

Programming Assignment 4
Introduction to Amazon Web Services (and Databases)
Due: June 22, 2015, 04:00 (UTA time)

Description:

1. Get access to AWS (Amazon Cloud).
2. Find a large dataset (50K tuples or larger)
<http://earthquake.usgs.gov/earthquakes/feed/v1.0/csv.php> (test, small)
<https://www.data.gov/> (many here, for example vehicle recalls)
3. Copy that file to AWS, and time (instrument) how much time it takes.
4. Put the data into a Relational DB. (time)
5. Write the code to do one thousand, 5 thousand and 20 thousand random (small) queries. (time)
6. Repeat using queries of only 200 to 800 tuples.
7. Repeat previous two steps using "Elastic" Cache (Memcache, etc.)
8. Display your results on console.
9. Send (a) code and (b) the timings, and explanation in a document.
10. If you use ANY source: web site, book, code, article
- you MUST put comments
in the code and document of (exactly) what parts of the code should be attributed to which author (who wrote it, when, etc.).
11. Please submit your results (text, html, or doc file, a few pages), and all code and Configuration files, but NOT executables, binaries or raw data files.

Regardless of the number of people in your "team", you will need to understand the implementation and results of this assignment.

You may work alone, or in groups of three, but you must individually be able to understand and use your program code.

Please, submit this assignment to UTA Blackboard, IF unavailable you may Email ONLY to the class account. All work must be your own.

You must e-mail this lab, working (or partially) by the due date. The e-mail subject should clearly state the lab number.

You may (optionally) demonstrate this lab, working (or partially) to the GTA before 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 number.

Your comments should reflect your design and issues in your implementation. Your design and implementation should address error conditions.

Programming Assignment 5
Due: June 24, 02:00 (UTA time)

Using AWS repeat creating and queries of data using: DynamoDB (A NoSQL DB) and create a Web interface allowing users (of that web interface) to dynamically create queries. (Show times on web page)

You may ask for "hints" in class.