BUBBLE SORT VS SELECTION SORT

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BASIC SORTING

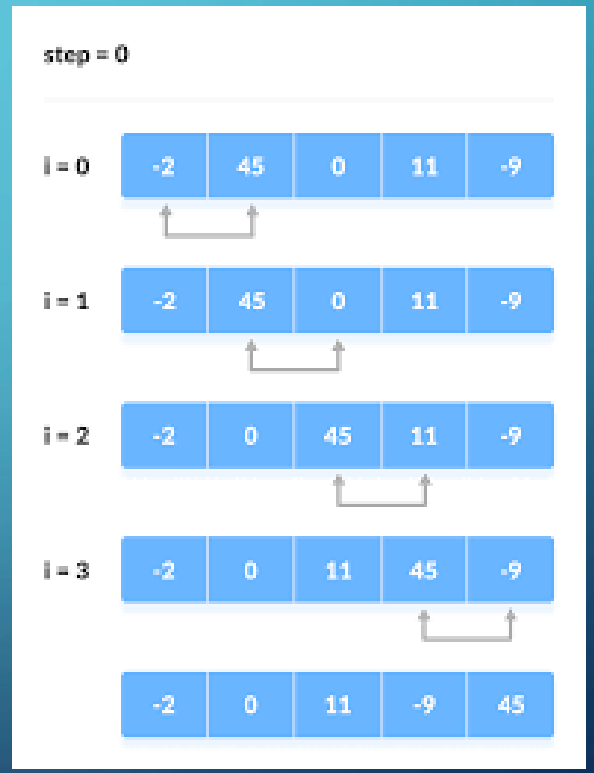
- The two most basic sorting algorithms are Bubble sort and Selection sort
  - **Bubble sort-** tons of swaps
  - **Selection sort-** one swap per iteration

THINGS TO DO WHILE YOU ARE QUARANTINED

- Puzzles
- Text your fiends
- Watch movies
- Play video games
- Study
- Get a routine going
- Exercise

BUBBLE SORT

- In nested for loop
- Repeats process until it has searched n^2 times
- Only looks at two numbers at a time
  - i and i +1
  - Swap

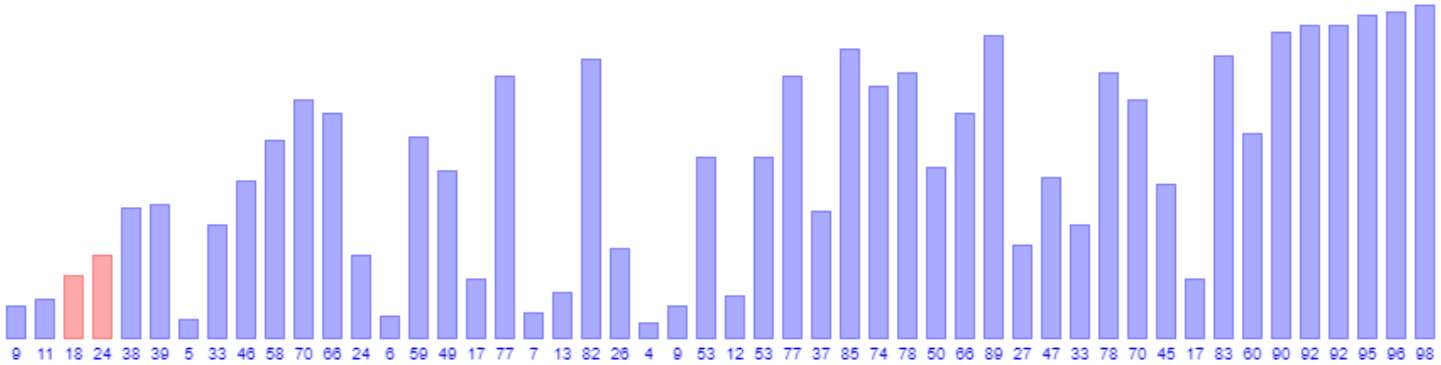


CLEAN AND ORGANIZE

- Clean
- Do bed
- Do laundry
  - Fold laundry right after dryer*

Comparison Sorting Algorithms

Randomize Array | Insertion Sort | Selection Sort | Bubble Sort | Quick Sort | Merge Sort | Shell Sort | Change Size



Animation Paused

Skip Back | Step Back | play | Step Forward | Skip Forward

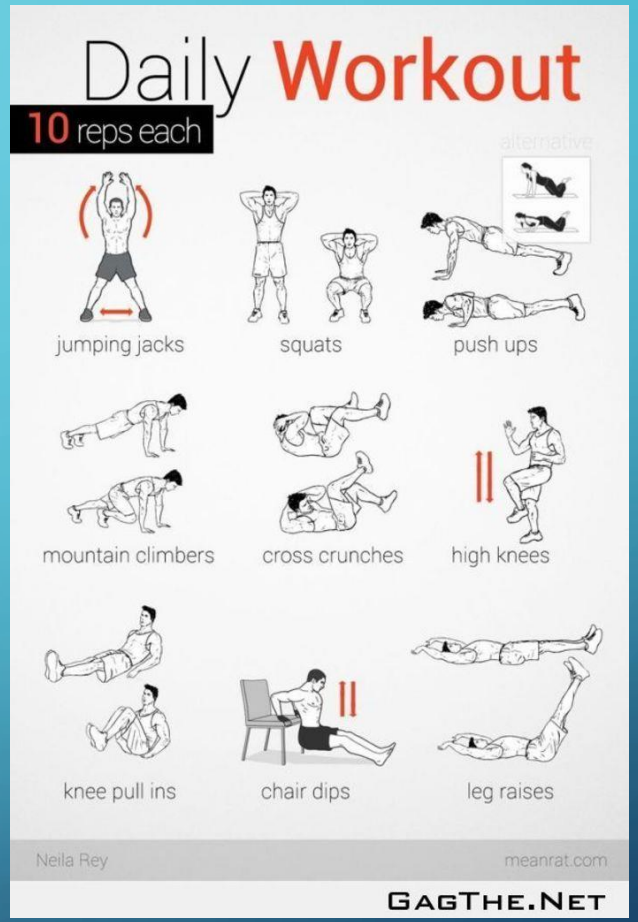
Animation Speed

w: 1000 h: 500 | Change Canvas Size | Move Controls

Algorithm Visualizations

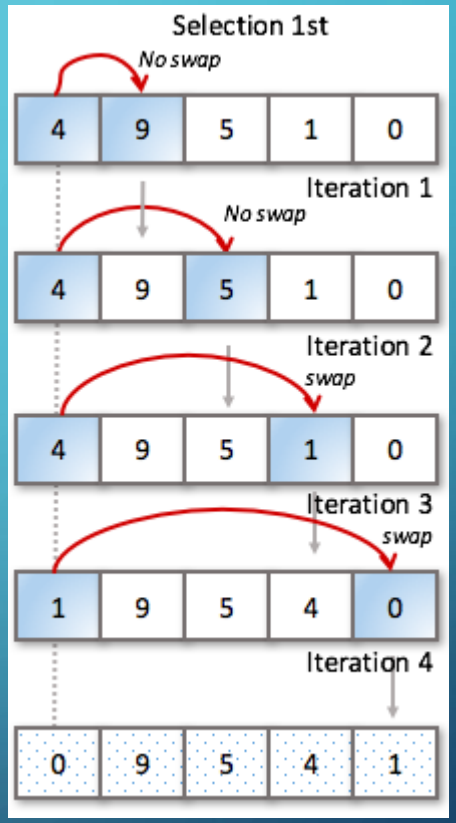
WORK OUT AT HOME

- Body weight exercise
- Yoga
- Meditation



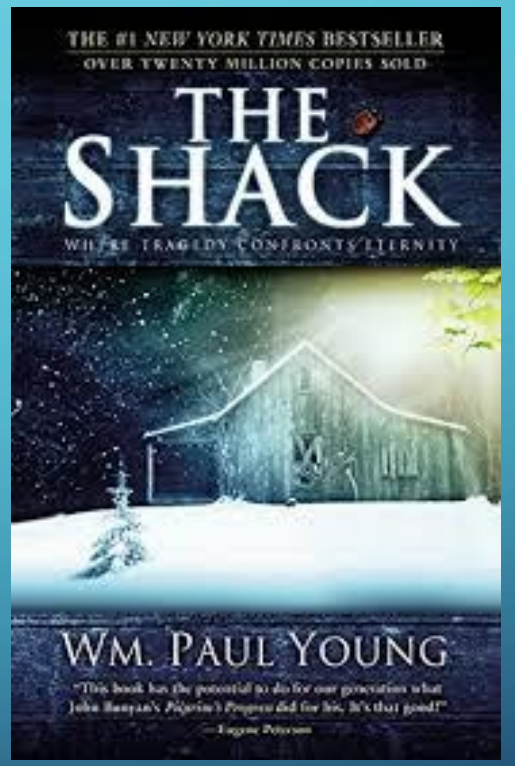
SELECTION SORT

- Also in a nested for loop
- Keeps track of the min for each iteration
- Swap current min with the location that's after the previous min

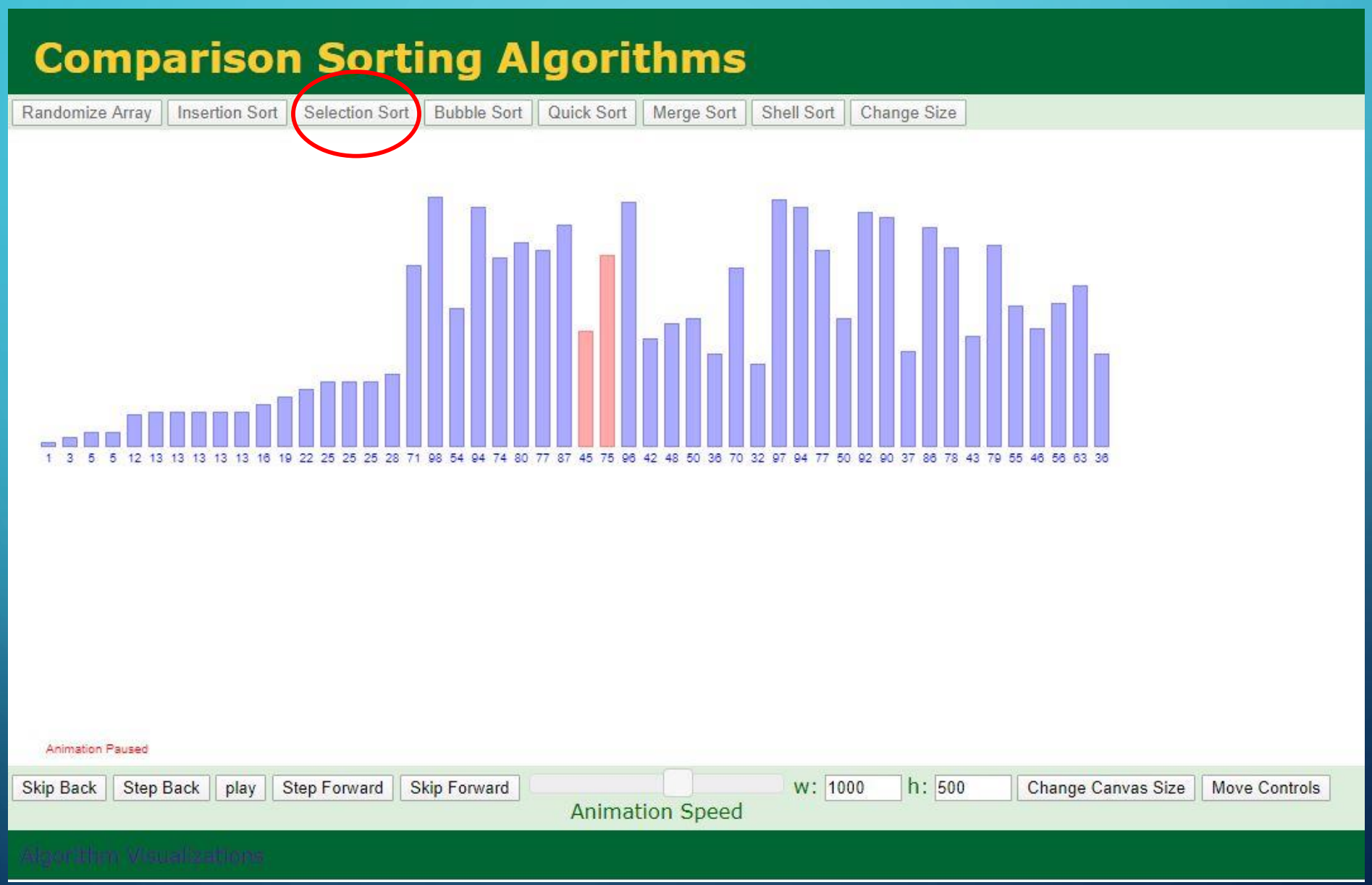


READ

- Read books

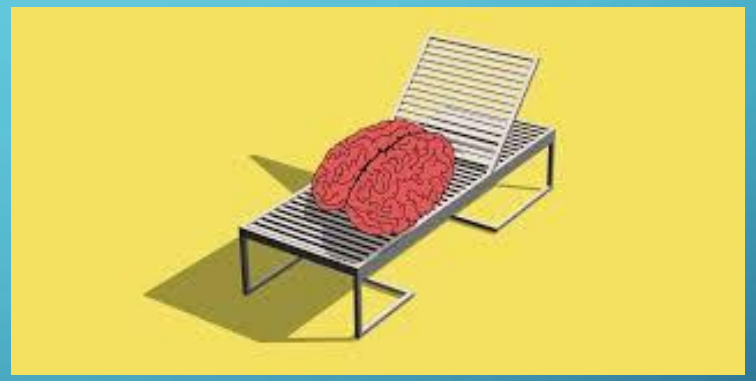


Comparison Sorting Algorithms



TAKE SHORT BREAKS

- Don’t over work
- Don’t under work
- Keep a balance



STRUCTURE FOR BOTH

- Both algorithms use a nested for loop
  - for(each element in the array)

        for(every other element in the array or so)

            do work: compare, swap, etc

KEEP INDOOR/OUTDOOR STROLLING A THING

- Walk around so youre not stiff
- Leads to pain in the spine and joints

BING WATCH NETFLIX

- Tons new shows

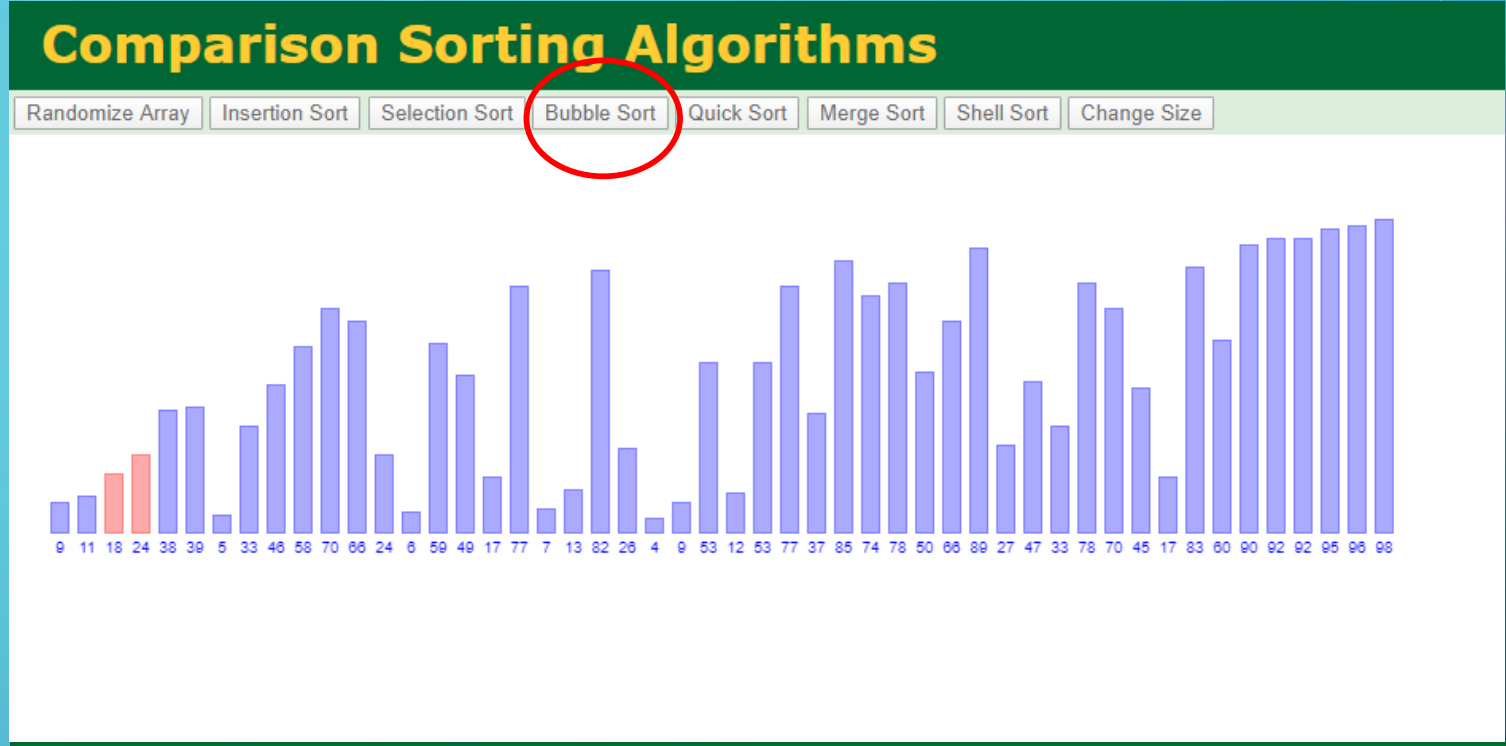
ANALYSIS

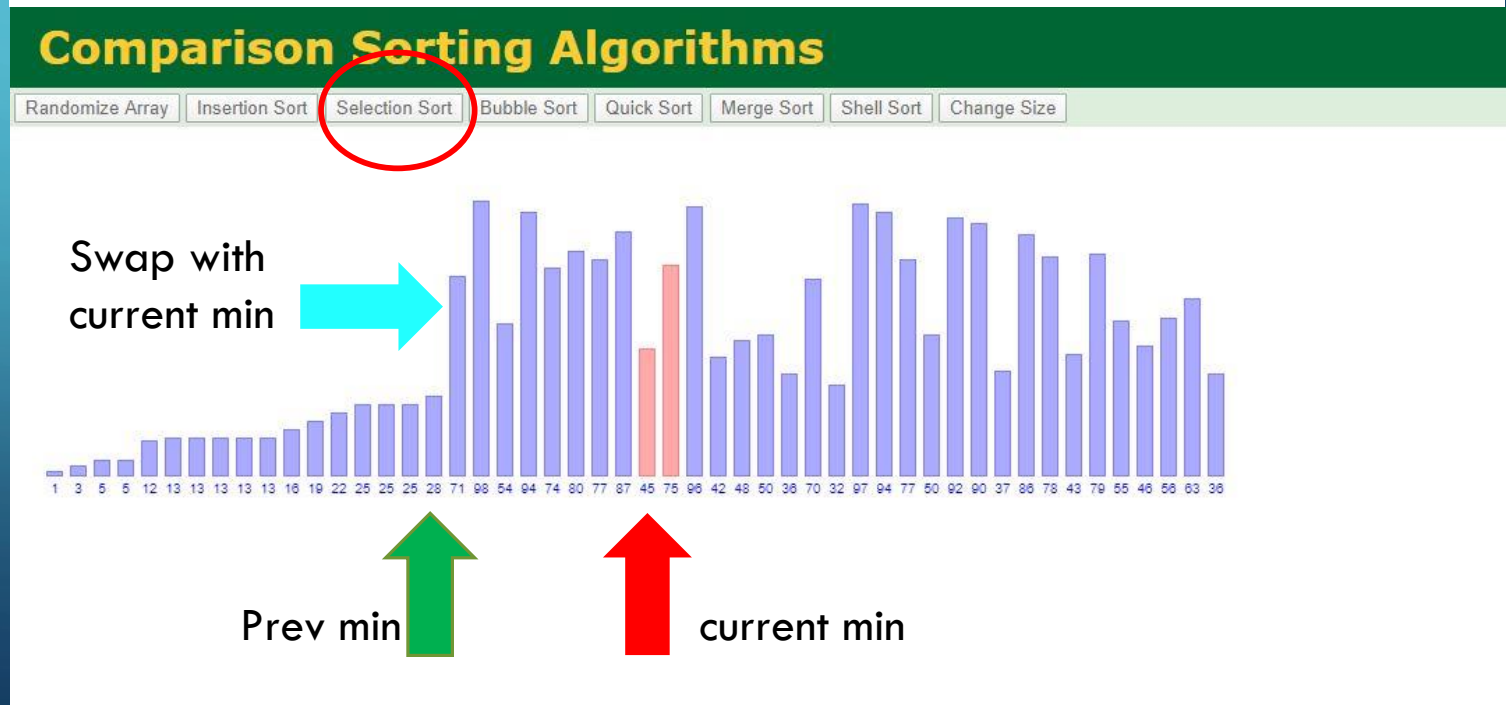
- Spoiler alert: they are both garbage
  - Bubble sort and Selection sort are both $\mathbf{O(n^2)}$ performance
  - However, Selection sort tends to be a bit faster

SLEEP

- Get enough sleep to boost immunity
- Boost metabolism and even learning

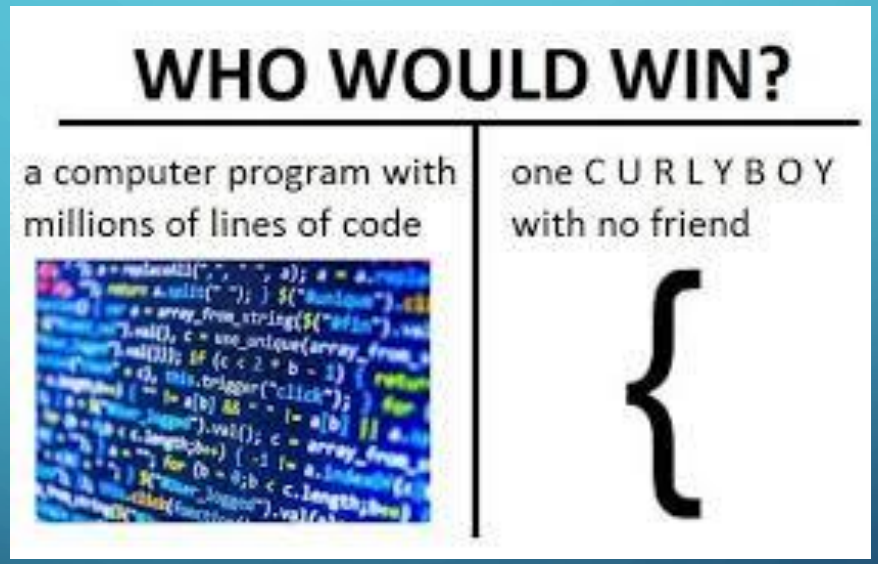
- Bubble sort looks through the whole list through each iteration
- Selection sort makes the search smaller with each iteration
  - Keeps track of prev min





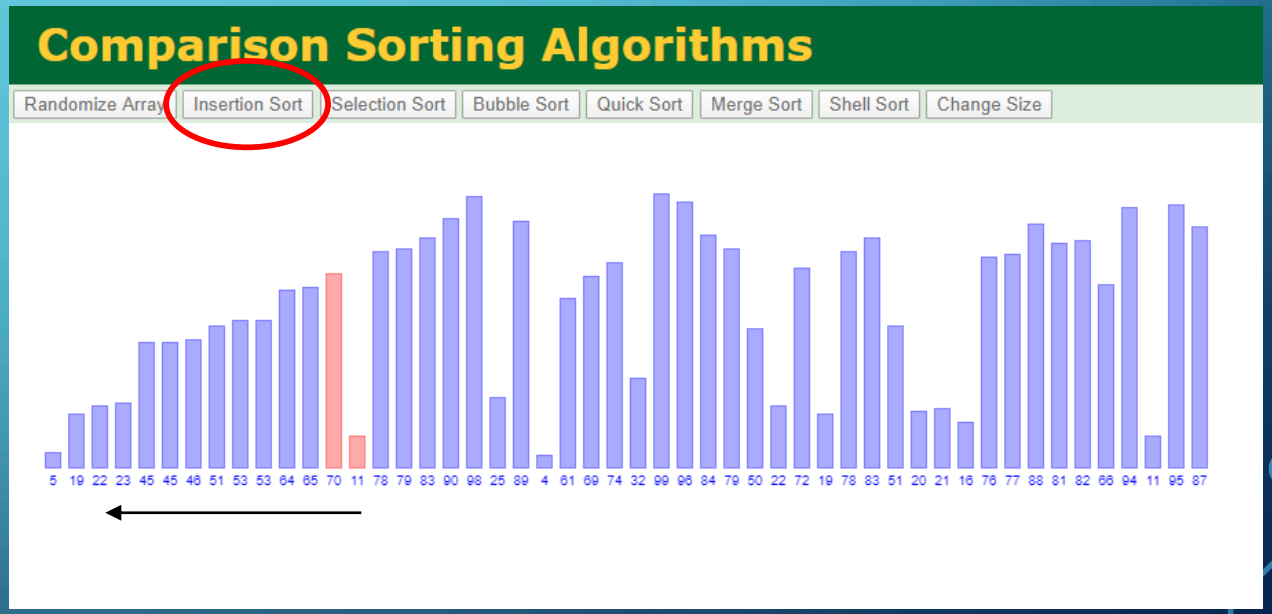
WORK ON P3

- Work on it early



BONUS SLIDE

- Insertion sort is another Basic sorting algorithm
- both $O(n^2)$ performance
- Hybrid between bubble and selection
  - Sorts by finding the next smallest number
  - Then inserts it to the appropriate location



PREPARE FOR THE WORST

- Prepare for zombies