

Seneca College

July 10, 2019

Applied Arts & Technology

SCHOOL OF COMPUTER STUDIES

JAC444

Final Submission:

July 26, 2019

## Workshop 9 (No Demo Required)

### Notes:

- i. Make sure you have all security and check measures in place (with proper use of Exceptional Handling where ever needed), like wrong data types etc.
- ii. Make your project in proper hierarchy; introduce proper class coherence in your project. Proper packages and **your project should be handled by only one main method which should be in a TesterClass.**
- iii. Given output structure is just for student to have a glimpse what the output can look, students are free to make the output better in any way.

Other inputs can be given during demo, so make sure you test your program properly.

### Task 1: (Design your own output)

Describes how to perform matrix addition. Suppose you have multiple processors, so you can speed up the matrix addition. Implement the following method in parallel.

```
public static double[][] parallelAddMatrix(double[][] a, double[][] b)
```

Write a test program that measures the execution time for adding two 2,000 \* 2,000 matrices using the parallel method and sequential method, respectively.

### Task 2:

Write a program called ReverseThread.java that creates a thread (let's call it Thread 1). Thread 1 creates another thread (Thread 2); Thread 2 creates Thread 3; and so on, up to Thread 50. Each thread should print "Hello from Thread !", but you should structure your program such that the threads print their greetings in reverse order.