Example Class Hierarchy for a Sort Comparison System

QuickSort

void sort();

void sortHelper(array);

int swap(val, val);

int pickPivot(array);

void partition(array);

int numDivisions

int pivot

MiscSorts

// N/A

// N/A

ModifiedMergeSort

void sort(array);

int merge(a, b);

int numLoops

int numMerges

OptimizedBubbleSort

void sort(array);

int swap(val, val);

int numLoops

int numSwaps

NSquaredSorts

// N/A

// N/A

NLogNSorts

// N/A

// N/A

AbstractSort

virtual void sort(array) = 0;

virtual void swap(val, val);

virtual int merge(a, b);

int totalLoops();

int totalSwaps();

int totalMerges();

// other statistical functions

// no real need for data members

BubbleSort

void sort(array);

int swap(val, val);

int numLoops

int numSwaps

SelectionSort

void sort(array);

int swap(val, val);

int numLoops

int numSwaps

MergeSort

void sort(array);

int merge(a, b);

int numLoops

int numMerges