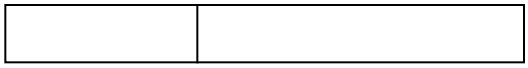
Sorting Continued

Mar 27

Quick Sort

- Its the fastest!
- O(n log n) most of the time.
- Worst case $O(n^2)$ (Bad day)
- Faster because it has smaller constants (not accounted for in big Oh) than other algorithms.

Implementation:



Choose a pivot key.
Use pivot key to separate array into 2 partitions.
Left partition < pivot key
Right partition >= pivot key.

Does this recursively.

E.g.

10 8 3 1 5 4 2 9 7

Say 5 was the pivot: partition would do the following:

3 1 4 2 **5** 10 8 9 7

See the Quick sort code ☺

Note that the partition method does all the work.