CS 5500 Course Project
Phase III (Assigned: March 3, Due: March 31)

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Phase III of the project will involve the creation of an initial set of tests and then an initial implementation of the design you implemented previously.

Unit Tests

In this course project, we will take a test-first approach to development, by writing unit tests for the three components before implementing them. Your first task is to define a set of unit tests for each of the components. In writing these tests, please use as a starting point the Java interfaces that were written in Phase II of the project. Your tests should be implemented using the Junit framework, using a separate test suite for each component. It is to be expected that these tests will initially fail, but they should at least compile and the TAs should be able to run them. This may require you to extend or modify the interfaces that were previously written. You may also need to create some mock objects to be able to run your tests.

Initial Implementation

Now that an initial unit test suite is in place, it is time to start implementing the actual functionality of your system. This will involve implementing concrete classes that implement your interfaces, and defining additional classes and methods as needed. You will need to make many design decisions as well as decisions about what external libraries and frameworks to use, e.g., for the construction of the user-interface. You are allowed to use external libraries for specific tasks (e.g., creating a user-interface or parsing a file) but the overall structure of your application should be part of the code your write yourself (e.g., it is not permitted to make your entire application an instance of an existing MVC framework). Please contact the instructor if you have any questions.

In this initial implementation, you are allowed to make the following assumptions:
- For now, you only need to consider publication data from the DBLP site. Initially, you may assume that this data is available in a file system on your local disk. As an example of a system that uses DBLP data (and how to obtain a local copy of DBLP's data set), you may take a look at Emery Berger's http://csrankings.org/ site (source code available from https://github.com/emeryberger/CSRankings. Copying large amounts of code from this site is not permitted.
- For now, you only need to consider publication data from the following conferences: OOPSLA, PLDI, ECOOP, and ICFP.

Please ensure that your code is fully self-contained (e.g., all libraries on which your system depends must be included), documented properly, and accompanied by installation instructions so that the TAs can install your system and run your tests without problems.

As you implement your system, please update your test suite so that it covers all significant functionality.

Deliverables for Phase III

Deliverables for Phase III consist of:
- The implementation of your system, including your test suite.
- Detailed installation instructions and documentation.