

Programming Assignment 2
Introduction to Relational DB, SQL (Cloud)
Due: In Blackboard

Task: You will get world earthquake data, import into SQL and with a web interface allow users to find out (query) interesting information about those earthquakes.

Description:

Your assignment is to provide a local interface to a cloud service that you will implement that will allow a user to upload earthquake data and investigate it.

Please go to:

<https://earthquake.usgs.gov/earthquakes/feed/v1.0/csv.php>

and get all earth quakes for the last 30 days (bottom right), a .csv file, place these on your cloud service provider and import this into SQL.

This page also has a "schema" for the data.

And your cloud-based "service" will allow a user to:

- + Search for and count all earthquakes that occurred with a magnitude greater than 5.0
 - + Search for 2.0 to 2.5, 2.5 to 3.0... for a week a day or the whole 30 days.
 - + Find earthquakes that were near (20 km, 50 km?) of a specified location.
 - + Find clusters of earthquakes
 - + Do large (>4.0 mag) occur more often at night?
- And similar...

In later work you will try to "learn" from the data and show graphs and pictures. Not yet (unless you want to).

You will use some type of RDB SQL to store and retrieve earthquake information. And (of course) a friendly web UI.

You should handle conditions such as: missing data (fields, attributes), and similar.

Please, submit in Blackboard. Work must be individualized, but may be done in a group.

You must submit this lab, working (or partially) by the due date.

Your program should be well commented and documented, make sure the first few lines of your program contain your name, this course number, and the lab name and number.

Your comments should reflect your design and issues in your implementation.

Your design and implementation should address error conditions.