

Echo bezeroa Androiden

Socketak Java lengoaian



Beginner to beginner

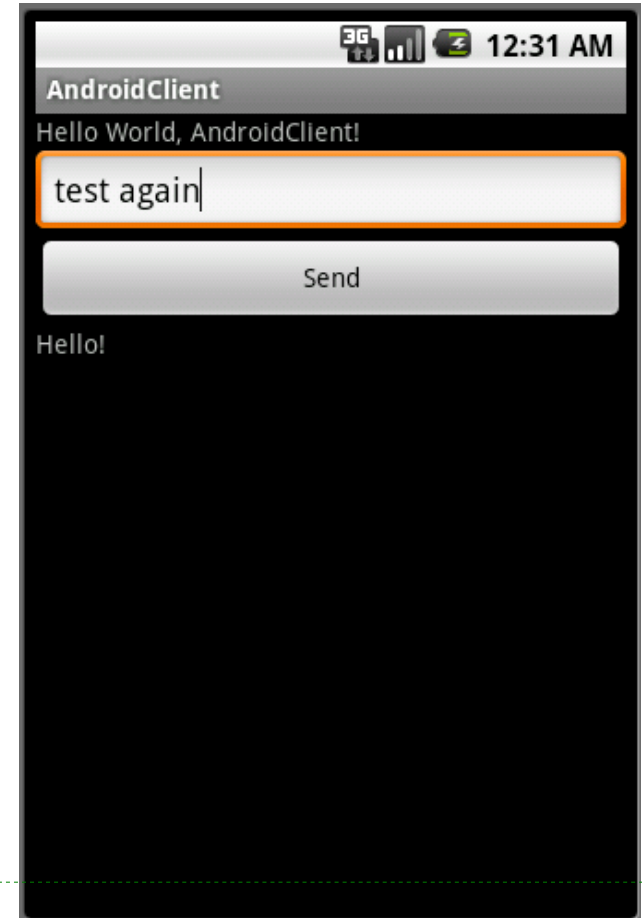
”Simple communication
using java.net.Socket”

Gehitu “AndroidManifest.xml”
fitxategian INTERNET atzitzeko
baimenak!

```
android:minSdkVersion <= 9
```

edo gehitu kodeari:

```
StrictMode.ThreadPolicy policy = new StrictMode.ThreadPolicy.Builder().permitAll().build();  
StrictMode.setThreadPolicy(policy);
```



<http://android-er.blogspot.com/2011/01/simple-communication-using.html>

Maneiatzaile bat lotzen

```
public class AndroidClient extends Activity {  
  
    EditText textOut;  
    TextView textIn;  
  
    /** Called when the activity is first created. */  
    @Override  
    public void onCreate(Bundle savedInstanceState) {  
        super.onCreate(savedInstanceState);  
        setContentView(R.layout.main);  
  
        textOut = (EditText)findViewById(R.id.textout);  
        Button buttonSend = (Button)findViewById(R.id.send);  
        textIn = (TextView)findViewById(R.id.textin);  
        buttonSend.setOnClickListener(buttonSendOnClickListener);  
    }  
}
```

Socketak: Bezeroa TCP erabiliz

```
Button.OnClickListener buttonSendOnClickListener  
= new Button.OnClickListener(){
```

```
@Override  
public void onClick(View arg0) {  
    Socket socket = null;  
    DataOutputStream dataOutputStream = null;  
    DataInputStream dataInputStream = null;
```

```
    try {  
        socket = new Socket("192.168.1.101", 8888);  
        dataOutputStream = new DataOutputStream(socket.getOutputStream());  
        dataInputStream = new DataInputStream(socket.getInputStream());  
        dataOutputStream.writeUTF(textOut.getText().toString());  
        textIn.setText(dataInputStream.readUTF());  
    } catch (UnknownHostException e) {  
        e.printStackTrace();  
    } catch (IOException e) {  
        e.printStackTrace();  
    }  
}
```

Socketak: Bezzeroa TCP erabiliz

```
finally{
  if (socket != null){
    try {
      socket.close();
    } catch (IOException e) {
      e.printStackTrace();
    }
  }
  if (dataOutputStream != null){
    try {
      dataOutputStream.close();
    } catch (IOException e) {
      e.printStackTrace();
    }
  }
  if (dataInputStream != null){
    try {
      dataInputStream.close();
    } catch (IOException e) {
      e.printStackTrace();
    }
  }
  ...
}
```

Socketak: java.net paketea

- TCP
 - *Socket*
 - *ServerSocket*
- UDP
 - *DatagramSocket*
- ...

<http://developer.android.com/reference/java/net/package-summary.html>

Echo bezero hobetua

5554:AVD2.1

Oihartzun bezero hobetua

Zerbitzaria: g000008.gi.ehu.es

Konektatu

Mezua:

Bidali

Erantzuna:

5554:AVD2.1

Oihartzun bezero hobetua

Zerbitzaria: g000008.gi.ehu.es

Deskonektatu

Mezua: 3. mezua

Bidali

Erantzuna:

2. mezua
1. mezua

Web zerbitzuak erabiliz Android
aplikazio batean

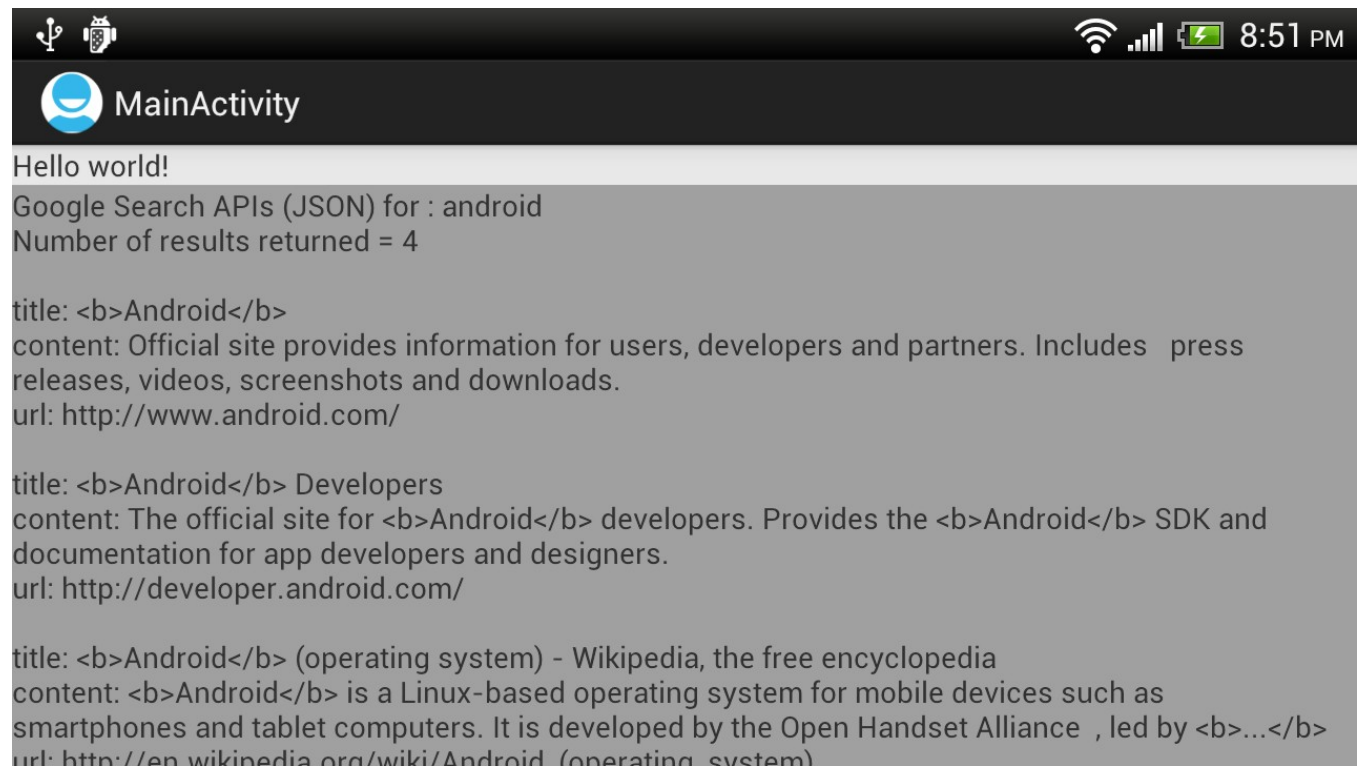
Google Search API



“Implement Google Search (JSON) for Android”

- *Google Search API*
- *HttpURLConnection*
- *JSON*
- *AsyncTask*

INTERNET atzitu ahal
izateko baimenak!



<http://android-er.blogspot.com.es/2012/09/implement-google-search-json-for-android.html>

Google Search API

```
public class MainActivity extends Activity {
```

```
String search_url = "http://ajax.googleapis.com/ajax/services/search/web?v=1.0&q=";
```

```
String search_item = "android";
```

```
String search_query = search_url + search_item;
```

```
TextView textResult;
```

```
@Override
```

```
protected void onCreate(Bundle savedInstanceState) {
```

```
    super.onCreate(savedInstanceState);
```

```
    setContentView(R.layout.activity_main);
```

```
    textResult = (TextView)findViewById(R.id.result);
```

```
    //new JsonSearchTask().execute();    // AsyncTask!
```

```
    textResult.setText(ParseResult(sendQuery(search_query)));
```

```
}
```

Google Search API + URLConnection

```
private String sendQuery(String query) throws IOException{
    String result = "";
    URL searchURL = new URL(query);
    HttpURLConnection httpURLConnection = (HttpURLConnection)searchURL.openConnection();

    if(httpURLConnection.getResponseCode() == HttpURLConnection.HTTP_OK){
        InputStreamReader inputStreamReader =
            new InputStreamReader(httpURLConnection.getInputStream());
        BufferedReader bufferedReader = new BufferedReader(inputStreamReader, 8192);

        String line = null;
        while((line = bufferedReader.readLine()) != null){
            result += line;
        }
        bufferedReader.close();
    }
    return result;
}
```

JSON

```
private String ParseResult(String json) throws JSONException{
```

```
    String parsedResult = "";
```

```
    JSONObject jsonObject = new JSONObject(json);
```

```
    JSONObject jsonObject_responseData = jsonObject.getJSONObject("responseData");
```

```
    JSONArray jsonArray_results = jsonObject_responseData.getJSONArray("results");
```

```
    parsedResult += "Google Search APIs (JSON) for : " + search_item + "\n";
```

```
    parsedResult += "Number of results returned = " + jsonArray_results.length() + "\n\n";
```

```
    for(int i = 0; i < jsonArray_results.length(); i++){
```

```
        JSONObject jsonObject_i = jsonArray_results.getJSONObject(i);
```

```
        parsedResult += "title: " + jsonObject_i.getString("title") + "\n";
```

```
        parsedResult += "content: " + jsonObject_i.getString("content") + "\n";
```

```
        parsedResult += "url: " + jsonObject_i.getString("url") + "\n";
```

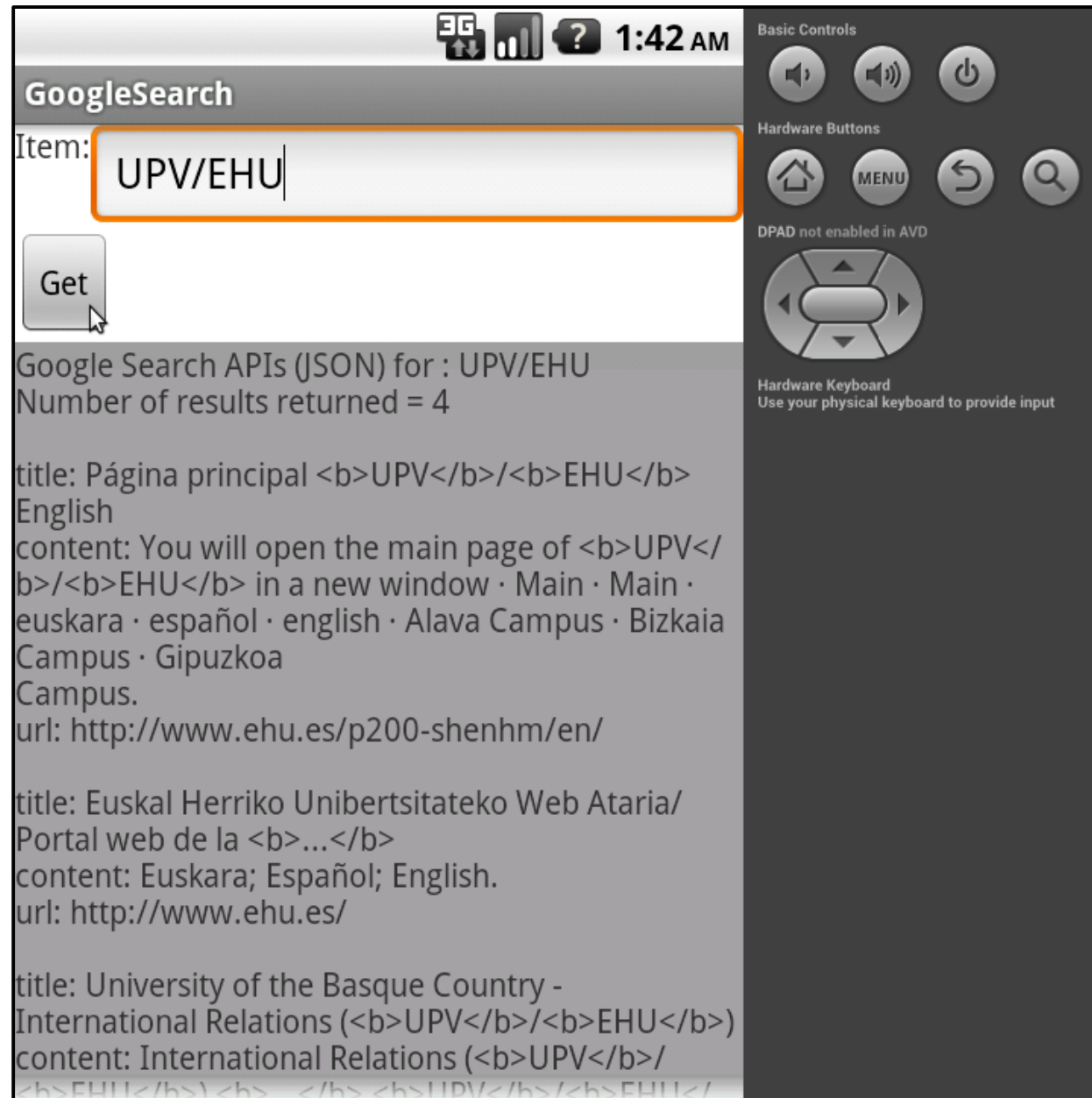
```
        parsedResult += "\n";
```

```
    }
```

```
    return parsedResult;
```

```
}
```

Use Google Search API



Gehitu:

- *EditText*
- Botoia

Bisita liburua atzitzea

Bisita liburua: iruzkinak. - Mozilla Firefox

Bisita liburua: iruzkinak.

192.168.189.128/iruzkinak.php

Google

ES ▶ EU

Elhuyar Euskalterm ZT Hiztegia Batua ItzuL Orotarikoa UZEI

Bisita liburua

Hona hemen eskatutako iruzkin zerrenda. Menu nagusira itzultzeko sakatu [hemen](#).

Mon, 09 Dec 2013 13:29:06 +0000	Txus	<txus@szasar.org>
1. co... [Iruzkin osoa irakurri]		
Mon, 09 Dec 2013 13:29:33 +0000	Txus	<txus@szasar.org>
2. co... [Iruzkin osoa irakurri]		
Mon, 09 Dec 2013 13:30:07 +0000	Ibai	<ibai@szasar.org>
1. co... [Iruzkin osoa irakurri]		
Mon, 09 Dec 2013 13:32:32 +0000	Ibai	<ibai@szasar.org>
Beste iruzkin bat!		
Mon, 09 Dec 2013 13:33:09 +0000	Txus	<txus@szasar.org>
Txusen iruzkin berria!		

Bisita liburua atzitzea



Google Search API + AsyncTask

```
android:minSdkVersion >= "10"
```

```
private class JsonSearchTask extends AsyncTask<Void, Void, Void>{
```

```
    String searchResult = "";
```

```
    @Override protected Void doInBackground(Void... arg0) {
```

```
        try {
```

```
            searchResult = ParseResult(sendQuery(search_query));
```

```
        } catch (JSONException e) {
```

```
            e.printStackTrace();
```

```
        } catch (IOException e) {
```

```
            e.printStackTrace();
```

```
        }
```

```
        return null;
```

```
    }
```

```
    @Override protected void onPostExecute(Void result) {
```

```
        textResult.setText(searchResult);
```

```
        super.onPostExecute(result);
```

```
    }
```

```
}
```

OnCreate(...) funtzioan:

```
...
```

```
new JsonSearchTask().execute();
```

```
//textResult.setText(ParseResult(sendQ...
```

