

# Japandroid Meetup

2011 July 26th

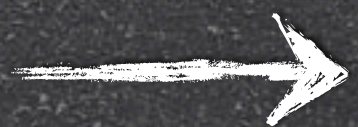


# Maps - Start through Intent

## Code:

```
String latitude = "35.689479";  
String longitude = "139.707411";  
Intent intent = new Intent(Intent.ACTION_VIEW,  
    Uri.parse("http://maps.google.com/?q=" + latitude + "," + longitude));  
startActivity(intent);
```

<https://maps.google.com/?q=35.689479,139.707411>



Will show which app to open  
(Browser or Map application)

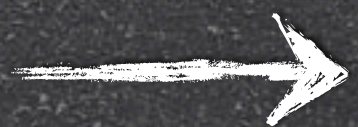


# Maps – Start through Intent 2

## Code:

```
String latitude = "35.689479";  
String longitude = "139.707411";  
Intent intent2 = new Intent(Intent.ACTION_VIEW,  
    Uri.parse("geo:" + latitude + ","  
        + longitude + "?z=17"));  
startActivity(intent2);
```

geo:35.689479,139,707411?z=17



Will open Map application only



# Maps - Show (Image)

Internet Permission in <manifest ...>:

```
<uses-permission android:name="android.permission.INTERNET" />
```

## Code:

```
String loc = latitude + "," + longitude;  
String url = "http://maps.google.com/maps/api/staticmap?center=" + loc  
            + "&zoom=17&size=400x300&sensor=true&markers=" + loc;  
new DownloadImageTask(url).execute();
```

```
https://maps.google.com/maps/api/staticmap?  
center=35.689479,139.707411  
&zoom=17  
&size=400x300  
&sensor=true  
&markers=35.689479,139.707411
```



# Maps – Show (Image) DownloadImageTask

## Code:

```
private class DownloadImageTask extends AsyncTask<Void, Void, Bitmap> {
    private String mUrl;

    public DownloadImageTask(String url) {
        mUrl = url;
    }

    @Override
    protected void onPreExecute() {
        findViewById(R.id.progress).setVisibility(View.VISIBLE);
    }

    @Override
    protected Bitmap doInBackground(Void... params) {
        try {
            return BitmapFactory.decodeStream(new URL(mUrl).openStream());
        } catch (MalformedURLException e) {
        } catch (IOException e) {
        }
        return null;
    }

    @Override
    protected void onPostExecute(Bitmap result) {
        findViewById(R.id.progress).setVisibility(View.GONE);
        if (result != null) {
            ImageView image = (ImageView) findViewById(R.id.image_map);
            image.setImageBitmap(result);
            image.setVisibility(View.VISIBLE);
        } else {
            Toast.makeText(JapandroidMapsActivity.this, "Could not download image",
                Toast.LENGTH_LONG).show();
        }
    }
}
```



# Maps – Show (MapView)

<http://developer.android.com/guide/tutorials/views/hello-mapview.html>

## • Set Build Target to

- Google APIs (2.1-update1)

## • Add to manifest <application ...>

```
<uses-library android:name="com.google.android.maps" />
```

## • Add to manifest <manifest ...>

```
<uses-permission android:name="android.permission.INTERNET" />
```

## • Add in your layout

```
<com.google.android.maps.MapView  
    android:id="@+id/mapview"  
    android:layout_width="fill_parent"  
    android:layout_height="fill_parent"  
    android:clickable="true"  
    android:apiKey="0y1T9ys7F8EjCDDT7zpKHd0hgzcWezwbZowqhHg"  
/>
```

## • Get Maps API Key

- <http://code.google.com/android/add-ons/google-apis/mapkey.html>



# Maps – Show (MapView)

<http://developer.android.com/guide/tutorials/views/hello-mapview.html>

- Let your Activity extend MapActivity

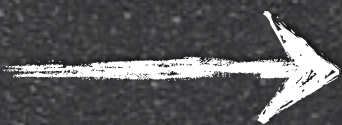
```
public class JapandroidMapsActivity extends MapActivity {
```

- Add required method isRouteDisplayed

```
@Override  
protected boolean isRouteDisplayed() {  
    return false;  
}
```

- Get map and set it up correctly

```
MapView mapView = (MapView) findViewById(R.id.mapview);  
mapView.setBuiltInZoomControls(true);  
MapController controller = mapView.getController();  
GeoPoint point = new GeoPoint((int) (Double.parseDouble(latitude) * 1E6),  
                                (int) (Double.parseDouble(longitude) * 1E6));  
controller.setCenter(point);  
controller.setZoom(16);
```



This centers the map at location,  
but does not show a marker yet



## Maps – Show (MapView)

<http://developer.android.com/guide/tutorials/views/hello-mapview.html>

- Add class extending ItemizedOverlay<OverlayItem>

```
package ch.pboos.japandroid.maps;

import java.util.ArrayList;

import android.graphics.drawable.Drawable;

import com.google.android.maps.ItemizedOverlay;
import com.google.android.maps.OverlayItem;

public class MapItemizedOverlay extends ItemizedOverlay<OverlayItem> {
    private ArrayList<OverlayItem> mOverlays = new ArrayList<OverlayItem>();

    public MapItemizedOverlay(Drawable defaultMarker) {
        super(boundCenterBottom(defaultMarker));
    }

    public void addOverlay(OverlayItem overlay) {
        mOverlays.add(overlay);
        populate();
    }

    @Override
    protected OverlayItem createItem(int i) {
        return mOverlays.get(i);
    }

    @Override
    public int size() {
        return mOverlays.size();
    }
}
```



## Maps – Show (MapView)

<http://developer.android.com/guide/tutorials/views/hello-mapview.html>

- Add a marker through the created ItemizedOverlay class

```
List<Overlay> mapOverlays = mMapView.getOverlays();
Drawable drawable =
    this.getResources().getDrawable(R.drawable.map_pin);
MapItemizedOverlay itemizedOverlay =
    new MapItemizedOverlay(drawable);
OverlayItem overlayitem = new OverlayItem(point, "", "");
itemizedOverlay.addOverlay(overlayitem);
mapOverlays.add(itemizedOverlay);
```



# Code example

[https://github.com/pboos/  
GoogleMapExamples](https://github.com/pboos/GoogleMapExamples)