

# MYGPSTRACKER USER GUIDE

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# INTRODUCTION

## ➤ Description

MyGpsTracker is a simple android app written in JAVA in Android Studio that allows users to track their location in real time through GPS or cell-phone tower or WIFI. The app allows the users to see the latitude, longitude, and the address of their location along with the accuracy, speed, and altitude.

### ❖ Features:

- ✓ The app will use `FusedLocationProviderClient` - a standard Android API - which will be used for reading the GPS and cell phone tower of the location.
- ✓ The user has the power of permission whether they want their location to be tracked or not.
- ✓ With the help of `UpdateTheLocation` switch, the user can either start or stop the tracking.
- ✓ `Geocode API`- It is the process of converting the street addresses into the geographic coordinates like latitude and longitude.
- ✓ The user can track the number of places he/she has been to in a list through `NoOfLocationsAdded` button, and see them in a real time map through `ShowMap`.

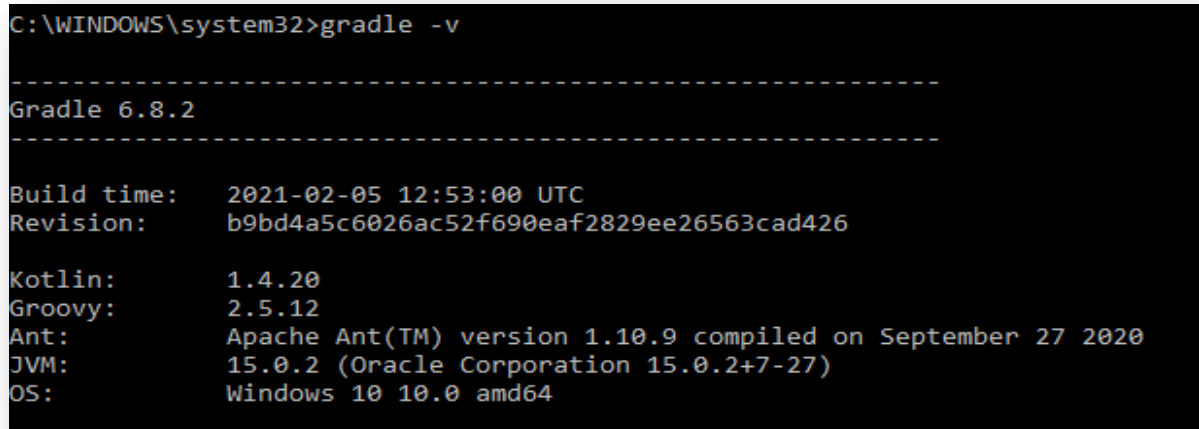
## ➤ Getting started?

### ✓ How it works?

- The user can install the app on any platform as long as it satisfies the dependencies below.

## ✓ Dependencies

- The user should have a latest version of Android Studio.
- The user should have a latest version of gradle in order to open this file in an android studio. You can check the status of your gradle in `cmd` by typing `gradle -v` as shown in figure (1a).



```
C:\WINDOWS\system32>gradle -v

-----
Gradle 6.8.2
-----

Build time:   2021-02-05 12:53:00 UTC
Revision:     b9bd4a5c6026ac52f690eaf2829ee26563cad426

Kotlin:       1.4.20
Groovy:       2.5.12
Ant:          Apache Ant(TM) version 1.10.9 compiled on September 27 2020
JVM:          15.0.2 (Oracle Corporation 15.0.2+7-27)
OS:           Windows 10 10.0 amd64
```

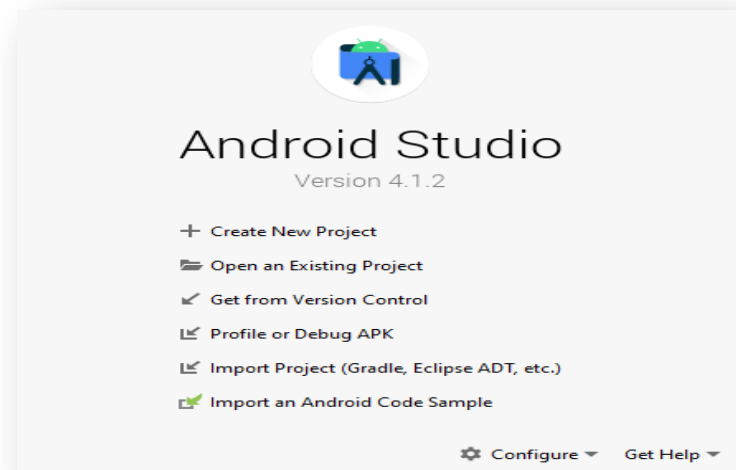
Figure 1a

- The android must be supported by Google Play Services.

## ✓ Installation

- Download the source code of MyGpsTracker.
- Make sure to remember the location of the file.
- Open the android Studio.

- Once the android studio is open, select the **Open an Existing Project** and browse the location of the file where you have saved.



## ✓ App Overview

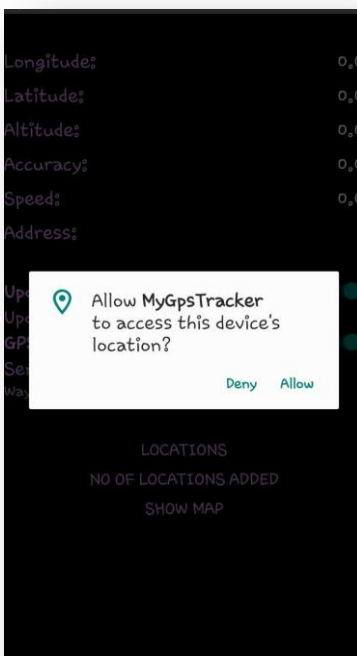


Figure (1)

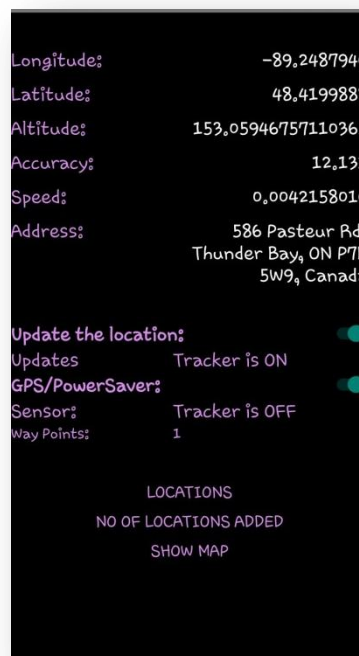


Figure (2)

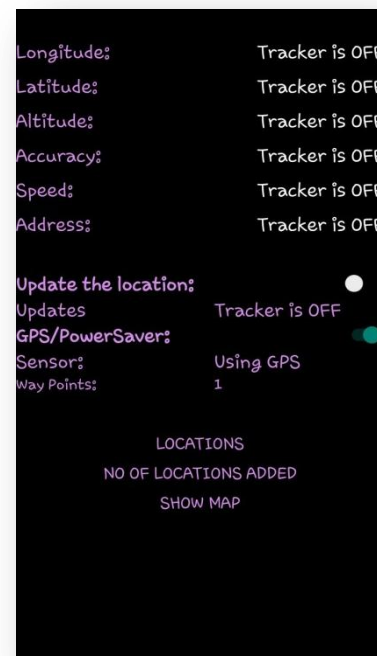



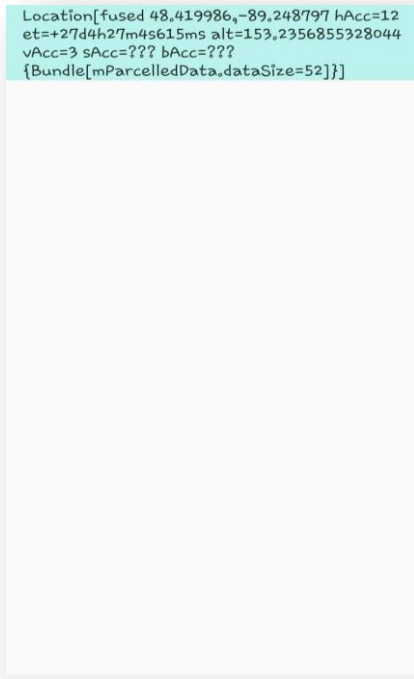


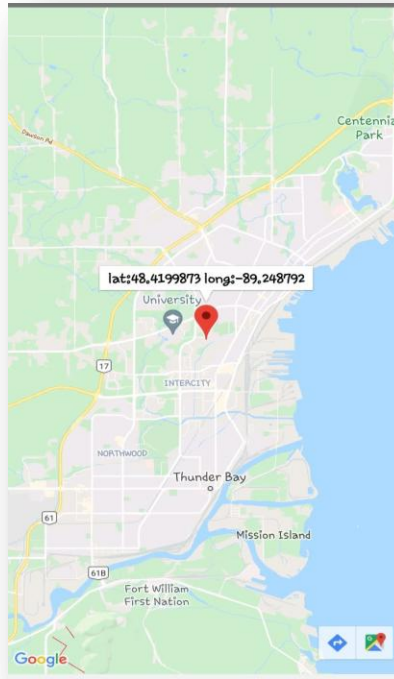
Figure (3)

## ✓ **Figure Explanation:**

-  **Figure (1):** Right after the app is installed in the device, the users have to allow permission to the app in order for the app to access the device location. If they allow the permission, then he/she will see **Figure (2)** or else the app will crash.
-  **Figure (2):** As soon as the permission is provided, the user can see his/her current latitude, longitude, and address. Just to be sure, the switch **UpdateTheLocation** has to be on in order to track the location.
-  **Figure (3):** If in case the user wants to turn off the tracking, he/she can directly switch off the **UpdateTheLocation** just like in **Figure (3)**.
- ❖ **Way Points:** It is updated every time a location button is clicked.
- ❖ **GPS/PowerSaver switch:** The switch is responsible for the sensor value. It will show which sensor (GPS/Cell Phone tower/WIFI) is being used at the moment.
- ❖ **NoOfLocationsAdded:** It gives user a list of the locations like in figure (4).
- ❖ **ShowMap:** It shows the real time location of the users in a map as shown in figure (5).



Figure(4)



Figure(5)

## ➤ Troubleshoot

The users must turn on the location of the device they are using or else the app will crash.

## ➤ Reference

- ✓ Google Cloud Platform.

[https://console.cloud.google.com/flows/enableapi?apiid=maps\\_android\\_backend&keyType=CLIENT\\_SIDE\\_ANDROID&r=B8:FE:7A:BE:77:D6:45:E0:EF:00:E6:3A:25:0B:6C:27:2E:11:17:60;com.example.mygpstracker](https://console.cloud.google.com/flows/enableapi?apiid=maps_android_backend&keyType=CLIENT_SIDE_ANDROID&r=B8:FE:7A:BE:77:D6:45:E0:EF:00:E6:3A:25:0B:6C:27:2E:11:17:60;com.example.mygpstracker)

- ✓ Change Location Setting.

<https://developer.android.com/training/location/change-location-settings>

- ✓ Set up the Google Play Services for Fused Location Provider for Android.

**com.google.android.gms:play-services-location:18.0.0**

<https://developers.google.com/android/guides/setup>

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## ➤ **License**

This project is licensed under the Android Studio License and Google Play Services.

## ➤ **Releases**

No releases.

## ➤ **Packages**

No packages published.

## ➤ **Language**

Java