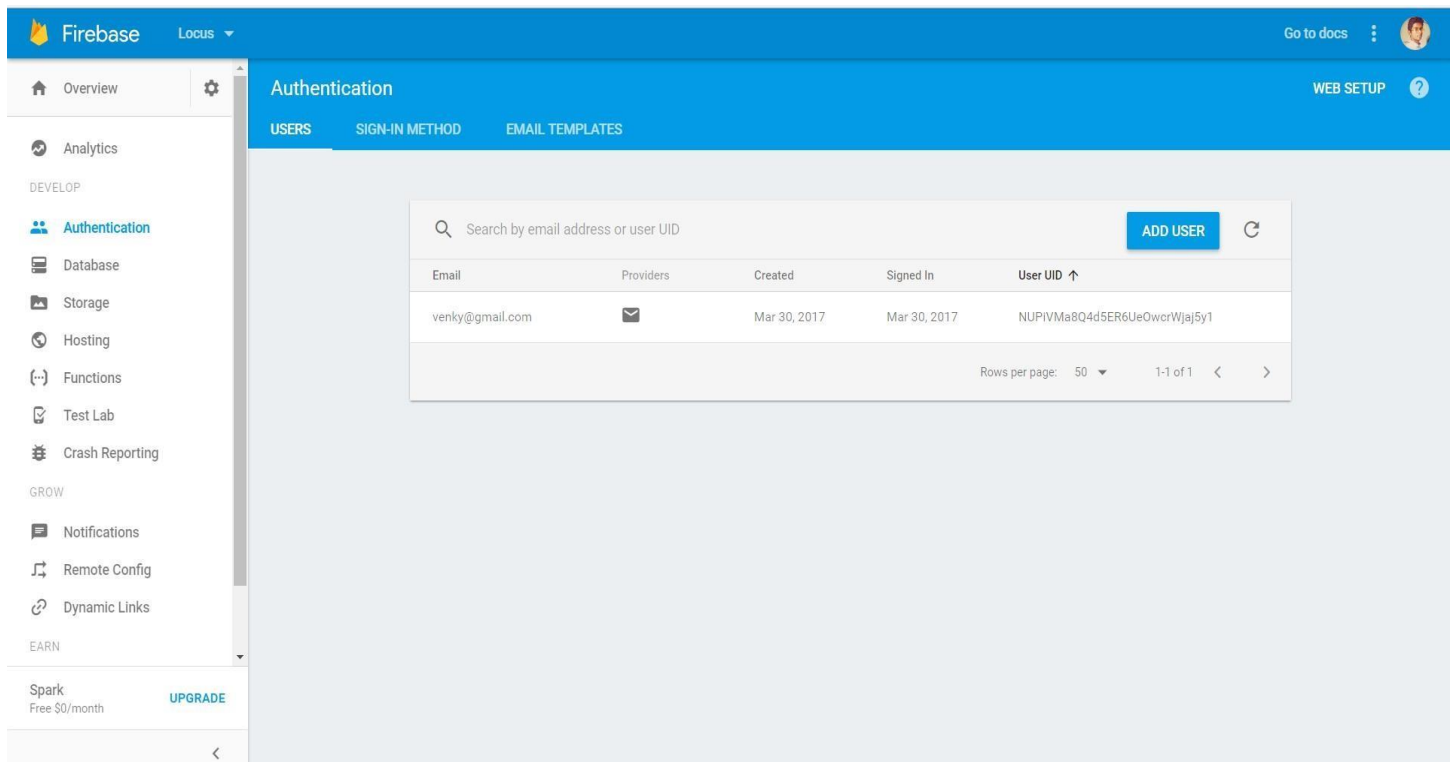




Getting the co-ordinates of the current location using the device's location:

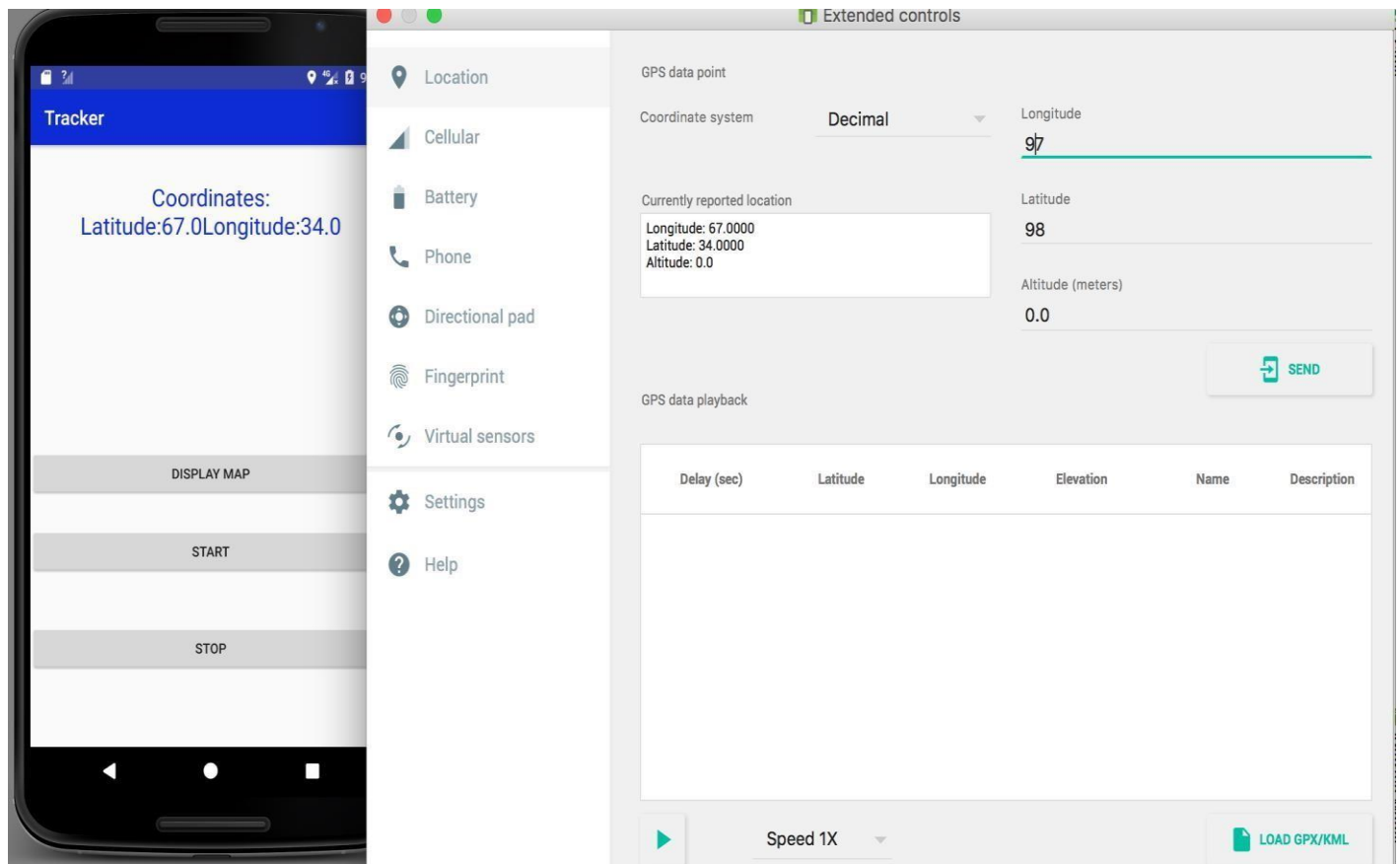


Creating a Firebase account and linking it to the Android Application.

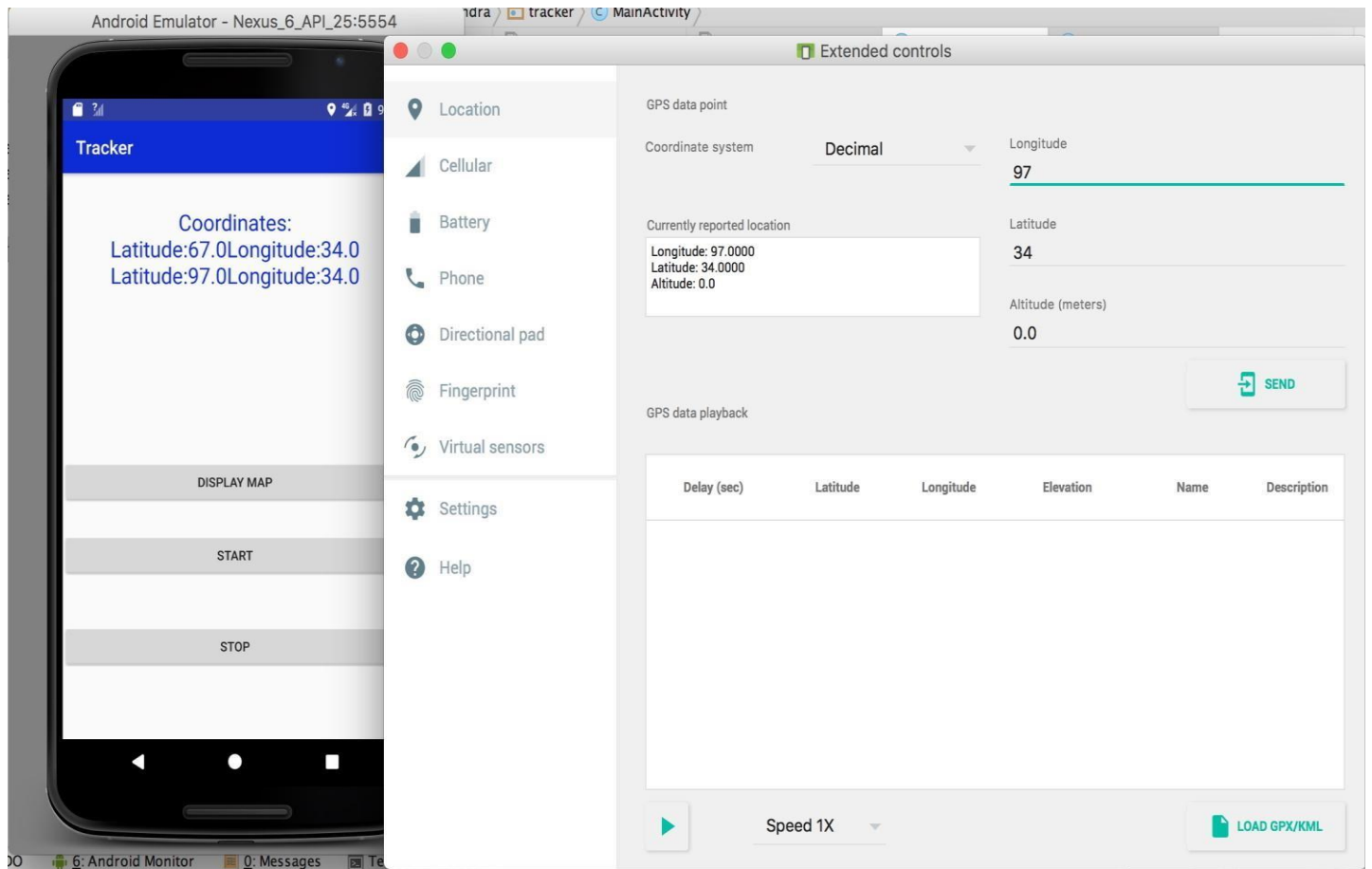


## Activity-Track Car

Getting the co-ordinates of the device location and storing it in the Firebase



Tracking the device location and updating the new co-ordinates into the Firebase.



Keeping track of the co-ordinates from the device and storing it in the Firebase.

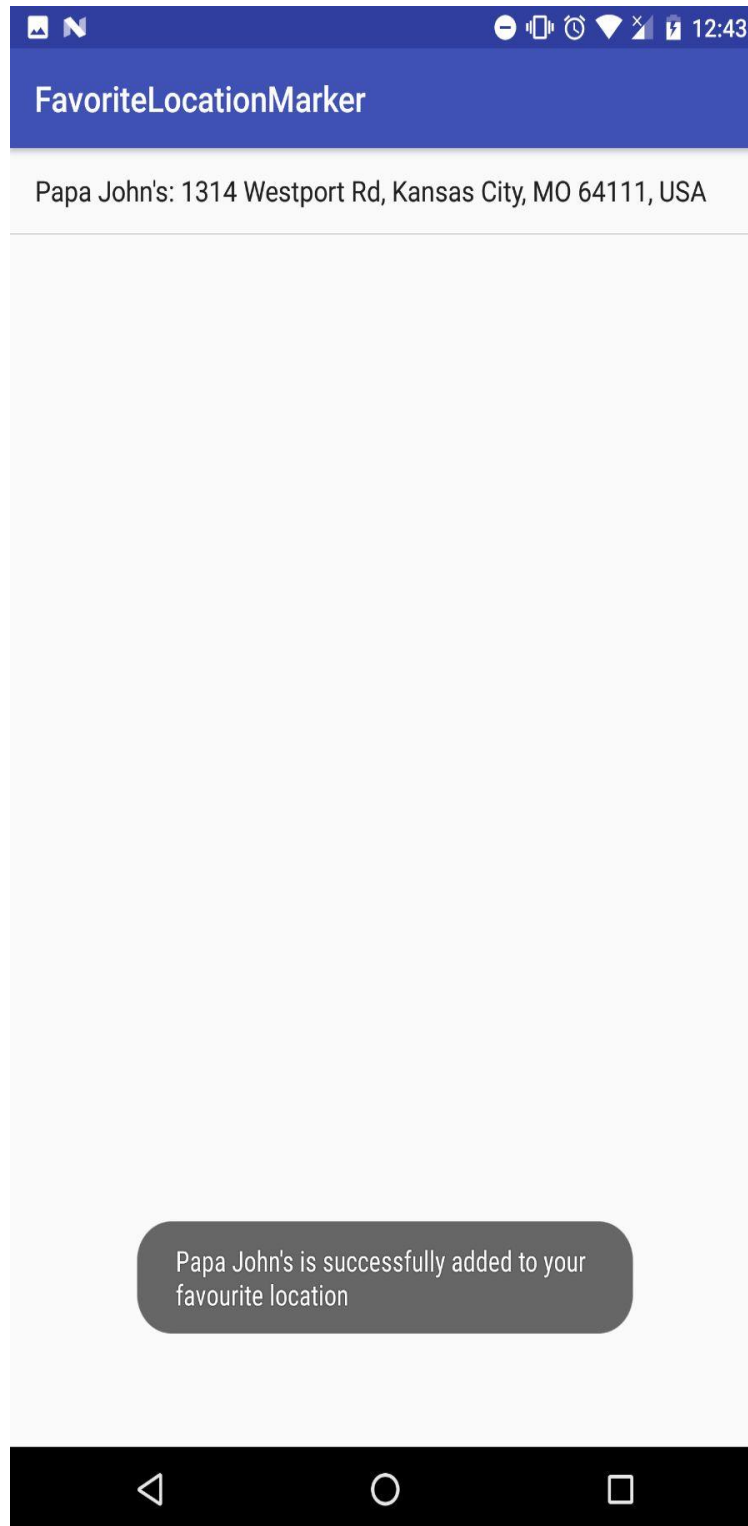
The screenshot displays the Firebase console interface for a project named 'tracker'. The left sidebar contains navigation links for Overview, Analytics, Authentication, Database (highlighted), Storage, Hosting, Functions, Test Lab, Crash Reporting, Notifications, Remote Config, and Dynamic Links. The main content area shows the 'DATA' tab with a tree view of the Realtime Database. The root node is 'tracker-30e22', which contains five child nodes, each representing a device with its own unique ID and stored latitude and longitude coordinates.

URL: <https://tracker-30e22.firebaseio.com/>

```
tracker-30e22
├── -KggTG_rU-Ua36Hnu2A8
│   ├── latitude: 87
│   └── longitude: 58
├── -KggulGfdpbkoe1GEyHT
│   ├── latitude: 88
│   └── longitude: 88
├── -Kggx1pozZ3cMVRMb6uy
│   ├── latitude: 88
│   └── longitude: 88
├── -Kgy20C1arlqo5_MQ8A
│   ├── latitude: 76
│   └── longitude: 88
└── -KggzLBxgwy8TCcklrZ
    ├── latitude: 77
    └── longitude: 89
```

## Activity-Favorite Location

Storing the favorite Spots



## Favorite Location Setter

