

# Mobile\_Lesson3: Developing earthquake information application for Android

Please do not forget to submit your feedback after the class. This feedback helps a lot in increasing the effectiveness of the course. Use the related Canvas survey to submit your ICP # and feedback

## Lesson Overview:

This lesson helps understand some important aspects of Android, such as fetching JSON data from APIs, parsing the JSON data, handling errors, using the Async Task Class, and some Java elements along with usage of ListView.

## Use Case Description:

**Earthquake Info App:** Displaying the recent earthquake information

## Programming elements:

RESTful Services, ListView, Adapter, Recycling, Multi-Threading, and Async Task

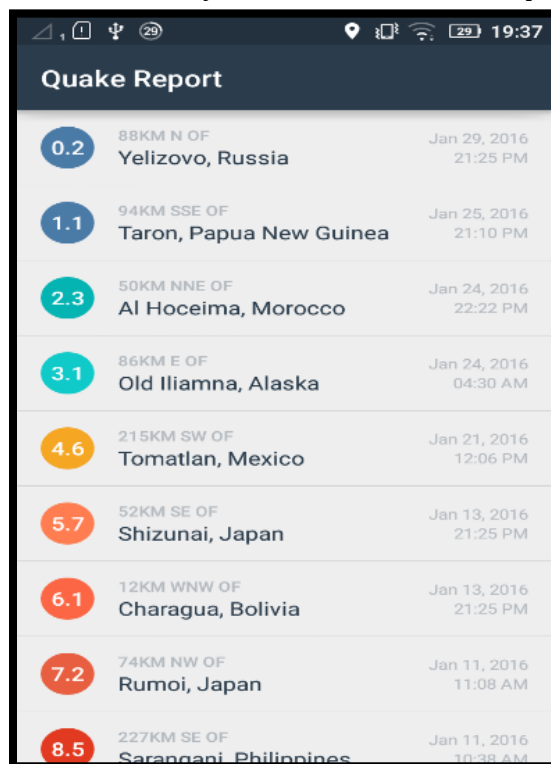
## Source Code:

<https://umkc.box.com/s/pyez0v6pcpn1v0k7ms3qlesfvsjlk4u7>

## In Class Programming (ICP):

**Earthquake Info App:** Create a mobile application with the following requirements.

1. The main activity should be a list of earthquakes with information as shown below



2. On clicking any item Earthquake, the user must be directed to the webpage of USGS, which contains further information about the earthquake in the web browser.



3. Follow all the three TODO instructions in the **QueryUtils.java** file and two more TODO instructions in the **EarthquakeActivity.java** file and **AndroidManifest.xml** to complete the functionality

#### API endpoint:

<https://earthquake.usgs.gov/fdsnws/event/1/>

#### ICP Submission Guidelines

1. ICP submission is an individual contribution
2. Submit your source code and documentation to GitHub and represent the work through the wiki page accurately (submit your screenshots as well. The screenshot should have both the code and the output)
3. Comment your code appropriately
4. Video submission (3 to 5 min video showing the demo of the ICP, with brief voiceover on the code explanation)
5. Submission after the due date is considered as a late submission. (Check the 'Late Submission Policy on Assignments' in the syllabus)
6. Use the related Canvas survey to submit your ICP # and feedback

#### ICP Rubric Details

You can find ICP Rubric Details in both the Syllabus and Canvas ICP assignment.

Criteria	Novice	Competent	Proficient
Wiki page (25)	Basic wiki page. ( $\geq 0$ to $\leq 5$ )	Wiki page with the required details. ( $> 5$ to $\leq 15$ )	Wiki page with all details and making it easy to follow and understand. Visually looking good. ( $> 15$ to $\leq 25$ )
Video (25)	Basic video. ( $\geq 0$ to $\leq 5$ )	Video with the required details. ( $> 5$ to $\leq 15$ )	Video with all details and making it easy to follow and understand. Annotated with the subtitles. ( $> 15$ to $\leq 25$ )
Completeness of given assignment (25)	It is partially solved. ( $\geq 0$ to $\leq 5$ )	Completely solved. ( $> 5$ to $\leq 15$ )	It is solved efficiently. ( $> 15$ to $\leq 25$ )
Code Quality (It is relative) (10)	Refer to the <a href="#">best coding practices</a> page. ( $\geq 0$ to $\leq 5$ )	Refer to the <a href="#">best coding practices</a> page. ( $> 5$ to $\leq 8$ )	Refer to the <a href="#">best coding practices</a> page. ( $> 8$ to $\leq 10$ )
Commenting the code (10)	Not useful comments. ( $\geq 0$ to $\leq 5$ )	Slightly appropriate comments. ( $> 5$ to $\leq 8$ )	Appropriate comments. ( $> 8$ to $\leq 10$ )
Time of submission	Submission after the due date. Check the 'Late Submission Policy on Assignments' section in the syllabus	Submission on the deadline. No score will deduct from the obtained score.	Submission before the deadline. No score will deduct from the obtained score.
Submission (including feedback) (5)	Submission with partial details. ( $\geq 0$ to $\leq 3$ )	Submission with the essential details. ( $> 3$ to $\leq 4$ )	Submission with all the details. ( $> 4$ to $\leq 5$ )
<b>Total</b>	<b>Minimum = 0</b>		<b>Maximum = 100</b>

**Note:** Cheating, plagiarism, disruptive behavior, and other forms of unacceptable conduct are subject to strong sanctions under university policy. See detailed description of university policy at the following URL: <https://catalog.umkc.edu/special-notice/academic-honesty/>