

Workshop 6

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 workshop1 (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* (to be covered in week 7).

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 objects you created*) as well.

Marking criteria:

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!

1. Task 4: **5 marks**.

Deliverables:

You are supposed to deliver your project (run the solution and/or answer related Qs) in lab 7.

In case you don't show up in the labs to deliver the required segments/tasks, you could submit your final solution (described below) but note that there would be a 50% penalty!

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

Reminding Some Important Notes:

- Each assignment should be submitted before/on its due date. The deduction for late submission will be 10% each day or part of it. No assignment will not be accepted after week 13.
- All the assignments should be done satisfactorily to pass the course. Moreover, to obtain a credit in this course, a student must achieve a weighted average of 50% or better on workshops.
- Students 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.