**Assignment 2:**

**Question 1:**

(*Generic parallel merge sort*) Revise ParallelMergeSort.java in the following hyperlink:

<https://liveexample.pearsoncmg.com/html/ParallelMergeSort.html>, to define a generic parallelMergeSort method as follows:

**public static** <E **extends** Comparable<E>> **void** parallelMergeSort(E[] list)

The above method that you need to implement will sort the list in ascending order by using multiple CPUs in parallel. You also need to define your own *Rectangle* class that implements the *Comparable* interface. In particular, the *Rectangle* *a* is greater than *Rectangle* *b* if and only if the area of *Rectangle* *a* is greater than *Rectangle* *b*.

In your *main* function, you need to create a large number (say 1 Million) of Rectangle objects with random *length* and *width*, and then sort them by using your new parallelMergeSort method.

**Question 2:**

(*Geometry: add and remove points*) Write a program that lets the user click on a pane to dynamically create and remove points (see figure below). When the user left-clicks the mouse (primary button), a point is created and displayed at the mouse point. The user can remove a point by pointing to it and rightclicking the mouse (secondary button).



**Submission:**

Online by the deadline.