Seneca College of Applied Arts & Technology   **February 4, 2019**

SCHOOL OF INFORMATION & COMMUNICATION TECHNOLOGY

JAC444   **Due dates: February 14 and February 21, 2019**

Workshops 4 & 5

Description:

This assignment lets you practice concepts such as Object Serialization, and Swing GUI.

In this assignment, you will be working with some objects of a **Student** class (which should be serializable.)

This class has fields such as **stdID** (int), **firstName** (String), **lastName** (String), and **courses** (an array or preferably an ArrayList which contains the names of the courses the student currently has). Please provide constructors, getters, and setters, where appropriate.

In the second class, you will need to enter some information for some student objects from the console and save these student objects in a file.

And finally, in the third class of this project, you need to read those student objects from the file, and then show their info in the console, to verify that they had been saved (and serialized) correctly.

Lastly, design a Swing GUI-based Java application to do the same job. It could be as simple as (at least) a **JFrame** with some **JTextField**s and a **JButton** (to let the user enter the information of the students and save them), and a **JTextArea** and another **JButton** (to let the application to read the information of all saved students from the file and show them to the user.)

Marking Criteria and Tasks:

Please note that you should:
   a- have appropriate indentation.
   b- have proper file structures and modularization.
   c- follow Java naming conventions.
   d- document all the classes properly.
   e- not have debug/useless code and/or file(s) left in assignment.
   f- have good intra and/or inter class designs.
in your code!

- Task 1: Developing and running the desired solution (The three classes mentioned above,) correctly, in the console: **5 marks**.

- Task 2: Developing and running the desired solution (The three classes mentioned above,) correctly, using Swing GUI: **5 marks**.

Deliverables and Important Notes:
You are supposed to show up AND hand in your solution in person (run the solution and/or answer related Qs) in the labs 6 and 7. **Task 1 should be delivered in lab 6 and task 2 should be delivered in lab 7**.

In case you don't show up OR hand in/run the required task in the lab, you could submit your final solution (described below) on the same due date but note that there would be a 50% penalty! Late submissions would result in additional 10% penalties for each day or part of it.

In this case, you should zip *only the Java files* to a file named after your Last Name followed by the first 3 digits of your student ID. For example, if your last name is **Savage** and your ID is **354874345** then the file should be named **Savage354.zip**. Finally email your zip file to me at reza.khojasteh@senecacollege.ca

Remember that you are encouraged to talk to each other, to the instructor, or to anyone else about any of the assignments, but the final solution may not be copied from any source.