QuakeReport part 1

Quake Report APP

01 - Show more earthquake data in the list

Create earthquake_list_item.xml

```xml
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools"
    android:orientation="horizontal"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:padding="16dp">

    <TextView
        android:id="@+id/magnitude"
        android:layout_width="0dp"
        android:layout_height="wrap_content"
        android:layout_weight="1"
        tools:text="8.9"
        />

    <TextView
        android:id="@+id/location"
        android:layout_width="0dp"
        android:layout_height="wrap_content"
        android:layout_weight="1"
        tools:text="San Francisco, CA"
        />
```

```
    <TextView
        android:id="@+id/date"
        android:layout_width="0dp"
        android:layout_height="wrap_content"
        android:layout_weight="1"
        tools:text="Mar 6, 2010"
        />

</LinearLayout>
```

Create Earthquake.java

```java
public class Earthquake {
    private String mMagnitude;
    private String mLocation;
    private String mDate;
    //private String mUrl;

    //constructor
    public Earthquake(String magnitude, String location, String date) {
        mMagnitude = magnitude;
        mLocation = location;
        mDate = date;
    }

    public String getMagnitude() {
        return mMagnitude;
    }

    public String getLocation() {
        return mLocation;
    }

    public String getDate() {
        return mDate;
    }

}
```

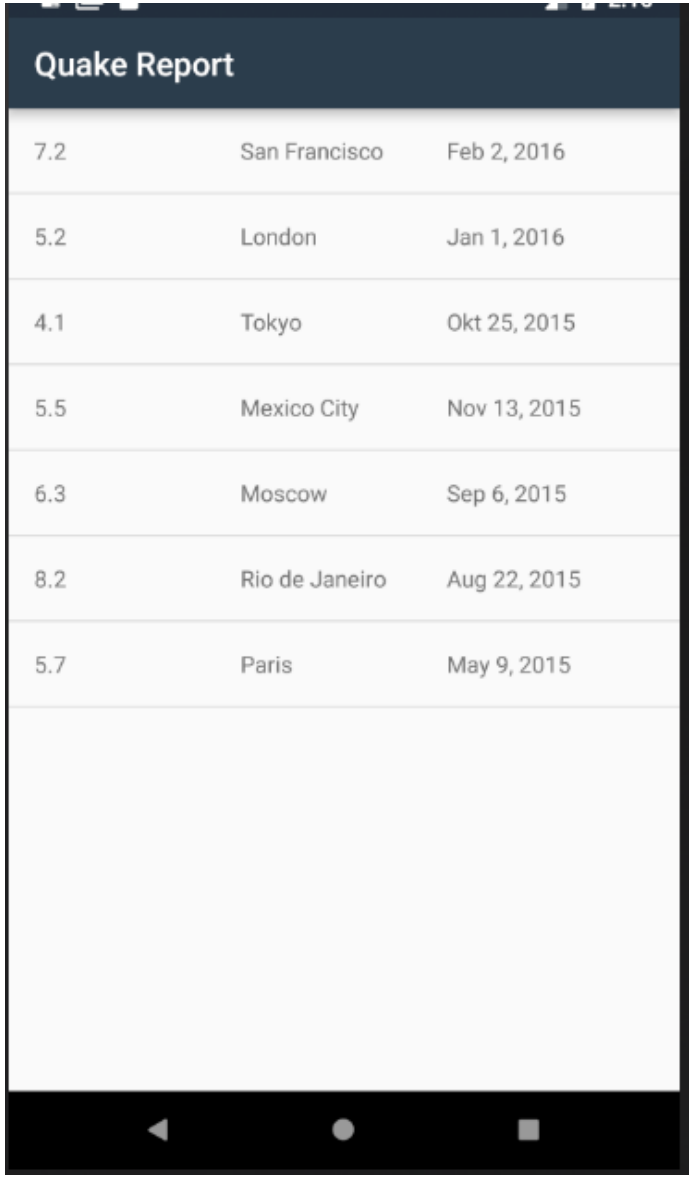
Create EarthquakeAdapter.java

```
public class EarthquakeAdapter extends ArrayAdapter<Earthquake> {

    public EarthquakeAdapter(Context context, List<Earthquake> earthquakes) {
        super(context, resource: 0, earthquakes);
    }

    @Override
    public View getView(int position, View convertView, ViewGroup parent) {
        // Check if there is an existing list item view (called convertView) that we c
        // otherwise, if convertView is null, then inflate a new list item layout.
        View listItemView = convertView;
        if (listItemView == null) {
            listItemView = LayoutInflater.from(getContext()).inflate(
                    R.layout.earthquake_list_item, parent, attachToRoot: false);
        }
        Earthquake currentEarthquake = getItem(position);

        TextView magnitudeView = (TextView) listItemView.findViewById(R.id.magnitude);
        magnitudeView.setText(currentEarthquake.getMagnitude());

        TextView locationView = (TextView) listItemView.findViewById(R.id.location);
        locationView.setText(currentEarthquake.getLocation());

        TextView dateView = (TextView) listItemView.findViewById(R.id.date);
        dateView.setText(currentEarthquake.getDate());

        return listItemView;
    }
}
```

Modify EarthquakeActivity.java

```
public class EarthquakeActivity extends AppCompatActivity {
    public static final String LOG_TAG = EarthquakeActivity.class.getName();
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.earthquake_activity);

        // Create a fake list of earthquake locations.
        ArrayList<Earthquake> earthquakes = new ArrayList<>();
        earthquakes.add(new Earthquake( magnitude: "7.2",  location: "San Francisco",  date: "Feb 2, 2016"));
        earthquakes.add(new Earthquake( magnitude: "5.2",  location: "London",  date: "Jan 1, 2016"));
        earthquakes.add(new Earthquake( magnitude: "4.1",  location: "Tokyo",  date: "Okt 25, 2015"));
        earthquakes.add(new Earthquake( magnitude: "5.5",  location: "Mexico City",  date: "Nov 13, 2015"));
        earthquakes.add(new Earthquake( magnitude: "6.3",  location: "Moscow",  date: "Sep 6, 2015"));
        earthquakes.add(new Earthquake( magnitude: "8.2",  location: "Rio de Janeiro",  date: "Aug 22, 2015"));
        earthquakes.add(new Earthquake( magnitude: "5.7",  location: "Paris",  date: "May 9, 2015"));

        // Find a reference to the {@link ListView} in the layout
        ListView earthquakeListView = (ListView) findViewById(R.id.list);

        // Create a new {@link ArrayAdapter} of earthquakes
        EarthquakeAdapter adapter = new EarthquakeAdapter(
                context: this, earthquakes);

        // Set the adapter on the {@link ListView}
        // so the list can be populated in the user interface
        earthquakeListView.setAdapter(adapter);
    }
}
```

Run the APP


Quake Report
7.2 San Francisco Feb 2, 2016
5.2 London Jan 1, 2016
4.1 Tokyo Okt 25, 2015
5.5 Mexico City Nov 13, 2015
6.3 Moscow Sep 6, 2015
8.2 Rio de Janeiro Aug 22, 2015
5.7 Paris May 9, 2015

02 - Parse JSON response to create earthquakes list

- Create QueryUtils.java
- Copy the code from:
- https://gist.github.com/udacityandroid/10892631f57f9f073ab9e1d11cfaafcf

Fill in extractEarthquakes() method

```
public static ArrayList<Earthquake> extractEarthquakes() {

    ArrayList<Earthquake> earthquakes = new ArrayList<>();
    try {
        JSONObject baseJsonResponse = new JSONObject(SAMPLE_JSON_RESPONSE);
        JSONArray earthquakeArray = baseJsonResponse.getJSONArray( name: "features");

        for (int i = 0; i < earthquakeArray.length(); i++) {
            JSONObject currentEarthquake = earthquakeArray.getJSONObject(i);
            JSONObject properties = currentEarthquake.getJSONObject("properties");

            String magnitude = properties.getString( name: "mag");
            String location = properties.getString( name: "place");
            String time = properties.getString( name: "time");

            Earthquake earthquake = new Earthquake(magnitude, location, time);
            earthquakes.add(earthquake);
        }
    } catch (JSONException e) {
        // If an error is thrown when executing any of the above statements in the "try" block,
        // catch the exception here, so the app doesn't crash. Print a log message
        // with the message from the exception.
        Log.e( tag: "QueryUtils",  msg: "Problem parsing the earthquake JSON results", e);
    }

    // Return the list of earthquakes
    return earthquakes;
}
}
```

Modify EarthquakeActivity.java

```
public class EarthquakeActivity extends AppCompatActivity {
    public static final String LOG_TAG = EarthquakeActivity.class.getName();
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.earthquake_activity);

        // Create a fake list of earthquake locations.
        ArrayList<Earthquake> earthquakes = QueryUtils.extractEarthquakes();

        // Find a reference to the {@link ListView} in the layout
        ListView earthquakeListView = (ListView) findViewById(R.id.list);

        // Create a new {@link ArrayAdapter} of earthquakes
        EarthquakeAdapter adapter = new EarthquakeAdapter(
                context: this, earthquakes);

        // Set the adapter on the {@link ListView}
        // so the list can be populated in the user interface
        earthquakeListView.setAdapter(adapter);
    }
}
```

Run APP


Quake Report
6.1
94km SSE of Taron, Papua New Guinea
1453777820750
6.3
50km NNE of Al Hoceima, Morocco
1453695722730
7.1
86km E of Old Iliamna, Alaska
1453631430230
6.6
215km SW of Tomatlan, Mexico
1453399617650
6.7
52km SE of Shizunai, Japan
1452741933640
6.1
12km WNW of Charagua, Bolivia
1452741928270
74km NW of Rumoi, Japan
1452532083920
6.5
227km SE of Sarangani, Philippines
1452530285900

03 - Convert time in milliseconds into formatted date and time

- In the QueryUtils extractEarthquakes() method:

```
// Extract the value for the key called "time"
long time = properties.getLong("time");
```

- In Earthquake.java

```
/** Time of the earthquake */
private long mTimeInMilliseconds;
```

Modify Earthquake.java constructor

```
public class Earthquake {
    private String mMagnitude;
    private String mLocation;
    private long mTimenInMilliseconds;
    //private String mUrl;

    //constructor
    public Earthquake(String magnitude, String location, long timenInMilliseconds) {
        mMagnitude = magnitude;
        mLocation = location;
        mTimenInMilliseconds = timenInMilliseconds;
    }

    public String getMagnitude() { return mMagnitude; }

    public String getLocation() { return mLocation; }


    public long getTimenInMilliseconds(){
        return mTimenInMilliseconds;
    }
}
```

Modify earthquake_list_item.xml

- Add time TextView

```
    <TextView
        android:id="@+id/date"
        android:layout_width="0dp"
        android:layout_height="wrap_content"
        android:layout_weight="1"
        tools:text="Mar 6, 2010"
        />

    <TextView
        android:id="@+id/time"
        android:layout_width="0dp"
        android:layout_height="wrap_content"
        android:layout_weight="1"
        tools:text="3:00 PM" />

</LinearLayout>
```

Modify earthquakeAdapter.java

```
        TextView locationView = (TextView) listItemView.findViewById(R.id.location);
        locationView.setText(currentEarthquake.getLocation());

        Date dateObject = new Date(currentEarthquake.getTimeInMilliseconds());

        TextView dateView = (TextView) listItemView.findViewById(R.id.date);
        String formattedDate = formatDate(dateObject);
        dateView.setText(formattedDate);

        TextView timeView = (TextView) listItemView.findViewById(R.id.time);
        String formattedTime = formatTime(dateObject);
        timeView.setText(formattedTime);

        return listItemView;
    }

    private String formatDate(Date dateObject) {
        SimpleDateFormat dateFormat = new SimpleDateFormat( pattern: "LLL dd, yyyy");
        return dateFormat.format(dateObject);
    }

    private String formatTime(Date dateObject) {
        SimpleDateFormat timeFormat = new SimpleDateFormat( pattern: "h:mm a");
        return timeFormat.format(dateObject);
    }
}
```

Run APP


6:37
Quake Report
7.2 88km N of Yelizovo, Russia Jan 29, 2016 9:25 PM
6.1 94km SSE of Taron, Papua New Guinea Jan 25, 2016 9:10 PM
6.3 50km NNE of Al Hoceima, Morocco Jan 24, 2016 10:22 PM
7.1 86km E of Old Iliamna, Alaska Jan 24, 2016 4:30 AM
6.6 215km SW of Tomatlan, Mexico Jan 21, 2016 12:06 PM
6.7 52km SE of Shizunai, Japan Jan 13, 2016 9:25 PM
6.1 12km WNW of Charagua, Bolivia Jan 13, 2016 9:25 PM
6.2 74km NW of Jan 11, 2016 11:08 AM

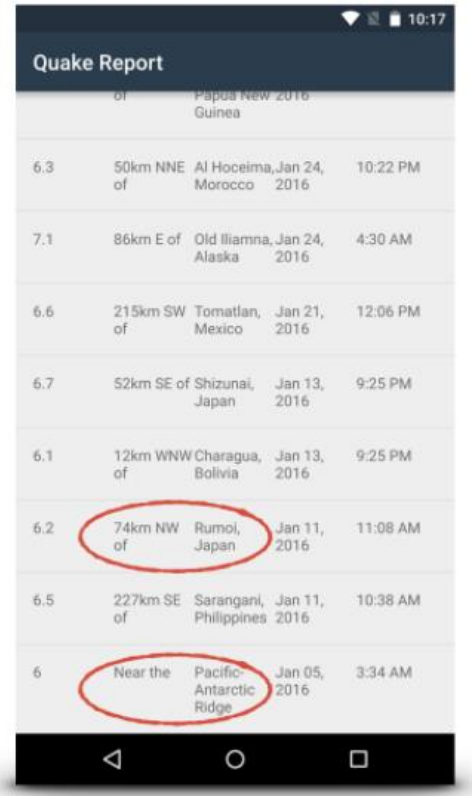
04 - Split location into 2 TextViews

MORE PRACTICE WITH STRINGS

Modify the EarthquakeAdapter:

Split the location text into a location offset ("74km NW of") and a primary location ("Rumoi, Japan") and display in 2 separate TextViews. If there's no location offset, use "Near the", along with the primary location ("Pacific-Antarctic Ridge").

Which String method did you use to separate the location String into 2 Strings?



Modify earthquake_list_item.xml

```
<TextView
    android:id="@+id/magnitude"
    android:layout_width="0dp"
    android:layout_height="wrap_content"
    android:layout_weight="1"
    tools:text="8.9"
    />
```

```
<TextView
    android:id="@+id/location_offset"
    android:layout_width="0dp"
    android:layout_height="wrap_content"
    android:layout_weight="1"
    tools:text="30km S of" />

<TextView
    android:id="@+id/primary_location"
    android:layout_width="0dp"
    android:layout_height="wrap_content"
    android:layout_weight="1"
    tools:text="San Francisco, CA" />
```

Modify string.xml

```
<resources>
    <string name="app_name">Quake Report</string>
    <string name="near_the">Near the</string>
</resources>
```

modify the EarthquakeAdapter getView() method

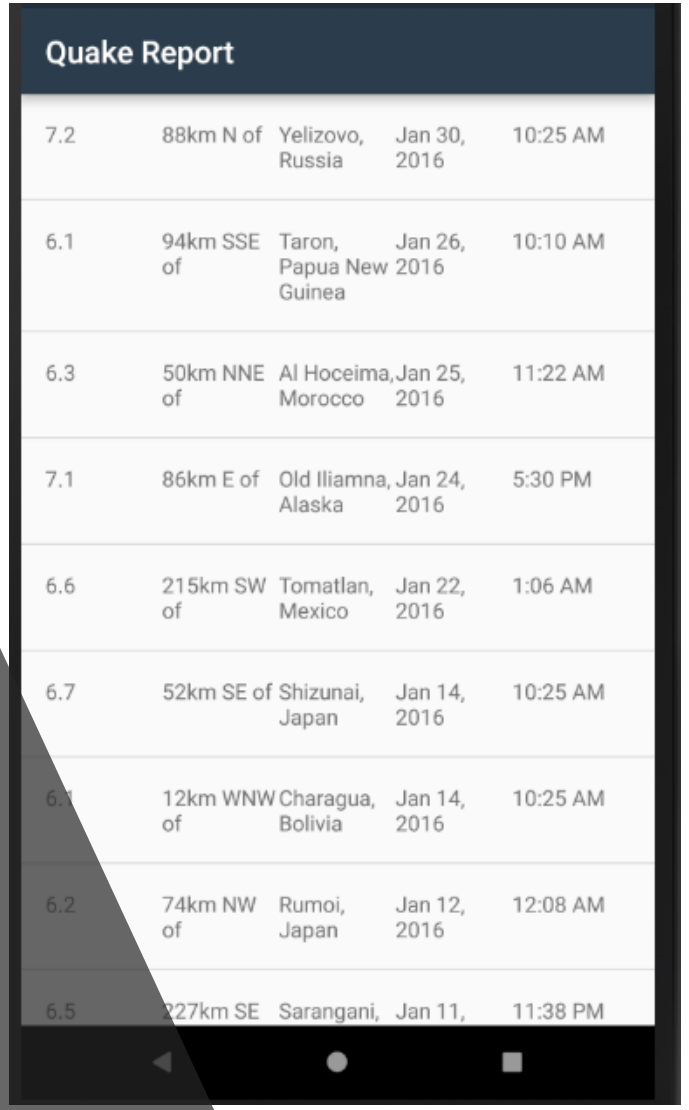
- Declare separator variable

```
public class EarthquakeAdapter extends ArrayAdapter<Earthquake> {

    private static final String LOCATION_SEPARATOR = " of ";
```

modify the EarthquakeAdapter getView() method

```
TextView magnitudeView = (TextView) listItemView.findViewById(R.id.magnitude);
magnitudeView.setText(currentEarthquake.getMagnitude());

String originalLocation = currentEarthquake.getLocation();
String primaryLocation;
String locationOffset;

if (originalLocation.contains(LOCATION_SEPARATOR)) {
    String[] parts = originalLocation.split(LOCATION_SEPARATOR);
    locationOffset = parts[0] + LOCATION_SEPARATOR;
    primaryLocation = parts[1];
} else {
    locationOffset = getContext().getString(R.string.near_the);
    primaryLocation = originalLocation;
}

TextView primaryLocationView = (TextView) listItemView.findViewById(R.id.primary_location);
primaryLocationView.setText(primaryLocation);

TextView locationOffsetView = (TextView) listItemView.findViewById(R.id.location_offset);
locationOffsetView.setText(locationOffset);

Date dateObject = new Date(currentEarthquake.getTimeInMilliseconds());
```

Run the APP


Quake Report
7.2 88km N of Yelizovo, Russia Jan 30, 2016 10:25 AM
6.1 94km SSE of Taron, Papua New Guinea Jan 26, 2016 10:10 AM
6.3 50km NNE of Al Hoceima, Morocco Jan 25, 2016 11:22 AM
7.1 86km E of Old Iliamna, Alaska Jan 24, 2016 5:30 PM
6.6 215km SW of Tomatlan, Mexico Jan 22, 2016 1:06 AM
6.7 52km SE of Shizunai, Japan Jan 14, 2016 10:25 AM
12km WNW of Charagua, Bolivia Jan 14, 2016 10:25 AM
6.2 74km NW of Rumoi, Japan Jan 12, 2016 12:08 AM
6.5 227km SE Sarangani, Jan 11, 11:38 PM

05 - Format the magnitude value

- Modify QueryUtils.java

```
public static ArrayList<Earthquake> extractEarthquakes() {

    ArrayList<Earthquake> earthquakes = new ArrayList<>();
    try {
        JSONObject baseJsonResponse = new JSONObject(SAMPLE_JSON_RESPONSE);
        JSONArray earthquakeArray = baseJsonResponse.getJSONArray( name: "features");

        for (int i = 0; i < earthquakeArray.length(); i++) {
            JSONObject currentEarthquake = earthquakeArray.getJSONObject(i);
            JSONObject properties = currentEarthquake.getJSONObject("properties");

            double magnitude = properties.getDouble( name: "mag");
            String location = properties.getString( name: "place");
            long time = properties.getLong( name: "time");

            Earthquake earthquake = new Earthquake(magnitude, location, time);
            earthquakes.add(earthquake);
        }
```

Modify Earthquake.java -- Replace all Sring type of magnitude to double

```
public class Earthquake {
    private double mMagnitude;
    private String mLocation;
    private long mTimenInMilliseconds;
    //private String mUrl;

    //constructor
    public Earthquake(double magnitude, String location, long timenInMilliseconds) {
        mMagnitude = magnitude;
        mLocation = location;
        mTimenInMilliseconds = timenInMilliseconds;
    }

    public double getMagnitude() { return mMagnitude; }

    public String getLocation() { return mLocation; }


    public long getTimeInMilliseconds(){
        return mTimenInMilliseconds;
    }
}
```

EarthquakeAdapter.java -- create a helper method called formatMagnitude() and modify the getView() method

```
    private String formatDate(Date dateObject) {
        SimpleDateFormat dateFormat = new SimpleDateFormat( pattern: "LLL dd, yyyy");
        return dateFormat.format(dateObject);
    }

    private String formatTime(Date dateObject) {
        SimpleDateFormat timeFormat = new SimpleDateFormat( pattern: "h:mm a");
        return timeFormat.format(dateObject);
    }

    private String formatMagnitude(double magnitude) {
        DecimalFormat magnitudeFormat = new DecimalFormat( pattern: "0.0");
        return magnitudeFormat.format(magnitude);
    }
}
```

modify the getView() method for magnitude TextView

```
public View getView(int position, View convertView, ViewGroup parent) {
    // Check if there is an existing list item view (called convertView) that we can
    // otherwise, if convertView is null, then inflate a new list item layout.
    View listItemView = convertView;
    if (listItemView == null) {
        listItemView = LayoutInflater.from(getContext()).inflate(
                R.layout.earthquake_list_item, parent,  attachToRoot: false);
    }
    Earthquake currentEarthquake = getItem(position);

    TextView magnitudeView = (TextView) listItemView.findViewById(R.id.magnitude);
    String formattedMagnitude = formatMagnitude(currentEarthquake.getMagnitude());
    magnitudeView.setText(formattedMagnitude);
```

Run APP


Quake Report
7.2 88km N of Yelizovo, Russia Jan 30, 2016 10:25 AM
6.1 94km SSE of Taron, Papua New Guinea Jan 26, 2016 10:10 AM
6.3 50km NNE of Al Hoceima, Morocco Jan 25, 2016 11:22 AM
7.1 86km E of Old Iliamna, Alaska Jan 24, 2016 5:30 PM
6.6 215km SW of Tomatlan, Mexico Jan 22, 2016 1:06 AM
6.7 52km SE of Shizunai, Japan Jan 14, 2016 10:25 AM
6.1 12km WNW of Charagua, Bolivia Jan 14, 2016 10:25 AM
6.2 74km NW of Rumoi, Japan Jan 12, 2016 12:08 AM
6.5 227km SE Sarangani, Jan 11, 11:38 PM

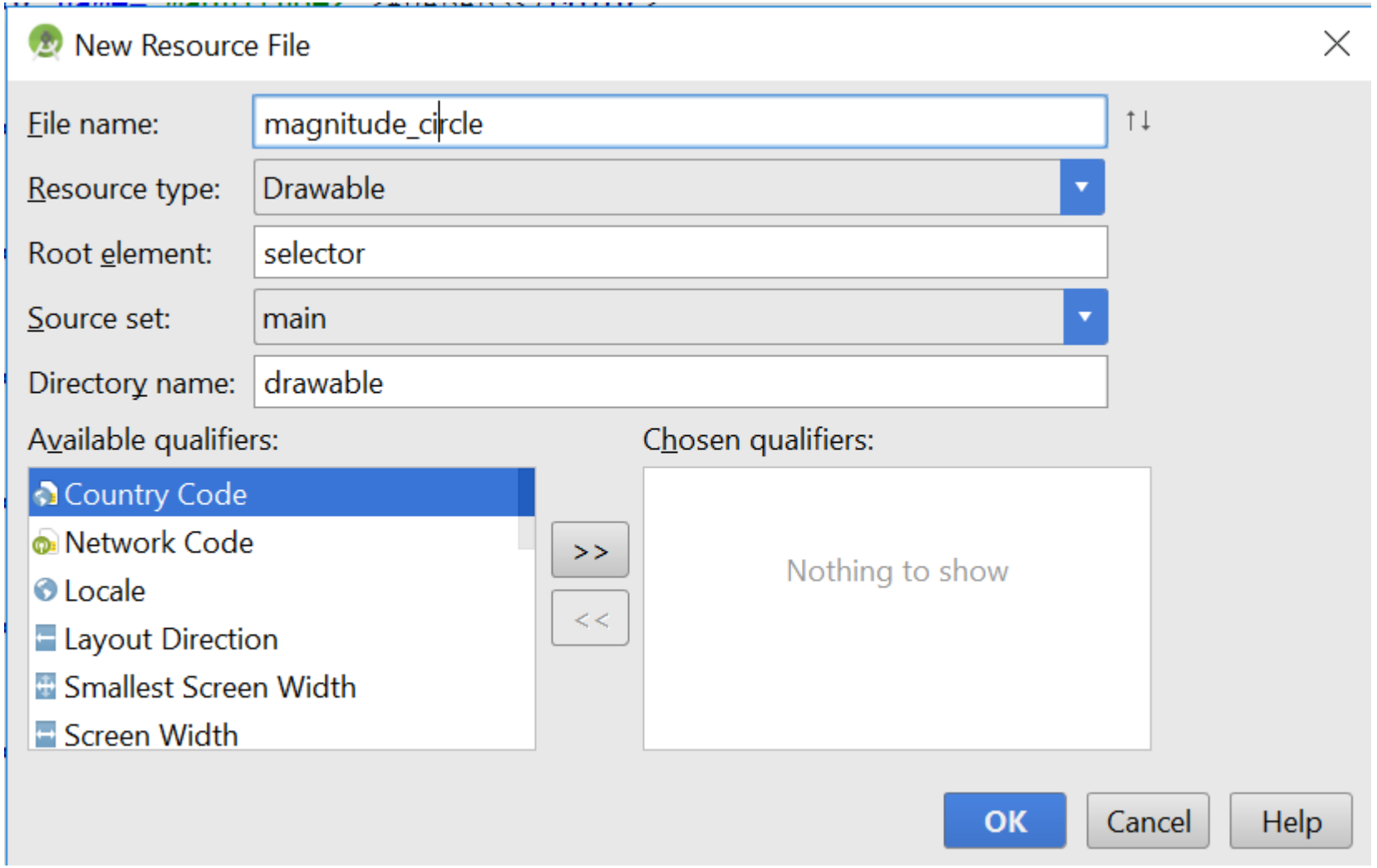
06 - Add magnitude circle

- Modify color.xml

```
    <!-- Color for an earthquake with magnitude 0 and 2 -->
    <color name="magnitude1">#4A7BA7</color>

    <!-- Magnitude circle color for an earthquake with magnitude between 2 and 3 -->
    <color name="magnitude2">#04B4B3</color>

    <!-- Magnitude circle color for an earthquake with magnitude between 3 and 4 -->
    <color name="magnitude3">#10CAC9</color>

    <!-- Magnitude circle color for an earthquake with magnitude between 4 and 5 -->
    <color name="magnitude4">#F5A623</color>

    <!-- Magnitude circle color for an earthquake with magnitude between 5 and 6 -->
    <color name="magnitude5">#FF7D50</color>

    <!-- Magnitude circle color for an earthquake with magnitude between 6 and 7 -->
    <color name="magnitude6">#FC6644</color>

    <!-- Magnitude circle color for an earthquake with magnitude between 7 and 8 -->
    <color name="magnitude7">#E75F40</color>

    <!-- Magnitude circle color for an earthquake with magnitude between 8 and 9 -->
    <color name="magnitude8">#E13A20</color>

    <!-- Magnitude circle color for an earthquake with magnitude between 9 and 10 -->
    <color name="magnitude9">#D93218</color>

    <!-- Magnitude circle color for an earthquake with magnitude over 10 -->
    <color name="magnitude10plus">#C03823</color>
</resources>
```

Define a new drawable for the colored circle

- Right click res → new →Android resource file



Replace the contents of the res/drawable/magnitude_circle.xml file with the below XML

```xml
<?xml version="1.0" encoding="utf-8"?>
<!-- Background circle for the magnitude value -->
<shape xmlns:android="http://schemas.android.com/apk/res/android"
    android:shape="oval">
    <solid android:color="@color/magnitude1" />
    <size
        android:width="36dp"
        android:height="36dp" />
    <corners android:radius="18dp" />
</shape>
```

Modify earthquake_list_item.xml

- Replace magnitude TextView to have circle background.
- Add marginLeft to location offset TextView

```
<TextView
    android:id="@+id/magnitude"
    android:layout_width="36dp"
    android:layout_height="36dp"
    android:layout_gravity="center_vertical"
    android:background="@drawable/magnitude_circle"
    android:fontFamily="sans-serif-medium"
    android:gravity="center"
    android:textColor="@android:color/white"
    android:textSize="16sp"
    tools:text="8.9" />
```

```
<TextView
    android:id="@+id/location_offset"
    android:layout_marginLeft="16dp"
    android:layout_width="0dp"
    android:layout_height="wrap_content"
    android:layout_weight="1"
    tools:text="30km S of" />
```

EarthquakeAdapter.java – getView()

```
TextView magnitudeView = (TextView) listItemView.findViewById(R.id.magnitude);
String formattedMagnitude = formatMagnitude(currentEarthquake.getMagnitude());
magnitudeView.setText(formattedMagnitude);
```

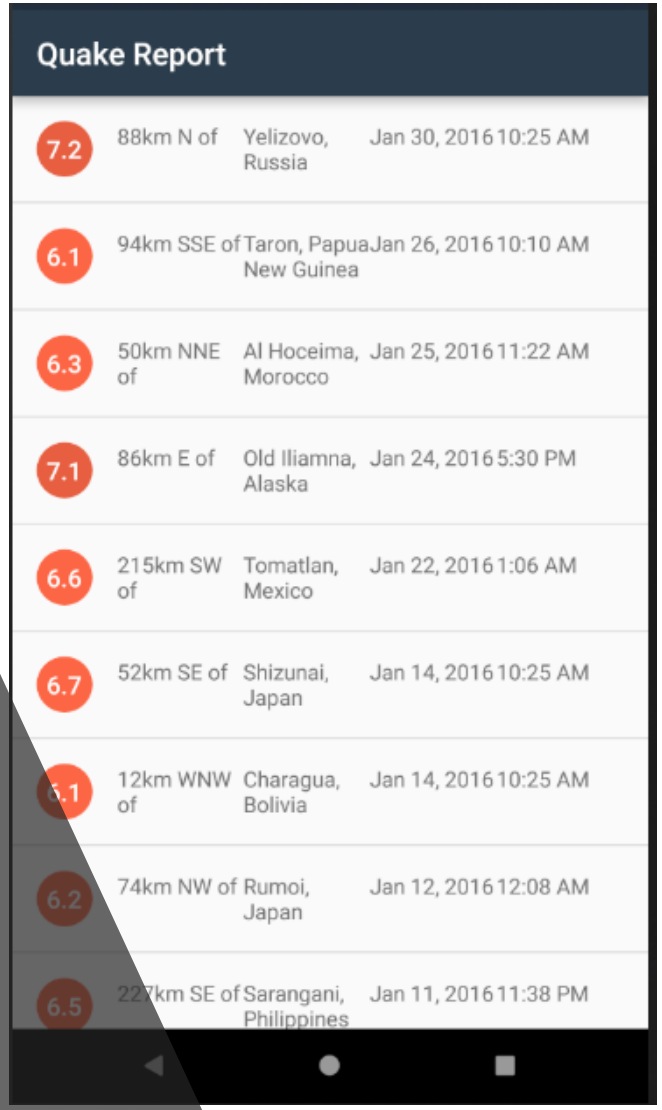
```
GradientDrawable magnitudeCircle = (GradientDrawable) magnitudeView.getBackground();
int magnitudeColor = getMagnitudeColor(currentEarthquake.getMagnitude());
magnitudeCircle.setColor(magnitudeColor);
```

EartquakeAdapter – create getMagnitudeColor()

```
        return listItemView;
    }

    private int getMagnitudeColor(double magnitude) {
        int magnitudeColorResourceId;
        int magnitudeFloor = (int) Math.floor(magnitude);
        switch (magnitudeFloor) {
            case 0:
            case 1:
                magnitudeColorResourceId = R.color.magnitude1;
                break;
            case 2:
                magnitudeColorResourceId = R.color.magnitude2;
                break;
            case 3:
                magnitudeColorResourceId = R.color.magnitude3;
                break;
            case 4:
                magnitudeColorResourceId = R.color.magnitude4;
                break;
```

```
            case 5:
                magnitudeColorResourceId = R.color.magnitude5;
                break;
            case 6:
                magnitudeColorResourceId = R.color.magnitude6;
                break;
            case 7:
                magnitudeColorResourceId = R.color.magnitude7;
                break;
            case 8:
                magnitudeColorResourceId = R.color.magnitude8;
                break;
            case 9:
                magnitudeColorResourceId = R.color.magnitude9;
                break;
            default:
                magnitudeColorResourceId = R.color.magnitude10plus;
                break;
        }
        return ContextCompat.getColor(getContext(), magnitudeColorResourceId);
    }

    private String formatDate(Date dateObject) {
        SimpleDateFormat dateFormat = new SimpleDateFormat( pattern: "LLL dd, yyyy");
```

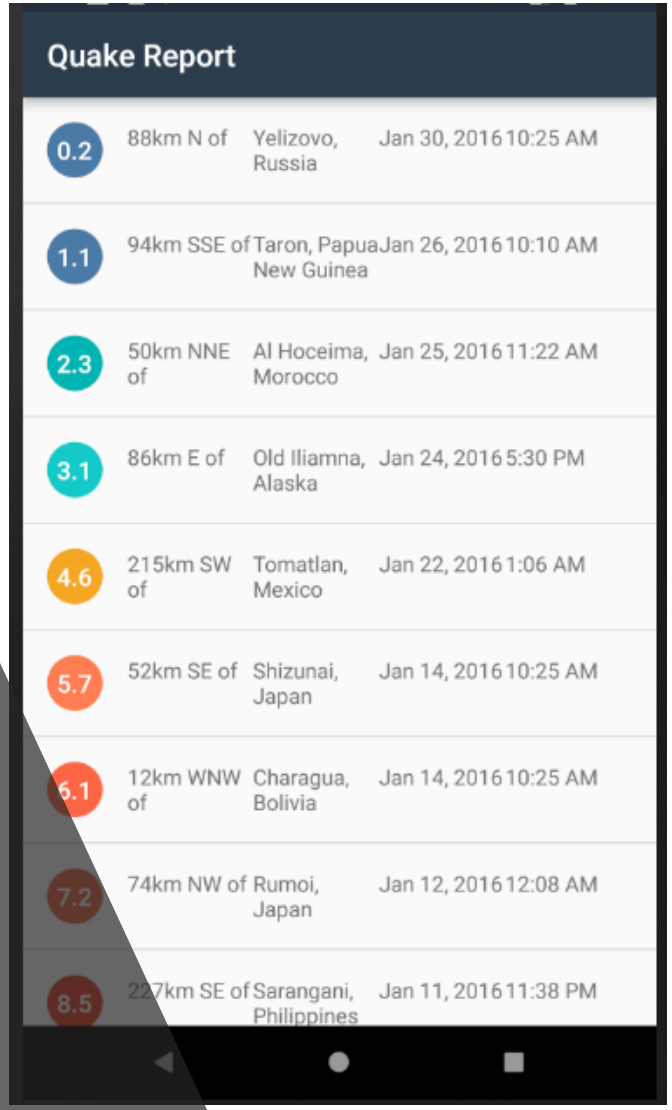
Run APP


Quake Report
7.2
88km N of
Yelizovo, Russia
Jan 30, 2016 10:25 AM
6.1
94km SSE of
Taron, Papua New Guinea
Jan 26, 2016 10:10 AM
6.3
50km NNE of
Al Hoceima, Morocco
Jan 25, 2016 11:22 AM
7.1
86km E of
Old Iliamna, Alaska
Jan 24, 2016 5:30 PM
6.6
215km SW of
Tomatlan, Mexico
Jan 22, 2016 1:06 AM
6.7
52km SE of
Shizunai, Japan
Jan 14, 2016 10:25 AM
12km WNW of
Charagua, Bolivia
Jan 14, 2016 10:25 AM
6.2
74km NW of
Rumoi, Japan
Jan 12, 2016 12:08 AM
6.5
227km SE of
Sarangani, Philippines
Jan 11, 2016 11:38 PM

https://gist.github.com/anonymous/e8992fb9c5b5e8cc717c74f84139d4d6

Change SAMPLE JSON RESPONSE with the one from the link above (QueryUtils.java)

Run APP again!



07 - Visual polish on the list

- Add these new colors to the res/values/colors.xml file.

```
 <!-- Text color for the details of the earthquake in the list item -->
<color name="textColorEarthquakeDetails">#B4BAC0</color>

<!-- Text color for the primary location of the earthquake in the list item -->
<color name="textColorEarthquakeLocation">#2B3D4D</color>
```

Modify earthquake_list_item.xml

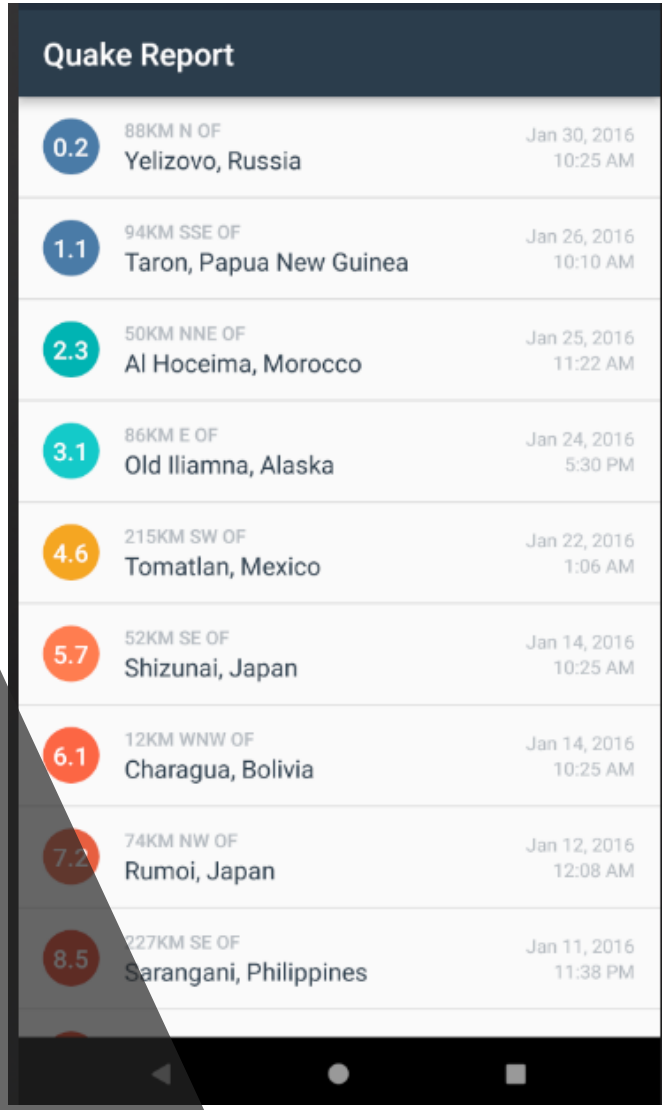
```
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="?android:attr/listPreferredItemHeight"
    android:orientation="horizontal"
    android:paddingEnd="16dp"
    android:paddingLeft="16dp"
    android:paddingRight="16dp"
    android:paddingStart="16dp">

    <TextView
        android:id="@+id/magnitude"
        android:layout_width="36dp"
        android:layout_height="36dp"
        android:layout_gravity="center_vertical"
        android:background="@drawable/magnitude_circle"
        android:fontFamily="sans-serif-medium"
        android:gravity="center"
        android:textColor="@android:color/white"
        android:textSize="16sp"
        tools:text="8.9" />
```

```
<LinearLayout
    android:layout_width="0dp"
    android:layout_height="wrap_content"
    android:layout_gravity="center_vertical"
    android:layout_marginLeft="16dp"
    android:layout_marginStart="16dp"
    android:layout_weight="1"
    android:orientation="vertical">

    <TextView
        android:id="@+id/location_offset"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:ellipsize="end"
        android:fontFamily="sans-serif-medium"
        android:maxLines="1"
        android:textAllCaps="true"
        android:textColor="@color/textColorEarthquakeDetails"
        android:textSize="12sp"
        tools:text="30km S of" />
```

```
            <TextView
                android:id="@+id/primary_location"
                android:layout_width="wrap_content"
                android:layout_height="wrap_content"
                android:ellipsize="end"
                android:maxLines="2"
                android:textColor="@color/textColorEarthquakeLocation"
                android:textSize="16sp"
                tools:text="Long placeholder location that should wrap to more than 2 lines of text"
/>

        </LinearLayout>

        <LinearLayout
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:layout_gravity="center_vertical"
            android:layout_marginLeft="16dp"
            android:layout_marginStart="16dp"
            android:orientation="vertical">
```

```
            <TextView
                android:id="@+id/date"
                android:layout_width="wrap_content"
                android:layout_height="wrap_content"
                android:layout_gravity="end"
                android:textColor="@color/textColorEarthquakeDetails"
                android:textSize="12sp"
                tools:text="Mar 6, 2010" />

            <TextView
                android:id="@+id/time"
                android:layout_width="wrap_content"
                android:layout_height="wrap_content"
                android:layout_gravity="end"
                android:textColor="@color/textColorEarthquakeDetails"
                android:textSize="12sp"
                tools:text="3:00 PM" />

        </LinearLayout>
    </LinearLayout>
```

Run APP


Quake Report
0.2
88KM N OF
Yelizovo, Russia
Jan 30, 2016
10:25 AM
1.1
94KM SSE OF
Taron, Papua New Guinea
Jan 26, 2016
10:10 AM
2.3
50KM NNE OF
Al Hoceima, Morocco
Jan 25, 2016
11:22 AM
3.1
86KM E OF
Old Iliamna, Alaska
Jan 24, 2016
5:30 PM
4.6
215KM SW OF
Tomatlan, Mexico
Jan 22, 2016
1:06 AM
5.7
52KM SE OF
Shizunai, Japan
Jan 14, 2016
10:25 AM
6.1
12KM WNW OF
Charagua, Bolivia
Jan 14, 2016
10:25 AM
7.2
74KM NW OF
Rumoi, Japan
Jan 12, 2016
12:08 AM
8.5
227KM SE OF
Sarangani, Philippines
Jan 11, 2016
11:38 PM

08 - Add click listener on list item to open website URL

ADD EARTHQUAKE INTENT

Modify the app so that clicking on a list item goes to the detailed webpage about that earthquake

What as the key in the JSON response to get the website URL for the earthquake?

What intent action did you set on the intent to open the web browser?

QueryUtils.java

```
double magnitude = properties.getDouble( name: "mag");
String location = properties.getString( name: "place");
long time = properties.getLong( name: "time");
String url = properties.getString( name: "url");

Earthquake earthquake = new Earthquake(magnitude, location, time, url);
earthquakes.add(earthquake);
```

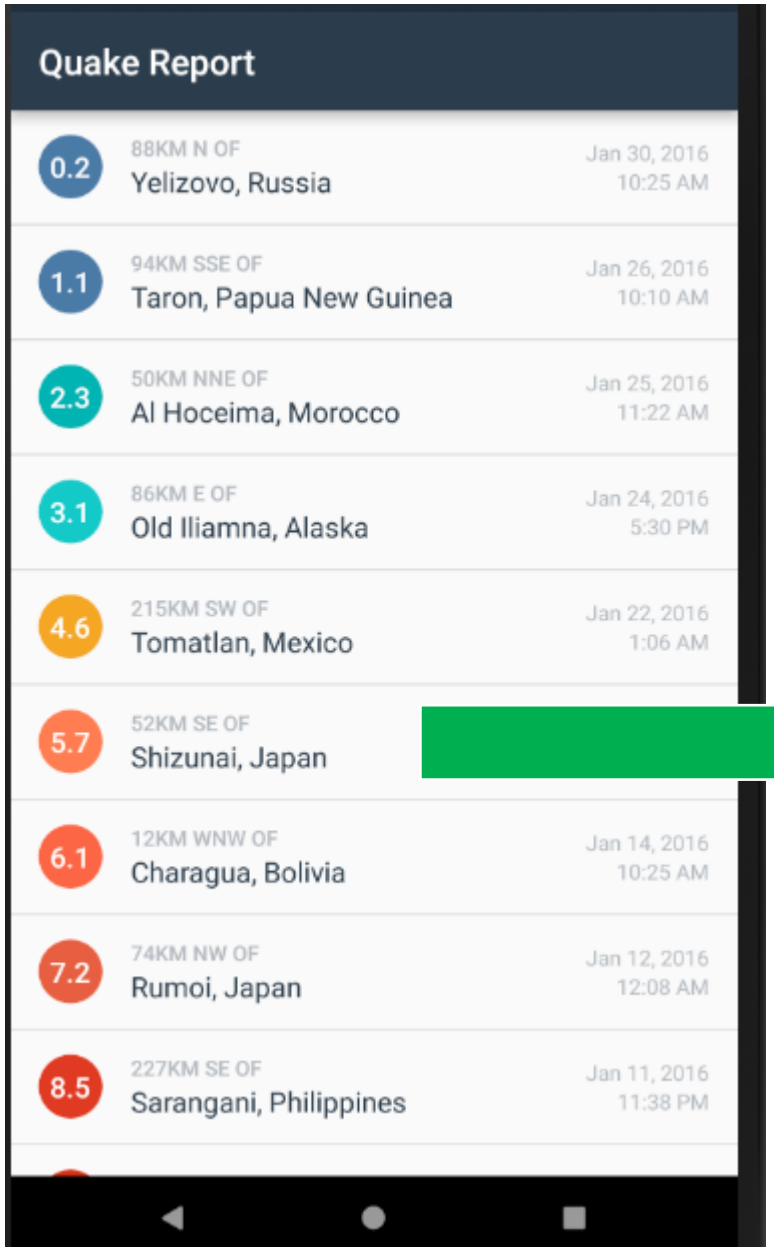
Earthquake.java

```
public Earthquake(double magnitude, String location, long timeInMilliseconds, String url) {
    mMagnitude = magnitude;
    mLocation = location;
    mTimeInMilliseconds = timeInMilliseconds;
    mUrl = url;
}

…

/**
* Returns the website URL to find more information about the earthquake.
*/
public String getUrl() {
    return mUrl;
}
```

EarthquakeActivity onCreate()

```
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.earthquake_activity);

        // Create a fake list of earthquake locations.
        ArrayList<Earthquake> earthquakes = QueryUtils.extractEarthquakes();

        // Find a reference to the {@link ListView} in the layout
        ListView earthquakeListView = (ListView) findViewById(R.id.list);

        final EarthquakeAdapter adapter = new EarthquakeAdapter( context: this, earthquakes);
        earthquakeListView.setAdapter(adapter);
        earthquakeListView.setOnItemClickListener(new AdapterView.OnItemClickListener() {
            @Override
            public void onItemClick(AdapterView<?> adapterView, View view, int position, long id) {
                Earthquake currentEarthquake = adapter.getItem(position);

                // Convert the String URL into a URI object (to pass into the Intent constructor)
                Uri earthquakeUri = Uri.parse(currentEarthquake.getUrl());

                // Create a new intent to view the earthquake URI
                Intent websiteIntent = new Intent(Intent.ACTION_VIEW, earthquakeUri);

                // Send the intent to launch a new activity
                startActivity(websiteIntent);
            }
        });
    }
}
```

Run APP


Quake Report
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7.2
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Rumoi, Japan
Jan 12, 2016
12:08 AM
8.5
227KM SE OF
Sarangani, Philippines
Jan 11, 2016
11:38 PM


2:12
https://earthquake.usgs.gov/earthqua
USGS
Menu
M 6.7 - 52km SE of Shizunai, Japan
2016-01-14 03:25:33 UTC
41.972°N 142.781°E
46.0 km depth
Interactive Map
Contributed by USGS
Regional Information