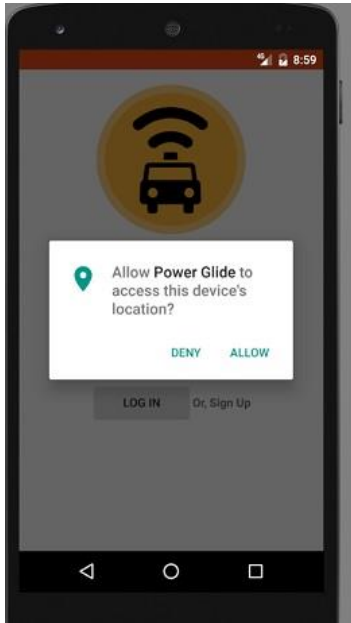


## Introduction

Before running the Power Glide app, please consider the following:

- There is internet connection
- GPS is switched-on on all emulators
- Use two emulators. One for Glider/Rider. And another one for Driver.
- When the app first runs on your emulator allow the app to access device's location



The backend database is pre-populated with 5 gliders/riders (Password: 1234):

[glider1@gmail.com](mailto:glider1@gmail.com); location: 3.591366 , 98.680411  
[glider2@gmail.com](mailto:glider2@gmail.com); location: 3.5835343 , 98.6784534  
[glider3@gmail.com](mailto:glider3@gmail.com); location: 3.582276 , 98.689862  
[glider4@gmail.com](mailto:glider4@gmail.com); location: 3.608170 , 98.517913  
[glider5@gmail.com](mailto:glider5@gmail.com); location: 3.577259 , 98.646845

pre-populated with 2 drivers for reviewing purposes:

[reviewer@powerglide.com](mailto:reviewer@powerglide.com); password: 1234; location to be entered by reviewer  
[reviewer2@powerglide.com](mailto:reviewer2@powerglide.com); password: 1234; location to be entered by reviewer

[reviewer@powerglide.com](mailto:reviewer@powerglide.com) and [reviewer2@powerglide.com](mailto:reviewer2@powerglide.com) are already saved in the backend. The age and gender for reviewer is 25 and female. And the age and gender for reviewer2 is 25 and male.

username String	createdAt Date	password String	email String	riderOrDriver String	location GeoPoint	displayName String	glider_driver String	driverAge Number	driverGender String
reviewer2@powerglide.com	11 Mar 2017 at 12:35:44 UTC	(hidden)	reviewer2@powerglide.com	(undefined)	(undefined)	Reviewer2 Displa...	driver	25	M
reviewer@powerglide.com	11 Mar 2017 at 12:33:25 UTC	(hidden)	reviewer@powerglide.com	(undefined)	(3.5987233, 98.6829817)	Reviewer Display...	driver	25	F
yulia@powerglide.com	25 Dec 2016 at 14:55:40 UTC	(hidden)	yulia@powerglide.com	(undefined)	(3.583886, 98.6653219)	Yulia	driver	21	F
anton@powerglide.com	24 Dec 2016 at 15:55:30 UTC	(hidden)	anton@powerglide.com	(undefined)	(3.59545, 98.6752983)	Anton Power	driver	31	M
glider2@gmail.com	11 Mar 2017 at 02:57:40 UTC	(hidden)	glider2@gmail.com	(undefined)	(undefined)	glider20 Username	glider	(undefined)	(undefined)
glider5@gmail.com	17 Jan 2017 at 15:33:23 UTC	(hidden)	glider5@gmail.com	(undefined)	(undefined)	glider5 username	glider	(undefined)	(undefined)
glider4@gmail.com	17 Jan 2017 at 15:38:58 UTC	(hidden)	glider4@gmail.com	(undefined)	(undefined)	glider4 username	glider	(undefined)	(undefined)
glider3@gmail.com	17 Jan 2017 at 15:28:19 UTC	(hidden)	glider3@gmail.com	(undefined)	(undefined)	glider3 username	glider	(undefined)	(undefined)
glider2@gmail.com	17 Jan 2017 at 15:24:43 UTC	(hidden)	glider2@gmail.com	(undefined)	(undefined)	glider2 username	glider	(undefined)	(undefined)
glider1@gmail.com	17 Jan 2017 at 15:13:44 UTC	(hidden)	glider1@gmail.com	(undefined)	(0, 0)	glider1 username	glider	(undefined)	(undefined)

Reviewers are expected to sign up one or more glider/rider accounts. Suggested name:

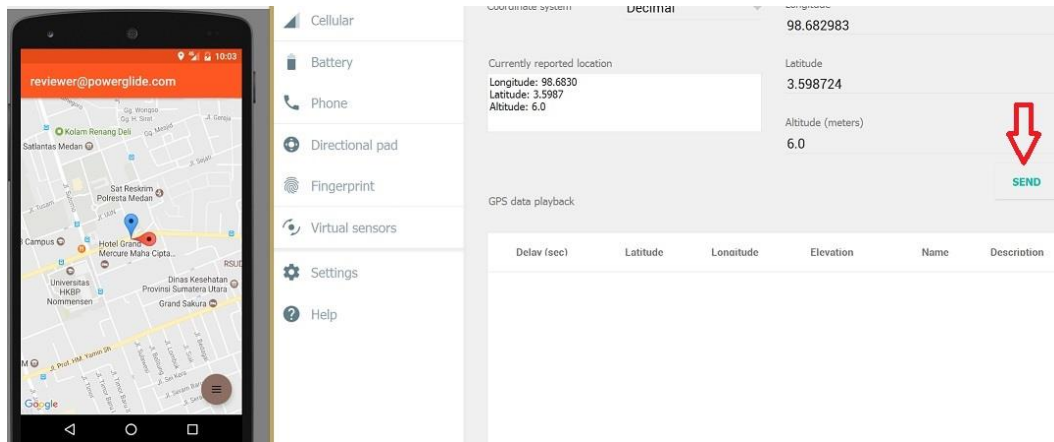
Email: [rider1@gmail.com](mailto:rider1@gmail.com) ; Display Name: rider1 DisplayName; password: 1234; location to be entered by reviewer

Email: [rider2@gmail.com](mailto:rider2@gmail.com); Display Name: rider2 DisplayName; password: 1234; location to be entered by reviewer

Steps to create/sign up a new glider/rider account is discussed below in Part A.

There are 3 cases when the emulator screen seems to be inactive after more than 20 seconds. On real devices, these cases do not happen. This is intrinsic in the code of my app which will be explained later.

**First case:** Please be mindful that sometimes the emulator screen is not active after more than 20 seconds. When this happens, you need to click open a GPS emulator and click the “Send” button as shown on the red arrow below:

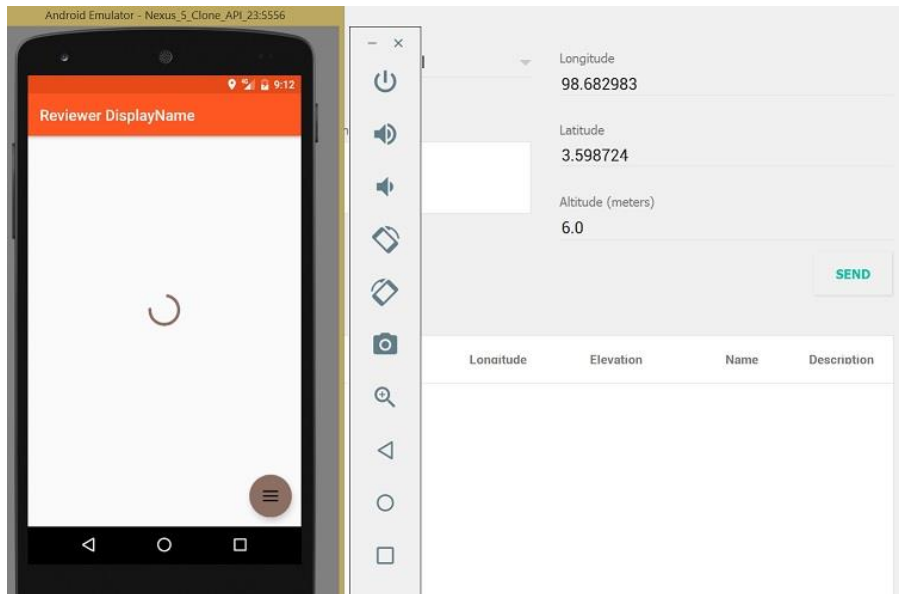


This happens because “onLocationChanged” is not called in the program. This method is not called because the GPS location of the user is not changing. By clicking on the “Send” button, the “onLocationChanged” is called and the app will redraw the map accordingly. On a real device, “onLocationChanged” is called in accordance to your settings you set in your code. The code snippet below says that “onLocationChanged” is called approximately every 20 seconds.

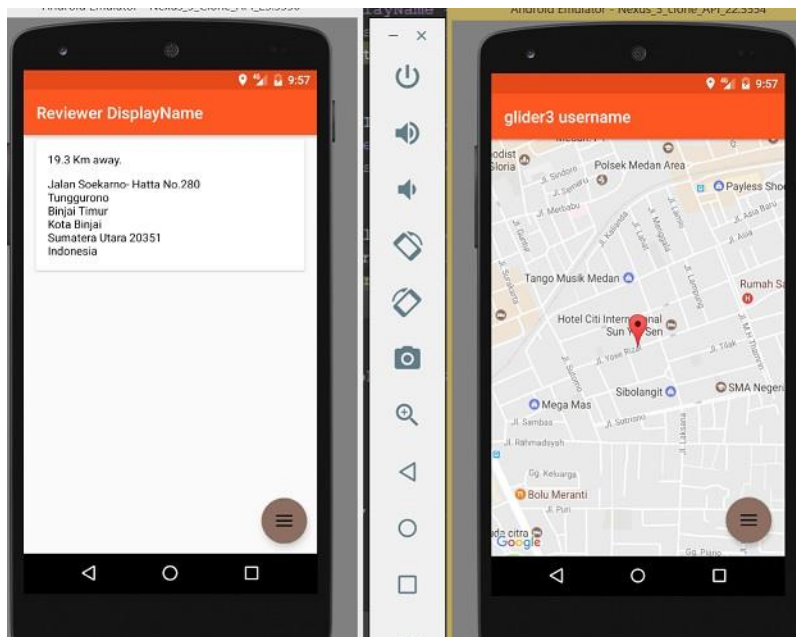
```
private void getLocationRequest() {
    mLocationRequest = LocationRequest.create()
        .setInterval(20000)
        .setPriority(LocationRequest.PRIORITY_HIGH_ACCURACY);

    if (checkPermission()) {
        LocationServices.FusedLocationApi.requestLocationUpdates(mGoogleApiClient,
            mLocationRequest, this);
    }
}
```

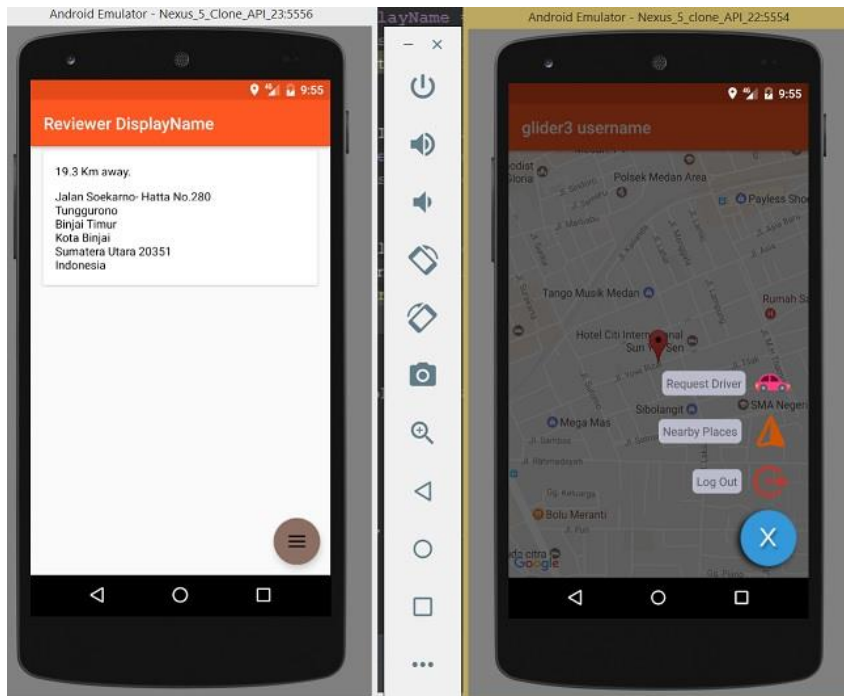
**Second case:** the progress bar in the driver emulator keep on showing. The remedy again is clicking the “send” button.



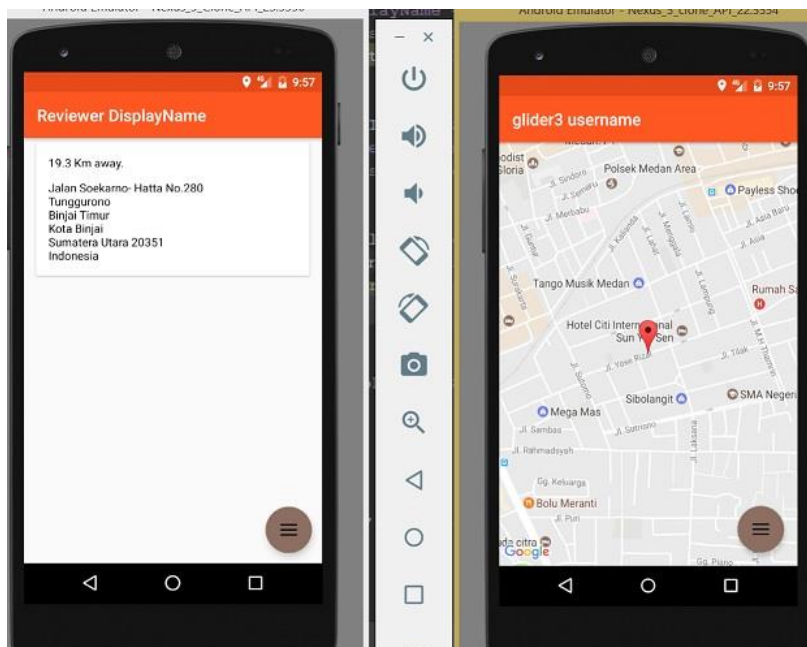
**Third case:** The following diagram is emulators shown side by side. The Driver/Reviewer emulator is on the left and the Glider/Rider emulator is on the right.



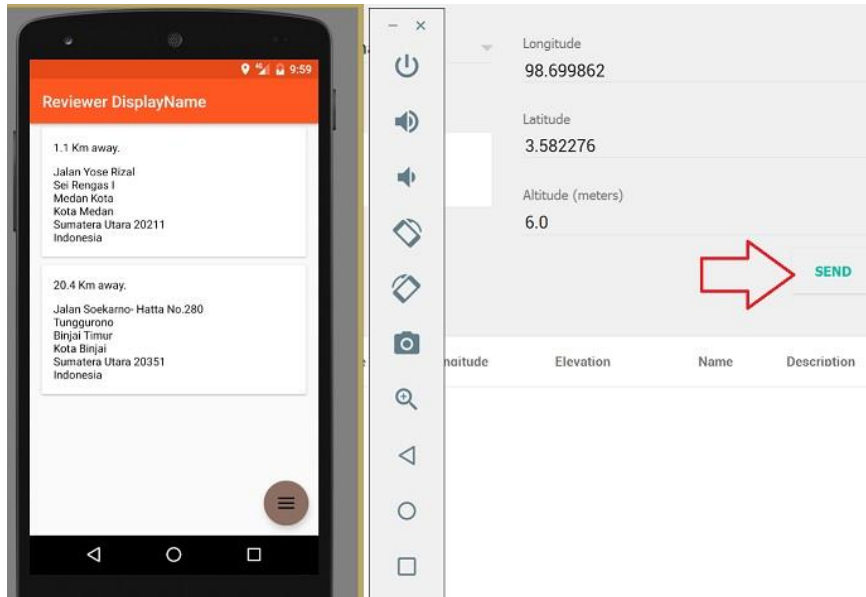
Then the glider/rider is clicking “Request Driver”.



The request of glider (glider3) should be shown on the request list of the driver (reviewer) on the left.



The remedy is again by clicking the “Send” button on the driver (reviewer) emulator. The request now is shown on the request list. Why this happens is explained above. On real devices, clicking send button is not necessary.



## Part A: Sign Up A New Glider/Rider account and gliders' requests

For review purposes, you can **sign up** one or more glider/rider accounts. Suggested new glider/rider accounts reproduced here:

Email: [rider1@gmail.com](mailto:rider1@gmail.com) ; Display Name: rider1 DisplayName; password: 1234; location to be entered by reviewer

Email: [rider2@gmail.com](mailto:rider2@gmail.com); Display Name: rider2 DisplayName; password: 1234; location to be entered by reviewer

Click on the “Sign Up” shown on red arrow below:



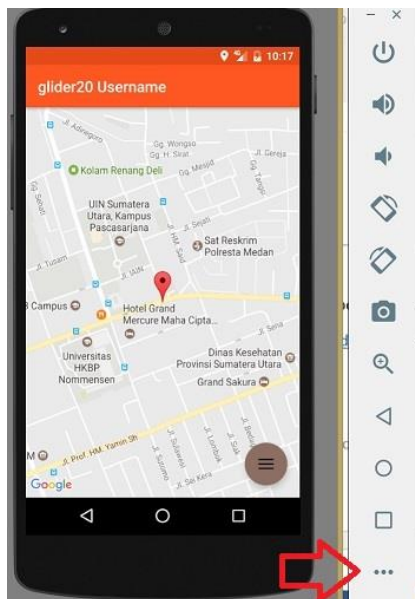
Then enter your Email, Username and Password. In my case I entered [glider20@gmail.com](mailto:glider20@gmail.com). Then click the “Sign Up” button.



After successful sign up, the screen will look like the one shown below. Notice there is no Username field anymore. Then click Log In.

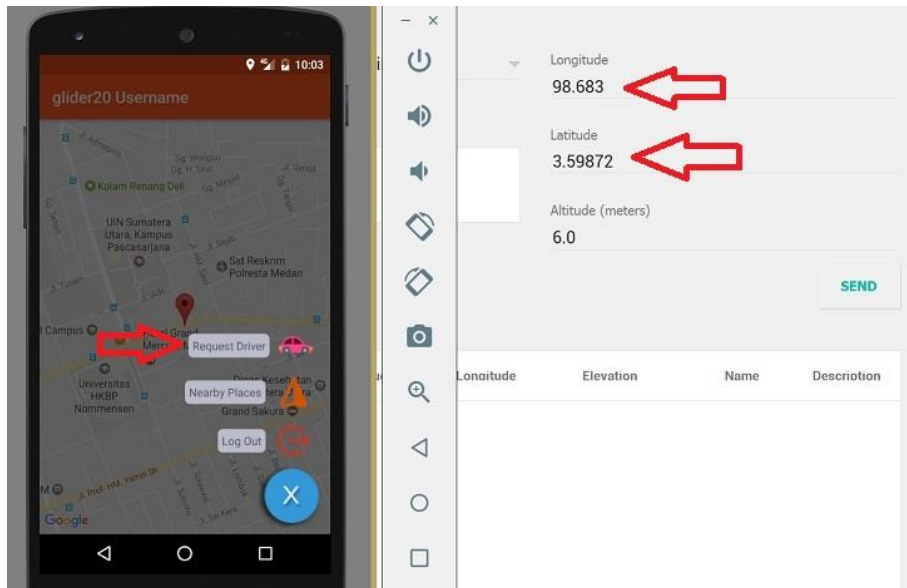


Once you log in as a glider, you need to initialize its position. Please use the emulator to enter the position of the glider. Click the emulator as shown in the red arrow below:



Next click on the FAB button. Then you need to click “Request Driver”. **You have to click on “Request Driver”.** This will save the location of the glider/rider to the backend.



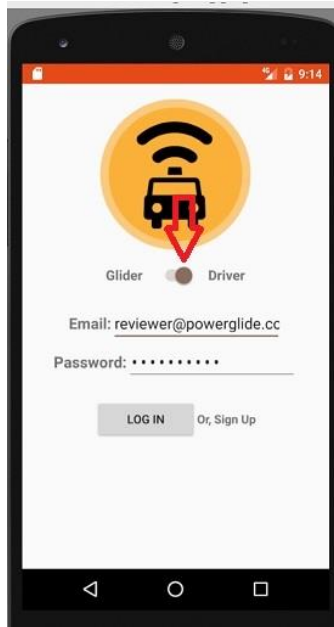


Once you request a driver, the request will be saved in the backend. Refer to red arrow below. Glider20's request has been saved to the backend!

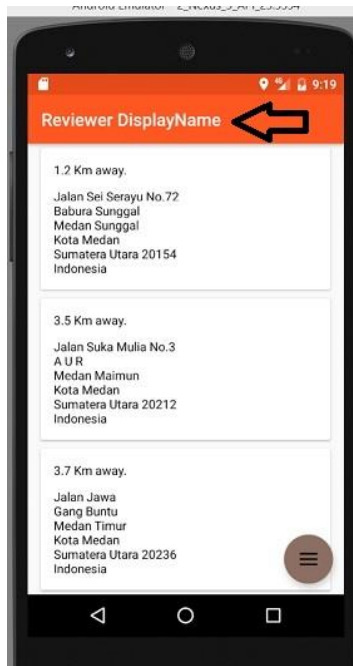
CLASS					
GliderRequest 3 objects • Public Read and Write enabled					
	gliderLocation	GeoPoint	gliderDisplayName	gliderUsername	driverName
Wr...	(3.5987233, 98.6829817)		glider20 Username	glider20@gmail.com	(undefined)
Wr...	(3.5835333, 98.6784533)		glider2 username	glider2@gmail.com	(undefined)
Wr...	(3.6081683, 98.5179117)		glider4 username	glider4@gmail.com	(undefined)

Then you need to login as a driver. For reviewing purposes, I have already created two driver accounts: [reviewer@powerglide.com](mailto:reviewer@powerglide.com) and [reviewer2@powerglide.com](mailto:reviewer2@powerglide.com). Both password is: 1234. **You don't have to create driver account.**

Please log in as reviewer and the button switch has to be in Driver location as shown in the red arrow below:



You will be taken to an activity with a list of requests from gliders/riders sort by distances. Can you see the gliders/riders location you have entered in steps above. If not please initialize glider/rider location as discussed above.

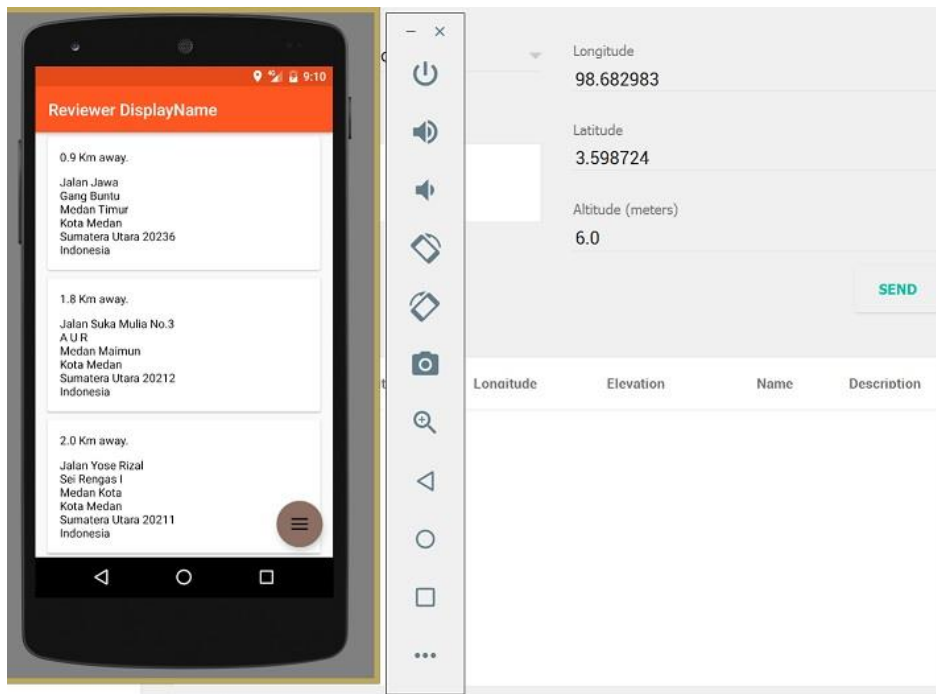


## Part B: Accepting Glider's Request and Transaction

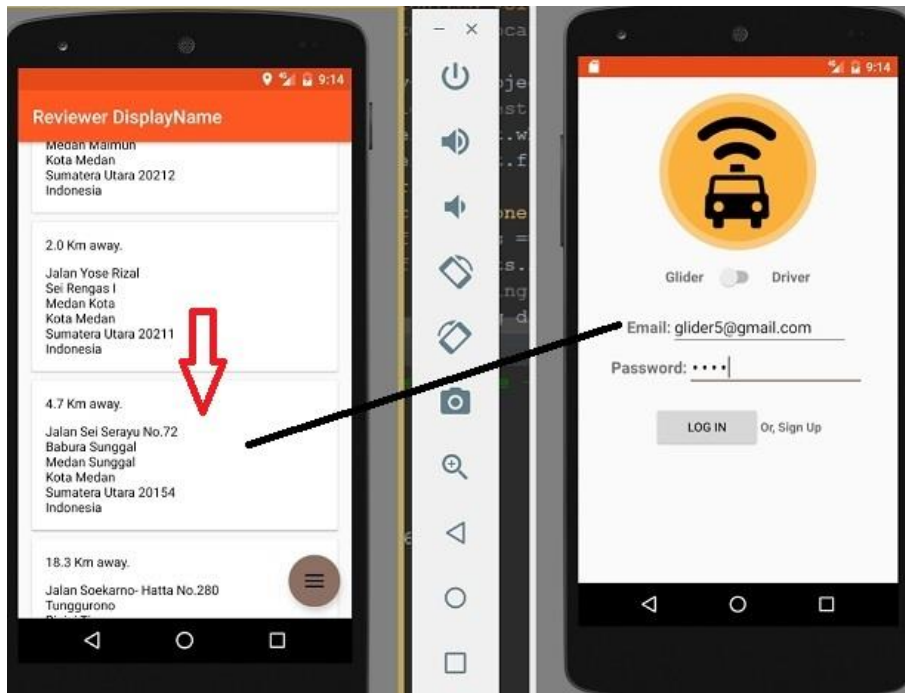
Log in as a [reviewer@powerglide.com](mailto:reviewer@powerglide.com). Switch must be at "Driver" location.



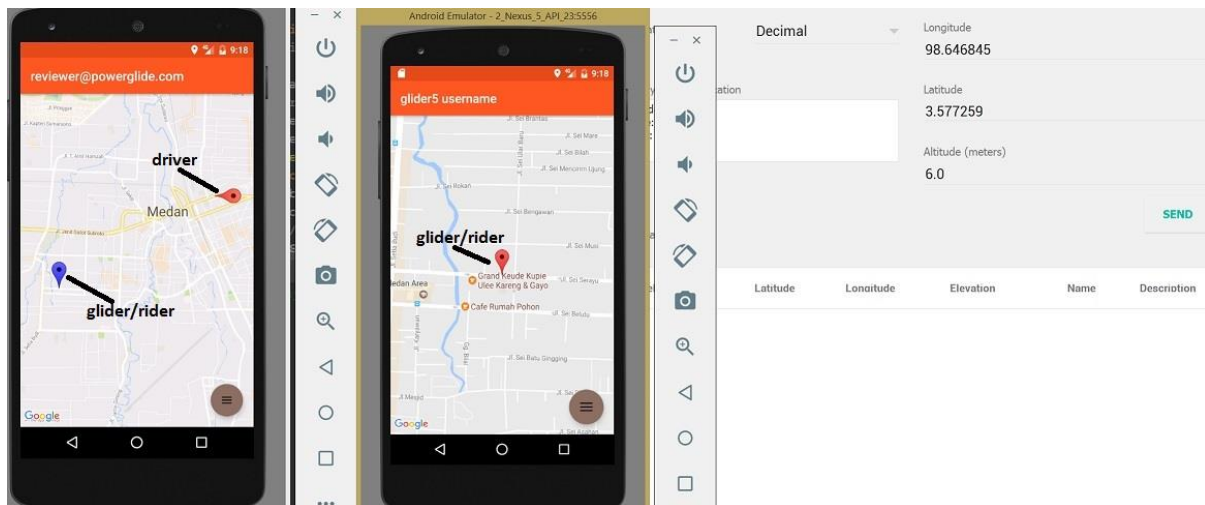
Then you need to initialize driver's location. As you change the driver's location, the glider/rider distance will also change in relation to driver's location.



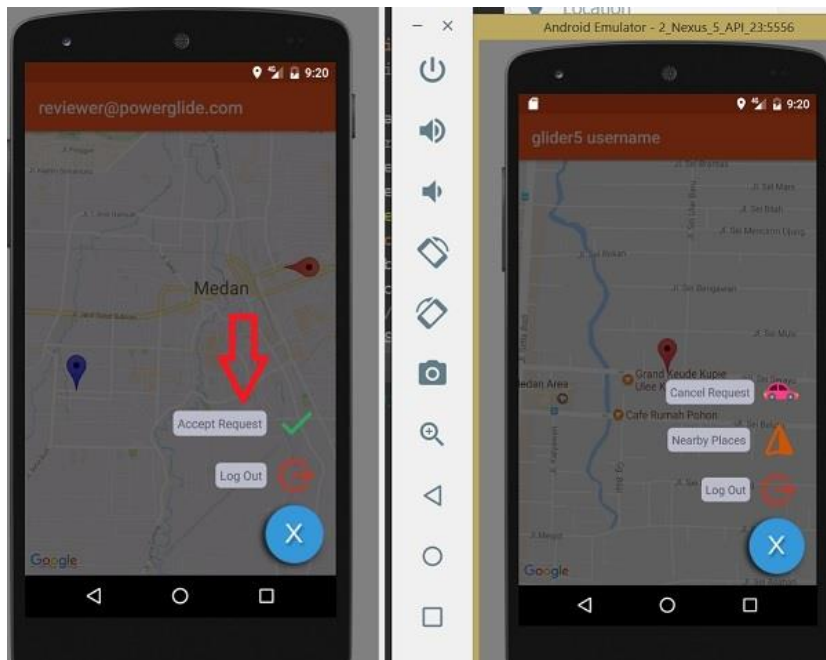
These are [reviewer@powerglide.com](mailto:reviewer@powerglide.com) and [glider5@gmail.com](mailto:glider5@gmail.com) activities side by side. Glider5 is 4.7 Km away from the current reviewer (driver) location. Click the cardview item below as shown by the red arrow. In the glider5's emulator, log in as glider5@gmail.com



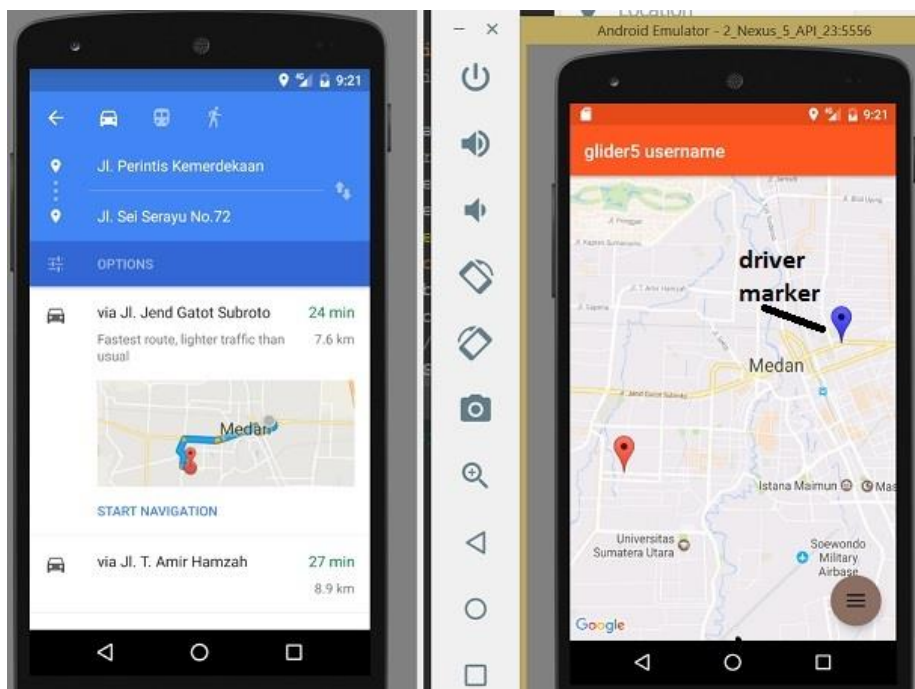
Then the following screens will appear, The blue marker on the driver's emulator represents glider/rider.



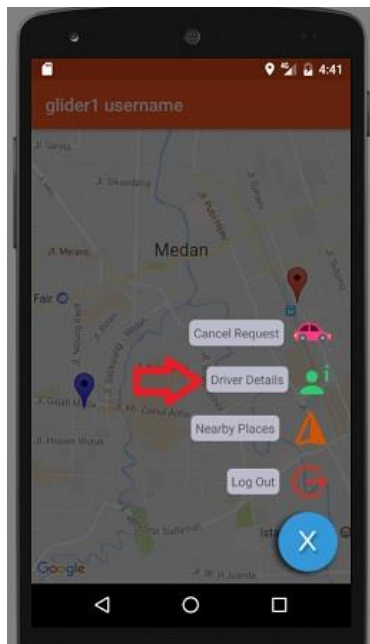
On the driver's emulator, click on the FAB button and "Accept Request".



After clicking "Accept Request" button, a google map intent will be launched on the the driver's emulator. On the glider/rider emulator, a new blue driver marker will appear on screen. The activity will be updated every 10 seconds (programmatically) on the glider/rider emulator.

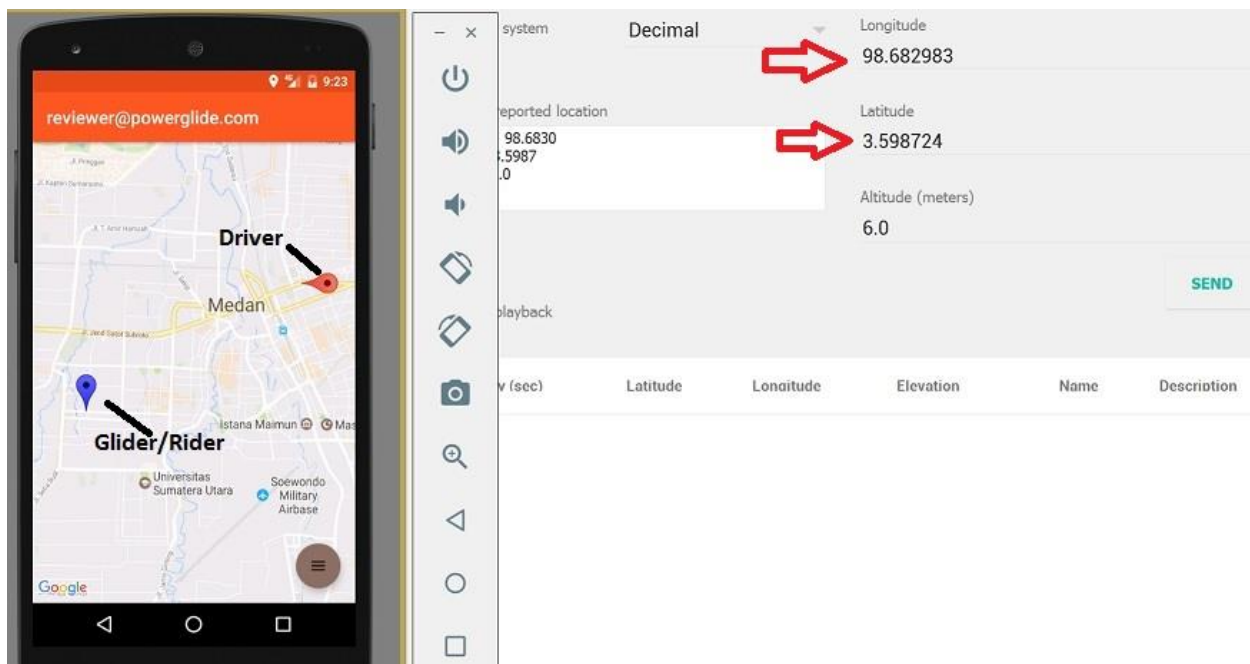


Click “Driver Details” on the glider’s emulator to view the info of driver.

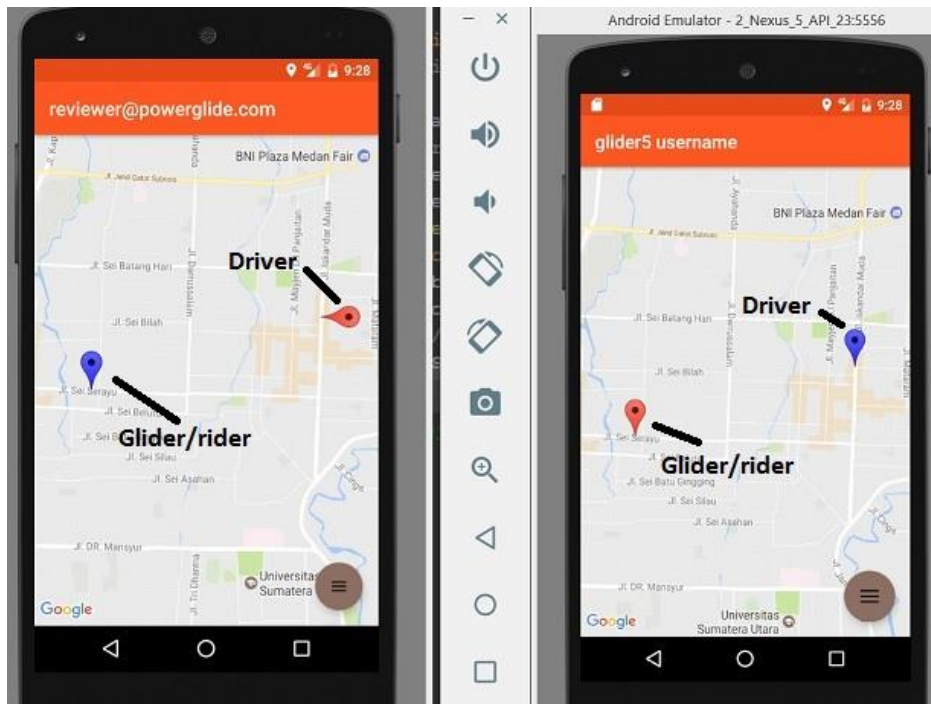


Now we focus on reviewer/driver emulator. We have to simulate the driver (red marker) moving towards glider/rider(blue marker). Please simulate the location by tweaking Longitude and Latitude values shown on red arrow below.

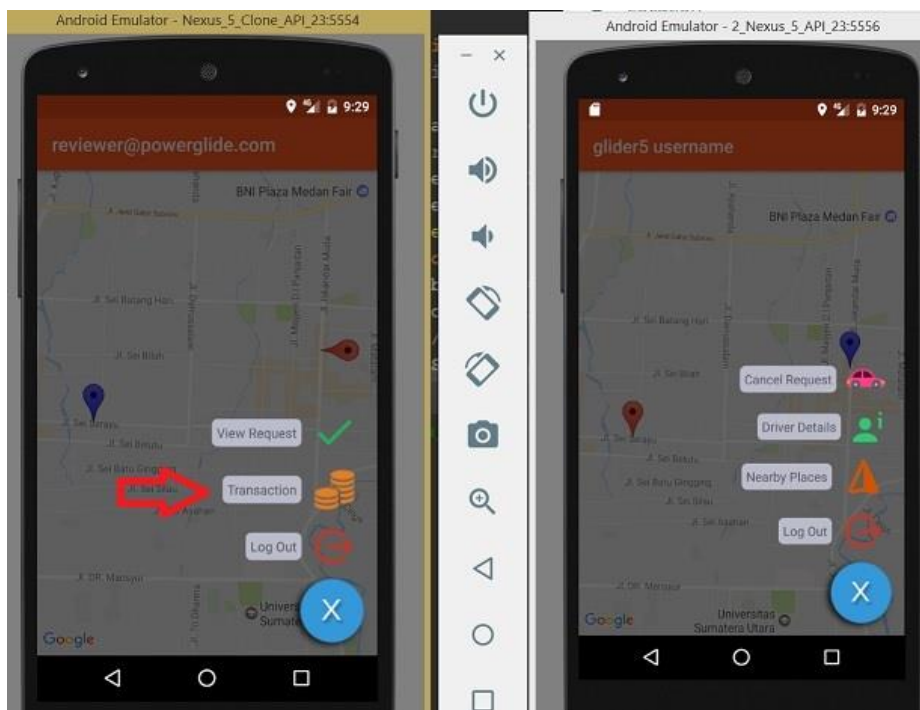
You can use this to help you: <https://www.google.co.id/maps?source=tldsi&hl=en>



Tweak the position of driver until you are satisfied (driver/reviewer is near to glider/driver).

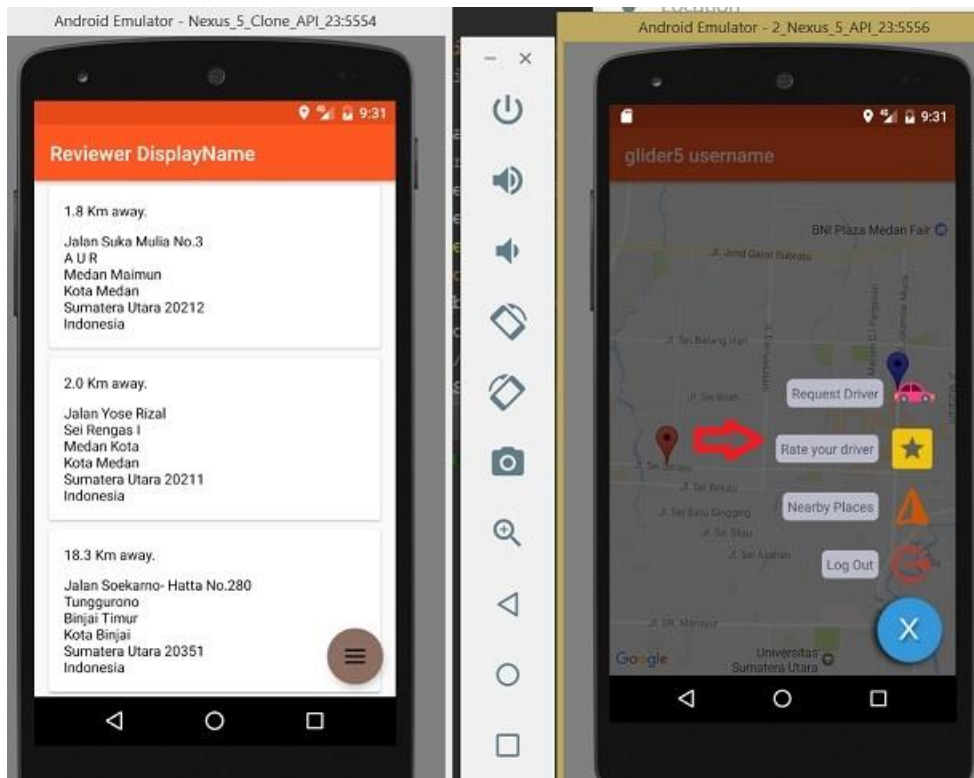


On the driver's emulator, click "Transaction". You will be directed to a new screen. On that new page/activity, click "Transaction Done".



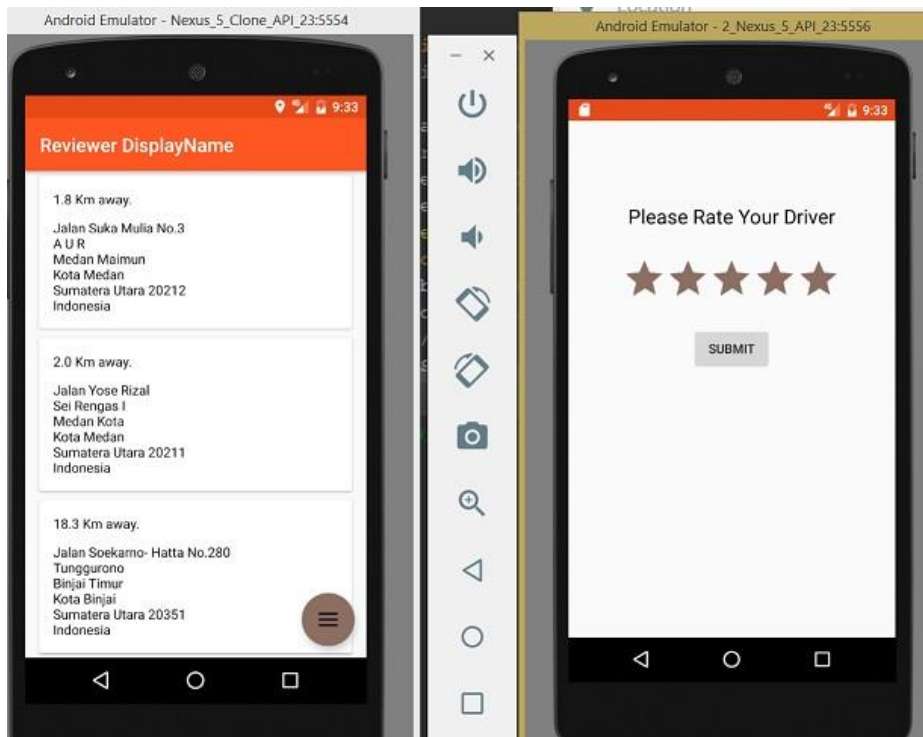


On the glider/rider's emulator, a new button “Rate your driver” will appear. Click on it.

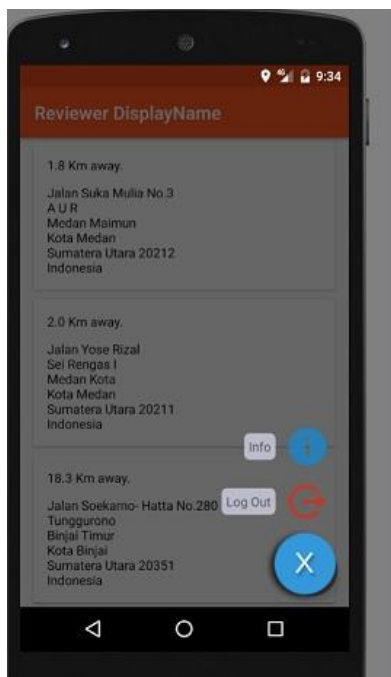




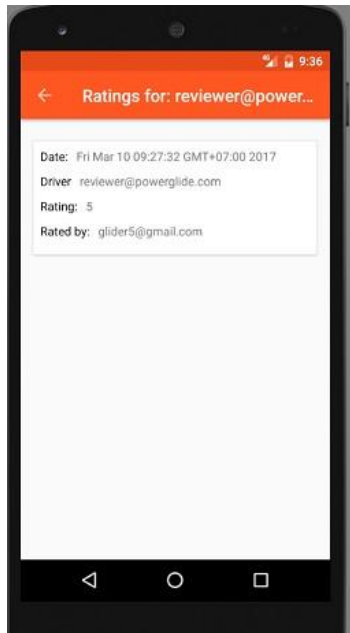
Rate your driver and click submit. If you haven't give a rating to your previous driver, you will not be able to request a new driver. (Try clicking "Request Button", you will be notified you have to rate your driver).



On the driver's emulator, click "Info" button.



You will be redirected to this page where history of gliders' ratings will be listed. If there is no network connection, data will be loaded from local database.



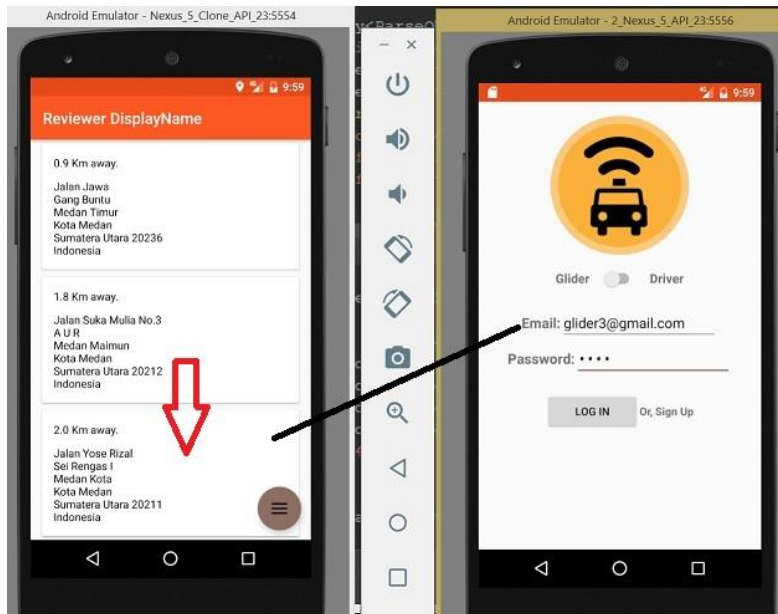
Gliders' ratings will also appear on Driver's app widget.



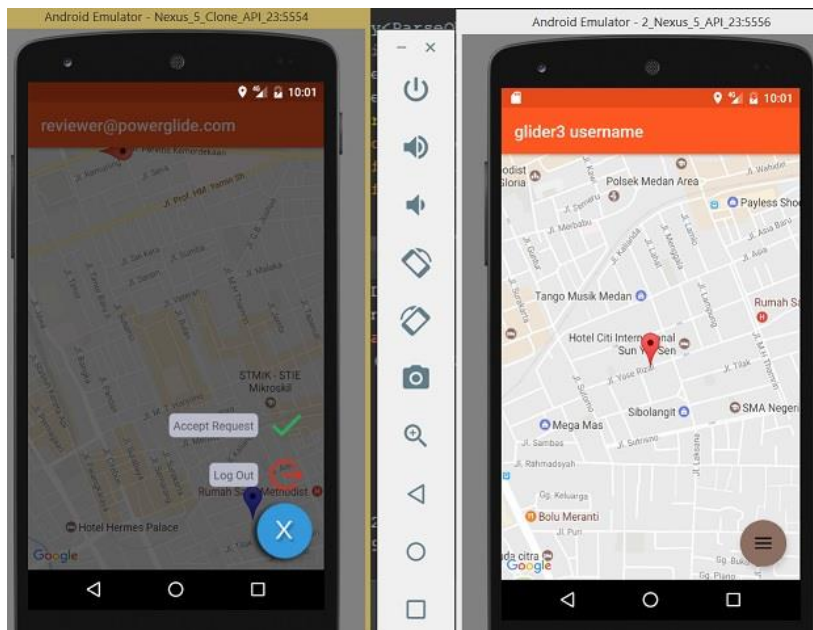
## **Part C: Glider/Rider cancelling request**

Now what happen when Glider/Rider unilaterally decide to cancel request before his/her driver arrive?

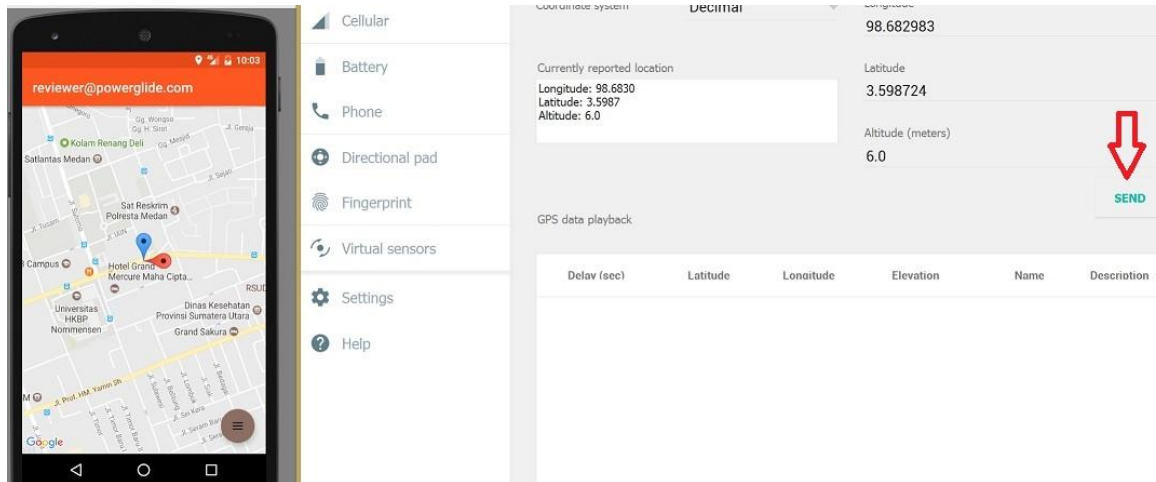
For this simulation, I will use [glider3@gmail.com](mailto:glider3@gmail.com). Glider3 is at the address shown on the driver ([reviewer@powerglide.com](mailto:reviewer@powerglide.com)) screen below. For the driver, click on the cardview item shown on the red arrow below. For the glider/driver login as [glider3@gmail.com](mailto:glider3@gmail.com) or other rider/glider account you have created before.



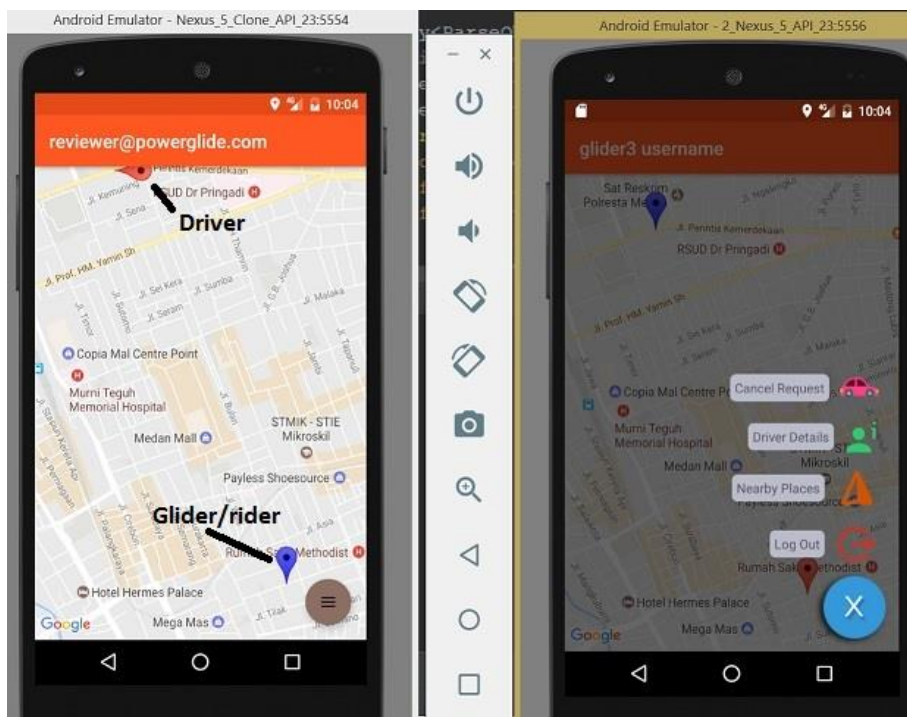
Then on the driver (reviewer) screen, click on the “Accept Request” button.



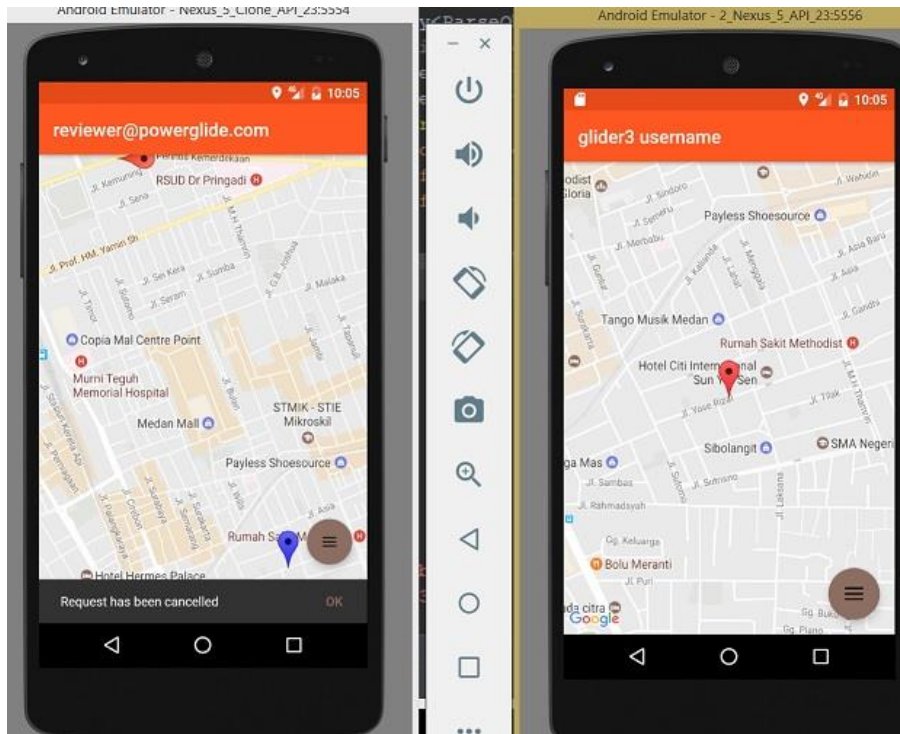
On the driver emulator, google map navigation activity will appear. Go back and return to driver emulator screen. On an emulator, if the following appears then you need to click open a GPS emulator and click “Send” as shown in the diagram below. **On a real mobile device, this is not needed.**



After clicking “Send”, the following screen appears (depending on the location of your glider and driver so it may be different for you). Then on glider/rider emulator, click on “Cancel Request”.



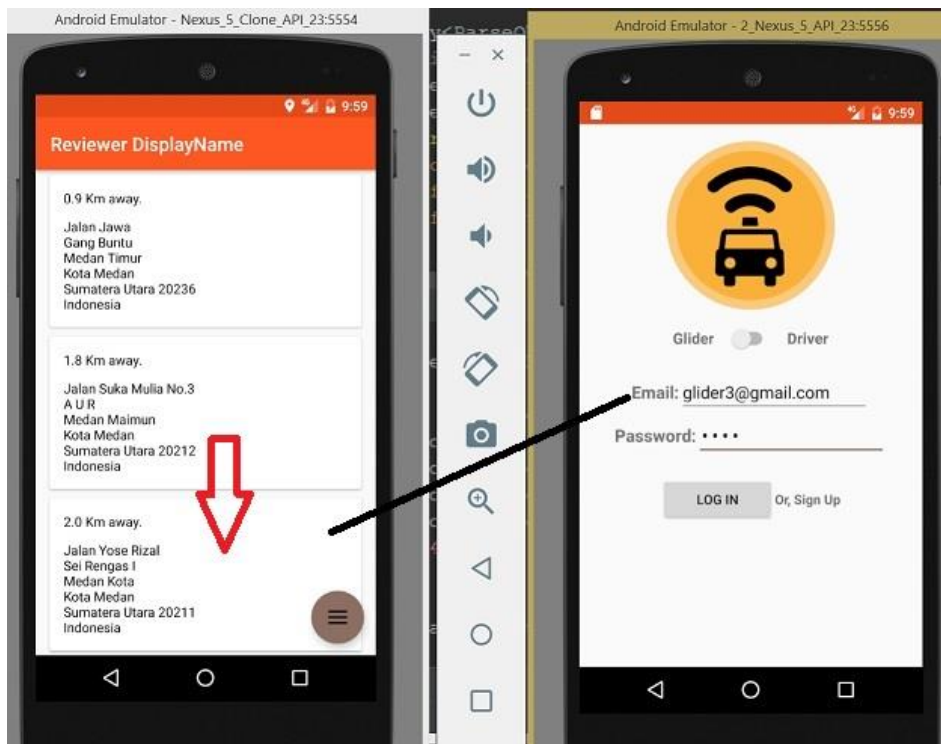
After a few seconds, a snackbar message appear on the driver(reviewer) screen. Click Ok.



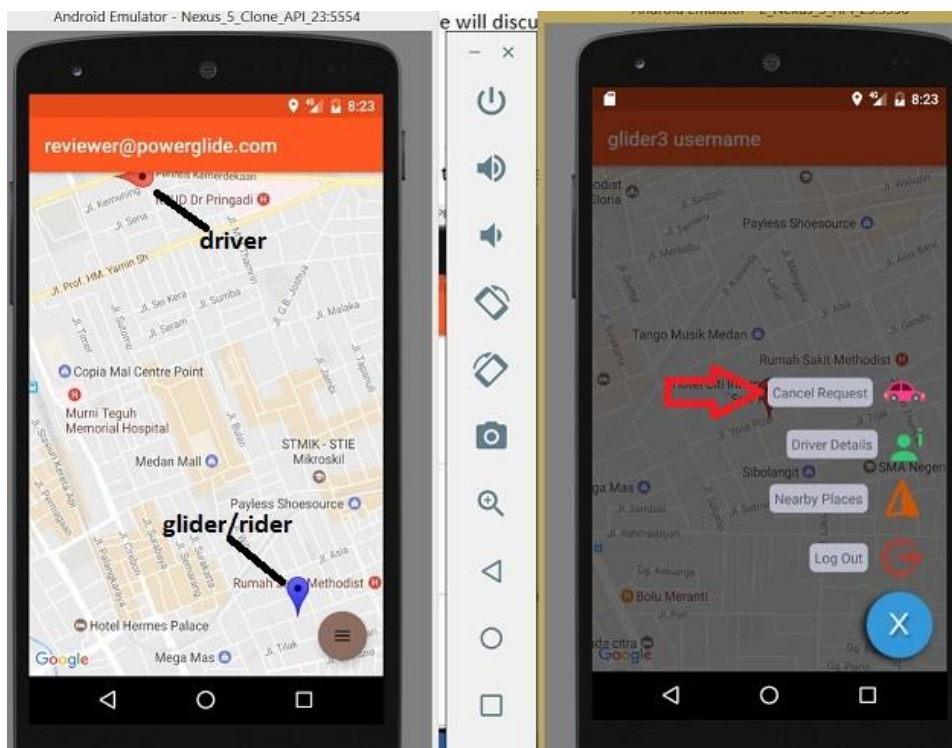
## **Part C 2: Glider/Rider canceling request**

In the above scenario in Part C, the glider/rider cancel request when driver has already accepted glider's request. In this section, we will discuss when glider/rider cancel request when driver has not accepted glider's request.

Same as before, you login as glider3 (or rider2 in your case) for the glider/rider emulator. Then on the driver's emulator click on the cardview associated with the glider/rider of your choosing.

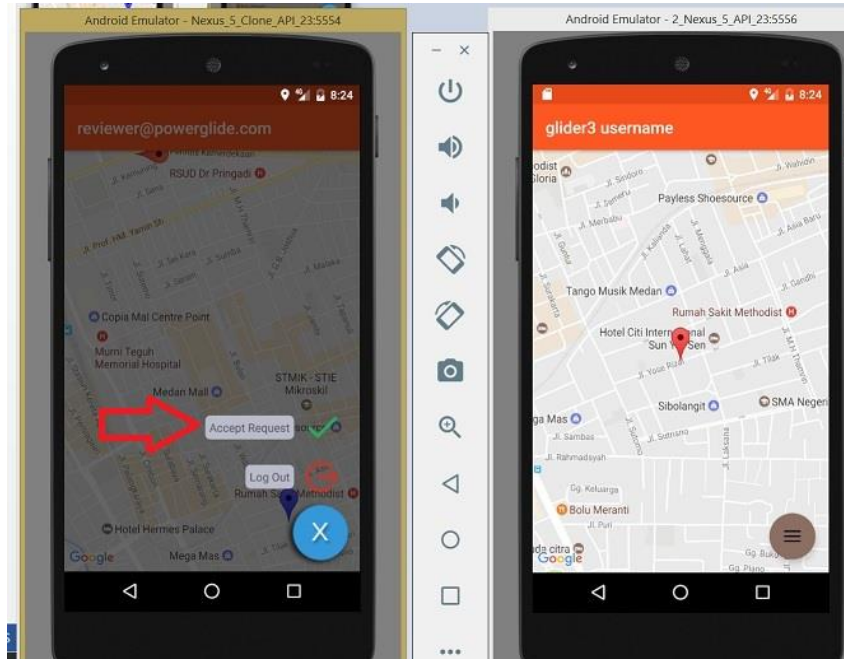


Then on the glider/rider emulator, click on “Cancel Request”. Please note at this point, the driver has not accepted glider/rider’s request.



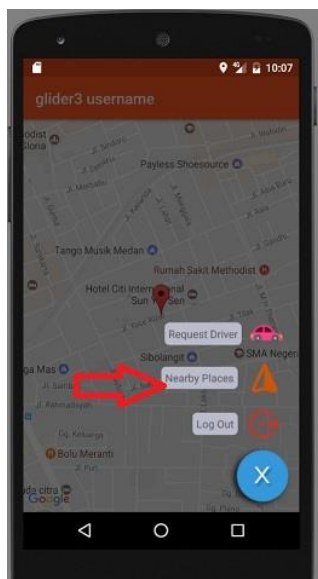


The driver does not know that the glider/rider has cancelled his / her request. And unknowingly, the driver click on “Accept Request”. After a few seconds, a toast message will appear on screen notifying the driver that the request has been cancelled and the driver will be presented with previous activity.

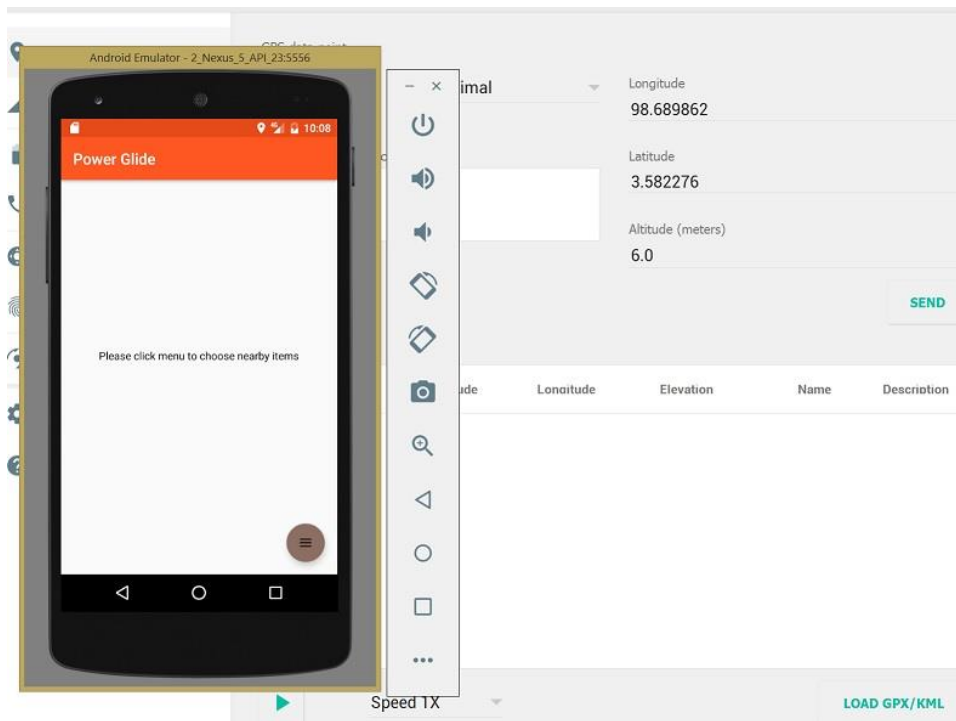


## **Part D: Nearby Search (Glider / Rider emulator only)**

Login as a glider/rider of you choosing. Then click on “Nearby Search”.



Then on the glider/rider emulator, enter your location. On real devices, you don't have to do this.



Click on any item.





The following nearby places will appear. Clicking on the direction button/icon will fire a google map intent for navigation.

