HttpHandler.java

```
package com.sutanto.teguh.json2;
import android.support.annotation.NonNull;
import android.util.Log;

import java.io.BufferedInputStream;
import java.io.BufferedReader;
import java.io.IOException;
import java.io.InputStream;
import java.io.InputStreamReader;
import java.net.HttpURLConnection;
import java.net.MalformedURLException;
import java.net.ProtocolException;
import java.net.URL;

/**
 * Created by teguh on 22/11/16.
 */

public class HttpHandler {
    private static final String TAG = HttpHandler.class.getSimpleName();
    public HttpHandler() {
    }

    public String makeServiceCall(String reqUrl) {
        String response = null;
        try {
            URL url = new URL(reqUrl);
            HttpURLConnection conn = (HttpURLConnection)
url.openConnection();
            conn.setRequestMethod("GET");
            InputStream in = new
BufferedInputStream(conn.getInputStream());
            response = convertStreamToString(in);
        }catch (Exception e) {
            Log.e(TAG, "Exception: " + e.getMessage());
        }
        return response;
    }
    @NonNull
    private String convertStreamToString(InputStream is) {
        BufferedReader reader = new BufferedReader(new
InputStreamReader(is));
        StringBuilder sb = new StringBuilder();
        String line;
        try {
            while ((line = reader.readLine()) != null) {
                sb.append(line).append('\n');
            }
        } catch (IOException e) {
            e.printStackTrace();
        } finally {
            try {
                is.close();
            } catch (IOException e) {
                e.printStackTrace();
            }
        }

        return sb.toString();
```

```
    }
}
```

Main activity.java

```
package com.sutanto.teguh.json2;

import android.support.v7.app.AppCompatActivity;
import android.os.Bundle;
import android.util.Log;
import android.widget.ListAdapter;
import android.widget.ListView;
import android.widget.SimpleAdapter;
import android.widget.Toast;
import android.os.AsyncTask;
import org.json.JSONArray;
import org.json.JSONException;
import org.json.JSONObject;
//import java.util.ArrayList;
import java.util.ArrayList;
import java.util.HashMap;

public class MainActivity extends AppCompatActivity {
    private String TAG = MainActivity.class.getSimpleName();
    private ListView lv;

    ArrayList<HashMap<String, String>> contactList;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        contactList = new ArrayList<>();
        lv = (ListView) findViewById(R.id.daftarNama);
        new GetContacts().execute();
    }
    private class GetContacts extends AsyncTask<Void, Void, Void> {
        @Override
        protected void onPreExecute() {
            super.onPreExecute();
            Toast.makeText(MainActivity.this,"Json Data sedang
didownload...",Toast.LENGTH_LONG).show();
        }
        @Override
        protected Void doInBackground(Void... arg0) {
            HttpHandler sh = new HttpHandler();
            String url = "http://api.androidhive.info/contacts/";
            String jsonStr = sh.makeServiceCall(url);
            Log.e(TAG, "Respon dari URL : " + jsonStr);
            if (jsonStr != null) {
                try {
                    JSONObject jsonObj = new JSONObject(jsonStr);
                    JSONArray contacts = jsonObj.getJSONArray("contacts");
                    for (int i = 0; i < contacts.length(); i++) {
                        JSONObject c = contacts.getJSONObject(i);
                        String id = c.getString("id");
                        String name = c.getString("name");
                        String email = c.getString("email");
                        String address = c.getString("address");
                        String gender = c.getString("gender");
```

```
                        // Phone node is JSON Object
                        JSONObject phone = c.getJSONObject("phone");
                        String mobile = phone.getString("mobile");
                        String home = phone.getString("home");
                        String office = phone.getString("office");
                        // tmp hash map for single contact
                        HashMap<String, String> contact = new HashMap<>();
                        // adding each child node to HashMap key => value
                        contact.put("id", id);
                        contact.put("name", name);
                        contact.put("email", email);
                        contact.put("mobile", mobile);
                        // adding contact to contact list
                        contactList.add(contact);
                    }
                } catch (final JSONException e) {
                    Log.e(TAG, "Json parsing error: " + e.getMessage());
                    runOnUiThread(new Runnable() {
                        @Override
                        public void run() {
                            Toast.makeText(getApplicationContext(),
                                    "Json parsing error: " +
e.getMessage(),
                                    Toast.LENGTH_LONG).show();
                        }
                    });

                }

            } else {
                Log.e(TAG, "Tidak dapat mengunduh JSon dari server.");
                runOnUiThread(new Runnable() {
                    @Override
                    public void run() {
                        Toast.makeText(getApplicationContext(),
                                "Couldn't get json from server. Check
LogCat for possible errors!",
                                Toast.LENGTH_LONG).show();
                    }
                });
            }

            return null;
        }

        @Override
        protected void onPostExecute(Void result) {
            super.onPostExecute(result);
            ListAdapter adapter = new SimpleAdapter(MainActivity.this,
contactList,
                    R.layout.list_item, new String[]{
"name","email","mobile"},
                    new int[]{R.id.nama,R.id.email, R.id.mobile});
            lv.setAdapter(adapter);
        }
    }
}
```