CS551-HW7-Q14

Project Status - Running

Link - http://npu85.npu.edu/~henry/npu/classes/android/intent/slide/exercise_intent.html

[Q12] Earthquake Viewer

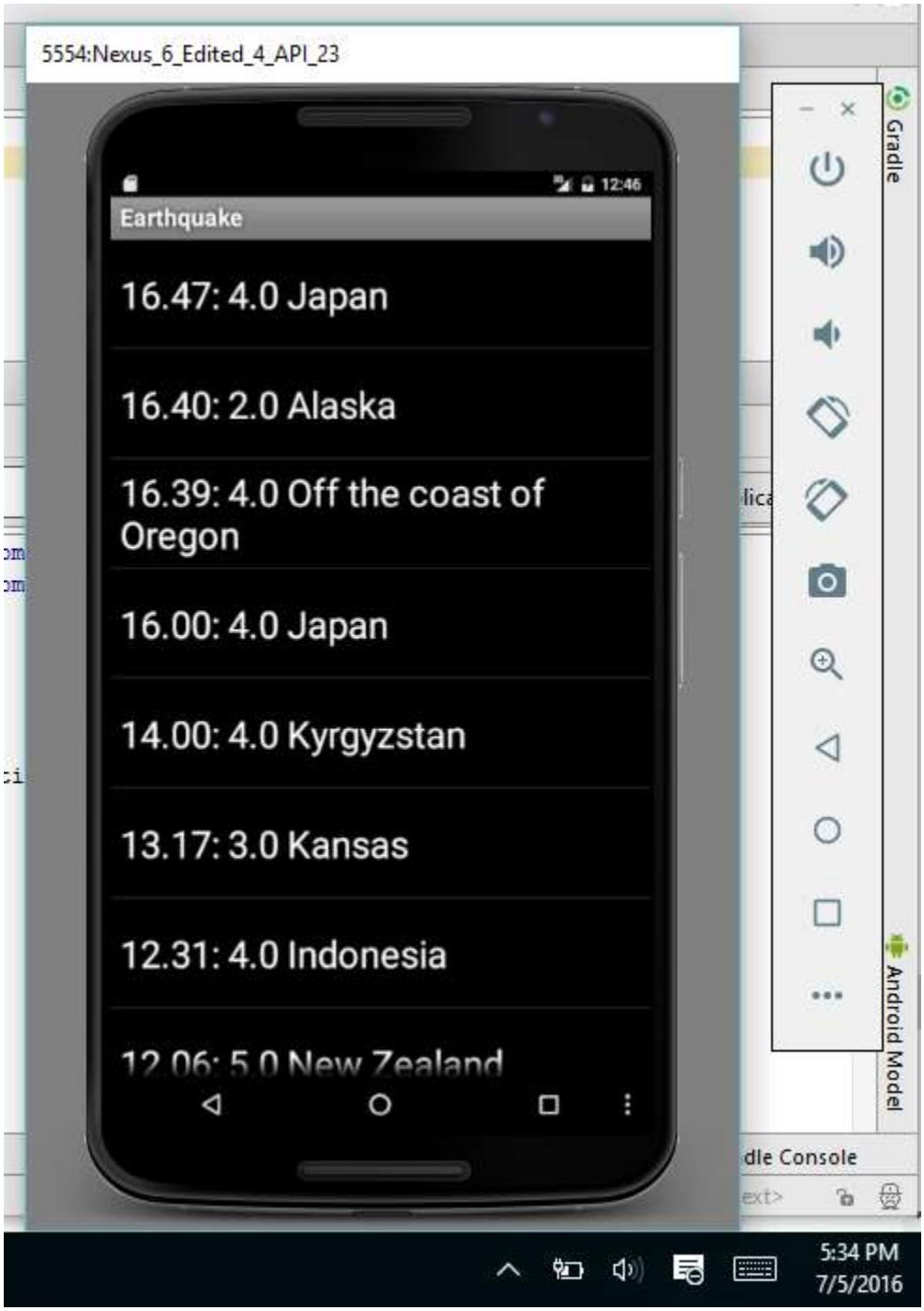
Earthquake using JSON

JSON (JavaScript Object Notation) is a lightweight format that is used for data interchanging. It is based on a subset of JavaScript language.

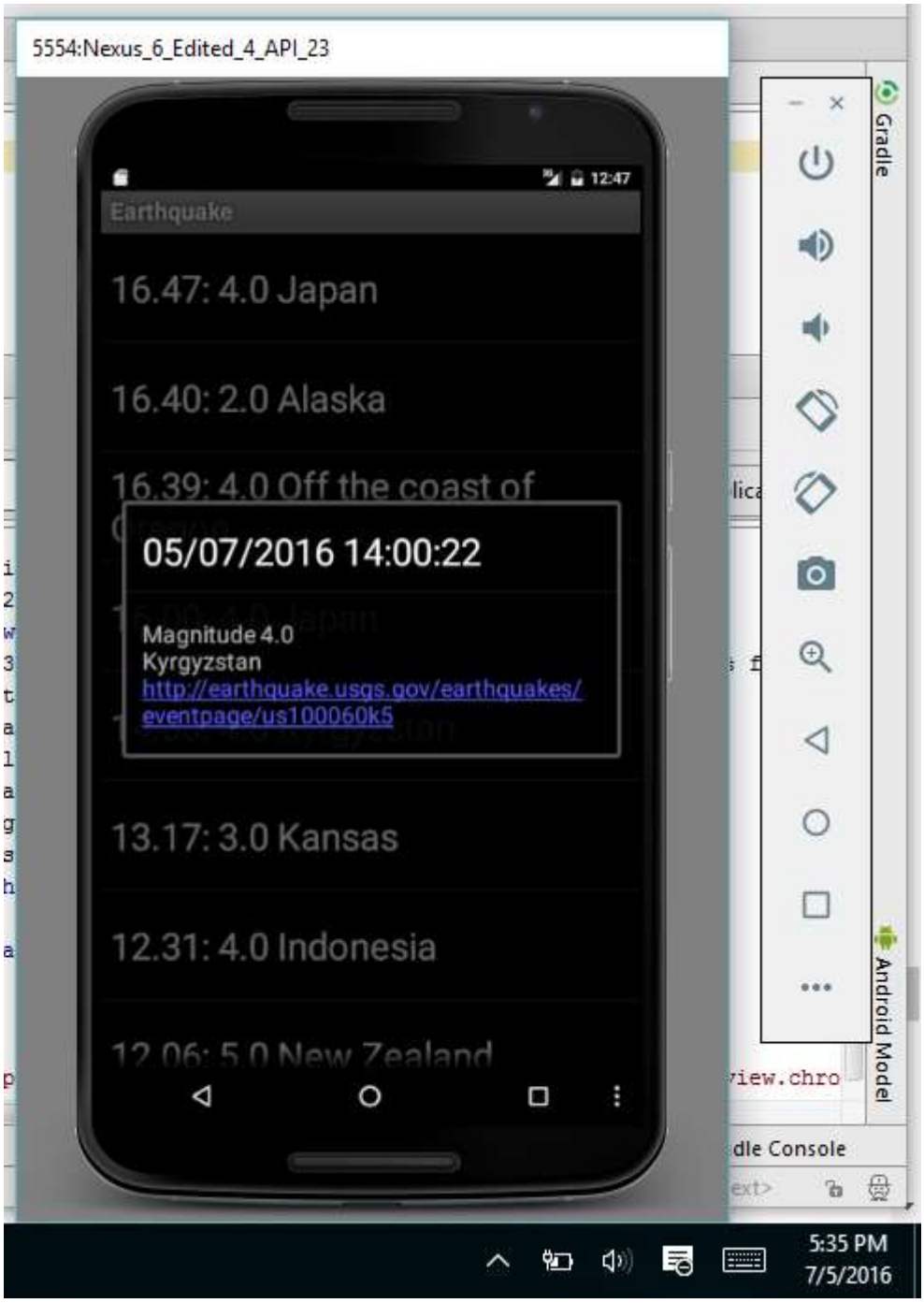
E.g. previously webservices used XML to transfer data. It was required to read the entire xml & get the data. Now in JSON just map your JSON url to JSONObject & get all the required data.

Working

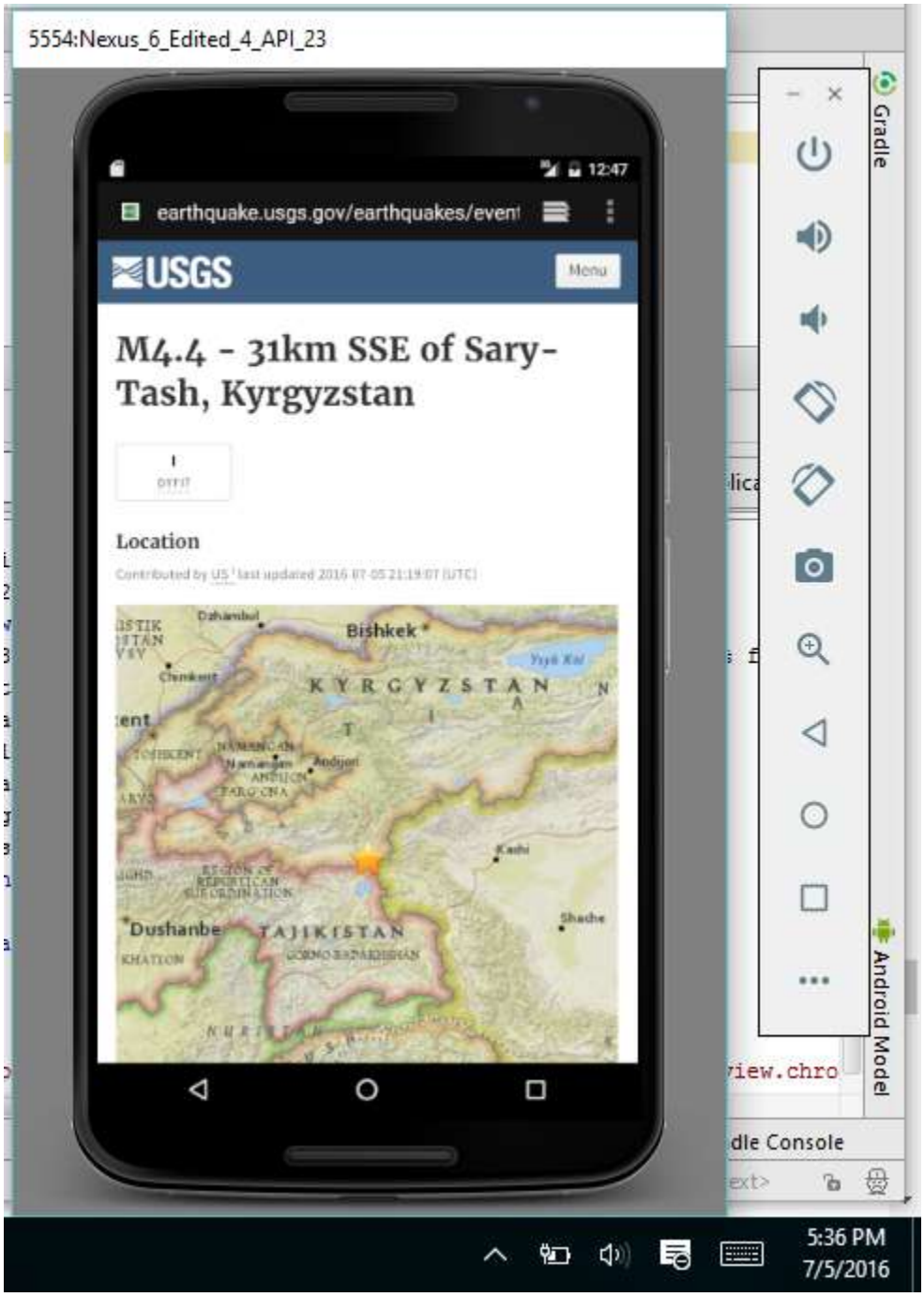
- Open App



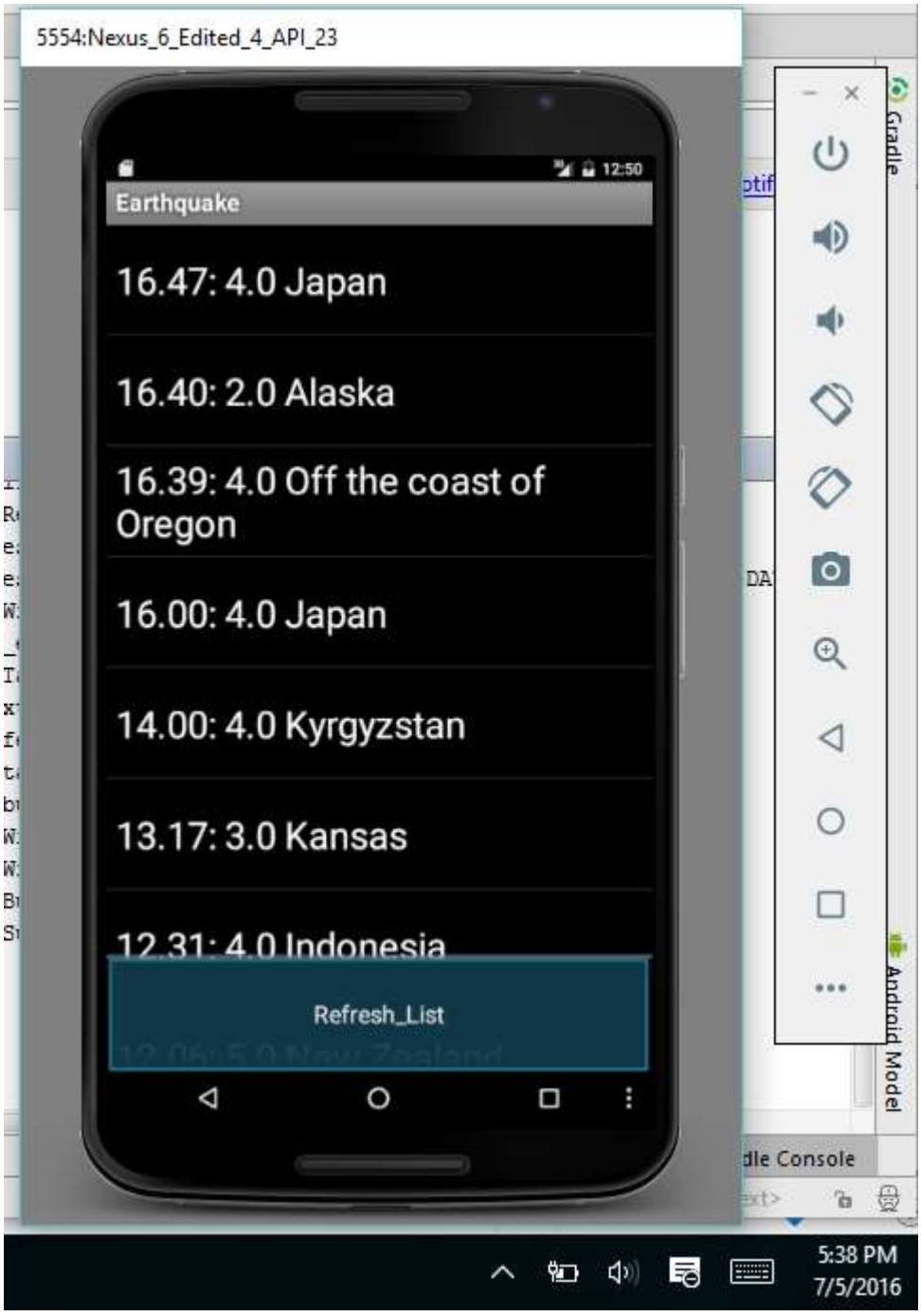
- Click on any one of the option



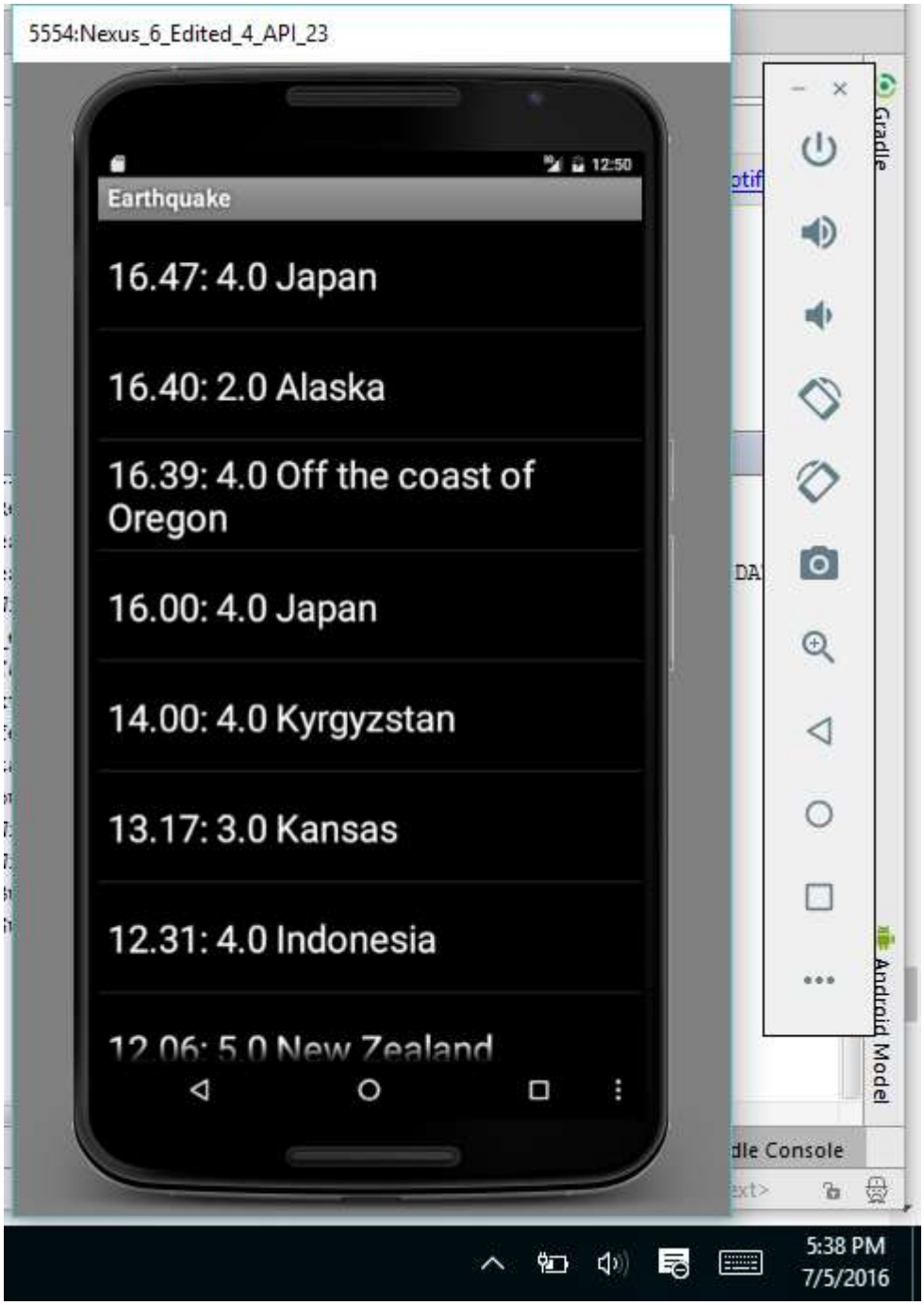
- Click on the Link



- Click on Menu. Refresh List will pop up.



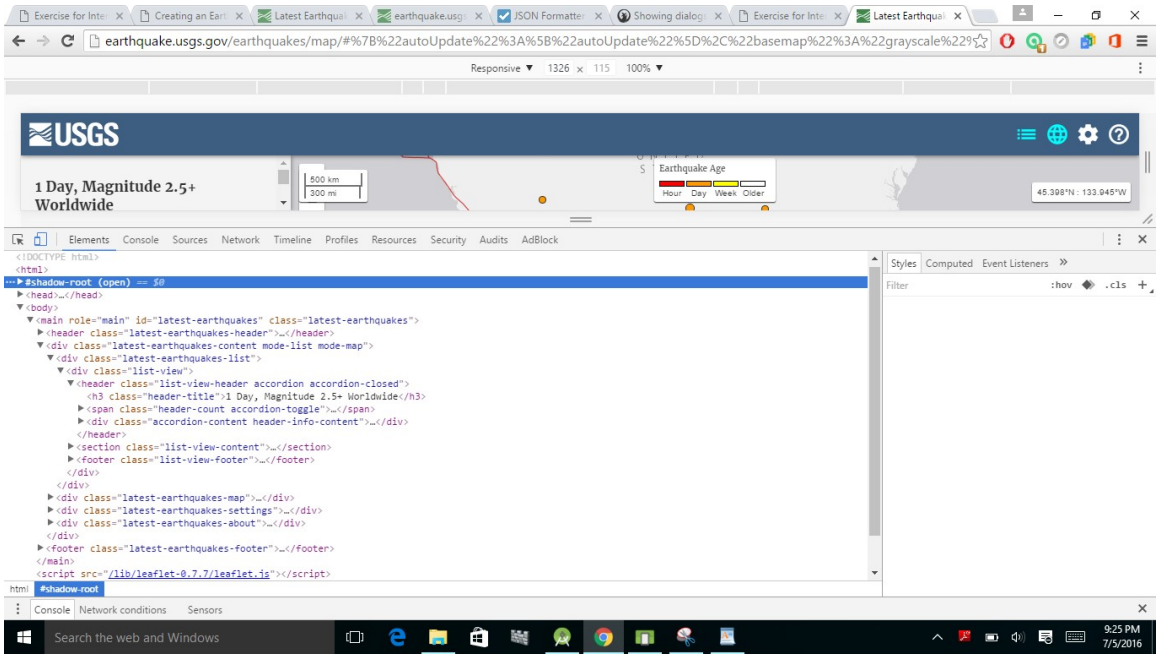
- List will be refreshed



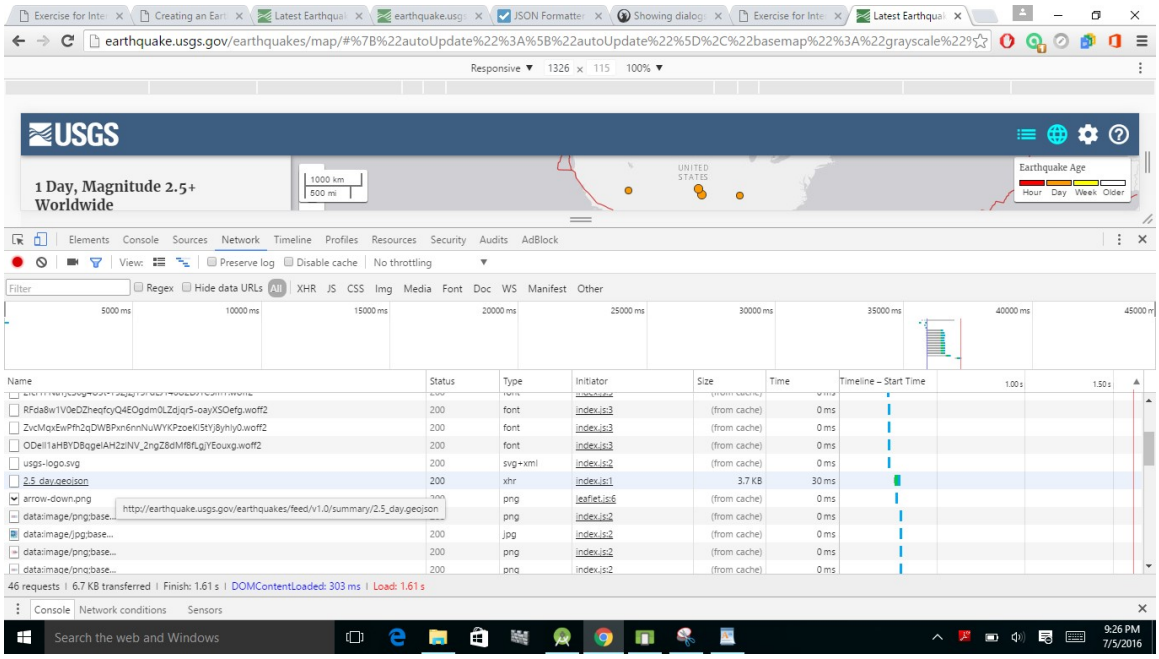
Implementation

- Open the website from which you need to read data.(http://earthquake.usgs.gov/earthquakes/map/)
- Right click on page --> Go To **Inspect or source**

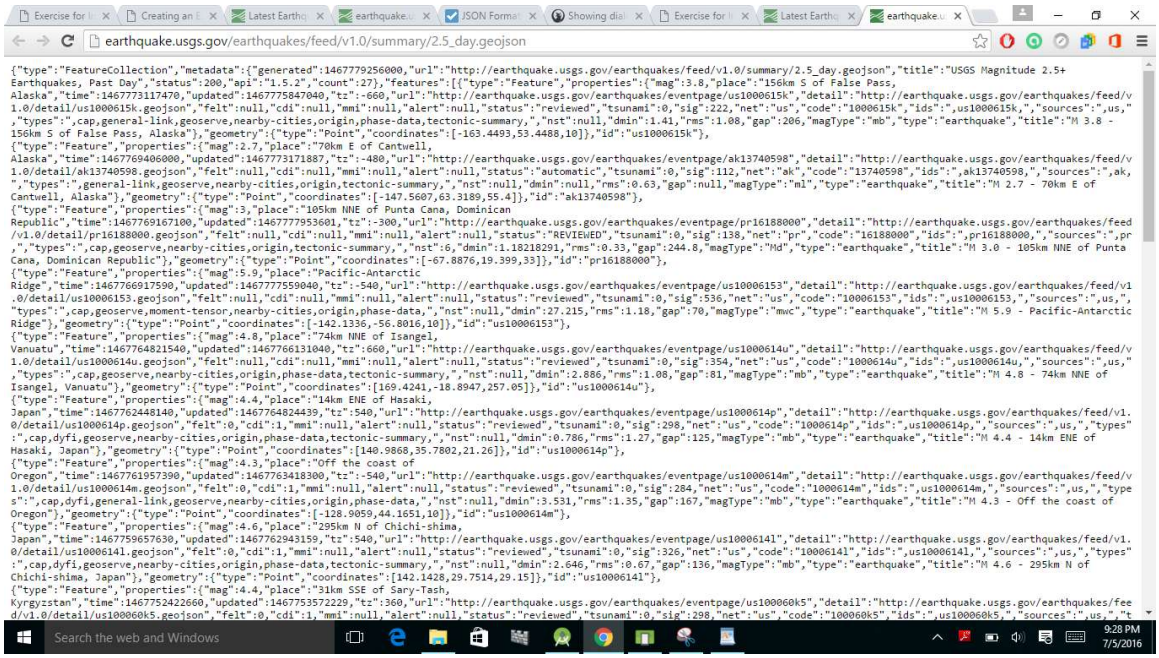
- Below page will open
- Go to **Network** tab



- Network tab will have list of data in Name section
- Select a file which has json as postfix in its name
- Right click on that file & open in another tab



- The json file will look as shown below

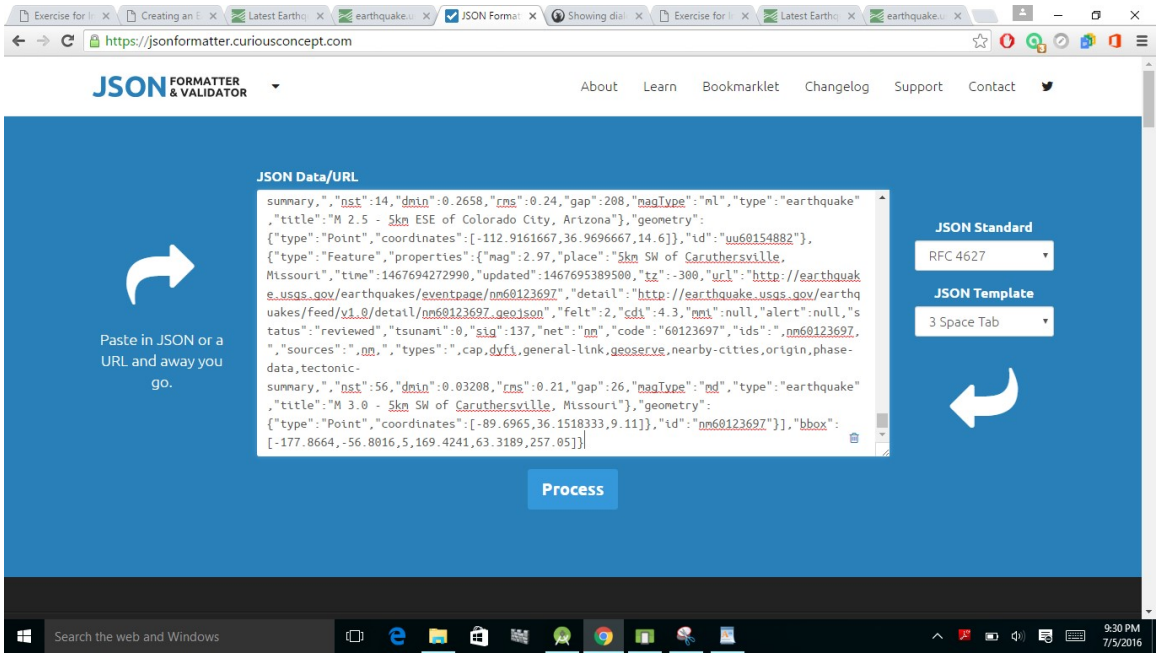


- This is the URL you will use to create JSON object.

```
HttpClient httpClient = new DefaultHttpClient();
HttpGet httpGet = new HttpGet("http://earthquake.usgs.gov/earthquakes/feed/v1.0/summary/2.5_day.geojson");
HttpResponse response = httpClient.execute(httpGet);
HttpEntity entity = response.getEntity();
// Step 2: convert the entity to object
Object content = EntityUtils.toString(entity);

//Step 3: convert to JSONObject
JSONObject jsonObj = new JSONObject(content.toString());
JSONArray jsonArray = jsonObj.getJSONArray("features");
```

- To get a better understanding of the stucture of the page. Type JSON Formatter on google where you can enter this entire page contents & it wil give a well structured output



- After you click on PROCESS you get below output

- Here you can see that there is an array of Feature object which has properties object with url,details,updated etc.. tags.

```
"features":[ ⊟
   { ⊞ },
   { ⊞ },
   { ⊟
      "type":"Feature",
      "properties":{ ⊟
         "mag":3,
         "place":"105km NNE of Punta Cana, Dominican Republic",
         "time":1467769167100,
         "updated":1467777953601,
         "tz":-300,
         "url":"http://earthquake.usgs.gov/earthquakes/eventpage/pr16188000",
         "detail":"http://earthquake.usgs.gov/earthquakes/feed/v1.0/detail/pr16188000.geojson",
```