Arrays – Sorts – Searching
Lab

Part I
- linear search
- quadratic sorts (insertion and selection)
- Comparable interface and its required compareTo method
- Arrays.sort (not part of subset – but useful)
- time the sorts – friendly intro into Big-O

Part II
- merge sort (don't worry about this until we talk about it in a few weeks)

Directions:
You've been given all of the code. You should have the following files:

ArrayRecordsSortSearchApplication.java
Student.java
ClassPeriod.java
Sorter.java
StopWatch.java
CreateFiles.java

See the directions in the files for which methods to complete.

You'll run the JJ2 environment and "load .jjf file" – use the .jjf project file from my site (do not change its name when saving). More directions will be given in class.

You will collect the following data in an excel spreadsheet and graph the results. Collect all data on the same machine. Record results in milliseconds.

	1,000 records	10,000 records	100,000 records	200,000 records	500,000 records
Arrays.sort					
Insertion Sort					
Selection Sort					
Merge Sort					

When creating the large data files, you're account may fill up fast. You may need to delete some of the files once done – or other things. Just be aware.