

# Lab 4

## Part I

Read, understand, and summarize thread and related material in Lecture 4.

Put it as part of your Report I. Make use of lab to get feedback early.

## Part II

(1) Run example1 and see how the main thread and the children threads are running. How can we incorporate priority in example 1? Download example1b.zip from blackboard and try to give priorities to the threads. What is MIN\_PRIORITY/MAX\_PRIORITY? How to set a name for a thread?

(2) Run example2. Change classes A and B so that A prints the minimum in a given array, and B prints the maximum of that array.

Hint: pass arguments to the constructors. run() method does not take any argument. Partial solution in example2b.zip

(3) Run example3 and check the values of localData, instanceData and classData. Run the program multiple times. Create thread 2 with another instance and see the result. Run example3b which has the following change. Check the result and think why.

```
24 public static void main(String[] args) {
25     // TODO Auto-generated method stub
26     IncrementTest instance = new IncrementTest();
27
28     Thread t1 = new Thread(instance);
29     Thread t2 = new Thread(instance);
30
31     t1.start();
32     try {
33         Thread.sleep(1000); // sleeps 1000 milliseconds
34     } catch (InterruptedException e) {
35         // unlikely, so we'll ignore the exception
36     }
37     t2.start();
38
39 }
40
```