지도

TMap 02

프로젝트 생성

Application name: GpsTmap03

Company Domain: admid.example.com

Project location: C:\ Android\ StdWork\ tampnewtest

Target Android Devices

　　　- Phone and Tablet

　　　- Minimun SDK API 20

Add an activity to Mobile : Empty Activity

Customize the Activity

　　　Activity Name: MainActivity

　　Layout Name: activity_main

activity_main.xml ×

```xml
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:id="@+id/linear"
    android:orientation="vertical"
    tools:context=".MainActivity">

</LinearLayout>
```

gpstmap

```java
package com.example.administrator.gpstmap03;

import android.graphics.Bitmap;
import android.location.Location;
import android.location.LocationListener;
import android.os.Bundle;
import android.support.v7.app.AppCompatActivity;
import android.widget.LinearLayout;

import com.skp.Tmap.TMapCircle;
import com.skp.Tmap.TMapData;
import com.skp.Tmap.TMapGpsManager;
import com.skp.Tmap.TMapMarkerItem;
import com.skp.Tmap.TMapPOIItem;
import com.skp.Tmap.TMapPoint;
import com.skp.Tmap.TMapView;

import java.util.ArrayList;
```

```
19
20  public class MainActivity extends AppCompatActivity
21          implements TMapView.OnLongClickListenerCallback,
22          LocationListener, TMapGpsManager.onLocationChangedCallback {
23
24      private TMapView tMapView = null;
25      TMapGpsManager gps = null;
26      public static String mApiKey = null;
27
28      private static final String TAG = "TestTmap";
29      Bitmap icon1, icon2;
30      TMapCircle tCircle;
31      TMapData tMapData;
32      TMapPoint point2 = null;
33
```

© MainActivity.java ✕

```java
34      @Override
35      protected void onCreate(Bundle savedInstanceState) {
36          super.onCreate(savedInstanceState);
37          setContentView(R.layout.activity_main);
38
39          LinearLayout liner = (LinearLayout) findViewById(R.id.linear);
40          tMapView = new TMapView(this);
41          mApiKey = "3fbf4752-cf6c-318b-          38c79";
42          tMapView.setSKPMapApiKey(mApiKey);
43
44          liner.addView(tMapView);
45          setContentView(liner);
46
47          gps = new TMapGpsManager(MainActivity.this);
48          gps.setMinTime(1);
49          gps.setMinDistance(1);
50          gps.setProvider(gps.NETWORK_PROVIDER);
51          //  gps.setProvider(gps.GPS_PROVIDER);
52          gps.OpenGps();
53
```

MainActivity.java ×

```java
53
54        tMapData = new TMapData();
55
56        tMapView.setZoomLevel(16);
57        tMapView.setIconVisibility(true);
58        tMapView.setCompassMode(true);
59        tMapView.setSightVisible(true);
60        tMapView.setMapPosition(TMapView.POSITION_NAVI);
61        tMapView.setTrackingMode(true);
62
63    }
64
```

MainActivity.java ×

```java
64
65      @Override
66      public void onLocationChanged(Location location) {
67
68      }
69
70      @Override
71      public void onStatusChanged(String provider, int status, Bundle extras) {
72
73      }
74
75      @Override
76      public void onProviderEnabled(String provider) {
77
78      }
79
80      @Override
81      public void onProviderDisabled(String provider) {
82
83      }
84
85      @Override
86      public void onLongPressEvent(ArrayList<TMapMarkerItem> arrayList,
87                                   ArrayList<TMapPOIItem> arrayList1, TMapPoint tMapPoint) {
88
89      }
90
```

```
  ⓒ MainActivity.java  ✕

85        }
84
85        @Override
86 ⊙↑   public void onLongPressEvent(ArrayList<TMapMarkerItem> arrayList,
87                                    ArrayList<TMapPOIItem> arrayList1, TMapPoint tMapPoint) {
88
89        }
90
91        @Override
92 ⊙↑   public void onLocationChange(Location location) {
93            tMapView.setCenterPoint(location.getLongitude(), location.getLatitude());
94            tMapView.setLocationPoint(location.getLongitude(), location.getLatitude());
95        }
96
97        @Override
98 ⊙↑   protected void onDestroy() {
99            super.onDestroy();
100           gps.CloseGps();
101       }
102
103       @Override
104 ⊙↑  protected void onPause() { super.onPause(); }
107   }
```
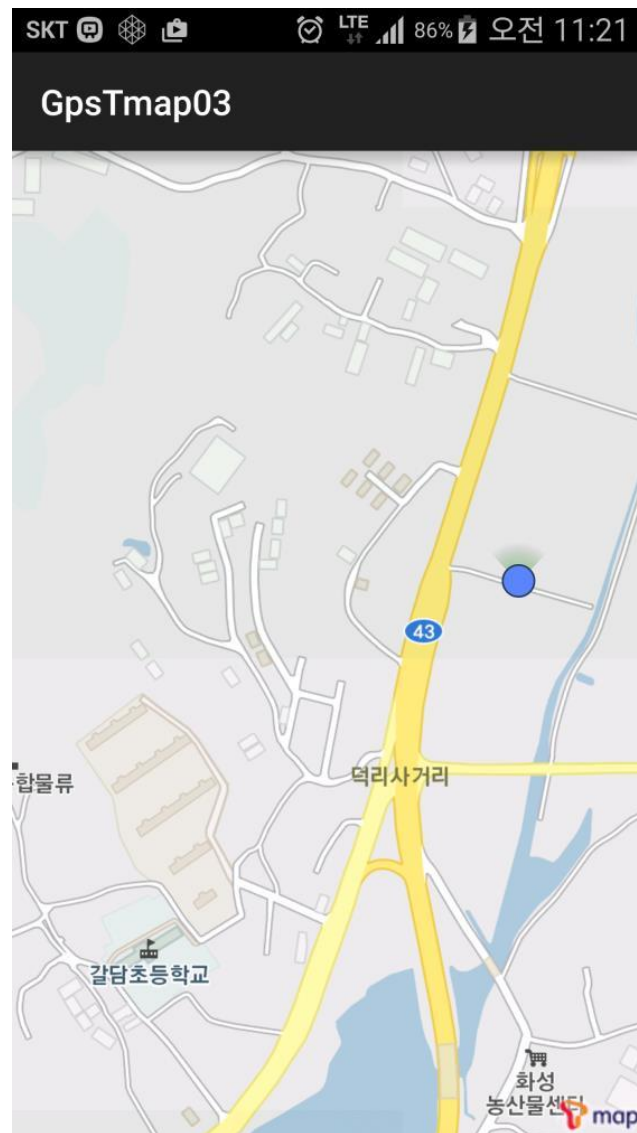
```xml
AndroidManifest.xml ×

<?xml version="1.0" encoding="utf-8"?>
<manifest xmlns:android="http://schemas.android.com/apk/res/android"
    package="com.example.administrator.gpstmap03">

    <uses-permission android:name="android.permission.INTERNET" />
    <uses-permission android:name="android.permission.ACCESS_NETWORK_STATE" />
    <uses-permission android:name="android.permission.WRITE_OWNER_DATA" />
    <uses-permission android:name="android.permission.READ_OWNER_DATA" />
    <uses-permission android:name="android.permission.ACCESS_FINE_LOCATION" />

    <application
        android:allowBackup="true"
        android:icon="@mipmap/ic_launcher"
        android:label="GpsTmap03"
        android:theme="@style/AppTheme">
        <activity
            android:name=".MainActivity"
            android:label="GpsTmap03">
            <intent-filter>
                <action android:name="android.intent.action.MAIN" />

                <category android:name="android.intent.category.LAUNCHER" />
            </intent-filter>
        </activity>
    </application>

</manifest>
```
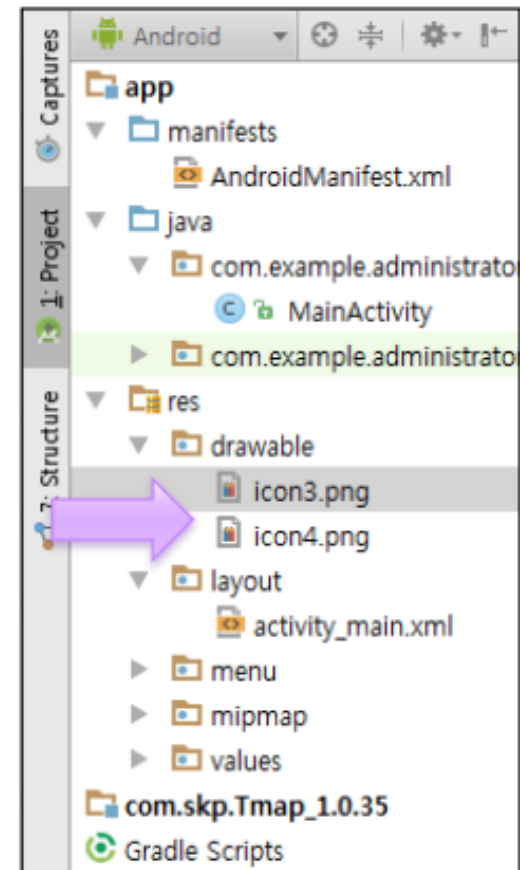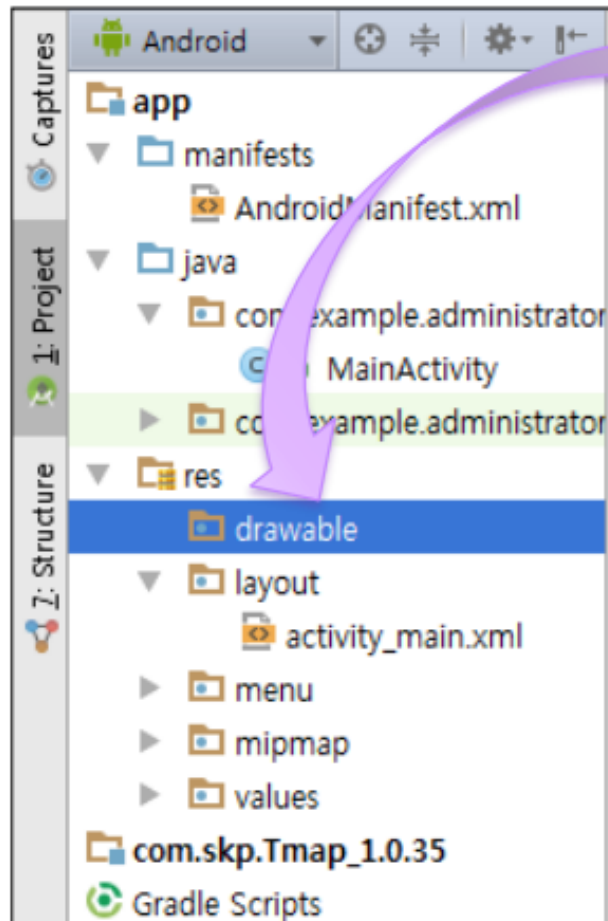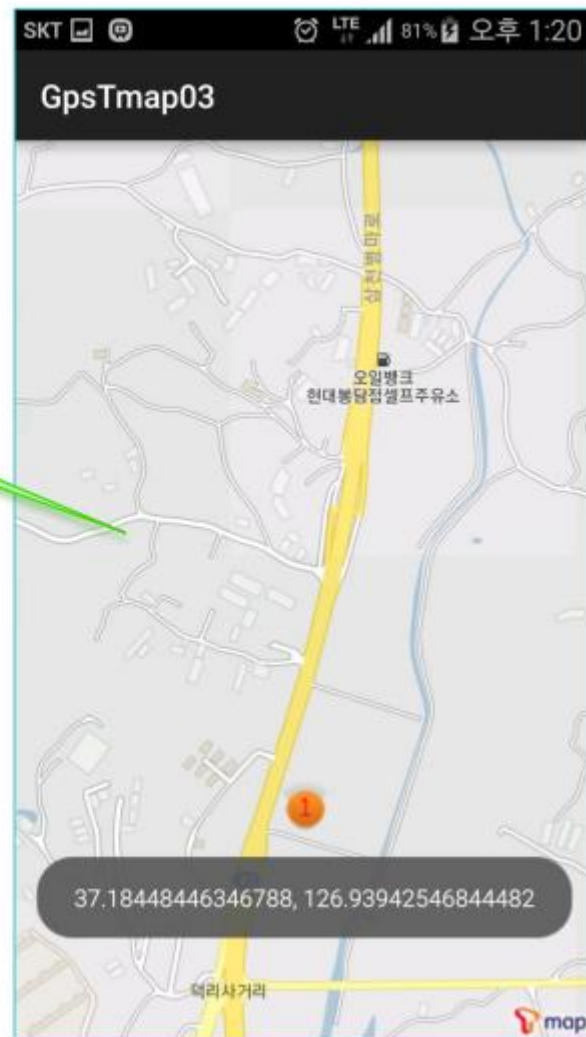
마커 찍기

```
C MainActivity.java ×
49      gps.setMinDistance(1);
50      gps.setProvider(gps.NETWORK_PROVIDER);
51      //  gps.setProvider(gps.GPS_PROVIDER);
52      gps.OpenGps();
53
54      tMapData = new TMapData();
55
56      tMapView.setZoomLevel(16);
57      //  tMapView.setIconVisibility(true);
58      tMapView.setCompassMode(true);
59      tMapView.setSightVisible(true);
60      tMapView.setMapPosition(TMapView.POSITION_NAVI);
61      tMapView.setTrackingMode(true);
62
63  }
```

C MainActivity.java ×

```java
84
85            }
86
87            @Override
88            public void onLongPressEvent(ArrayList<TMapMarkerItem> arrayList,
89                                         ArrayList<TMapPOIItem> arrayList1, TMapPoint tMapPoint) {
90                tMapView.setIconVisibility(false);
91                Bitmap bitmap = BitmapFactory.decodeResource(getResources(), R.drawable.icon3);
92
93                Toast.makeText(getBaseContext(), String.valueOf(tMapPoint.getLatitude()) + ", "
94                        + String.valueOf(tMapPoint.getLongitude()), Toast.LENGTH_SHORT).show();
95                tMapView.setIcon(bitmap);
96                tMapView.setIconVisibility(true);
97            }
```
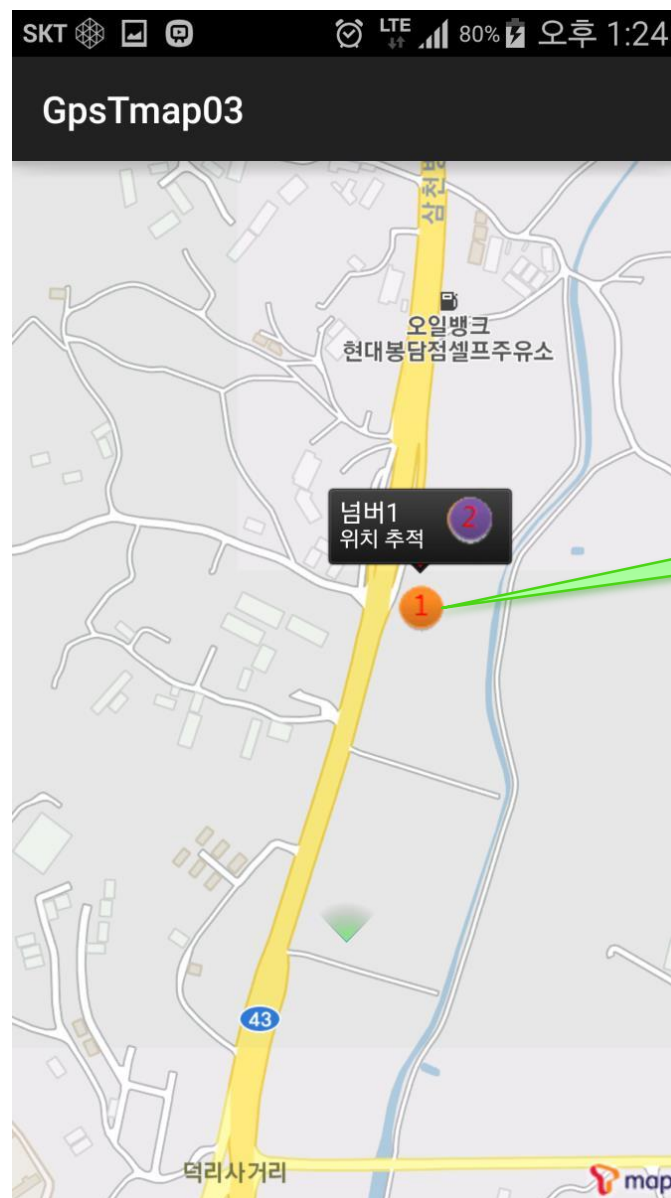
임의의 맵
롱 클릭

C MainActivity.java ×

```java
86          @Override
87  ●↑    public void onLongPressEvent(ArrayList<TMapMarkerItem> arrayList,
88                                     ArrayList<TMapPOIItem> arrayList1, TMapPoint tMapPoint) {
89  //          tMapView.setIconVisibility(false);
90  //          Bitmap bitmap = BitmapFactory.decodeResource(getResources(), R.drawable.icon3);
91  //
92  //          Toast.makeText(getBaseContext(), String.valueOf(tMapPoint.getLatitude()) + ", "
93  //                  + String.valueOf(tMapPoint.getLongitude()), Toast.LENGTH_SHORT).show();
94  //          tMapView.setIcon(bitmap);
95  //          tMapView.setIconVisibility(true);
96
97          TMapPoint point = new TMapPoint(tMapPoint.getLatitude(), tMapPoint.getLongitude());
98          TMapMarkerItem item1 = new TMapMarkerItem();
99  ●       Bitmap bitmap = BitmapFactory.decodeResource(getResources(), R.drawable.icon3);
100         item1.setTMapPoint(point);
101         item1.setName("Target");
102         item1.setVisible(item1.VISIBLE);
103         item1.setIcon(bitmap);
104         item1.setCalloutTitle("넘버1");
105         item1.setCalloutSubTitle("위치 추적");
106         item1.setCanShowCallout(true);
107         item1.setAutoCalloutVisible(true);
108 ●       Bitmap bitmap_i = BitmapFactory.decodeResource(getResources(), R.drawable.icon4);
109         item1.setCalloutRightButtonImage(bitmap_i);
110         tMapView.addMarkerItem("ID_01", item1);
111     }
```
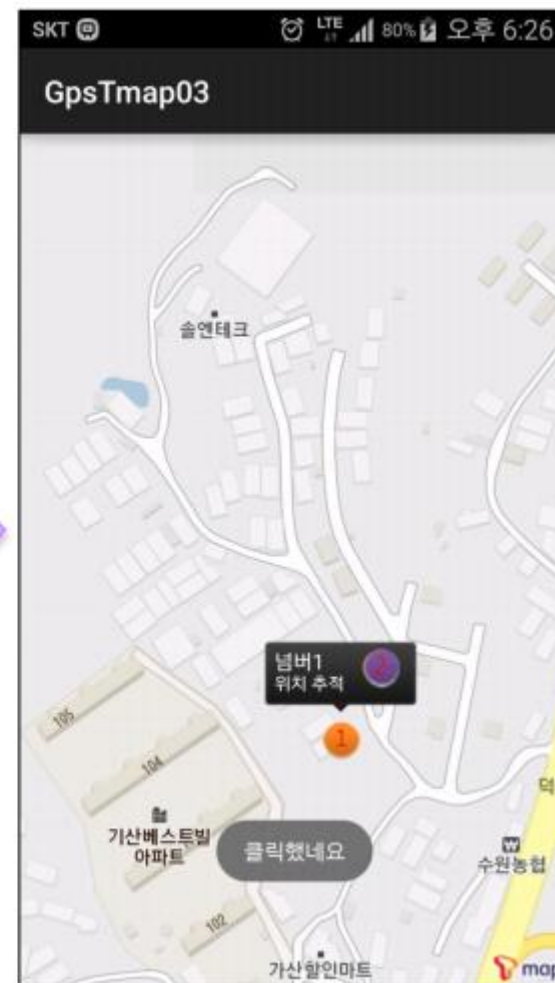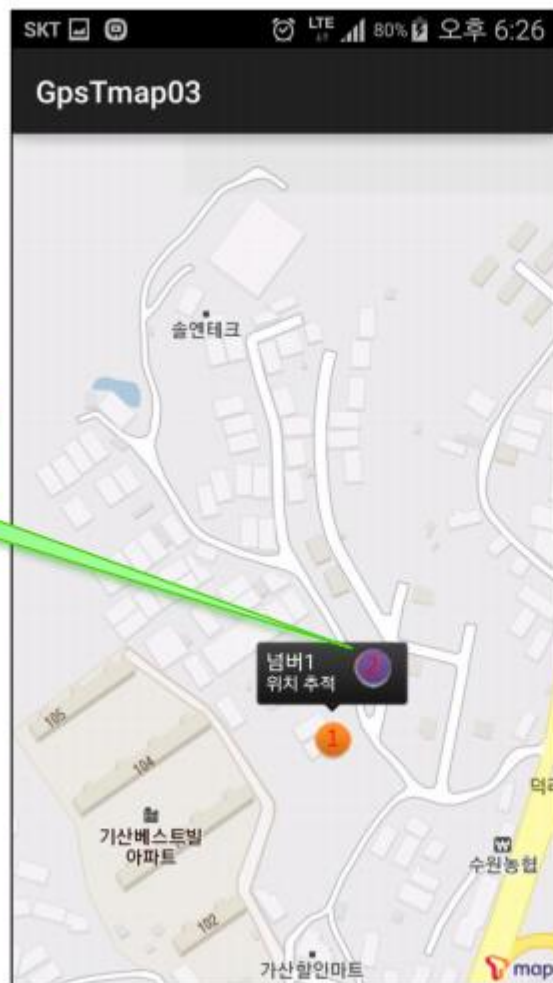
서브마커

클릭

마커 클릭 이벤트

```java
import com.skp.Tmap.TMapView;

import java.util.ArrayList;

public class MainActivity extends AppCompatActivity
        implements TMapView.OnLongClickListenerCallback,
        LocationListener, TMapGpsManager.onLocationChangedCallback ,
        TMapView.OnCalloutRightButtonClickCallback{

    private TMapView tMapView = null;
    TMapGpsManager gps = null;
```

```java
      @Override
      protected void onPause() {
          super.onPause();
      }

      @Override
      public void onCalloutRightButton(TMapMarkerItem tMapMarkerItem) {
          Toast.makeText(getApplicationContext(), "클릭했네요", Toast.LENGTH_SHORT).show();
      }
  }
```

롱 클릭

여러 개의 마커 중에서 이벤트 주기

```java
© MainActivity.java ×

130        @Override
131        protected void onPause() {
132            super.onPause();
133        }
134
135        @Override
136        public void onCalloutRightButton(TMapMarkerItem tMapMarkerItem) {
137
138            if(tMapMarkerItem.getID() == "ID_01") {
139                Toast.makeText(getApplicationContext(), "ID_01 클릭했네요",
140                        Toast.LENGTH_SHORT).show();
141            }
142        }
143    }
144
```
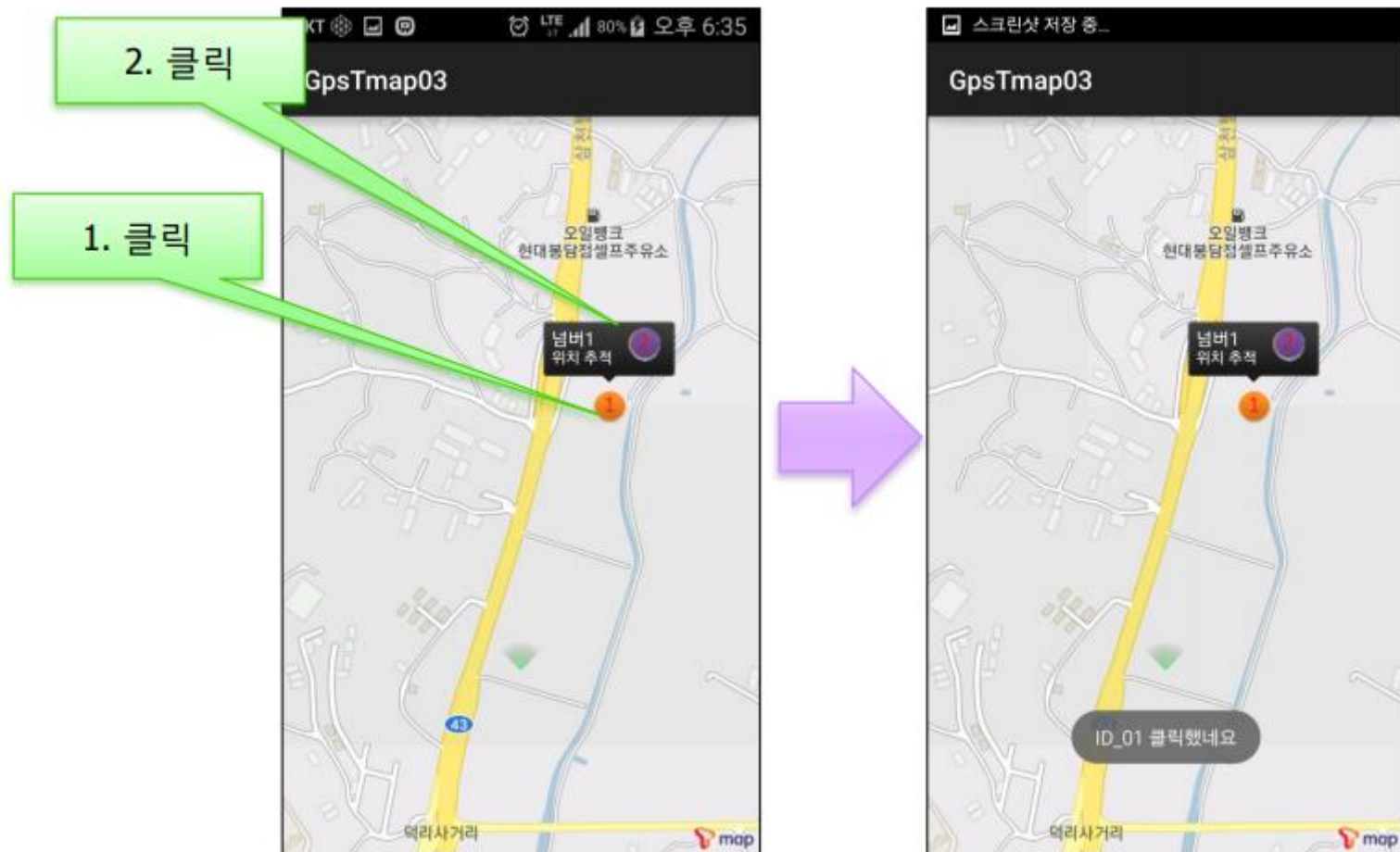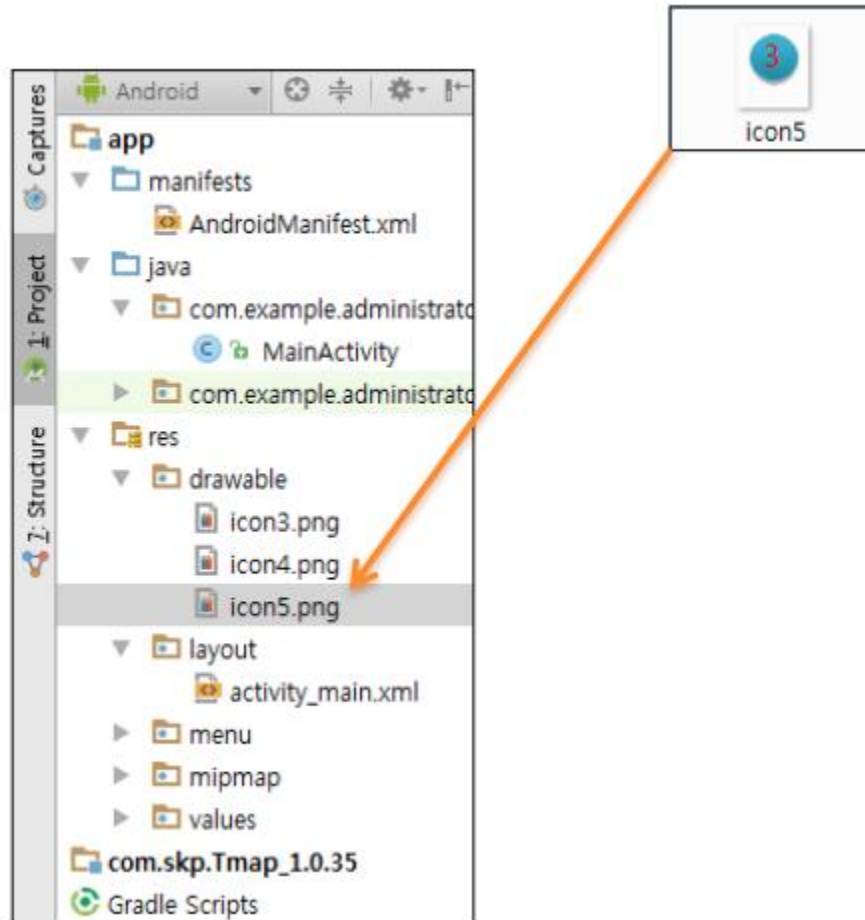
두 번째 마커 찍기

MainActivity.java ×

```
24          LocationListener, TMapGpsManager.onLocationChangedCallback ,
25          TMapView.OnCalloutRightButtonClickCallback{
26
27      private TMapView tMapView = null;
28      TMapGpsManager gps = null;
29      public static String mApiKey = null;
30
31      private static final String TAG = "TestTmap";
32      Bitmap icon1, icon2;
33      TMapCircle tCircle;
34      TMapData tMapData;
35      TMapPoint point2 = null;
36      TMapMarkerItem item1 = new TMapMarkerItem();
37      TMapMarkerItem item2 = new TMapMarkerItem();
38
39      @Override
40      protected void onCreate(Bundle savedInstanceState) {
```
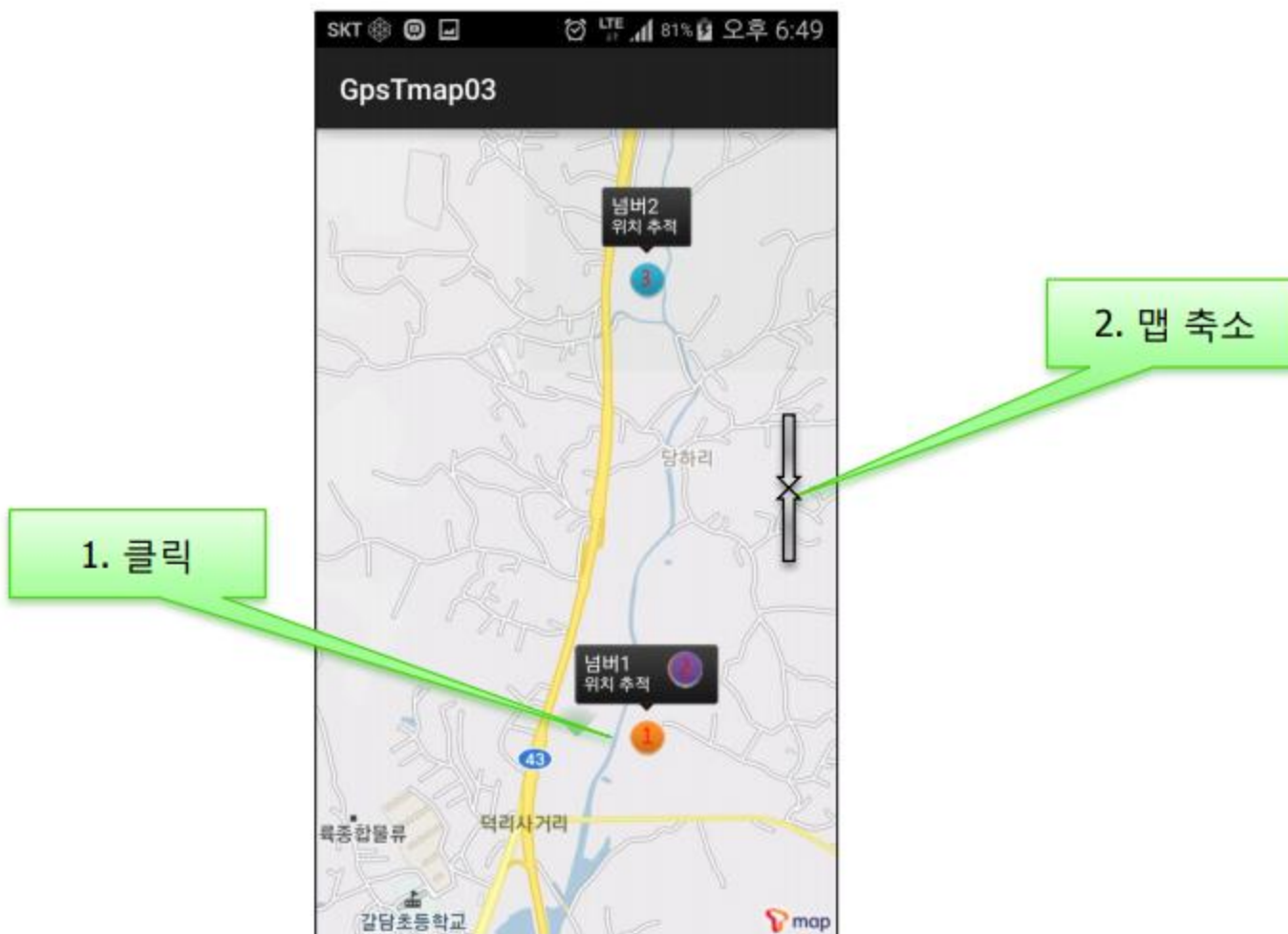
```
 98  //          tMapView.setIconVisibility(true);
 99
100        TMapPoint point1 = new TMapPoint(tMapPoint.getLatitude(), tMapPoint.getLongitude());
101        TMapPoint point2 = new TMapPoint(tMapPoint.getLatitude()+0.01, tMapPoint.getLongitude());
102      // TMapMarkerItem item1 = new TMapMarkerItem();
103      Bitmap bitmap3 = BitmapFactory.decodeResource(getResources(), R.drawable.icon3);
104      Bitmap bitmap5 = BitmapFactory.decodeResource(getResources(), R.drawable.icon5);
105      item1.setTMapPoint(point1);
106      item1.setName("Target");
107      item1.setVisible(item1.VISIBLE);
108      item1.setIcon(bitmap3);
109
110      item1.setCalloutTitle("넘버1");
111      item1.setCalloutSubTitle("위치 추적");
112      item1.setCanShowCallout(true);
113      item1.setAutoCalloutVisible(true);
```

```java
        item2.setTMapPoint(point2);
        item2.setName("Target");
        item2.setVisible(item2.VISIBLE);
        item2.setIcon(bitmap5);


        item2.setCalloutTitle("넘버2");
        item2.setCalloutSubTitle("위치 추적");
        item2.setCanShowCallout(true);
        item2.setAutoCalloutVisible(true);



        Bitmap bitmap_i = BitmapFactory.decodeResource(getResources(), R.drawable.icon4);
        item1.setCalloutRightButtonImage(bitmap_i);
        tMapView.addMarkerItem("ID_01", item1);
        tMapView.addMarkerItem("ID_02", item2);
    }
```

2. 맵 축소
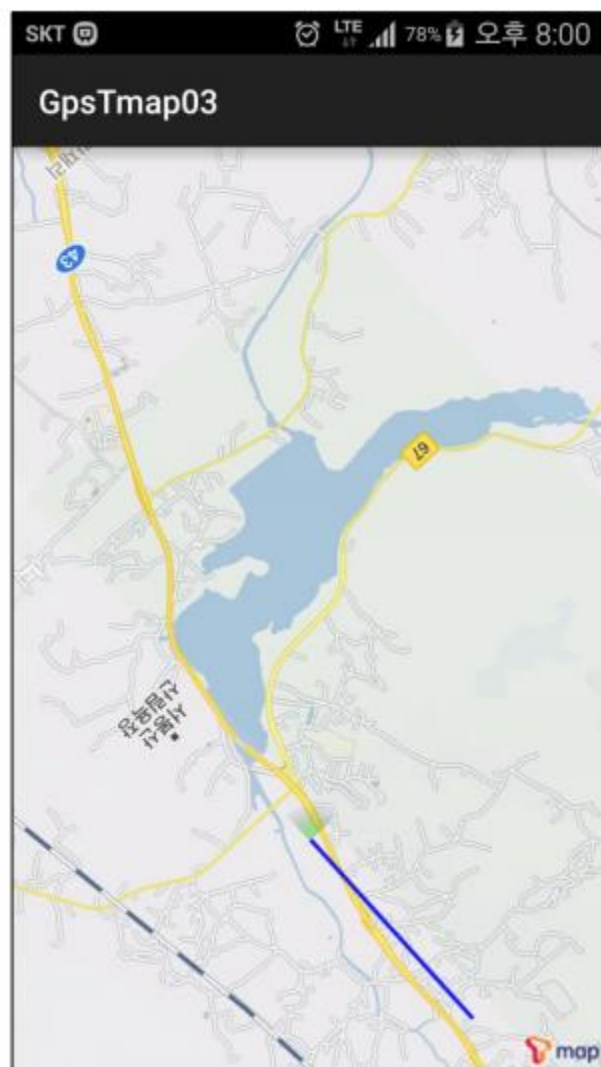
1. 클릭

폴리 라인

```
C MainActivity.java ×

35        TMapCircle tCircle;
36        TMapData tMapData;
37        TMapPoint point1 = null;
38        TMapPoint point2 = null;
39        TMapMarkerItem item1 = new TMapMarkerItem();
40        TMapMarkerItem item2 = new TMapMarkerItem();
41        TMapPolyLine tpolyline = new TMapPolyLine();
42
43        @Override
44        protected void onCreate(Bundle savedInstanceState) {
45            super.onCreate(savedInstanceState);
46            setContentView(R.layout.activity_main);
```

```
134
135
136        @Override
137        public void onLocationChange(Location location) {
138            tMapView.setCenterPoint(location.getLongitude(), location.getLatitude());
139            tMapView.setLocationPoint(location.getLongitude(), location.getLatitude());
140
141            point1 = new TMapPoint(location.getLatitude(), location.getLongitude());
142            point2 = new TMapPoint(location.getLatitude()+0.01, location.getLongitude());
143
144            tpolyline.setLineColor(Color.BLUE);
145            tpolyline.setLineWidth(2);
146            tpolyline.addLinePoint(point1);
147            tpolyline.addLinePoint(point2);
148            tMapView.addTMapPolyLine("tp01", tpolyline);
149        }
```

폴리라인 거리 구하기

```java
143
144        tMapView.removeAllTMapPolyLine();
145        tpolyline.setLineColor(Color.BLUE);
146        tpolyline.setLineWidth(2);
147        tpolyline.addLinePoint(point1);
148        tpolyline.addLinePoint(point2);
149        tMapView.addTMapPolyLine("tp01", tpolyline);
150
151        double Distance = tpolyline.getDistance();
152        Toast.makeText(getApplicationContext(), String.valueOf(Distance),
153                Toast.LENGTH_SHORT).show();
154    }
155
```

```java
      MainActivity.java ×

36          TMapCircle tCircle;
37          TMapData tMapData;
38          TMapPoint point1 = null;
39          TMapPoint point2 = null;
40          TMapPoint point3 = null;
41          TMapPoint point4 = null;
42      TMapMarkerItem item1 = new TMapMarkerItem();
43      TMapMarkerItem item2 = new TMapMarkerItem();
44      TMapPolyLine tpolyline = new TMapPolyLine();
45      TMapPolygon tpolygon = new TMapPolygon();
46
47      @Override
48      protected void onCreate(Bundle savedInstanceState) {
49          super.onCreate(savedInstanceState);
```

```java
© MainActivity.java  ×

139
140         @Override
141 ●↑      public void onLocationChange(Location location) {
142             tMapView.setCenterPoint(location.getLongitude(), location.getLatitude());
143             tMapView.setLocationPoint(location.getLongitude(), location.getLatitude());
144
145             point1 = new TMapPoint(location.getLatitude(), location.getLongitude());
146             point2 = new TMapPoint(location.getLatitude()+0.01, location.getLongitude());
147             point3 = new TMapPoint(location.getLatitude()+0.01, location.getLongitude()+0.01);
148             point4 = new TMapPoint(location.getLatitude(), location.getLongitude()+0.01);
149
150             tMapView.removeAllTMapPolyLine();
151             tpolyline.setLineColor(Color.BLUE);
```

```java
157        double Distance = tpolyline.getDistance();
158        Toast.makeText(getApplicationContext(), String.valueOf(Distance),
159                Toast.LENGTH_SHORT).show();
160
161        tpolygon.setLineColor(Color.RED);   //플리곤 선색
162        tpolygon.setPolygonWidth(2);
163        tpolygon.setAreaColor(Color.BLUE);
164        tpolygon.setAreaAlpha(20);
165        tpolygon.setLineAlpha(20);
166        tpolygon.addPolygonPoint(point1);
167        tpolygon.addPolygonPoint(point2);
168        tpolygon.addPolygonPoint(point3);
169        tpolygon.addPolygonPoint(point4);
170        tMapView.addTMapPolygon("polID", tpolygon);
171
172    }
```