

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

**Comparative Study of Programming Languages
COMP 6411 --- Winter 2014**

Programming assignment #3

Deadline: Wednesday March 12 th , 2014
Evaluation: 10% of final mark
Late submission: not accepted

Problem statement

Select two different programming languages for which you can develop GUI components. Research and describe different solutions that exist to develop GUI components in each language chosen. For each language, develop a GUI component that allows the user to observe the reading/writing of records in a database as it is being done using different criteria such as done in assignment 2. The GUI should first allow the user to select the size and number of records to be exchanged with the database, and then press a “start” button, which will trigger the program to write all records to the database, and then read them. During that operation, the GUI should present to the user with a progress bar showing the progress first in the writing operation, then in the reading operation. The GUI should also present to the user a log window where the time required for all read/write operations are being output. Using different criteria, compare the two GUI development solutions used in the assignment.

Relationship with term paper

In the term paper, your team will have to compare the GUI development capacities in six selected languages. It is thus advised that you consult with your team so that at least six different languages’ GUI development 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, algorithms, and GUI development solutions used
- all your code (i.e. two programs including a GUI)
- 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 and GUI development solutions used	15 pts
Correct implementation of the solution as prescribed above	20 pts
Discussion/comparison about the differences in GUI development facilities used	15 pts
Total	50 pts