

Today we will experiment with the performance of various sorting algorithms, measured empirically. We have implemented Bubble Sort and Selection Sort for you. Your job will be to implement Merge Sort, and possibly others, if you have time.

1. Checkout the project called "132Spring13LabWeek14Wed".
2. Take a look at the interface called `Sorter`. We will write various classes that implement this interface. Each one will encapsulate a different sorting algorithm.
3. Take a look at the classes `BubbleSorter`, `SelectionSorter`, and `MergeSorter`.
4. Run the JUnit tests in the class `SorterTests`. The first two should pass, but the last one will fail because `MergeSorter` has not been implemented.
5. Run the main method in the class `SortUtilities`. It will time the three sorting algorithms to see how fast they are! Note that the time for Merge Sort will be near 0 since it hasn't been implemented.
6. Implement `MergeSorter`.
7. Test your implementation by running the tests in `SorterTests`.
8. Run the main method in `SortUtilities` to see how fast merge sort is! It is impressive.

If you have time, you should try writing a `QuickSorter` class to see how it fares.