

지도

TMap 02



프로젝트 생성

2



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 x
<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>
```



```
MainActivity.java ×
1  package com.example.administrator.gpstmap03;
2
3  import android.graphics.Bitmap;
4  import android.location.Location;
5  import android.location.LocationListener;
6  import android.os.Bundle;
7  import android.support.v7.app.AppCompatActivity;
8  import android.widget.LinearLayout;
9
10 import com.skp.Tmap.TMapCircle;
11 import com.skp.Tmap.TMapData;
12 import com.skp.Tmap.TMapGpsManager;
13 import com.skp.Tmap.TMapMarkerItem;
14 import com.skp.Tmap.TMapPOIItem;
15 import com.skp.Tmap.TMapPoint;
16 import com.skp.Tmap.TMapView;
17
18 import java.util.ArrayList;
19
```

MainActivity.java x

```
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 ×

```
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.liner);
40          tMapView = new TMapView(this);
41          mApiKey = "3fbf4752-cf6c-318b-4a9";
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 x
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 x

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

```

MainActivity.java x
83     }
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(); }
105
106 }

```

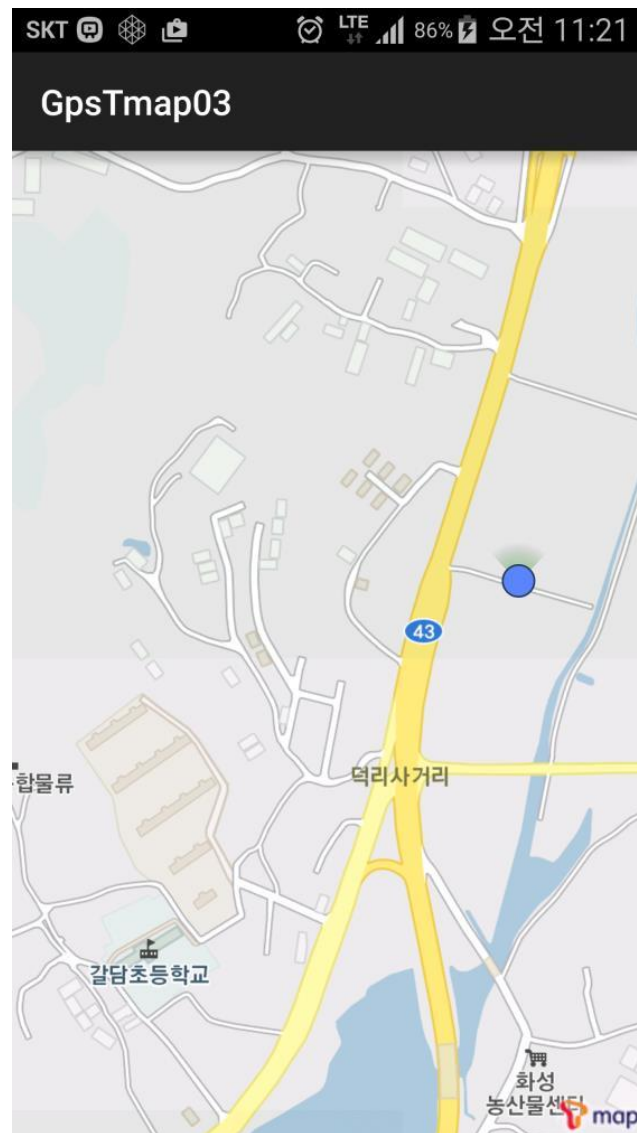
AndroidManifest.xml x

```
<?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>
```

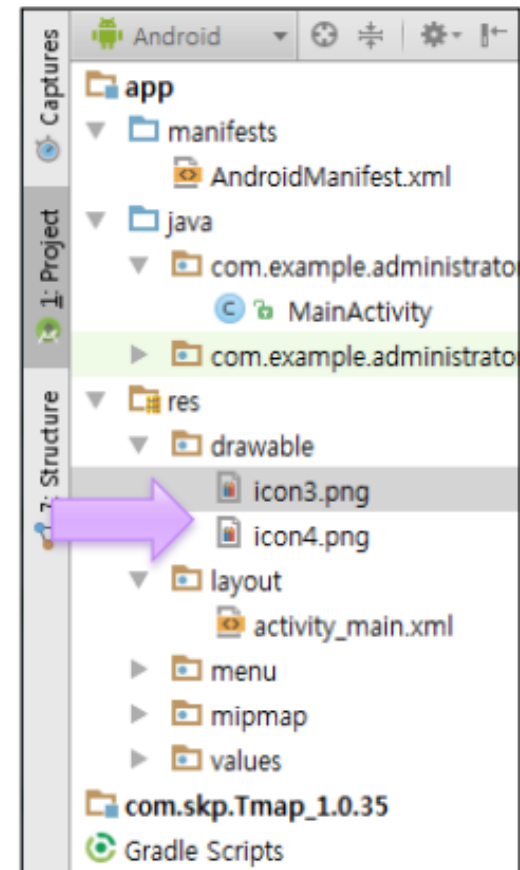
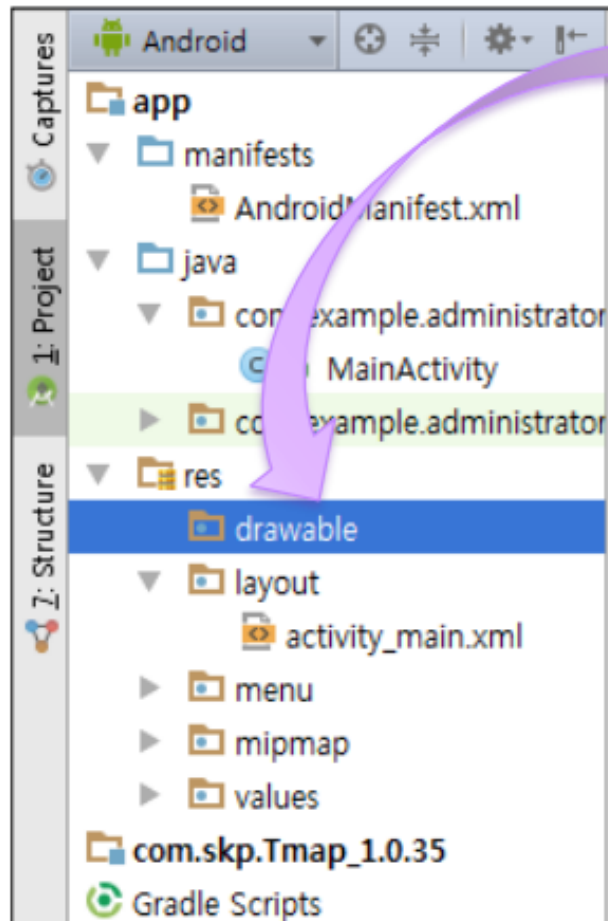


마커 찍기

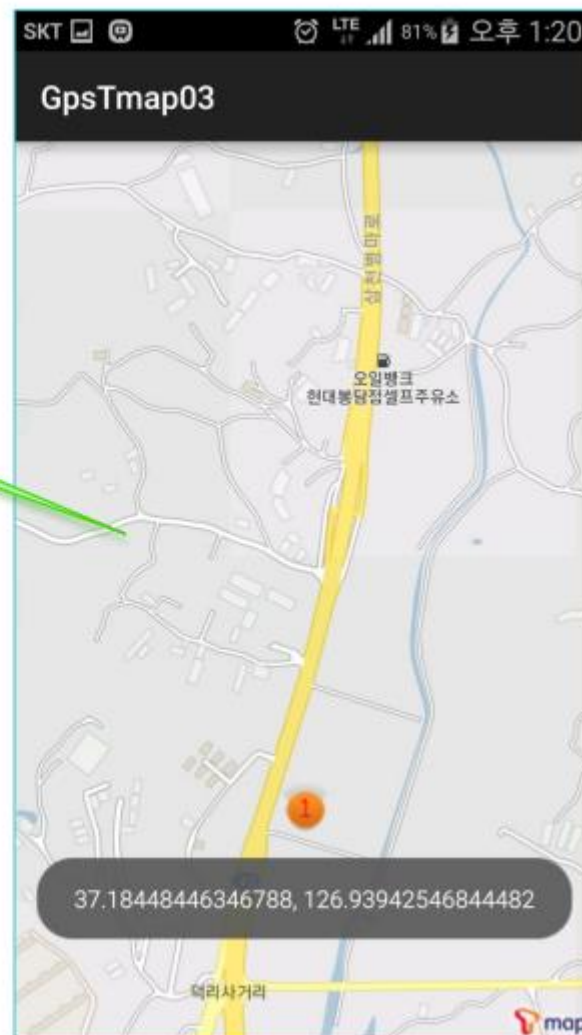
```
C MainActivity.java x
49  gps.setMinDistance(1);
50  gps.setProvider(gps.NETWORK_PROVIDER);
51  // gps.setProvider(gps.GPS_PROVIDER);
52  gps.OpenGps();
53
54  tMapData = new TMapData();
55
56  tMapView.setZoomLevel(16);
57  // tMapView.setIconVisibility(true);
58  tMapView.setCompassMode(true);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

MainActivity.java x

```
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 }
```

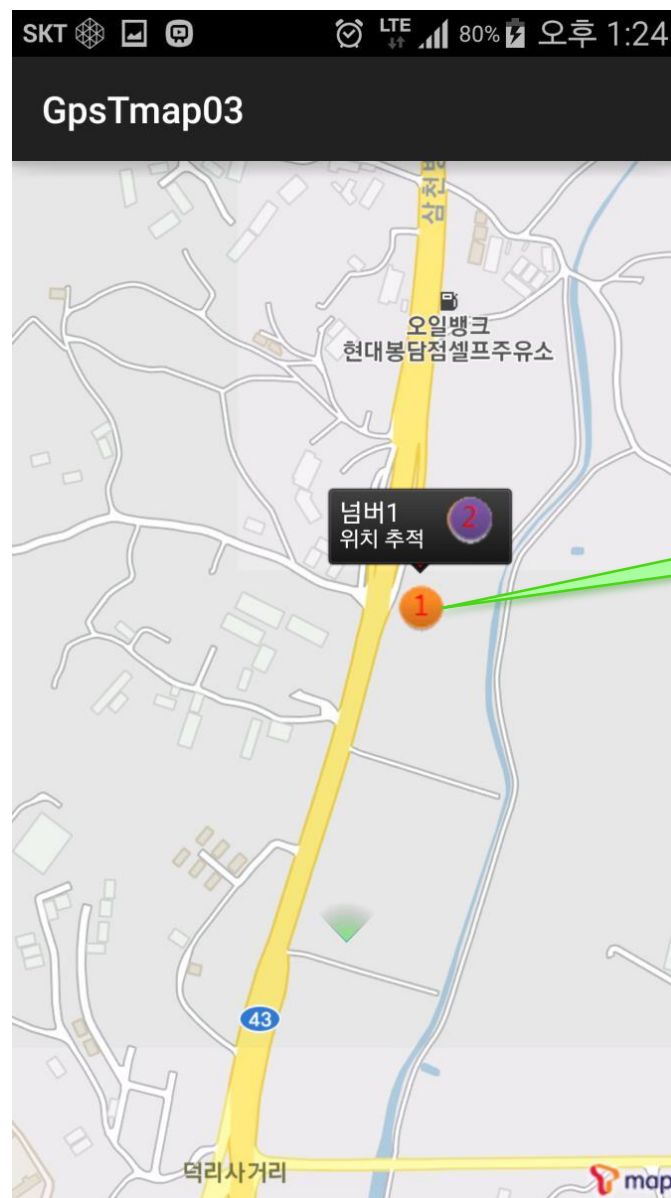


임의의 맵
롱 클릭



```
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

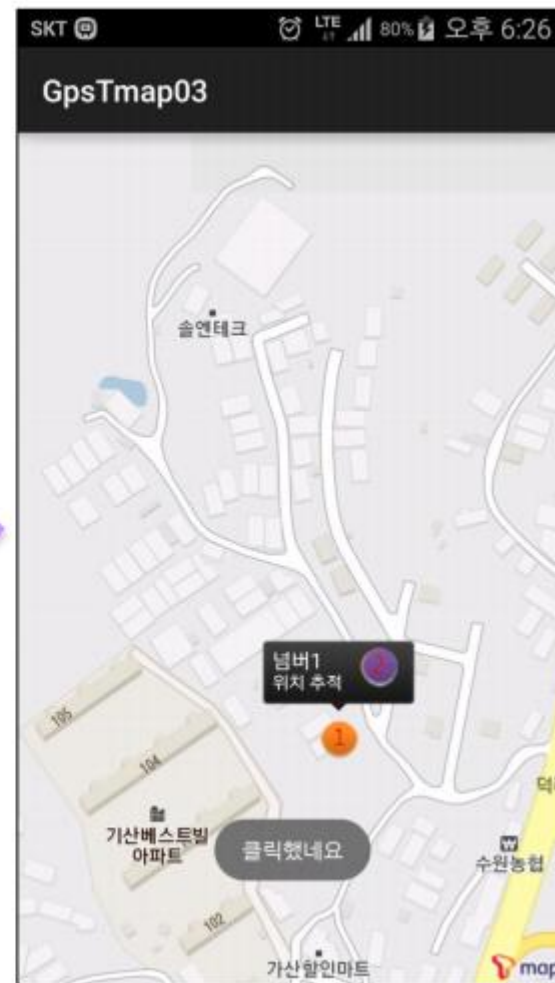
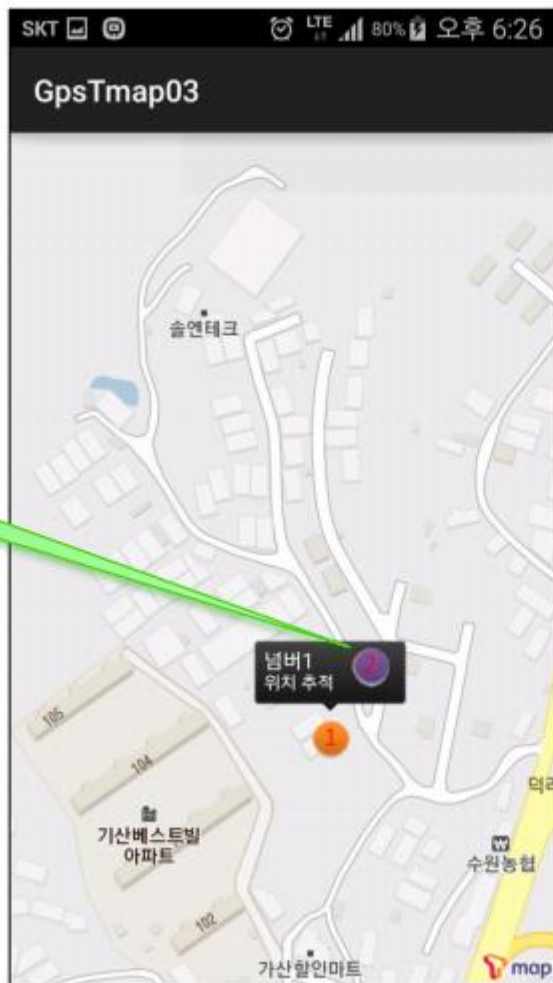
마커 클릭 이벤트

```
MainActivity.java x
18 import com.skp.Tmap.TMapView;
19
20 import java.util.ArrayList;
21
22 public class MainActivity extends AppCompatActivity
23     implements TMapView.OnLongClickListenerCallback,
24     LocationListener, TMapGpsManager.onLocationChangedCallback,
25     TMapView.OnCalloutRightButtonClickCallback{
26
27     private TMapView tMapView = null;
28     TMapGpsManager gps = null;
```

MainActivity.java x

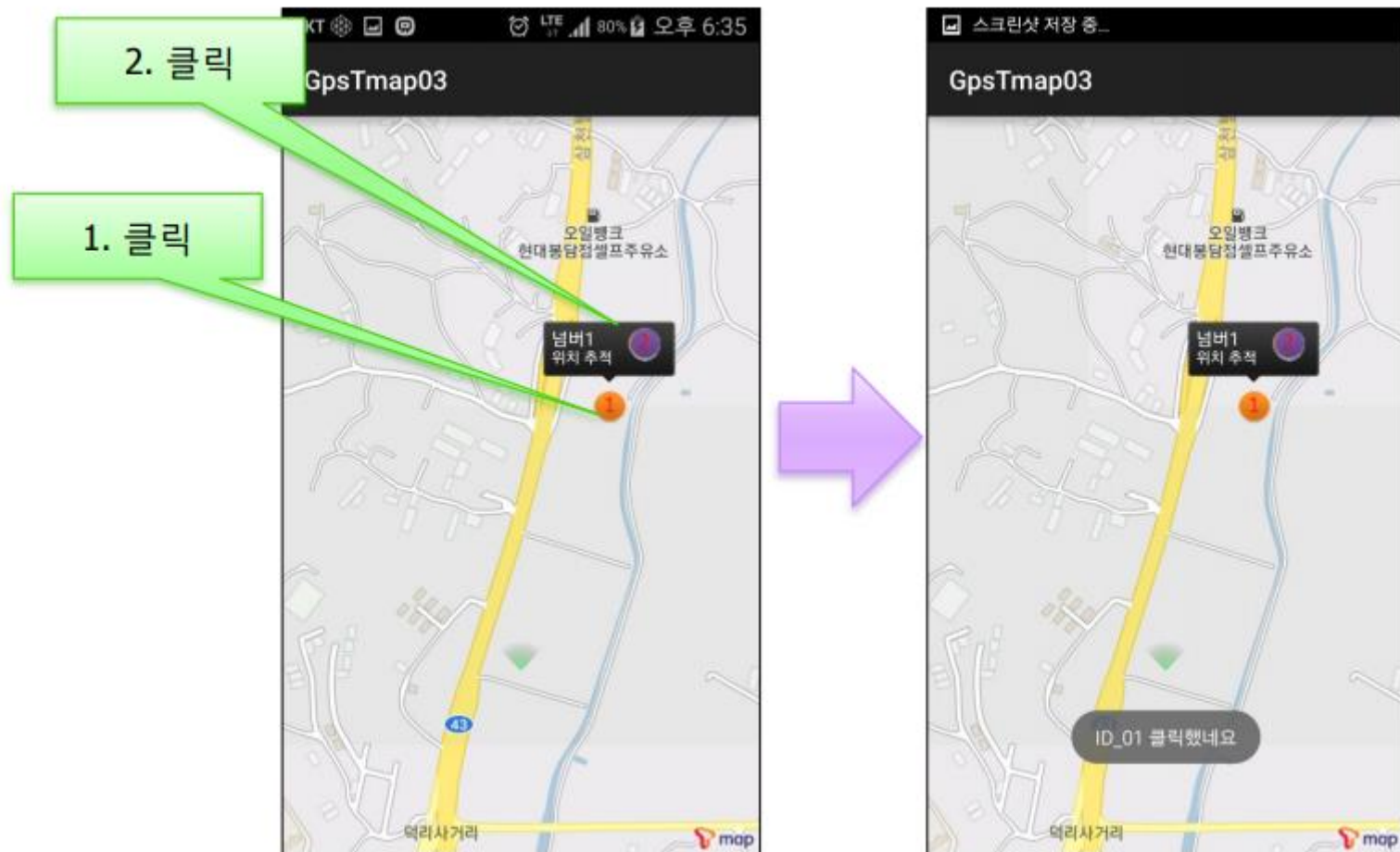
```
130     @Override
131     protected void onPause() {
132         super.onPause();
133     }
134
135     @Override
136     public void onCalloutRightButton(TMapMarkerItem tMapMarkerItem) {
137         Toast.makeText(getApplicationContext(), "클릭했네요", Toast.LENGTH_SHORT).show();
138     }
139 }
140
```

롱 클릭



여러 개의 마커 중에서 이벤트 주기

```
MainActivity.java x
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

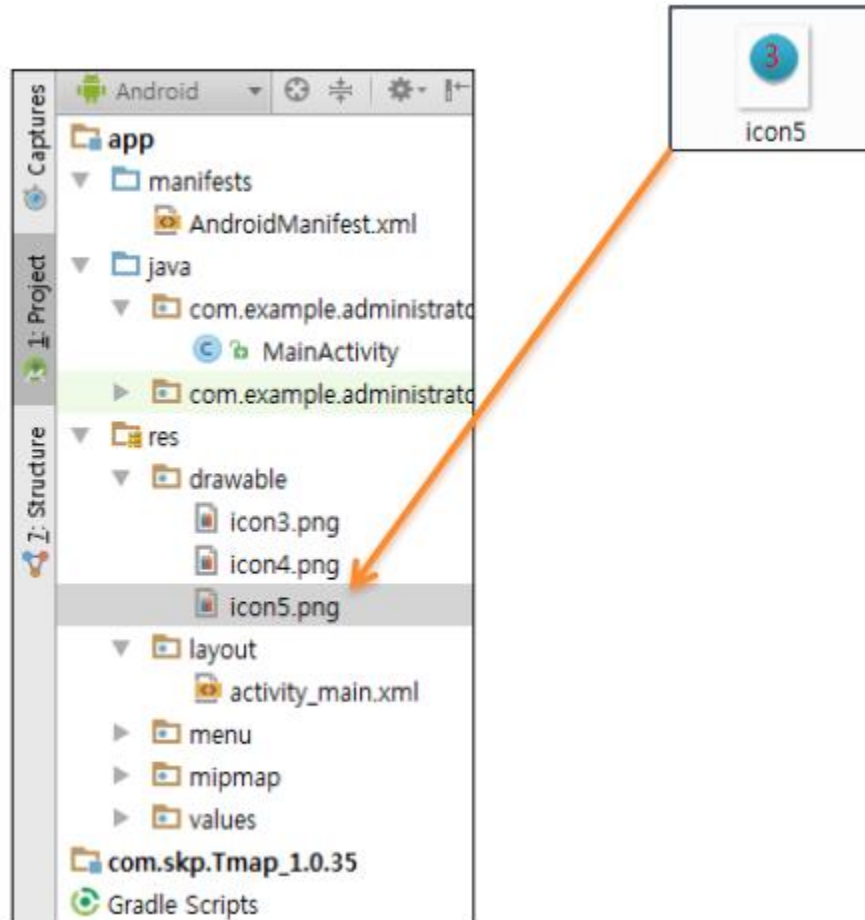
```
MainActivity.java ×
24      LocationListener, TMapGpsManager.onLocationChangedCallback ,
25      TMapView.OnCalloutRightButtonClickCallback{
26
27      private TMapView tMapView = null;
28      TMapGpsManager gps = null;
29      public static String mApiKey = null;
30      public static String mBizAppID = null;
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) {
```

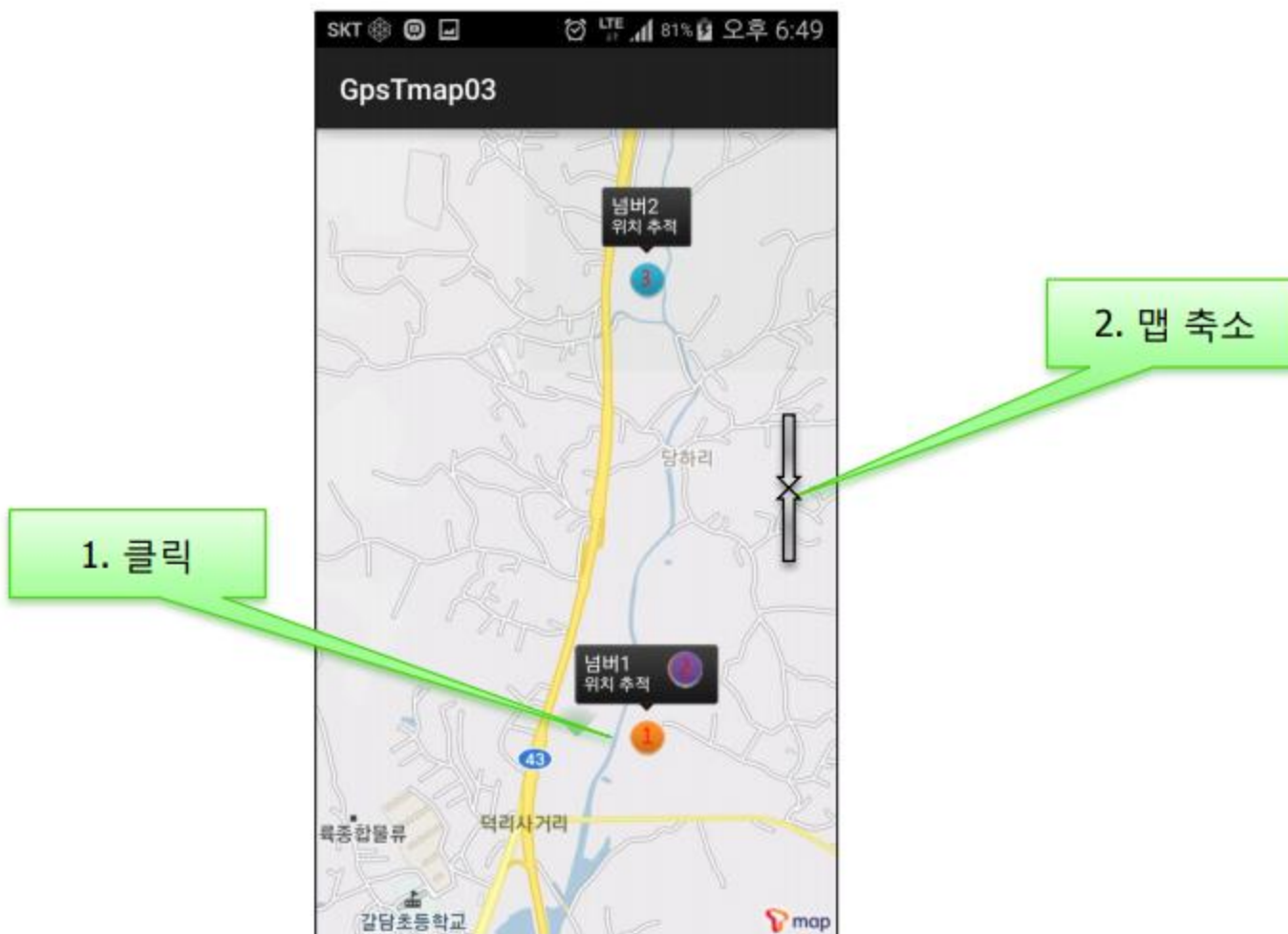
MainActivity.java x

```
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);
```

MainActivity.java x

```
114
115     item2.setTMapPoint(point2);
116     item2.setName("Target");
117     item2.setVisible(item2.VISIBLE);
118     item2.setIcon(bitmap5);
119
120     item2.setCalloutTitle("넘버2");
121     item2.setCalloutSubTitle("위치 추적");
122     item2.setCanShowCallout(true);
123     item2.setAutoCalloutVisible(true);
124
125
126     Bitmap bitmap_i = BitmapFactory.decodeResource(getResources(), R.drawable.icon4);
127     item1.setCalloutRightButtonImage(bitmap_i);
128     tMapView.addMarkerItem("ID_01", item1);
129     tMapView.addMarkerItem("ID_02", item2);
130 }
131
```

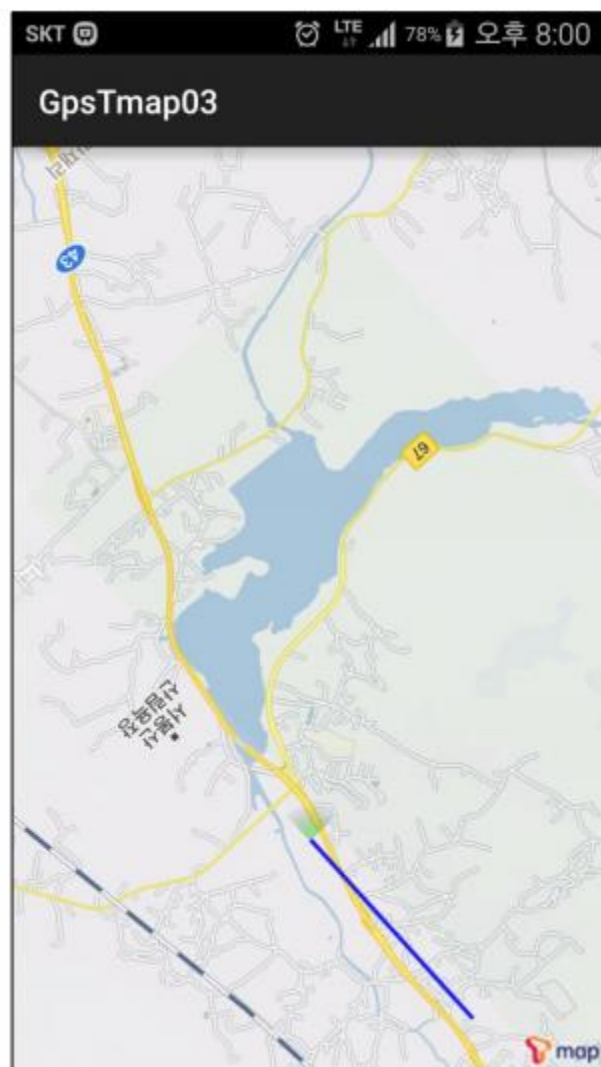




폴리 라인

```
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);
```

```
C MainActivity.java x
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

```
MainActivity.java x
143
144 tMapView.removeAllMapPolyLine();
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
```



C MainActivity.java x

```
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);
```

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);
```

C MainActivity.java x

```
157 double Distance = tpolyline.getDistance();
158 Toast.makeText(getApplicationContext(), String.valueOf(Distance),
159     Toast.LENGTH_SHORT).show();
160
161 tpolygon.setLineColor(Color.RED); //플리곤 선택
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 }
```

