

# Développement d'une application pour Android

Duty Pharmacy Locator

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Actualisation - Avril 2013

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# Objectifs

Le but de cette application est de permettre de localiser facilement la pharmacie de garde ouverte la plus proche.

- Fonctionne sur une large gamme de périphérique (> API 10)
- Synchronisation avec les données du site "pharmacie.be"
- Affichage des pharmacies sur une carte
- Affichage d'une liste des pharmacies triée par proximité
- Possibilité d'appeler et d'afficher sur Google Maps la pharmacie sélectionnée
- Entièrement Open Source (sur GitHub)
- Disponible gratuitement sur Google PlayStore

# AndroidManifest.xml

```
<manifest package="be.itsworking.dpl" android:installLocation="auto" android:versionCode="20" android:
versionName="2.0" xmlns:android="http://schemas.android.com/apk/res/android">

    <uses-sdk android:minSdkVersion="10" android:targetSdkVersion="17" android:maxSdkVersion="17" />
    <permission android:name="be.itsworking.dpl.permission.MAPS_RECEIVE" android:protectionLevel="signature" />
    <uses-permission android:name="android.permission.INTERNET" />
    <uses-permission android:name="android.permission.ACCESS_NETWORK_STATE" />
    <uses-permission android:name="android.permission.WRITE_EXTERNAL_STORAGE" />
    <uses-permission android:name="com.google.android.providers.gsf.permission.READ_GSERVICES" />
    <uses-permission android:name="android.permission.ACCESS_COARSE_LOCATION" />
    <uses-permission android:name="android.permission.ACCESS_FINE_LOCATION" />
    <uses-permission android:name="be.itsworking.dpl.permission.MAPS_RECEIVE" />
    <uses-feature android:glEsVersion="0x00020000" android:required="true" />
    <application android:allowBackup="true" android:icon="@drawable/caduceus" android:label="@string/app_name">
        <activity android:name="be.itsworking.dpl.DutyPharmacyLocatorActivity" android:label="@string/app_name">
            <intent-filter>
                <action android:name="android.intent.action.MAIN" />
                <category android:name="android.intent.category.LAUNCHER" />
            </intent-filter>
        </activity>
        <activity android:name="be.itsworking.dpl.MyListActivity" />
        <activity android:name="be.itsworking.dpl.MyMapActivity" />
        <activity android:name="be.itsworking.dpl.MyPharmacyActivity" />
        <meta-data android:name="com.google.android.maps.v2.API_KEY" android:value="APIKEY" />
        <uses-library android:required="true" android:name="com.google.android.maps" />
    </application>
</manifest>
```

# Récupérer la liste - Requête

```
/**
 * @param position LatLng
 * @return String
 */
public static String getXmlFromPosition(LatLng position) throws IOException
{
    HttpClient client = new DefaultHttpClient();
    String getURL="http://admin.ringring.be/apb/public/duty_xml.asp?lang=2&lat="+position.latitude+"&lng="
+position.longitude;
    HttpGet get = new HttpGet(getURL);
    HttpResponse responseGet = client.execute(get);
    HttpEntity resEntityGet = responseGet.getEntity();
    if (resEntityGet != null)
    {
        // do something with the response
        String response = EntityUtils.toString(resEntityGet);
        Log.i("GET RESPONSE", response);
        return response;
    }

    Log.e("getXmlFromPosition","response null ??");
    return null;
}
```

# Récupérer la liste - Réponse

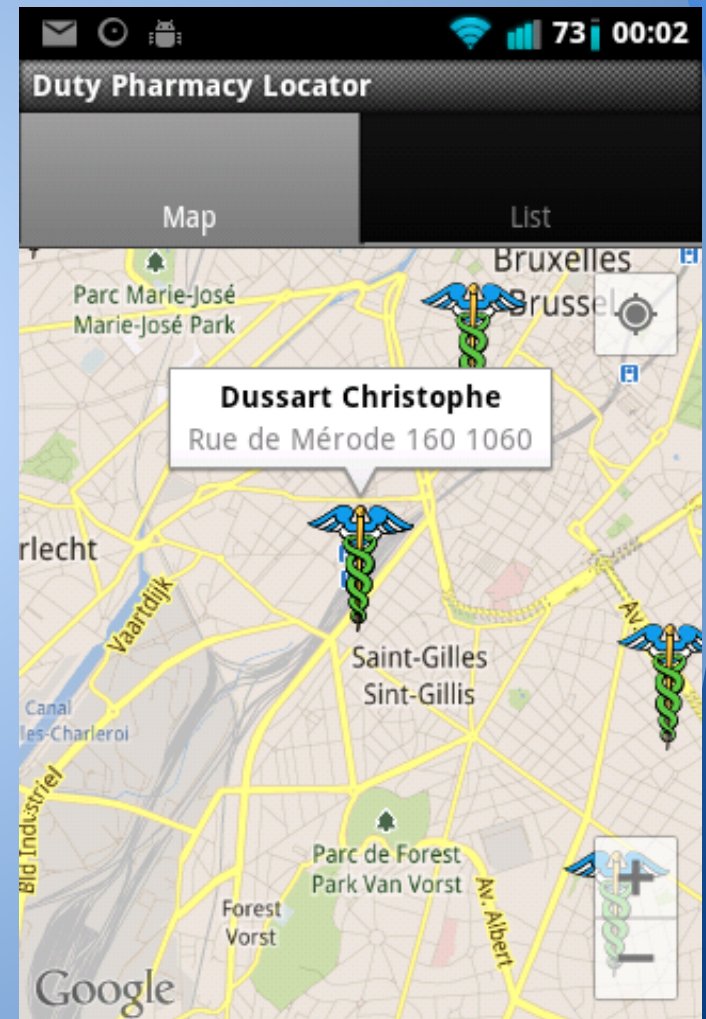
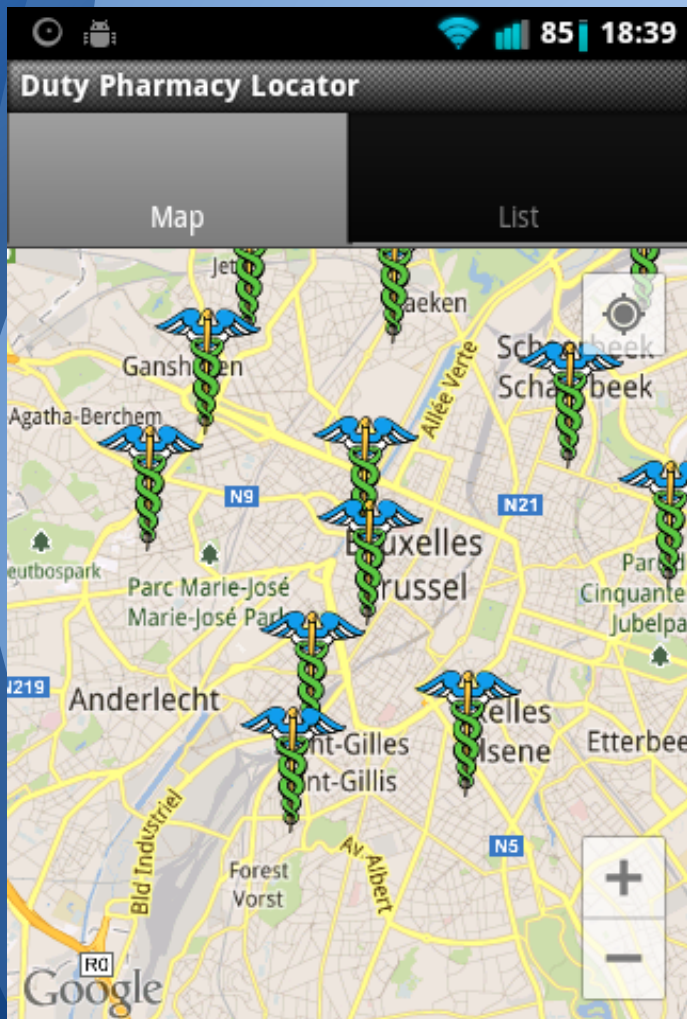
```
<?xml version="1.0"?>
<duty>
  <pharmacy code="210836" lat="50.8752689" lng="4.3479249" distance="1.2676452155"
  >
    <name>Schartz Christian</name>
    <pharmacist>Schartz Christian</pharmacist>
    <address>Boulevard Emile Bockstael 169</address>
    <postalcode>1020</postalcode>
    <city>Laeken</city>
    <phone>024264722</phone>
    <url>http://www.aposite.be/schartz1020</url>
    <hours>10/05/2013 de 09:00 &#224; 19:00<br/&gt;</hours>
    <label>de garde</label>
    <labeltype>1</labeltype>
  </pharmacy>
  ...
</duty>
```

# Classes

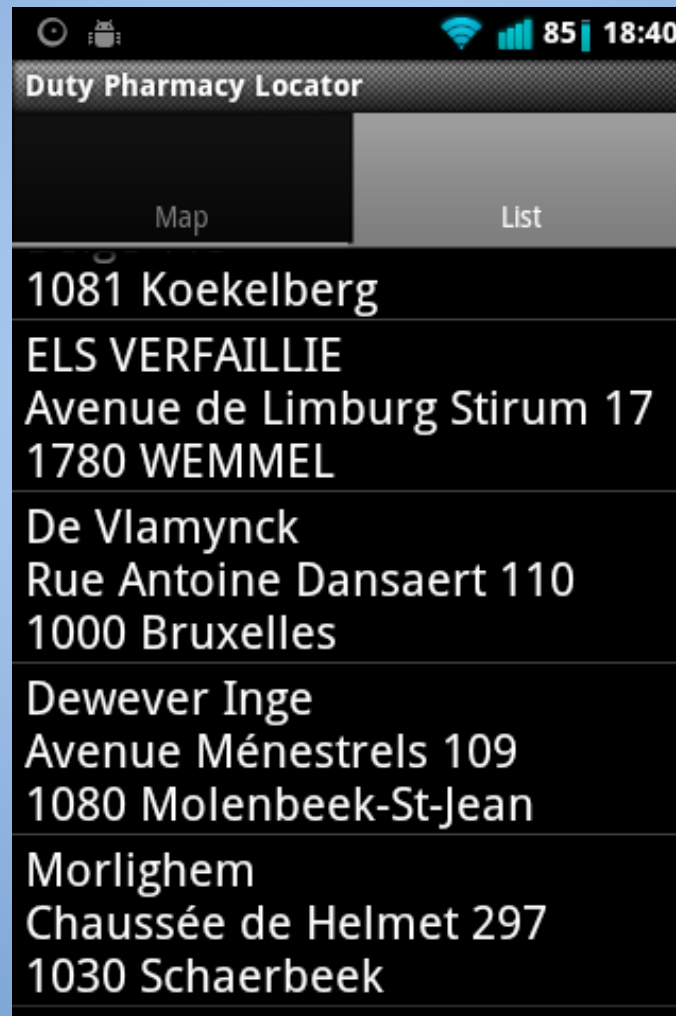
- Activities
  - DutyPharmacyLocatorActivity
    - MyMapActivity
    - MyListActivity
  - MyPharmacyActivity
- Transfert Objects
  - MyPharmacy
- Data Helper
  - PharmacyXMLParser
  - PharmacyList



# MyMapActivity



# MyListActivity

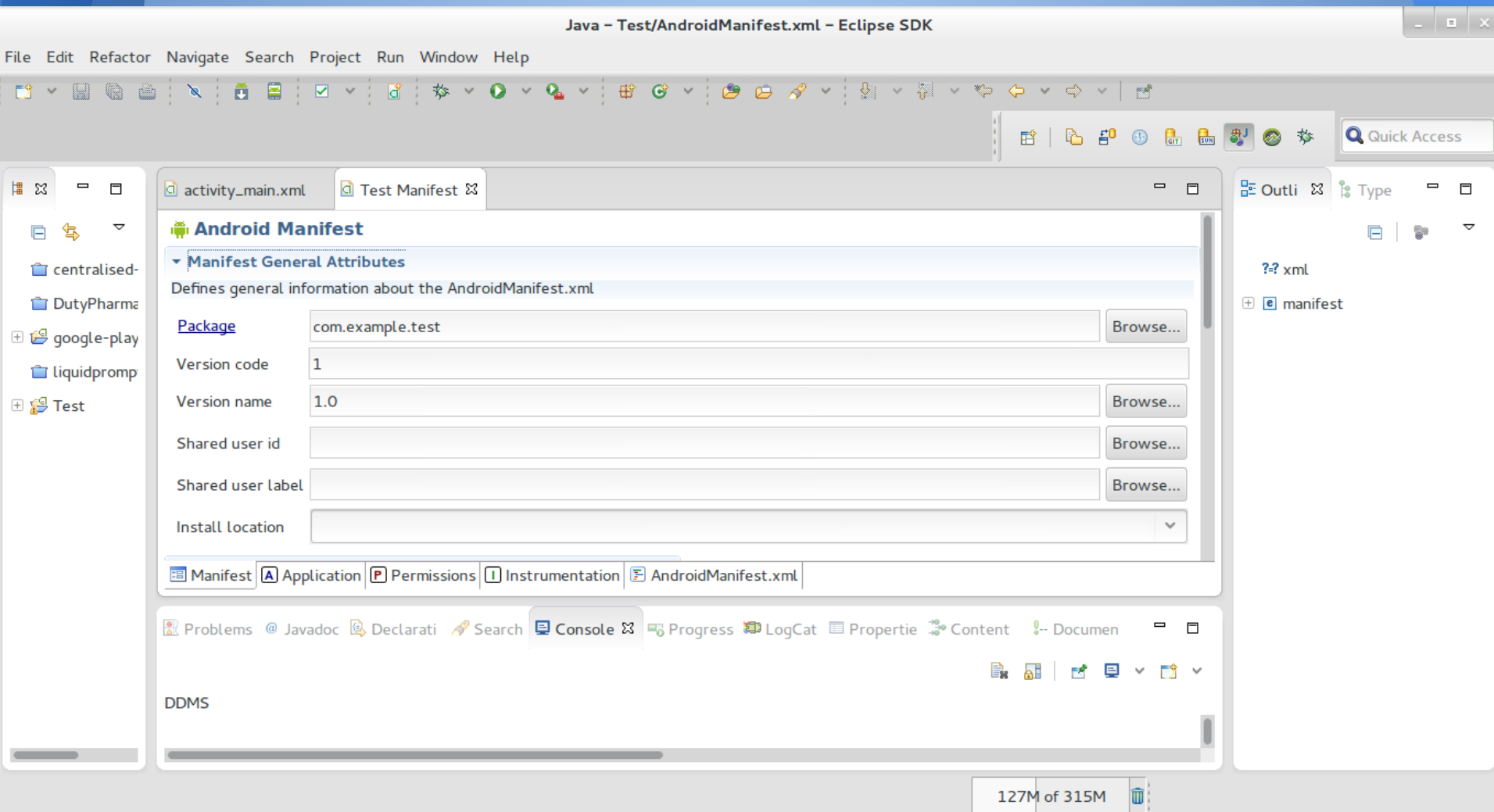




# MyPharmacyActivity



# IDE - Eclipse + ADT Plugin



# IDE - Android Studio



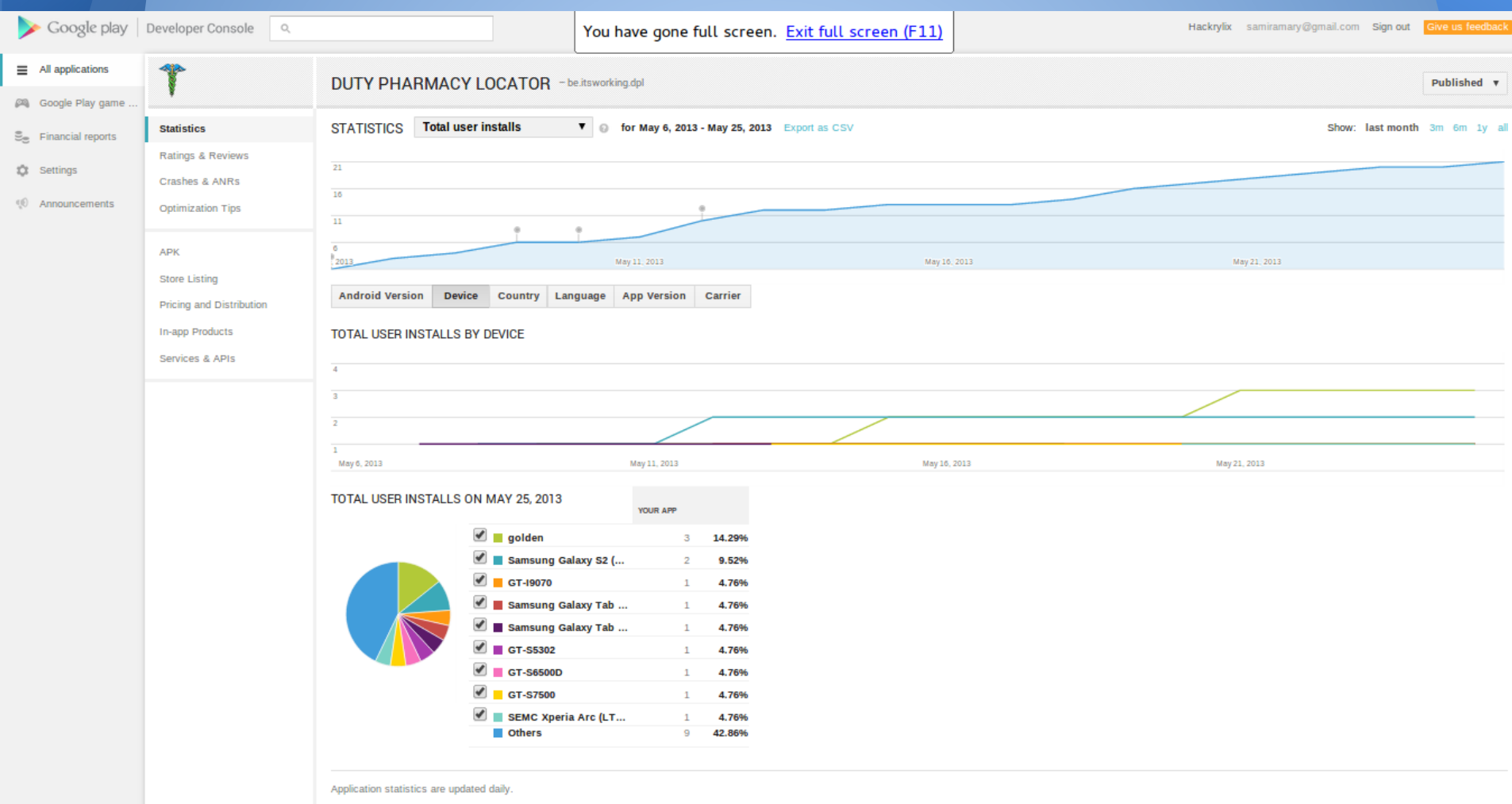
# IDE - Android Studio

The screenshot displays the Android Studio IDE interface. The top menu bar includes File, Edit, View, Navigate, Code, Analyze, Refactor, Build, Run, Tools, VCS, Window, and Help. The toolbar below the menu contains various icons for file operations, running, and development. The main workspace is divided into several panels:

- Left Panel:** Contains the Project view (showing the file structure with folders like main, res, layout, and activity\_my\_list.xml) and the Palette (showing various UI widgets like LinearLayout, RelativeLayout, TextView, Button, etc.).
- Center Panel:** Displays the layout editor for activity\_my\_list.xml. It shows a preview of the app's UI, which includes a list of items (Item 1, Item 2, Item 3, Item 4) and a button labeled "Duty Pharmacy Locator".
- Right Panel:** Contains the Component Tree (showing the hierarchy of UI components, including RelativeLayout and lv\_pharmacy (ListView)) and the Properties panel (showing various properties like layout:width, layout:height, style, alpha, background, etc.).
- Bottom Panel:** Contains the Logcat view, which displays system logs and app-specific logs. The log level is set to Verbose, and the filter is set to dpl. The log shows various messages, including GC\_CONCURRENT freed 582K, 41% free 4479K/7559K, external 698K/875K, and I/dalvikvm: Jit: resizing JitTable from 512 to 1024.

The bottom status bar shows the current state of the app, including the version control status (Git: master) and the memory usage (230M of 711M).

# Google Developer Console





# Google Play Store - L'application



# Liens utiles

- <http://developers.google.com/>
- <http://developer.android.com>
- <https://developers.google.com/events/io/>
- <https://play.google.com/apps/publish>
- <https://github.com/Hackrylix/DutyPharmacyLocator>
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**Merci**