Instructions

Downloading Stock Information and Storing it in a Database

Download from Yahoo! Finance or Bloomberg or any other site that provides online stock market quotes.

Your task is to develop an application that runs continuously as a background process and periodically retrieves stock information, parses the received responses, and stores the extracted parameters into a local relational database. You may wish to use **MySQL** or check PostgreSQL, claimed to be the world's most advanced open source database. Check also PostgreSQL at Wikipedia, the free encyclopedia. You may also use NoSQL databases like MongoDB if you think that will be useful in your final project implementation.
Check the source code of the projects from Spring 2008, **available here**.

You are required to store **10 stocks** (**Google Stock, Yahoo Stock** and any other eight stocks of your choice) information. For each stock, you are expected to have **at least one day** of **real-time** data **(the stock information on the day of demo must be included)** and also **at least one year** of the **historical prices**. The real-time data should contain the price, time** and volume. The time slice between two real-time points should be no more than one minute. The historical data should at least contain time, open, high, low, close, volume. We will ask some fairly simple questions and the demo should be easy. Don't be scared.

* The "time" here really means the date and the time.

Each **group** should submit a single ZIP file (**ZIP, not .RAR**) via Sakai containing the following:

1. the source code of the application
2. the database schema(**PDF**)
3. the data collected so far (database dump, **".csv" file / ".json" file** required and make sure **the line alignment in the file is correct**), the file name should be the stock name plus anything you like. For each stock, the real time data and the historical data should be stored in two separate files.
4. a README document explaining how to install and run the application and the database
5. design report, describing the design of your system (**PDF**)

The report should include the system design diagrams (preferably in UML, but not required). Provide narrative describing each diagram. As part of the report, include detailed breakdown of individual contributions of each team member to the project. Each student should quantify, as a percentage, his or her own contribution to each component of this assignment. If all team members feel that their contributions were about equal, just write down "Equal contributions."

This report will be part of your final project report, so keep all documentation for later use.

Submission deadline: no later than 5:00 PM on the due date. Each group **only** needs to submit **one copy** via Sakai (The Group Leader can submit on behalf of group)
(*Note*: Keep all the source code and documentation because you will need it for future deliverables on your group project.)