Seneca College of Applied Arts & Technology **November 8, 2021**

SCHOOL OF INFORMATION & COMMUNICATION TECHNOLOGY

JAC444 **Due date: November 16, 2021**

Workshop 7

Description:

This assignment lets you practice basic Functional Programming and Lambda Expressions in Java.

In this assignment, you will be adding some code to the workshop 3 (shapes) as follows:

Task 4: Define a functional interface to calculate the area of a shape. Create an object of that interface in each of the **`Circle, Square, Rectangle`** classes, *using lambda expressions*.

Print all the shapes and their perimeters polymorphically, as you did in task 1 (don't forget that you are using *just one* **`Shape`** array) but in cases that the shape being printed is an object of these classes (i.e. **`Circle, Square, Rectangle`**), print their areas (*using the above mentioned objects you created*) as well.

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: Developing and running the desired solution: **(you should submit your source code - just individual .java files, and screenshots which demonstrate the way your code runs): 5 marks.**

Deliverables and Important Notes:

- You are supposed to **submit your solution online on Bb by the end of the day on Tuesday, 16th of November, 2021.)**
- Please note that you would be allowed to **submit just once**, so please **be super careful and double check before you hit submit.**
- **There would be a 20% penalty for each day (or part of it,) in case you submit late!**
- 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 sources**.