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Project Title:

EARTHQUAKE REPORT

Project Members:

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Project Title

Earthquake Report

Introduction

As we are human beings, we tend to be aware of our surroundings and natural calamities like earthquakes takes the primary spot. As life matters above all, we humans have the innate instinct for safety first. Therefore, we have developed an app, which keeps us posted with all the latest news about earthquakes.

Abstract

Our Application generates a link, which directs the user to a website with which has detailed report on the earthquake incident. It includes a full earthquake report, stating the severity of the calamity and magnitude in Richter scale. It also displays the geographic location along with Latitudes and Longitudes. The accurate time of the day, distance and depth of origin are all covered in the detailed report. Thus, the users of our app have all the available knowledge of the natural disaster and can use it for ensuring their safety.

Problem Statement

Earthquake is a very unpredictable phenomenon, a disastrous natural calamity. So in order to understand more of it, being up-to-date about its occurrences and most importantly to predict it, we have made this application.

Modules

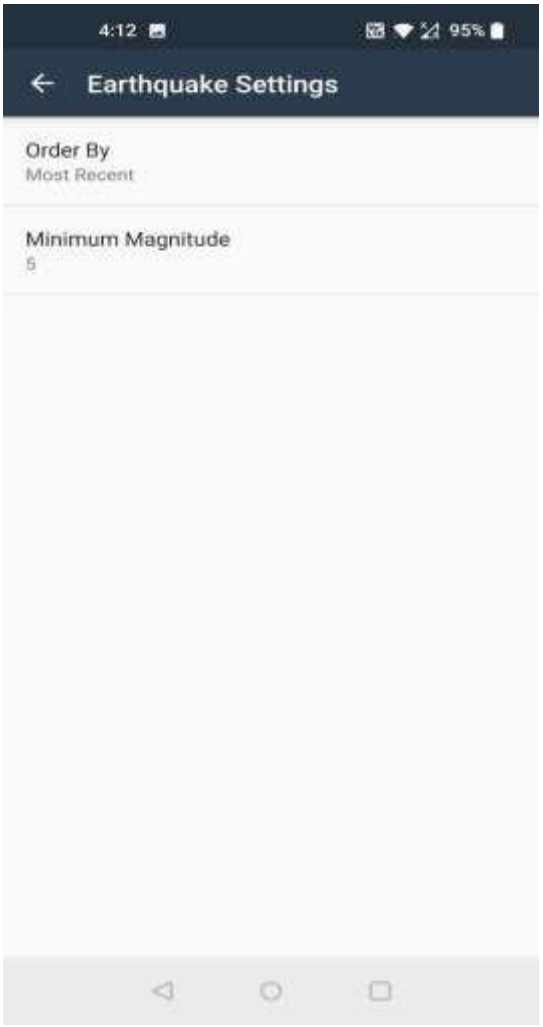
Earthquake Reporting System has two modules.

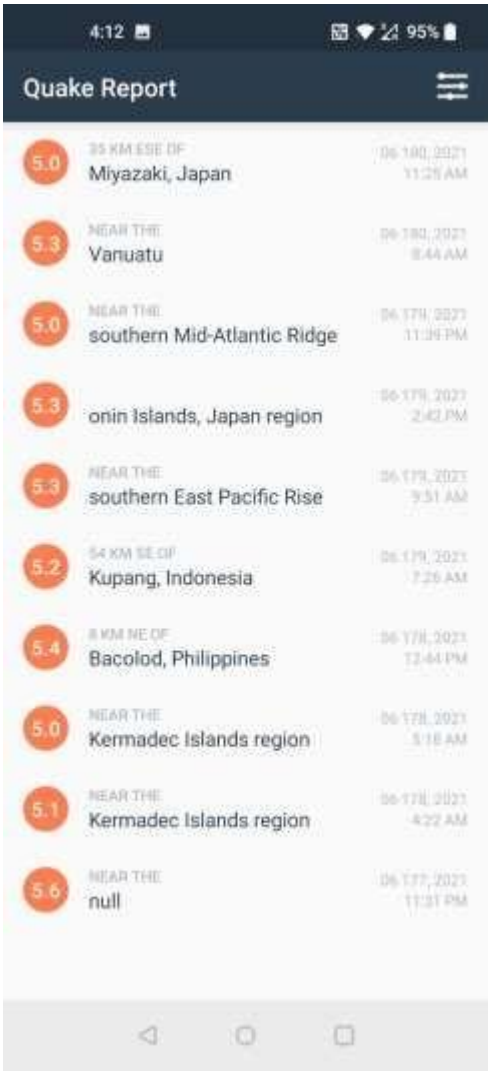
The first is the User Interface, in which User enters the data and gets the details. The second is the database where the data about the earthquake is saved.

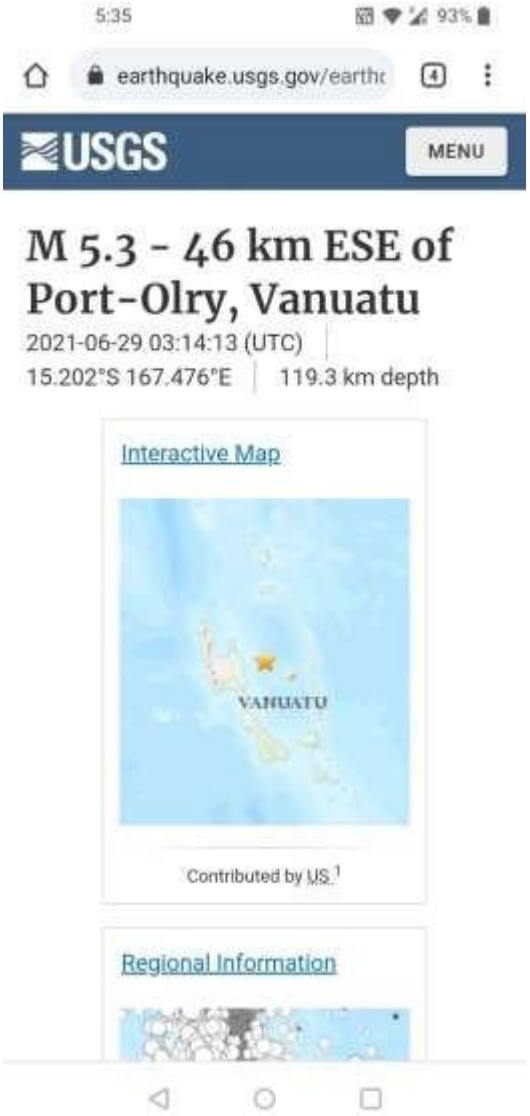
Conclusion

It is a working model. It can be downloaded on both android and ios. It helps us to get details of a particular earthquake according to the desired magnitude.

Screenshots




4:12
95%
Quake Report
5.0
35 KM ESE OF
Miyazaki, Japan
06 JUN, 2021
11:25 AM
5.3
NEAR THE
Vanuatu
06 JUN, 2021
8:44 AM
5.0
NEAR THE
southern Mid-Atlantic Ridge
06 JUN, 2021
11:39 PM
5.3
onin Islands, Japan region
06 JUN, 2021
2:42 PM
5.3
NEAR THE
southern East Pacific Rise
06 JUN, 2021
9:51 AM
5.2
54 KM SE OF
Kupang, Indonesia
06 JUN, 2021
7:26 AM
5.4
8 KM NE OF
Bacolod, Philippines
06 JUN, 2021
12:44 PM
5.0
NEAR THE
Kermadec Islands region
06 JUN, 2021
5:16 AM
5.1
NEAR THE
Kermadec Islands region
06 JUN, 2021
4:22 AM
5.6
NEAR THE
null
06 JUN, 2021
11:31 PM


5:35
93%
earthquake.usgs.gov/earthc
USGS
MENU
M 5.3 - 46 km ESE of Port-Olry, Vanuatu
2021-06-29 03:14:13 (UTC)
15.202°S 167.476°E
119.3 km depth
Interactive Map
VANUATU
Contributed by US.[1]
Regional Information

Source Code

EarthquakeDetail.java

```
package earthquake_report;


public class EarthquakeDetail {


    private String magnitude;

    private String place;

    private String place_offset;

    private String time;

    private String time1;

    private String url;


    public EarthquakeDetail(String p_magnitude, String p_place, String p_time, String p_time1, String p_place_offset, String p_url){

        magnitude = p_magnitude;

        place = p_place;

        time = p_time;

        time1 = p_time1;

        place_offset = p_place_offset;

        url = p_url;

    }


    public String getMagnitude(){

        return magnitude;

    }


    public String getPlace() {

        return place;

    }
```

```
    public String getTime() {
        return time;
    }

    public String getTime1() {
        return time1;
    }

    public String getPlace_offset() {
        return place_offset;
    }

    public String getUrl() {
        return url;
    }
}
```

EarthquakeDetailAdapter.java

```
package earthquake_report;

import android.annotation.SuppressLint;
import android.app.Activity;
import  android.support.annotation.NonNull;
import  android.support.annotation.Nullable;
import android.support.v4.content.ContextCompat;
import android.view.LayoutInflater;
import android.view.View;
import android.view.ViewGroup;
import android.widget.ArrayAdapter;
```

```
import android.widget.TextView;
import android.graphics.drawable.GradientDrawable;

import java.util.ArrayList;

public class EarthquakeDetailAdapter extends ArrayAdapter<EarthquakeDetail> {

    private static final String LOG_TAG = EarthquakeDetailAdapter.class.getSimpleName();

    public EarthquakeDetailAdapter(Activity context, ArrayList<EarthquakeDetail> earthquakeDetails)
{
        super(context, 0, earthquakeDetails);
    }

    @SuppressLint("ResourceAsColor")
    @NonNull
    @Override
    public View getView(int position, @Nullable View convertView, @NonNull ViewGroup parent) {

        View listItemView = convertView;
        if(listItemView == null) {
            listItemView = LayoutInflater.from(getContext()).inflate(
                    R.layout.list_item, parent, false);
        }

        EarthquakeDetail currentEarthquakeDetail = getItem(position);

        TextView magnitudeTextView = (TextView) listItemView.findViewById(R.id.magnitude);
        assert currentEarthquakeDetail != null;
        magnitudeTextView.setText(currentEarthquakeDetail.getMagnitude());
        String mag = currentEarthquakeDetail.getMagnitude();
```

```
double e_mag = Double.parseDouble(mag);

GradientDrawable magnitudeCircle = (GradientDrawable) magnitudeTextView.getBackground();


int e_magnitude = (int) Math.floor(e_mag);

switch (e_magnitude){
   case 0:
   case 1:
      int magnitude1Color = ContextCompat.getColor(getContext(), R.color.magnitude1);
      magnitudeCircle.setColor(magnitude1Color);
      break;
   case 2:
      magnitude1Color = ContextCompat.getColor(getContext(), R.color.magnitude2);
      magnitudeCircle.setColor(magnitude1Color);
      break;
   case 3:
      magnitude1Color = ContextCompat.getColor(getContext(), R.color.magnitude3);
      magnitudeCircle.setColor(magnitude1Color);
      break;
   case 4:
      magnitude1Color = ContextCompat.getColor(getContext(), R.color.magnitude4);
      magnitudeCircle.setColor(magnitude1Color);
      break;
   case 5:
      magnitude1Color = ContextCompat.getColor(getContext(), R.color.magnitude5);
      magnitudeCircle.setColor(magnitude1Color);
      break;
   case 6:
      magnitude1Color = ContextCompat.getColor(getContext(), R.color.magnitude6);
```

```
        magnitudeCircle.setColor(magnitude1Color);
        break;
    case 7:
        magnitude1Color = ContextCompat.getColor(getContext(), R.color.magnitude7);
        magnitudeCircle.setColor(magnitude1Color);
        break;
    case 8:
        magnitude1Color = ContextCompat.getColor(getContext(), R.color.magnitude8);
        magnitudeCircle.setColor(magnitude1Color);
        break;
    case 9:
        magnitude1Color = ContextCompat.getColor(getContext(), R.color.magnitude9);
        magnitudeCircle.setColor(magnitude1Color);
        break;
    default:
        magnitude1Color = ContextCompat.getColor(getContext(), R.color.magnitude10plus);
        magnitudeCircle.setColor(magnitude1Color);
        break;
}

TextView place_offsetTextView = (TextView) listItemView.findViewById(R.id.place_offset);
place_offsetTextView.setText(currentEarthquakeDetail.getPlace_offset());

TextView placeTextView = (TextView) listItemView.findViewById(R.id.place);
placeTextView.setText(currentEarthquakeDetail.getPlace());

TextView timeTextView = (TextView) listItemView.findViewById(R.id.time);
timeTextView.setText(currentEarthquakeDetail.getTime());

TextView time1TextView = (TextView) listItemView.findViewById(R.id.time1);
time1TextView.setText(currentEarthquakeDetail.getTime1());
```

```
        return listItemView;
    }
}
```

EarthquakeLoader.java

```
package earthquake_report;

import android.content.AsyncTaskLoader;
import android.content.Context;
import android.util.Log;

import java.lang.reflect.Array;
import java.util.ArrayList;

public class EarthquakeLoader extends AsyncTaskLoader<ArrayList<EarthquakeDetail>> {

    private String url;
    public static final String LOG_TAG = EarthquakeLoader.class.getName();

    public EarthquakeLoader(Context context, String p_url) {
        super(context);
        url = p_url;
    }

    @Override
    protected void onStartLoading() {
        Log.e(LOG_TAG, "The onStartLoading of the EarthquakeLoader is called");
        forceLoad();
```

```
    }

    @Override
    public ArrayList<EarthquakeDetail> loadInBackground() {
        Log.e(LOG_TAG, "The loadInBackground of the Earthquake Loader is called");
        if(url.equals("") || url.length() < 1)
            return null;

        return QueryUtils.fetchEarthquakeData(url);
    }
}
```

EarthquakeActivity.java

```
package earthquake_report;

import android.annotation.SuppressLint;
import android.app.LoaderManager;
import android.content.Loader;
import android.content.AsyncTaskLoader;
import android.content.Context;
import android.content.Intent;
import android.content.SharedPreferences;
import android.net.ConnectivityManager;
import android.net.NetworkInfo;
import android.net.Uri;
import android.os.AsyncTask;
import android.os.Bundle;
import android.preference.PreferenceManager;
import android.support.v7.app.AppCompatActivity;
import android.util.Log;
```

```
import android.view.Menu;

import android.view.MenuItem;

import android.view.View;

import android.widget.AdapterView;

import android.widget.ArrayAdapter;

import android.widget.ListView;

import android.widget.ProgressBar;

import android.widget.TextView;

import android.widget.Toast;


import java.util.ArrayList;

import java.util.List;


public class EarthquakeActivity extends AppCompatActivity implements
LoaderManager.LoaderCallbacks<ArrayList<EarthquakeDetail>> {


    public static final String LOG_TAG = EarthquakeActivity.class.getName();

    private static final String USGS_REQUEST_URL =
"https://earthquake.usgs.gov/fdsnws/event/1/query";



    @SuppressLint("SetTextI18n")

    @Override

    protected void onCreate(Bundle savedInstanceState) {

        super.onCreate(savedInstanceState);

        setContentView(R.layout.earthquake_activity);


        /*

        String SAMPLE_JSON_RESPONSE =
"{\"type\":\"FeatureCollection\",\"metadata\":{\"generated\":1462295443000,\"url\":\"http://earth
quake.usgs.gov/fdsnws/event/1/query?format=geojson&starttime=2016-01-01&endtime=2016-01-
31&minmag=6&limit=10\",\"title\":\"USGS
Earthquakes\",\"status\":200,\"api\":\"1.5.2\",\"limit\":10,\"offset\":1,\"count\":10},\"features\":[{\
```

"type\":\"Feature\",\"properties\":{\"mag\":7.2,\"place\":\"88km N of Yelizovo,
Russia\",\"time\":1454124312220,\"updated\":1460674294040,\"tz\":720,\"url\":\"http://earthqua
ke.usgs.gov/earthquakes/eventpage/us20004vvx\",\"detail\":\"http://earthquake.usgs.gov/fdsnws/
event/1/query?eventid=us20004vvx&format=geojson\",\"felt\":2,\"cdi\":3.4,\"mmi\":5.82,\"alert\":
\"green\",\"status\":\"reviewed\",\"tsunami\":1,\"sig\":798,\"net\":\"us\",\"code\":\"20004vvx\",\"
ids\":\",at00o1qxho,pt16030050,us20004vvx,gcmt20160130032510,\",\"sources\":\",at,pt,us,gcmt,\
",\"types\":\",cap,dyfi,finite-fault,general-link,general-text,geoserve,impact-link,impact-
text,losspager,moment-tensor,nearby-cities,origin,phase-data,shakemap,tectonic-
summary,\",\"nst\":null,\"dmin\":0.958,\"rms\":1.19,\"gap\":17,\"magType\":\"mww\",\"type\":\"e
arthquake\",\"title\":\"M 7.2 - 88km N of Yelizovo,
Russia\"},\"geometry\":{\"type\":\"Point\",\"coordinates\":[158.5463,53.9776,177]},\"id\":\"us2000
4vvx\"},\n" +

"{\"type\":\"Feature\",\"properties\":{\"mag\":0.1,\"place\":\"94km SSE of Taron, Papua
New
Guinea\",\"time\":1453777820750,\"updated\":1460156775040,\"tz\":600,\"url\":\"http://earthqu
ake.usgs.gov/earthquakes/eventpage/us20004uks\",\"detail\":\"http://earthquake.usgs.gov/fdsnws
/event/1/query?eventid=us20004uks&format=geojson\",\"felt\":null,\"cdi\":null,\"mmi\":4.1,\"alert
\":\"green\",\"status\":\"reviewed\",\"tsunami\":1,\"sig\":572,\"net\":\"us\",\"code\":\"20004uks\"
,\"ids\":\",us20004uks,gcmt20160126031023,\",\"sources\":\",us,gcmt,\",\"types\":\",cap,geoserve,
losspager,moment-tensor,nearby-cities,origin,phase-data,shakemap,tectonic-
summary,\",\"nst\":null,\"dmin\":1.537,\"rms\":0.74,\"gap\":25,\"magType\":\"mww\",\"type\":\"e
arthquake\",\"title\":\"M 6.1 - 94km SSE of Taron, Papua New
Guinea\"},\"geometry\":{\"type\":\"Point\",\"coordinates\":[153.2454,-
5.2952,26]},\"id\":\"us20004uks\"},\n" +

"{\"type\":\"Feature\",\"properties\":{\"mag\":6.3,\"place\":\"50km NNE of Al Hoceima,
Morocco\",\"time\":1453695722730,\"updated\":1460156773040,\"tz\":0,\"url\":\"http://earthqua
ke.usgs.gov/earthquakes/eventpage/us10004gy9\",\"detail\":\"http://earthquake.usgs.gov/fdsnws/
event/1/query?eventid=us10004gy9&format=geojson\",\"felt\":117,\"cdi\":7.2,\"mmi\":5.28,\"alert
\":\"green\",\"status\":\"reviewed\",\"tsunami\":0,\"sig\":695,\"net\":\"us\",\"code\":\"10004gy9\"
,\"ids\":\",us10004gy9,gcmt20160125042203,\",\"sources\":\",us,gcmt,\",\"types\":\",cap,dyfi,geos
erve,impact-text,losspager,moment-tensor,nearby-cities,origin,phase-data,shakemap,tectonic-
summary,\",\"nst\":null,\"dmin\":2.201,\"rms\":0.92,\"gap\":20,\"magType\":\"mww\",\"type\":\"e
arthquake\",\"title\":\"M 6.3 - 50km NNE of Al Hoceima,
Morocco\"},\"geometry\":{\"type\":\"Point\",\"coordinates\":[-
3.6818,35.6493,12]},\"id\":\"us10004gy9\"},\n" +

"{\"type\":\"Feature\",\"properties\":{\"mag\":7.1,\"place\":\"86km E of Old Iliamna,
Alaska\",\"time\":1453631430230,\"updated\":1460156770040,\"tz\":-
540,\"url\":\"http://earthquake.usgs.gov/earthquakes/eventpage/us10004gqp\",\"detail\":\"http://
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"cdi\":7.2,\"mmi\":6.6,\"alert\":\"green\",\"status\":\"reviewed\",\"tsunami\":1,\"sig\":1496,\"net\
":\"us\",\"code\":\"10004gqp\",\"ids\":\",at00o1gd6r,us10004gqp,ak12496371,gcmt201601241030
30,\",\"sources\":\",at,us,ak,gcmt,\",\"types\":\",cap,dyfi,finite-fault,general-link,general-
text,geoserve,impact-link,impact-text,losspager,moment-tensor,nearby-cities,origin,phase-
data,shakemap,tectonic-summary,trump-
origin,\",\"nst\":null,\"dmin\":0.72,\"rms\":2.11,\"gap\":19,\"magType\":\"mww\",\"type\":\"earth
quake\",\"title\":\"M 7.1 - 86km E of Old Iliamna,

Alaska\"},\"geometry\":{\"type\":\"Point\",\"coordinates\":[-153.4051,59.6363,129]},\"id\":\"us10004gqp\"},\n" +

"{\"type\":\"Feature\",\"properties\":{\"mag\":6.6,\"place\":\"215km SW of Tomatlan, Mexico\",\"time\":1453399617650,\"updated\":1459963829040,\"tz\":-420,\"url\":\"http://earthquake.usgs.gov/earthquakes/eventpage/us10004g4l\",\"detail\":\"http://earthquake.usgs.gov/fdsnws/event/1/query?eventid=us10004g4l&format=geojson\",\"felt\":11,\"cdi\":2.7,\"mmi\":3.92,\"alert\":\"green\",\"status\":\"reviewed\",\"tsunami\":1,\"sig\":673,\"net\":\"us\",\"code\":\"10004g4l\",\"ids\":\",at00o1bebo,pt16021050,us10004g4l,gcmt20160121180659,\",\"sources\":\",at,pt,us,gcmt,\",\"types\":\",cap,dyfi,geoserve,impact-link,impact-text,losspager,moment-tensor,nearby-cities,origin,phase-data,shakemap,tectonic-summary,\",\"nst\":null,\"dmin\":2.413,\"rms\":0.98,\"gap\":74,\"magType\":\"mww\",\"type\":\"earthquake\",\"title\":\"M 6.6 - 215km SW of Tomatlan, Mexico\"},\"geometry\":{\"type\":\"Point\",\"coordinates\":[-106.9337,18.8239,10]},\"id\":\"us10004g4l\"},\n" +

"{\"type\":\"Feature\",\"properties\":{\"mag\":6.7,\"place\":\"52km SE of Shizunai, Japan\",\"time\":1452741933640,\"updated\":1459304879040,\"tz\":540,\"url\":\"http://earthquake.usgs.gov/earthquakes/eventpage/us10004ebx\",\"detail\":\"http://earthquake.usgs.gov/fdsnws/event/1/query?eventid=us10004ebx&format=geojson\",\"felt\":51,\"cdi\":5.8,\"mmi\":6.45,\"alert\":\"green\",\"status\":\"reviewed\",\"tsunami\":1,\"sig\":720,\"net\":\"us\",\"code\":\"10004ebx\",\"ids\":\",us10004ebx,pt16014050,at00o0xauk,gcmt20160114032534,\",\"sources\":\",us,pt,at,gcmt,\",\"types\":\",associate,cap,dyfi,geoserve,impact-link,impact-text,losspager,moment-tensor,nearby-cities,origin,phase-data,shakemap,\",\"nst\":null,\"dmin\":0.281,\"rms\":0.98,\"gap\":22,\"magType\":\"mww\",\"type\":\"earthquake\",\"title\":\"M 6.7 - 52km SE of Shizunai, Japan\"},\"geometry\":{\"type\":\"Point\",\"coordinates\":[142.781,41.9723,46]},\"id\":\"us10004ebx\"},\n" +

"{\"type\":\"Feature\",\"properties\":{\"mag\":6.1,\"place\":\"12km WNW of Charagua, Bolivia\",\"time\":1452741928270,\"updated\":1459304879040,\"tz\":-240,\"url\":\"http://earthquake.usgs.gov/earthquakes/eventpage/us10004ebw\",\"detail\":\"http://earthquake.usgs.gov/fdsnws/event/1/query?eventid=us10004ebw&format=geojson\",\"felt\":3,\"cdi\":2.2,\"mmi\":2.21,\"alert\":\"green\",\"status\":\"reviewed\",\"tsunami\":0,\"sig\":573,\"net\":\"us\",\"code\":\"10004ebw\",\"ids\":\",us10004ebw,gcmt20160114032528,\",\"sources\":\",us,gcmt,\",\"types\":\",cap,dyfi,geoserve,impact-text,losspager,moment-tensor,nearby-cities,origin,phase-data,shakemap,tectonic-summary,\",\"nst\":null,\"dmin\":5.492,\"rms\":1.04,\"gap\":16,\"magType\":\"mww\",\"type\":\"earthquake\",\"title\":\"M 6.1 - 12km WNW of Charagua, Bolivia\"},\"geometry\":{\"type\":\"Point\",\"coordinates\":[-63.3288,-19.7597,582.56]},\"id\":\"us10004ebw\"},\n" +

"{\"type\":\"Feature\",\"properties\":{\"mag\":6.2,\"place\":\"74km NW of Rumoi, Japan\",\"time\":1452532083920,\"updated\":1459304875040,\"tz\":540,\"url\":\"http://earthquake.usgs.gov/earthquakes/eventpage/us10004djn\",\"detail\":\"http://earthquake.usgs.gov/fdsnws/event/1/query?eventid=us10004djn&format=geojson\",\"felt\":8,\"cdi\":3.4,\"mmi\":3.74,\"alert\":\"green\",\"status\":\"reviewed\",\"tsunami\":0,\"sig\":594,\"net\":\"us\",\"code\":\"10004djn\",\"ids\":\",us10004djn,gcmt20160111170803,\",\"sources\":\",us,gcmt,\",\"types\":\",cap,dyfi,geoserve,impact-text,losspager,moment-tensor,nearby-cities,origin,phase-data,shakemap,tectonic-summary,\",\"nst\":null,\"dmin\":1.139,\"rms\":0.96,\"gap\":33,\"magType\":\"mww\",\"type\":\"e

```
arthquake\",\"title\":\"M 6.2 - 74km NW of Rumoi,
Japan\"},\"geometry\":{\"type\":\"Point\",\"coordinates\":[141.0867,44.4761,238.81]},\"id\":\"us10
004djn\"},\n" +

        "{\"type\":\"Feature\",\"properties\":{\"mag\":10.5,\"place\":\"227km SE of Sarangani,
Philippines\",\"time\":1452530285900,\"updated\":1459304874040,\"tz\":480,\"url\":\"http://eart
hquake.usgs.gov/earthquakes/eventpage/us10004dj5\",\"detail\":\"http://earthquake.usgs.gov/fds
nws/event/1/query?eventid=us10004dj5&format=geojson\",\"felt\":1,\"cdi\":2.7,\"mmi\":7.5,\"aler
t\":\"green\",\"status\":\"reviewed\",\"tsunami\":1,\"sig\":650,\"net\":\"us\",\"code\":\"10004dj5\
",\"ids\":\",at00o0srjp,pt16011050,us10004dj5,gcmt20160111163807,\",\"sources\":\",at,pt,us,gcm
t,\",\"types\":\",cap,dyfi,geoserve,impact-link,impact-text,losspager,moment-tensor,nearby-
cities,origin,phase-data,shakemap,tectonic-
summary,\",\"nst\":null,\"dmin\":3.144,\"rms\":0.72,\"gap\":22,\"magType\":\"mww\",\"type\":\"e
arthquake\",\"title\":\"M 6.5 - 227km SE of Sarangani,
Philippines\"},\"geometry\":{\"type\":\"Point\",\"coordinates\":[126.8621,3.8965,13]},\"id\":\"us10
004dj5\"},\n" +

        "{\"type\":\"Feature\",\"properties\":{\"mag\":6,\"place\":\"Pacific-Antarctic
Ridge\",\"time\":1451986454620,\"updated\":1459202978040,\"tz\":-
540,\"url\":\"http://earthquake.usgs.gov/earthquakes/eventpage/us10004bgk\",\"detail\":\"http://
earthquake.usgs.gov/fdsnws/event/1/query?eventid=us10004bgk&format=geojson\",\"felt\":0,\"cdi
\":1,\"mmi\":0,\"alert\":\"green\",\"status\":\"reviewed\",\"tsunami\":0,\"sig\":554,\"net\":\"us\",\
"code\":\"10004bgk\",\"ids\":\",us10004bgk,gcmt20160105093415,\",\"sources\":\",us,gcmt,\",\"ty
pes\":\",cap,dyfi,geoserve,losspager,moment-tensor,nearby-cities,origin,phase-
data,shakemap,\",\"nst\":null,\"dmin\":30.75,\"rms\":0.67,\"gap\":71,\"magType\":\"mww\",\"type
\":\"earthquake\",\"title\":\"M 6.0 - Pacific-Antarctic
Ridge\"},\"geometry\":{\"type\":\"Point\",\"coordinates\":[-136.2603,-
54.2906,10]},\"id\":\"us10004bgk\"}],\"bbox\":[-153.4051,-54.2906,10,158.5463,59.6363,582.56]}";

    */

    //ArrayList<EarthquakeDetail> earthquakeDetail;


    //earthquakeDetail = QueryUtils.extractEarthquakes(SAMPLE_JSON_RESPONSE);


    //EarthquakeDetailAdapter earthquakeDetailAdapter = new EarthquakeDetailAdapter(this,
earthquakeDetail);


    final ListView listView = (ListView) findViewById(R.id.list);

    assert listView != null;

    listView.setEmptyView(findViewById(R.id.empty_list_item));


    listView.setOnItemClickListener(new AdapterView.OnItemClickListener() {
```

```
        public void onItemClick(AdapterView<?> parent, View view, int position, long id) {
            Object o = listView.getItemAtPosition(position);
            EarthquakeDetail obj = (EarthquakeDetail) o;
            String url = obj.getUrl();
            Intent intent = new Intent(Intent.ACTION_VIEW);
            intent.setData(Uri.parse(url));
            startActivity(intent);
        }
    });
    // Find a reference to the {@link ListView} in the layout

    // Create a new {@link ArrayAdapter} of earthquakes

    // Set the adapter on the {@link ListView}
    // so the list can be populated in the user interface

   //  EarthquakeAsyncTask task = new EarthquakeAsyncTask();
   //  task.execute(USGS_REQUEST_URL);

    ConnectivityManager cm = (ConnectivityManager)
getApplicationContext().getSystemService(Context.CONNECTIVITY_SERVICE);
    assert cm != null;
    NetworkInfo activeNetwork = cm.getActiveNetworkInfo();
    boolean isConnected = activeNetwork != null && activeNetwork.isConnectedOrConnecting();

    if(!isConnected) {
        TextView textView = (TextView) findViewById(R.id.empty_list_item);
        assert textView != null;
        textView.setText("No Internet Connection");
        ProgressBar progressBar = (ProgressBar) findViewById(R.id.loading_spinner);
```

```
        assert progressBar != null;
        progressBar.setVisibility(View.GONE);
    } else {
        LoaderManager loaderManager = getLoaderManager();
        Log.e(LOG_TAG, "The init loader of the Loader Manager has been initialized. ");
        loaderManager.initLoader(1, null, this);
    }
}

@Override
public Loader<ArrayList<EarthquakeDetail>> onCreateLoader(int i, Bundle bundle) {

    Log.e(LOG_TAG, "Calling the OnCreateLoader of the Loader class");
    ProgressBar progressBar = (ProgressBar) findViewById(R.id.loading_spinner);
    assert progressBar != null;
    progressBar.setVisibility(View.VISIBLE);



    SharedPreferences sharedPrefs = PreferenceManager.getDefaultSharedPreferences(this);
    String minMagnitude = sharedPrefs.getString(
            getString(R.string.settings_min_magnitude_key),
            getString(R.string.settings_min_magnitude_default));

    String orderBy = sharedPrefs.getString(
            getString(R.string.settings_order_by_key),
            getString(R.string.settings_order_by_default)
    );

    Uri baseUri = Uri.parse(USGS_REQUEST_URL);
    Uri.Builder uriBuilder = baseUri.buildUpon();
```

```
        uriBuilder.appendQueryParameter("format", "geojson");
        uriBuilder.appendQueryParameter("limit", "10");
        uriBuilder.appendQueryParameter("minmag", minMagnitude);
        uriBuilder.appendQueryParameter("orderby", orderBy);

        return new EarthquakeLoader(this, uriBuilder.toString());
    }

    @Override
    public void onLoadFinished(Loader<ArrayList<EarthquakeDetail>> loader,
ArrayList<EarthquakeDetail> earthquakeDetails) {
        Log.e(LOG_TAG, "Calling the onLoadFinished of the Loader class");
        updateUI(earthquakeDetails);
        final ListView listView = (ListView) findViewById(R.id.list);
        assert listView != null;

        TextView textView = (TextView) findViewById(R.id.empty_list_item);
        assert textView != null;
        textView.setText(R.string.empty_list);
        ProgressBar progressBar = (ProgressBar) findViewById(R.id.loading_spinner);
        assert progressBar != null;
        progressBar.setVisibility(View.GONE);
    }

    @Override
    public void onLoaderReset(Loader<ArrayList<EarthquakeDetail>> loader) {
        Log.e(LOG_TAG, "Calling the onLoaderReset of the Loader class");
        updateUI(new ArrayList<EarthquakeDetail>());
    }
/*
    @SuppressLint("StaticFieldLeak")
```

```
    private class EarthquakeAsyncTask extends AsyncTask<String, Void, ArrayList<EarthquakeDetail>>
{


        @Override

        protected void onPreExecute() {

            Toast.makeText(EarthquakeActivity.this, "Data is loading from the server. ",
Toast.LENGTH_SHORT).show();


        }


        @Override

        protected ArrayList<EarthquakeDetail> doInBackground(String... strings) {


            if (strings.length < 1 || strings[0] == null) {

                return null;

            }


            return QueryUtils.fetchEarthquakeData(strings[0]);

        }


        @Override

        protected void onPostExecute(ArrayList<EarthquakeDetail> earthquakeDetails) {


            if(earthquakeDetails.get(0) == null) {

                return;

            }


            updateUI(earthquakeDetails);


        }

    }

*/
```

```
    private void updateUI(ArrayList<EarthquakeDetail> earthquake) {
        ListView listView = (ListView) findViewById(R.id.list);
        if(earthquake != null) {
            EarthquakeDetailAdapter earthquakeDetailAdapter = new
EarthquakeDetailAdapter(EarthquakeActivity.this, earthquake);
            assert listView != null;
            listView.setAdapter(earthquakeDetailAdapter);
        }
    }

    @Override
    public boolean onCreateOptionsMenu(Menu menu) {
        getMenuInflater().inflate(R.menu.main, menu);
        return true;
    }

    @Override
    public boolean onOptionsItemSelected(MenuItem item) {
        int id = item.getItemId();
        if (id == R.id.action_settings) {
            Intent settingsIntent = new Intent(this, SettingsActivity.class);
            startActivity(settingsIntent);
            return true;
        }
        return super.onOptionsItemSelected(item);
    }


}
```