

**Concordia University
Department of Computer Science
and Software Engineering**

**Comparative Study of Programming Languages
COMP 6411 --- Winter 2013**

Programming assignment #3

Deadline: Wednesday March 13 th , 2013
Evaluation: 10% of final mark
Late submission: not accepted

Problem statement

Select two different programming languages with which you can access an externally-defined database component. For each language, develop a program in this language that allows the user to read/write data stored in a database. In order to have a meaningful comparison, both of your programs should read/write from/to the same database. In order to have a varying scale of measurements, the program should allow the user to select, for example, (1) the number of records and (2) the size of the records to be fetched/written from/to the database. Both programs should measure the time taken for the read/write operations to take effect. The goal is to come up with measurements that will highlight the read/write performances of each solution in different situations.

Relationship with term paper

In the term paper, your team will have to compare the database connectivity capacities of five selected languages. It is thus advised that you consult with your team so that at least five different languages' database connectivity capacities are collectively explored by the team.

Assignment submission requirements and procedure

You have to submit your assignment before midnight on the due date using the ENCS Electronic Assignment Submission system under the category "*programming assignment 3*". Late assignments are not accepted. The file submitted must be a **.zip** file containing:

- a simple document describing the languages, and database connectivity solutions used
- all your code (i.e. two programs including a database)
- instructions on how to compile and execute all your programs

You are also responsible to give proper compilation and execution instructions to the marker in a README file. If the marker cannot compile and execute your programs, you might have to meet with him for a demonstration.

Evaluation Criteria

Description of the languages, database, and database connectivity solutions used	4 pts
Implementation and testing leading to highlight the differences in read/write performance	6 pts
Presentation and interpretation of the results	6 pts
Implementation in two <u>different</u> languages using the <u>same</u> database	4 pts
Total	20 pts