Graduate credit for COSC 571

Total points: 100

Due date: 04/10/15
Topic finalization: 02/20/15
Rough draft: 03/20/15

Graduate students are expected to do additional work to qualify for graduate credit for this class. You will be expected to work on a research study. This will contribute to 10% of your final grade.

The goal of this research study is to demonstrate student's interest, comprehension and mastery over one topic/area in the database field. You are expected to discuss with the instructor your interest in topics and select one. The study is supposed to span a couple of months in the second half of the semester and is considered as independent student work. So, planning is very crucial for this.

The following steps will serve as guidelines to perform this research study:

1. Pick a topic in the database literature that you would like to investigate more about. This could be a topic covered in the class or not. Some possible topics may include database normalization, in-memory databases, NoSQL, query optimization, long-duration transactions. Do not select a product description (examples – MySQL, DB2, Oracle) for this study.

2. Perform a literature survey to find at least two references in the topic of your choice. The reference materials should be published in some notable print journals in the database field, and not from a website, blog, or the like. You can pick more than two references if you like. You can approach the instructor for feedback once you have selected some potential references. You will need to get the instructor's approval of topic and references by **Feb 20th** (10 pts.).

3. Write a report (at least 5 pages, single-spaced, 11pt. font) including:
   a. a detailed description of the topic you have chosen and why it is interesting to you (20 pts.) – this may include materials discussed in the class
   b. a description of each of your references including the problems addressed and the research that has been done along with necessary illustrations (20 pts.)
   c. your thoughts on how the problem addressed (or the topic of interest) could be enhanced by future research work (10 pts.)
   d. references using the format specified at http://www.cs.ucy.ac.cy/~chryssis/specs/ACM-refguide.pdf (5 pts.)

4. A rough draft of the report has to be submitted by **Mar. 20th** (10 pts.).

5. Your report should display a good comprehension of the topic, i.e., it should not be a composition of all the references used (10 pts.).

6. Your report should be a professional one - free of spelling and grammar mistakes and easy-to-read and

understand by a reviewer (15 pts.). Make use of the services provided by the University Writing Center for help on this.

7. You should pay attention to the points distribution. It will be strictly followed during grading. Talk to the instructor if you have questions.

8. Submit a copy of your report to EMU Online in the appropriate dropbox. Include URLs to the two references in your report or submit hard/soft copies.