Concordia University
Department of Computer Science and Software Engineering

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

Programming assignment #2

Deadline: Wednesday February 27th, 2013
Evaluation: 10% of final mark
Late submission: not accepted

Problem statement

Select two different programming languages for which you can develop GUI components. For each language, develop a GUI component that allows the user to observe the sorting as it is being done by different sorting algorithms (see assignment 1). The GUI should first allow the user to select the sorting algorithm to be used. Then the GUI should present to the user with 10 random numbers from 1 to 100, and a "step" button that will show the result of one sorting step. The user can press the "step" button repeatedly until the sorting is finished. As much as possible, both of your programs and their GUI should be presented to the user in a similar fashion.

Relationship with term paper

In the term paper, your team will have to compare the GUI development capacities in five selected languages. It is thus advised that you consult with your team so that at least five 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 2*". 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, algorithms, and GUI development solutions used	3 pts
Correct implementation of sorting algorithms	5 pts
Choice of two different languages	3 pts
GUI implementation as stated above	5 pts
Discussion/comparison about the differences in GUI development facilities used	4 pts
Total	**20 pts**